

Birmingham Eastside Extension

APP/P6.1

Transport and Works Act 1992

The Transport and Works
(Applications and Objections Procedure)
(England and Wales) Rules 2006

APP/P1.1 Paul Ellingham Town Planning Main Proof of Evidence



WEST MIDLANDS
COMBINED AUTHORITY

TRANSPORT AND WORKS ACT 1992

PROPOSED MIDLAND METRO (BIRMINGHAM EASTSIDE EXTENSION) ORDER 201[X]

PROOF OF EVIDENCE

OF

**Paul Ellingham MA MRTPI Town Planning
Town Planning**

FOR

WEST MIDLANDS COMBINED AUTHORITY

19 October 2017

CONTENTS

1. QUALIFICATIONS AND EXPERIENCE	4
2. SCOPE OF EVIDENCE.....	6
2.1 Overview.....	6
3. BACKGROUND TO THE SCHEME	9
3.1 The Strategic Case	9
3.2 Supporting Regeneration	10
3.3 Stakeholder Consultation	11
4. THE SCHEME.....	13
4.2 Route and Alignment of the BEE.....	13
4.3 Construction.....	19
4.4 Demolition.....	19
4.5 Scheme Benefits.....	20
5. NATIONAL AND LOCAL PLANNING POLICIES RELEVANT TO THE TWA ORDER APPLICATION	23
6. MATTERS FOR THE INQUIRY AND OBJECTIONS TO THE TWA ORDER APPLICATION	26
6.2 The National Planning Policy Framework (2012)	26
6.3 Birmingham Curzon HS2 Masterplan – Masterplan for Growth (BCC 2015).....	32
6.4 Birmingham Curzon HS2 Masterplan – Masterplan for Growth (BCC 2015).....	34
6.5 Big City Plan – City Centre Masterplan (2011)	35
6.6 Digbeth, Deritend and Bordesley High Streets (Digbeth/Deritend) Conservation Character Appraisal and Supplementary Planning Policies (2009).....	36
6.7 Warwick Bar Conservation Area Character Appraisal and Supplementary Planning Policies (2008)	36
6.8 Colmore Row and Environs Conservation Area Character Appraisal and Supplementary Planning Policies (2006).....	37
6.9 Conclusions	37
7. CONCLUSION	49
7.2 Matter 3	49
7.3 Matters 4, D and E	49
7.4 Matter 5	49
7.5 Matter 6 C and D	49
7.6 Matter 8	50
8. STATEMENT OF TRUTH.....	1

1. QUALIFICATIONS AND EXPERIENCE

- 1.1.1 This evidence is prepared by Paul Ellingham MA Town Planning MRTPI.
- 1.1.2 I hold an MA in Town Planning from the City of Birmingham University and have been a Member of the Royal Town Planning Institute since 1994. I have over 29 years of experience in the planning and development sectors both in the private and public sectors.
- 1.1.3 I hold the position of Planning Director in the Birmingham office of Mott MacDonald and joined them in November 2015. Prior to that, I was employed as a Director with WYG between 2014 and 2015. Between 2007 and 2014 I was a Director of Alliance Planning and subsequently employed as an Associate Director with Alliance Planning between 2005 and 2007. During this period of employment, I have acted for the West Midlands Combined Authority (WMCA), formerly known as Centro (The West Midlands Passenger Transport Executive) on a number of town planning matters, including appearing as an expert witness for the Midland Metro (Birmingham City Centre Variation) Order 2015 and the Midland Metro (Wolverhampton City Centre Extension) Order 2016.
- 1.1.4 I was previously employed by Centro as Planning Team Leader (2000-2005) between 1996 and prior to that (1996-2000) as a Senior Planner. In my role as Planning Team Leader, I was responsible for all town planning and environmental related matters including securing consents for a range of major transport infrastructure projects. I was directly involved in the development of Midland Metro Line One and was a key part of the Centro Team for the Birmingham City Centre Extension 2005 Transport and Works Act Order. Whilst at Centro, I was also involved with the promotion of Transport and Works Act Orders for the extension of Midland Metro into Wolverhampton City Centre and the Wednesbury to Brierley Hill Extension.
- 1.1.5 I am therefore, familiar with the TWA Order process and with the planning and environmental issues associated with the development of tramway infrastructure within Birmingham City Centre and the wider West Midlands region.
- 1.1.6 In this matter, I am instructed by the WMCA on a consultancy basis, whereby I provide specialist town planning advice on a range of transportation projects. As a planning consultant under this arrangement, I have continued to provide planning advice to the WMCA on matters associated with the Midland Metro and the further development of the Network.

- 1.1.7 In particular, I have been responsible for co-ordinating the discharge of planning conditions associated with the deemed planning consent for the Midland Metro Birmingham City Centre Extension between Birmingham Snow Hill and Centenary Square. This has included work to secure additional planning and listed building consents as necessary for the development of the Midland Metro network.
- 1.1.8 The evidence I shall give is true, given in good faith and represents my professional opinion regarding the merits of the Midland Metro Birmingham Eastside Extension (BEE) Transport and Works Act Order 2017.

2. SCOPE OF EVIDENCE

2.1 Overview

- 2.1.1 This evidence covers the town planning and environmental aspects associated with the works proposed as part the Midland Metro Birmingham Eastside Extension (BEE) Transport and Works Act (TWA) Order Application.
- 2.1.2 It considers compliance with the relevant planning policies at the national and local levels, both adopted and emerging, in so far as they relate to the BEE TWA Order.
- 2.1.3 It also covers the relevant regeneration strategies, policies, and proposals in so far as they relate to this Order and related development by High Speed 2 (HS2).
- 2.1.4 I address in my evidence the key matters that objectors raise in so far as they relate to planning policy and land use considerations, along with the proposed draft conditions that accompany the Deemed Planning Consent.
- 2.1.5 In response to the Statement of Matters, I deal with the following matters in so far as they relate to the town planning and environmental aspects of the Scheme:-

Table 1: Additional Matters dealt with

Matter	Scope of Evidence	Section of Evidence
3	The extent to which the proposals in the TWA Order are consistent with the National Planning Policy Framework, environmental and local planning policies. Aspects of consistency with European, national and local transportation policy are dealt with in Evidence by Mr Edward Mellor (APP/P4.1)	Sections 6.1.2-6.92
4	The likely impacts of constructing and operating the scheme on land owners, tenants and local businesses, the public, utility providers and statutory undertakers, including any adverse impact on their ability to carry on their business or undertaking. Consideration under this heading should include: (d) impacts on air quality;	Sections 6.9.3-6.9.17

	<p>(e) impacts on landscape, ecological, visual amenity and archaeological interests.</p> <p>Matters 4a and 4b are dealt with by Mr Edward Mellor in his evidence(APP/P4.1) and Matter 4c is dealt with in the evidence of Mr Stephen Luke(APP/P3.1).</p>	
5	<p>The adequacy of the Environmental Statement REF submitted with the application for the TWA Order, having regard to the requirements of the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006 and whether they have been complied with.</p>	Sections 6.9.18 – 6.9.23
6b and c	<p>The measures proposed by Midland Metro to mitigate any adverse impacts of the scheme including:</p> <p>b) any measures to avoid, reduce or remedy any major or significant adverse social, economic and environmental impacts of the Scheme;</p> <p>c) whether, and if so, to what extent, any adverse social, economic and environmental impacts would remain after the proposed mitigation;</p> <p>All matters associated with Noise and Vibration are dealt with by Mr Rupert Thornley Taylor in his evidence (APP/P6.1).</p>	Sections 6.9.24 – 6.9.33
8	<p>The conditions proposed to be attached to the deemed planning permission for the Scheme, if</p>	Sections 6.9.34 – 6.9.38

	given, and in particular whether those conditions satisfy the six tests referred to in Planning Practice Guidance, Use of Conditions (Section ID:21a) (BEE/E2/4).	
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- 2.1.6 All other matters such as need and funding of the Scheme, design and engineering, transport planning, noise and vibration, compulsory purchase and land acquisition, are addressed in evidence provided by others. Set out below is the full list of witnesses for the Promoter, their respective area of expertise and Proof Reference numbers.

Table 2: List of witnesses from the Promoter

Witness Name	Specialism	Proof Document	Proof References
Peter Adams	Scheme Overview	Main Proof	APP/P1.1
		Summary Proof	APP/P1.2
		Appendices to Proof	APP/P1.3
Neil Chadwick	Economic Case	Main Proof	APP/P2.1
		Summary Proof	APP/P2.2
		Appendices to Proof	APP/P2.3
Stephen Luke	Engineering	Main Proof	APP/P3.1
		Summary Proof	APP/P3.2
		Appendices to Proof	APP/P3.3
Eddie Mellor	Traffic Modelling / Traffic Assessment	Main Proof	APP/P4.1
		Summary Proof	APP/P4.2
		Appendices to Proof	APP/P4.3
Rupert Taylor	Noise	Main Proof	APP/P6.1
		Summary Proof	APP/P6.2
		Appendices to Proof	APP/P6.3
Bruce Fowler	Acquisition Surveyor	Main Proof	APP/P7.1
		Summary Proof	APP/P7.2
		Appendices to Proof	APP/P7.3

3. BACKGROUND TO THE SCHEME

3.1 The Strategic Case

- 3.1.1 The West Midlands Combined Authority's (WMCA's) Strategic Transport Plan [BEE/14] sets out a vision for the development of the West Midlands transport network and identifies a need to improve national and regional transport links. This underpins the objective of boosting the West Midlands' economy, improving connectivity across the Metropolitan Area and providing better access to jobs, leisure and services. The Strategic Transport Plan identifies the need to invest in transport infrastructure to achieve its objectives and in particular, the need for a high-quality metropolitan public transport network. Midland Metro is recognised as a key aspect of an integrated rapid transit network and the BEE will be an essential part of the Network.
- 3.1.2 The Eastside and Digbeth areas of Birmingham are undergoing transition and an ongoing programme of regeneration. The recent and forthcoming developments in the area are creating a thriving cultural and economic quarter of the city, with new spaces created for businesses, retail, residential and leisure uses. The Eastside area is also the location for the new HS2 Curzon Street Station. This high-speed rail link will bring further economic and social benefits to Eastside, the city of Birmingham and the wider West Midlands conurbation. The proposed development of Eastside and Digbeth will stimulate new travel demand for the area. The redevelopment and regeneration of the area will benefit from enhanced transport connectivity.
- 3.1.3 HS2 now has Royal Assent and will link Birmingham and London with services planned from 2026. Due to the reduced journey times between Birmingham and London, it will make the City Centre an even more attractive destination for investment and will free up additional capacity on the heavy rail network. The later phases of HS2, with planned services to the North West and to Yorkshire will make Birmingham and the wider Region one of the most connected destinations in the UK. The Station at Curzon Street will be a major transport hub and gateway to the City.
- 3.1.4 HS2 estimate that on opening approximately 13,000 will be arriving or departing from Curzon Street with this rising to over 28,000 by 2041. It is neither practicable nor desirable to cater for journeys to and from the new HS2 station solely by private car and taxi/private hire. This forecast extra demand needs to be accommodated and so alongside existing bus services, BEE will provide a frequent and high-quality

transport link between the HS2 station at Curzon Street, Birmingham City Centre and Eastside and Digbeth quarters.

- 3.1.5 Whilst there is some existing connectivity between these modes and stations/stops and the HS2 station at Curzon Street, BEE will enhance these links through the provision of a high quality rapid transit system. In particular, BEE will:-
- i. link the HS2 station at Curzon Street directly to Snow Hill and New Street stations; and
 - ii. provide a high quality and frequent mode of public transport between HS2 and Birmingham Coach Station, as well as enhance the links between the Coach Station and Birmingham City Centre and the railway stations at Snow Hill and New Street,
- 3.1.6 With the extension of Midland Metro to Edgbaston via Centenary Square currently expected to open in 2021, the extent of the City Centre directly linked to the HS2 station will expand. Access to the HS2 station will also be provided from destinations along the existing Line 1 route and with proposed extensions between Wednesbury to Brierley Hill, and to east Birmingham. For Birmingham and the wider West Midlands to maximise the benefits of HS2 the connections between the city's wider transport network and HS2 needs to be improved to maximise the effects of the high speed services and associated regeneration benefits
- 3.1.7 I set out in Section 6 of my evidence, how the Scheme fits with the strategic objectives of the Birmingham Development Plan(BEE/E3) and how it seeks to maximise improved connectivity with Hs2 and the wider Midland Metro network.

3.2 Supporting Regeneration

- 3.2.1 The introduction of high speed rail link to Birmingham, with a central HS2 station at Curzon Street, will improve public transport connectivity, as well as further supporting the redevelopment and regeneration of the Eastside and Digbeth Quarters.
- 3.2.2 To realise the full potential for future economic growth within these areas, high quality public transport services providing connections between Eastside, the planned Curzon Street Station, Birmingham City Centre, and the surrounding area are required. The Scheme delivers a further expansion of the public transport network providing improved connections between existing transport hubs and areas identified for ongoing regeneration.

- 3.2.3 The current network and pattern of public transport services does not provide a cross-city link to and from Digbeth to the significant population centres north of Birmingham and in the Black Country and the Scheme will help meet this need.
- 3.2.4 The Eastside and Digbeth areas are located within the Birmingham City Centre Enterprise Zone. Currently much of the land in the Eastside and Digbeth areas is under-utilised and supports relatively low levels of investment and redevelopment. The Eastside area is recognised as an Area of Transformation within the Big City Plan [BEE/E22/1 and BEE/E22/2] as part of wider initiatives to support the economic growth of Birmingham and the wider West Midlands conurbation. The Enterprise Zone will support the development of Eastside and Digbeth as set out in the Big City Plan through a range of incentives, including simplified planning, business support and infrastructure investment. GBSLEP's assessment is that the Zone as a whole has the potential to support 40,000 new jobs, add £2 billion a year to the local economy and make available 1.3 million square metres of floorspace across the 25-year lifetime of the Enterprise Zone. Eastside and Digbeth are expected to make up a significant contribution to this.
- 3.2.5 To support the regeneration of the Eastside and Digbeth areas of Birmingham there is a need to improve access to those areas and increase journey opportunities. This need is recognised in BCC's BDP [BEE/E3] and Birmingham Curzon HS2 Masterplan [BEE/E19].
- 3.2.6 Both Eastside and Digbeth are home to an established and continually growing creative sector and have quickly become a well-known hub for digital media, gaming and arts companies. The area is complemented by cultural diversity and a unique nightlife scene.
- 3.2.7 I set out in Section 6 of my evidence how the Scheme fits with national and local planning and planning policies and the strategic aims for regeneration and investment in Birmingham City Centre.

3.3 Stakeholder Consultation

- 3.3.1 An extensive programme of Stakeholder Consultation has been undertaken by the WMCA and is documented in BEE/A10. In particular, the WMCA has worked jointly with Birmingham City Council through the route optioneering process and working up the preferred engineering alignment that is now the subject of this TWA Order application. The WMCA has also engaged with other key interests including HS2,

National Express Group, Network Rail, Hammersons regarding the emerging proposals for Martineau Galleries and Gooch Estates for various development sites in the Digbeth Area. Other key interests along the route include Hotel LaTour and other commercial landowners and occupiers.

- 3.3.2 Public consultation and stakeholder engagement was undertaken as part of the scheme development. Two initial consultations were carried out in which alternative route options were presented to the public. As part of these exercises, questionnaire surveys were also undertaken.
- 3.3.3 Further details of both consultations are given in the Route Options Report which is appended to the Environmental Statement ('ES') [BEE/A13/2].
- 3.3.4 Following the conclusion of the initial route options assessment and the preliminary design, the WMCA commenced preparation work for the TWAO application, including consultation with statutory consultees (those listed in Schedule 5 and Schedule 6 to the Applications Rules) as well as a number of non-statutory consultees and a further public consultation in May and June 2016. The WMCA was already in dialogue with a number of statutory consultees ahead of the TWAO application and this consultation process fed into the selection of the route alignment as detailed in the Report of Consultations Undertaken [BEE/A10] that was submitted as part of the TWAO application.
- 3.3.5 The City Council has also been instrumental in defining the scope and content of the proposed draft planning conditions (BEE/A2), to ensure delivery of the necessary environmental mitigation measures and high standards of design quality for the tram infrastructure and associated public realm. I deal with this in further detail under Matter 8 in Section 6 of my Proof.
- 3.3.6 The WMCA continues to engage directly with statutory and other stakeholders and their agents as appropriate, as well as the public through the TWAO process and, if the Order is made, will continue to do so during the subsequent implementation of the BEE scheme. The WMCA has a positive track record in delivering tramway schemes across the Region and is committed to an ongoing programme of stakeholder engagement. I refer you to the Statement of Case by the WMCA(BEE/F2)and the evidence of Mr Peter Adams(APP/P1.1)which provides further details on the programme of stakeholder engagement that has fed into the BEE Order application process.

4. THE SCHEME

4.1.1 I set out below a summary of the routing and alignment of the Scheme, along with details of the key components of the permanent works, including details of the tram infrastructure and associated landscape and public realm works. I also provide a short description of the construction related activities and how these relate to the draft planning conditions (BEE/A2). I also set out the extent of buildings to be demolished in the context of the impact the permanent impacts on land use patterns and interrelationship with key development sites along the route of the BEE. A full description of the Scheme can be found in the Statement of Case(BBE/F3) and further details of the engineering aspects of the BEE scheme are given in the Proof of Evidence of Mr Stephen Luke (APP/P3.1) and its operation in the Proof of Evidence of Mr Peter Adams (APP/P1.1). The Proof of Evidence Mr Eddie Mellor (APP/P4.1) deals specifically with the impacts on other road users and transport management measures associated with the scheme.

4.2 Route and Alignment of the BEE

- 4.2.1 The BEE comprises of a 1.7km extension of the existing Metro network from the junction of Corporation Street and Bull Street to a terminus on High Street Deritend. This is on street, with approximately 51% sharing road space with other vehicular traffic and approximately 49% segregated running.
- 4.2.2 From the junction with BCCE on Bull Street, the BEE will continue to run on street along this highway in a southeast direction sharing space with other vehicular traffic; southbound along Bull Street where it is proposed as tram and cycles only, and northbound tram, bus and cycles only. The route then crosses Dale End with a tramstop on the realigned Albert Street to serve the proposed HS2 Curzon Street station, Moor Street Station and the Dale End. From here it continues over Moor Street Queensway running along Eastside Park and a proposed pedestrianised area as part of the HS2 scheme, then for a short distance alongside Park Street with a tramstop at the north end of New Canal Street under the HS2 station. This tramstop will provide interchange with the secondary (eastern) HS2 Curzon Street Station access and will also serve Millennium Point, the Education Quarter and other existing destinations.
- 4.2.3 The BEE route then runs on street along New Canal Street with a tramstop on the northern side of the junction with Bordesley Street to provide a connection

to the Typhoo Wharf development and other proposed developments, such as Typhoo Wharf as well as existing businesses.

- 4.2.4 From here, the tram continues on-street along Meriden Street sharing space with other traffic to turn east at the junction with Digbeth to run in a segregated formation in the middle of the highway. At the junction of Rea Street and Floodgate Street there would be a terminus tramstop to serve Birmingham Coach Station, South and City College Birmingham, the Custard Factory and other existing destinations.
- 4.2.5 From the terminus tramstop there will be a 0.2km length of track to the junction of Heath Mill Lane to provide a turnback facility. The proposed Order limits extend to the junction of Clyde Street in order to provide some highway alterations to facilitate the BEE.
- 4.2.6 The track alignment and associated infrastructure for BEE has been developed to accord with current Midland Metro system design parameters and technical requirements, Office of Road and Rail Regulation Tramway Technical Guidance Notes [BEE/C1], UK Tram Guidance and best practice from other street running tramways. The geometric design parameters utilised in the development of the track alignment for BEE have been established to ensure passenger ride quality, promote vehicle stability and reduce vehicle and infrastructure maintenance requirements. The evidence provided by Stephen Luke (APP/P3.1) provides further information in relation to the Schemes compliance with the respective design parameters and technical requirements.
- 4.2.7 Consideration has been made in the design and location of tram tracks to minimise the potential for noise and vibration impacts particularly in the vicinity of designated noise sensitive receptors (as specified in the ES [BEE/A13/1-3]). Further evidence on this matter is provided by Mr Rupert Taylor (APP/P6.1).
- 4.2.8 There will also be some earthworks required in the laying of the tracks and other associated infrastructure such as track drainage (to control and contain surface water run-off) and alterations to existing highway drainage.
- 4.2.9 Accommodation works, for example works required to boundary walls, gates or frontages to accommodate the tram alignment will also be required within the design of the BEE. The detailed design of which will be the subject of future approval by Birmingham City Council in its capacity as planning authority through the discharge of conditions process, which I deal with further in Section 6 of my Proof.

Substation and Overhead Line Equipment (OLE)

- 4.2.10 A number of sites were initially assessed and considered to be feasible for the location of the substation. These sites were assessed for suitability against a number of criteria including; impact on heritage assets, ecology, land use and current planning applications. Discussion was also undertaken with BCC as part of this assessment, and a Flood Risk Assessment was also undertaken given the area is located in Flood Zones 2 and 3 (1 in 1000 year and 1 in 100 year storms respectively).
- 4.2.11 The preferred site proposed to accommodate the substation, is also the preferred option of BCC from a planning and regeneration perspective. The land is currently in use as a pay and display car park. Options for locating the substation underneath the railway viaduct arches are being considered to minimise the impact on the land owners.
- 4.2.12 It is envisaged that OLE will extend along approximately 33% of the route but due to industry advances in on-board tram battery power technology, it is proposed that approximately 67% of the BEE route will be 'catenary free' not requiring the use of affixing OLE to buildings or the use of poles. The section requiring OLE extends from the junction with BCCE at Bull Street to the tramstop at Albert Street, and a short length from the terminus tramstop on High Street Deritend going south east along the turn back facility; the remainder of the BEE will be catenary free. This will reduce the visual impact of the BEE as detailed in the ES [BEE/A13/1-3].
- 4.2.13 Where OLE is required along the route of the BEE, approximately 28 OLE poles (final number depending on detailed design) will be installed along the route, including the associated foundations to support the poles. Where practicable, where OLE is required, they will be combined with lighting columns to minimise street clutter, maximise footway width and reduce construction requirements.
- 4.2.14 The principle of attaching OLE to buildings in preference to poles has already been established through their use along the BCCE and Line 1. Both visual and intrusive surveys will be undertaken to ensure the suitability of the structure and design of the connection detail.
- 4.2.15 As part of the catenary-free operation of the Metro, trams will recharge their batteries via lengths of OLE, including at the terminus tramstop in High Street Deritend.

Tramstops and associated infrastructure

4.2.16 Four tramstops are proposed in the following locations:

Albert Street

4.2.17 The proposed tramstop located at Albert Street is to one of two to serve HS2. The Albert Street tramstop is close to the proposed western Moor Street entrance of the HS2 Curzon Street Station, as well as the development at Martineau Galleries, Hotel LaTour, High Street and Dale End, and will provide interchange with bus services and Moor Street Rail Station.

New Canal Street

4.2.18 The proposed tramstop located at New Canal Street is to serve the New Canal Street entrance of the HS2 Curzon Street Station as well as Millennium Point, Thinktank, University buildings Eastside City Park and the Eastside area. This tramstop is located between the two sections of the proposed HS2 Curzon Street Station building, and will be oversailed by the HS2 platform level above.

Meriden Street

4.2.19 The proposed tramstop at Meriden Street is to serve existing premises in the vicinity as well as proposed developments within the HS2 Curzon Street Masterplan [BEE/E19] such as the Typhoo Wharf development. The tramstop at Meriden Street requires the permanent acquisition of land belonging to the Gooch Estate in order to provide for adequate pavement widths as specified by BCC.

High Street Deritend

4.2.20 The tramstop proposed at High Street Deritend / Digbeth High Street is located between the Coach Station and the Custard Factory to serve these and other existing businesses along High Street Deritend, including Birmingham South and City College.

4.2.21 A turnback facility extends beyond this tramstop up to the junction with Heath Mill Lane to allow the tram vehicles to recharge batteries and turn around for the return journey towards the City Centre.

- 4.2.22 BEE tramstops will be designed to complement those on the existing Metro network to avoid visual confusion as well as having cognisance to their environment in terms of the size and length of platforms for example as well as the finishes and appearance [see Urban Design Strategy BEE/A13/2]. The tramstop platforms are 300mm high and being designed to provide access and egress for all.
- 4.2.23 Each tramstop will be designed to include either canopies or shelters with seating, passenger information and help points, lighting and CCTV. All of the tramstops will consist of two side platforms, separately serving the north and southbound directions, with the exception of the tramstop at Albert Street which will consist of a central platform.
- 4.2.24 High quality materials and finishes will be employed ensuring integration with the surrounding areas (including developments where sufficient detail is available in the stage of the development) and BEE Urban Design Strategy [BEE/13/2] alongside other BCC development, highways and regeneration aspirations. The detailed design of the tramstops will be a reserved matter for approval by BCC under conditions 2, 3 and 4 to be attached to the deemed planning permission [BEE/A2]. This is set out in further detail in Section 6 of my evidence.

Urban Realm and Landscape

- 4.2.25 The general approach to urban realm is the creation of a high quality public realm creating visual continuity and promoting a distinct identity. This has typically involved the replacement of existing surface materials, the removal and replacement of street furniture and sensitive integration of the tram infrastructure. This is explained in the draft Urban Design Strategy located within the ES technical appendices [BEE/A13/3]).
- 4.2.26 Design details have not yet been developed for the different sections of the route. However, in general, it is anticipated that a similar approach to the BCCE will be taken in the detailed design. The townscape value to the city centre will benefit from the BEE with investment in new paving and street furniture. The WMCA is continuing to liaise closely with BCC as local authority in the development of the detail, and also HS2 in the vicinity of the footprint of that scheme. The WMCA will also consult with developers in the vicinity as appropriate to their location and the development / phase of their design. The proposed deemed planning conditions require BCC's approval for design, external appearance, and materials used for the Scheme. Again I deal with this in Section 6 of my Proof.

- 4.2.27 Through design of surfacing and integration of street furniture, the proposals will also seek to reduce risk between vehicular traffic and pedestrians.
- 4.2.28 There are opportunities to enhance the existing streetscape along the route of BEE, as well as creating and integrating new areas of sociable and usable space for pedestrians including outside Hotel LaTour and the potential for grass track. These areas of opportunity are identified within the ES [BEE/A13/1-3] and will be captured through the planning conditions attached to the Deemed Consent [BEE/A2].
- 4.2.29 Particular attention has been paid to the landscape and urban realm proposals adjacent to Hotel LaTour. Three semi-mature trees (London plane) will be removed from the footway in Moor Street Queensway and of these, one will be replaced at the end of construction. Eight young trees (London plane) will be removed from outside Hotel LaTour, but in their place, eight new semi-mature trees will be planted in a line, 1-2m closer to the hotel. The 5m wide border between the tram tracks and the bus stand will be planted with a line of semi-mature trees, a 2m high hedge and shrub and perennial planting.
- 4.2.30 The design detail of the respective public realm and landscape works will be approved via the discharge of conditions process by Birmingham City Council to ensure the highest standards are achieved and compliment surrounding developments including Curzon Street Station. A full list of the Draft Conditions can be found in BEE/A2 which forms part of the planning direction.

Bus Facilities

- 4.2.31 This is dealt with in further detail by Edward Mellor(APP/P4.1) but in summary the following works are proposed in relation to bus stop facilities affected by the Scheme.
- 4.2.32 The BEE alignment requires the removal of three bus stops on Moor Street Queensway, one which will be re-provided at a different location along the Queensway, the other two are provided in the realigned section of Albert Street near the proposed HS2 Curzon Street Station. In addition, two existing eastbound bus stops along the north section of Albert Street near Dale End are affected in that they will remain on the realigned Albert Street, one in an eastbound direction, the other for westbound bus services. The WMCA and bus operators will continue to work in partnership to secure the most suitable and convenient facilities for bus passengers.

4.3 Construction

4.3.1 Mr Stephen Luke (APP/P3.1) REF and Mr Peter Adams (APP/P1.1) provide a more detailed explanation of the approach to be adopted by the Midland Metro Alliance (MMA) in relation to the construction of the Scheme, but I refer you to the Draft Construction Strategy Report [BEE/A13/2] which describes possible phasing of the works which addresses the principal considerations and objectives which include but are not limited to those listed below:

- iii. Minimise adverse environmental effects;
 - iv. Minimise the disruption to local residents, public transport, commercial properties, businesses, etc;
 - v. Minimise land-take from proposed developments;
 - vi. Minimise disruption to the highway network;
 - vii. Minimise utility diversion costs;
 - viii. Maintain access to public transport services along the route;
 - ix. Maintain access for emergency vehicles at all times;
 - x. Minimise the disruption to pedestrians and cyclists;
 - xi. Maximise flexibility for the main Contractor to minimise timescale and cost;
- and

4.4 Demolition

4.4.1 The BEE requires the demolition of the Kings Parade Building on Dale End as well as the partial demolition of the building at the corner of Meriden Street and High Street Deritend. The details of the demolition of these buildings is contained within the draft Construction Strategy [BEE/A13/2] and it is likely that a specialist demolition sub-contractor will be engaged to develop these details further and to carry out these works. The impact of these works in terms of the impact on temporary and permanent land use and land take are considered further in Section 7 of the Environmental Statement (ES) (BEE/A13/1). I refer to these also in Section 5 of my evidence in terms of the impact of the Scheme on delivery of key development opportunities and alignment with the various Development Plan policies and Masterplans. I refer you to the evidence given by Mr Bruce Fowler (APP/P7.1) with regards to the need to acquire land for the purposes of demolition and also operation of the Scheme.

4.5 Scheme Benefits

4.5.1 With reference to the evidence of Mr Peter Adams(APP/P1.1), Mr Neil Chadwick(APP/P2.1) and the Schemes draft Business Case May 2017(BEE/23.3), the following key transport, regeneration and economic benefits of BEE noted:-

Transport Benefits

- i. improved integration between Metro, bus and rail modes of transport providing new and improved journeys for the travelling public;
- ii. encouraging modal shift from private to public transport;
- iii. rail station accessibility in improving connections with Metro services through delivering a Metro stop at Curzon Street but also with connectivity to Grand Central via Stephenson Street and Snow Hill Station via Bull Street/Colmore Plaza.
- iv. Providing improved public transport connectivity to Eastside and Digbeth Quarters
- v. Positive transport user and non-user benefits,
- vi. Transfer from private car use, reducing greenhouse gas emissions,
- vii. Improved accessibility,
- viii. Improved reliability of journeys,
- ix. Improved security,

Regeneration Benefits

- x. Assisting with supporting regeneration and providing improved access to key development opportunities including Martineau Galleries, Typhoo Wharf and Smith Street amongst others
- xi. Providing the opportunity to expand the Midland Metro Network further towards the Birmingham Northern Regeneration Area and the Airport.
- xii. Maximising the impact for inward investment opportunities arising from HS2

Economic Benefits

- xiii. Economic benefits, as set out in the Environmental Statement Appendix U – Economic Impact Assessment [BEE/A13/2].
- xiv. Increased public transport net revenues,
- xv. Job Creation and Employment

4.5.2 Mr Peter Adams in his evidence (APP/P1.1) also provides a comprehensive assessment on the need and benefits of the BEE Scheme.

Strategic Case

4.5.3 Mr Neil Chadwick sets out the Treasury and Department for Transport's approach to project appraisal within his Proof of Evidence [APP/P2.1]. The purpose of the business case is to demonstrate that:

- i. There is a robust rationale for the proposed scheme
- ii. The proposed scheme will deliver value for money
- iii. The proposed scheme is affordable in terms of sources of funding (for construction and operation)
- iv. Robust procurement arrangements for the necessary elements of the proposed scheme exist
- v. Robust governance arrangements exist and effective project management is in place

4.5.4 The Strategic Case section of the draft Business Case [BEE/23/3] covers the local policy context, including the plans and policies of BCC and the GBSLEP and demonstrates that the Scheme is entirely in line with national, regional and local policies.

4.5.5 The Economic Case [BEE/23/5] section sets out the Value for Money (VfM) of the Scheme in accordance with government guidance and shows that the scheme represents high VfM with a very high draft BCR of 4.8.1. The net present value over the appraisal period is £77 million.

4.5.6 The Financial Case [BEE/23/2] section for the Scheme confirms the expected outturn costs and the funding sources from which they will be met.

4.5.7 The Management Case [BEE/23/4] shows that the Scheme is managed by a strong project team organisation with a mixture of in-house project managers and technical and operational light rail experts together with a strong team of supporting specialists and advisers covering all aspects of development, delivery and implementation.

4.5.8 The Commercial Case [BEE/23/1] demonstrates the WMCA's recent experience in procurement of Midland Metro extensions with the BCCE and Fleet Replacement Programme which included procurement of a 1.3km extension to Midland Metro, a

Depot extension and a replacement tram fleet. Lessons learnt from those contracts have been fed through into the current phase.

- 4.5.9 There is considered to be a compelling case in the public interest for the compulsory acquisition of lands and rights over lands as set out within the proposed Order. The justification is based upon the BEE supporting the delivery of a 'first class transport network providing rapid convenient and sustainable links between the strategic centres, existing and new communities and employment sites' and delivering the scheme benefits as outlined above.
- 4.5.10 As set out in 6.18 of Mr Adams Proof(APP/P1.1), the BEE will deliver significant transport benefits, with the scheme falling into the "Very High" category when assessed against the Department for Transport's Value for Money Framework [BEE/D18/A]. It has positive social impacts, with these being "Moderate Beneficial". When Assessed on its own merits the scheme will deliver significant Economic Benefits, of up to £130 million GVA as set out in the Environmental Statement Appendix U – Economic Impact Assessment [BEE/A13/2], playing a key part in delivering the £1.4 billion economic benefits to be delivered within the overall Curzon Masterplan for Growth.

5. NATIONAL AND LOCAL PLANNING POLICIES RELEVANT TO THE TWA ORDER APPLICATION

5.1.1 This section sets out the main national and local planning policies relevant to the TWA Order along with non-statutory regeneration strategies and guidance documents in so far as their relevance to the TWA Order. Mr Mellors Proof (APP/P4.1) identifies the key transportation policies in so far as their relevance to the Scheme and Order.

5.1.2 In so far as my evidence is concerned I make reference to the following planning policies and strategies, at a national and local level, as set out in Table 1 below.

Table 3: Planning Policy Document List

Policy Document	Inquiry Document Ref.
National Planning Policy	
National Planning Policy Framework (Mar 2012) <ul style="list-style-type: none"> • Paragraph 7 (Sustainable Development) • Paragraph 8 (Sustainable Development) • Paragraph 14 (Sustainable Development) • Paragraph 29 (Sustainable Transport Modes) • Paragraph 30 (Sustainable Transport Solutions) • Paragraph 31 (Infrastructure to Support Sustainable Development) • Paragraph 35 (Sustainable Transport Modes) • Paragraph 58 (Good Design Principles) • Paragraph 63 (Design) • Paragraph 64 (Design) • Paragraph 132 (Heritage Assets) • Paragraph 134 (Heritage Assets) • Paragraph 137 (Heritage Assets) 	BEE/E1
Local Development Plan Policy	
Birmingham Development Plan (Jan 2017): <ul style="list-style-type: none"> • Policy PG1 (Overall levels of growth) • Policy PG2 (Birmingham as an international city) • Policy PG3 (Place Making) • Policy GA1 (City Centre) 	BEE/E3

<ul style="list-style-type: none"> • Policy TP1 (Reducing the City’s carbon footprint) • Policy TP2 (Adapting to climate change) • Policy TP3 (Sustainable Construction) • Policy TP4 (Low and zero carbon energy generation) • Policy TP5 (Low Carbon Economy) • Policy TP6 (Management of flood risk and water resources) • Policy TP7 (Green infrastructure network) • Policy TP8 (Biodiversity and Geodiversity) • Policy TP9 (Open Space, playing fields and allotments) • Policy TP12 (Historic Environment) • Policy TP18 (Regional Investment Sites) • Policy TP19 (Core Employment Areas) • Policy TP21 (The network and hierarchy of centres) • Policy TP24 (Promoting a diversity of uses within centres) • Policy TP25 (Tourism and cultural facilities) • Policy TP27 (Sustainable neighbourhoods) • Policy TP38 (A Sustainable Transport Network) • Policy TP39 (Walking) • Policy TP40 (Cycling) • Policy TP41 (Public Transport) • Policy TP45 (Accessibility standards for new development) 	
<p>Birmingham Unitary Development Plan (UDP) ‘Saved’ Policies (Jan 2017):</p> <ul style="list-style-type: none"> • Paragraphs 3.14 – 3.14D (The Design of New Development) 	BEE/E38

Other Planning Policies and Strategies	
Planning Practice Guidance	BEE/E39
Birmingham Curzon HS2 Masterplan – Masterplan for Growth (Jul 2015)	BEE/E19
Birmingham Smithfield Masterplan (September 2016)	BEE/E40
Big City Plan – City Centre Masterplan (2011)	BEE/E22/1; and BEE/E22/2
Greater Birmingham and Solihull Local Enterprise Partnership Strategic Economic Plan 2016-2030 (2016)	BEE/D2
Greater Birmingham and Solihull Local Enterprise Partnership – The Midlands HS2 Growth Strategy (2015)	BEE/E16
Digbeth, Deritend and Bordesley High Street Conservation Area Character Appraisal and Supplementary Planning Policies (2009)	BEE/E33
Warwick Bar Conservation Area Character Appraisal and Supplementary Planning Policies (2008)	BEE/E35
Colmore Row and Environs Conservation Area Character Appraisal and Supplementary Planning Policies (2006)	BEE/E37

5.1.3 I deal further in Section 6 of my evidence with respect to how the BEE scheme is consistent or otherwise with the planning framework at a national and local level.

6. MATTERS FOR THE INQUIRY AND OBJECTIONS TO THE TWA ORDER APPLICATION

6.1.1 I have set out below my responses to the Statement of Matters identified by the Secretary of Site [INQ/3] that are relevant to my scope of evidence and also my understanding of the points raised by the objectors in so far as they relate to matters of planning policy and land use considerations. In particular, I cover the matters in so far as they relate to town planning and the respective environmental matters not covered by other witnesses.

Matter 3

The extent to which the objective of the TWA Order are consistent with National, regional and local transportation policies, the national planning policy framework and local planning policies

6.1.2 I am familiar with the policy framework in so far as it relates to the BEE Order and I have set out below my assessment of how the objectives of the Scheme are consistent or otherwise with the National Planning Policy Framework(BEE/E1) and local planning policies. The evidence given by Mr Edward Mellor (APP/P4.1) covers the consistency of the Scheme with national, regional and local transportation policy.

6.2 The National Planning Policy Framework (2012)

6.2.1 The National Planning Policy Framework (NPPF) [BEE/E1], sets out what sustainable development means in practice for the planning system in England and provides the basis for planning decisions. The Framework states that economic, social and environmental gains should be sought jointly and simultaneously through the planning system. The BEE Scheme achieves the principles of sustainable development by:

- i. promoting an environmentally friendly form of transport that is aimed at minimising the use of the private car, reducing congestion and maximising usage of non-car modes;
- ii. promoting social inclusion through the provision of safe, affordable and highly accessible public transport facilities; and
- iii. supporting the local economy through construction related employment and providing improved access and connectivity to support regeneration of the city centre.

- 6.2.2 The NPPF identifies a series of core planning principles which include, actively managing patterns of growth to make the fullest possible use of public transport, walking and cycling, and focussing development in locations which are or can be made sustainable.
- 6.2.3 The BEE Scheme does this by providing improved connectivity between a variety of modes of transport including high speed rail, rail, light rail and bus services.
- 6.2.4 The NPPF sets out the Government's planning policies for England and how these are expected to be applied. **Paragraph 6** confirms that the purpose of the planning system is to contribute to the achievement of sustainable development which, for the purpose of the planning system, is defined by paragraphs 18 to 219 of the Framework, taken as a whole.
- 6.2.5 **Paragraph 7** outlines the three dimensions of sustainable development (economic, social and environmental) and corresponding roles for the planning system:
- i. An economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure.
 - ii. A social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of the present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural wellbeing; and
 - iii. An environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use of natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving a low carbon economy.
- 6.2.6 **Paragraph 8** makes clear that these roles should not be undertaken in isolation because they are mutually dependent. That is to say there are many overlapping factors to their operation, and they should be addressed together and as part of a 'balancing exercise'.

- 6.2.7 **Paragraph 14** states that at the heart of the NPPF is the presumption in favour of sustainable development, which is to be seen as a golden thread running through both plan-making and decision-making. For decision taking this means approving development proposals that accord with the development plan without delay (unless material considerations indicate otherwise), and:
- 6.2.8 *“where the development plan is absent, silent or relevant policies are out of date, granting permission unless:*
- i. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
 - ii. specific policies in this Framework indicate development should be restricted.”
- 6.2.9 The NPPF identifies a series of core planning principles which include, inter alia, actively managing patterns of growth to make the fullest possible use of public transport, walking and cycling, and focusing development in locations which are or can be made sustainable.
- 6.2.10 The NPPF seeks to promote sustainable transport and seeks to widen transport choice. In particular, **Paragraph 29** makes clear that the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel, recognising that opportunities to maximise sustainable transport solutions will vary between urban and rural areas.
- 6.2.11 **Paragraph 31** encourages local authorities to work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development.
- 6.2.12 **Paragraph 35** states that planning authorities should exploit opportunities for the use of sustainable transport modes for the movement of goods and people.
- 6.2.13 **Section 7** of the Framework confirms that great importance is attached to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute towards making places better for people.
- 6.2.14 **Paragraph 64** states that permission should be refused for development which is of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions.

- 6.2.15 **Section 12** of the NPPF seeks to preserve and enhance the historic environment recognising that heritage assets (designated and non-designated) are an irreplaceable resource. Conservation should be carried out in a manner appropriate to the significance of the heritage asset.
- 6.2.16 The NPPF contains further guidance regarding the determination of applications affecting heritage assets. **Paragraph 132** makes clear that where a proposed development has an impact on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. **Paragraph 134** also goes on to say that where less than substantial harm to a designated heritage asset takes place as a result of the development proposal, this harm should be weighed against the public benefits of the proposal.

Birmingham Plan – Adopted January 2017

- 6.2.17 The current local planning policy framework for Birmingham is the Birmingham Plan(BEE/E3) which was adopted in January 2017. The Plan is therefore, very recently adopted and I set out in my evidence the policies relevant to the Scheme and how the objectives of the Scheme are consistent with adopted local planning policy.
- 6.2.18 The BEE will maximise the benefits of HS2 for Birmingham in line with the BDP (Policy TP41 [BEE/E3]) and the 'HS2 Get Ready' report [BEE/E9], enabling passengers arriving to Birmingham City Centre by HS2 to directly access shops, offices and other cultural and leisure amenities in other parts of the city. It will maximise the regeneration and development potential of HS2 in the city centre in line with the Birmingham Curzon HS2 Masterplan [BEE/E19] and the HS2 Growth Strategy [BEE/E16] by ensuring connectivity to Curzon Station from across the West Midlands. The BDP [BEE/E3] sets out the statutory framework to guide decisions on development and regeneration in Birmingham up to 2031. It sets out how and where new homes, jobs, services and infrastructure will be delivered and the type of places and environments that will be created. The BDP covers the whole administrative area of the city.
- 6.2.19 **Policy TP41** of the BDP in particular supports the BEE as it relates to Midland Metro and bus rapid transit. It states that the development and extension of Metro/bus rapid transit to facilitate improvement / enhancement in the public transport offer on key

corridors and to facilitate access to development and employment will be supported.

In particular it supports:

- i. an extension of the Midland Metro network to Eastside via the HS2 Curzon Street Station, the BEE,

6.2.20 **Policy PG2** of the BDP confirms that Birmingham will be promoted as an international city supporting development, investment and other initiatives that raise the profile of the Birmingham City Centre and strengthen its position nationally and internationally.

6.2.21 **Policy GA1.1** states that Birmingham City Centre will continue to be promoted as the focus for retail, office, residential and leisure activity. Policy GA1.2 relates to growth and areas of wider change. The policy outlines that the ongoing regeneration of Eastside (of which the BEE is located within) giving access to Eastside will enable the City Centre Core to expand eastwards and will require well designed mixed-use developments including office, technology, residential, learning and leisure. It outlines that any proposals for a HS2 station will need to be integrated into the area creating a world class arrival experience with enhanced connectivity to surrounding areas including Digbeth and the City Centre Core. The BEE will perform a key role in ensuring that this enhanced connectivity is delivered.

6.2.22 **Policy GA1.3** confirms that new development must support and strengthen the distinctive character of the areas surrounding the City Centre Core raising its overall quality, offer and accessibility. Birmingham City Centre is considered to be formed by seven Quarters with the Core at its heart. The policy outlines that within each quarter varying degrees of change are proposed that relate to the overarching objectives of delivering ambitious growth whilst supporting the distinctive characteristics, communities and environmental assets of each area. The BEE is located within the following quarters:

- i. The City Centre Core - providing an exceptional visitor and retail experience with a diverse range of uses set within a high-quality environment;
- ii. Digbeth - Creating a thriving creative and cultural hub with a high quality, exciting and easily accessible environment; and
- iii. Eastside – Maximising its role as an area for learning and technology realising its extensive development opportunities and the integration of any proposals for HS2 station.

- 6.2.23 **Policy GA1.4** relates to connectivity and states that measures to improve accessibility to and within the city centre will be supported, including the integration of public transport. The BEE provides the improved connectivity to HS2 and linking existing transport hubs such as Moor Street Station, Snow Hill Station and Grand Central. This will maximise opportunities for interchange with these key transport hubs and areas identified for ongoing regeneration.
- 6.2.24 **Plan 5** within the BDP provides the City Centre Spatial Strategy which identifies a Metro extension from Bull Street / Corporation Street to the HS2 terminus in Eastside which is in line with the BEE
- 6.2.25 The BDP also captures the sites within the City Centre Enterprise Zone and other major development sites which will be brought forward for development within the plan period. The development sites which will benefit directly from improved public transport connectivity arising from the Scheme are as follows:
- i. City Centre Enterprise Zone Sites: Major Sites
 - ii. 6 – Southern Gateway
 - iii. City Centre Enterprise Zones Sites: Digbeth
 - iv. 12 – Typhoo Wharf
 - v. 15 – Custard Factory Extension
 - vi. 16 – Smithfield Court
 - vii. 17 – Connaught Square
 - viii. City Centre Enterprise Zone Sites: Eastside
 - ix. 22 – Curzon Park
 - x. 23 – City Park Gate
- 6.2.26 Further details of these sites can be found in Section 7 of the ES(BEE/A13/1):
- 6.2.27 **Policy TP38** provides support for the development of a sustainable, high quality, integrated transport system, where the most sustainable mode choices also offer the most convenient means of travel. It states that the delivery of a sustainable transport network will require, amongst other things:
- i. improved choice by developing and improving public transport, cycling and walking networks;
 - ii. the facilitation of modes of transport that reduce carbon emissions and improve air quality;

- iii. reduction in the negative impact of road traffic, for example, congestion and road accidents;
- iv. working with partners to support and promote sustainable modes and low emission travel choices;
- v. ensuring that land use planning decisions support and promote sustainable travel; and
- vi. building maintaining and managing the transport network in a way that reduces CO₂, addresses air quality problems and minimises transport's impact on the environment.

6.2.28 The BEE achieves the objectives of Policy TP38 by reducing the need for use of the private car, encouraging the use of public transport and promoting a route alignment that seeks to maximise the development of land identified within the BDP [BEE/E3].

6.2.29 The BDP [BEE/E3] contains further policies to protect and improve environmental quality. The ES [BEE/A13/1-3] provides further information on those planning policies (relating to traffic and transport, noise and vibration, air quality, greenhouse gases, historic environment, townscape and visual amenity, water resources and land drainage, soils, geology and contaminated land, and socio-economics) that are relevant to the BEE.

6.2.30 The Scheme is fully consistent with the Birmingham Plan (BEE/E3) and in particular, in meeting the objectives set out in Policies TP38 and TP41, along with the wider regeneration and connectivity supported under Policies GA1.1 to GA1.4. BEE also achieves the objectives of Policy TP38 by reducing the need for use of the private car, encouraging the use of public transport and promoting a route alignment that seeks to maximise the development of land identified within the BDP.

6.3 *Birmingham Curzon HS2 Masterplan – Masterplan for Growth (BCC 2015)*

6.3.1 The Birmingham Curzon HS2 Masterplan [BEE/E19] identifies opportunities and sets out the approach to future development, building upon the work of BCC's the Birmingham Big City Plan BEE/E22/1 and BEE/E22/2] It serves as its vision and framework for the future development of the HS2 city centre terminus and the wider regeneration of Eastside, Digbeth and the eastern fringe of the city centre core.

6.3.2 The Masterplan area covers some 141ha and is bound to the east by the Ring Road (A4540 Dartmouth and Watery Lane Middleway) and to the south by the B4100 (the road known as Digbeth), High Street Deritend and High Street Bordesley. The Aston

University campus adjoins the northern boundary on Jennens Road, with High Street and Corporation Street forming the western boundary with the City Centre Core.

- 6.3.3 The Masterplan [BEE/E19] outlines how HS2 will accelerate the growth potential of Birmingham City Centre with Birmingham HS2 Curzon Station at the heart of the expansion into the Eastside and Digbeth areas. HS2 will provide a number of benefits to the city centre and in order that the potential to be maximised and the associated growth delivered, the Masterplan identifies '5 Big Moves' needed as part of the delivery of the station to create wider economic impact.
- 6.3.4 One of the '5 Big Moves' identified is an extension to the Midland Metro, with an integrated tramstop to be provided at New Canal Street which will provide HS2 travellers with fast and efficient connections to the wider city centre, with additional tramstops transforming connections and boosting the regeneration potential of Digbeth.
- 6.3.5 The Masterplan proposes the integration of Birmingham HS2 Curzon Street Station with Metro and Sprint bus services with an interchange tramstop on New Canal Street. The design of the station and viaduct structure should ensure that there is sufficient platform width for Metro and Sprint bus passengers. It is proposed in the Masterplan to close New Canal Street from Curzon Street to Fazeley Street to general vehicular traffic allowing some taxi access but principally becoming a route for Metro and Sprint bus services only.
- 6.3.6 Section 4 of the Masterplan relates to connectivity, within which an extension of Metro is supported between the city centre and Adderley Street via New Canal Street and High Street Deritend. The route to Bull Street will improve public transport connections across the city centre and will provide a connection to the proposed HS2 station. The Masterplan outlines that the proposed extension will include a bus interchange located close to the proposed HS2 station. An essential requirement for Metro and HS2 is the full integration of a tramstop on New Canal Street to provide fast connections for passengers.
- 6.3.7 The Masterplan notes that a key principle will be to provide safe, attractive, direct and convenient routes to the proposed tramstops. Plan to take the Metro into East Birmingham and North Solihull will transform access for these communities to HS2 stations at Curzon Street and the interchange station at Birmingham Airport.

6.3.8 The Scheme fully supports and aligns with Curzon Street Masterplan[BEE/E19] by, delivering improved connectivity between the new Hs2 Station and Digbeth/Deritend. The careful location of tramstops seeks to provide linkages to key developments, both existing and proposed so as to maximise the regeneration benefits arising from HS2.

6.4 Birmingham Curzon HS2 Masterplan – Masterplan for Growth (BCC 2015)

6.4.1 The Birmingham Curzon HS2 Masterplan [BEE/E19] identifies opportunities and sets out the approach to future development, building upon the work of BCC's the Birmingham Big City Plan BEE/E22/1 and BEE/E22/2] It serves as its vision and framework for the future development of the HS2 city centre terminus and the wider regeneration of Eastside, Digbeth and the eastern fringe of the city centre core.

6.4.2 The Masterplan area covers some 141ha and is bound to the east by the Ring Road (A4540 Dartmouth and Watery Lane Middleway) and to the south by the B4100 (the road known as Digbeth), High Street Deritend and High Street Bordesley. The Aston University campus adjoins the northern boundary on Jennens Road, with High Street and Corporation Street forming the western boundary with the City Centre Core.

6.4.3 The Masterplan [BEE/E19] outlines how HS2 will accelerate the growth potential of Birmingham City Centre with Birmingham HS2 Curzon Station at the heart of the expansion into the Eastside and Digbeth areas. HS2 will provide a number of benefits to the city centre and in order that the potential to be maximised and the associated growth delivered, the Masterplan identifies '5 Big Moves' needed as part of the delivery of the station to create wider economic impact.

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general vehicular traffic allowing some taxi access but principally becoming a route for Metro and Sprint bus services only.

- 6.4.6 Section 4 of the Masterplan relates to connectivity, within which an extension of Metro is supported between the city centre and Adderley Street via New Canal Street and High Street Deritend. The route to Bull Street will improve public transport connections across the city centre and will provide a connection to the proposed HS2 station. The Masterplan outlines that the proposed extension will include a bus interchange located close to the proposed HS2 station. An essential requirement for Metro and HS2 is the full integration of a tramstop on New Canal Street to provide fast connections for passengers.
- 6.4.7 The Masterplan notes that a key principle will be to provide safe, attractive, direct and convenient routes to the proposed tramstops. Plan to take the Metro into East Birmingham and North Solihull will transform access for these communities to HS2 stations at Curzon Street and the interchange station at Birmingham Airport.
- 6.4.8 The Scheme fully supports and aligns with Curzon Street Masterplan[BEE/E19] by, delivering improved connectivity between the new Hs2 Station and Digbeth/Deritend. The careful location of tramstops seeks to provide linkages to key developments, both existing and proposed so as to maximise the regeneration benefits arising from HS2.

6.5 Big City Plan – City Centre Masterplan (2011)

- 6.5.1 The Big City Plan [BEE/E22/1 and BEE/E22/2] aims to deliver transformational change in Birmingham City Centre. It sets out further proposals to expand the City Core to accommodate greater levels of economic and cultural activity, whilst supporting and strengthening the distinctive character of the surrounding areas, improving connections and raising their overall quality. The Big City Plan identifies both Eastside and Digbeth as key areas for regeneration activity with HS2 providing an opportunity to unlock development opportunities and link the area into the city centre.
- 6.5.2 As with the Curzon Street Masterplan, the Scheme is consistent with the Big City Plan BEE/E22/1 and BEE/E22/2] by improving connectivity between Hs2 and regeneration areas, as well as improving accessibility within and to the City Centre core.

6.6 Digbeth, Deritend and Bordesley High Streets (Digbeth/Deritend) Conservation Character Appraisal and Supplementary Planning Policies (2009)

- 6.6.1 Digbeth, Deritend and Bordesley High Streets (Digbeth/Deritend) Conservation Area(BEE/E33) contains important remnants of Birmingham's medieval townscape, dating from the 12th to 15th Centuries. It is also significant as an inner city industrial quarter with a good range of industrial and commercial buildings dating from the 19th to 20th Centuries and provides a major focus for regeneration.
- 6.6.2 The purpose of the supplementary planning policies document is to preserve or enhance the character or appearance of Digbeth, Deritend and Bordesley High Streets (Digbeth/Deritend) Conservation Area(BEE/E34). In order to maintain and reinforce this special character the policies are intended to guide and manage the significant level of change anticipated for the area through the promotion of good new design which responds sensitively to historic context. New development will be encouraged to complement the established character of the area while reflecting its own time and function.
- 6.6.3 The BEE seeks to minimise harm to local heritage assets and the detailed design process will ensure a sensitive approach to the transport infrastructure, including consideration of the setting of listed buildings.

6.7 Warwick Bar Conservation Area Character Appraisal and Supplementary Planning Policies (2008)

- 6.7.1 Warwick Bar Conservation Area(BEE/E36) has a special architectural and historic character of local and regional significance. The canalside quarter, with its surviving industrial heritage, makes a unique contribution to the quality and interest of Birmingham's wider city centre area and offers a number of opportunities for regeneration.
- 6.7.2 The purpose of the supplementary planning policies document is to preserve or enhance the character or appearance of Warwick Bar Conservation Area. In order to maintain and reinforce the special character the policies are intended to guide and manage the significant level of change anticipated for the area through the promotion of good new design which responds sensitively to historic context. New development will be encouraged to complement the established character of the area while reflecting its own time and function.

6.7.3 The ES [BEE/A13/1-3] has assessed the BEE in relation to the character of the Warwick Bar Conservation Area(BEE/E36) and as well as any mitigation proposed, the BEE will also run catenary free within the area which will also reduce any potential visual intrusion.

6.8 Colmore Row and Environs Conservation Area Character Appraisal and Supplementary Planning Policies (2006)

6.8.1 The Colmore Row and Environs Conservation Area (BEE/E37) covers an area of 21.7 hectares in Birmingham City Centre and is contained within the Ladywood Ward. Much of Birmingham's Central Business District is contained with Colmore Row and Environs Conservation Area. The significance of Colmore Row and Environs Conservation Area lies in the quality and diversity of its architecture, particularly that of the nineteenth and twentieth centuries. It contains a number of buildings of exceptional interest and national importance including St Phillips Church (Birmingham Cathedral), the Town Hall.

6.8.2 The purpose of the Supplementary Planning document (SPD) is to guide the preservation and enhancement the character or appearance of Colmore Row and Environs Conservation Area(1. In order to maintain and reinforce the special character, the SPD seeks to guide and manage change through the promotion of good new design which responds sensitively to historic context. New development will be encouraged to complement the established character of the area while reflecting its own time and function.

6.8.3 Whilst the BEE does not pass through the Colmore Row and Environs Conservation Area the alignment run adjacent to its boundary. Therefore, the BEE has been considered in the ES [BEE/A13/1-3] in relation to potential impacts on the setting of the Conservation Area. The ES confirms the BEE will not result in substantial harm to the setting of Conservation Area due to it being integrated into the streetscene and the implementation of measures for delivering high standards of design.

6.9 Conclusions

6.9.1 Whilst Section 38 (6) of the Planning and Compulsory Purchase Act (2004) does not apply to the Scheme as a consequence of it being promoted via a Transport and Works Act Order, irrespective of this I am satisfied that the objectives of the Scheme are consistent with National Planning Policy Framework(BEE/E1). I am also satisfied that the objectives of the Scheme are consistent with and strongly align with the

Birmingham Development Plan (BEE/E3), Big City Plan(BEE/E22.1&22.2), Curzon Street Masterplan(BEE/E19)and the respective Conservation Area Management Plans (BEE/E33-37).

- 6.9.2 The key drivers behind these policies being improved connectivity, better public transport services and infrastructure and supporting regeneration and inward investment into the City Centre. In particular, the planning policy framework promotes the regeneration of Birmingham Centre and the expansion of the City Core to promote further economic and cultural activity. The principle of Scheme is fully supported and aligns with the planning policy framework and associated Masterplans for the City Centre (BEE/E22/1&2)and Curzon Street (BEE/E19). It will provide the improved connectivity across the city centre and to Hs2 as required by Policies TP38 and TP41 of the BDP(BEE/E3), along with contributing to the ongoing regeneration of Eastside, Digbeth and Deritend. To this end I am therefore satisfied that the objectives of the Scheme are consistent with national and local planning policy.

Matter 4 The likely impacts of constructing and operating the scheme on land owners, tenants and local businesses, the public, utility providers and statutory undertakers, including any adverse impact on their ability to carry on their business or undertaking. Consideration under this heading should include:

(d) impacts on air quality;

(e) impacts on landscape, ecological, visual amenity and archaeological interests.

- 6.9.3 In this part of my evidence, I summarise the likely impacts of construction and operating the Scheme in terms of air quality(4d) and landscape, ecological, visual amenity and archaeological interests(4e). With respect to these matters, I will be relying on the findings of the Environmental Statement (BEE/A13/1), the ES Non-Technical Summary (BEE/A13/3) and Update to the Environmental Statement (BEE/A13/5). Matter 4(a) is dealt with by the evidence given by Mr Stephen Luke(APP/P3.1) and Mr Rupert Thornley Taylor (APP/P6.1) with Matter 4(b) covered by Mr Edward Mellor (APP/P4.1)

Matter 4 (D) – Impacts on Air Quality

6.9.4 With reference to Section 11 of the ES Main Statement (paras 11.10.1-11.10.7) (BEE/A13/1), the principal air quality impacts during construction of the Scheme, relate to dust arising from demolition of properties, reconstruction of the highway to accommodate the trackform and laying out of the stops, new trackform and associated landscape and public realm works. Measures for dust control are identified in the draft Code of Construction Practice which can be found in Appendix D2 of the ES (BEE/A13/2) and recommends the following mitigation measures:- 2). These include:

- i. the provision of easily-cleaned hard standing for vehicles;
- ii. the enclosure of loose material stockpiles at all times and damping down of dusty materials using water sprays during dry and windy weather;
- iii. hard surfacing of heavily-used areas is to be kept clean by wet brushing and regular water spraying;
- iv. control of cutting or grinding of material on Site by water suppression to cutting and grinding machines, to minimise or mitigate dust;
- v. complete sheeting of sides and tops of all vehicles carrying spoil and other dusty material;
- vi. watering of unpaved surfaces and roads, and

6.9.5 Section 11 of the ES Main Statement (BEE/A13/1) has identified that some construction activities are likely to generate dust which has the potential to cause annoyance (e.g. discolouration of surfaces) at nearby locations if uncontrolled. However, with the incorporation of good construction practices as outlined within the CoCP, no significant temporary air quality effects are expected to occur during construction of the BEE.

6.9.6 The air quality effects of the operation of the BEE have also been assessed at number of locations in the vicinity of the BEE using computer simulation which has been verified against the air quality monitoring survey data. Section 11.8.3 of the ES confirms that whilst there are some areas which are predicted to experience an increase in changes in NO₂ concentrations, these changes are not considered to be significant. Changes in dust concentrations as a result of the BEE are considered to be 'negligible' at all assessed locations and the resultant concentrations are predicted to be below the relevant air quality objectives and these changes are not considered to be significant.

6.9.7 I refer you also to Section 4.7 of The ES Update Report(BEE/A13/5) which confirms shows that, there are no significant air quality effects and there is a low risk of the BEE affecting the UK's reported ability to comply with the EU Air Quality Directive.

6.9.8 The ES Update Report also confirms that the overall conclusions of this report match those that were reported in the 2016 ES with impacts on air quality not being considered to be significant.

Matter 4(E) Impacts on landscape, ecological, visual amenity and archaeological interests.

6.9.9 I deal with each of these in turn.

Landscape

6.9.10 I refer you to Section 5.2.4 of the ES Main Statement(BEE/A13/1) which sets out the agreed scope for the assessment and landscape was scoped out at this stage on the basis that it was not anticipated there would be any significant adverse environmental effects resulting from the Scheme. Whilst not explicit in the ES, I am of the opinion that this was justified due to the Schemes Study Area being a heavily populated and dense city centre where landscape sensitivity is low. However, townscape was considered to be important and is covered in Section 13 of the ES Main Statement.

Visual Amenity

6.9.11 I refer you to Section 13 of the Environmental Statement (BEE/A13/1) and also paragraphs 4.7.6-4.7.10 of the Non-Technical Summary(BEE/A13/3) which confirms that visual effects of the Scheme were assessed from 18 viewpoints as agreed with Birmingham City Council and that temporary significant adverse effects on the following visual receptors during construction:

- i. Pedestrians and users of Bull Street shops and restaurants,
- ii. Guests at Hotel LaTour
- iii. Residents along New Canal Street, and
- iv. Residents in upper floors above shops along High Street Deritend.

6.9.12 There will also be significant adverse temporary visual effects from New Canal Street (within Warwick Bar (Bordesley) Conservation Area) and looking east and west from Digbeth, Deritend and Bordesley High Streets Conservation Area(BEE/E33-36).

- 6.9.13 Section 11.3.5 of the ES Main Statement(BEE/A13/1) concludes that there will be no significant impacts on visual receptors during the first year of the BEE operation and the majority of the receptors will have minor beneficial or negligible effects. There will be minor adverse effects during operation on pedestrians and road users of Moor Street Queensway, users of Eastside City Park, guests at Hotel LaTour and residents in the Hive apartments along Park Street and occupiers in other parts of the Masshouse development. Section 13.3.7 of the ES Main Statement(BEE/A13/1) goes on to confirm that after five years of the Scheme operating, there will be no change in the assessment of views part from guests at Hotel LaTour (the impact will then become minor beneficial), users of Eastside City Park and residents in the Hive apartments along Park Street and occupiers in other parts of the Masshouse development (the impacts will then become negligible).

Ecology

- 6.9.14 I refer you to Section 17.10 of the ES Main Statement(BE/A13/1) and paragraphs 4.11.1-4.11.5 of the Non-Technical Summary(BEE/A13/4)which conclude that study area for the Scheme has a very low ecological value, to the point where the loss of habitats due to the development of the BEE is not likely to have a significant effect on ecology including bats during either construction or operation. In addition, the proposed landscape planting has the potential to slightly increase biodiversity within the Scheme Boundary but is not required to offset or mitigate any potential impacts on ecological assets.

Archaeology

- 6.9.15 I refer you to Section 14.11 of the ES Main Statement(BEE/A13/1) and paragraphs 4.8.1- 4.8.8 of the Non-Technical Summary(BEE/A13/4 which concludes that during construction of the Scheme it is anticipated that there will be significant major adverse effects on the buried archaeology in the area. Specifically, in the burial ground at Park Street Gardens and St John's Chapel on High Street Deritend. However, the exact impact will not be known until additional archaeological surveys are carried out prior to construction. The draft TWAO makes provision for controls on the excavations of buried remains.
- 6.9.16 I refer you to Section 14.11.18 of the ES Main Statement(BEE/A13/1) which concludes that there are no likely significant adverse effects from the operation of the BEE on the historic environment, with the Scheme only affecting a very small part of the total conservation area impacting along New Canal Street and Meriden Street.

Although not significant, there are operational impacts which are likely to be beneficial to the conservation areas. These include improved pedestrian connections allowing for better connectivity between Birmingham City Centre and these historic areas, a reduction in the number of vehicles and a reduction in the amount of street clutter (i.e. removal of redundant poles and signage) which will enhance and restore the industrial feel and setting of the conservation areas.

Overall Findings

- 6.9.17 I draw your attention to Table 5.1 of the ES Non-Technical Summary(BEE/A13/3) which is shown below for completeness and Table 6.1 of the ES Update(BEE/A13/5). Table 5.1 of the ES, shown below, provides an overview of the likely significant environmental effects arising from the BEE during both the construction and operation stages. Whilst, my evidence focusses on the air quality, visual amenity, ecology, archaeology and landscape aspects of the Scheme only, Table 5.1 shows effects on aspects that were considered within the scope of the EIA process for the BEE Scheme. Whilst there are some adverse effects during construction to visual amenity and townscape, the significant adverse effects of the Scheme once operational are limited to noise and land use/land take only. However, I expand further in paragraph 6.9.18.6 of my evidence on the mitigation measures required to offset these impacts and any residual effects in relation to Matters 6c and 6d.

Table 4: NTS - Significant effects of the BEE

Environmental topic	Significant effects identified	
	Construction phase	Operational phase
Land Use and Land Take	No	Yes (adverse)
Climate Resilience	No	No
Traffic and Transport	No	Yes (beneficial and adverse)
Noise and Vibration	No	Yes (adverse)
Air Quality	No	No
Greenhouse Gases	No	No
Townscape and Visual Amenity	Yes (adverse)	No
Historic Environment	Yes (adverse)	No
Soils, Geology and Contaminated Land	No	No
Land Drainage and Water Resources	No	No
Ecology and Biodiversity	No	No
Socio-economic	Yes (adverse)	Yes (beneficial)
Electromagnetic Fields	No	No

Matter 5

The adequacy of the Environmental Statement submitted with the application for the twa order, having regard to the requirements of the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006, and whether the statutory procedural requirements of the Transport and Works (Applications and Objections Procedure) Rules 2006 have been complied with.

- 6.9.18 Sections 1.5.3 and 5.2.4 of the Environmental Statement(BEE/A13/1) set out the process undertaken in agreeing the scope of EIA along with the list of consultees and a summary of their comments for consideration in the production of the various technical chapters. Table 5.3 of the ES sets out the matters that were scoped out by the SoS and the Scoping Report can be found in Appendix H Volume 2 of the ES(BEE/A13/2) .
- 6.9.19 In formulating the Scoping Opinion, the following organisations were consulted by the TWA Orders Unit and these are also shown in Table 5.4 of the ES:
- i. English Heritage;
 - ii. Environment Agency (EA);
 - iii. BCC;
 - iv. Natural England;
 - v. Severn Trent Water; and
 - vi. Canal and River Trust.
- 6.9.20 A comprehensive Scoping Process was undertaken and the result of this is the following scope of the EIA as set out in table 1.1 of the Non-Technical Summary (NTS) (BEE/A13/3).

Table 5: Copy table 1.1 of the Non-Technical Summary

Environmental topic	Construction impacts ✓/*	Operational impacts ✓/*
Land Use and Land Take	✓	✓
Climate Change Resilience	✓	✓
Traffic and Transport	✓ - No consideration of hazardous loads	✓ - No consideration of hazardous loads
Noise and Vibration	✓	✓
Air Quality	✓	✓
Greenhouse Gases	✓	✓
Townscape and Visual Amenity	✓	✓
Historic Environment	✓	✓

Soils, Geology and Contaminated Land	✓	✘
Water Resources and Land Drainage	✓- No consideration of the potential impact on local canal network	✓- No consideration of the potential impact on local canal network
Ecology	✓- Only consideration of the potential impact on bats	✓- Only consideration of the potential impact on bats
Socio-economic	✓	✓
Electromagnetic Fields	✓- No consideration of the potential impact on the BEE of third-party equipment	✓- No consideration of the potential impact on the BEE of third-party equipment
Inclusion (✓) / Exclusion (✘)		

- 6.9.21 I am satisfied the ES has been prepared in accordance with requirements of the Applications Rules and with current legislation, Government policies and regulations, good practice, relevant professional institutes' guidance and industry requirements. I believe the prediction of potential impacts has been undertaken in parallel with the development of scheme design and has allowed for the incorporation of design measures to offset any potential unacceptable environmental impacts and maximise connectivity with HS2 and a sustainable form of transport.
- 6.9.22 I am familiar with the update to the ES (BEE/A13/5) due to additional traffic modelling information being made available and an element of the traffic management measures identified in the original ES, now being implemented by Birmingham City Council. The ES Update only relates to the chapters on traffic and transport, noise and vibration, greenhouse gases and air quality. The Update to the ES there are no further significant environmental effects arising from the Scheme. There are in fact some overall improvements in relation to highway movements and further details on this can be found in the evidence of Mr Edward Mellor (APP/P4.1). I also refer you to the evidence of Mr Rupert Thornley Taylor (APP/P6.1) who provides further analysis of the findings of the ES and Update Report in relation to noise and vibration.
- 6.9.23 The WMCA has carried out a thorough and comprehensive consultation process with the various agencies and organisations and has adjusted the scope of the EIA appropriately. In conclusion, I believe that a comprehensive and robust assessment has been taken in the preparation of the ES, and the associated Update Report. As such, I am satisfied that it complies with the requirements of the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006.

MATTERS 6B AND 6C**THE MEASURES PROPOSED BY MIDLAND METRO TO MITIGATE ANY ADVERSE IMPACTS OF THE SCHEME INCLUDING:**

B) ANY MEASURES TO AVOID, REDUCE OR REMEDY ANY MAJOR OR SIGNIFICANT ADVERSE SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACTS OF THE SCHEME;

C) WHETHER, AND IF SO, TO WHAT EXTENT, ANY ADVERSE SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACTS WOULD REMAIN AFTER THE PROPOSED MITIGATION; AND

- 6.9.24 In this section of my evidence I will draw upon the proposed mitigation measures identified in the submitted ES Main Statement (BEE/A13/1), Non-Technical Summary (BEE/A13/3) and the ES Update (BEE/A13/5) to confirm the proposed mitigation measures to avoid, reduce and remedy adverse social, economic and environmental impacts of the BEE Scheme (Matter 6b) and any residual impacts (Matter 6c).
- 6.9.25 From an economic perspective, there will be benefits at the construction phase arising from the £36m construction related investment and this amounts to circa 250 temporary jobs spread over a 24month period.
- 6.9.26 The permanent economic benefits of the Scheme are substantial and are linked to the facilitation of regeneration, investment and economic growth arising from the Scheme and the benefits of improved connectivity. Table 18.18 of the ES Socio Economic Chapter indicates the level of contribution that the Scheme will make to the local economy. This is estimated to be a maximum of £9.5m in GVA and the creation of 230 new jobs. The economic benefits of the Scheme are further reinforced in Mr Chadwicks Evidence(APP/P2.1) and the Draft Business Case (BEE/D23/5).
- 6.9.27 There will be some temporary negative effects to people and transport users during the construction phase including recognising the cumulative effects of HS2. However, these effects are only temporary and will be mitigated by the measures identified the Construction Strategy (Appendix D1 to the ES) (BEE/A13/2) . The Code of Construction Practice which is required for approval and implementation as part of the draft planning conditions (BEE/A2) alongside appropriate traffic management measures will provide suitable mitigation during construction of the Scheme.

- 6.9.28 From an environmental perspective, there will be some temporary adverse effects during the construction phase but these are limited impacts on noise, townscape and heritage assets. These effects arise principally from the construction related activities in terms of dust, traffic and erection of hoardings. However, it is proposed these will be largely dealt with by the Code of Construction Practice and appropriate phasing to minimise disruption alongside the main Hs2 works.
- 6.9.29 It should also be noted that an Update Report(BEE/A134/5) to the Environmental Statement(ES) has been produced and has been necessary to take account of the most up to date traffic modelling data (Saturn Model) and acknowledging that an element of the traffic management measures identified in the original ES have already been implemented and in operation. As such, where relevant the ES has been updated and so the following chapters are covered in the ES Update :-
- i. Traffic and Transport;
 - ii. Air Quality;
 - iii. Noise and Vibration; and
 - iv. Greenhouse Gases.
- 6.9.30 The Transport Assessment which can be found at Appendix L2(BEE/A13/2) submitted with the application has also been updated to reflect the updates to the operation of the city centre highway network and Birmingham City Council's strategic model. An Update to the Transport Assessment and the associated Appendices can be found at(BEE/A13/4).
- 6.9.31 For ease of reference the ES Update(BEE/A13/5) Table 20.2 contained in the original ES provides a summary of significant operational effects along with an additional column identifying whether the conclusions of this update have changed the significance of the effect. It should be noted that not every chapter in the 2016 ES identified significant effects, only chapters 7 (Land Use and Land Take), 9 (Traffic and Transport), 10 (Noise and Vibration) and 18 (Socio-economic).The key changes on a topic by topic basis are as follows:
- i. Traffic and Transport: - no significant adverse effects are now predicted during the operation of the BEE. Of the significant effects identified these are all now predicted to be beneficial
 - ii. Noise and Vibration: -no change to the significant adverse effect previously identified and that there are no longer any adverse affects during operation of

the Scheme as reinforced in the evidence given by Mr Rupert Taylor (APP/P6.1).

- iii. Air Quality: the overall conclusions of this report match those that were reported in the 2016 ES
- iv. Greenhouse Gases: as per the 2016 ES, the changes in GHG emissions associated with BEE are predicted to be very small in the context of existing emissions from the transport network in Birmingham and are not considered to be significant and beneficial

6.9.32 I am satisfied that with these mitigation measures in place, that the Scheme will not result in any significant adverse environmental impacts. In particular, I refer you to the evidence given by Mr Rupert Thornley Taylor in Sections 5.12 and 5.1.3 of his Summary Proof (APP/P5.2) which concludes that the significant adverse impacts are limited to the construction phase of the Scheme only and these can be mitigated by employing the measures set out in the Code of Construction Practice (CoCP) (Appendix D2 of the ES Volume 2 (BEE/A13/2)).

6.9.33 The imposition of the respective planning conditions to the grant of the deemed planning permission would also ensure that the relevant mitigation measures can be delivered and provide the necessary level of comfort and control over the detailed design of the scheme by the Local Planning Authority. I refer you further to the proposed list of draft conditions as set out in the Order application (BEE/A2). I also refer you to the evidence given by Mr Taylor (APP/P6.1) and his recommendations for mitigating the effects of noise and vibration.

Matter 8

The conditions proposed to be attached to the deemed planning permission for the scheme, if given, and in particular whether those conditions satisfy the six tests referred to in Planning Practice Guidance, use of conditions (section id:21a).

6.9.34 The Application for deemed planning consent included a series of draft conditions and these have been the subject of extensive discussions with Birmingham City Council as Local Planning Authority. The conditions (BEE/A2) have been based on the principles contained in the deemed planning consent to the 2005 Birmingham City Centre Extension Order but adapted in the light of joint experience in the discharge of conditions process associated with earlier phases of the Metro

Extension and to deliver the necessary mitigation measures identified in the ES for the BEE Scheme.

- 6.9.35 The full list of draft conditions is set out in Order Application and linked to the Planning Direction (BEE/A2).
- 6.9.36 I can confirm that the draft conditions attached to the Deemed Planning Permission as set out in Schedule 2 of the BEE TWAO satisfy the six tests of the PPG - use of Conditions(BEE/E2/4). These tests being:-
- i. necessary
 - ii. relevant to planning and;
 - iii. to the development to be permitted;
 - iv. enforceable;
 - v. precise and;
 - vi. reasonable in all other respects
- 6.9.37 A collaborative approach has been adopted to the drafting of conditions with Officers from Birmingham City Council and that this is reflected in the letter of support(SUPP/4).
- 6.9.38 I am content that the proposed suite of conditions are adequate in all respects to deliver relevant mitigation measures as identified in the ES (BEE/A13/1) and the subsequent ES Update (BEE/A13/5).

7. CONCLUSION

7.1.1 With reference to the Statement of Matters and objections lodged to the Order, I have dealt with in full or part the following matters that I believe to be of relevance to the scope of my evidence.

7.2 Matter 3

7.2.1 I have demonstrated that the objectives of the Scheme are consistent with the National Planning Policy Framework (BEE/E1) and the Birmingham Development Plan (BEE/E3), In particular, the Scheme is consistent with Policies TP38 and TP41 of the BDP which relate to improvements to public transport and the expansion of the Midland Metro network. The Scheme is also consistent with the regeneration and transport related objectives set out in the Curzon Street Masterplan (BEE/E19) and City Centre Masterplan (BEE/E21/1 and BEE/E21/2). Of utmost importance, it delivers the improved public transport connectivity required between the HS2 Curzon Street Station and Eastside, Digbeth and Deritend.

7.3 Matters 4, D and E

7.3.1 With reference to the submitted ES (BEE/A13/1) and ES Update (BEE/A13/5), I have identified the key environmental impacts of the constructing and operating revised tramway alignment and the measures proposed by the WMCA to mitigate any adverse impacts of the proposals forming part of the BEE Order.

7.4 Matter 5

7.4.1 I am content that the ES (BEE/A13/1 and ES Update(BEE/A13/5) submitted with the application for the TWA Order, has been prepared in accordance with and regard to the requirements of the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006. I have provided evidence to demonstrate that the ES has been prepared in line with the statutory procedural requirements.

7.5 Matter 6 C and D

7.5.1 I am satisfied that all significant economic, social and environmental effects have been identified and assed in the ES (BEE/A13/1) and ES Update (BEE/A13/5) and that suitable and adequate mitigation measures are available to ensure the Scheme is acceptable in all respects.

7.6 Matter 8

- 7.6.1 I have noted that a collaborative approach has been adopted between the WMCA and Birmingham City Council in the drafting of the planning conditions and that they meet the tests of the Planning Policy Guidance – Use of Conditions(BEE/E2/4).
- 7.6.2 In conclusion, I respectfully request that the SoS approves the BEE Order and the associated deemed planning permission and attach the recommended draft planning conditions as set out in (BEE/A2).

8. STATEMENT OF TRUTH

- 8.1.1 I confirm that insofar as the facts stated in this Proof of Evidence are within my own knowledge, I have made clear which they are and I believe them to be true. In my professional opinion, I believe that this Proof of Evidence represents an unbiased and true assessment of the town and country planning matters of the BEE Scheme.

Paul Ellingham MA MRTPI Town Planning

19 October 2017