

**United Kingdom Holocaust Memorial  
and Learning Centre**

Environmental Statement (Volume 5)  
Appendix M Transport Assessment  
December 2018

The Secretary of State for Housing Communities and Local Government

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# 1. INTRODUCTION

## 1.1. APPOINTMENT

1.1.1. WSP has been appointed by the Ministry of Housing, Communities & Local Government to provide transport consultancy to support the proposed development of the UK Holocaust Memorial and Learning Centre (UKHMLC). The site falls within the Victoria Tower Gardens located in the administrative boundary of Westminster City Council (WCC) and is within a short walk of the Houses of Parliament and Westminster Abbey.

## 1.2. DEVELOPMENT SITE

### SITE OVERVIEW

- 1.2.1. The UKHMLC is proposed to be located within Victoria Tower Gardens, an open space which is bounded by Millbank to the west, the River Thames to the east, the Palace of Westminster to the north and Lambeth Bridge to the south. In total, the Gardens have five entrances – four accessible from Millbank and the fifth from Lambeth Bridge.
- 1.2.2. **Figure 1** shows the location of the proposed Memorial. Note that the UKHMLC does not occupy the entirety of Victoria Tower Gardens.

**Figure 1 – Indicative Site Boundary**



1.2.3. The site is currently used as a park and thoroughway for pedestrians and cyclists and is open from dawn until dusk. The gardens are part of the Jubilee Greenway walking and cycling route from Westminster Bridge to Buckingham Palace, an important heritage route that marks the Queen's

Diamond Jubilee and the London 2012 Olympic Games with parks and monuments across central London.

### **1.3. PROPOSED APPLICATION**

1.3.1. The United Kingdom Holocaust Memorial Foundation launched an international design competition in September 2016 for the National Holocaust Memorial and Learning Centre. The winning architects have designed a structure to be located at the southern end of Victoria Tower Gardens, with the aim to honour the victims and survivors of the Nazi persecution and to educate future generations about the dangers of prejudice.

1.3.2. The proposals comprise the following elements:

- A memorial (Class D1);
- An adjacent learning centre (Class D1);
- An entrance pavilion (ancillary Class D1);
- A refreshment kiosk (Class A1).

### **1.4. REPORT STRUCTURE**

1.4.1. The remainder of this report is set out as follows:

- Chapter 2 – Policy and Planning Guidance;
- Chapter 3 – Baseline Conditions – Walking and Cycling;
- Chapter 4 – Baseline Conditions – Public Transport;
- Chapter 5 – Baseline Conditions – Highway Network;
- Chapter 6 – Parking and Servicing Survey Results and Analysis;
- Chapter 7 – Development Proposals;
- Chapter 8 – Trip Generation and Modal Split;
- Chapter 9 – Transport Impact Assessment; and
- Chapter 10 – Conclusion.

## 2. POLICY AND PLANNING GUIDANCE

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2.1.1. Key transport policy and guidance has been reviewed to provide context for assessment of the proposed development on a national, regional and local scale.

### 2.2. NATIONAL POLICY

#### NATIONAL PLANNING POLICY FRAMEWORK (JULY 2018)

2.2.1. The National Planning Policy Framework, (NPPF) sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

2.2.2. Chapter 9, Promoting Sustainable Transport, outlines the requirements of development applications, it must be ensured that:

- appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
- safe and suitable access to the site can be achieved for all users; and
- any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

2.2.3. The document also provides details on what developments should do to minimise the impact on the road network:

- give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

2.2.4. Travel Plans (TPs) should be provided for all developments which generate significant amounts of movement.

#### PLANNING PRACTICE GUIDANCE (MARCH 2014)

2.2.5. The Planning Practice Guidance, (PPG) was published in March 2014, offering updated and revised guidance on planning where necessary. Its guidance on the preparation of TAs and TPs has been referred to as part of this planning application.

2.2.6. The guidance on TAs refers back to Paragraph 32 of the NPPF, and there are no major changes from previous guidance on scope or content.

2.2.7. Paragraphs 14 and 15 of the NPPG states that the scope of a TA should include the following:

- An overview of the planning context relating to the Proposed Development;

- Details of the Proposed Development layout and access arrangements by all transport modes;
- A description of the existing land uses within the site and the surrounding area, as well as public transport provision (including proposed changes);
- Data relating to existing traffic flows on the links and junctions around the Site, with flows broken down by vehicle type;
- Details of the methodologies used to determine the anticipated trip generation and trip distribution for the Proposed Development;
- An assessment of the forecast transport impacts of committed schemes in the vicinity of the development;
- Personal Injury Accident (PIA) data analysis for the past three years, or the past five years if the area is identified as having a high accident rate;
- Details of existing parking in the area and the proposed parking strategy for the development; and
- Measures to mitigate the residual transport impacts of the proposed development.

## 2.3. REGIONAL POLICY

### THE LONDON PLAN ‘THE SPATIAL DEVELOPMENT STRATEGY FOR LONDON CONSOLIDATED WITH ALTERATIONS SINCE 2011’ (MARCH 2016)

- 2.3.1. The London Plan is the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2036. It forms part of the development plan for Greater London. London boroughs’ local plans need to be in general conformity with the London Plan, and its policies guide decisions on planning applications by councils and the Mayor.
- 2.3.2. The London Plan aims to ensure that London’s transport is easy, safe and convenient for everyone. It states that London should be a city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling and makes better use of the Thames.
- 2.3.3. Policy 6.1 states the importance of closer integration of transport and development and hopes to encourage this by (inter alia):

- *“Encouraging patterns of development that reduce the need to travel, especially by car;*
- *Seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand;*
- *Supporting development that generates high levels of trips only at locations with high levels of public transport accessibility, either currently or via committed, funded improvements;*
- *Improving interchange between different form of transport, particularly around major rail and underground stations, especially where this will enhance connectivity in outer London;*
- *Facilitating the efficient distribution of freight whilst minimising its impacts on the transport network;*
- *Supporting measures that encourage shifts to more sustainable modes and appropriate demand management;*
- *Promoting greater use of low carbon technology so that CO2 and other contributors to global warming are reduced;*
- *Promoting walking by ensuring an improved urban realm; and,*

- *Seeking to ensure that all parts of the public transport network can be used safely, easily and with dignity by all Londoners, including by securing step-free access where this is appropriate and practicable.”*

- 2.3.4. Policy 6.3, regarding the effects of development on transport capacity, states that new developments that will give rise to significant numbers of new trips should be located either where there is already good public transport provision with capacity adequate to support the additional demand, or where such high-quality provision is being introduced. Phasing development, the use of Travel Plans and addressing freight issues may all help reduce the impact of the development.
- 2.3.5. Policy 6.7 considers improvements to streets and surface transport. At the strategic level it is stated that the Mayor will work with the boroughs to implement improvements to the quality of bus, bus transit and tram services. At the local level the Development Planning Documents should promote these transport systems through a number of measures including ensuring direct, secure, accessible and pleasant walking routes to bus stops.
- 2.3.6. With regard to parking, policy 6.13 states that an appropriate balance must be struck between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use.
- 2.3.7. Any development providing off-street parking should provide at least two bays designated for ‘blue badge’ holders.

#### **DRAFT NEW LONDON PLAN (NOVEMBER 2017)**

- 2.3.8. A new Draft London Plan was issued in December 2017 for consultation ahead of Examination in Public. It is not expected to be adopted until Autumn 2019. Until such time as a new version is approved, the current 2016 London Plan remains adopted (and forms part of the statutory development plan for the City of London). The Draft London Plan provides useful context for the direction of future policy although very little weight is attached to its policies at this stage.
- 2.3.9. The Draft New London Plan will become the overall strategic plan for London setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.
- 2.3.10. **Policy T1** notes that development proposals should target 80% of all trips in London to be made by foot, cycle or public transport by 2041. It states that:
- “All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London’s transport networks and supporting infrastructure are mitigated.”*
- 2.3.11. **Policy T4** identifies that development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity. Transport Assessments are required to support development proposals assessing any impacts on the capacity of the transport network and should focus on embedding the Healthy Streets approach within, and the in the vicinity of, new development.
- 2.3.12. **Policy T5** sets out that development should encourage cycling and provides new cycle parking standards. Cycle parking and cycle parking areas should allow easy access and provide facilities for disabled cyclists. Whilst there are no set standards for UKHMLC uses within the London Plan, D1 Other is considered most applicable. Table 1 below showcases these.

**Table 1 – Draft New London Plan Cycle Parking Standards (Minimum)**

Land-Use	Long Stay (i.e. staff parking)	Short Stay (i.e. visitor parking)
D1 Other (e.g. Library, Church)	1 space per 8 staff	1 space per 100sqm
A2-A5 (inc. cafés and restaurants)	from a threshold of 100 sqm: 1 space per 175 sqm	from a threshold of 100 sqm: 1 space per 40 sqm

- 2.3.13. **Policy T6** sets out that car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport. For leisure use parking, **Policy T6.4** states:

*“In the CAZ and locations with a PTAL 4-6, any on-site provision should be limited to operational needs, disabled persons parking and parking required for taxis, coaches and deliveries or servicing”.*

- 2.3.14. With regards to disabled parking, **Policy T6.5** requires that:

*“All non-residential elements of a development should provide at least one on or off-street disabled persons parking bay”.*

- 2.3.15. **Policy T7** states that:

*“Development proposals should facilitate sustainable freight and servicing, including through the provision of adequate space for servicing and deliveries off-street. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments. Developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or night time...”*

## HEALTHY STREETS

- 2.3.16. Transport Assessments are to follow a Healthy Streets structure. Furthermore, TfL advise that a Healthy Streets Check should be included within a TA.
- 2.3.17. It is noted that the Healthy Streets check score does not show whether a street is healthy or not, but indicates the strengths and weaknesses of a street. It is not possible to achieve an overall score of 100%, as to score well against some metrics compromises are needed in other metrics. The check holds no formal status in guidance and decision making, but advises designers and decision makers on how a project fits with Healthy Streets policy.
- 2.3.18. The Healthy Streets check for the proposed development is contained in section 9.8.

## OPERATING COACHES IN LONDON

2.3.19. TfL provide a guide to restrictions and special parking arrangements for coaches in London, intending to promote more environmentally and socially friendly coach driving. General advice includes:

- Ensuring engines are switched off;
- Avoiding obstructing traffic; and
- Obtaining a permit for overnight parking in advance.

2.3.20. With regards to parking restrictions, the guidance states:

- *“If passengers are not seen boarding or alighting, you could be charged with a Penalty Charge Notice (PCN);*
- *Do not arrive early to load, or remain after unloading;*
- *Parking or waiting at bus stops is not allowed;*
- *Stopping is prohibited at all times on double red lines and during restricted hours on single red lines;*
- *Vehicles registered as buses can use red route bus stops for picking up and setting down, but cannot park or wait;*
- *Picking up and setting down is permitted on double and single yellow lines, but only while activity is taking place;*
- *Check signs before using bus stops to pick up and set down as many are restricted to ‘local’ or TfL buses. Parking and waiting is not permitted at any time;*
- *There are a number of pay by phone and coach meters where you can park for up to four hours in London.”*

## 2.4. LOCAL POLICY

### WESTMINSTER CITY PLAN: CONSOLIDATED WITH ALL CHANGES (NOVEMBER 2016)

2.4.1. The Westminster City Plan is a strategic and detailed policy framework that sets the vision for sustainable development in the City of Westminster up to and beyond 2026/27. It was devised in 2016 as an updated version of the 2013 strategic plan. Together with the London Plan and the UDP policies, it forms the basis of planning policy in the borough.

2.4.2. Policy S11 regarding the ‘Royal Parks’ aims to protect these areas from inappropriate development and activity. In particular it states:

*“Developments will only be allowed where they are essential and ancillary to maintaining or enhancing the value of the park as open space, and that do not harm the park’s:*

- *Open landscape character;*
- *Heritage value;*
- *Nature conservation value;*
- *Tranquillity; or*
- *Value as a public open space.”*

2.4.3. Policy CM28.1 on ‘Basement development’ states the following:

“All applications for basement development will:

- Demonstrate that they have taken into account the site-specific ground conditions, drainage and water environment(s) in the area of the development;
- Be accompanied by:
  - A detailed structural methodology statement and appropriate self- certification by a suitably qualified engineer with separate flood risk assessment where required. In cases where the council considers there is a high potential risk that the development will have significant impacts on the matters covered by this policy or where work will affect a particularly significant and/or sensitive heritage asset, the council will have reports independently assessed at the applicant’s expense.
  - A signed proforma Appendix A which demonstrates that the applicant will comply with the relevant parts of the council’s Code of Construction Practice and awareness of the need to comply with other public and private law requirements governing development of this kind.
- Safeguard the structural stability of the existing building, nearby buildings and other infrastructure including the highway and railway lines/tunnels;
- Not increase or otherwise exacerbate flood risk on the site or beyond;
- Be designed and constructed so as to minimise the impact at construction and occupation stages on neighbouring uses; the amenity of those living or working in the area; on users of the highway; and traffic and highways function; and
- Safeguard significant archaeological deposits.”

2.4.4. As a riverside borough, some parts of Westminster are prone to flooding and are categorised as Flood Zone 2, Flood Zone 3 or the Rapid Inundation Zone. The proposed site falls within the latter, meaning in the event of a flood, it would be submerged in under 30 minutes. Policy S30 on ‘Flood Risk’ states:

*“ Within the Rapid Inundation Zone, new residential units below the tidal breach flood level and extensions to residential at basement level will not be acceptable. All development proposals should take flood risk into account and new development should reduce the risk of flooding.”*

2.4.5. Road traffic remains the main source of particulate matter emissions from within the City of Westminster. Policy S31 on ‘Air Quality’ states as follows:

*“The council will require a reduction of air pollution, with the aim of meeting the objectives for pollutants set out in the national strategy. Developments will minimise emissions of air pollution from both static and traffic-generated sources. Developments that include uses that are more vulnerable to air pollution (Air Quality Sensitive Receptors) will minimise the impact of poor air quality on occupants through the design of the building and appropriate technology.”*

2.4.6. The open spaces in Westminster are unique in that they make a significant contribution to the heritage, townscape, economy and enjoyment of the borough and London as a whole. However, 38% of these open spaces are private, creating a strain on the remaining public spaces to be shared amongst residents and the massive influx of visitors. Policy S35 regarding ‘Open Space’ aims to safeguard and improve these areas as follows:

“The council will protect and enhance Westminster’s open space network, and work to develop further connections between open spaces. The council will seek to address existing public open

space deficiencies, including active play space deficiency, and current and future open space needs by:

- Protecting all open spaces, and their quality, heritage and ecological value, tranquillity and amenity;
- Mitigating additional pressure on open spaces by securing new improved public open space in new developments; space for children’s active play; and seeking public access to private spaces; and
- Securing contributions to improving the quality, ecological value and accessibility of local public open spaces and delivering new open spaces from under-used land.”

2.4.7. Public transport services in Westminster are near full capacity and further strained by the influx of visitors who tend travel short distances by bus or underground instead of walking due to their unfamiliarity with the area. Policy 41 with regards to ‘Pedestrian Movement and Sustainable Transport’ aims to tackle this phenomenon through promoting walking. It states:

*“All developments will prioritise pedestrian movement and the creation of a convenient, attractive and safe pedestrian environment, with particular emphasis in areas with high pedestrian volumes or peaks. Sustainable transport options will be supported and provided for, including the following priorities:*

- *Providing for cycling facilities as part of all new development, including facilities for residents, workers and visitors as appropriate;*
- *Reducing reliance on private motor vehicles and single person motor vehicle trips;*
- *Prioritising parking provision for disabled, car sharing and alternative fuel vehicles;*
- *Encouraging use of alternative sustainable fuels and technology;*
- *Developing water-based river transport where land provision and biodiversity considerations allow.”*

2.4.8. Policy S42 ‘Servicing and Deliveries’ aims to minimise the impacts of freight, servicing, and deliveries as follows:

*“Developments must demonstrate that the freight, servicing and deliveries required will be managed in such a way that minimises adverse impacts. This may include the provision of off-site consolidation centres, shared delivery arrangements and/or restrictions on the types of vehicles or timing of deliveries, especially where the quality of the public realm, local pollution, and/or function and reliability of the transport network would otherwise be compromised.*

*Servicing and delivery needs will be fully met within each development site, except where the council considers that this is not possible, in which case the servicing and delivery needs will be met in such a way that minimises the adverse effects on other highway and public realm users, and other residential or commercial activity. Where some or all of the servicing and delivery needs are met through use of the public highway, the development will meet the initial and on-going costs associated with that use of the public highway.”*

2.4.9. Policy S43 with regards to ‘Major Transport Infrastructure’ aims to ensure sustainable development within the borough in light of the upcoming major transport developments throughout the city. Of particular relevance to the proposed development, the WCC will support and promote developments that bring the following:

- *“Improvements to the public realm, focusing on meeting the needs of people with disabilities and more vulnerable people, and enabling people and businesses to make more sustainable choices;*
- *Increasing cycle parking and improving safety for cyclists where this would not compromise pedestrian movement including public cycle hire schemes throughout Westminster, and indoor cycle storage and supporting facilities at major transport interchanges;*
- *Improving way-finding and legibility around Westminster to facilitate pedestrian movement;*
- *Improving the convenience, connectivity, attractiveness and safety of Westminster’s linear walking routes, including the Blue Ribbon Network and connections within and between Westminster’s open spaces;*
- *Improvements to local bus and taxi infrastructure; and*
- *Improvements to river services and piers, subject to Policy S37 Blue Ribbon Network and the ability to secure adequate space to accommodate the peak flows to/from boats.”*

2.4.10. WCC is a Unitary Waste Authority responsible for the collection, recycling and disposal of waste borough-wide. Their aim is to reduce the production of waste in tandem with promoting reusing, recycling and composting practices. Policy S44 sets out what the council intends to do, in line with the London Plan waste apportionment.

- *Protect existing waste and recycling management sites, protect any new street cleansing depots, micro-recycling centres and in-vessel composters which are secured during the lifetime of the plan, and require the equivalent or increased capacity as part of any development that would result in the loss of any or all of a designated waste site.*
- *Require major new development to provide on-site recycling and composting waste management facilities, except where the council considers that it is inappropriate or unfeasible to do so. In such cases, new facilities will be provided off-site and may include shared provision with another development or an existing waste facility in the vicinity that has capacity, except where the council considers that it is inappropriate or unfeasible to do so. Where it is not possible to provide either on- site, off-site or shared waste facilities, a payment in lieu will be required to a Waste Management Fund to allow the council to provide suitable facilities in the vicinity.*
- *Identify potential new locations suitable for waste management facilities during the lifetime of Westminster’s City Plan using the following criteria:*
  - *Proximity to source of the waste;*
  - *The nature and scale of the facility;*
  - *Any potential impact on the surrounding area including noise, emissions, odour and visual impact;*
  - *The full transport impact of all collection, transfer and disposal movements, including maximising opportunities for transport by rail or water; and*
  - *The need to use sites that are currently in industrial use or are existing waste management sites.*
- *Secure any new waste sites identified during the lifetime of the plan, other than street cleansing depots, micro-recycling centres and in-vessel composters, within a Waste Development Plan Document.*
- *Work in partnership with the objective of securing joint working arrangements with other London Boroughs in order to pool waste apportionment, and set out these arrangements within a Waste Development Plan Document.”*

## WESTMINSTER CITY COUNCIL – UNITARY DEVELOPMENT PLAN (2007)

2.4.11. The Unitary Development Plan (UDP) for the City of Westminster was adopted in January 2007 and sets out a number of policies and proposals for Westminster. Whilst some policies contained in the UDP have been superseded by the adopted Core Strategy it provides a policy development context and a number of policies remain effective. The key policies are discussed below.

2.4.12. Policy **TRANS 2** is in relation to Road safety, prescribing that:

*“All development proposals should ensure that they adequately complement the relevant slower, speed initiatives that are being taken in the interest of road safety and accident, whilst allowing the easy passage of emergency and public service vehicles.”*

2.4.13. Policy **TRANS 3** tries to improve conditions for pedestrians to promote more, safer, quicker and more direct walking. It states:

*“The City Council, in considering development proposals, will aim to secure an improved environment for pedestrians, with particular regard to their safety, ease, convenience and directness of movement, in the course of negotiations or securing planning agreements, including the provision of appropriate facilities, such as footway widening, connecting walkways, footbridge location and covered arcading.*

*In its consideration of proposals for the future creation of pedestrian-only areas or areas of pedestrian priority, the City Council will aim to achieve a high standard of urban design and also to have regard to the following physical features:*

- *the need for personal safety and the prevention of crime;*
- *the consequential displacement of moving or parked vehicles to or within surrounding areas, especially residential areas;*
- *the access and mobility needs of disabled, elderly and handicapped people;*
- *the need for access and passage of regular bus services;*
- *the need for cyclist movement and segregation from other traffic;*
- *the accessibility needs of licensed taxis and mini-cabs;*
- *the likely impact of vehicular restrictions on patterns of retail trade;*
- *the access and servicing needs of traders and frontages, and facilities for refuse collection and street cleansing;*
- *the need for convenient 24-hour access for emergency services;*
- *improving the setting of listed buildings and conservation areas and reducing clutter;*
- *the impact on the character and land use of the street;*
- *highway maintenance, including lighting;*
- *enforcement, including parking, licensing, planning, noise, illegal street trading and antisocial behaviour; and*
- *environmental benefits.”*

2.4.14. Coaches are addressed in Policy **TRANS 6**, which states:

*“The City Council will introduce measures to control the routes used by coaches and will seek improvements in coach facilities, such as coach parking, particularly off street, and layover areas.”*

2.4.15. Policy **TRANS 14** is in relation to Transport Assessments and sets out that:

*“All development proposals will be assessed for their individual and cumulative impact in contributing to traffic generation, and on congestion, parking, safety, public transport, cyclists and pedestrians. The City Council will use Transport Assessments to seek to promote development that supports more sustainable travel choices and reduces the need to travel.”*

- 2.4.16. With regards to servicing Policy **TRANS 20** aims to provide for the efficient servicing and deliveries to and from properties within Westminster, as follows:

*“The Council will require convenient access to all premises for servicing vehicles and will, in most cases, require that the servicing needs of authorised development are adequately accommodated on-site and off-street. Such provision should be adequate to cater for the size, type and anticipated frequency of arrival of vehicles likely to be used for collection and delivery”; and*

*“Conditions may be imposed in order to restrict servicing activity to certain times and to ensure that the facilities are kept permanently available for their intended use, in order to minimise or prevent disturbance and inconvenience to adjoining occupants.”*

- 2.4.17. The strategies and standards for parking are provided by policies **TRANS 21-26**. The general aim set by the City Council is to;

*“Control and co-ordinate on-street and off-street parking to reduce the overall level of parking, while maintaining adequate availability of parking space for essential and priority users.”*

- 2.4.18. Policy **TRANS 21** concerns off-street car parking and states that the number of parking spaces shall normally be between zero and the maximum permitted in accordance with WCC parking standards set out in **TRANS 22** of the UDP. With regards to entertainment and leisure uses, Policy TRANS22 states;

*“Car parking facilities will not normally be permitted. All developments will however be required to assess and meet expected demand for parking and servicing from coaches, mini-buses and for people with disabilities”.*

- 2.4.19. Policy **TRANS 27** with regards to Disabled Access to buildings states:

*“The City Council will require the provision of access ramps and other facilities for the disabled to be located entirely within the curtilage of the interior of buildings to which they are intended to provide access.”*

- 2.4.20. While the proposed development falls more into D1 (education) rather than D2 (leisure), WCC's D1 standards are based upon numbers of students and staff, whereas D2 standards are based upon visitor numbers and thus represent a more effective means of calculating cycle parking requirements for the UKHMLC.

### 3. BASELINE CONDITIONS – WALKING AND CYCLING

#### 3.1. INTRODUCTION

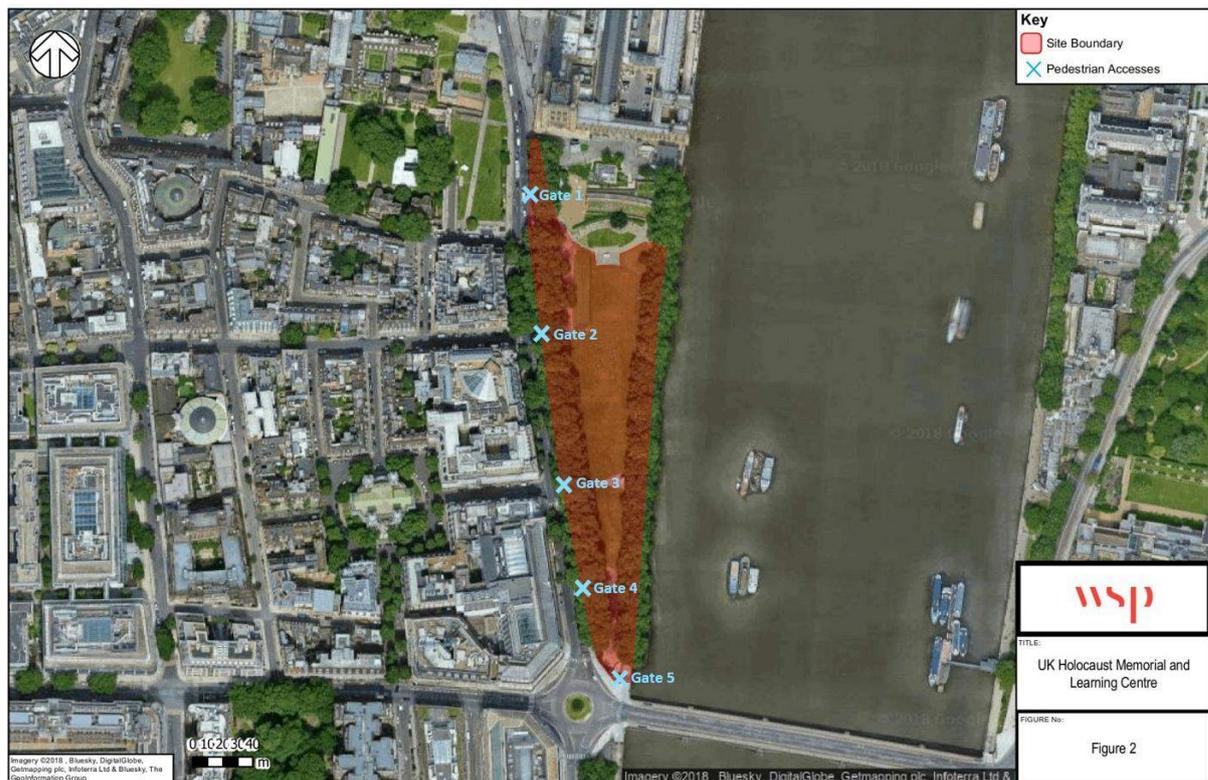
3.1.1. This section of the report identifies the very high level of accessibility of the site on foot and by bicycle.

#### 3.2. PEDESTRIAN ACCESSIBILITY

3.2.1. The Site is located in an area which has a well-established network of footways and formal and informal pedestrian crossing points. Horseferry Street, Dean Stanley Street, Great Peter Street, Lambeth Bridge and Millbank, including a footway along the River Thames, provide the pedestrian routes to the site, and are all in good condition and well lit.

3.2.2. As shown in **Figure 2**, Victoria Tower Gardens is accessed by way of four gates on Millbank as well as one more entrance on Lambeth Bridge.

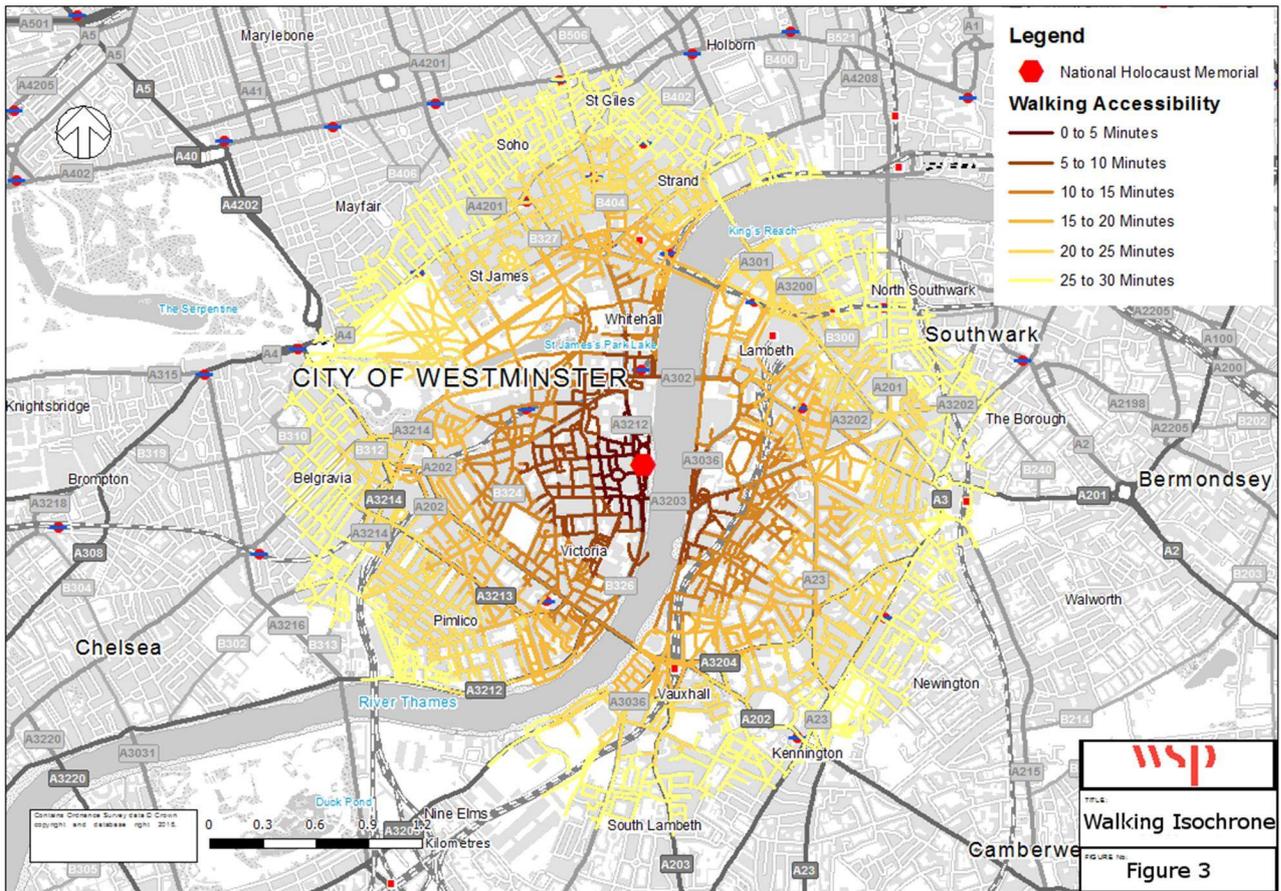
**Figure 2 – Pedestrian Accesses to Victoria Tower Gardens**



3.2.3. There are a number of formal pedestrian crossings to facilitate demand within close proximity to the site. On Abingdon Street at the northern end of Victoria Tower Gardens, there is a pelican crossing immediately south of Great College Street. On Millbank there is a pedestrian refuge crossing facility immediately south of Great Peter Street and a zebra crossing immediately south of Dean Stanley Street.

- 3.2.4. There are also zebra crossings provided on all arms of the Lambeth Bridge / Millbank / Horseferry Road roundabout and pedestrian crossing phases are included on all arms of the Parliament Square gyratory.
- 3.2.5. The site is located within a short walk of major transport interchanges including Westminster station (7 minutes), Victoria station (20 minutes) and Waterloo station (21 minutes), as well as major tourist attractions including the Houses of Parliament (6 minutes), Westminster Abbey (6 minutes) and Tate Britain (9 minutes).
- 3.2.6. **Figure 3** shows the areas accessible on foot from the site within different walking times.

**Figure 3 – Walking Isochrone**



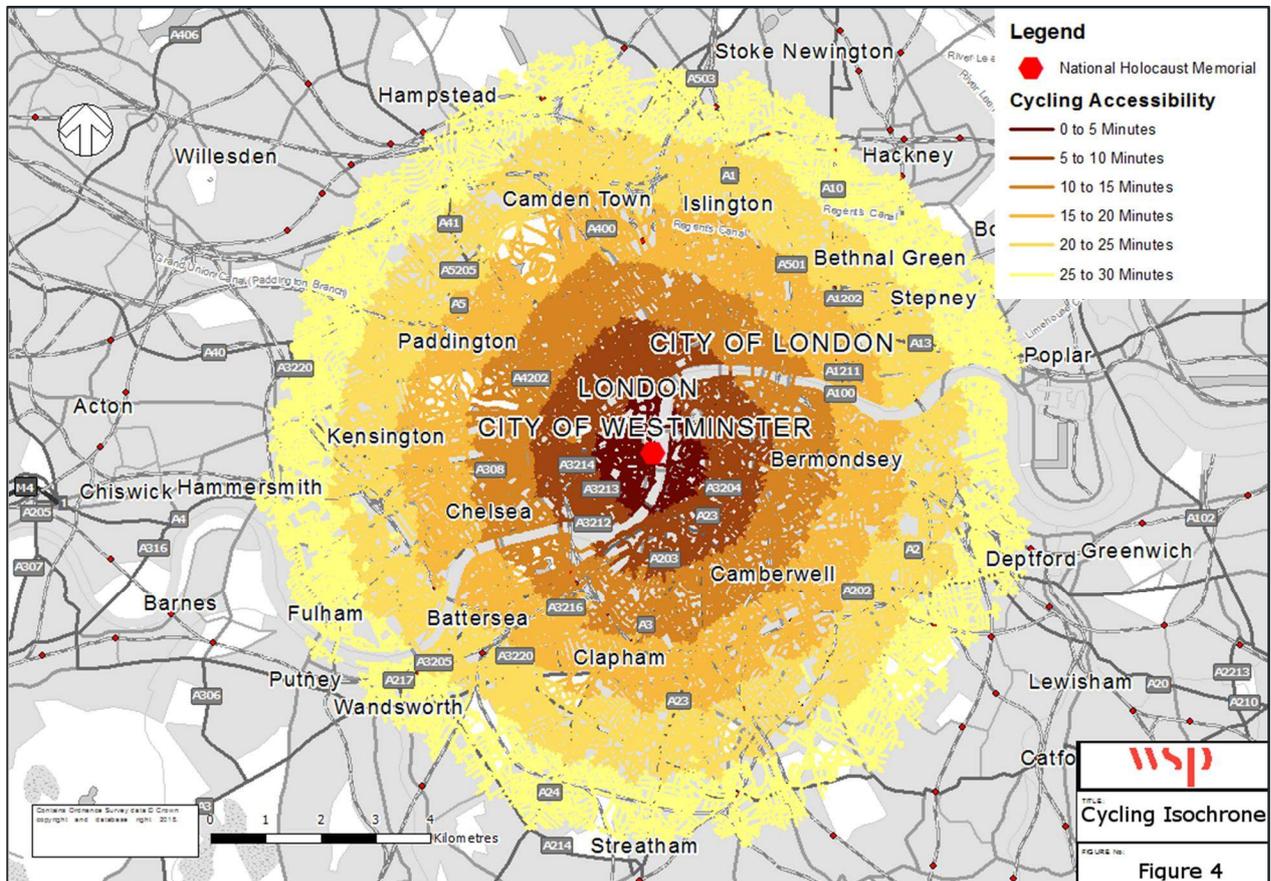
### 3.3. CYCLE ACCESSIBILITY

- 3.3.1. The site is conveniently located in terms of cycle accessibility with a number of local facilities and amenities.
- 3.3.2. Parliament Bridge Street, situated north of the site, forms part of the Cycle Superhighway (CS) 3, providing quick and safe access to Tower Hill and east London. To the south of the site, Millbank forms part of CS8 to Wandsworth and CS5 is in close proximity across Vauxhall Bridge providing access to CS7 which runs from The City to Merton.

3.3.3. There are also cycles routes signed for use by cyclists within the vicinity of the site, including Lambeth Bridge to the south, providing access to the London Borough of Lambeth.

3.3.4. **Figure 4** shows the areas accessible by bicycle from the site within different cycling times.

**Figure 4 – Cycling Isochrone**



### 3.4. SANTANDER CYCLE HIRE

3.4.1. The nearest Santander Cycle Hire Docking points are located on Abingdon Street (20 docking points), Smith Square (18 docking points), Page Street (23 docking points) and on Horseferry Road (16 docking points).

## 4. BASELINE CONDITIONS - PUBLIC TRANSPORT

### 4.1. INTRODUCTION

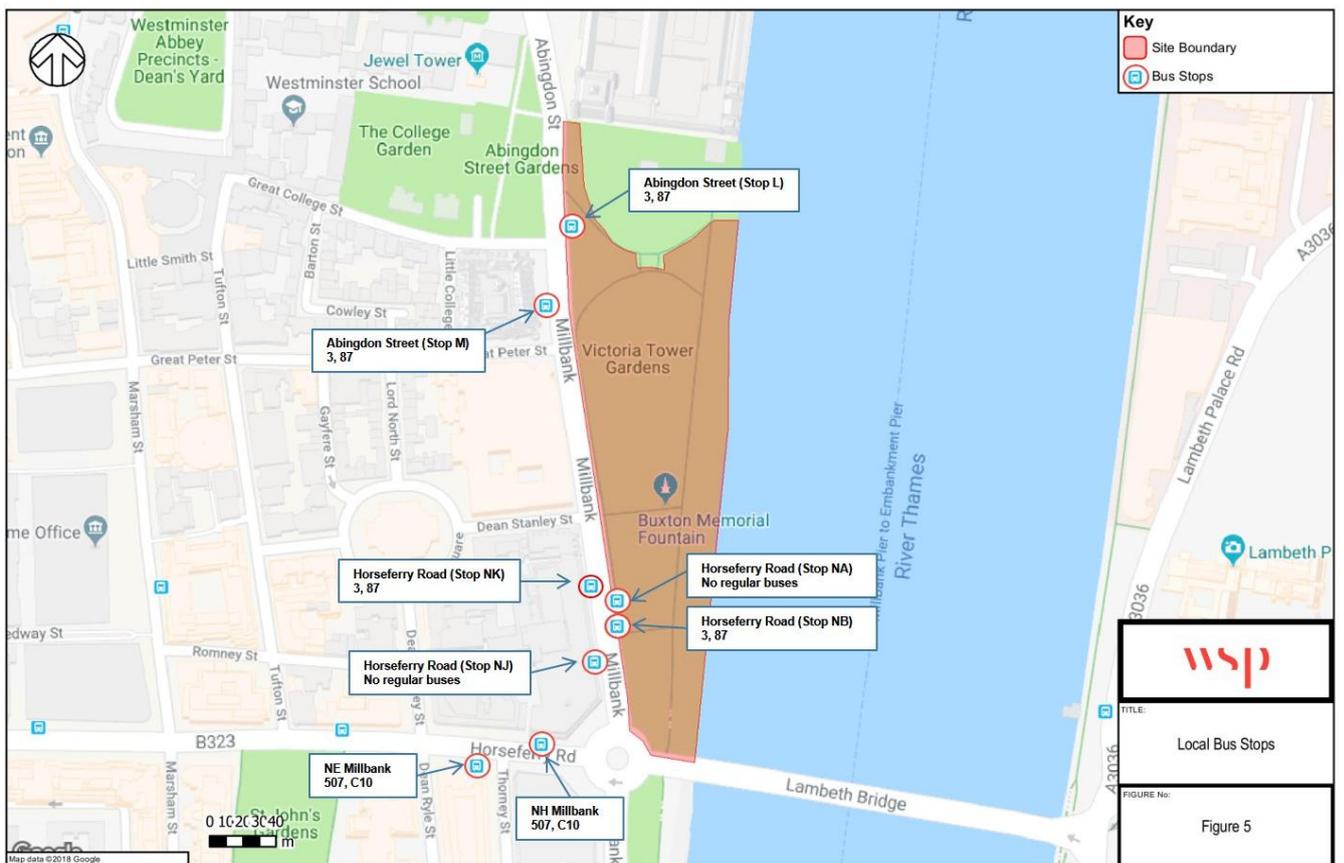
4.1.1. This chapter provides a review of the existing public transport conditions within the vicinity of the site.

### 4.2. BUS ACCESSIBILITY

4.2.1. There are six bus stops directly adjacent to the site on Millbank, two of which operate as diversion route stops and are used less frequently. Additional bus stops are located along Horseferry Road.

4.2.2. **Figure 5** below illustrates the location of the bus and coach stops closest to the site.

**Figure 5 – Bus and Coach Stop Locations**



- 4.2.3. The four conventional bus stops along Millbank and Abingdon Street, namely stops L, M, NB and NK shown above, are all served by buses 3, 87, N3 and N87.
- 4.2.4. Route 3 runs from Trafalgar Square / Charing Cross Station terminating in Crystal Palace and the N3 runs a longer route from Oxford Circus Station / Margaret Street to Bromley north Station. Route 87 starts in Aldwych / Somerset House and terminates in Wandsworth Plain and the N87 runs a longer route from Fairfield Bus Station to Aldwych / Drury Lane.
- 4.2.5. Two other stops (NA and NJ) exist for coaches only, though from discussions with TfL coaches it is understood that no scheduled services stop there. The stops can also be used by buses on diversion during nearby road closures for events and during periods of traffic disruption.
- 4.2.6. Two stops on Horseferry Road (NE and NH) are also a short walk from the site and are served by routes 507 and C10.
- 4.2.7. The bus services that stop within close walking distance to the site are summarised in **Table 2** below.

**Table 2 – Bus Frequencies**

Route	Destination	Closest Bus Stop	Average hourly frequency (buses per hour)			
			AM Peak (0800-0900)	PM Peak (1700-1800)	Saturday	Sunday
3	Crystal Palace	NB	8	8	7	5
3	Trafalgar Square	NK	8	8	7	5
87	Wandsworth	NB	11	11	8	6
87	Aldwych	NK	11	11	8	6
507	Victoria	NE	12	12	5	5
507	Waterloo	NH	12	12	5	5
C10	Victoria	NE	8	8	5	5
C10	Canada Water	NH	8	8	5	5
N3	Bromley	NB	Night buses			
N3	Oxford Circus	NK				
N87	Kingston	NB				
N87	Aldwych	NK				

- 4.2.8. As shown in **Table 2** above, the bus stops on Millbank alongside the site are served by up to 19 buses per hour in each direction, while those on Horseferry Road are served by up to 20 buses per hour in each direction.

### 4.3. LONDON UNDERGROUND SERVICES (LUL)

4.3.1. Westminster, St. James’s Park and Pimlico Underground stations are all located within a short walk of the site. Westminster Station, situated within a 7 minute walk, provides access to the Circle, District and Jubilee lines. St. James’s Park, located 12 minute walk away, also provides access to the Circle and District lines, whilst Pimlico provides access to the Victoria line, located under a 20 minute walking distance away.

4.3.2. **Table 3** summarises the frequencies of Underground services from Westminster, the closest station to the proposed UKHMLC and the most likely to be used by visitors given the popularity of the walking route past Parliament.

**Table 3 – Underground Frequencies from Westminster**

Line	Direction	Average number of <b>trains</b> per hour				
		Weekday AM Peak	Weekday Daytime	Weekday PM Peak	Saturday Daytime	Sunday Daytime
Circle & District	Westbound towards St James’s Park	26	24	26	24	24
Circle & District	Eastbound towards Embankment	26	24	27	24	24
Jubilee	Northbound towards Green Park	30	24	30	24	24
Jubilee	Southbound towards Waterloo	30	25	30	24	24

4.3.3. As shown in **Table 3** above, Westminster station is served by up to 113 trains per hour on weekdays and 96 trains per hour on weekends.

### 4.4. RAIL SERVICES

4.4.1. Charing Cross and Victoria stations are located close to the site, both under 20 minutes’ walking distance. Charing Cross is serviced by Southeastern, while Victoria is serviced by Southern, Southeastern and Gatwick Express, together providing access to a wide range of locations locally and regionally.

### 4.5. RIVER BOAT SERVICES

4.5.1. Millbank Millennium Pier to the south of the site and Westminster Pier north of the site are the closest piers, both within 10 minute walking distance. They are serviced by the RB1 and RB1X

ferries from Battersea Power Station Pier to Greenwich Pier, and the RB2 from Battersea Power Station to London Bridge Pier and the RB6 from Putney Pier to Embankment Pier.

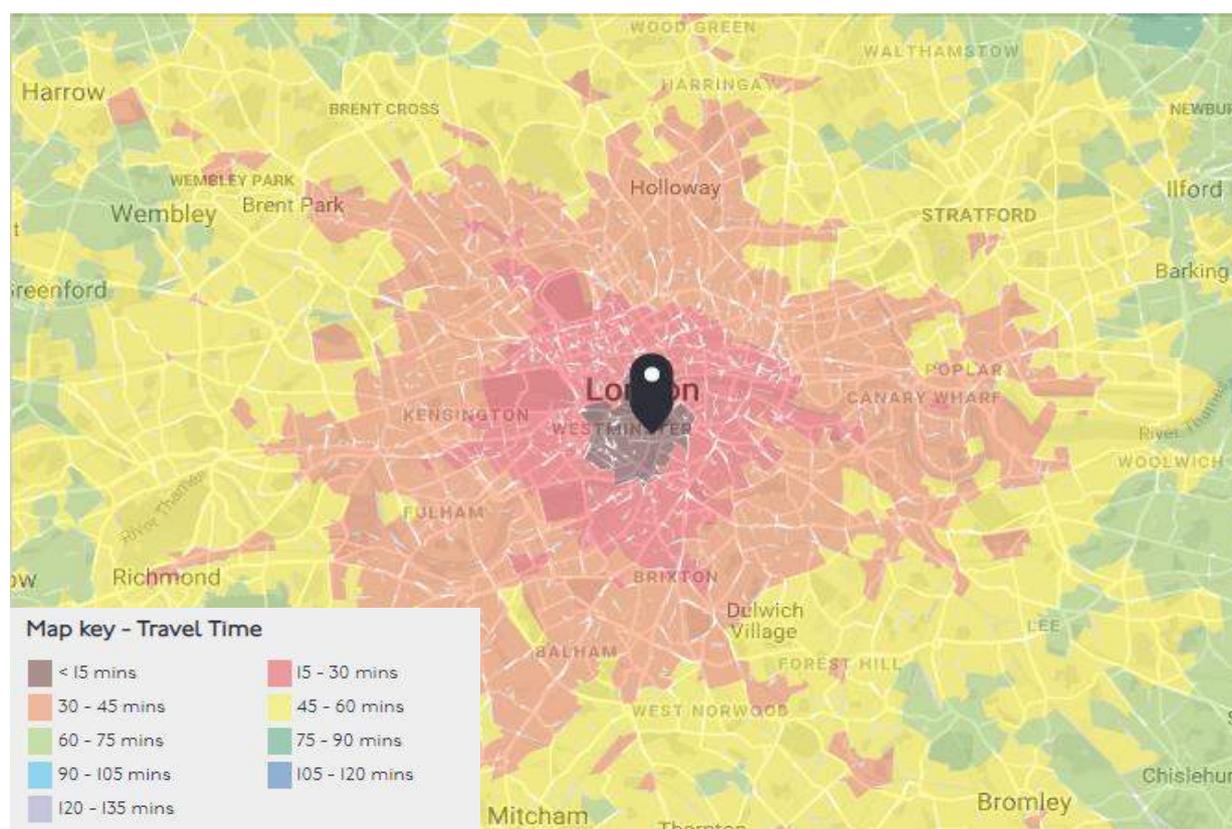
## 4.6. PUBLIC TRANSPORT ACCESSIBILITY LEVEL (PTAL)

- 4.6.1. This site is positioned within a highly accessible area of Central London, with close proximity to bus, London Underground (LUL), Mainline Rail and River Boat services.
- 4.6.2. The high level of public transport provision in the vicinity is recognised by the TfL PTAL map of Westminster, indicating that the site has an “excellent” level of access to public transport rated at PTAL 6a.

## 4.7. TIM MAPPING

- 4.7.1. The range and frequency of public transport services and existing connectivity is reflected in the TfL online TIM mapping calculator as shown in Figure 6. This shows the area accessible by public transport from the site within different travel times including waiting time.

**Figure 6 – TIM Mapping**



- 4.7.2. **Figure 6** shows that all of central London can be reached from the site within thirty minutes’ total travel time by public transport.

## 5. BASELINE CONDITIONS - HIGHWAY NETWORK

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### 5.1. INTRODUCTION

- 5.1.1. This chapter provides a description of the existing highway conditions in the vicinity of the site, including a description of the local road network and a review of personal injury accident records.

### 5.2. HIGHWAY NETWORK

- 5.2.1. The site is located on the eastern side of A3212 Millbank, which is a 'red route' road and forms part of the Strategic Road Network (SRN) in London, and is operated by WCC. A3212 Abingdon Street to the north of the site connects with Parliament Square at its northern end via a signalised gyratory. To the south of the site, Millbank forms the northern arm of a roundabout with the A3203 Lambeth Bridge and the B323 Horseferry Road.
- 5.2.2. Millbank is a single carriageway road with a general vehicular lane in both directions and a bus lane in the southbound direction, directly adjacent to the site. There are footways on both sides of the carriageway, there is street lighting, there are double yellow line parking restrictions on both sides of the carriageway and there is a 30mph speed restriction.
- 5.2.3. Parliament Square provides links north to the city via the A3212 Whitehall, east across the A302 Westminster Bridge towards Waterloo Station and Southwark (via Bridge Street), west along Birdcage Walk to Buckingham Palace and south west along the A302 Victoria Street to Victoria.
- 5.2.4. Lambeth Bridge lies south of the site and crosses the River Thames, connecting the site to London Borough of Lambeth. It is a single carriageway road with a bus lane on the eastbound carriageway and an on-carriageway cycle lane in the westbound direction.
- 5.2.5. It is understood that consideration is being given to the potential pedestrianisation of Abingdon Street and the northern part of Millbank (as far south as Great Peter Street); a second option is to pedestrianise the entirety of both roads as far south as Horseferry Road. The potential impacts of these proposals will be considered in due course when further details are available.

#### HEALTHY STREETS

- 5.2.6. A 'Healthy Streets Check for Designers' audit has been undertaken at the application site's interface with Millbank to demonstrate the effects of the proposed development as compared with baseline conditions.
- 5.2.7. The Healthy Streets audit is presented in section 9.8 of this report

### 5.3. ON-STREET PARKING AND LOADING RESTRICTIONS

#### EXISTING PARKING CONTROLS

- 5.3.1. The site is located within Controlled Parking Zone (CPZ) D4, which is restricted to residents only from Monday to Friday between the hours of 08:30 and 18:30.

- 5.3.2. The national Blue Badge Parking scheme is not subject to the same regulations in Westminster<sup>1</sup>. Residents and other eligible applicants can obtain a White Badge which grants greater parking rights. For Blue Badge Holders (from outside Westminster), parking charges are generally waived for bays which would otherwise be paid for; however blue badge holders cannot park on double yellow lines or on single yellow lines during controlled hours.

## COACH PARKING

- 5.3.3. Within WCC, any motor vehicle containing 8 or more seats (exclusive of the driver) can park within a coach bay. Coach parking bays operate between 08:30am and Midnight, and are free after 18:30 on weekdays. There are currently 55 coach parking bays in Westminster, including 5 bays along the section of Millbank south of Lambeth Bridge.
- 5.3.4. In the neighbouring Borough of Lambeth, additional coach parking is available. Albert Embankment, located south of the river across Lambeth Bridge, provides a further nine coach parking bays operation between 10:00-16:00 and 20:00-07:00.
- 5.3.5. The kerbside survey undertaken by Atkins noted in relation to coaches that at present 4% of the kerbside space within the study area is allocated to coaches. The average stopping duration for coaches was found to be 20 minutes.
- 5.3.6. During the PM peak, northbound bus stop NK on Horseferry Road is also used by scheduled commuter coaches travelling towards Kent. The Atkins study counted 38 coaches in a single hour (16:00-17:00) on one survey day.

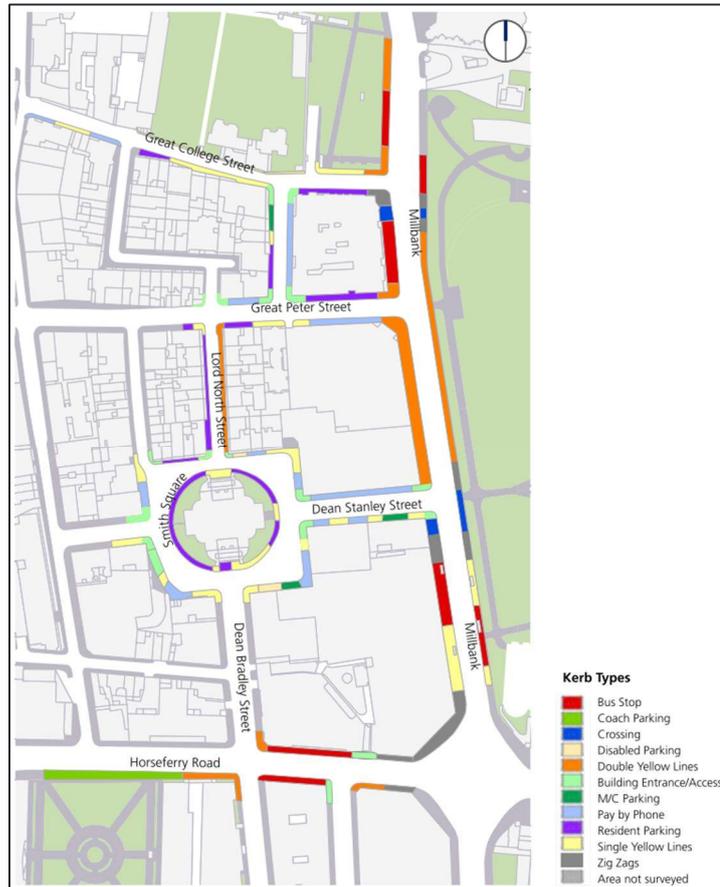
## SERVICING

- 5.3.7. The roads around the proposed Development Site are subject to a range of parking and waiting restrictions. **Figure 7** below summarises the nearby kerbside allocation of space.

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<sup>1</sup> <https://www.westminster.gov.uk/where-you-can-park-disabled-badge>

**Figure 7 – Kerbside Allocations (from Atkins Vehicular and Pedestrian Movement Study, October 2017)**



## 5.4. ACCIDENT HISTORY

- 5.4.1. A review of road traffic accident data in the vicinity of the site has been undertaken for the period 2015 to 2017 inclusive, the most recent three-year period for which data is available.
- 5.4.2. On the section of Abingdon Street and Millbank running alongside Victoria Tower Gardens a total of 14 accidents have occurred during the study period, of which one was fatal, four were serious and the remaining nine were minor.

## 6. PARKING AND SERVICING SURVEY RESULTS AND ANALYSIS

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### 6.1. INTRODUCTION

- 6.1.1. Servicing activities comprise any loading, unloading and waiting events by LGVs and OGVs. Parked servicing vehicles will be treated separately. This section looks particularly at servicing activity taking place in Zones E and H on Millbank, and sections of the adjacent side roads, including Dean Stanley Street, Great Peter Street and College Street.
- 6.1.2. As part of the feasibility stage of the scheme, Atkins was commissioned to undertake a Transport Movement study, comprising pedestrian and vehicular movement assessments used to inform the development of shortlisted sites. This has included:
- Vehicular and cycle flows on Millbank;
  - Parking and loading study on Millbank and surrounding streets; and
- Pedestrian flows along Millbank and accessing the Gardens.
- 6.1.3. The kerbside study undertaken by Atkins found that servicing represents 13% of all vehicle arrivals in the vicinity of the Site, yet has no designated space
- 6.1.4. Currently, 68% of servicing activities in the area are carried out before 13:00 on weekdays. The majority of these vehicles are undertaking loading/unloading of goods (as opposed to maintenance and waste collection, which represent a minority of servicing vehicles) using the kerbside space on the roads near the site.
- 6.1.5. Currently vehicles servicing the Site itself principally utilise the two diversion route bus stops, namely Horseferry Road (Stop NA) and Horseferry Road (Stop NJ), which are on single yellow lines and serve as on-street servicing facilities. Whilst these stops exist, the Atkins found that:
- “... servicing occurs almost everywhere in the study area, including bus stops, zig zags, entrances and disabled parking”*
- 6.1.6. At present, the servicing requirements of the Site itself are relatively low, likely to comprise maintenance (groundskeeping and waste collection) of Victoria Tower Gardens, plus deliveries and waste collection associated with the small café. Consequently the servicing requirements of the existing site represent only a small proportion of the total activity observed during the Atkins survey.
- 6.1.7. The surveys were undertaken during a four-day period from Saturday 30th September to Tuesday 3rd October 2017. **Figure 8** shows the relevant scope of the survey study area and illustrates the zones (e.g. Zone B) and sub-zones (e.g. Zone B1) created for analysis.

**Figure 8 – Parking and Servicing Survey Plan**



## 6.2. KERBSIDE ANALYSIS

### MILLBANK EASTERN KERBSIDE

- 6.2.1. From north to south, the eastern kerbside of Millbank comprises an area of approximately 23m of single yellow line, a 23m bus cage, followed by 24m single yellow line, labelled as zones H6, H7 and H8, respectively. Zone H6 is within the bus lane and is restricted to buses only between 07:00-19:00, H7 can accommodate two TfL buses and H8 can accommodate a maximum of one coach.
- 6.2.2. The survey shows that there are some instances when H6 is occupied by stationary vehicles other than buses on a weekday, even though it is within the bus lane with a bus only restriction between 07:00 and 19:00. These instances usually last less than 1 minute and will be considered as ad hoc drop off, pick up or waiting times. However, on one occasion an LGV parked in zone H6 for 1hr 19 minutes during the AM peak. Whilst this may be seen to cause disruption to TfL bus services, it is not considered to be a typical event.

6.2.3. Servicing in H6, H8 and H9 is typically done overnight, between 23:00 and 08:30, and lasts approximately 2 minutes.

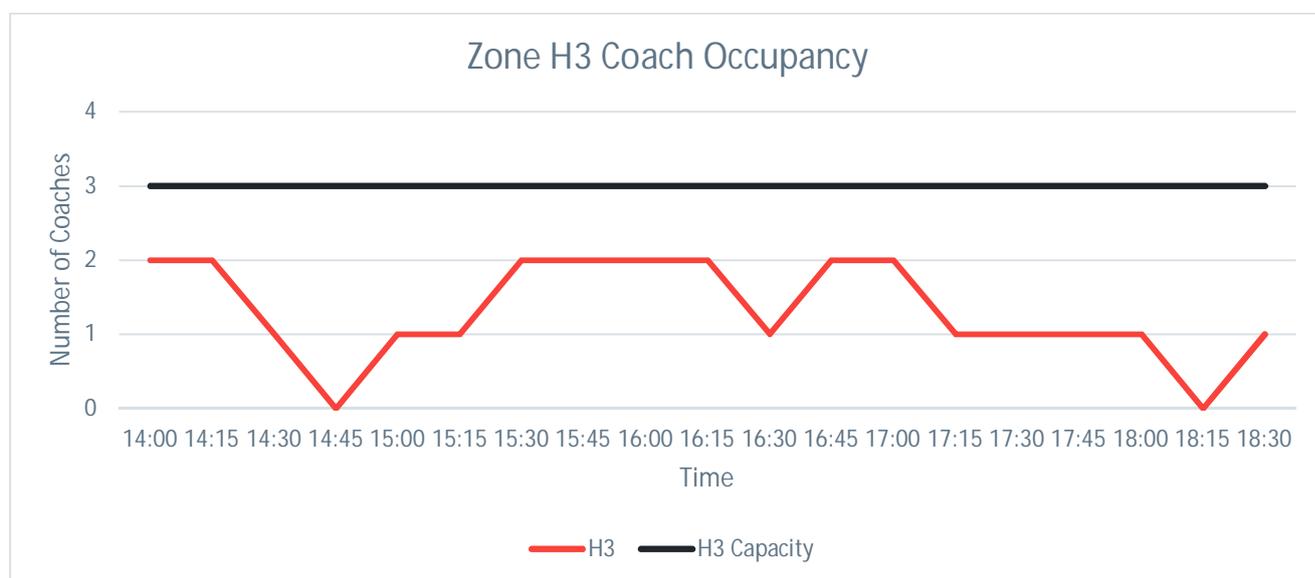
6.2.4. There is no significant coach activity on the eastern kerb.

### MILLBANK WESTERN KERBSIDE

6.2.5. From north to south, the western kerbside comprises a 25m bus cage followed by 45m of single yellow line, labelled H2 and H3. Zone H2 can accommodate a maximum of two TfL buses at once and H3 can accommodate a maximum of three coaches at once

6.2.6. The survey shows that the western kerb is frequently used for coach pick up, drop off and waiting activities on weekdays, particularly between 14:00 and 18:30. Zone H3 is commonly used by private coaches on weekdays. The average dwell time ranges from less than a minute to 45 minutes, with most coaches remaining for 15 minutes. Figure 9 shows the occupation H3 between busiest time period on the busiest weekday.

**Figure 9: Busiest Weekday Period for Western Kerb Occupancy by Coaches**



6.2.7. Taking the example of Monday, recorded as being the busiest day surveyed, 23 coach-related events are recorded in H3, all occurring between 14:10 and 18:30. For most of this time only one coach is parked at a time, with the event of two adjacent stationary coaches occurring three times for 17 minutes, 20 minutes and 1 minute, respectively. There are no coach parking occasions within this area on Tuesday and average pick up and drop off time was 3 minutes.

6.2.8. Coach activity on the weekend days is minimal, with only 2 coaches frequenting the eastern kerb for pick up and drop off per day. The survey shows that these servicing activities only occur between 19:00 and 07:00.

## DEAN STANLEY STREET

- 6.2.9. Dean Stanley Street provides mixed-use parking and waiting opportunities, including pay by phone (zones G1, G2 and G4), motorcycle parking (G6) and single yellow lines (G5 and G7). Zone G1 on the northern kerb is approximately 48m long and has capacity for 6 LGVs.
- 6.2.10. The southern kerb, zones G2-G6, is of equal distance and can accommodate the same number of vehicles. The survey indicates that servicing activity here occurs throughout the day on all surveyed days, with twice as many servicing occasions taking place on weekdays than on weekend days.
- 6.2.11. Given the pay by phone nature of G1, the duration of stay for vehicles in this zone is higher than in Millbank zones, lasting 40 minutes on average. Servicing activities in particular vary between one minute waiting to two hours unloading. This mixture of long stay and short stay dwell time puts G1 at between 30-69% occupancy from 7am-7pm.
- 6.2.12. On the southern kerb, average servicing time is lower, at 26 minutes. This is due to the addition of single yellow lines with the restriction of 20 minute loading/unloading time for LGVs. As such, vehicle turn over in this section is also high, especially along the double yellow lines, and the pay for parking spaces (G2 and G4) are close to full capacity throughout the day (90-100% occupancy rate).

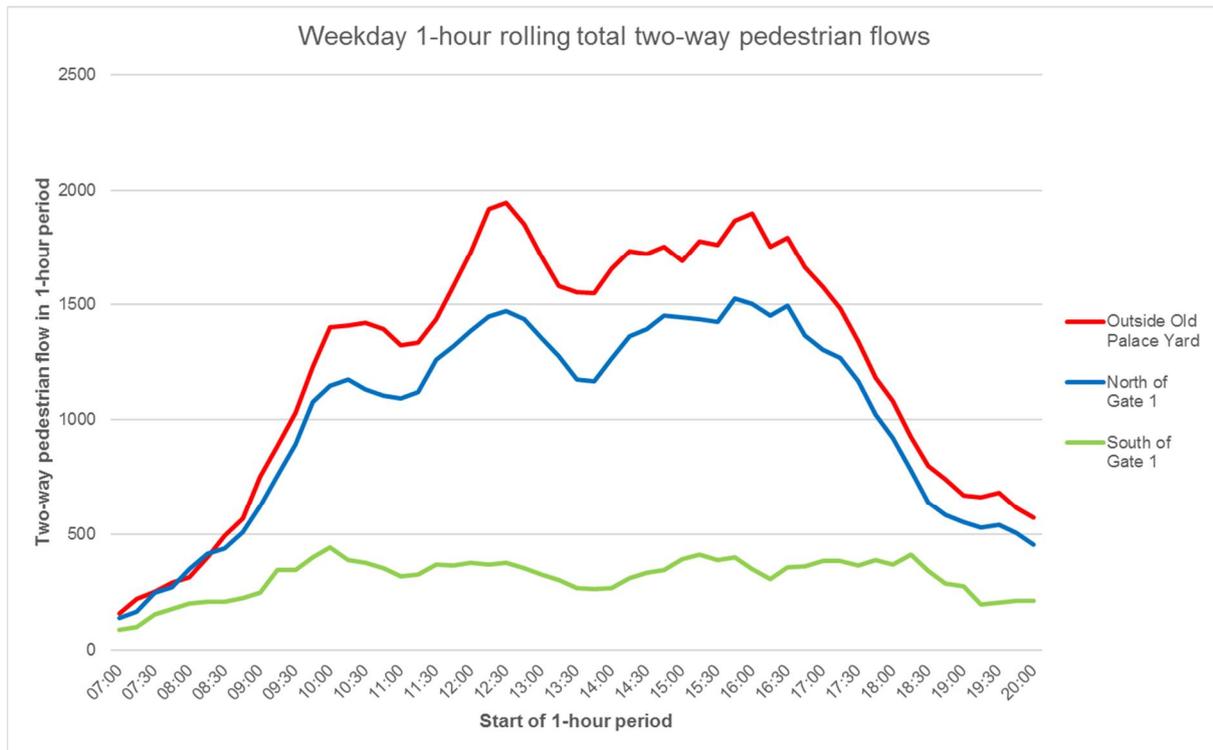
## 6.3. PEDESTRIAN MOVEMENT

- 6.3.1. A series of pedestrian count surveys were conducted on a weekend day, bank holiday and weekday in May and September 2017, to gauge pedestrian movement patterns between 07:00-21:00. The assessment looked at pedestrian flows along Millbank and on adjacent streets, as well as the number of people crossing Millbank and various locations. This section addressed both these aspects of pedestrian movements.

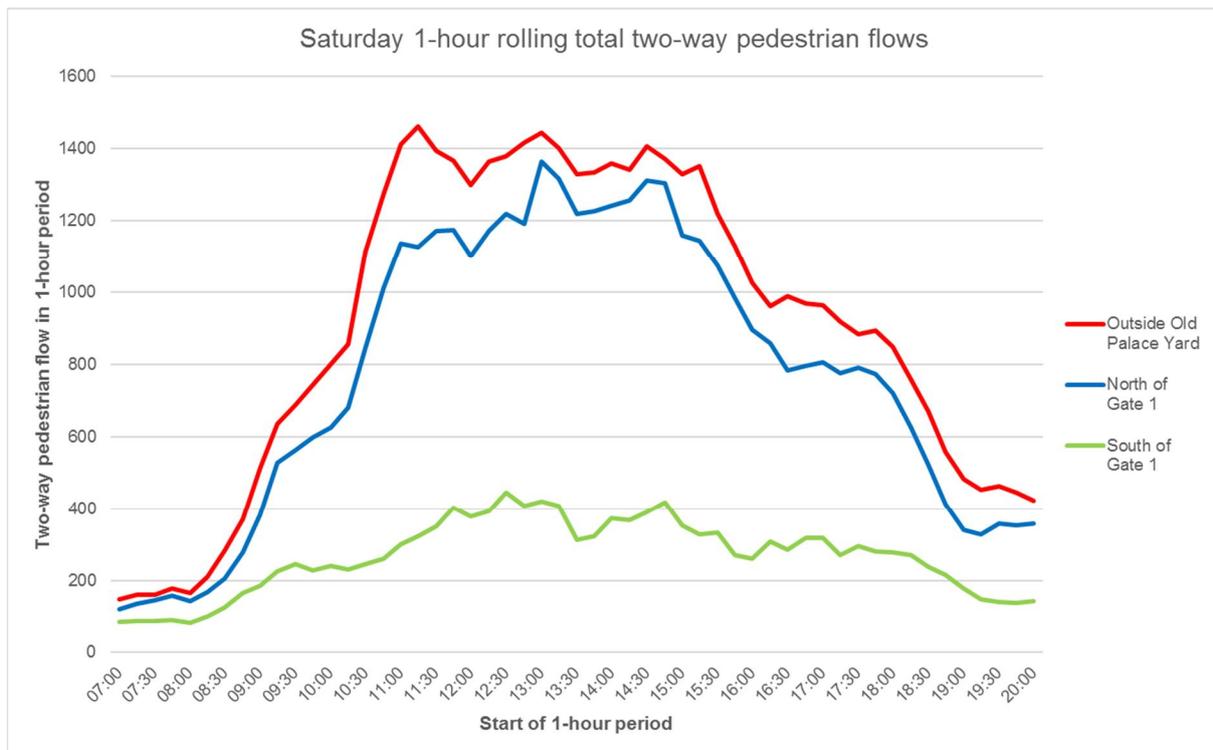
### PEDESTRIAN FLOW

- 6.3.2. The survey shows that an average of 290 people per hour were observed between 07:00-19:00 along the footways and crossings. It is observed that Victoria Tower Gardens is primarily used by city workers during their lunch on weekdays.
- 6.3.3. The May 2017 survey data has been analysed to compare the pedestrian footfall along different sections of the eastern pavement of Abingdon Street and Millbank:
- Alongside Old Palace Yard, at the south west corner of the Houses of Parliament;
  - Immediately north of Gate 1 of Victoria Tower Gardens;
  - Immediately south of Gate 1 of Victoria Tower Gardens.
- 6.3.4. **Figures 10 and 11** show the rolling one-hour total pedestrian flows along these sections of footway, on a weekday and a Saturday respectively.

**Figure 10 – Weekday rolling one-hour two-way footfall on eastern side of Abingdon Street and Millbank**



**Figure 11 – Saturday rolling one-hour two-way footfall on eastern side of Abingdon Street and Millbank**

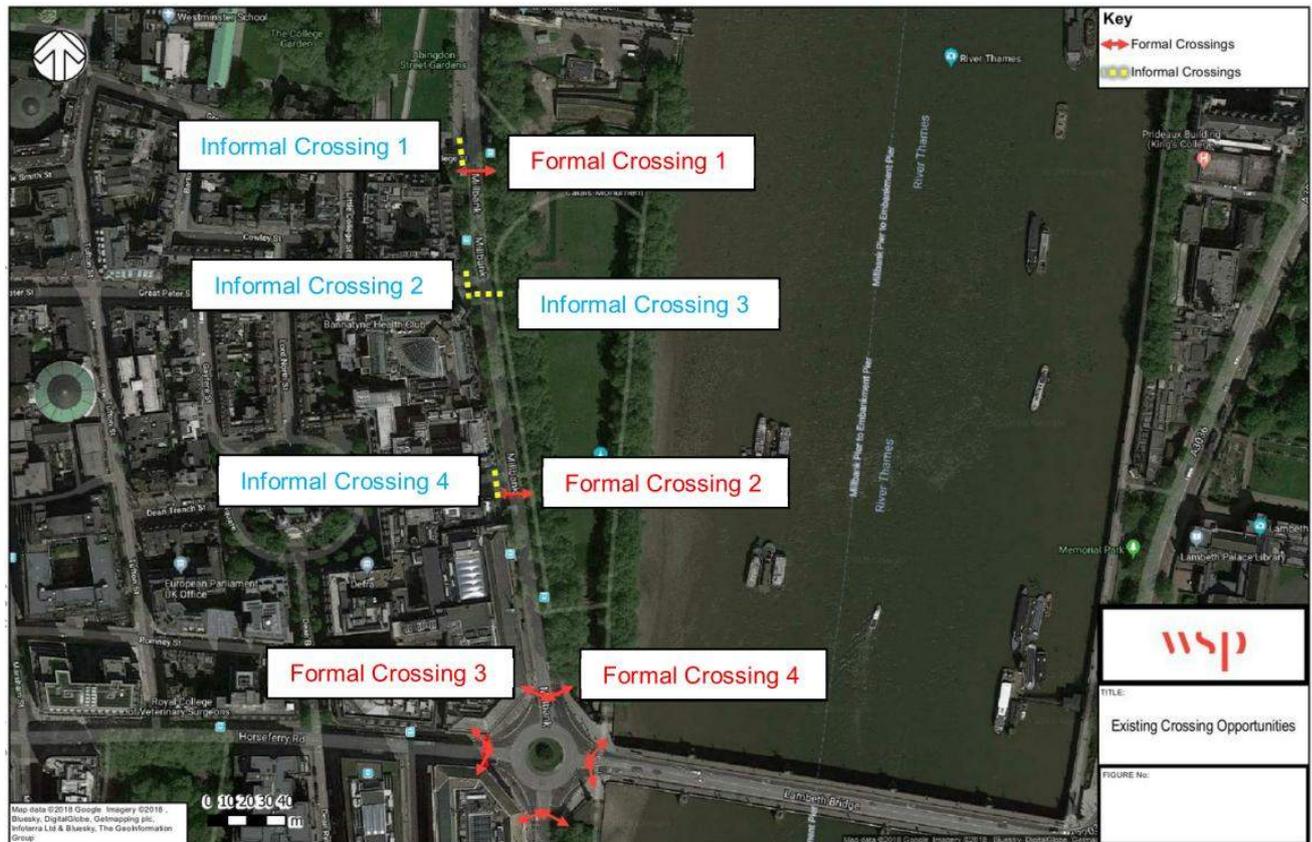


- 6.3.5. The greatest hourly pedestrian flows outside Old Palace Yard were 1,944 people in the hour commencing at 12:30 on a weekday. On a Saturday the peak flow was 1,463 people in the hour commencing at 11:15.
- 6.3.6. The pedestrian flow data shows that on a weekday there are a total of 2,985 fewer pedestrians walking along the footway north of Gate 1 compared to the footfall a short distance further north alongside the Houses of Parliament. The greatest difference on a weekday is observed during the hour commencing at 12:15 when 472 fewer pedestrians were walking immediately north of Gate 1 than were observed outside Old Palace Yard. On Saturday the greatest difference was during the hour commencing at 11:15 when 336 fewer pedestrians were observed north of Gate 1.
- 6.3.7. Given that there are no crossing points at this location (indeed, the anti-terrorism barriers prevent pedestrians from crossing Abingdon Street at this location), it is likely that these are tourists who walk to the southern end of the Houses of Parliament but who do not proceed beyond this point.
- 6.3.8. The difference in flows north and south of Gate 1 is accounted for by the pedestrians accessing Victoria Tower Gardens to and from the north. Visitors from the south are more likely to use one of the other gates along Millbank.
- 6.3.9. Focussing particularly on the eastern kerb between Gate 3 and Gate 4, a maximum of 383 people were observed during any given hour within the PM peak; across the day the average flow was 235 people per hour. This is significantly less than the pedestrian flows on the western kerb opposite the site, where 879 people per hour were observed during the PM peak, and 514 people per hour was the average across the day.

#### **CROSSING DEMAND**

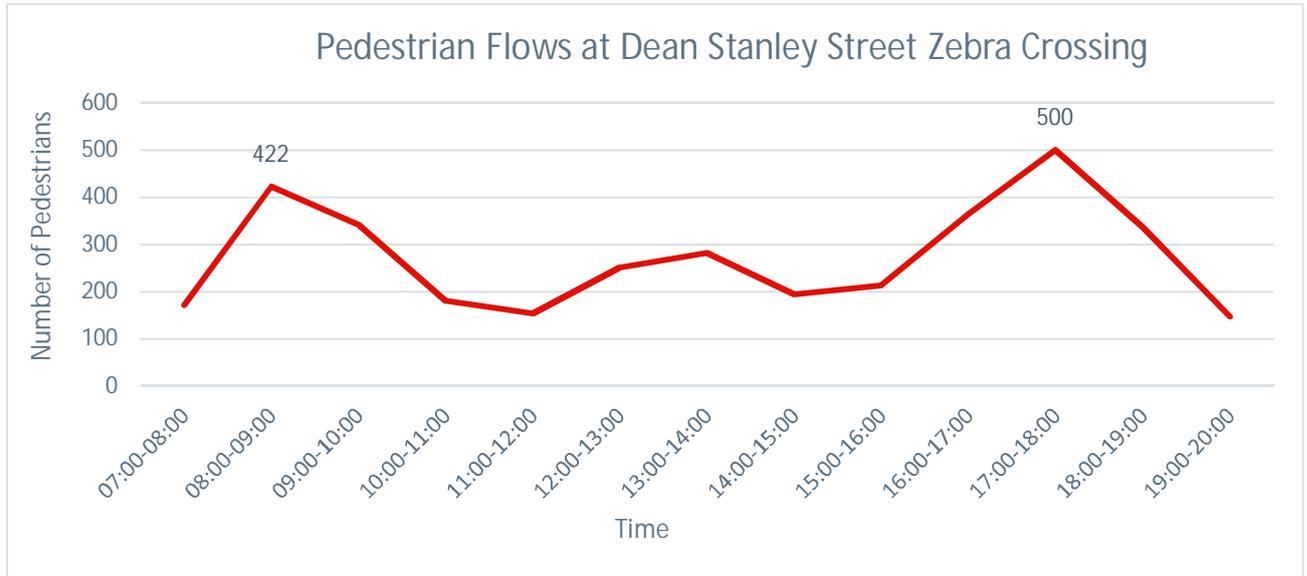
- 6.3.10. There are four formal crossings provided along Millbank adjacent to the site, including the two zebra crossings at the Lambeth Bridge roundabout. There are also four other informal crossings, in the form of dropped kerbs and pedestrian islands, within close proximity to the accesses of the site. **Figure 12** shows where the existing crossing opportunities are located.

Figure 12 - Existing Crossing Opportunities



- 6.3.11. The pedestrian flow assessment indicates that Formal Crossing 1 (a signalised pedestrian crossing) south of College Street has the highest daily crossing demand totalling 7,959, with 4,315 pedestrians crossing from the western kerb to the eastern kerb and 3,644 in the opposite direction.
- 6.3.12. The other three formal crossings have a significantly lower crossing demand ranging from 3,466 to 3,630 two-way daily pedestrians.
- 6.3.13. Whilst this could be indicative of pedestrians turning off Millbank and walking down adjacent roads, the location of Informal Crossing 3 lends itself probability to a high crossing demand.

**Figure 13 – Two-way Pedestrian Flow at Formal Crossing 2**



## 6.4. TRAFFIC FLOW

- 6.4.1. Data from DfT count point 7603, located on Millbank alongside the site, recorded an Annual Average Daily Flow of 13,500 vehicles per day excluding motorcycles and pedal cycles. This section of Millbank is used by approximately 8,900 cars, 1,000 buses and 3,000 light goods vehicles (LGVs) per day, with a smaller number of HGVS (500 per day).
- 6.4.2. The manual count upon which the DfT data is based recorded almost 6,000 bicycles per day passing along this section of Millbank, and a further 2,000 bicycles.

## 7. DEVELOPMENT PROPOSALS

### 7.1. INTRODUCTION

7.1.1. This chapter outlines the development proposals in terms of access arrangements and parking provision for both cycles and coaches.

### 7.2. ACCESS

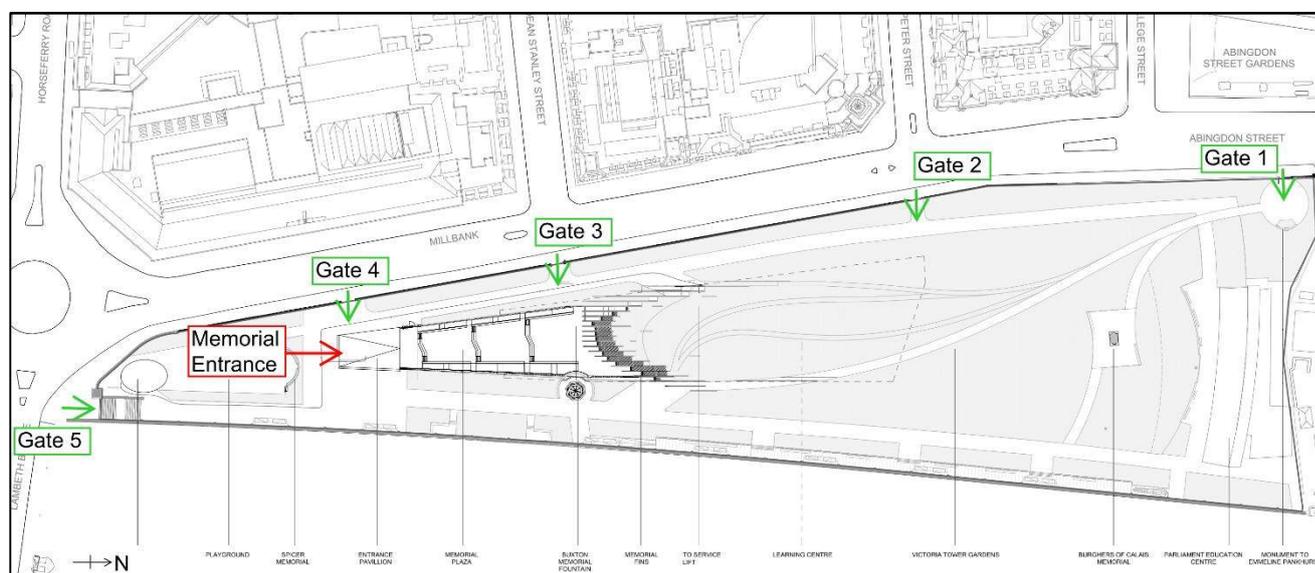
7.2.1. The design of the Development has been carefully considered in a way which balances the need to retain pedestrian and cycle permeability whilst also controlling access to the site, given the need for safety and security which means that unrestricted access to the UKHMLC is not possible.

7.2.2. At present Victoria Tower Gardens are open from dawn until dusk which, during winter, is as early as 4pm. Indicative opening hours for the UKHMLC are 9.30am until 5.30pm. At this stage various options for accessing the UKHMLC are being considered, including the possibility of extending the opening hours of the surrounding park to enable access to the UKHMLC via all of the gardens gates.

7.2.3. Once UKHMLC visitors have entered Victoria Tower Gardens, they will walk to its southern end where the entrance to the interior of the UKHMLC will be located.

7.2.4. **Figure 14** below shows the pedestrian accesses to Victoria Tower Gardens in relation to its environs.

**Figure 14 – Site Layout and Pedestrian Accesses**



7.2.5. The pedestrian strategy for the site makes use of multiple existing accesses to Victoria Tower Gardens in such a way as to minimise congestion on any single section of footway along Millbank.

7.2.6. Pedestrians approaching from Parliament Square – who are anticipated to make up the majority of the visitor numbers – are anticipated to enter the park from Gate 1 at the northern end of Victoria

Tower Gardens, since walking through the park gives a view of the Thames and the Houses of Parliament as opposed to walking along Millbank.

- 7.2.7. Coaches will drop off visitors close to the pedestrian access opposite Dean Stanley Street; their passengers will enter via Gates 3 or 4. Visitors approaching from the south (for example those who have come from the Tate), and those crossing Lambeth Bridge, will enter from Gate 5.

The pedestrian strategy therefore encourages visitors to use a range of accesses and, in this way, minimises any pedestrian congestion along any single section of the Millbank footway.

## 7.3. PARKING

### CAR PARKING

- 7.3.1. Given the Site's excellent accessibility by public transport, it is proposed that no new car parking be provided for visitors or staff.
- 7.3.2. Whilst the New London Plan does not provide specific standards for memorials, it does recommend that *"all non-residential elements of a development should provide at least one on or off street disabled persons parking bay"*. The nature of the development, combined with the proximity to high-profile locations including Westminster Abbey and the Houses of Parliament, makes it necessary to restrict vehicular access to the site for security reasons. It is therefore proposed that no blue badge parking be provided on site.
- 7.3.3. Westminster City Council indicated that it would not support the provision of additional on-street bays for blue badge holders. Moreover, step-free public transport provision is good: two bus routes operated by low-floor vehicles stop outside the Site, and Westminster station has step-free access. This will reduce the need for mobility impaired people to depend on private cars to be able to visit the UKHMLC. This will be further reinforced by the Holocaust Memorial's website and visitor communications, which will encourage disabled visitors to travel to the site by public transport.
- 7.3.4. It is considered that the demand for parking for blue badge holders visiting the Site can be accommodated by using the existing blue badge parking bays within the vicinity of Victoria Tower Gardens. There are six blue badge bays within close proximity to the site; these are operational from Monday to Friday 08:30-18:30 with a maximum stay of 4hrs:
- Smith Square – approximate 130m from gate 3 (opposite Dean Stanley Street) (two bays);
  - Great Peter Street – approximately 250m from gate 3 (two bays); and
  - Little Smith Street – approximately 380m from gate 3 (two bays).
- 7.3.5. Additionally, blue badge holders are permitted to park within paid-for bays in Westminster, where they will be granted an extra hour free after initial payment during controlled hours. The closest Paid-for bays are the eight bays on Dean Stanley Street, located only 50m from gate 3 of the site.
- 7.3.6. Persons working in Westminster are eligible to apply for a White Badge which allows them to park for free at any time in all residents' parking bays. There are also residents' bays on Dean Stanley Street which a disabled employee in possession of a white badge would be able to use.

## CYCLE PARKING

- 7.3.7. On-site cycle parking will be provided for staff and visitors in accordance with the WCC UDP and Draft London Plan standards. As there are no specific standards for memorials, the London Plan 'D1 Other' parking standards are to be applied, i.e. one space per eight staff plus one visitor space per 100sqm of floor area.
- 7.3.8. With the Learning Centre having a proposed floorspace of 3258sqm (GIA), the parking requirement equates to 33 visitor spaces. It is proposed that these be provided on the western pavement on Millbank opposite the UKHMLC, rather than within Victoria Tower Gardens, for the following reasons:
- Pushing cycles into the garden would increase congestion at the gates;
  - There is limited space between the garden railings and the UKHMLC, and the addition of cycle parking would further reduce this space;
  - Installation of cycle parking within the railing line could conflict with the trees already present;
  - Victoria Tower Gardens is closed overnight. Provision of on-street spaces will mean that they can be used by members of the public outside of the opening hours of the garden and the UKHMLC.
- 7.3.9. It is proposed to provide the cycle parking spaces in the form of 17 Sheffield stands to be located on the western side of Millbank. There are already several sets of cycle stands along this pavement; it is proposed to extend the row north of Dean Stanley Street by ten stands (20 spaces), and to extend the row north of Horseferry Road roundabout by seven stands (14 spaces). Extending rows of existing cycle stands means that the effective footway width of Millbank will not become narrower.
- 7.3.10. These locations are close to the pedestrian crossings leading to gates 4 and 5 respectively, meaning that the cycle parking will be located on the desire line between the cycling route of Millbank and the UKHMLC entrance.
- 7.3.11. A total of 20 staff members will be employed for the scheme. It is proposed to provide 4 covered, secure staff parking spaces, equating to a provision of 1 space to 8 staff members. These will be located close to the loading bay on the western side of the UKHMLC.

## TAXI DROP-OFFS / PICK-UPS

- 7.3.12. An island taxi stand is already present on Millbank in the centre of the carriageway between the Great Peter Street and Dean Stanley Street junctions. The development proposals do not affect this stand. Taxis can wait on this stand and, once the UKHMLC is operational, it is likely that the stand will be even better frequented by taxis due to the addition of a trip attractor.
- 7.3.13. Taxi drop-offs can take place in the southbound bus lane or along the northbound kerbside, and no additional taxi facilities are considered to be required.

## 7.4. SERVICING

- 7.4.1. The proposed servicing strategy seeks to reduce the need for on-street servicing whilst also recognising the security requirements commensurate with a proposed development of this nature and location. Any vehicle entering the Site increases the security risk as well as potential conflict between pedestrians on Millbank and vehicles crossing the footway.

- 7.4.2. Westminster City Council's preference is for off-street servicing, and the scheme proposals include a servicing bay within the UKHMLC boundary. This would be accessed through gate 3 outside of the UKHMLC's opening hours and outside of the bus lane's operating hours.
- 7.4.3. Counter-terrorism engagement has been undertaken by WSP Security with the Centre for the Protection of National Infrastructure (CPNI) to coordinate Hostile Vehicle Mitigation measures with other schemes being considered in the adjacent area. This will ensure that scheme style being applied is appropriate for the location. The alignment of measures will be along the perimeter of the gardens in order to most effectively protect people.
- 7.4.4. The vehicular accesses to the site will therefore need to be controlled by a form of bollard, protecting not just the site itself but also the footways either side (i.e. to prevent a vehicle from using the crossover to enter the protected footway).
- 7.4.5. Due to the trolleying distance requirements, waste will be collected by a private contractor. Refuse from the individual uses within the site (exhibition space, café etc.) will be kept in a single bin store alongside the servicing bay. Refuse vehicles will enter and exit the site in forward gear. Refuse collection will take place outside of the opening hours of the gardens and the UKHMLC.
- 7.4.6. The on-site servicing bay will also be used by deliveries to the UKHMLC: the bay can accommodate a van for typical deliveries. These servicing vehicles would also access the site outside of opening hours, and enter and exit in forward gear.
- 7.4.7. It is also proposed to provide a short (7m) on-street servicing bay, which will require the reconfiguration of the highway layout and traffic markings along the eastern side of Millbank. Whilst servicing will take place on-site and outside of the UKHMLC's operating hours wherever possible, some servicing will also need to take place during the working day, for example parcel deliveries which are part of a daytime multi-drop delivery schedule.
- 7.4.8. **Figure 15** shows the location of the on-street servicing bay. By providing this bay, quick daytime deliveries can be accommodated during the daytime without creating conflict with pedestrians walking along Millbank or accessing the UKHMLC, since vehicles would not cross the footway.
- 7.4.9. The servicing bay will be located within an existing bus lane which operates between 07:00 and 19:00 Monday to Friday. TfL have indicated that they would not object in principle to other vehicles stopping during the daytime provided that the peak periods of 07:00-10:00 and 16:00-19:00 remain safeguarded.
- 7.4.10. The proposed servicing bay would therefore be operational between 10:00-16:00 and between 19:00-07:00. It would be governed by a 'loading only' restriction. Analysis of existing servicing activity in the vicinity of the UKHMLC has shown that existing demand is already accommodated by existing sections of single yellow line including on the western side of Millbank. It is not considered that provision of a new 7m servicing bay would generate additional servicing activity besides that associated with the UKHMLC, given that the existing kerbside arrangement on the western kerbside of Millbank is more convenient for servicing other nearby buildings.

## COACH PARKING AND BUS STOPS

- 7.4.11. It is recognised that existing coach parking in the wider area is under high demand and as such the development proposals should reference a wider coach parking strategy if possible.

- 7.4.12. It is proposed to provide a 30m coach drop-off / pickup bay on the eastern kerbside of Millbank, immediately south of the zebra crossing alongside Dean Stanley Street. Currently this section of kerbside is in a bus lane (operating 07:00-19:00 Monday to Friday) with a single yellow line controlling waiting outside of the bus lane's hours of operation.
- 7.4.13. Consideration had been given to consolidating bus stops NA and NB into a single-length cage, given that no scheduled bus routes use stop NA. However it is recognised that buses on diversion do stop here; the kerbside activity survey also recorded instances where buses on routes 3 and 87 stop at bus stop NB simultaneously.
- 7.4.14. The coach bay will instead be accommodated by relocating the bus cage for stops NA and NB to the southern end of this section of kerbside; at present this section is marked with a single yellow line and is lightly used. The relocated TfL bus cage will be 32.5m in length which allows for a rear bus to pull up behind a front bus, and pull out again, while the front bus is still stationary. There will therefore be no negative impact on bus manoeuvring.
- 7.4.15. The new coach bay will be 30m in length, sufficient to accommodate two large coaches simultaneously. The bay would be governed by a 'loading only' restriction in order to prevent parking: coaches would only be permitted to be stationary in the bay for as long as is necessary to unload or load passengers. Working assumptions are that a coach can unload passengers in five minutes and load passengers in a maximum of fifteen minutes.
- 7.4.16. As described in Chapter 6, the PM peak pedestrian flow along the section of Millbank footway where coaches would unload is 383 pedestrians per hour, which is lower than the flows north of Gate 3 or south of Gate 4. The proposed coach bay would therefore allow passengers to board and alight coaches in such a way as to minimise disruption to existing users of the footway.
- 7.4.17. It is recognised that coach parking capacity is a wider issue across the City of Westminster, and the applicant has engaged with WCC and TfL to identify suitable locations where coaches can park whilst passengers are visiting the UKHMLC.
- 7.4.18. Beyond the borders of the borough, additional coach parking is available in nearby locations in Lambeth. Albert Embankment in particular, located south of the river across Lambeth Bridge, provides a further nine coach parking bays operational between 10:00-16:00 and 20:00-07:00. These bays will aid in relieving the parking pressure on WCC streets.
- 7.4.19. From site observations it is evident that a number of commuter coaches wait in the vicinity of Horseferry Road on weekday afternoons prior to departing for Kent (as Millbank stop NK - opposite the UKHMLC - is their first departure stop). The 'loading only' restriction will help to ensure that the bay is used for its intended purpose of serving the UKHMLC rather than as a long-stay parking space for commuter coaches on a daily basis.

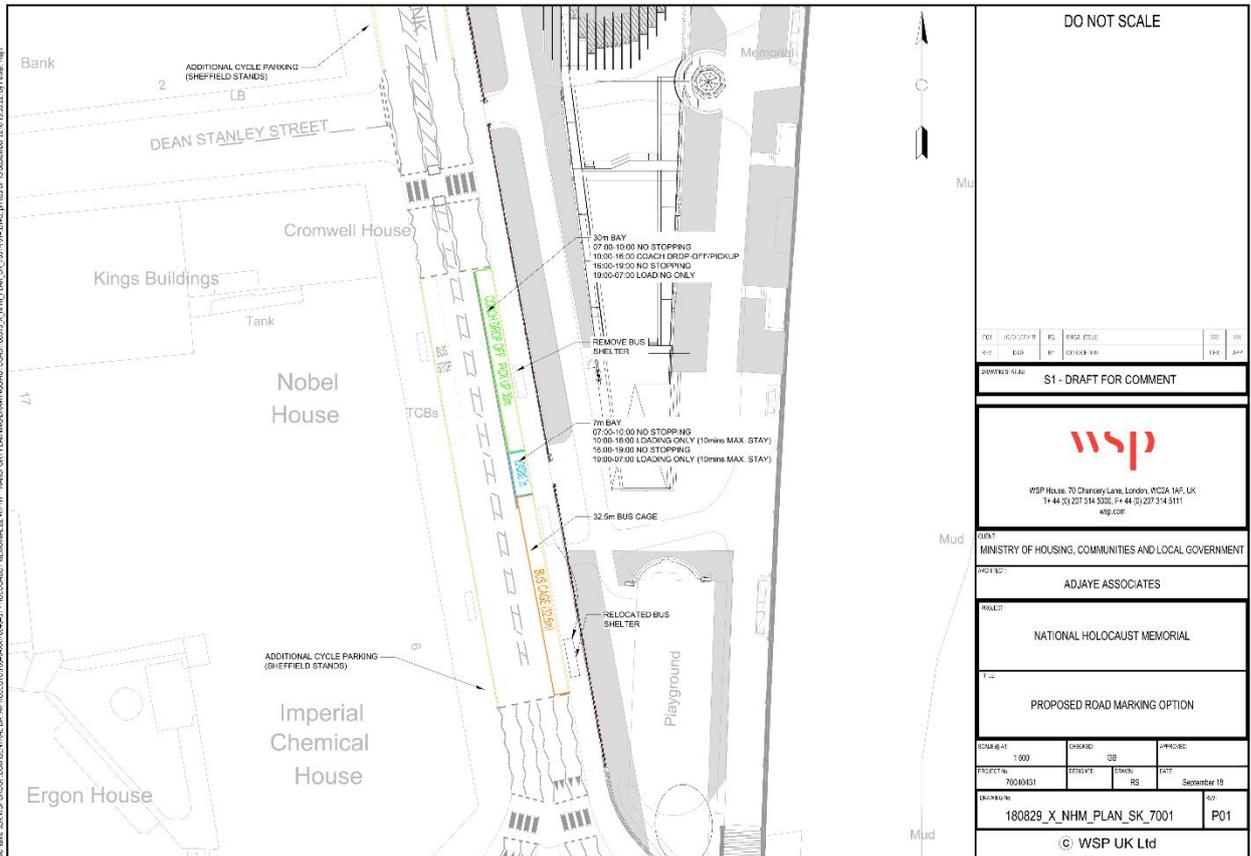
## HIGHWAY LAYOUT

- 7.4.20. **Figure 15** shows the preferred highway layout proposal along Millbank's eastern kerb between Dean Stanley Street and Horseferry Road. No changes are proposed along the western kerb.
- 7.4.21. From north to south, the proposed kerbside allocation is as follows:
- Coach drop off / pick up bay (30m);

- Loading bay (7m);
- Bus cage (32.5m) with a relocated bus shelter.

7.4.22. A larger version of the plan is provided as Appendix A.

**Figure 15 – Plan of proposed kerbside allocation (larger version provided as Appendix A)**



7.4.23. This is the preferred highway layout option as it allows coaches to drop off and pick up alongside Gate 3.

7.4.24. Between 10:00 and 16:00 the coach bay would be limited to coaches only, with no other vehicles permitted to load or unload. The coach bay would be governed by the 'loading/unloading' time restriction whereby coaches are only permitted to stop for the length of time required for passengers to board or alight, rather than a 20-minute limit which may encourage idling. This will reduce the likelihood of coaches arriving earlier than their pickup time, and also deter other uses of the bay such as commuter coach parking.

7.4.25. Between 19:00 and 07:00 the coach bay could be used by other vehicles for servicing: its 30m length will allow occasional HGVs serving the UKHMLC (for example during exhibition changeovers) to unload close to Gate 3, from where goods can be moved into the site.

The 7m servicing bay can be used by LGVs for servicing between the hours of 10:00-16:00, as well as overnight. Blue badge holders are also permitted to drop off and pick up in a loading bay, thereby facilitating access to the UKHMLC for those being dropped off in a vehicle which will then proceed to park in a dedicated bay away from the site.

## TRAFFIC ORDERS

- 7.4.26. TfL and WCC are supportive of applying a short maximum stay to the proposed bays on Millbank, which would also facilitate drop-offs and pick-ups of visitors to the UKHMLC and reduce the likelihood of the bays being used as parking spaces by coaches (including commuter coaches). A series of traffic orders have been reviewed to find the best suited restrictions to govern the kerbside adjacent to the site.
- 7.4.27. Three potential restrictions from those applicable in the City of Westminster<sup>2</sup> have been shortlisted, namely:
- Single Yellow Line;
  - Coach Only Pay-to-Park Bay; and
  - On-street Loading Bay.
- 7.4.28. With regards to coaches, the **single yellow line** restriction allows for 10 minutes picking up/setting down, extended for as long as necessary for the process to conclude. Whilst this aspect of the restriction is suitable, it also permits at least 40 minutes for HGVs for loading/unloading activities, which would disrupt the anticipated coach movements. Therefore, this restriction is deemed unsuitable.
- 7.4.29. The restrictions associated with a **coach-only pay-to-park bay** in the City of Westminster include allowing only coaches to park between 08:00 and midnight. It also permits loading activity by private vehicles for 20 minutes before a penalty charge notice (PCN) will be issued. Given that the proposed coach bay on Millbank is intended to be used only by coaches and not by other vehicles to load, a coach-only bay (paid or free) is not considered suitable given that it does not prohibit use by other vehicles for loading.
- 7.4.30. WCC operate ‘Loading Only’ and ‘Goods Vehicle Only’ **loading bays** which may or may not include a maximum stay. The two types of bay differ by the categories of vehicle permitted, with both stating “vehicles may not park in these bays within the hours states on the timeplate (some apply at all times) without engaging in loading/unloading activity”. Given that this minimises the chance of long dwell time (for example parking), this restriction is considered to be the most suitable for the bay. It is proposed that a ‘Coach Only’ restriction with a coach symbol be provided on the plate. Coach parties visiting the UKHMLC would be advised in advance that the bay is solely for use for the length of time required to load or unload passengers. To maximise the availability of bays, it is proposed that a 15 minute maximum stay restriction be applied to the bay.
- 7.4.31. The proposed 7m servicing bay, to be located immediately south of the coach bay, would have a ‘Loading Only’ restriction (for all vehicle types) and would be useable outside of the hours of operation of the bus lane. This bay is proposed in order to accommodate the small number of deliveries by LGV which may take place during the daytime between 10:00 and 16:00 when vehicles cannot enter the site and the coach bays cannot be used by other vehicle types.

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<sup>2</sup> City of Westminster Parking Services - Kerbside Management & Enforcement Code of Practice – v.4.0 April 2017

## FOOTWAY LAYOUT

- 7.4.32. As a result of the installation of hostile vehicle mitigation barriers along the eastern side of Abingdon Street alongside the Houses of Parliament, there is ample protected space for pedestrians to walk along, which will also benefit visitors to the UKHMLC.
- 7.4.33. However there is a localised pinchpoint directly outside Gate 1 of the park, where a security booth and second parallel barrier constrain the width of the footway to 2.3m.
- 7.4.34. Discussions will take place with the relevant authorities to determine whether a small modification to the layout of the barrier is possible, such that the obstruction directly outside Gate 1 is removed without any reduction in the level of hostile vehicle mitigation.

## 8. TRIP GENERATION AND MODAL SPLIT

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### 8.1. INTRODUCTION

- 8.1.1. This chapter sets out the proposed trip generation for the scheme. Assumptions about visitor profile will be made within the Transport Assessment based on similar developments in similar contexts and the project business/operational plan.
- 8.1.2. As explained in the Ticketing Report, a maximum of 3,300 tickets will be issued per day (410 per hour). Findings from comparable attractions indicate that at least 10% of ticket holders are expected to be 'no-shows'. Hence, it is estimated that the UKHMLC will be visited by 3,000 people per day (375 per hour).
- 8.1.3. For the purposes of the trip generation and impact assessment two scenarios:
- 3,000 daily visitors (375/hour) - the typical scenario; and
  - 3,300 daily visitors (410/hour) - the robust scenario.
- 8.1.4. Admission to the UKHMLC will only be for visitors with a pre-booked ticket, therefore the visitor numbers would not exceed 410/hour since all admissions would be controlled.
- 8.1.5. It is also expected that additional visitors will wish to view the UKHMLC from the outside without entering. The most popular location for doing so is anticipated to be the northern portion of Victoria Tower Gardens. These trips are considered separately.

### 8.2. VISITOR TRIP GENERATION AND MODE SPLIT

#### CATEGORIES OF VISITOR

- 8.2.1. The anticipated visitor profile can broadly be split into the following three categories:
- Pass-by trips by tourists already in the local area as part of a more general visit e.g. to the Palace of Westminster and Westminster Abbey. The majority of visitors to the UKHMLC are expected to fall into this category, and to spend a relatively short time there due to a desire to visit a number of attractions in a day. Whilst they may be existing tourists on the wider network, these pass-by trips will still be required to obtain a ticket in advance;
  - Sole-purpose trips by members of the public who are likely to be familiar with (or live in) London and who choose to visit this location as a result of the newly UKHMLC. Such visitors may be expected to spend up to an hour at the Holocaust Memorial and Learning Centre; and,
  - Organised group trips. These may incorporate a longer session in the Learning Centre where a thematic activity can take place, for example a talk. A school trip or religious group visit would fall into this category.
- 8.2.2. It should be noted that many groups of tourists travel to or around London by organised coach (distinct from open top buses). These groups may already visit the Houses of Parliament and Westminster Abbey, so are likely to extend their visit to include the UKHMLC. These groups will be considered as part of the first category (pass-by tourists) since their mode of transport would be expected to remain the same as their current transport to Westminster, with just a short additional walk along Millbank to the UKHMLC. Consequently they will not be treated as sole-purpose group trips for assessment purposes.

## TRIP GENERATION RATES

- 8.2.3. For the purpose of trip generation and the assessment of impacts, the categories of visitor listed above, whilst informative, are not best suited to the detailed assessment of trip generation and distribution.
- 8.2.4. It is difficult to separate out pass-by and sole-purpose visitors who are not in organised groups. The Operational Business Plan produced by Barker Langham (an extract of which is contained as Appendix B of this report) estimates a range of possible annual visitor numbers between 300,000 as the lower-end benchmark and 890,000 as the higher-end benchmark, drawing upon other Holocaust memorials across the world<sup>3</sup>. A close comparison benchmark is also provided in the same document, estimating 500,000 annual visitors based on comparable sites including the Holocaust Memorial and Information Centre in Berlin<sup>4</sup>. Whilst this figure is the most comparable to the proposed development and is quoted most often within the report, the higher-end benchmark of 890,000<sup>5</sup> is preferable for the basis of transport related calculations to ensure robustness. Furthermore, for robustness the total visitor numbers have been rounded up to 1,000,000 annual visitors; this is also the figure which is being used to inform the internal circulation strategy and pedestrian modelling. The comparator sites upon which these estimates are based are mostly located within city centres in close proximity to other major trip attractors (for example the Brandenburg Gate in Berlin) and the data does not distinguish between linked and sole purpose visitor trips.
- 8.2.5. Consequently it is proposed to treat the total visitor numbers based on estimates by Barker Langham (1,000,000) as an input to the trip generation, and subsequently to break this figure into three categories for detailed analysis:
- School groups;
  - Special interest groups; and,
  - General admission visitors.

Each of these categories is considered in turn below.

## SCHOOL GROUPS

- 8.2.6. The Operational Business Plan estimates that up to 100,000 pupils per year<sup>6</sup> could visit the UKHMLC. The following comparable sites around London have been reviewed to assess the reliability of this assumption:

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<sup>3</sup> Barker Langham Operational Business Plan, paragraph 2.5.2.1

<sup>4</sup> Barker Langham Operational Business Plan, paragraph 2.5.2.5

<sup>5</sup> Barker Langham Operational Business Plan, page 9

<sup>6</sup> Barker Langham Operational Business Plan Executive Summary, paragraph 4.2.1

- The Houses of Parliament Education Centre - it is the closest match in terms of school group visitor numbers (projected to reach 100,000 per year by 2019) and is also located adjacent to the UKHMLC;
- The Natural History Museum – much higher visitor numbers (4.6 million per year) but a useful reference point in terms of school visitors as a percentage of the total (5.6%<sup>7</sup>); and
- The Imperial War Museum as the closest match in terms of curriculum content, including exhibitions on the Holocaust as well as World War II more broadly.

8.2.7. The Learning Centre will accommodate pre-booked group visits who will be required to book in advance, thereby ensuring that these visits are staggered and thus minimising the peak effect. The Holocaust is a mandatory element of the Key Stage 3 history curriculum, and consequently there is likely to be a high level of demand from school groups to visit the Learning Centre. It is likely that most educational trips will take place during weekdays (i.e. school days) which will serve to offset the likely higher footfall by members of the public at weekends; a small number of overseas school groups may visit on weekends as part of a longer stay in the UK.

### **SPECIAL INTEREST GROUPS**

- 8.2.8. It is considered beneficial to calculate the trips generated by special interest groups separately to general admission visitors, since the former are more likely to arrive by coach as an organised party.
- 8.2.9. However, having reviewed the above comparable sites both in the UK and mainland Europe, it has proven difficult to find data relating to organised groups which are not school visits and which are in a city centre location (given that the principal purpose is to estimate coach trips, it is not considered appropriate to use comparator sites in rural settings which may have limited public transport accessibility).
- 8.2.10. A working assumption will be that, out of a total of 1 million annual visitors to the UKHMLC, 60,000 of these will be visiting as special interest groups; their mode split is discussed in later sections. In due course, further dialogue with relevant special the anticipated number of special interest groups visiting the UKHMLC.

### **GENERAL ADMISSION VISITORS**

- 8.2.11. The remainder of the total visitor numbers not ascribed to either school or special interest group visits will be assigned to the general admission category, of which there are projected to be 840,000 visitors per year.
- 8.2.12. The Barker Langham report does not quantify the proportion of visitors who are expected to be new trips to London as opposed to existing people on the transport network who add the Holocaust Memorial to their itinerary. It is noted that the average length of visits at the Berlin Holocaust

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<sup>7</sup> Natural History Museum Annual Review 2016/17, page 46

Memorial's information centre is one hour<sup>9</sup>, and this will be taken as a robust duration of stay estimate for the UKHMLC. Consequently it is reasonable to assume that the majority of visitors will combine their trip with other attractors or journey purposes in central London: Westminster attracts a worldwide visitor profile and, while some Londoners will make a dedicated trip to the Memorial, the majority of visitors can be expected to visit several locations in the vicinity of the site.

- 8.2.13. As a consequence, it will be assumed that the majority of general admission visitors are existing trips on the pedestrian and public transport networks, and that the impacts of the Memorial on transport are principally in terms of extended or diverted pedestrian trips. The mode split calculations (see below) will take a robust approach towards the impact of additional footfall on nearby pedestrian routes, but it will be assumed that only a minority of visitors will be generating new trips on the wider transport network.
- 8.2.14. Parliament Square has a total annual footfall of approximately 4.4 million pedestrians at present<sup>10</sup>. With a projected 840,000 annual general admission visitors to the Memorial, this equates to 19.1% of the current Parliament Square footfall. Westminster Abbey and the Houses of Parliament are visited by over 928,000 and 1,164,000 people per year respectively, while the Tate Britain to the south draws a further 1,284,000 annual visitors<sup>11</sup>. It could therefore be likely that most people visiting the Memorial would also be visiting at least one of these major attractors, and would therefore not constitute new trips on the wider transport network, instead being new trips only on the pedestrian network between the Memorial and the other attraction(s) they are visiting on the same day.
- 8.2.15. It will be assumed that, of the 840,000 annual general admission visitors to the Memorial, approximately one third (280,000) will be new trips on the wider transport network and pedestrian network, with the remaining 560,000 appearing as new pedestrian trips from the existing attractors; the distribution of these trips is discussed in the following section.

## 8.3. VISITOR MODE SPLIT

### GENERAL ADMISSION VISITORS

- 8.3.1. With the exception of blue badge holders, it is not anticipated that other general admission visitors will reach the site by car. This is a reasonable assumption given that the site has excellent public transport links, there is minimal car parking in the vicinity, and most visitor trips are likely to be linked rather than sole purpose which renders car travel less convenient.
- 8.3.2. The TRICS database will be consulted to provide a shortlist of leisure attractions and religious buildings (two land use categories which most closely match the Memorial in terms of trip generation

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<sup>9</sup> Barker Langham Operational Business Plan, paragraph 7.1.4

<sup>10</sup> Barker Langham Operational Business Plan, paragraph 2.5.1

<sup>11</sup> Ibid

characteristics) to calculate the projected proportion of visitors who will arrive by taxi. Three sub-categories within the Leisure land use class were investigated, namely:

- I – Art Galleries/ Museums;
- S – Exhibition Centre; and
- T – Place of Worship.

- 8.3.3. Sub-category **S – Exhibition Centre** only yielded one Greater London site (Olympia) which was deemed an unsuitable match as many taxi trips may be attributable to business visitors, especially given that the site is close to central London yet relatively inaccessible from it by public transport.
- 8.3.4. Sub-category **T – Place of Worship**, whilst containing three Greater London sites, was also deemed an unsuitable comparison given the outer London location of all sites.
- 8.3.5. Sub-category **I – Art Galleries/ Museums** yielded the London Transport Museum located in Covent Garden and was found to be the most comparable site for the Memorial taxi trip generation. Whilst the site was surveyed in 2009, it continues to have good public transport accessibility and large visitor numbers across a similar demographic, which remain unchanged in the past 10 years. Consequently the proportion of Memorial visitors expected to travel by taxi will be based on the ratio of taxi trips to total trips in the Museum’s dataset.
- 8.3.6. The TRICS database will also be used to estimate the number of cycle trips to be generated by the Memorial site. Given the similar proximity to cycle routes, in addition to the factors listed above, the London Transport Museum was found to be the most comparable site for cycle trips to the Memorial site, and the number of cycle trips will be calculated as a proportion of general admission visitors before being subtracted from the number of trips assigned to public transport.
- 8.3.7. Given the sites’ excellent public transport accessibility and limited availability of paid parking, it is assumed that only blue badge holders will travel to the site by car. For robustness, the 3% mode share figure from car driver and passenger numbers from the LT Museum will be used to estimate the blue badge users visiting the Memorial. These visitors will be a mixture of drivers (requiring blue badge parking) and visitors being dropped off, with their blue badges being used by their accompanying driver to park elsewhere. They are considered as a proportion of general admission visitors before being subtracted from the number of trips assigned to public transport.
- 8.3.8. Parking occupancy data from Atkins shows that the nearby bays suitable for disabled parking are at 70% capacity between 07:00-19:00. We will assume a dwell time of 1.5 hours: 15 minutes to and from the site and 1 hour to visit. This equates to the one bay on smith square accommodating two vehicles and eight paid for bays on Dean Stanley Street accommodating a total of 16 blue badge vehicles.
- 8.3.9. The remainder of visitor trips will be assigned between bus and Underground: the former offers convenience as bus routes 3 and 87 stop adjacent to the entrance (plus additional routes serving nearby Parliament Square), whereas the Underground is easier for visitors unfamiliar with London and is also a faster means of reaching Westminster.
- 8.3.10. As set out above, it will be assumed that one third of the general admission visitors will constitute new trips on the transport network with the remaining two thirds being existing visitors to other attractions who make addition journeys on foot.

- 8.3.11. The raw data which formed part of the Atkins pedestrian study<sup>12</sup> has been analysed to calculate the ratio of footfall on the northern and southern approaches to the Memorial. Data from a Saturday has been used since it is likely to be more reflective of visitor patterns compared to weekends when footfall may be skewed by commuters rather than leisure visitors to Westminster.
- 8.3.12. In an average hour on Saturday, the footfall through Gate 1 and the along footway immediately to the south is 1004. By comparison, the footfall through Gate 5 and along the footway south of Gate 4 is 478. This gives an indicative ratio of 32% of pedestrian demand being to and from the south, with the remainder travelling to and from the north.
- 8.3.13. The residual number of general admission visitors who do not travel by car (blue badge holders) or taxi will therefore be distributed on the northern and southern Millbank approaches taking into account the ratio of existing footfall along these pedestrian routes, together with the projected mode and route of transport which visitors are anticipated to use.
- 8.3.14. It is proposed that visitors to the Memorial will be required to book advance tickets and tickets will not be available for sale within the memorial. Publicity will be used to make visitors aware of this prior to arriving in the vicinity of the Memorial. This will be complemented by other potential means of issuing tickets on the day but not at the Memorial (for example through arrangements with nearby attractions or staff positioned on nearby routes). Together, these arrangements would mean that prospective Memorial visitors would be unlikely to proceed to Victoria Tower Gardens without a ticket.
- 8.3.15. Once further details are known regarding the anticipated methodology for ticket sales, more precise calculations of pedestrian footfall along different sections of the footway can be undertaken.

## **SCHOOL GROUPS**

- 8.3.16. Research on comparable central London attractions drawing large numbers of school visits found that the majority of trips originated from outside London.
- 8.3.17. Looking particularly at school visits to the Houses of Parliament Education Centre across two weeks in the months of May and June has revealed that an average of 16 out of 79 school groups per week are from the Greater London area, equating to 20%. In the 39-week academic year, this equates to 3,081 total school visits to the Houses of Parliament Education Centre per year of which 624 are London-based.
- 8.3.18. Given the close proximity of the Houses of Parliament Learning Centre to Victoria Tower Gardens, a similar distribution of school visitors is expected for the Memorial, given that both of their topics of focus form part of the national curriculum and some school groups may indeed choose to combine the two Learning Centres in a single visit.

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<sup>12</sup> Atkins Vehicular and Pedestrian Movement Study, page 22

- 8.3.19. Precedent from Houses of Parliament shows that 50% of school visits originate from outside London. The schools are more likely to organise to make the journey by coach.
- 8.3.20. With 195 school days per year, and an estimated 80,000 school visitors from outside of London (pupils and staff combined) anticipated to visit the Memorial, this equates to 410 school visitors per day from outside London. The nearby Houses of Parliament Education Centre is aiming to reach 100,000 school visitors per year by 2019 from 45,000 in 2015<sup>13</sup>. Its recommended duration of visit for school groups is 2 hours 15 minutes, making it unlikely that a school trip from outside London would visit the capital just for Parliament.
- 8.3.21. A new Memorial alongside Parliament would therefore represent a logical destination for the second part of a day-long visit, especially given that both '*Notions of Political Power, Elections and Democracy*' and the occurrence of the Holocaust are compulsory elements within the history national curriculum with other related topics throughout Key Stages 2 and 3. As such, a school might take two history classes to the Milbank area, with each starting at either of the attractors (Parliament and the Memorial) and swapping over after a lunch break. This provides a greater incentive for schools to visit the area – covering two elements of the national curriculum, whilst also recognising the coach parking limitations within Westminster by combining two visits from a single drop-off.
- 8.3.22. It will therefore be assumed that, of the 100,000 projected annual school visitors, 20,000 will be from London and will be assumed to travel by public transport, while the remaining 80,000 will travel by coach. Of these, it will be assumed that half (40,000) are existing visitors who are adding an extra destination to their stay, who will be assumed to be only new trips on the pedestrian network and not the wider transport network since they may walk as a group to nearby attractions such as Parliament.
- 8.3.23. The remaining 40,000 new visits by schoolchildren and accompanying adults (who may also go on to visit other destinations as part of their trip). However for robustness, even the existing trips being extended to incorporate a visit to the Memorial will be treated as new trips for transport assessment purposes, since (unless already visiting the nearby Parliament Learning Centre) they are likely to require coach laydown space which they do not currently use.
- 8.3.24. The projected 80,000 annual school visitors from outside London equate to 410 people per school day; with an average coach capacity of 50, this is equivalent to 9 coaches per day– they would not generate coach trips on the 170 days a year which fall outside of term.
- 8.3.25. It is understood that 50% of the existing school visits to the Houses of Parliament Learning Centre arrive by coach, indicating that a proportion of visits from outside London use public transport. However for robustness, an 80% figure will be used as discussed above, since this has a more onerous requirement for coach bays.
- 8.3.26. The school groups arriving by public transport will be assessed using the same methodology as for general admission visitors described above.

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<sup>13</sup> Parliament Education Centre Website - <https://www.parliament.uk/educationcentre>

## SPECIAL INTEREST GROUPS

- 8.3.27. The range of special interest groups anticipated to visit the Memorial will have a range of mobility needs and transport preferences. Some may comprise elderly or infirm visitors for whom coach is the most comfortable means of transport for them, while others will be able-bodied adults who can travel most efficiently by public transport.
- 8.3.28. At this stage it is not possible to predict the precise demographics which will visit the Memorial, a working assumption will be that half will travel by public transport and half by coach. Special interest group visits are assumed to take place across all days of the week.
- 8.3.29. With 30,000 special interest group visitors arriving by coach and a capacity of 50 people per coach, this equates to up to two coaches per day.
- 8.3.30. The special interest groups arriving by public transport will be assessed using the same methodology as for general admission visitors which is described above.

## 8.4. VISITOR NUMBERS BY TIME AND MODE

- 8.4.1. **Tables 4 and 5** below summarise the estimated trip generation on weekdays during school term-time for the 3,000 and 3,300 scenarios, respectively. As shown, the numbers of Special Interest and School Group visitors remain the same in both scenarios, with General Admission visitors filling the rest of the tickets. This reflects the fact that ‘no shows’ are considered to be much less likely amongst organised group tours.

**Table 4 – 3,000 Daily Visitor Trips on a weekday during school term-time**

Mode	General Admission	Special Interest Groups	School Groups	Total
On foot (only)	1,556	0	0	<b>1,556</b>
Public Transport*	736	83	103	<b>922</b>
Cycles	2	0	0	<b>2</b>
Car (blue badge)	23	0	0	<b>23</b>
Taxi	5	0	0	<b>5</b>
Coach**	0	83	410	<b>493</b>
<b>Total</b>	<b>2,322</b>	<b>166</b>	<b>513</b>	<b>3,000</b>

*Subject to rounding errors*

\* Refer to para 8.2.15

\*\*Coach numbers are given in passenger numbers. 50 trips = 1 vehicle.

**Table 5 – 3,300 Daily Visitor Trips on a weekday during school term-time**

Mode	General Admission	Special Interest Groups	School Groups	TOTAL
On foot (only)	1,757	0	0	1,757
Public Transport	831	83	103	1,017
Cycle	2	0	0	2
Car (blue badge)	26	0	0	26
Taxi	5	0	0	5
Coach**	0	83	410	493
<b>Total</b>	<b>2,622</b>	<b>166</b>	<b>513</b>	<b>3,300</b>

*Subject to rounding errors*

\*\*Coach numbers are given in passenger numbers. Up to 50 passengers can be accommodated in one coach.

- 8.4.2. Outside of school term-time, the total number of tickets sold will remain the same at 3,300, with the 3,000 visitor scenario also being assessed. The 513 school trips will be reallocated to General Admission for robustness. The 166 visitors assigned to Special Interest Groups remains unchanged. In the event of a greater number of Special Interest Groups visiting outside school term-time, the number of trips by public transport or by coach would be no greater than those assessed in other scenarios.
- 8.4.3. **Tables 6 and 7** show the trips generated outside of school term-time for 3,000 and 3,300 daily trips, respectively.

**Table 6 - 3,000 Daily Visitor Trips on a weekday outside school term-time**

Mode	General Admission	Special Interest Groups	TOTAL
On foot (only)	1,899	0	1,899
Public Transport	899	83	982
Cycle	2	0	2
Car (blue badge)	28	0	28
Taxi	6	0	6
Coach	0	83	83
<b>Total</b>	<b>2,834</b>	<b>166</b>	<b>3,000</b>

**Table 7 - 3,300 Daily Visitor Trips on a weekday outside school term-time**

Mode	General Admission	Special Interest Groups	TOTAL
On foot (only)	2,100	0	2,100
Public Transport	994	83	1,077
Cycle	3	0	3
Car (blue badge)	31	0	31
Taxi	6	0	6
Coach	0	83	83
<b>Total</b>	<b>3,134</b>	<b>166</b>	<b>3,300</b>

8.4.4. The tables above demonstrate that the majority of visitors are expected to be existing trips on the pedestrian network who divert to the Memorial. Of the remainder, the majority will travel by public transport and only blue badge holders are expected to travel by car. It could be assumed that two visitors would travel in each car and therefore a maximum of 15 car trips in each direction would be generated on the busiest day.

## HOURLY PROFILE

8.4.5. In order to assess the trip generation across the course of a day, a number of considerations have been made. It has been assumed that all school coaches would arrive between 10:00-15:00 in order to allow sufficient time for a one-hour visit, departing between 11:00-16:00 so as to avail of the coach bay. School parties from within London, travelling by public transport, and therefore not

constrained by the hours of operation of the coach bay, will be distributed between 09:30-16:30 to allow for a one-hour visit.

- 8.4.6. The same assumptions have been applied to Special Interest Groups: coaches will arrive between 10:00-15:00, while groups travelling by public transport will arrive between 09:30-16:30.
- 8.4.7. Special Interest Groups are assumed to arrive at an evenly throughout the day by public transport, with coaches not arriving or departing during the hours of operation of the bus lane (i.e. arriving only between 10:00-16:00). It can be reasonably assumed that pre-booked groups travelling by coach would only book tickets at times when they can conveniently drop off or pick up visitors.
- 8.4.8. General Admission visitors will take up the remaining tickets in each hour throughout the day. None of these arrivals are constrained by the hours of operation of the coach bay and thus all of them will arrive between 09:30-16:30.
- 8.4.9. **Table 8** sets out the visitor arrivals anticipated during any given hour between 10:00-15:00 during school term-time. **Table 9** shows the figures in an hour between 10:00-15:00 outside of term-time. For robustness both tables consider a scenario with 3,300 visitors.

**Table 8 - Hourly Visitor Entries between 10:00-11:00 on a weekday during school term-time (3,300 scenario)**

Mode	General Admission	Special Interest Groups	School Groups	TOTAL
On foot (only)	195	0	0	195
Public Transport	92	10	13	115
Cycle	0	0	0	0
Car (blue badge)	3	0	0	3
Taxi	1	0	0	1
Coach	0	17	82	99
<b>Total</b>	<b>291</b>	<b>27</b>	<b>95</b>	<b>413</b>

**Table 9 - Hourly Visitor Entries between 10:00-11:00 on a weekday outside school term-time (3,300 scenario)**

Mode	General Admission	Special Interest Groups	School Groups	TOTAL
On foot (only)	258	0	0	258
Public Transport	122	10	0	132
Cycle	0	0	0	0
Car (blue badge)	4	0	0	4
Taxi	1	0	0	1
Coach	0	17	0	17
<b>Total</b>	<b>385</b>	<b>27</b>	<b>0</b>	<b>413</b>

- 8.4.10. As set out above, it is expected that school coach group arrivals would be spread evenly throughout the day given that visitors from outside London may visit more than one attraction in the capital and that coaches would arrive and depart throughout the day due to the time restrictions on the coach bay.
- 8.4.11. For robustness, a further scenario is considered whereby all school coach groups arrive between 10:00-12:00, due to spending the whole day in Westminster. Coaches would still only use the coach bay to drop off groups before parking off-site and returning later in the day to collect passengers before 16:00.
- 8.4.12. **Table 10** shows the hourly visitor arrivals between 10:00-11:00 on a weekday during school term-time if all school coaches arrive between 10:00-12:00. As this scenario is being presented for robustness, the figures assume 3,300 daily visitors and also assume that Special Interest coach groups also arrive across the whole day during coach bay operating hours. **Table 10** therefore represents the maximum number of coach visitors who would arrive in any one hour; the actual number is likely to be much lower.

**Table 10 - Hourly Visitor Entries between 10:00-11:00 on a weekday during school term-time (3,300 scenario with all school coaches arriving before noon)**

<b>Mode</b>	<b>General Admission</b>	<b>Special Interest Groups</b>	<b>School Groups</b>	<b>TOTAL</b>
On foot (only)	113	0	0	<b>113</b>
Public Transport	53	10	13	<b>76</b>
Cycle	0	0	0	<b>0</b>
Car (blue badge)	2	0	0	<b>2</b>
Taxi	0	0	0	<b>0</b>
Coach	0	17	205	<b>222</b>
<b>Total</b>	<b>168</b>	<b>27</b>	<b>218</b>	<b>413</b>

- 8.4.13. Group visits to the Memorial are assumed to have a duration of one hour. It is likely that school groups from outside London would take the opportunity to visit multiple attractions in the capital. Given the proposed time limits on use of the coach drop-off bay (waiting is only permitted for the time required to load or unload passengers, with all other waiting or parking prohibited), school groups visiting in the afternoon would depart by 16:00 is travelling by coach.
- 8.4.14. As set out above, the trip generation distinguishes between existing visitors to other attractions in the local area (who are expected to walk to the Memorial as part of their day trip, and are represented by the 'On foot (only)' category) and new trips, most of which are expected to be by public transport. With the exception of those visitors arriving on bus routes 3 and 87 which stop directly outside the Memorial, public transport users would also constitute pedestrian trips on the local pedestrian network (principally to and from Parliament Square) and thus the top two lines will be combined for the purposes of pedestrian impact assessment.
- 8.4.15. The methodology takes a robust approach in assuming that general admission and special interest groups will be spread evenly across all days of the week. On weekdays there is greater existing demand for coach bays in the vicinity of Millbank due to the aforementioned commuter coaches which start and terminate their journeys in Westminster; patronage on the public transport network is also higher. Consequently if general admission visitors are in fact more likely to visit on Saturdays and Sundays where existing transport demand is lower, the development would result in a lesser impact.

## 8.5. ADDITIONAL VISITORS TO VICTORIA TOWER GARDENS

- 8.5.1. Supplementary to the visitors entering the UKHMLC, additional visitors are expected to enter Victoria Tower Gardens to view the Holocaust Memorial from the outside without entering it.
- 8.5.2. Given that access to Victoria Tower Gardens would remain free and unrestricted, visitor numbers to the gardens will relate to existing footfall plus future demand for viewing the Holocaust Memorial without entering it. Projections of the gardens footfall will inevitably have a much greater range than visitor numbers for the Holocaust Memorial itself since the former has completely unrestricted entry.
- 8.5.3. The number of visitors to the gardens is expected to be much lower than the current footfall of nearby public open spaces such as Parliament Square, since only a portion of Westminster pedestrians are tourists and not all of these will choose to also view the Holocaust Memorial.
- 8.5.4. The flow of tourists in and out of the gardens will also vary throughout the day in line with tourist behaviour, as opposed to visitors to the UKHMLC itself who will be spread evenly throughout the day, given that the same number of tickets are available in each hour.
- 8.5.5. As set out in section 8.2, it is anticipated that the UKHMLC will draw approximately two thirds of its general admission visitors from the existing footfall in Parliament Square, with the remaining one third being new trips to the area with the primary purpose of entering the UKHMLC. It is assumed that all visitors whose primary trip purpose is to visit the UKHMLC would choose to enter it (i.e. would be counted within the 3,300 daily ticketed entries), and thus all additional visitors to Victoria Tower Gardens will be assumed to be existing pedestrians on the network who make a detour to view the UKHMLC from the exterior.
- 8.5.6. It will be assumed that new visitors to Victoria Tower Gardens will be pass-by trips on foot and will therefore be distributed on the pedestrian network. These will all be treated as existing trips on the wider pedestrian network, and the UKHMLC is not anticipated to add new trips to the footways beyond Millbank and Abingdon Street since Parliament Square is the principal access point to the area (via Westminster Underground station) and also the site of major attractions such as Westminster Abbey and the Houses of Parliament.
- 8.5.7. In order to estimate the number of additional visitors to the gardens, a shortlist of sites has been drawn up which share certain characteristics in common with Victoria Tower Gardens. In particular, sites have been selected for which external footfall can be estimated, albeit with a large margin for error where – as in the case of Victoria Tower Gardens – access to the external areas is free and uncontrolled.
- 8.5.8. Sites for comparison should satisfy one or more of these criteria:
- Be located within a major city, in an area with daily footfall in the millions;
  - Have an element of paid or restricted entry as well as a significant amount of publicly accessible and viewable space;
  - Offer a visual appeal which would justify a visit without necessarily entering the interior;
  - Offer a cultural appeal which would encourage many of those who have travelled to the site to visit the interior and not just observe the exterior;
  - Be of commemorative or historical significance.

- 8.5.9. The aim of this comparison is to estimate the number of people, in addition to the 3,300 daily ticketed visitors, who are expected to view the UKHMLC from within Victoria Tower Gardens without entering it.
- 8.5.10. The following sites have been considered for comparison with the proposed UKHMLC and its situation within Victoria Tower Gardens:
- **Berlin – Memorial to the Murdered Jews of Europe:**
    - Central location with high footfall, close to Brandenburg Gate;
    - Memorial to the Holocaust;
    - A large immersive outdoor space with unrestricted free access, plus an Information Centre which is free but has a limited capacity.
  - **Washington DC – United States Holocaust Memorial Museum:**
    - Central location with high footfall, on the National Mall;
    - Memorial to the Holocaust;
    - Entry charge only for the Permanent Exhibition during summer to manage demand, with free access during winter as well as to the rest of the Museum at all times.
  - **Washington DC – National Museum of African American History and Culture:**
    - Central location with high footfall, on the National Mall;
    - Free entry with timed tickets;
    - Visually significant from the exterior.
  - **New York – 9/11 Memorial and Museum:**
    - Central location with high footfall, in Lower Manhattan;
    - Free entry to the Memorial, with paid entry to the Museum;
    - Visually significant from the exterior.
  - **Paris – Mémorial de la Shoah:**
    - Central location, on the Right Bank;
    - Memorial to the Holocaust;
    - Free entry.
  - **London – Cutty Sark, Greenwich:**
    - High exterior footfall;
    - Visually significant from the exterior.
  - **London – National Maritime Museum, Greenwich:**
    - High exterior footfall;
    - Visually significant from the exterior;
    - Free entry.
  - **London – Tower of London:**
    - High exterior footfall;
    - Visually significant from the exterior.

- 8.5.11. It is anticipated that the additional visitors to the gardens intending to view the UKHMLC from the exterior will be existing pedestrians on the surrounding network of footways; given that viewing the UKHMLC constitutes a leisure activity, it can be assumed that these trips would be an extension of tourists' visits to other nearby attractions in Westminster. It is therefore helpful to consider comparator sites whose visitor numbers are influenced by the presence of other nearby attractions, leading to tourists visiting multiple attractions consecutively.
- 8.5.12. Twelve of Smithsonian Institution museums in Washington DC are located along the National Mall, which receives a total of 25 million visitors per year<sup>14</sup>. Individual visitor numbers are also available for each museum, with the National Museum of American History and Culture (which is free to enter) receiving 3.8 million visitors in 2017<sup>15</sup>. Around a quarter of the visitors to the National Mall entered the National Air and Space Museum, the most visited of the Smithsonian group<sup>16</sup>. It can therefore be seen that only 15% of visitors to the surrounding area entered the National Museum of American History and Culture.
- 8.5.13. Two key points arise from these statistics. Firstly, it is reasonable to assume that the number of visitors to individual attractions increases as a result not only of surrounding footfall (which represents the potential catchment) but also surrounding attractions, leading to a compounding of attractiveness. This can be observed in Washington where the National Mall is in itself a landmark and also provides a dozen individual museums to enter, increasing the likelihood of a tourist attracted by one museum choosing to add other museums to their itinerary. Secondly, in 2017 a total of 23.24 people visited the twelve Smithsonian museums on Washington Mall, less than the total footfall along it. It is likely that many pedestrians did not enter any museums, with others entering multiple attractions for the reasons set out above.
- 8.5.14. This information is relevant to the proposed UK Holocaust Memorial because it suggests that, even in a high-footfall location which houses multiple attractions, the number of annual entries is less than the annual pedestrian flow. Furthermore, the National Mall is not a pedestrian thoroughfare in the same way as Parliament Square in Westminster is: the latter's pedestrian counts include a large number of commuters. Consequently the number of additional visitors to Victoria Tower Gardens is expected to be significantly lower than the current Parliament Square footfall given that any individual attraction only draws a minority of the total number of tourists present in its environs.
- 8.5.15. The Cutty Sark and National Maritime Museum in Greenwich are both run by Royal Museums Greenwich, whose total visitor numbers (including the Queens House and the Royal Observatory) total 2.45 million per year<sup>17</sup>. Like the UKHMLC, there are a number of visitor attractions in close proximity to one another and, whilst not located in central London, Greenwich is nevertheless a

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<sup>14</sup> <https://www.nps.gov/nationalmallplan/Documents/Media/NAMA%20Fact%20Sheet.pdf> – accessed 6/11/18

<sup>15</sup> <https://www.statista.com/statistics/258338/visits-to-smithsonian-museums-und-institutions/> - accessed 6/11/18

<sup>16</sup> Ibid

<sup>17</sup> Royal Museums Greenwich Annual Report 2016-7

popular destination for tourists and arguably the heritage destination most comparable to Westminster in another part of London.

- 8.5.16. The average daily visitor numbers to the combined Royal Museums Greenwich would equate to approximately 6,700, however these vary between the four sites: the Cutty Sark is the most visually iconic of the four but also carries an entry charge, while the National Maritime Museum is the largest and the Royal Observatory is popular as a viewpoint as well as an attraction in its own right. The visitor numbers to the combined Royal Museums on a busy day could be expected to be double the daily average; exact numbers are not available as most visitors will not purchase tickets for entry.
- 8.5.17. The Tower of London is the UK's most visited paid attraction, with over 2.8 million visitors in 2017. It also draws a high external footfall but much of this is linked to Tower Bridge, the most iconic Thames crossing. The average number of internal visitors to the Tower of London 7,789 per day, but the additional external visitors are not expected to be disproportionately significant compared to the internal numbers, despite the paid entry. The Tower of London's internal exhibits are particularly popular among foreign tourists with an interest in the history of the monarchy, and the site is located on the edge of Central London; most visitors travelling there can be expected to visit the Tower internally, and thus the additional external trips might constitute an extra 50% uplift.
- 8.5.18. The subject of the UKHMLC means that a number of worldwide Holocaust memorials can also be studied for comparison. The Memorial to the Murdered Jews of Europe in Berlin was visited by an estimated 10,000 people a day during its first year of opening<sup>19</sup>. The concrete stelae at ground level are freely accessible 24 hours a day and, due to the lack of entry controls, counting visitor numbers is difficult. The basement Information Centre is a closed space and the statistics for 2017 recorded 470,000 visitors, a figure which has remained almost constant since 2006, the first full year of opening<sup>20</sup>. The total estimated footfall at ground level is therefore higher than the number of visitors to the Information Centre.
- 8.5.19. The US Holocaust Memorial in Washington DC has been visited by 43 million people since it opened in 1993, equating to an average of 1.7 million visitors a year. It is located close to the National Mall and, like the proposed UKHMLC, will comprise a combination of passing footfall and bespoke trips.
- 8.5.20. The Mémorial de la Shoah in Paris draws 188,000 visitors per year<sup>21</sup>. Whilst it is centrally located in a capital city, the site is principally an internal memorial and does not have a significant external visual appeal compared to the proposed London memorial. This makes the Paris memorial a less directly comparable site.

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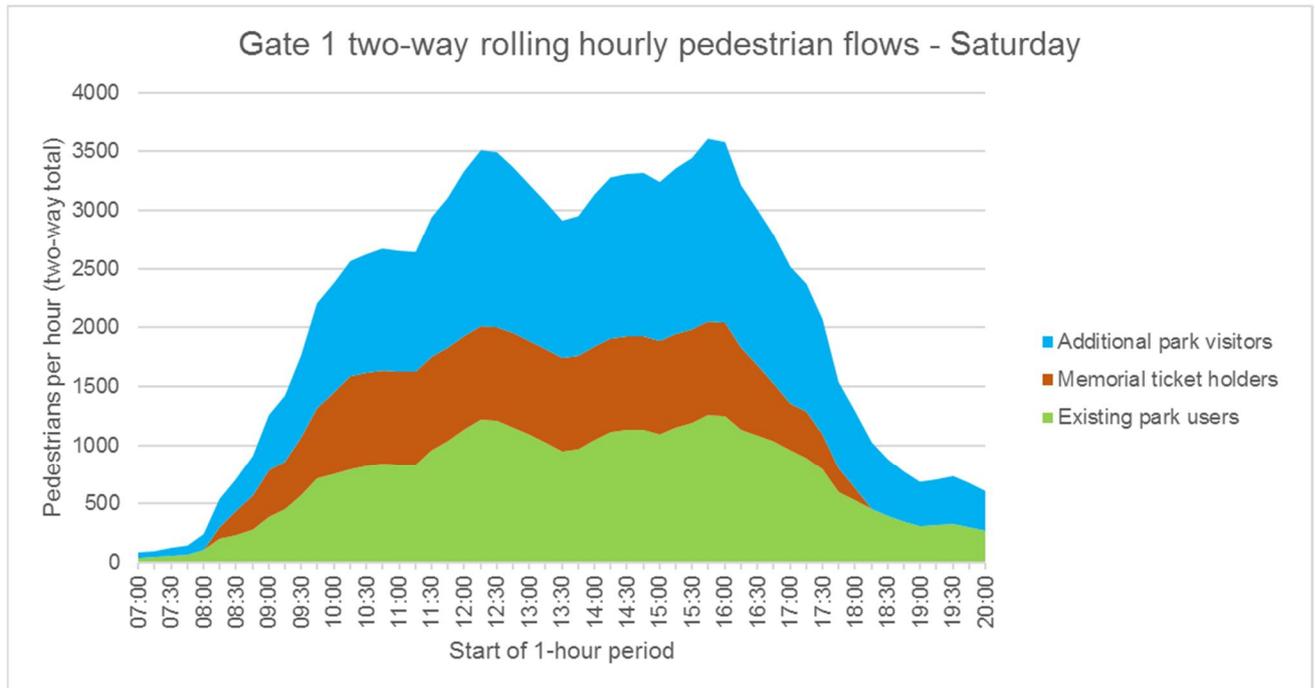
<sup>19</sup> <http://www.touristberlin.com/berlin-holocaust-memorial/> - accessed 6/11/18

<sup>20</sup> <https://www.stiftung-denkmal.de/en/memorials/the-memorial-to-the-murdered-jews-of-europe/numbers-of-visitors.html> - accessed 6/11/18

<sup>21</sup> Mémorial de la Shoah Annual Report 2016

- 8.5.21. Having researched a number of comparator sites, it is considered that the Berlin memorial represents the best proxy for estimating the trip generation of the UKHMLC, not just due to its subject matter but also due to several common characteristics between the two sites:
- Like the proposed UKHMLC, the Berlin site is on a major thoroughfare close to the Brandenburg Gate, arguably the city's most iconic attraction and comparable to the Houses of Parliament;
  - Neither site is directly visible from the nearby iconic attraction, leading to visitors walking a short distance along the thoroughfare in order to view the Memorial;
  - A basement information centre complements the outdoor structure;
  - Projected annual visitor numbers to the UKHMLC are of a comparable order of magnitude to Berlin.
- 8.5.22. It is therefore projected that an additional 10,000 visitors per day will enter the gardens once the National Holocaust Memorial is open. This is very much a robust scenario, especially when compared to the US Holocaust Memorial Museum whose average daily visitor numbers are less than half this figure. The Tower of London is visited by an average of 7,789 internal visitors per day and, if an allowance were to be made for an additional 50% external footfall, the forecast for the Memorial is close to this comparator from London as well as the example of Berlin.
- 8.5.23. Of the projected 10,000 daily visitors, 3,300 will be ticketed visitors to the UKHMLC and the remaining 6,700 will view it from the exterior. It is assumed that ticketed visitors will enter the gardens 15 to 30 minutes before their allotted slot in order to allow time to walk to the UKHMLC entrance. For robustness it is assumed that all of the existing users of the gardens will also be present in future.
- 8.5.24. The 3,300 daily ticketed visitors will be distributed evenly across the UKHMLC's opening hours, with visitors assumed to arrive in the gardens 15 and 30 minutes before their entry slot. The 6,700 additional visitors to the gardens will be spread across the whole day using the temporal distribution of the existing footfall on Abingdon Street alongside the Houses of Parliament, which can be taken as the best proxy for patterns of tourist footfall in this part of Westminster. This temporal distribution also closely matches that of the entries and exits through Gate 1 of the gardens
- 8.5.25. For robustness the ticketed visitors arriving by public transport (a maximum of 3,177 per day) are all assumed to enter and exit the gardens via Gate 1. Furthermore, 90% of the additional visitors to the gardens (6,030 out of 6,700) are also assumed to enter and exit via Gate 1 as this is the closest to the public transport stops and visitor attractions on Parliament Square; the analysis of existing footfall indicates that only 59% of current visitors to the gardens enter and exit via Gate 1 on a typical Saturday, and therefore 90% is very much a robust scenario.
- 8.5.26. **Figure 16** shows the hourly rolling two-way pedestrian flow through Gate 1 on a Saturday, the busiest day.

**Figure 16 - Hourly rolling two-way pedestrian flow through Gate 1**



8.5.27. As Figure 16 shows, the pedestrian flow through Gate 1 does not exceed 3,607 people per hour, equivalent to one entry or exit per second. Furthermore these movements are balanced such that, in the busiest hour, no more than 1,807 pedestrian movements are occurring in one direction.

## 8.6. STAFF TRIP GENERATION AND MODE SPLIT

- 8.6.1. The UKHMLC is anticipated to employ approximately 20 staff members, which is considered a small number relative to the number of visitors (as visits will be largely self-guided, given the immersive nature of the Memorial design).
- 8.6.2. No on-site car parking is proposed and the site is served by excellent public transport links, it is anticipated that all staff will travel by public transport and their impact on the network will be negligible.
- 8.6.3. In the event of an employee being a disabled motorist, they would be eligible to apply for a blue badge parking permit to use one of the existing bays a short distance from the site. It is noted that Westminster Underground station and the bus services stopping on Millbank are wheelchair accessible, and there is therefore excellent provision for disabled staff members to travel to and from work by public transport.

## 8.7. SERVICING TRIP GENERATION

- 8.7.1. Servicing demand is based upon the requirements of the café and, separately, the Holocaust Memorial and Learning Centre.
- 8.7.2. A Waste Management Plan is being submitted, which will be developed as further details regarding the project become available. The principal guidance documents which will be consulted are

Westminster City Council's Recycling and Waste Storage Requirements (2017-2018) and British Standard BS5906:2005 – Waste Management in Buildings – Code of Practice. Individual waste and recycling requirements will be calculated for each of the waste-generating sources (namely the WCs, flexible meeting, offices and café) to which the appropriate standards for those use classes will be applied within the two sources listed above.

- 8.7.3. Initial contacts have been made with the WCC team relating to waste storage volume requirements for the UKHMLC based on indicative floor areas. Further details are provided in the Waste Management Plan. This will be refined and further tested with WCC as the design and waste management strategy evolves, as well as following the appointment of an operator for the café.
- 8.7.4. The most robust assessment is that waste would be collected daily from the site, generating one vehicle trip. In practice this would be a pass-by trip in that Millbank is already used by existing private waste collection vehicles servicing nearby buildings, as well as Royal Parks waste collection with which the UKHMLC's waste collection could possibly be combined.
- 8.7.5. The café is relatively small and could be expected to generate one LGV servicing trip per week. There is an existing café in the gardens and therefore this would not be a new vehicle trip on the road network.
- 8.7.6. The servicing requirements of the UKHMLC besides waste are expected to be negligible due to the limited floorspace; back-of-house functions will be limited to staff welfare and day-to-day admin, with more strategic administration taking place off-site. The principal form of servicing trip is anticipated to be occasional HGV deliveries at times when temporary exhibitions are being installed and uninstalled, which could generate around 20 HGV trips per year.

## 9. TRANSPORT IMPACT ASSESSMENT

### 9.1. INTRODUCTION

9.1.1. This section assesses the impacts of the trips generated by the proposed development, and sets out the measures proposed to mitigate the impacts.

### 9.2. PEDESTRIANS

9.2.1. The number of people within Victoria Tower Gardens will increase as a result of additional visitors to view the UKHMLC from the exterior plus the passage of ticket holders walking to the Memorial entrance.

9.2.2. **Figure 17** shows the number of people who are projected to be in the gardens at any given time compared to the existing situation.

**Figure 17 – Existing and future pedestrian numbers inside Victoria Tower Gardens**



9.2.3. While the number of pedestrians inside the gardens will increase to a maximum of 1,269 people at any one time, there is still ample space for all users of the gardens to circulate.

9.2.4. While the majority of visitors are anticipated to be already on the wider pedestrian network (in particular visiting the Houses of Parliament or Westminster Abbey), the presence of the UKHMLC will generate a localised increase in footfall along the eastern footway on Millbank.

9.2.5. It is considered that the proposed scheme design mitigates pedestrian impacts along this footway in several ways:

- The majority of visitors will approach from the north and can access the UKHMLC by entering Victoria Embankment Gardens via Gate 1, which is likely to represent a more attractive option given the view of the Thames;
- The new visitor cycle parking is proposed to be located along the western footway on Millbank in order to minimise obstruction of the eastern footway. The cycle parking is located opposite the UKHMLC and can be easily accessed using Gate 3 and the zebra crossing;
- Visitors arriving by coach or using the blue badge bays can use Gates 3 or 4;
- Visitors approaching from the south or east can enter via Gates 4 or 5.

- 9.2.6. Consequently the site layout encourages pedestrians to make full use of all the site entrances, with the result that negative impacts on the pedestrian network are minimised.
- 9.2.7. There are a number of formal and informal pedestrian crossing points along Millbank as illustrated in Figure 12. The majority of pedestrians entering the UKHMLC or viewing it within the gardens will access Victoria Tower Gardens via Gate 1 and will therefore not walk along the eastern footway of Millbank. Furthermore, the number of additional pedestrians crossing the road at the crossing points in Figure 12 is expected to be significantly lower than the footfall along Millbank given that the coach parking is situated along the eastern kerbside and there are no major trip attractors in the area west of Millbank.
- 9.2.8. Formal Crossings 2, 3 and 4 are likely to be the most used amongst the small residual number of visitors to the UKHMLC who will walk along the western footway of Millbank. These crossings connect Gates 3 and 4 to the western side of Millbank which accommodates the visitor cycle parking and bus stop NK which is served by routes 3 and 87 towards Trafalgar Square. Crossing 2 is located immediately south of Dean Stanley Street while Crossings 3 and 4 (across the northbound and southbound lanes respectively) are located immediately north of the Horseferry Road roundabout.
- 9.2.9. A most robust assessment of pedestrian demand using these crossings assumes that the following visitors to the UKHMLC will use them:
- Blue badge holders, robustly assuming they will all drop off along the western kerbside or park along streets west of Millbank. In practice many may be dropped off along the eastern kerbside;
  - Cyclists parking on the western pavement;
  - 25% of the pedestrians travelling to and from locations south of the UKHMLC (i.e. not to and from Parliament Square). It is considered likely that 50% would walk along the eastern footway of Millbank and Horseferry Road as this is a more appealing walking route towards the Tate than the western kerbside, as the latter does not offer the same view of the river. 25% would cross Lambeth Bridge and therefore would not use these crossings;
  - 5% of visitors arriving by public transport, alighting or boarding buses 3 or 87 at stop NK. The vast majority of public transport users are expected to use Westminster station and would therefore not cross Millbank.
- 9.2.10. Of the pedestrians using the crossings, 50% will be allocated to Crossing 2 and 50% to Crossings 3 and 4 (using both in succession). Cyclists would be likely to use the crossing most convenient for the cycle racks they have used.
- 9.2.11. During the busiest one-hour period, it is estimated that a total of 18 people would cross Millbank in each direction using Crossing 2, with the same number using Crossings 3 and 4. This would equate to less than one additional person per minute using each crossing. Given that existing crossing

demand is up to 500 people per hour, the additional crossing events generated by the UKHMLC would have a negligible impact on traffic flow. Whilst the number of additional crossing events may appear low in comparison to the overall trip generation of the UKHMLC, it should be borne in mind that the vast majority of visitors will travel to and from Parliament Square and thus will use neither the eastern Millbank footway south of Gate 1 nor any of the pedestrian crossings along it.

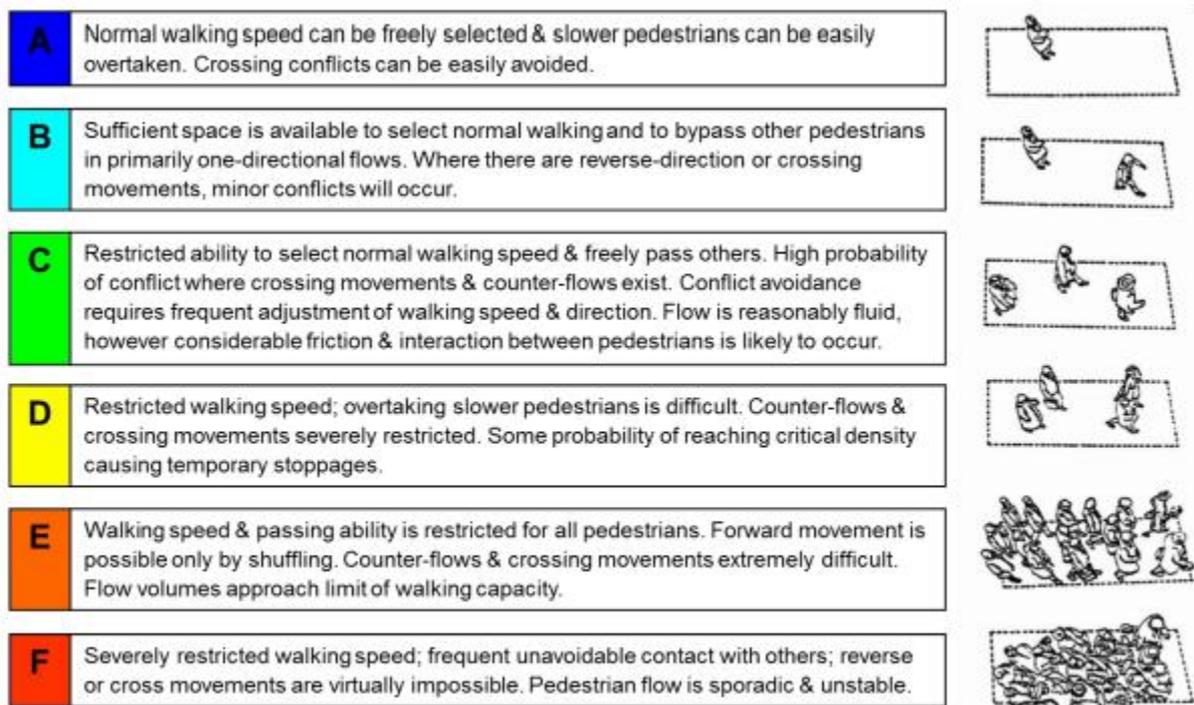
- 9.2.12. A Pedestrian Comfort Level (PCL) calculation has been undertaken to compare the existing and proposed PCLs along key sections of footway. PCL calculations measure the level of pedestrian comfort based on the peak hourly two-way footfall and the effective footway width, taking into consideration obstructions such as street furniture as well as a buffer zone from the edge of the kerb.
- 9.2.13. PCL calculations have been undertaken for a weekday and a Saturday for the following locations:
- Abingdon Street eastern footway north of Gate 1: retention of current width including the constraint of the hostile vehicle mitigation barrier;
  - Abingdon Street eastern footway north of Gate 1: with additional width gained by reconfiguration of the hostile vehicle mitigation barrier;
  - Gate 1;
  - Millbank immediately south of Gate 3 (section of footway used by visitors travelling by coach, cycle, car and taxi);
  - Millbank south of Gate 4 (section of footway used by visitors approaching from the south).
- 9.2.14. The two study periods which are being considered are a weekday PM peak, when UKHMLC visitors may coincide with commuters, and a Saturday daytime peak when visitor numbers are expected to be at their highest.
- 9.2.15. **Table 11** shows the PCL at each location during the weekday and Saturday peak periods.

**Table 11 – Pedestrian Comfort Level (PCL) comparison of existing and future scenarios**

Section of Abingdon Street / Millbank Footway	Effective Width (metres)	Existing Weekday PM flow (pph)	Existing Weekday PCL	Future Weekday PM flow (pph)	Future Weekday PM PCL	Existing Saturday flow (pph)	Existing Saturday PCL	Future Saturday flow (pph)	Future Saturday PCL
North of Gate 1 (current layout)	1.9	2823	C+	4725	C+	1525	B	4229	C+
North of Gate 1 (revised layout)	8.05	2823	A	4725	B+	1525	A	4229	A-
Gate 1	4.12	776	A	3110	B	1259	A	3607	B
South of Gate 3	2.8	395	A+	601	A	214	A+	420	A+
South of Gate 4	1.8	482	A	544	A	292	A+	354	A

- 9.2.16. As shown in Table 11 above, the footway immediately north of Gate 1 is already at the lowest level of pedestrian comfort (C+) during the weekday peak, as a result of the narrowed footway due to the presence of the hostile vehicle mitigation barrier. A minor relocation of this would lead to a significant improvement in PCL, attaining B+ on a weekday and A- on Saturday. Discussions with the relevant authorities will explore options for a minor modification to the hostile vehicle mitigation barrier at this location.
- 9.2.17. Whilst PCL is based upon pedestrian movement through a constrained location (such as a gate or a narrowing along the footway), ease of pedestrian movement within a larger space can be categorised using Fruin’s Levels of Service, a six-point scale illustrated in **Figure 18**.

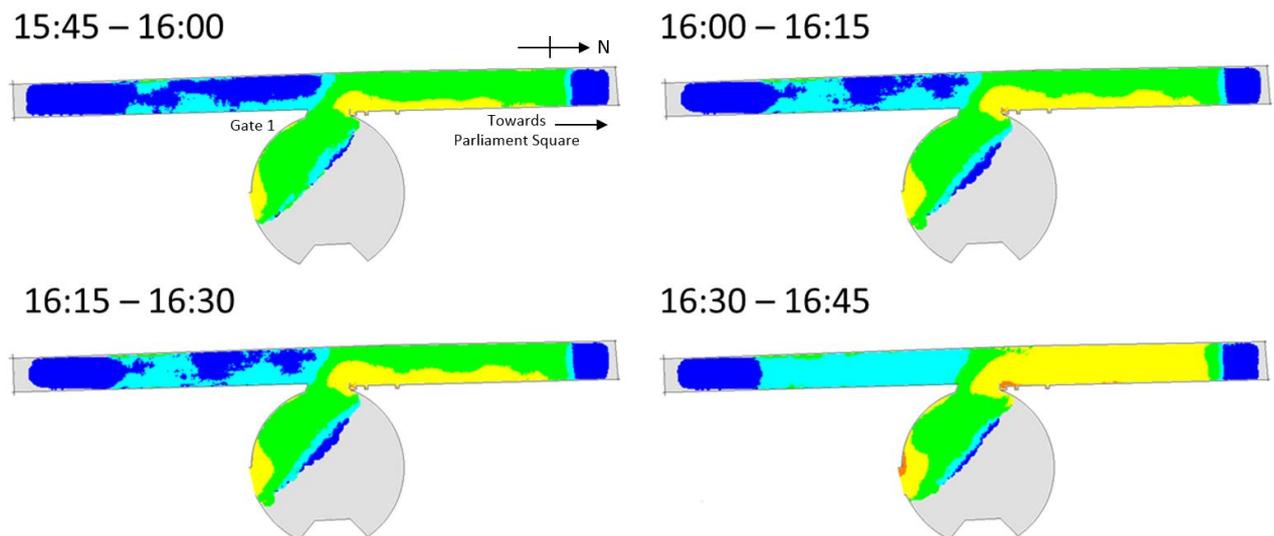
**Figure 18 – Fruin’s Levels of Service**



Source: Pedestrian Planning and Design, John J. Fruin, 1987

- 9.2.18. A Fruin Level of Service (LoS) modelling exercise of the northern end of the park, including the area around Gate 1 which will have the highest footfall, has been undertaken for the Saturday peak hour when pedestrian numbers are projected to be at their highest. The modelling is further broken down into 15 minute segments to provide even greater detail.
- 9.2.19. Figure 19 below shows the results. 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 periods.

**Figure 19 – Fruin Level of Service analysis of Gate 1 at peak**



- 9.2.20. As shown in Figure 19, Gate 1 has sufficient capacity to accommodate pedestrian flows even at the busiest times.
- 9.2.21. It is understood that consideration is being given to the pedestrianisation of Abingdon Street and the northern part of Millbank (as far south as Great Peter Street); a second option is to pedestrianise the entirety of both roads as far south as Horseferry Road.
- 9.2.22. The first proposal would not significantly impact upon the proposed development, as the vehicular trip generation is minimal and coaches would still be able to access the potential coach bay on Millbank; servicing vehicles too would be able to enter the site. Furthermore, it is likely that the existing bus stops would be removed as the routes would be expected to be diverted, thereby freeing up kerbside space for servicing and blue badge parking.
- 9.2.23. In the case of a full pedestrianisation as far south as Horseferry Road, alternative servicing arrangements would need to be sought. The number of servicing trips generated by the site is anticipated to be low, and the distance from nearby roads (for example Dean Stanley Street) is low, so it may be possible to service using nearby on-street space. Discussions will take place with WCC and TfL in the event that these proposals are progressed.

### 9.3. CYCLISTS

- 9.3.1. The mode split section indicates that cyclists form a minority of visitors to the UKHMLC. As shown in the trip generation tables, an estimated 3 additional cyclists will be added to the network during the peak daily scenario.
- 9.3.2. It is considered that the proposed scheme design mitigates cycle impacts in the area by providing more visitor parking spaces (34) than the anticipated maximum number of daily cycle visitors (3). This will also benefit other cyclists not travelling specifically to visit the UKHMLC by providing additional capacity at existing cycle parking locations on Millbank.
- 9.3.3. The existing bus lane will be safeguarded by retaining its restrictions between 07:00-10:00 and 16:00-19:00 on weekdays, which are the peak times for commuter cycling.

- 9.3.4. Given that the majority of visitors to the UKHMLC are expected to be tourists, many of whom will be from outside London, the site's proximity to several Santander Cycle Hire docking stations also encourages additional visits by bicycle. The Travel Plan will further encourage travel to and from the UKHMLC by bicycle.

## 9.4. PUBLIC TRANSPORT

- 9.4.1. As described in Chapter 4, Westminster underground station is served by up to 113 trains per hour, and the bus stops on Millbank are served by up to 37 buses per hour.
- 9.4.2. The 132 maximum hourly arrivals to the UKHMLC by public transport (Table 9) will have a negligible loading impact on any single public transport service, further mitigated by the fact that visitor patterns will not overlap with existing commuter peak periods.

## 9.5. COACHES

- 9.5.1. Coach visitors to the UKHMLC will be accommodated using the coach bay provided alongside the gardens. It is envisaged that the bay will be subject to a 'loading only' restriction which only allows coaches to remain stationary for the time required for loading or unloading.
- 9.5.2. As discussed above, the trip generation anticipates up to 11 coaches per day serving the UKHMLC. For robustness it will be assumed that all coaches arrive between 10:00-12:00 and depart between 14:00-16:00. Loading is the most onerous scenario, since it typically takes longer (up to 15 minutes) than unloading (5 minutes). Provision of a 30m coach bay will allow up to eight coaches per hour to load, and thus the proposed bay is of a sufficient size to accommodate the UKHMLC's coach trip generation, whilst also being subject to sufficiently restrictive time limits as to deter other coaches from using the bay for unauthorised waiting.
- 9.5.3. As described in TfL's guidance document *Operating Coaches in London*, the closest coach parking to the UKHMLC site is on Horseferry Road, providing a maximum of two hours of parking. There are three bays in this location operating between 08:30-23:59 (no overnight parking) and is chargeable between 08:30-18:30 from Monday to Friday. Atkins survey data indicates that the bay has a high occupancy rate, used mainly by commuter coaches setting off towards Kent. Given the estimated 22 coach movements (11 drops and 11 pick ups) daily, it is important to identify feasible parking further afield where coaches can park throughout the duration of their passengers' stay. The following additional coach parking has been identified:
- Millbank South (three bays) – operating between 08:30-23:59 (no overnight parking) providing a maximum of 4 hours of parking; and
  - Albert Embankment North (nine bays) – operating between 10:00-16:00 and 20:00-07:00, providing a maximum of one hour parking, no returns within two hours.
- 9.5.4. The Travel Plan will set out the hard and soft measures which will be used to minimise the impacts of coaches dropping off and picking up visitors, as well as the ways in which appropriate off-site parking locations will be communicated to operators and drivers well in advance of their visit to the UKHMLC.

- 9.5.5. A Coach Parking Management Strategy has also been produced, summarising the measures proposed to manage coaches parking away from the UKHMLC between the times when they drop off and pick up visitors. This document is appended as Appendix C.

## **9.6. SERVICING**

- 9.6.1. The majority of the site's servicing requirements are anticipated to be accommodated on-site using the servicing space provided adjacent to the bin store.
- 9.6.2. This will be complemented by use of the new on-street servicing bay between 10:00 and 16:00.
- 9.6.3. The impact assessment will review the Atkins survey findings to establish the existing level of servicing demand along Millbank, and is expected to demonstrate that the UKHMLC's servicing demands can be accommodated by the development proposals without leading to additional trips being attracted by the new on-street bay.
- 9.6.4. A Waste Management Plan is being produced, setting out the means by which waste will be managed within the site and collected. Refuse collection will take place on-site outside of the UKHMLC's hours of operation.

## **9.7. TRAFFIC FLOW**

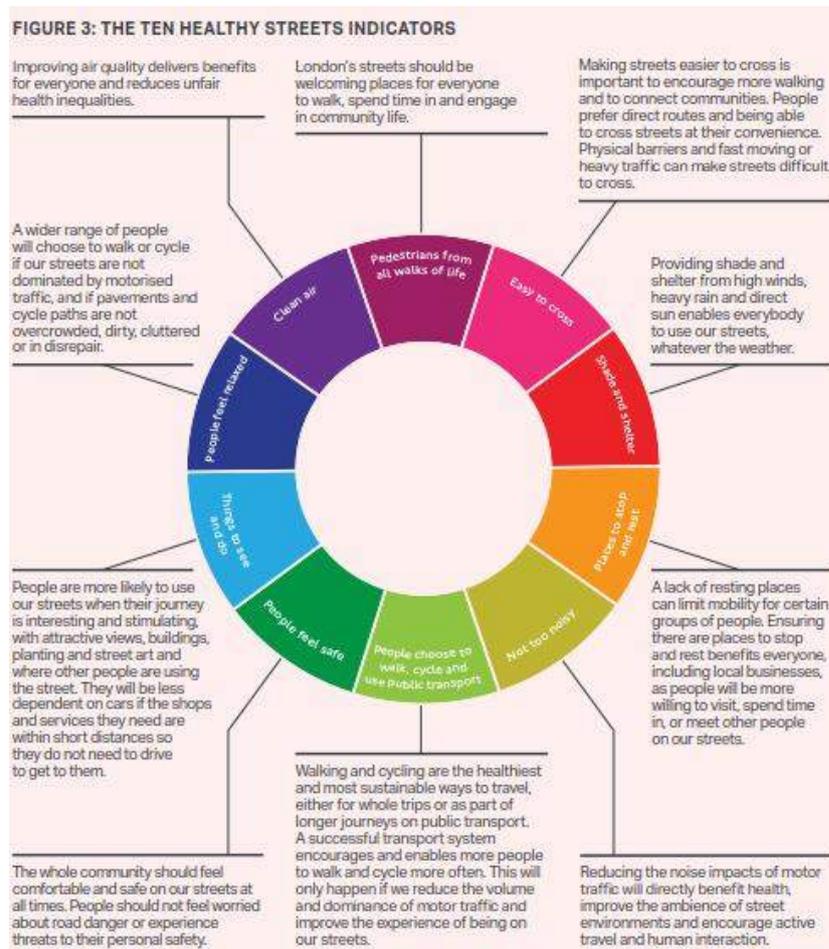
- 9.7.1. As set out in Tables 5 and 6, a maximum of 31 car trips, 6 taxi trips and 11 coach trips in each direction are anticipated to be generated by the UKHMLC on any given day. The UKHMLC would also be expected to be served by up to one waste collection vehicle each day and one servicing vehicle for the café per week, but these are expected to be diversions of existing trips on the highway network.
- 9.7.2. 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.
- 9.7.3. It is noted that the majority of vehicle trips would take place outside of the existing peak hours of traffic flow along Millbank, since most visits to the UKHMLC will take place outside of the AM and PM commuter peaks.

## **9.8. HEALTHY STREETS ASSESSMENT**

- 9.8.1. The proposed development scheme includes design alterations at the Millbank interface with the public highway, and this has been demonstrated through a Healthy Streets Check for Designers. To note, the proposals do not generate any significant change to the Millbank interface with the exception of eastern kerb activity. The highway proposals are indicated on the proposed scheme layout plan at Appendix A and improvements include:
- Improved quality of walking surface, through implementation of modified accesses and associated resurfacing as appropriate;
  - Improved surveillance through increased activity; and
  - Improved landscaping / sense of place.

- 9.8.2. These improvements are considered to reflect TfL’s ‘Healthy Streets Check for Designers’ agenda, and this has been demonstrated through a Healthy Streets audit of the existing and proposed Millbank interface arrangements for comparison.
- 9.8.1. In summary, the Healthy Streets Check is a spreadsheet tool to support designers. It helps any proposed changes to the way streets are laid out or used to result in improvements. Specifically, the assessment audits the Millbank interface with the application site against ten Healthy Streets Indicators, drawing a comparison to baseline conditions.
- 9.8.2. **Figure 20** shows the Healthy Streets indicators against which the proposed development is assessed.

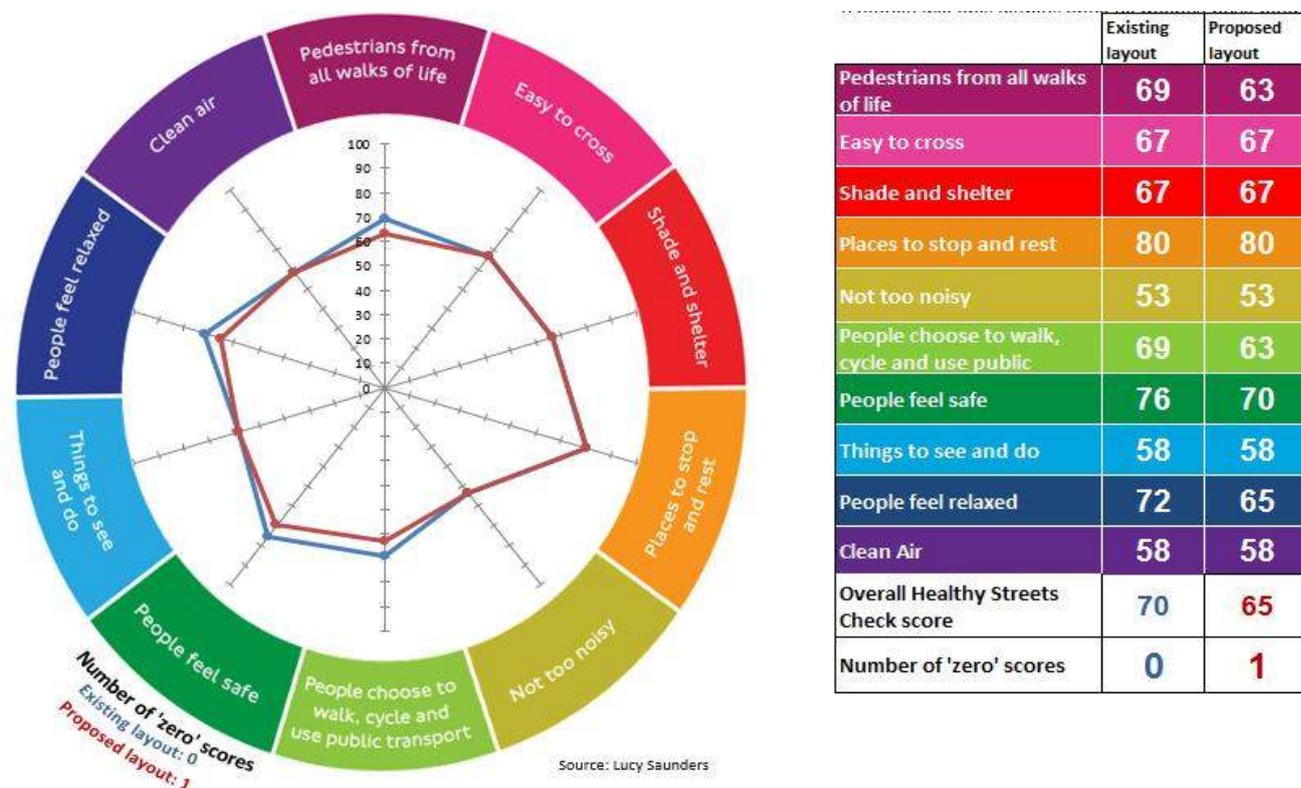
**Figure 20 – The ten Healthy Streets indicators**



- 9.8.3. The Healthy Streets audit for the Millbank baseline arrangement received a score of 70%, scoring well on crossing facilities, effective footway widths, quality of walking surfaces, lighting, surveillance and street trees. No metrics received ‘zero’ scores.
- 9.8.4. The Healthy Streets audit for the proposed Millbank interface arrangement received a score of 65% with one metric receiving ‘zero’ score. As outlined above the scheme does not significantly alter the Millbank interface except for the eastern kerbside design to facilitate coach drop-off and pick-up without reducing bus stop capacity for TfL buses.

9.8.5. Figure 21 below shows the Healthy Streets audit results for the section of Millbank affected by the proposed development.

**Figure 21 – Millbank Healthy Streets audit results**



9.8.6. It is concluded that the Millbank interface scores well in both the existing and proposed scenarios when assessed using the Healthy Streets Audit. The proposals do not significantly alter how pedestrians interact with Millbank and the existing infrastructure creates a healthy environment for all users.

9.8.7. As highlighted by Figure 21, the proposed scheme results in a slight reduction in the Healthy Streets score following alterations to the existing bus and general traffic lane on the eastern side of the carriageway adjacent to the site. This has a minor effect on cyclists using Millbank; however, this is not expected to significantly impact existing cyclists using the route.

9.8.8. The full Healthy Streets Audit report is provided in Appendix D.

## 10. CONCLUSION

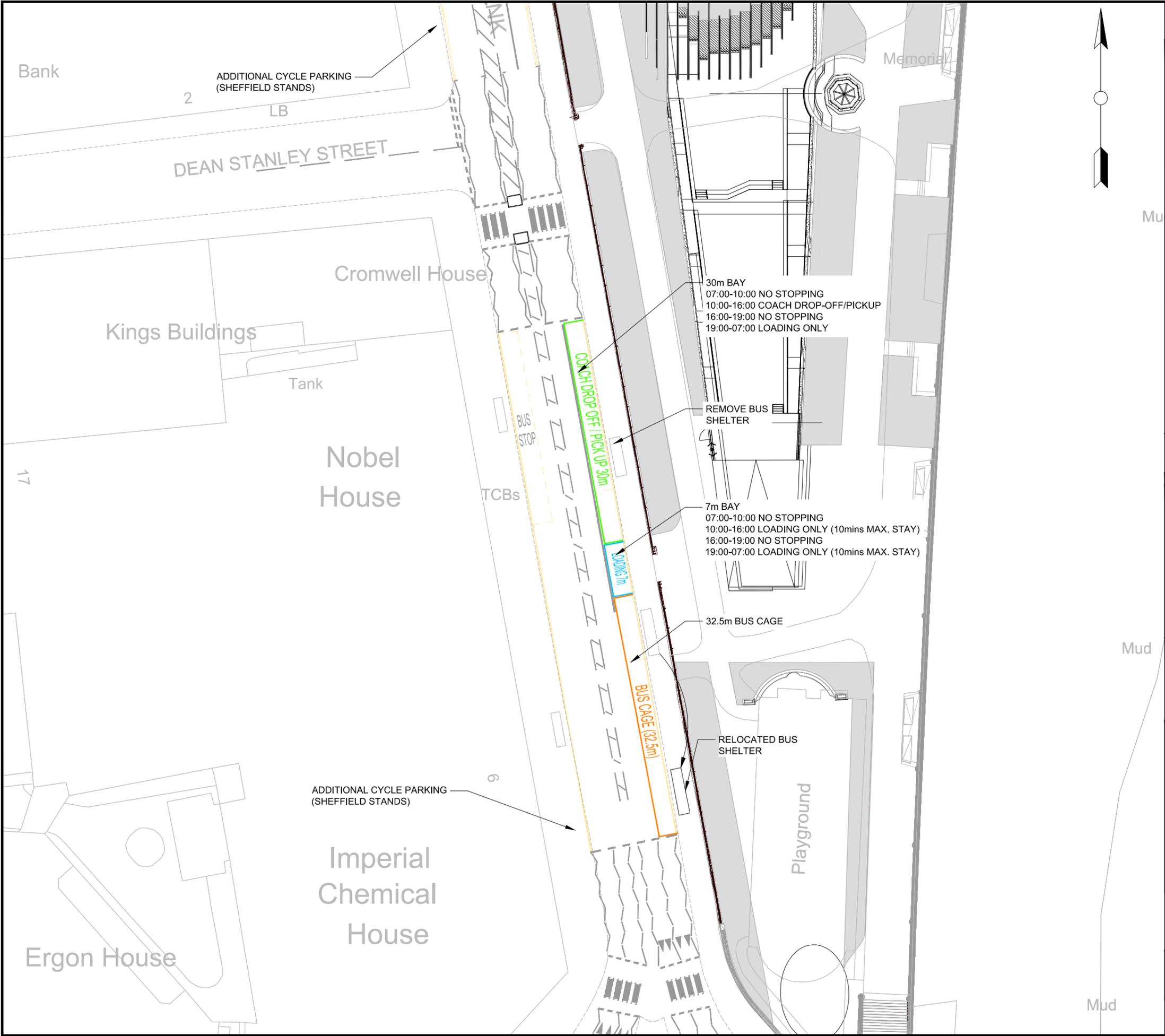
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- 10.1.1. WSP has been appointed by the Ministry of Housing, Communities & Local Government to provide transport consultancy to support the proposed development of the UK Holocaust Memorial and Learning Centre within the City of Westminster
- 10.1.2. The UKHMLC is projected to be visited by up to one million people a year, most of whom will be existing pedestrians on the wider network given the site's proximity to major trip attractors around Parliament Square.
- 10.1.3. A comprehensive transport assessment of the development proposals has been undertaken in order to determine the anticipated transport impacts of the UKHMLC's operation and setting out the measures to mitigate these impacts where appropriate.
- 10.1.4. Through a carefully considered design supplemented by some changes to the kerbside arrangements immediately adjacent to the site, coach groups can be accommodated without unduly impacting on other road users along Millbank. Detailed pedestrian analysis has also been undertaken to highlight the locations with the highest footfall at different times.
- 10.1.5. This transport assessment has also informed the Waste Management Plan, the Construction Logistics Plan and the Travel Plan which will all serve to reinforce the sustainable management of transport of people and goods associated with the construction and operation of the proposed UKHMLC.

## 11. APPENDIX A – PROPOSED KERBSIDE ARRANGEMENT

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PROJECT:  
**NATIONAL HOLOCAUST MEMORIAL**

TITLE:  
**PROPOSED ROAD MARKING OPTION**

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## 12. APPENDIX B – TICKETING REPORT (EXTRACT)

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05 /  
2017

UK HOLOCAUST MEMORIAL FOUNDATION  
HOLOCAUST LEARNING CENTRE  
Operational Business Plan



When removing the main national museums such as the Science Museum, the Victoria and Albert Museum, Tate Modern, the National Gallery, etc. that cover a range of subjects across their collections and are not as theme-specific as HLC would be, the average annual visitation drops to nearly 850,000. Applying the Market Penetration Rate (MPR) for medium attractions with up to 2 million visitors to HLC's population catchment gives a projected annual visitation of around 930,000 people.

	0-15 min drive time	0-30 min drive time	0-45 min drive time
Medium attractions MPR	0.03	0.02	0.02
Population catchment	964,951	3,590,250	7,407,450
Overseas tourists	18,600,000	18,600,000	18,600,000
Domestic day tourists	16,020,000	16,020,000	16,020,000
Projected visitors by drive time	945,040	920,385	926,215
<b>AVERAGE PROJECTED VISITORS</b>	<b>930,546</b>		

Given the broader scope of these attractions' subject matters and their long-rooted establishment within London's cultural scene, the average visitation and MPR figures can act as a higher-end benchmark for HLC.

### 2.5.2.3 Market Penetration Rate for International Sites

The table below shows five key comparators from around the world and their Market Penetration Rates. The average MPR for these sites is approximately 8%. When uplifted to reflect the opening year population in London, the potential number of visits could be in the region of 550,000 (based on the 2015 population), or 576,000 (based on future population projections for 2019).<sup>58</sup>

On that basis it is suggested that around 620,000 visits per annum is a good mid-range benchmark for planning.

Close comparator	City	Visitor numbers	City population	MPR (%)
Simon Wiesenthal Centre	New York	250,000	8,500,000	2.9
Museum of Tolerance	Los Angeles	350,000	3,900,000	9.0
Holocaust Memorial Information Centre	Berlin	470,000	3,600,000	13.1
Memorial de la Shoah	Paris	225,000	2,200,000	10.2
Holocaust Exhibitions (IWM)	London	580,000	8,600,000	6.7
Average penetration rate				8%
<b>PROJECTED VISITORS</b>				<b>688,000</b>
<b>REALISTIC NUMBER OF VISITORS (80% OF UPPER LIMIT)</b>				<b>550,400</b>

<sup>58</sup> US Census Bureau, 2015; Los Angeles County Economic Development Corporation, 2015; Statistics for the City of Berlin, 2015; Urbistat, National Institute for Statistics and Economic Studies, 2016; GLA Intelligence, 2015 (current and projected population)

### 2.5.2.4 Direct Comparator

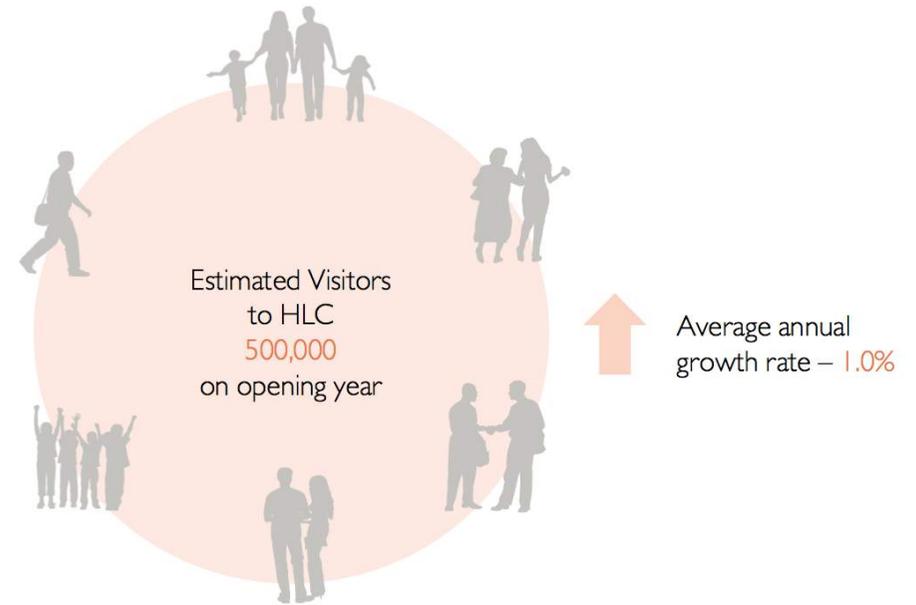
As the most relevant comparator for HLC, the fact that the Holocaust Memorial and Information Centre in Berlin attracts approximately 470,000 annual visitors to its underground building, which has a permanent exhibition relating to the Holocaust, is significant. As seen in the section above, this number represents an MPR of 13.1% over 3.6 million residents. Even considering an additional five million international visitors (and 31 million overnight stays)<sup>59</sup> the MPR would still be noteworthy.

A full case study of the Memorial and Information Centre, including facts and figures about its audiences, is presented in Appendix A. It is worth noting that visitors have increased slowly but steadily since 2005 by about 1% per year after stabilisation, as shown in the following table.<sup>60</sup>

Year	Visitor Numbers for the Information Centre	Annual Variation
2015	475,000	1%
2014	470,000	0%
2013	468,000	0%
2012	468,500	0%
2011	468,000	2%
2010	461,000	1%
2009	457,000	0%
2008	456,500	3%
2007	445,000	-5%
2006	468,000	30%
2005 (from 12 May)	360,000	-

### 2.5.2.5 Recommendation

HLC could attract around 500,000 visitors per year, and we expect an average annual growth rate of 1% for the post-opening years.



### 2.5.3 Target Audiences

The original objectives of the UKHMF describe the Holocaust Memorial and Learning Centre as engaging with people of all backgrounds and ages, in all parts of the country. Within this ambitious scope, priority audiences have been identified to help direct specific programmes and activities. The current audiences for Holocaust education and memorialisation can be split into two broad categories, already catered for by existing organisations to some degree. These include:

- Formal learning: pupils and teachers, mostly from secondary education
- Informal learning: general 'drop in' audiences engaging with Holocaust education and memorialisation through exhibitions and some events.

More specific target audiences for HLC include the following groups:

<sup>59</sup> Berlin Tourismus & Kongress GmbH, 'Number of international visitors to Berlin exceeds five million for the first time', 2017

<sup>60</sup> Seemann, Uwe. 'Numbers of Visitors in the Information Centre.' *Stiftung Denkmal Für Die Ermordeten Juden Europas*, 2016

### 2.5.3.1 Younger School Audiences

There is currently a gap in the provision of exhibitions and other learning activities related to the Holocaust for primary school aged children within London and nationally. While concerns around educating children of this age on such a complex and potentially traumatising subject need to be kept in mind, we feel there is scope for this group to form a core audience. The excellent work of the National Holocaust Centre and The Journey Exhibition serves as a model here.

### 2.5.3.2 Families

The site will attract family audiences and the Centre will provide key opportunities to engage family groups in informal education to provide context and stimulate dialogue around the issues and questions raised by the Memorial. Given the current lack of space in London and nationally for families to gather, remember and generate meaning for themselves around the subject of the Holocaust, we believe this group should form a core audience.

### 2.5.3.3 Professionals and Community Leaders

Formal training programmes should be offered to key parties directly engaged with issues of diversity, tolerance, discrimination and persecution. This may include law enforcement, military personnel, legal professionals and faith leaders. The United States Holocaust Memorial Museum offers a useful model in this respect, encouraging 'engaged citizens' to study the choices made by individuals and institutions during the Holocaust to understand their own professional and individual responsibilities today.

### 2.5.3.4 Teachers

As well as leading school groups during visits to the site, teachers should be targeted as part of their continued professional development. The Holocaust Commission highlighted the provision of access to such training as a key area of future development, and the Centre will be well placed to facilitate this work, enhancing the acclaimed programmes offered by partner organisations and supporting other initiatives nationwide.

### 2.5.3.5 Overseas Audiences

As the most popular tourist destination in the UK and a cosmopolitan global city, London has high numbers of both residents and overseas visitors. The UKHM will attract international audiences who should be encouraged and welcomed. This broad target audience will include visitors from different societies and cultures, some of whom will have had limited or no exposure to education about the Holocaust.

### 2.5.3.6 Outreach

In addition to the audiences who will experience the UKHM 'on-site', key groups will also be targeted for outreach activity, including online. Through supporting the important work of partner organisations, in a co-ordinating role, this will include an expansion of the training offered to teachers, professionals and community leaders in London, but may also extend to other groups unable or unwilling to visit the UKHM, including the elderly and those who cannot afford to visit.

## 2.5.4 Schools Market

### 2.5.4.1 England

In January 2016, there were approximately 23,880 schools in England, attended by 8.51 million students. Of these schools, 20,179 (84.5%) were state funded primary and secondary schools. This represented roughly 7.8 million pupils (91.6% of England's total). By law, the national curriculum requires students to be taught about the Holocaust in Key Stage 3. This usually occurs in Year 9 (age 13-14). In 2016, there were approximately 1.63 million Key Stage 3 state school pupils in England, with roughly 525,150 of these being Year 9 pupils. As such, Key Stage 3 students represented 51.1% of all state secondary school pupils, while Year 9 constituted 16.4%. Students in Key Stage 3 or above, for whom the Holocaust is an age appropriate subject, numbered 3,120,805 (97.8% of state secondary pupils).

Assuming that independent schools have the same divide by year group as their state equivalents, the relative number of independent to state school pupils can be used to estimate the number of independent school pupils in Key Stage 3 and above and in Year 9. According to this calculation, the figures are as follows: 110,840 Key Stage 3 students, 35,710 Year 9s and 212,214 students in Key Stage 4 or above. As such, the total estimated number of Key Stage 3 students in English state and independent schools in January 2016 was 1,740,840. There were an estimated 560,860 Year 9s and 3,333,019 students in Key Stage 3 or above. These figures indicate the size of the core potential schools audiences for HLC across England.<sup>61</sup>

#### 2.5.4.2 London

In January 2016, London contained 3,052 schools. Of these, 2,297 (75.2%) were state primaries or secondaries, 551 (18%) were independents, and 144 special schools attended by 15,007 students. If the percentages of state secondary pupils in Key Stage 3 and Year 9 across England are taken to apply to London, the city's state schools can be estimated to hold 632,239 Key Stage 3 and 202,910 Year 9 students. It can also be estimated that 1,210,039 state school students are in Key Stage 3 or above. Following the process outlined in the previous section, it can then be estimated that in January 2016 London's independent schools held 66,385 Key Stage 3 pupils, 21,305 Year 9 students and 127,054 students in Key Stage 3 or above. As such, the London state and independent schools can be estimated to have held the following in January 2016: 698,624 Key Stage 3 students, 224,215 Year 9s and 1,337,093 pupils in Key Stage 3 or above. These figures can be taken as estimates of the core potential schools audiences for HLC in London.<sup>62</sup>

In London alone, as many as 700,000 Key Stage 3 and 225,000 Year 9 students could potentially visit HLC on a school trip.

#### 2.5.4.3 United Kingdom

HLC's ambition is to be a UK-wide project. Across the UK, most students learn about the Holocaust in History, which becomes an optional subject across the UK after the age of 14. The Holocaust is also covered in a variety of other subjects such as Citizenship; English; Personal, Social, Health and Economic (PSHE) education; and Religious Studies.

There is no directive given for Holocaust education within the Key Stage 3 History curriculum in either Wales or Northern Ireland, nor is 'the Holocaust' or 'Final Solution' explicitly referenced in the Welsh and Northern Irish GCSEs. However, both the Welsh and Irish specifications do make clear reference to 'attitudes and policies towards the Jews' within the optional study units 'Germany 1919-1945' and 'Germany 1918-1941'. At A Level, the Welsh History specification offers a unit of study 'Nazi Germany c.1933-1945' which briefly mentions Nazi social, religious and racial ideology and policy. The Irish specification includes the social impact of the Nazis comprising anti-Semitism and genocide within the 'Historical Investigations and Interpretations' option 'Germany 1918-1945'.<sup>63</sup>

No formal teaching directive is given within the Scottish secondary system. However Scottish secondary schools are encouraged to follow a broad general curriculum in years S1-S3 (ages 11-14), where teachers can opt to focus on the Holocaust, either within a broader unit on the rise of Hitler and life in Nazi Germany, or within a unit on the Second World War or even as a stand-alone unit of study. In S4 (ages 14-16), the new National Qualifications include a unit 'Hitler and Nazi Germany, 1919-39'. In S5 (ages 15-17), within the paper 'European and World' there is a unit on 'Germany 1815-1939', which evaluates the Nazis in relationship to terrorism, social controls, propaganda and social policies. In S6 (ages 16-18), within the unit 'Germany: Versailles to the Outbreak of the Second World War' pupils also examine the transformation of post-Weimar society and the Nazi Party.<sup>64</sup>

<sup>61</sup> British Government, *Schools, Pupils and their Characteristics*, 2016

<sup>62</sup> British Government, *Schools, Pupils and their Characteristics*, 2016

<sup>63</sup> Foreign and Commonwealth Office and Department for Education, *UK Country Report 2010: Task Force for International Cooperation on Holocaust Education, Remembrance and Research*, 2010

<sup>64</sup> Jakobsen, Hannah, 'Studying the Holocaust within the Curriculum in Scotland', *Gathering the Voices*, 2013

Similarly, the Holocaust is not directly referenced in either of the specifications for GCSE Religious Studies offered by the Welsh examination board, nor the Northern Irish GCSE or Scottish Standard Grade. Theology of the Holocaust is referenced in the current Welsh A-level specification but not in the Irish A-level, Scottish Higher or advanced Higher.<sup>65</sup>

### 2.5.5 Other Organisations' Audiences

Organisations working in the field of Holocaust education and commemoration in Britain generally aim to reach a wide spectrum of audiences. Three prominent categories are learners (students in all levels of education), professionals or specialists especially focusing on teachers, and general audiences comprising diverse groups such as families and overseas visitors. At closer inspection, several key organisations targeting core audience segments are identified as the following:

- The Wiener Library engages people of all ages and backgrounds. However, its core audiences are scholars, professional researchers, the media, and school groups.<sup>66</sup>
- The Imperial War Museum's learning programme caters for a "wide variety of visitors: including school students, families, and lifelong learners. They run a professional development programme for trainee teachers, doctors, police officers, and other professionals". Key audiences are schools, teachers and students, and other general audiences including overseas tourists.<sup>67</sup>
- The Anne Frank Trust offers 'educational projects in schools, prisons and communities across the UK'. They mainly work with students through student ambassador programmes and with prisoners<sup>68</sup>.
- The National Holocaust Centre provides educational programmes to a wider range of groups than anywhere else in the UK. This includes primary school children, secondary school children, universities, adult visitors, police, local authorities and professional groups'.<sup>69</sup>

- The Jewish Museum in London is cross-communal and speaks to the wider world with the vast majority of its audience being non Jewish. The core audiences include school children and teachers, and general visitors (including international visitors).<sup>70</sup>
- The Holocaust Memorial Day Trust provides support to local communities and faith groups across the UK. It collaborates with a wide range of stakeholders: local authorities, schools, universities, prisons, libraries, emergency services (including police forces), cinemas, theatres and museums to support Holocaust commemoration activities.<sup>71</sup>
- The Holocaust Education Trust works mainly with teachers and students in secondary education, in particular through the 'Lessons from Auschwitz' programme.<sup>72</sup>
- The UCL Centre for Holocaust Education offers teacher training which then reaches students in formal education. Main 'audiences' are teachers and schools.<sup>73</sup>

The above shows the broad range of audiences to access Holocaust education and commemorative programmes across the UK.

<sup>65</sup> Foreign and Commonwealth Office and Department for Education, *UK Country Report 2010: Task Force for International Cooperation on Holocaust Education, Remembrance and Research*, 2010

<sup>66</sup> Wiener Library, 'Mission Statement' in *Annual Accounts*, 2013

<sup>67</sup> IWM, *Holocaust Commission Response from the IWM*, 2014

<sup>68</sup> Anne Frank Trust, *What We Do*, 2017

<sup>69</sup> NHC, *Holocaust Commission Response from the National Holocaust Centre*, 2014

<sup>70</sup> Jewish Museum, *Holocaust Commission Response from the Jewish Museum London*, 2014

<sup>71</sup> HMDT, *Holocaust Commission Response from the Holocaust Memorial Day Trust*, 2014

<sup>72</sup> HET, *Holocaust Commission Response from the Holocaust Education Trust*, 2014

<sup>73</sup> Centre for Holocaust Education, *Background*, 2017

## 13. APPENDIX C – COACH PARKING MANAGEMENT STRATEGY

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Ministry of Housing, Communities & Local  
Government

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# HOLOCAUST MEMORIAL AND LEARNING CENTRE

Coach Parking Management Plan





Ministry of Housing, Communities & Local Government

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# **HOLOCAUST MEMORIAL AND LEARNING CENTRE**

Coach Parking Management Plan

**PUBLIC**

**PROJECT NO. 70040431**

**OUR REF. NO. 70040431-V18**

**DATE: DECEMBER 2018**



# QUALITY CONTROL

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# 1 INTRODUCTION

## 1.1 BACKGROUND

1.1.1. WSP has been appointed by the Ministry of Housing, Communities & Local Government to provide transport consultancy to support the proposed development of the UK Holocaust Memorial and Learning Centre (UKHMLC). The site falls within the Victoria Tower Gardens located in the administrative boundary of Westminster City Council (WCC) and is within a short walk of the Houses of Parliament and Westminster Abbey.

## 1.2 SITE OVERVIEW

1.2.1. The UKHMLC is proposed to be located within Victoria Tower Gardens, an open space which is bounded by Millbank to the west, the River Thames to the east, the Palace of Westminster to the north and Lambeth Bridge to the south. In total, the Gardens have five entrances – four accessible from Millbank and the fifth from Lambeth Bridge.

1.2.2. **Figure 1-1** shows the location of the proposed Memorial. Note that the UKHMLC does not occupy the entirety of Victoria Tower Gardens.

**Figure 1-1 Site Location**



1.2.3. The site is currently used as a park and thoroughway for pedestrians and cyclists and is open from dawn until dusk. The gardens are part of the Jubilee Greenway walking and cycling route from Westminster Bridge to Buckingham Palace, an important heritage route that marks the Queen’s Diamond Jubilee and the London 2012 Olympic Games with parks and monuments across central London.

## 1.3 MEMORIAL PROPOSALS

1.3.1. The United Kingdom Holocaust Memorial Foundation launched an international design competition in September 2016 for the National Holocaust Memorial and Learning Centre. The winning architects have designed a structure to be located at the southern end of Victoria Tower Gardens, with the aim to honour the victims and survivors of the Nazi persecution and to educate future generations about the dangers of prejudice.

1.3.2. The proposals comprise the following elements:

- A memorial (Class D1);
- An adjacent learning centre (Class D1);
- An entrance pavilion (ancillary Class D1); and
- A refreshment kiosk (Class A1).

## 1.4 REPORT PURPOSE

1.4.1. This Coach Parking Management Plan has been prepared to set out how coaches associated with the proposed Memorial will be managed efficiently to avoid impacting on the operation of the surrounding highway network. The remainder of this Coach Parking Management Plan is structured as follows:

- Chapter 2 – Baseline Conditions (inc. existing coach parking facilities);
- Chapter 3 – Coach Parking Management Strategy,

## 2 BASELINE CONDITIONS

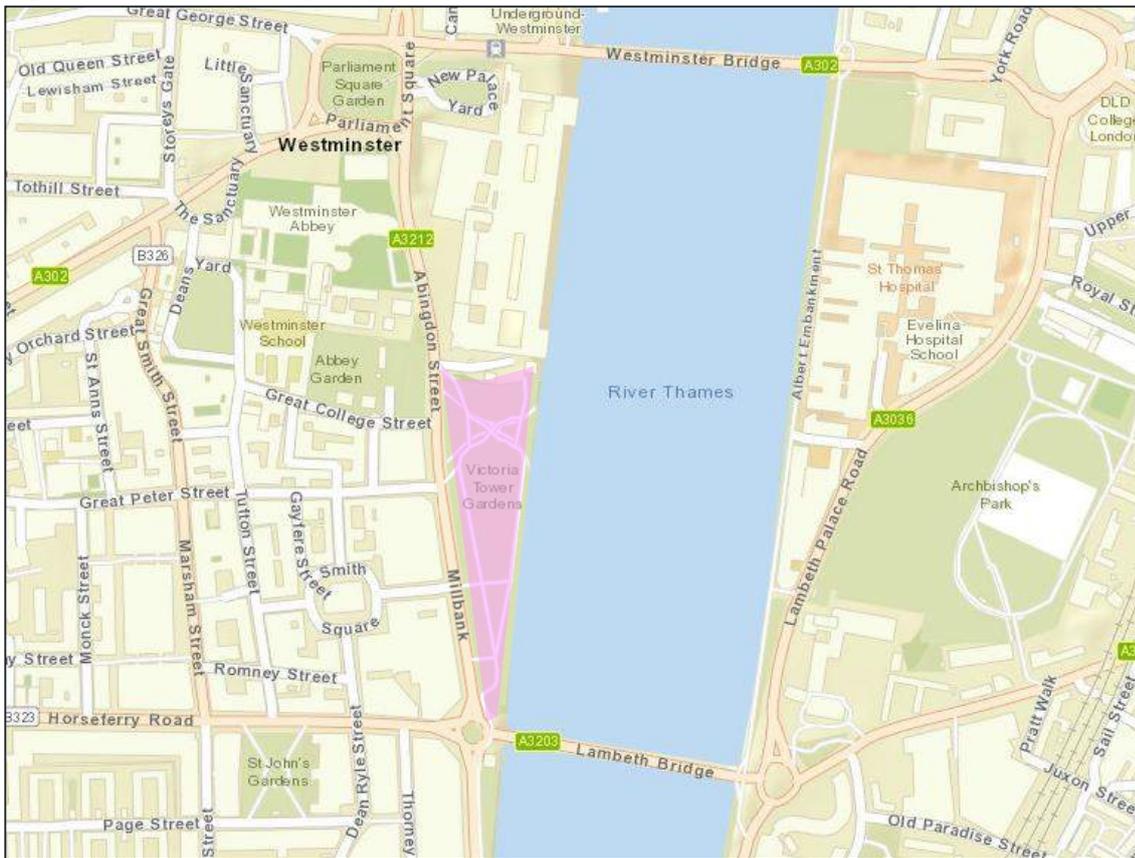
### 2.1 INTRODUCTION

2.1.1. This Chapter sets out the baseline conditions in the vicinity of the site in the context of transport and accessibility, including the existing coach parking provision.

### 2.2 HIGHWAY NETWORK

2.2.1. The local highway network surrounding the site is illustrated by **Figure 2-1**. The site is located on the eastern side of A3212 Millbank, which is a 'red route' road and forms part of the Strategic Road Network (SRN) in London, and is operated by WCC. A3212 Abingdon Street to the north of the site connects with Parliament Square at its northern end via a signalised gyratory. To the south of the site, Millbank forms the northern arm of a roundabout with the A3203 Lambeth Bridge and the B323 Horseferry Road.

**Figure 2-1 Local Highway Network**



- 2.2.2. Millbank is a single carriageway road with a general vehicular lane in both directions and a bus lane in the southbound direction, directly adjacent to the site. There are footways on both sides of the carriageway, there is street lighting, there are double yellow line parking restrictions on both sides of the carriageway and there is a 30mph speed restriction.
- 2.2.3. Parliament Square provides links north to the city via the A3212 Whitehall, east across the A302 Westminster Bridge towards Waterloo Station and Southwark (via Bridge Street), west along Birdcage Walk to Buckingham Palace and south west along the A302 Victoria Street to Victoria.

- 2.2.4. Lambeth Bridge lies south of the site and crosses the River Thames, connecting the site to London Borough of Lambeth. It is a single carriageway road with a bus lane on the eastbound carriageway and an on-carriageway cycle lane in the westbound direction.
- 2.2.5. It is understood that consideration is being given to the potential pedestrianisation of Abingdon Street and the northern part of Millbank (as far south as Great Peter Street); a second option is to pedestrianise the entirety of both roads as far south as Horseferry Road. The potential impacts of these proposals will be considered in due course when further details are available.

### 2.3 EXISTING COACH PARKING

- 2.3.1. Within WCC, any motor vehicle containing 8 or more seats (exclusive of the driver) can park within a coach bay. Coach parking bays operate between 08:30am and Midnight, and are free after 18:30 on weekdays.
- 2.3.2. There are currently 55 coach parking bays in Westminster, including along Millbank south of Lambeth Bridge.
- 2.3.3. In the neighbouring London Borough of Lambeth, additional coach parking is available. Albert Embankment, located south of the river across Lambeth Bridge, provides a further nine coach parking bays operation between 10:00-16:00 and 20:00-07:00.
- 2.3.4. **Figure 2-2** shows the locations of these coach parking bays.

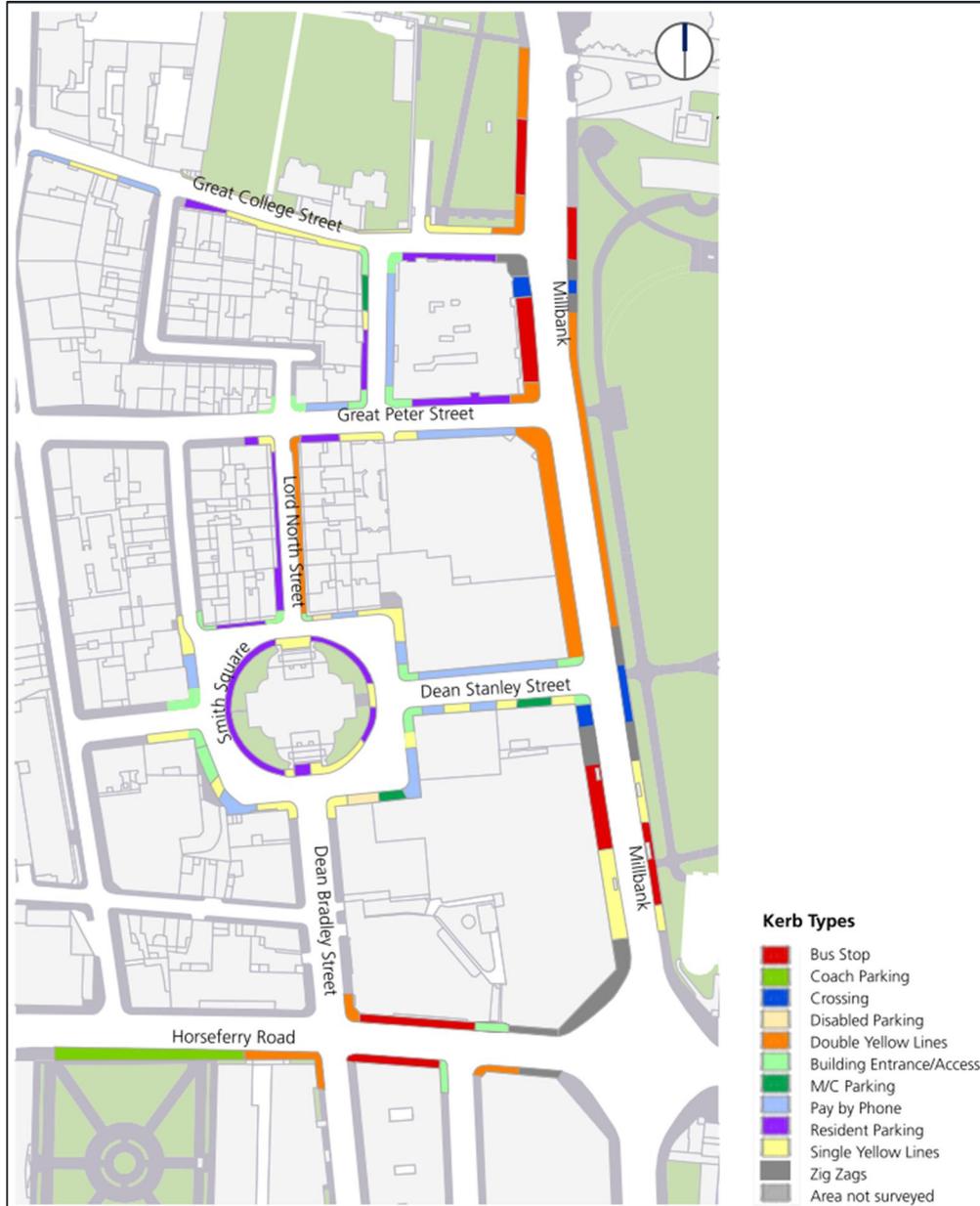
**Figure 2-2 Existing Coach Parking Locations**



## Kerbside Restrictions

2.3.5. The roads around the proposed Memorial are subject to a range of parking and waiting restrictions. **Figure 2-3** summarises the nearby kerbside allocation of space.

**Figure 2-3 Existing Kerbside Allocations**



Source: Atkins Vehicular and Pedestrian Movement Study, October 2017

2.3.6. The kerbside restrictions applicable within Westminister are summarised in **Table 2-1**.

**Table 2.1 WCC Servicing Restrictions**

Vehicle Type	0830 – 1830	All Other Times
Commercial Vehicles	<ul style="list-style-type: none"> <li>■ 8.30-11am: as long as necessary</li> <li>■ 11am-6.30pm: 20 minutes</li> </ul>	Single yellow lines - unlimited outside of controlled hours Double yellow lines - as long as necessary Paid-for parking bays - unlimited as outside of controlled hours Resident bays (subject to controlled hours) <ul style="list-style-type: none"> <li>■ during controlled hours: as long as necessary</li> <li>■ outside controlled hours: unlimited</li> </ul>
Heavy Goods Vehicles	<ul style="list-style-type: none"> <li>■ 8.30-11am: as long as necessary</li> <li>■ 11am-6.30pm: 40 minutes</li> </ul>	
Private Vehicles	<ul style="list-style-type: none"> <li>■ 8.30-11am: as long as necessary</li> <li>■ 11am-6.30pm: 20 minutes</li> </ul>	

2.3.7. It is also highlighted that within LB Lambeth, unless loading restrictions are in force, vehicles may load and unload on single or double yellow lines for as long as necessary before 11am, and for up to 40 minutes after 11am. Loading or unloading must be continuous.

## 3 COACH MANAGEMENT STRATEGY

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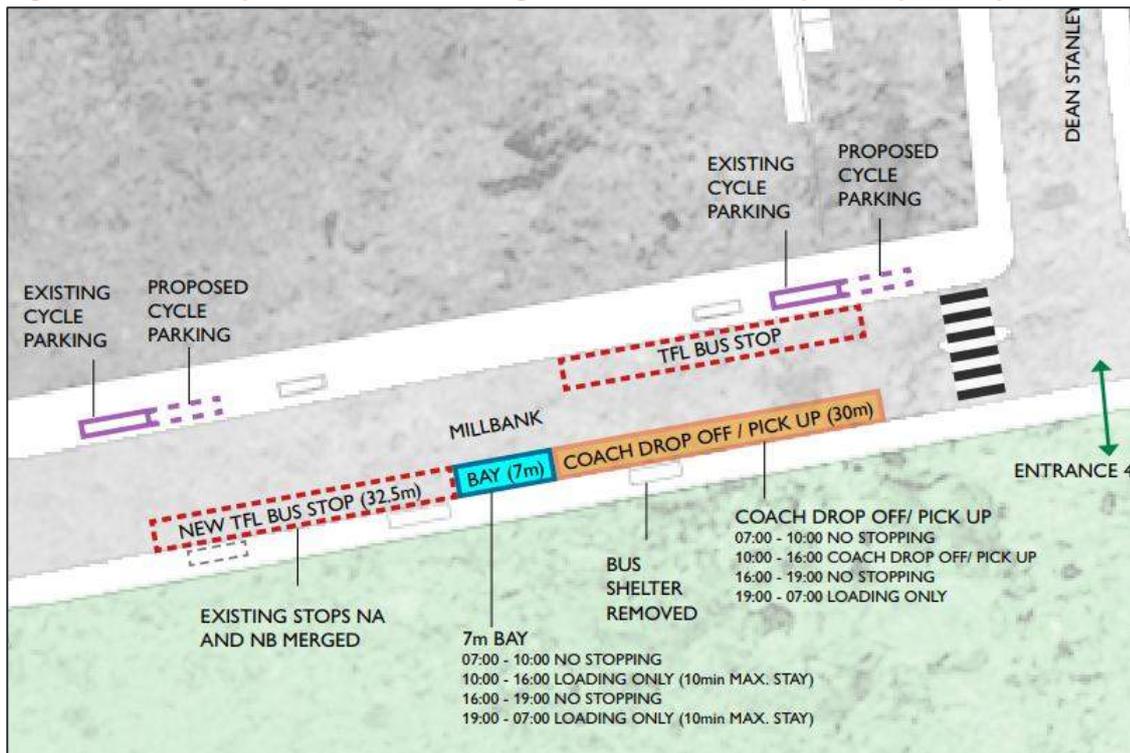
### 3.1 INTRODUCTION

3.1.1. The trip generation exercise undertaken as part of the Transport Assessment identifies that up to 11 coaches per day are forecast to serve the UKHMLC on schooldays, reducing to 2 coaches per day on non-schooldays. This Chapter sets out the proposed coach parking strategy and management measures to help ensure possible impacts on the surrounding highway network are mitigated.

### 3.2 COACH DROP-OFF AND PICK-UP

- 3.2.1. The development proposals seek to provide a 30m coach drop-off / pickup bay on the eastern kerbside of Millbank, immediately south of the zebra crossing alongside Dean Stanley Street. Currently this section of kerbside is in a bus lane (operating 07:00-19:00 Monday to Friday) with a single yellow line controlling waiting outside of the bus lane's hours of operation.
- 3.2.2. The coach bay will be accommodated by relocating the bus cage for stops NA and NB to the southern end of this section of kerbside; at present this section is marked with a single yellow line and is lightly used. The relocated TfL bus cage will be 32.5m in length which allows for a rear bus to pull up behind a front bus, and pull out again, while the front bus is still stationary. There will therefore be no negative impact on bus manoeuvring.
- 3.2.3. The new coach bay will be 30m in length, sufficient to accommodate two large coaches simultaneously. The bay would be governed by a 'loading only' restriction in order to prevent parking: coaches would only be permitted to be stationary in the bay for as long as is necessary to unload or load passengers.
- 3.2.4. The proposed arrangement on Millbank adjacent to the site is illustrated by **Figure 3-1**. From north to south, the proposed kerbside allocation is as follows:
- Coach drop off / pick up bay (30m);
  - Loading bay (7m);
  - Bus cage (32.5m) with a relocated bus shelter.

**Figure 3-1 Proposed Millbank Arrangement / Coach Pick-up & Drop-off bay**



3.2.5. The coach bay will allow coach pick-up and drop-off between the hours of 1000-1600, with the following time restrictions applied:

- 0700 – 1000 No Stopping
- **1000 – 1600 Coach Drop-off / Pick-up**
- 1600 – 1900 No Stopping
- 1900 – 0700 Loading Only

3.2.6. The coach bay will be governed by the 'loading/unloading' time restriction whereby coaches are only permitted to stop for the length of time required for passengers to board or alight, rather than the 20-minute limit which may encourage idling. This will also reduce the likelihood of coaches arriving earlier than their pickup time, and also deter other uses of the bay such as commuter coach parking.

3.2.7. Between the hours of 1900-0700 the coach bay could be used by other vehicles for servicing; its 30m length will allow occasional HGVs serving the UKHMLC (for example during exhibition changeovers).

### 3.3 COACH PARKING

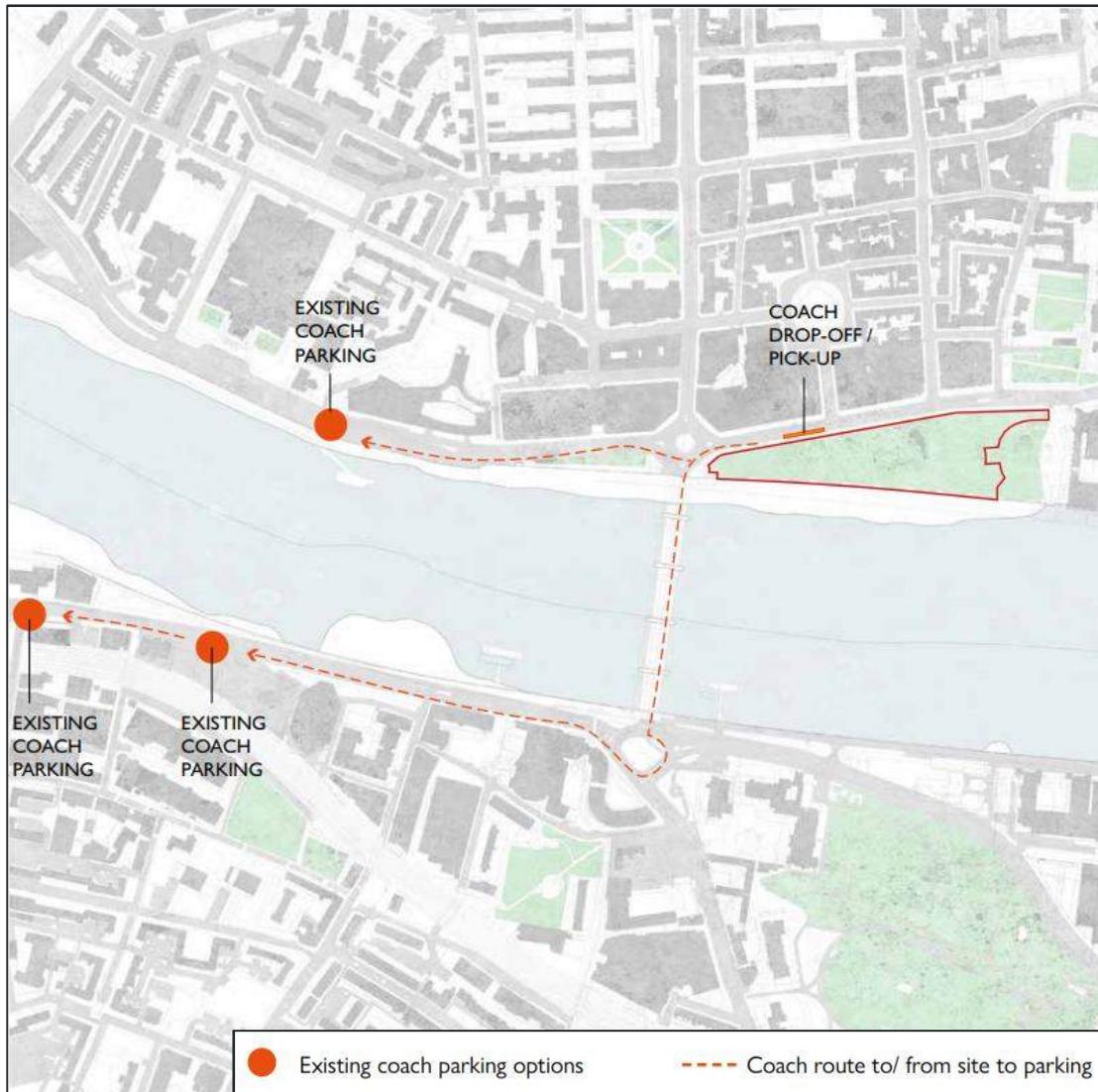
3.3.1. The closest coach parking to the UKHMLC site is on Horseferry Road, providing a maximum of two hours of parking. There are three bays in this location operating between 08:30-23:59 (no overnight parking) and is chargeable between 08:30-18:30 from Monday to Friday.

3.3.2. Further opportunities for coach parking in proximity of the site are illustrated by Figure 3-2 and include:

- **Millbank South (five bays)** – operating between 08:30-23:59 (no overnight parking) providing a maximum of 4 hours of parking; and

- **Albert Embankment North (nine bays)** – operating between 10:00-16:00 and 20:00-07:00, providing a maximum of one-hour parking, no returns within two hours.

**Figure 3-2 Coach Parking Locations**



3.3.3. The above parking locations will be communicated to operators and drivers well in advance of their visit to the UKHMLC. Further details of the proposed management measures are set out below.

### 3.4 MANAGEMENT STRATEGY

3.4.1. In order to manage the activity of coaches associated with the Memorial and to minimise possible impacts of coach operation on the surrounding area, the following measures will be in place:

- All visitors to the UKHMLC will need to pre-book, and there will be a limited, regulated number of group visits per day, spread across the course of the day. All groups arriving by coach will therefore be in contact with UKHMLC before the day of their visit;
- All groups will be advised of their travel options to reach UKHMLC and, for those travelling by coach, it will be made clear that the proposed bay on Millbank is only for use by coaches dropping off and picking up passengers, and that it is not permitted for coaches to remain

stationary in this bay when drop-off or pick-up is not taking place, even if the driver is in the vehicle;

- Upon booking, groups will also be notified of the coach parking locations, the rules which govern their maximum stay compared with the restrictions applicable to the coach drop-off / pick-up bay alongside UKHMLC, and the recommended routes for coaches to travel between UKHMLC and the coach parking locations;
- The proposed coach drop-off / pick-up bay alongside UKHMLC will carry signage stating that between 10:00-16:00 it is exclusively for the use of coaches and is covered by the 'loading only' restriction;
- Coaches will be instructed to drop-off and pick-up using the proposed coach bay adjacent to UKHMLC. This also reduces the likelihood of coach parking bays (such as further south along Millbank, or on Albert Embankment) being used for drop-off and pick-up which in turn could otherwise reduce the available capacity of these bays for parking;
- Through enforcement, vehicles are only permitted to stop for the length of time required to unload or load passengers which is predicted to be five and fifteen minutes respectively.

3.4.2. Through regular dialogue with WCC and TfL usage of the coach drop-off / pick-up bay will be monitored, and measures which may be considered for future implementation can be discussed by all parties.



## 14. APPENDIX D – HEALTHY STREETS ASSESSMENT

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Metrics <small>(Click on ⓘ for more guidance on scoring or open the 'Scoring guidance tab')</small>		Scoring system				Enter score here		Notes	How each metric contributes to the Healthy Streets Indicators' scores									
		3	2	1	0	Existing layout	Proposed layout		Pedestrians from all walks of life	Easy to cross	Shade and shelter	Places to stop and rest	Not too noisy	People choose to walk, cycle and use PT	People feel safe	Things to see and do	People feel relaxed	Clean Air
1	Total volume of two way motorised traffic ⓘ	There are fewer than 500 vehicles per hour at peak.	There are 500 to 1000 vehicles per hour at peak.	There are more than 1000 vehicles per hour at peak, where people cycling are separated from motorised traffic.	There are more than 1000 vehicles per hour at peak, where people cycling are mixed with motorised traffic.	1	1		✓	✓	-	-	-	✓	✓	-	✓	-
2	Interaction between large vehicles and people cycling ⓘ	There will be no large vehicles using the street, or cycle traffic is separated from motorised traffic.	The proportion of large vehicles is less than 2% of motorised traffic, 7am to 7pm.	The proportion of large vehicles is 2% to 5% of motorised traffic, 7am to 7pm. or The proportion of large vehicles is greater than 5% of motorised traffic, 7am to 7pm, and people are cycling either: - in a nearside general traffic lane or bus lane at least 4.5m wide, or - in a cycle lane where the combined width of the cycle lane and the next general traffic lane is at least 4.5m.	The proportion of large vehicles is greater than 5% of motorised traffic, 7am to 7pm, and people are cycling either: - in a nearside general traffic lane or bus lane less than 4.5m wide, or - in a cycle lane where the combined width of the cycle lane and the next general traffic lane is less than 4.5m.	1	0		✓	-	-	-	-	✓	✓	-	✓	-
3	Speed of motorised traffic ⓘ	85th percentile speed is less than 20mph. or Existing 85th percentile speed is 20 to 25 mph, but there are some proposals to reduce speed further. or Existing 85th percentile speed is over 25 mph but a complete redesign of the street environment should reduce this to below 20mph.	85th percentile speed is 20 to 25mph. or Existing 85th percentile speed is 25 to 30 mph, but there are some proposals to reduce speed further.	85th percentile speed is 25 to 30mph. or Existing 85th percentile speed is greater than 30 mph, but there are some proposals to reduce speed further.	85th percentile speed is greater than 30mph. or Existing 85th percentile speed is greater than 30 mph, and there are no proposals to reduce this speed.	1	1		✓	✓	-	-	-	✓	✓	-	✓	-
4	Traffic noise based on peak hour motorised traffic volumes ⓘ	There are fewer than 55 vehicles per hour (c. <58 DB).	There are 55 to 450 vehicles per hour (c. 58-70 DB).	There are more than 450 vehicles per hour (c. >70 DB).	-	1	1		✓	-	-	-	✓	✓	-	-	✓	-
5	Noise from large vehicles ⓘ	The proportion of large vehicles is less than 5% (c. +0 to +3DB).	The proportion of large vehicles is 5 to 10% (c. +3 to +5 DB).	The proportion of large vehicles is greater than 10% (c. +5 DB and over).	-	1	1		✓	-	-	-	✓	✓	-	-	✓	-
6	NO2 concentration (from London Atmospheric Emission Inventory) ⓘ	If assessing existing: The NO2 concentration is less than 32µg/m3. If assessing proposal: The existing NO2 concentration is less than 32µg/m3 or the existing concentration is 32 to 40µg/m3 with local traffic volume reduction measures proposed.	If assessing existing: The NO2 concentration is 32 to 40µg/m3. If assessing proposal: The existing NO2 concentration is 32 to 40µg/m3 with no proposal to reduce local traffic volume or the existing NO2 concentration is greater than 40µg/m3 with local traffic volume reduction	If assessing existing: The NO2 concentration is greater than 40µg/m3 (legal limit value). If assessing proposal: The existing NO2 concentration is greater than 40µg/m3 with no proposal to reduce local traffic volume.	-	1	1		✓	-	-	-	-	✓	-	-	-	✓
7	Reducing private car use ⓘ	There is no through-movement for motorised traffic, with access limited to local residents, deliveries and public service vehicles.	There are some time or movement restrictions for motorised traffic.	There are no access restrictions for motorised traffic.	-	1	1		✓	✓	-	-	✓	✓	✓	-	✓	✓
8	Comfort of crossing side roads for people walking ⓘ	Side roads are closed to motor traffic. or Side roads are one-way out for motor vehicles and have features to encourage drivers to turn cautiously.	Side roads are two-way or one-way in for motor vehicles, and have features to encourage drivers to turn cautiously.	Side roads have dropped kerbs only.	Side roads have no dropped kerbs.	2	2		✓	✓	-	-	-	✓	✓	-	✓	-
9	Mid-link crossings, to meet desire lines ⓘ	Main desire lines across links are met by crossings suitable for all users at all times.	Main desire lines across links are met by crossings that are suitable some of the time but that do not meet demand all of the time.	Main desire lines across links are not met by pedestrian crossings.	-	3	3		✓	✓	-	-	-	✓	✓	-	✓	-
10	Opportunity to cross the street away from junctions ⓘ	Crossing is uncontrolled, with conflicting traffic volume less than 200 vehicles per hour. or A zebra or parallel crossing is provided. or Crossing is signalised so that people crossing the main carriageway have priority, while traffic on the main carriageway has on-demand green.	Crossing is uncontrolled, with conflicting traffic volume between 200 and 1000 vehicles per hour. or Crossing is signalised and straight-across where the distance to cross is less than 15m or greater than 15m in a 20mph speed limit. or Crossing is signalised and staggered where the distance to cross is greater than 15m in a 30mph+ speed limit.	Crossing is uncontrolled, with conflicting traffic volume greater than 1000 vehicles per hour. or Crossing is signalised and straight-across where the distance to cross is greater than 15m in a 30mph+ speed limit.	-	2	2		✓	✓	-	-	-	✓	✓	-	✓	-
11	Technology to optimise efficiency of movement (pedestrians, cyclists, buses and general motor traffic) ⓘ	All appropriate detection and optimisation technology has been applied to traffic signals.	Some detection and optimisation technology has been applied to traffic signals.	No detection and optimisation technology applied to traffic signals.	-	1	1		✓	✓	-	-	-	✓	✓	-	-	-
12	Level of support for people using controlled crossings ⓘ	Many measures are in place to support controlled crossing.	Some measures are in place to support controlled crossing.	No measures are in place to support controlled crossing.	-	3	3		✓	✓	-	-	-	✓	✓	-	✓	-



24	Planting at footway-level (excluding trees)		If assessing existing: There is substantial planting in good condition designed to create or improve social space and/or act as a connection between other green spaces (eg pocket park, rain garden, community garden area).  If assessing proposal: Existing greenery is to be retained or enhanced and new greenery is proposed.	If assessing existing: There is some planting, eg shrubs, verges, hedges, ornamental flower beds, or adaptation for some animal species.  If assessing proposal: Existing standalone greenery is to be retained or enhanced.	If assessing existing: There is no planting.  If assessing proposal: No green infrastructure is proposed, or the size of existing greenery is to be reduced.	-	2	2		✓	-	-	✓	✓	✓	✓	✓	✓	✓	
25	Walking distance between resting points (benches and other informal seating)		There is less than 50m between resting points.	There is between 50m and 150m between resting points.	There is more than 150m between resting points.	-	1	1		✓	-	-	✓	-	✓	-	✓	✓	-	
26	Walking distance between sheltered areas protecting from rain. Including fixed awning or other shelter provided by buildings/infrastructure		There is less than 50m between sheltered areas.	There is between 50m and 150m between sheltered areas.	There is more than 150m between sheltered areas.	-	1	1		✓	-	✓	-	-	✓	-	✓	✓	-	
Are there any bus services running on this street? (Y/N) If not, do not complete metrics 29-30										<b>Y</b>	<b>Y</b>	<<< please select Y or N		<<<<Please enter Y or N for both existing and proposed.						
27	Factors influencing bus passenger journey time		There are positive influences on bus journey time, eg bus lane, exemptions for buses from movement bans for general traffic.	Buses are mixed with traffic but not significantly delayed.	There are negative influences on bus journey time, eg unclear markings, narrow lane width, parking/loading issues, short cage length, mixing with congested traffic.	-	3	2		✓	-	-	-	-	✓	-	-	✓	-	
28	Bus stop accessibility		Bus stop is wheelchair accessible, there is clear space for boarding and alighting and there is a clearway in place at the bus stop.	Bus stop is wheelchair accessible but either there is limited clear space around the bus stop for boarding and alighting or, for borough roads, there is no clearway in place.	Bus stop is not wheelchair accessible, ie the kerb height is less than 100mm.	-	3	3		✓	-	-	-	-	✓	✓	-	✓	-	
Are there any rail/underground/bus station accessible from this street? (Y/N) If not, do not complete metrics 31-33										<b>N</b>	<b>N</b>	<<< please select Y or N		<<<<Please enter Y or N for both existing and proposed.						
29	Bus stop connectivity with other public transport services		The bus stop is within sight of another service – less than 50m away.	The bus stop is between 50m and 150m away from another service.	The bus stop is more than 150m away from another service.	-				✓	-	-	-	-	✓	-	✓	✓	-	
30	Street-to-station step-free access		All entry points to the station are step-free.	The main entry point to the station is not step-free but step-free alternatives are provided.	There is no step-free access to the station.	-				✓	-	-	-	-	✓	-	✓	✓	-	
31	Support for interchange between cycling and underground/rail		Secure cycle parking is provided close to station access points, and exceeding existing demand.	Cycle parking is available close to station access points that meets existing demand.	There is insufficient cycle parking to meet demand, or cycle parking is poorly located for station access points.	-				✓	-	-	-	-	✓	-	-	✓	-	

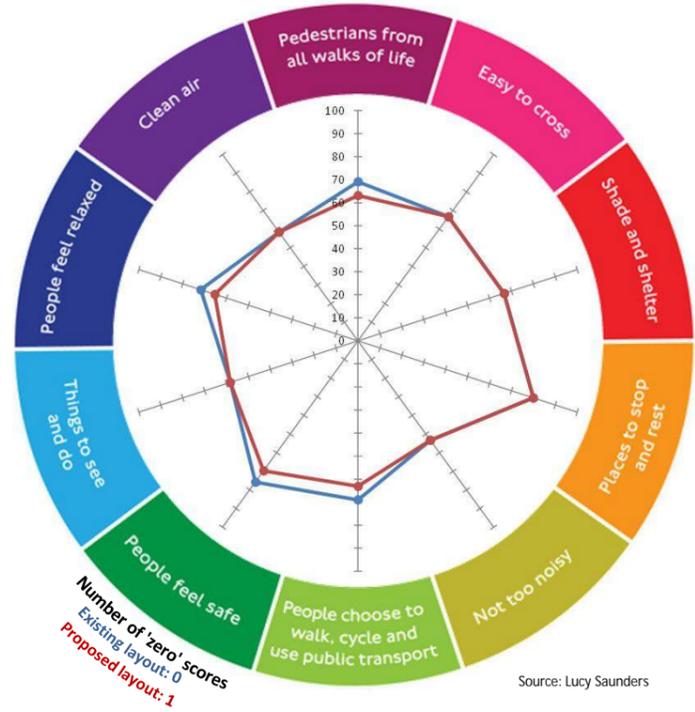


The Healthy Streets Check score does not show whether a street is healthy or not but indicates the strengths and weaknesses of a scheme/street.

It is not possible to achieve an overall score of 100%. To score well against some metrics, compromise will be needed with other metrics. This reflects the compromises inherent in any street.

Should the assessment reveal one or more '0' scores the design should be reviewed to consider whether the score can be improved. In some cases this will not be possible, if so justify your

### Healthy Streets Check scores



### Healthy Streets Indicators' scores (%)

	Existing layout	Proposed layout
Pedestrians from all walks of life	69	63
Easy to cross	67	67
Shade and shelter	67	67
Places to stop and rest	80	80
Not too noisy	53	53
People choose to walk, cycle and use public transport	69	63
People feel safe	76	70
Things to see and do	58	58
People feel relaxed	72	65
Clean Air	58	58
Overall Healthy Streets Check score	70	65
Number of 'zero' scores	0	1

If known road danger issues (i.e. '0' scores) are unavoidable, please explain why here:

#### How to interpret the results

The Check will produce a percentage score against each of the 10 Healthy Streets Indicators. These percentage scores give a general picture of how a design, in the round, is delivering against the 10 Healthy Streets Indicators. Designers should seek to increase the Healthy Streets Indicators scores.

An overall percentage score is also presented. This is not an average of the scores for each Indicator as each metrics contribute to multiple Indicators scores.

It is not possible to score a perfect 100% in any one design because compromises and trade-offs inevitably need to be made. The overall percentage score is less important than eliminating critical issues and delivering a rounded design.

The objective therefore is to get as high a score as possible, for this to be as evenly distributed across the 10 Indicators as possible and for '0' scores to be eliminated. A proposed scheme should also aim to deliver a score increase from baseline for all Healthy Streets Indicators' scores.

If any metrics have scored '0' these will be flagged up in the summary graph above and if they cannot be reconciled a justification for the decision to leave them in the design should be written in the text box below the scoring table.

There is no threshold score for a Healthy Street. Streets are not either 'healthy' or 'unhealthy' - some designs will perform better than

#### What the numbers mean

The Healthy Streets Check is not a scientific assessment of how healthy a street is. It is not the case that a street with a 10% increase in Healthy Streets Check score confers 10% greater health benefit to people who use it. It is also not the case that a 10% increase in Healthy Streets Check score will deliver a 10% uplift in active travel.

The metrics included in the Healthy Streets Check are the best available quantifiable and evidence based standards that are within the gift of the traffic engineer or urban designer to influence through the design of the street. As a result some of the Healthy Streets Indicators are linked to only a few metrics e.g. shade & shelter while others are linked to all 31 metrics e.g. pedestrians from all walks of life, because all the metrics contribute to the whole environment in the round and therefore affect the Indicator.

The numbers must therefore not be given any undue weight in the interpretation of the results. The objective is to get as high a score as possible for a given project, for this to be as evenly distributed across the 10 Indicators as possible and for '0' scores to be eliminated.

#### What '0' scores mean

Ten of the metrics can be scored '0'. All of these metrics are known high risk road danger issues. TfL is pursuing a Vision Zero target of zero deaths and serious injuries on the streets by 2041 which means that close consideration must be paid to ensure every opportunity to redesign our streets seeks to eliminate these known hazards.

Metrics scored '0' will be flagged in the final results if they have not been addressed. It is not always possible to improve '0' scores but it is important that these are identified through applying the Check and every effort has been made to find a design solution that can remove them.

#### Why you cannot get a perfect score

In a complex street environment a balanced approach must be taken; freeing up space for cycling or extending crossing times for pedestrians may produce delays for buses. Likewise removing a pinch point for cyclists or buses may mean removing an island refuge for pedestrians or from the reverse perspective installing an island refuge may introduce a pinch point for buses and cyclists. To be transparent and promote the best possible outcome in the round, recognising the difficult decisions designers must weigh up the Check aims to highlight these decisions so that stakeholders are informed as to what compromises have been made.



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