



The Planning Inspectorate

Report to the Secretary of State for Transport

by J P Watson BSc FCIHT MICE MCI

an Inspector appointed by the Secretary of State for Transport

Date: 19 May 2015

TRANSPORT AND WORKS ACT 1992

TOWN AND COUNTRY PLANNING ACT 1990

ACQUISITION OF LAND ACT 1981

**THE MIDLAND METRO (BIRMINGHAM CITY CENTRE EXTENSION LAND
ACQUISITION AND VARIATION) ORDER 201[X]**

**REQUEST FOR A DIRECTION UNDER SECTION 90(2A) OF THE TOWN AND
COUNTRY PLANNING ACT 1990**

Dates of Inquiry: 19 November 2014 to 16 January 2015

Ref: TWA/13/APP/06

TABLE OF CONTENTS

		Page
	Case Details	1
1	Preamble	1
2	Description Of The Site And Its Surroundings	4
3	Procedural Matters	5
	3.1 Costs Applications	5
	3.2 Applications for Adjournment	5
4	The Case For Centro	5
	4.1 The Midland Metro	5
	4.2 The Transport Business Case and Economic Benefits	13
	4.3 The Order Proposals	22
	4.4 Environmental Impacts	27
	4.5 Planning	59
	4.6 The Draft Order	65
5	The Case For The Supporter	66
	5.1 Birmingham City Council	66
6	The Case For The Objectors	67
	6.1 Introduction	67
	6.2 Impact of the Scheme on Victoria Square House	69
	6.3 Public Interest Matters	71
	6.3.12 Consideration of Alternative Routes	74
	6.4 Heritage Implications	86
	6.5 Scheme Context and an Alternative Route	94
	6.6 Strategic Environmental Assessment and Environmental Impact Assessment	99
	6.7 Additional Matters Raised In Objections Made Wholly By Written Representations	101
7	The Response Of Centro	
	7.1 Impact of the Scheme on Victoria Square House	101
	7.2 Highways and Transport	103
	7.2.18 Alternative Routes	106
	7.3 Heritage and Townscape	120
	7.4 Scheme Context	
	7.5 Strategic Environmental Assessment and Environmental Impact Assessment	125
	7.6 The Objection Of Now Leisure Ltd	130
8	Inspector's Conclusions	
	8.1 General Matters	131
	8.2 Objectives	132
	8.3 Policy Consistency Of The Order's Objectives	134
	8.4 Environmental Statement	136
	8.5 Changes To The Order	140

8.6	Alignment in Paradise Circus	140
8.7	Environmental Impacts Of The Revised Tramway Alignment	140
8.8	Mitigation Of Adverse Impacts	145
8.9	Property Interests	146
8.10	Planning Conditions	149
8.11	Funding	149
8.12	The Modified CSQ – Pedestrians, Heritage, Townscape etc	150
8.13	CSQ Alternative Route Options	157
8.14	Need and Justification	163
8.15	Crown Land	167
8.16	Compulsory Purchase Of Land	168
8.17	Overall Conclusion	169
9	Recommendations	169
Appendices		
1	Recommended Planning Conditions	170
2	Appearances	Error! Bookmar k not defined.
3	Inquiry Documents	Error! Bookmar k not defined.
4	Abbreviations used in this report	191

CASE DETAILS

1 Purpose

- On 1 July 2005 the Secretary of State made The Midland Metro (Birmingham City Centre Extension, etc.) Order 2005 ("the 2005 Order"), which authorised an extension to the Midland Metro Line 1 tramway from near St Paul's Metro Stop to Hagley Road, Edgbaston, Birmingham. The purpose of the Midland Metro (Birmingham City Centre Extension Land Acquisition and Variation) Order 201[X] ("the Order") is to confer further powers of compulsory acquisition on the West Midlands Passenger Transport Executive ("Centro") for the purpose of the works authorised by the 2005 Order (the compulsory acquisition powers of which expired in 2010), to authorise a variation (beyond the limits of deviation) in the alignment of the tramway authorised in Paradise Circus Queensway by the 2005 Order and to authorise the compulsory acquisition of land associated with that variation.

2 The Midland Metro (Birmingham City Centre Extension Land Acquisition and Variation) Order 201[X]

- The Order is drafted under section 1 of the Transport and Works Act 1992. The application for the Order was made to the Secretary of State for Transport on 4 December 2013. If made it would authorise Centro to construct and operate works and to compulsorily acquire land and rights in land for the purpose stated at 1 above.

Summary of Recommendation: That the Order should not be made.

3 Request For Deemed Planning Permission

- Application was made on 4 December 2013 for a direction granting deemed planning permission, subject to conditions, for the works that are the subject of the Order.

Summary of Recommendation: That a Direction in respect of Deemed Planning Permission should not be given.

1 PREAMBLE

1.1 On 19 November 2014 I opened a local public inquiry ("the Inquiry") at the MWB Business Exchange, 43 Temple Row, Birmingham B2 5LS to hear representations and objections regarding an application by the West Midlands Passenger Transport Executive ("Centro") to the Secretary of State for Transport to make an Order and grant deemed planning permission, all as described in the Case Details. The Inquiry sat on 7 days (November 19, 20, 21, 25, 26 and December 17 and 18 2014) and closed on 16 January 2015 (document X15).

1.2 No pre-Inquiry meeting was held. A pre-Inquiry note (document X3) was

issued to the parties on 30 September 2014 and was made generally available through the Inquiry website. Before and during the Inquiry I made unaccompanied visits to various locations which were the subject of representations to the Inquiry. On 4 December 2014 I made an accompanied site visit to all locations identified to me by parties at the Inquiry as being of particular relevance to specific parts of the evidence given at the Inquiry. During the period before Christmas a "German Market" was held in the area that included some of those locations and so on 27 January 2015 I made a subsequent unaccompanied visit to view the area after the market stalls had been removed.

Purpose and Scale of the Proposal

- 1.3 The applicant's Statement of Aims under Rule 10(2)(c) is set out in document CD08. It reports that the key objectives and aims of the proposal authorised by the 2005 Order ("the 2005 Scheme") are:
- To improve access to markets, enabling businesses to better access their customers;
 - To reduce journey times for businesses by lowering journey times and increasing reliability;
 - To support business growth by delivering sustainable multi-modal access to new development sites;
 - To deepen labour pools by improving physical access to jobs;
 - To increase competitiveness by reducing journey time uncertainty; and,
 - To support growth by addressing constraints on network performance.
- 1.4 Document CD15, the Non-Technical Summary of the Environmental Statement, includes at its Appendix A a drawing titled Site Location And Context. At the time of the Inquiry I saw that construction of the 2005 Scheme between Snow Hill Station and Stephenson Street (immediately to the north of New Street Station) was under way, track having been laid on part of that route. The Order is promoted to enable the construction of what is known as the Centenary Square Extension ("CSQ", shown on the Site Location And Context drawing). The Statement of Aims indicates that the Order would:
- Revive powers of compulsory acquisition for the purpose of works authorised by the 2005 Order;
 - Authorise a variation of the alignment of the tramway over a section, 100 metres in length, of the route authorised by the 2005 Order at Paradise Circus, Queensway ("the Variation"), and establish associated compulsory acquisition power; and,
 - Authorise works and land acquisition associated with a small alteration to the 2005 Scheme (explained at the Inquiry to be at the Broad Street/Bridge Street junction).
- 1.5 The applicant's Statement of Case (Document CD01) summarises the advantages that the Variation is expected by the applicant to bring to the 2005 Scheme, as follows:
- Better integration with major changes to the highway proposed in

association with nearby development (Paradise Circus Redevelopment ("PCR"), shown on the Site Location And Context Drawing) than would be possible under the 2005 Order;

- Utilisation of land made available by the PCR, thereby bringing the tramway closer to the redeveloped site and its various facilities;
- Avoiding the need for construction of a bridge over Suffolk Street Queensway and avoiding the associated cost and disruption; and,
- Avoiding the need for a new retaining wall at Alpha Tower, at the junction of Suffolk Street Queensway and Broad Street.

Number of Objectors

- 1.6 One objection remained at the start of the Inquiry and it was not withdrawn. The objection was made by VSH Nominees 1 Limited and VSH Nominees 2 Limited, to whom I refer as VSH.

Main Grounds for Objection

- 1.7 The main grounds for objection to the draft Order were that, in the view of the objectors:
- a) Construction and use of the Order Scheme would significantly increase the harm caused to Victoria Square House, the public realm, the Conservation Areas, pedestrian accessibility and flow and the vitality and viability of the area.
 - b) The benefits of the proposed Order would not be as claimed and would not outweigh the harm it would cause.
 - c) There has been insufficient consideration of alternatives with a view to reducing and minimising the harm which would be caused.
 - d) There is no current power for Centro to construct the works proposed by the Order and in relation to the Order now proposed, little weight should be given to the previous decision of the Secretary of State to make the 2005 Order.

Statutory Formalities

- 1.8 Centro confirmed that it had complied with all necessary statutory formalities. Document CEN/INQ4 provides details.

Written Representations

- 1.9 In addition to submissions by those who appeared at the Inquiry, there was one written representation, a statement of support, before the Inquiry at its close.

Scope of this Report

- 1.10 This report contains a brief description of the site and its surroundings, a report of procedural matters raised at the Inquiry, the gist of the evidence presented and my conclusions and recommendations. Lists of inquiry appearances and documents are attached. Proofs of evidence and other statements by the parties are identified; these may have been added to or otherwise extended at the Inquiry, either during examination in chief or cross examination. "The Setting of Heritage Assets" was before the Inquiry as appendix 2 in document CEN/P4.3/CUL but was superseded after the Inquiry was closed.

2 DESCRIPTION OF THE SITE AND ITS SURROUNDINGS

- 2.1 I have referred previously to the Site Location And Context drawing at Appendix A of Document CD15, drawn to a scale of 1:5000 and including representations of proposed development at Paradise Circus and at Arena Central. The Works Plan (document CD04) is drawn to a scale of 1:1000 on a mapping base which does not show proposed development other than that associated with the proposed tramway.
- 2.2 I follow the proposed tramway route from west to east. Broad Street passes through Centenary Square, a civic space framed on its north and west sides by well-proportioned cultural buildings and an hotel. Bridge Street joins Broad Street from the south near the western end of Centenary Square. The buildings on the south side of the Square are perhaps rather low for their setting; this is the site of the proposed Arena Central development. The ground to the south of the Square falls appreciably to the south. The eastern end of Centenary Square is closed in part by the Hall of Memory, a war memorial, beyond which is Paradise Circus Queensway.
- 2.3 Paradise Circus Queensway is the rotary element of a grade-separated junction between the Queensway ring road and the A456 and A457 routes from the west. The ring road passes through a tunnel beneath the rotary, connecting Suffolk Street Queensway (in the south) with Great Charles Street Queensway (in the north-east). The area inside the rotary is built up and connected (by pedestrian bridges over Paradise Circus Queensway on either side, by signalised pedestrian crossings and by Easy Row pedestrian subway) to Centenary Square in the west and to Chamberlain Square to the east. The tramway would follow the southern part of Paradise Circus Queensway, on into Paradise Street. The Variation would be located between the eastern part of Centenary Square and the south-eastern part of Paradise Circus Queensway
- 2.4 Birmingham Town Hall, in the style of a Roman temple, stands on ground that falls from Chamberlain Square in the north, past the Town Hall and Paradise Street to its south and on down Hill Street to Navigation Street – beneath which are the railway tracks that make up the western throat of Birmingham New Street Station. To the east of the Town Hall is Victoria Square, also on falling ground; the Council House (civic offices) offers a view down across Victoria Square to Hill Street, Victoria Square House, Pinfold Street and New Street. Colmore Row and Waterloo Street lead into Victoria Square on its north-eastern side. Victoria Square itself is a paved civic space with several pieces of public art, pedestrianised apart from a roadway along the side of the Square linking Colmore Row and Waterloo Street. Pinfold Street descends from Victoria Square to Stephenson Street and Navigation Street.
- 2.5 At the time of the Inquiry a tram stop was being built in Stephenson Street, outside a pedestrian access to New Street Station, and a tramway was under construction from there to the current Snow Hill terminus of the Line One tramway from Wolverhampton.

3 PROCEDURAL MATTERS

3.1 Costs Applications

- 3.1.1 A costs application was made at the Inquiry on behalf of VSH against Centro. The application is the subject of a separate report.
- 3.1.2 A costs application was made at the Inquiry on behalf of Centro against VSH. The application is the subject of a separate report.
- 3.1.3 Both costs applications, and the consequent responses, were made in writing only. I required costs applications to be lodged with the Programme Officer no later than 9 January 2015, responses to costs applications to be lodged no later than 16 January 2015 (on which day I subsequently closed the Inquiry), and costs applicants' final responses no later than 23 January 2015. That arrangement was accepted by both parties and the various deadlines were met.

3.2 Applications for Adjournment

Relating to the availability of information

- 3.2.1 On 11 November 2014 application was made on behalf of VSH for an adjournment of the Inquiry (document X4.3). It was argued for VSH that the presentation of VSH's case had been severely prejudiced by what was said to be the late disclosure and production of new evidence by Centro, and that an adjournment was necessary to give VSH sufficient time to consider the information provided and to properly prepare its case. That position was contested by Centro in its letter dated 12 November (document X4.4), to which VSH replied on 13 November (document X4.9). On 14 November, at my request, the Programme Officer issued a letter (document X4.10) to VSH (copied to Centro) setting out my findings that Centro had acted within the Rules; that remaining queries could reasonably be taken up in cross-examination; and that the responses given by Centro in correspondence relating to the provision of information were reasonable. I did not consider that there would be prejudice to VSH, and so the adjournment application failed.
- 3.2.2 Later on Friday 14 November notice was given for VSH (document X5.1) that an application was to be made to the High Court to require me to consider my decision. The application was made on Monday 17 November (documents X5.3 to X5.10, X6.2, X6.3). On 18 November Centro made written submissions contesting the claim (documents X7.2 to X7.4). Document X8 gives notification of the Judge's decision on 18 November that permission to apply for judicial review is refused. A Costs Order was also made.

4 THE CASE FOR CENTRO

The material points were:

4.1 The Midland Metro

- 4.1.1 The Midland Metro Line 1 tramway ("Line 1") opened in 1999 and operates mainly on former rail formation between Wolverhampton City Centre and Snow Hill Station in central Birmingham. It also serves the town centres of West Bromwich, Wednesbury and Bilston. It is 20.4 kilometres long, has 23 stops and offers 538 spaces for park and ride

distributed between four locations along the route.¹

- 4.1.2 Annual patronage levels on Line 1 are over 5 million. The service takes some 1.2 million car journeys off the roads and occupancy at the four park and ride sites is 97%. As a result of this high usage Centro is seeking ways to expand provision. Comparison with other UK tram systems identifies Midland Metro's lack of city centre penetration and its limited fleet and vehicle size as two factors which constrain the existing system.² Centro is now seeking to obtain a new fleet of larger, modern trams, and to complete the Birmingham City Centre Extension to Line 1.³

Replacement Tram Stock

- 4.1.3 The 2005 Order was based on the then current Line 1 Metro Ansaldo T69 trams. Those vehicles are now being replaced by CAF Urbos 3 trams, which can climb and descend steeper gradients than their predecessors⁴ and can more closely follow changes in gradient along the route⁵.
- 4.1.4 The space required on street for a moving tram can be described in terms of the tram's developed kinematic envelope (DKE), the width of which varies with tram speed and track curvature. The DKE of the CAF Urbos 3 tram is greater than that of the Ansaldo T69 vehicle.⁶

Birmingham City Centre Extension

- 4.1.5 In the late 1990s work was undertaken to progress extensions to Line 1, and that work led to the development of proposals for a surface running extension from Line 1 at Snow Hill into the city centre and on to Edgbaston. The feasibility of various routes was assessed and two main alternative routes, shown in Exhibit 1 of Mr Adams' proof of evidence (document CEN/P1.3/SCH), were identified and were the subject of extensive public consultation. The two routes differ between Snow Hill and Centenary Square but are the same westwards from Centenary Square.⁷
- 4.1.6 The consultation results indicated that consultation respondents preferred the following route (shown in blue on Exhibit 1 of CEN/P1.3/SCH):

Snow Hill
Bull Street
Corporation Street
New Street Station (Stephenson Street)

¹ CEN/P1.1/SCH, 2.4

² CEN/P1.1/SCH, 2.5, 2.6

³ CEN/P1.1/SCH, 2.7

⁴ CEN/P1.1/SCH, 8.8

⁵ CEN/P3.1/ENG, 4.8.3, 4.9.5b

⁶ CEN/P1.1/SCH, 8.8

⁷ CEN/P1.1/SCH, 3.1 to 3.3

Victoria Square
Centenary Square
Brindley Place
Five Ways.

4.1.7 Reasons for that choice included¹:

- Providing better accessibility in the city centre;
- Shorter journey time;
- Cheaper construction cost;
- Better rail interchange at New Street Station;
- Better chance of delivery; and,
- Facilitating improved pedestrian priority in Corporation Street, Bull Street and Stephenson Street.

4.1.8 The route identified in paragraph 4.1.6 above was therefore identified as the preferred route for the Birmingham City Centre Extension to Line 1 ("the BCCE"). That route was the subject of an application, made by Centro on 14 March 2003, for an Order to be made under sections 1 and 5 of the Transport and Works Act 1992 (TWA) and for planning permission to be deemed to be granted for the extension of Line 1 from a point near St Paul's tram stop (near Snow Hill), via the route listed in paragraph 4.1.6 above, to Hagley Road, Birmingham; as shown on Exhibit 2 in document CEN/P1.3/SCH.²

4.1.9 The 2005 Order (document CD02) came into force on 22 July 2005. The 2005 Order authorises Centro to construct and use³ an extension to the Midland Metro light rail system from a junction with the existing Metro line 1 near the existing St Paul's stop to a terminus at Hagley Road, Birmingham and, for that purpose, authorised Centro compulsorily to acquire land and rights in land. It contains a number of other provisions.⁴ Article 36 of the 2005 Order provides that:

- (1) *After the period of 5 years beginning with the day on which this Order comes into force –*
 - (a) *No notice to treat shall be served under Part I of the 1965 Act, as applied to the acquisition of land by article 26; and*
 - (b) *No declaration shall be executed under section 4 of the Compulsory Purchase (Vesting Declarations) Act 1981(a), as applied by article 27.*
- (2) *The powers conferred by article 30 shall cease at the end of the period referred to in paragraph (1), save that nothing in this paragraph shall prevent the Executive remaining in possession of land after the end of that period if the land was entered and*

¹ CEN/P1.1/SCH, 3.3

² CEN/P1.1/SCH, 4.1

³ CD02, art 37, authorises Centro to use the tramway

⁴ CD02, page 51, Explanatory Note

possession of it was taken before the end of that period.

- 4.1.10 The Secretary of State's direction in respect of deemed planning permission for the BCCE was given by letter dated 1 July 2005 (Exhibit 1 of CEN/P8.3/PLA, the evidence of Mr Ellingham). The direction is subject to the 13 conditions set out in the Annex to that letter (Exhibit 2 of CEN/P8.3/PLA). Condition 1 requires that "The development hereby permitted shall be begun before the expiration of 5 years from the date that the Order comes into force."

Objectives of the Order¹

- 4.1.11 Phase 1 of the Order, between Snow Hill and Stephenson Street has already commenced construction. The next section of route being brought forward by Centro, and for which it is necessary to revive the powers of compulsory acquisition with which the proposed Order would extend from Stephenson Street to Centenary Square in Birmingham City Centre, CSQ.
- 4.1.12 Since the authorisation of the 2005 Order, a number of city centre regeneration projects have been brought forward, including the PCR. Thus, in addition to reviving powers of compulsory acquisition, the proposed Order would provide the necessary statutory authorisation to Centro to construct, maintain and operate a street tramway authorised as part of Work No. 2 of the 2005 Order on a revised alignment within Paradise Circus, Queensway as widened as part of the PCR. It will allow Centro to undertake works to streets to accommodate the re-alignment as well as authorise the acquisition of land or rights over land for the purpose of the Order. The proposed Order also includes a small area of additional land required for a minor adjustment to the 2005 Order outside the Paradise Circus area.
- 4.1.13 The key advantages of the variation to the alignment from the 2005 Order may be summarised as follows:
- Better integration with the proposed major changes to the highway as a result of the PCR than would be possible under the 2005 Order;
 - Utilisation of land made available by the PCR, thereby bringing the tramway closer to the redeveloped site and its various facilities;
 - Avoids the need for construction of a bridge over the Suffolk Street Queensway Tunnel, with its associated costs and disruption effects; and,
 - Avoids the need for a new retaining wall outside Alpha Tower at the junction of Suffolk Street Queensway and Broad Street.
- 4.1.14 The above key advantages enhance the deliverability of the scheme and aid Metro in achieving its aims, which are also the aims of the CSQ and which include²:-

¹ CD01, 4.1 to 4.4

² CD01, 4.4; CD08

- Improve access to markets, enabling businesses to better access their customers;
(The CSQ would achieve this aim by linking new business developments and growth in the Westside such as at Paradise Circus, Arena Central and Brindley Place to the City Centre and key transport hubs such as New Street and Snow Hill stations, and to the Black Country via Midland Metro Line 1.)
- Reduce transport costs for businesses by lowering journey times and increasing reliability;
(The CSQ would achieve this aim by reducing transport and business costs through reducing travel time and facilitating easier journeys, as well as providing improved links between jobs and businesses in the City Centre and wider West Midlands with those in Birmingham's Westside.)
- Support business growth by delivering sustainable multi-modal access to new development sites;
(The CSQ would achieve this aim by providing for improved access to local and national rail, tram and local bus services from new development sites at Paradise Circus and Arena Central.)
- Deepen labour pools by improving physical access to jobs;
(The CSQ would achieve this aim by providing for improved access to local and national rail, tram and local bus services from new development sites at Paradise Circus and Arena Central, and existing employment sites in Broad Street and Brindley Place, and thereby reducing the travel times to those sites nationally and within the West Midlands.)
- Increase competitiveness by reducing journey time uncertainty;
(The CSQ, together with a package of complementary highway measures to be introduced by Birmingham City Council, would achieve this aim by reducing journey time uncertainty for travellers to and from new development sites at Paradise Circus and Arena Central, and existing employment sites in Broad Street and Brindley Place.)
- Support growth by addressing constraints on network performance.
(The CSQ would improve network performance by providing additional transport capacity and assisting modal shift from private cars to public transport.)

The Financial Case for the CSQ

Funding and the current Metro delivery programme

- 4.1.15 On 21 July 2006 Centro submitted an Outline Business Case seeking conditional approval from the Department for Transport (DfT) for the works authorised by the 2005 Order, together with those authorised by the Midland Metro (Wednesbury to Brierly Hill and Miscellaneous Amendment) Order 2005. Whilst the 2006 Outline Business Case was

not rejected by the DfT, funding for the two projects was not forthcoming due to overall national funding constraints.¹

- 4.1.16 Consideration was then given to financing the BCCE, together with other projects, through the Transport Innovation Fund, with funding secured through road pricing in the West Midlands. In March 2008, following an 18-month study of the effect that charging would have on businesses and residents in the region, leaders of the 7 West Midlands Councils decided not to seek funding through the Transport Innovation Fund.²
- 4.1.17 Instead, funding was sought for elements of the overall package that could be delivered within the likely scale of the DfT's Regional Funding Allocation for local transport projects in the West Midlands. On 29 October 2009 Centro submitted to the DfT an Outline Business Case for the "BCCE and Fleet Refurbishment Programme", which would extend Line 1 into the City Centre to the redeveloped New Street Station, using the first section of the 2005 Order powers; the scheme also included a new fleet of trams. On 29 April 2010 the DfT gave "Programme Entry" status to the BCCE and Fleet Refurbishment Programme and invited Centro to submit a further Outline Business Case having considered matters raised by the DfT in relation to tram procurement. That was done, and conditional approval of the business case was granted on 4 February 2011. On 25 November 2011 Centro submitted a final business case to the DfT, and on 17 February 2012 the DfT gave full funding approval³.
- 4.1.18 In 2010 Centro undertook the construction of a section of the 2005 Order works, including a bridge over the Queensway ring road and the foundations of the lift tower for the Snow Hill Metro stop. Exhibit 4 in document CEN/P1.3/SCH is a letter dated 21 June 2010 from Birmingham City Council which confirms that the local planning authority considered that work had started on the BCCE and therefore under Part III, section 56(4)(a) and (b) of the Town and Country Planning Act 1990 development was considered to have begun.⁴
- 4.1.19 Delivery of the BCCE and Fleet Refurbishment Programme is now well under way and completion is expected by the end of 2015. By overcoming the constraints identified in paragraph 4.1.2 of this report, the measures now in hand are expected to increase annual patronage of the Metro to over 9 million by 2026 (an 80% increase), increasing the regional economy by some £50 million (2006 prices) and increasing employment by over 1,300 jobs.⁵
- 4.1.20 Funding for the CSQ would be drawn from four sources:
- (a) The Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) has been given responsibility by Government for an indicative allocation of £27 million for local major transport schemes between 2015 and 2019. £5 million

¹ CEN/P1.1/SCH, 5.1, 5.2

² CEN/P1.1/SCH, 5.3

³ CEN/P1.1/SCH, 5.4-5.6, 5.8, 5.9

⁴ CEN/P1.1/SCH, 5.7

⁵ CEN/P1.1/SCH, 5.10

- of devolved local transport funding will be allocated to the CSQ.¹
- (b) The Birmingham City Centre Enterprise Zone was approved by Government on 28 July 2011. The GBSLEP approved the City Centre Enterprise Zone Investment Plan on 26 July 2012, which includes investment in the CSQ. This was re-confirmed in an updated version of the Investment Plan published in July 2014.²
 - (c) Developer Contributions – evidence was given for Centro that the developers of the PCR are required by their planning permission (exhibit 5 of CEN/P8.3/PLA) and the associated section 106 agreement to contribute to the costs of construction of the CSQ³ but, in examination, that was not substantiated. Instead, reference was made to a separate agreement between Centro, Birmingham City Council and Paradise Circus Partnership Ltd. The agreement, which at the Inquiry was in final draft form for agreement by those parties, provides for an “in kind” contribution by Paradise Circus Partnership Ltd.⁴ To minimise construction disruption the developers will construct CSQ infrastructure as part of the highway alterations that they will undertake, commencing from 2015.⁵
 - (d) Centro Prudential Borrowing, in accordance with the Prudential Code for Capital Finance in Local Authorities. Centro would meet the borrowing costs from the increased Metro revenues generated by the CSQ in operation.⁶
- 4.1.21 Document CEN/INQ40 provides further confirmation of these funding arrangements:
- (a) Confirmation, issued for GBSLEP, that CSQ had achieved Programme Entry Approval is presented as Exhibit 7 of CEN/P2.3/ECO. Annex 1 of CEN/INQ40 presents the Outline Business Case that formed the bid.
 - (b) Annex 2 of CEN/INQ40 is a letter dated 31 July 2013 by which GBSLEP confirmed to Government the prioritisation of the CSQ.
 - (c) Annex 3 of CEN/INQ40 is Government’s confirmation to the GBSLEP of the overall funding allocation.
 - (d) Annex 7 of CEN/INQ40 is the draft agreement (referred to in paragraph 4.1.20 above) between Centro, Birmingham City Council and Paradise Circus Partnership Ltd (PCPL). At the inquiry this was expected to be completed in January 2015.

¹ CEN/P1.1/SCH 5.23, 5.24

² CEN/P1.1/SCH, 5.22

³ CEN/P1.1/SCH, 5.25

⁴ CEN/INQ38, page 2

⁵ CEN/P1.1/SCH, 5.25

⁶ CEN/P1.1/SCH, 5.26

Centro then intends to provide to the Secretary of State a copy of the completed agreement.¹ In Annex 7:

- (i) Recital H combines the PCR Phase 2 highway works and the Metro works;
 - (ii) Section 8 – Centro to procure the combined works;
 - (iii) Sections 15, 16 and 17 – PCPL to meet Centro’s costs in respect of relevant design, works, overheads and management;
 - (iv) Section 21 – PCPL to bear the risk of late delivery of land at the site currently occupied by Birmingham City University (BCU).
- (e) The estimated contribution from PCPL to the CSQ project through this arrangement is £4.7m.
- (f) The land at the site currently occupied by BCU will fall vacant on 30 June 2017, allowing demolition to start on that site immediately thereafter.

4.1.22 The following table² shows the breakdown of funding between those four elements. The table differs from information in the Funding Statement (CD16) as it includes additional costs and associated complementary highway works being taken forward by Birmingham City Council. Document CEN/INQ38 substantiates funding decisions by the Local Enterprise Partnership.

	Funding statement	Increase	Total
Project cost	30.90	3.30	34.20
Funded by:			
GBSLEP	4.85	0.15	5.00
Enterprise Zone Investment Plan	16.65	1.85	18.50
Developer Contribution/Works in Kind	4.40	0.30	4.70
Centro contribution	5.00	1.00	6.00
Total	30.90	3.30	34.20

Paradise Circus Redevelopment

4.1.23 Paradise Circus has been described in paragraph 2.3 of this report. Exhibit 4 of document CEN/P8.3/PLA presents a report made to

¹ CEN/INQ40, paragraph 7

² CEN/P1.1/SCH, 5.21

Birmingham City Council's Planning Committee in January 2012¹. The report includes photographs of existing development at Paradise Circus (pages 29 and 30) and, as an Appendix, a block plan of the area.

- 4.1.24 Redevelopment of the Paradise Circus site is jointly proposed by Argent Group plc and Birmingham City Council². The PCR is shown schematically by Exhibit 6 of CEN/P1.3/SCH. A mix of commercial, retail and leisure uses is proposed on the 7 hectare site. The PCR will remove the complex gyratory system, introduce two-way traffic on the north, west and south sides of the gyratory and remove traffic from the east side of the gyratory. Those changes would introduce two-way traffic flow to a section of the CSQ at Paradise Street and Paradise Circus across the Suffolk Street Queensway Tunnel Bridge and the Suffolk Street slip road junctions with Paradise Circus. Those traffic arrangements were not an available consideration at the time of the 2005 Order as they did not form part of an approved development proposal.³
- 4.1.25 The PCR received outline planning permission on 8 February 2013 (Exhibit 5, CEN/P8.3/PLA). On 25 March 2014 the Secretary of State for Communities and Local Government, in exercise of powers under section 226(1)(a) of the Town and Country Planning Act 1990 and the Acquisition of Land Act 1981, confirmed The Birmingham City Council (Paradise Circus City Centre) Compulsory Purchase Order 2013 (document CD09), which secures the necessary acquisition of all land and leases required for the PCR. On 20 March 2014 the Secretary of State, in exercise of powers under section 247 of the Town and Country Planning Act 1990, made The Stopping Up Of Highways (West Midlands) (No. 11) Order 2014, which allows the removal of traffic from the east side of the Paradise Circus gyratory.

4.2 **The Transport Business Case and Economic Benefits**

- 4.2.1 The need for the BCCE scheme was demonstrated at the time of the application for the 2005 Order; the Inspector concluded that there was a compelling case for the compulsory purchase powers in the draft Order in the public interest. Subsequently that case has been reinforced by development proposals, such as the PCR, that the BCCE would serve.⁴
- 4.2.2 An appraisal of the scheme has been undertaken in accordance with the WebTAG transport appraisal guidance. The appraisal therefore meets Treasury economic appraisal requirements. The appraisal is proportional to the cost of the scheme and the scale of its impacts.⁵
- 4.2.3 Consistent with the Treasury's approach and as set out in the January 2013 DfT publication "The Transport Business Cases", the purpose of

¹ CEN/P8.1/PLA, 3.16

² CEN/P1.1/SCH, 7.2

³ CEN/P1.1/SCH, 7.2, 7.4

⁴ CEN/P1.1/SCH, 11.1

⁵ CEN/P2.1/ECO, 2.4, 2.5

the business case is to demonstrate that:¹

- There is a robust rationale for the proposed scheme (the Strategic case below and which covers the local policy context² as reported in the section of this report starting with paragraph 4.5.7)
- The proposed scheme would deliver value for money (the Economic case, reported in the section of this report starting with paragraph 4.2.9)
- The proposed scheme is affordable in terms of sources of funding (for construction and operation) (the Financial case, reported in the section of this report starting with paragraph 4.1.15).
- Robust procurement arrangements for the necessary elements of the proposed scheme exist (the Commercial case, reported in the section of this report starting with paragraph 4.2.28).
- Robust governance arrangements exist and effective project management is in place (the Management case, reported in the section of this report starting with paragraph 4.2.31).

The Strategic Case³

The Location

4.2.4 The Westside area of Birmingham City Centre lies in the Birmingham Enterprise Zone, with Centenary Square at its heart. Centenary Square is home to the International Convention Centre, Symphony Hall, the Repertory Theatre and the new Library of Birmingham, which is one of the largest libraries in the world.

4.2.5 Growth in the area continues. Potentially millions of square feet of new retail, office and residential space, and two 250-room hotels here will come to the market. The proposed and committed developments include:

- PCR: 17 acres, 12,000 jobs, two new public squares.
- Baskerville Wharf, a mixed-use development with canal access.
- The Arena, a 9.2 acre regeneration site; development work began in June 2013.
- HS2 and the proposed Curzon Street station, giving the West Midlands greater access to domestic markets and international gateways.
- Eastside, where HS2 will encourage development of the planned 14,000 jobs, 600,000 sqm of employment space and 2,000 new homes.

The Problem

¹ CEN/P2.1/ECO, 2.6

² CEN/P1.1/SCH, 11.4 and 9.1

³ CEN/P2.3/ECO, exhibit 8 *Business Case*, starting at exhibit page 218

4.2.6 The existing major developments in Centenary Square have stimulated new demand to access Westside from elsewhere in Birmingham. Further development will increase that demand. But the economic growth of these areas is under threat: there is no rail connection from Westside to the proposed Curzon Street station, or Birmingham International Airport, or the large commuter catchment north of Birmingham and the Black Country. This limited transport provision creates an obstacle to the success of the cultural, commercial and social facilities on offer; Centenary Square needs to be connected to the rail and air hubs, and to key developments. Without extending Midland Metro, there is a risk that the area's developments will not bring the full economic benefits anticipated.

Potential Solutions

4.2.7 Prior to promoting the BCCE, various other options were considered. Light rail with some tunnelling was discounted, on grounds of cost and access and security at underground stops. A shorter, surface light rail scheme terminating at New Street Station would offer no interchange penalty, would offer reduced cost and improved access to development sites and main line railway stations in the city centre. A wire-guided trolley bus would need overhead line equipment ("OLE") more intrusive than for light rail, the introduction of another travel mode would increase the need for intermodal interchange, and its technology is relatively unproven. New bus services would not meet Birmingham City Council's aspiration to reduce bus penetration of the city core and increase pedestrianisation. Active modes would not have sufficient impact.

Preferred Option

4.2.8 A surface-running light-rail scheme was chosen due to its easy connection with the existing tramway, its environmental credentials, easy accessibility and stronger integration potential with land use developments. It would also have greater potential for securing funding and providing Birmingham with a visual symbol for a world class city.

The Economic Case

4.2.9 A quantitative and qualitative approach has been used to assess the impacts of the scheme. An economic appraisal has been undertaken, where monetised costs and benefits have been compared in various scenarios. Social, environmental and distributional impacts have been assessed qualitatively.¹

4.2.10 Two cases have been considered:²

- a) The Reference case, in which the Do-Scheme case is compared with a Do-Minimum in which HS2 proceeds as planned by the Government and the Midland Metro is extended from New Street Station to Eastside.
- b) The Alternative Case, in which the Do-Scheme case is compared with a Do-Minimum which has no HS2 and no Metro

¹ CEN/P2.1/ECO, 2.24

² CEN/P2.1/ECO, 2.25

extension to Eastside.

4.2.11 For the Reference case, the following assumptions have been made:¹

Do Minimum

- Midland Metro will run 10 trams per hour (tph) from New Street to Wolverhampton St George's, with a shuttle service (10 tph) between New Street and Eastside from 2026
- HS2 operational from 2026
- No changes to the road network.

Do Something

- Extension of Midland Metro Line 1 services (10 tph) from New Street to Centenary Square, with a shuttle service (10 tph) between Centenary Square and Eastside from 2026
- Broad Street closed to general traffic between Paradise Circus and Bridge Street. Navigation Street link opened to allow traffic to pass from Navigation Street to Broad Street via Bridge Street.

4.2.12 For the Alternative case, the following assumptions have been made:²

Do Minimum

- Midland Metro will run 10 tph from New Street to Wolverhampton St George's
- No changes to the road network.

Do Something

- Extension of Midland Metro Line 1 services (10 tph) from New Street to Centenary Square.
- Broad Street closed to general traffic between Paradise Circus and Bridge Street. Navigation Street link opened to allow traffic to pass from Navigation Street to Broad Street via Bridge Street.

4.2.13 Network modelling has been used to forecast demand and, hence, benefits. A recently-updated version of PRISM – the strategic transport model of the West Midlands – was used. Flows on Midland Metro and public transport user benefits have been estimated using Centro's public transport (PT) VISUM model, which has been updated to better reflect current demand levels and the most recent forecasts of demand.³ For the Reference case, the HS2 impact on local demand patterns has also been taken into account.⁴

Demand and Benefits

4.2.14 The CSQ would offer benefits to users through journey time savings.

¹ CEN/P2.1/ECO, 2.26

² CEN/P2.1/ECO, 2.27

³ CEN/P2.1/ECO, 2.29

⁴ CEN/P2.1/ECO, 2.30

Without the scheme, Metro passengers who wish to travel to Centenary Square must walk approximately 800 metres from New Street Station.¹ These user benefits have been assessed with TUBA, which is the approach set out in WebTAG.² The change in car use consequent to the scheme has been estimated using Birmingham City Council's city centre SATURN model in conjunction with demand forecasts from PRISM.³

Demand and Benefits

4.2.15 Current annual Midland Metro patronage is around 5 million. In both the Reference Case and the Alternative Case this is forecast to rise to over 10 million in the 2021 forecast year due to the extension to New Street Station and the additional capacity provided by fleet expansion.⁴

The CSQ extension is forecast to increase Midland Metro patronage as follows:

- (a) In the Reference case, by 7% in 2021 and 13% in 2031. User benefits are forecast to be an additional £0.84 million in 2021 and £1.48m in 2031 (at 2010 prices).⁵
- (b) In the Alternative case, by 7% in 2021 and 7% in 2031. User benefits are forecast to be an additional £0.84 million in 2021 and £0.90 million in 2031 (at 2010 prices).⁶

4.2.16 Exhibit 9 in document CEN/P2.3/ECO – the evidence of Mr Chadwick - (starting at Exhibit page 681) presents summaries of estimated demands, revenue and benefits for the Reference case and for the Alternative case. The benefit:cost ratio (BCR) is estimated (on the basis described in document CEN/INQ37.1) as follows:

	Reference case	Alternative case
	(£m PV (2010))	(£m PV (2010))
COSTS		
Capital Costs	40.1	40.1
Renewal Costs	11.7	11.7
Operating Costs	20.3	10.5
BENEFITS		
Journey time benefits	68.5	44.3
Highway externalities	1.3	1.3
Revenue	93.9	46.3
Indirect tax	-14.8	-7.4
APPRAISAL		

¹ CEN/P2.1/ECO, 2.31

² CEN/P2.1/ECO, 2.32

³ CEN/P2.1/ECO, 2.35

⁴ CEN/P2.1/ECO, 2.37

⁵ CEN/P2.1/ECO, 2.38, 2.39

⁶ CEN/P2.1/ECO, 2.44, 2.45

Present value of costs	40.1	40.1
Present value of benefits	116.8	62.3
Net present value	76.7	22.2
Benefit:cost ratio	2.9:1	1.6:1

- 4.2.17 Applying the guidance of the DfT's *Value for Money Assessment: Advice Note for Local Transport Decision Makers* (exhibit 10 in CEN/P2.3/ECO) indicates BCR for the scheme in the Reference case to be such that its initial Value for Money category may be judged High; and in the Alternative case the Value for Money category may be judged Medium.¹

Wider Economic Benefits

- 4.2.18 New commercial and cultural developments are planned at Centenary Square, for which good connections to the rest of the City are needed. Therefore the CSQ would benefit the local economy.² Wider economic benefits have not been included in the central BCR reported in the table following paragraph 4.2.16 of this report. If those were included in the Reference Case BCR it would increase to 3.1:1, increasing the scheme's reported value for money.³

Environmental Impacts

- 4.2.19 The scheme's effects with regard to noise, emissions, landscape, townscape, heritage, biodiversity and water quality have been assessed. Of those, the scheme has a notable effect only on heritage. Due to planned mitigation measures the expected residual effect on the heritage resource is judged, for the purposes of the value for money assessment, to be slightly negative.⁴

Social Impacts

- 4.2.20 The CSQ will improve accessibility between Centenary Square and New Street Station, Snow Hill station and the proposed HS2 Curzon Street station, as well as other locations along the existing Line 1. The impact on accessibility would be beneficial. There would be beneficial reliability impacts for those passengers new to the Metro due to the tramway's on-street segregation and its strong record of service reliability. There would be a slight benefit to security in that the stops would have high quality lighting, passenger information, CCTV and emergency help buttons. Tram travel offers a smooth journey largely unaffected by highway congestion and so, in comparison with walking or other modes of travel to Centenary Square, use of the tram would benefit journey quality. Impacts on affordability, accidents, physical activity and severance are all considered neutral.⁵

Distributional Impacts

¹ CEN/P2.1/ECO, 2.59

² CEN/P2.1/ECO, 2.62

³ CEN/P2.1/ECO, 2.65

⁴ CEN/P2.1/ECO, 2.66-7

⁵ CEN/P2.1/ECO, 2.68-2.73

- 4.2.21 It is important to consider whether the CSQ's economic, environmental and social benefits would be concentrated in certain locations or on certain social groups, or whether they would be spread across different places and people¹.
- 4.2.22 Benefits would accrue to the immediate vicinity of Centenary Square, to Birmingham and to the wider West Midlands area. Some short-term negative impacts would be experienced near the extension during construction, but impacts in terms of geographical location would be beneficial.²
- 4.2.23 Since deprived populations rely heavily on public transport, such groups would particularly benefit from the enhanced access the CSQ would provide to services and employment at Centenary Square and redeveloped Paradise Circus. The impact is assessed as being slight beneficial.³

WebTAG Tables

- 4.2.24 The WebTAG prescribed Transport Economic Efficiency table, Public Accounts table, Analysis of Monetised Costs and Benefits table and Appraisal Summary table for the Reference case are provided on pages 685 to 689 of document CEN/P2.3/ECO.⁴

Sensitivity Tests

- 4.2.25 The sensitivity of the appraisal result to changes in the appraisal inputs has been tested. Altering the value of time, changing the optimism bias level or excluding non-user benefits would each have a relatively modest or neutral effect on the BCR. In the reference case the lowest BCR from these three tests is 2.4:1, and in the Alternative case the lowest BCR is 1.3:1.⁵
- 4.2.26 In a further test the reductions in benefits and increase in costs required for the BCR to be in a lower value-for-money category have been identified. The Reference Case would need a 34% reduction in the present value of benefits or a 52% increase in the present value of costs to lower the scheme's value for money categorisation, and the corresponding figures in the Alternative Case would be a 58% reduction in benefits or a 72% increase in costs. There is only a low risk of such changes occurring.⁶

Value For Money Statement

- 4.2.27 Regardless of whether the Reference Case or the Alternative Case is adopted for funding decisions, the economic performance of the scheme represents Value for Money.⁷

¹ CEN/P2.1/ECO ex8, economic case, 6.1

² CEN/P2.1/ECO, 2.74

³ CEN/P2.1/ECO, 2.75

⁴ CEN/P2.1/ECO, 2.76 and Exhibit 9

⁵ CEN/P2.1/ECO, 2.77-2.80 and 2.82

⁶ CEN/P2.1/ECO, 2.81, 2.83

⁷ CEN/P2.1/ECO, 2.84

The Commercial Case

- 4.2.28 Centro has recent experience in procurement of Midland Metro extensions with the Birmingham City Centre Extension and Fleet Replacement Programme, which included procurement of a 1.3 km extension to Midland Metro, a Depot extension and a replacement tram fleet.¹
- 4.2.29 The proposal for the procurement of the CSQ and complementary highway measures was developed to deliver robust, affordable projects that can be completed both to time and within budget and which would be attractive to the private sector construction market, achieved through:²
- The most appropriate procurement and contract strategy
 - Robust risk and cost management
 - Operator/maintainer involvement in design and construction
 - Adoption of a strong partnering ethos in delivery.
- 4.2.30 The full commercial case is set out in section D of the Business Case, exhibit 8 in document CEN/P2.3/ECO.

The Management Case

- 4.2.31 The Management Case shows that the project is managed by a strong project team with a mixture of in-house project managers and technical and operational light rail experts together with a strong team of supporting consultants and advisors covering all aspects of the development and delivery of the scheme.³
- 4.2.32 The full management case is set out in section E of the Business Case, exhibit 8 in document CEN/P2.3/ECO.

Scheme Benefits

- 4.2.33 The area around Centenary Square is home to a number of key cultural institutions, and further developments are planned to enhance the economic, social and retail offer of the area. These proposals will bring significant and much-needed benefits to the Westside quarter of Birmingham. However, without an efficient, high-quality public transport link to provide access to those developments, their full potential will not be achieved.⁴

Economic Benefits

- 4.2.34 The Birmingham City Centre Enterprise Zone is a major project with the potential to create 40,000 jobs. Paradise Circus and Arena Central, planned developments adjacent to Centenary Square, are key sites within the zone. With proper provision of public transport, companies in the Enterprise Zone will attract employees from a wider radius, ensuring the highest calibre workforce possible. The Metro extension

¹ CEN/P2.3/ECO exhibit page 203 see also CEN/P1.1/SCH 11.8

² CEN/P2.3/ECO exhibit page 203 see also CEN/P1.1/SCH 11.8

³ CEN/P1.1/SCH, 11.7

⁴ CEN/P2.3/ECO, exhibit page 227, 5.1

from central Birmingham would open this area up to more people as a location for employment in the retail and hotels sectors.¹ Unemployed people living in north-west Birmingham and the Black Country would find access to jobs easier. The provision of a direct link would reduce uncertainty for business travellers and commuters.²

- 4.2.35 The Enterprise Zone has the potential to add over £2 billion GVA per year to the local economy, but access to markets is critical. With simple transfer between the Westside and national and international transport termini, companies are expected to attract new investment from across the UK and the world.³
- 4.2.36 The scheme's benefits would extend beyond the Enterprise Zone. Improved connectivity between Centenary Square and the City core, Southside and the Jewellery Quarter would help link together the people and economic activity in the City Centre and on the Westside. The enhanced connectivity between businesses, labour pools and key economic sites across the City is important for future growth⁴, consistent with the West Midlands Local Transport Plan (LTP) and the GBSLEP's Strategic Economic Plan⁵.
- 4.2.37 The Metro extension would further encourage tourism and leisure travel from the greater Birmingham area and beyond. The cultural resources in Centenary Square could all expect an increase in revenues and the CSQ would also reinforce and increase the success of the Brindleyplace office and leisure development.⁶

Social Benefits

- 4.2.38 The areas served by Line 1 are some of the most deprived in the country; nearly all of the stops on the existing Line 1 are in Lower Super Output Areas which are in the 10% most deprived in England⁷. Elderly people represent an above average proportion of the population in the area served by Line 1. And Birmingham's young population disproportionately relies on public transport to travel around the city. The CSQ would benefit each of those groups by providing improved access to social, cultural, retail and other facilities in the City Centre and, for some, access to employment.⁸ The scheme is consistent in these respects with policies of the LTP⁹.

Environmental Benefits

- 4.2.39 The CSQ would create an environmentally sustainable route between the City Centre and Centenary Square, taking cars and taxis off the

¹ CEN/P2.3/ECO, exhibit page 227, 5.3

² CEN/P2.3/ECO, exhibit page 228, 5.6

³ CEN/P2.3/ECO, exhibit page 227, 5.4

⁴ CEN/P2.3/ECO, exhibit page 228, 5.5

⁵ CEN/P2.3/ECO, exhibit page 229, 5.20

⁶ CEN/P2.3/ECO, exhibit page 228, 5.7

⁷ CEN/P2.3/ECO, exhibit page 261, 6.8

⁸ CEN/P2.3/ECO, exhibit page 228, 5.8 to 5.12

⁹ CEN/P2.3/ECO, exhibit page 230, 5.21

road. And, although the extension is relatively short, by improving connectivity with key rail interchanges and destinations along Line 1 to Wolverhampton, there would be some modal shift of longer distance car journeys on to the Metro.¹ These effects would be consistent with the aims of the LTP and the Big City Plan for Birmingham to tackle climate change, and with Birmingham City Council's Air Quality Action Plan².

Transport Benefits

- 4.2.40 Birmingham is currently the largest city in western Europe without a rail-based rapid transit system through its centre. The extension to New Street Station now being built will partially address that, but will exclude the significant areas of commercial and leisure activity to the west of the City Centre; and the CSQ would provide a direct, high quality link to the Westside area.
- 4.2.41 Highway congestion would also be reduced; 43% of current Metro passengers have a car available for their journey yet choose to use the Metro – even though it does not yet enter the City Centre. The CSQ would increase the attractiveness of the Metro, taking cars off the road.³
- 4.2.42 The scheme would achieve a number of goals set by the West Midlands LTP. Local connectivity would be improved. The LTP aims to maximise the benefits of HS2 for Birmingham; although the CSQ is unlikely by itself to enhance the benefits of HS2, a future tramway extension from New Street Station to Eastside and the proposed Curzon Street station would enable passengers arriving at Birmingham by HS2 to directly access the shops, offices and other amenities in Centenary Square by means of the planned Curzon Street to Centenary Square shuttle tram.

4.3 **The Order Proposals**

4.3.1 The Order would:

- a) Confer renewed and limited further powers of compulsory acquisition on Centro for the purpose of the works authorised by the 2005 Order, the compulsory acquisition powers of which expired in 2010;⁴
- b) Authorise a variation of a short section of the alignment of the tramway from that authorised by the 2005 Order in Paradise Circus Queensway, to integrate with highway changes proposed as part of the PCR ("the Variation"). Powers would be conferred on Centro to introduce a short length of tramway outside the current limits of deviation and over an associated wider area compulsorily to acquire land and rights over land, to extinguish private rights, to use land temporarily and to carry out such other works as may be necessary or expedient in

¹ CEN/P2.3/ECO, exhibit page 229, 5.15

² CEN/P2.3/ECO, exhibit page 230, 5.22 and 5.23

³ CEN/P2.3/ECO, exhibit page 229, 5.17 to 5.19

⁴ CEN/P1.1/SCH, 6.3

connection with that variation;¹ and,

- c) Confer powers on Centro, including powers to acquire land, to adjust the 2005 Order scheme at Centenary Square outside the Paradise Circus area².

Acquisition for Works Authorised by the 2005 Order

- 4.3.2 Land would be acquired for works authorised by the 2005 Order in Pinfold Street, Victoria Square, Paradise Street, Broad Street and Bridge Street³.

Crown Land

- 4.3.3 The Book of Reference (document CD17) describes plots 39, 40, 41, 42 and 49 as special category land and Crown land. The Book of Reference lists the Secretary of State for Business, Innovation and Skills as having an interest in that land, as a tenant. There is a compilation error, in that the applicant does not need to acquire land or rights from the Secretary of State for Business, Innovation and Skills, whose interest would remain unaffected by the scheme.⁴

Land To Be Acquired At Victoria Square House

- 4.3.4 Land would be acquired here for the following purposes:⁵

Plots 39 (2.4 square metres) and 40 (7.8 sqm): access is required to the property to undertake work to permanently close the unused doorway on the north east corner of Victoria Square House.

Plot 41 (20.0 sqm) is required to provide a lockable gate and fencing, to prevent unauthorised access.

Plot 42 (29.2 sqm) is required temporarily at the Post Office entrance for permanent works to tie in differing levels.

Plot 49 (214.4 sqm) is included in the Order to allow for the possibility of undertaking minor works in the car park at Victoria Square House to accommodate changes in level in the highway. Possession would be temporary and the nature of the possible works is such that they could be done in a relatively short time.

- 4.3.5 Basement access is required at plots 39, 40, 41 and 42 to allow surveys of the basement walls which support the highway, where the tram would introduce different loading.

Variation at Paradise Circus

- 4.3.6 Various design options were considered for that part of the CSQ near Paradise Circus, as a result of the highway changes proposed in conjunction with the PCR scheme.

- 4.3.7 Initially, two options were considered by Centro and the PCR promoters

¹ CEN/P1.1/SCH, 6.4

² CEN/P1.1/SCH, 6.5, 8.6

³ Current land plan CD05, current works plan CD04, 2005 land plan CD24

⁴ CEN/P1.1/SCH, Appendix B

⁵ CD17; CEN/P3.1/ENG, section 5.4.5

(Birmingham City Council and Argent)¹:

- a) Option A is shown by Exhibit 7 of document CEN/P1.3/SCH. The tramway would be inside the 2005 Order limits of deviation. Two lanes would be provided in each direction between the slip roads to Suffolk Street and the junction with Broad Street. The nearside lane on the northbound carriageway would be shared with the Centenary Square bound tram track; the Wolverhampton bound track would be fully segregated from traffic through Paradise Street and Paradise Circus to avoid conflict with southbound traffic movements. There would thus be only one southbound traffic lane. Although there would be potential for an additional traffic lane on the PCR site, a conflict between trams and other traffic would remain. This option would cause increased traffic congestion in Paradise Circus Queensway.
- b) Option B is shown by Exhibit 8 of document CEN/P1.3/SCH. The tramway would be inside the 2005 Order limits of deviation. The Centenary Square bound track would be shared by vehicles on Paradise Street. Both tram tracks would be fully segregated through Paradise Circus (as for the 2005 Order), thus requiring a new retaining structure in front of Alpha Tower. Using additional land for the tramway would provide necessary southbound highway capacity on Paradise Circus Queensway. But it would remain the case that the two southbound traffic lanes would be obliged to cross the Wolverhampton bound tramway – either delaying the trams or requiring an additional stage at the signal-controlled junction², reducing its capacity.

4.3.8 At this stage, Option B was rejected and design work continued on Option A, generating first Option 1 and then Option 2:

- a) Option 1 is shown by Exhibit 9 of document CEN/P1.3/SCH. The tramway would be inside the 2005 Order limits of deviation. Option 1 is derived from Option A and identifies which sections of the tramway would be tram only, which would be shared with buses and which would be shared with general traffic. An exit would be provided from the PCR servicing area. But the conflict between trams and general traffic, as in Option A, would remain.
- b) Option 2 is shown by Exhibit 10 of document CEN/P1.3/SCH. Some 270 square metres of the tramway would be outside the 2005 Order limits of deviation³. The Wolverhampton bound tram would run in the nearside lane on Paradise Circus⁴ (which it would share with general traffic). There would be two southbound general traffic lanes in Paradise Circus Queensway.

¹ CEN/P1.1/SCH, table 7.1 except where shown otherwise

² CEN/P3.1/ENG, 4.2.6

³ CEN/P1.1/SCH, exhibit 10

⁴ CEN/P3.1/ENG, 4.2.8

This option removes the tram/traffic southbound movement conflict and removes the need for retaining structures¹.

- 4.3.9 Option 2 was therefore preferred.
- 4.3.10 The 2005 Order alignment is shown on document CD07, the 2005 Order Works Plan (sheet number 3). Option 2 offers significant advantages² when compared to the 2005 Order alignment³:
- a) Better integration with the proposed major changes to the highway as a result of the PCR than would be possible under the 2005 Order;
 - b) Avoids the need for construction of a bridge over Suffolk Street Queensway, with its associated costs and disruption; and,
 - c) Avoids the need for a new retaining wall outside Alpha Tower, at the junction of Suffolk Street Queensway and Broad Street.
- 4.3.11 Option 2 is therefore taken forward into the Order scheme, illustrated by document CD04, the Order Works Plan, and also by drawing MMD-300207-CS21-DRA-0000-0101 ("drawing 0101", ES Volume 2D in document CD14). Within the Variation site boundary, the following land areas indicated on drawing 0101 are outside the 2005 Limits of Deviation:
- (a) Area A is mainly required for the installation of temporary OLE;
 - (b) Area B is required for working space, extending Easy Row subway, ancillary works, and the operation of the Variation;
 - (c) Area C is required as a visibility splay.

Revised Proposals at Centenary Square

- 4.3.12 The 2005 Order scheme would provide a turnback at Centenary Square to allow services from Wolverhampton to terminate there should that be necessary (due, for example, to a road traffic accident between Centenary Square and the proposed Edgbaston terminus). The current proposal, developed in conjunction with Birmingham City Council, would modify the 2005 Order scheme to provide a layout that allowed trams to terminate in the centre of Broad Street while maintaining traffic flow on either side of the tram stop, providing for closely located bus stops to allow easy interchange between modes, allowing for the revised traffic signal arrangements at Paradise Circus, and providing the tram stop as close as possible to the key destinations of Symphony Hall, the International Convention Centre, the Library of Birmingham and the proposed Arena Central development.⁴
- 4.3.13 The resulting design is shown on Exhibit 11 of document CEN/P1.3/SCH. The stop would be entirely within the 2005 Order

¹ CEN/P1.1/SCH, table 7.1

² CEN/P1.1/SCH, 7.11

³ CEN/P1.1/SCH, 7.5

⁴ CEN/P1.1/SCH 8.3, 8.4

planning permission boundary. Discharge of the detailed planning conditions for these changes was obtained from Birmingham City Council in May 2014 (documents CD40).¹

- 4.3.14 The revised highway arrangement at the Centenary Square stop, together with the closure of Broad Street to general traffic (other than buses, taxis and vehicles requiring essential access²) between Paradise Circus and Bridge Street necessitated the reconfiguration of the Broad Street/Bridge Street junction and the permanent acquisition of plot 3 for incorporation in the highway as a visibility splay. Plots 1, 2 and 4 would be temporarily required for accommodation works and, on plot 4, the right to place and maintain utility apparatus would be established.³

Revised Proposals In Pinfold Street, Victoria Square And Paradise Street

- 4.3.15 The change to Urbos 3 tram stock (see paragraph 4.1.3) with its different design parameters has enabled changes to be made to the tramway alignment in Pinfold Street and Victoria Square that reduce differences between existing and proposed levels and avoid the previous need for internal alterations to some buildings in Pinfold Street, and a section of the tramway being raised above the levels of the adjacent footways⁴. The extent of earthworks and construction disruption has been reduced, especially at frontages.⁵ Other design changes include:
- Improved accessibility for pedestrians along Pinfold Street, which has become more important as a result of changed entrance arrangements for New Street Station; the footway on the eastern side of Pinfold Street outside the shops would be as wide as possible.⁶
 - Changes to retaining wall details in Victoria Square, thereby making better provision for pedestrian movements between New Street and Victoria Square.⁷ For example: in the 2005 scheme the existing flight of steps radiating around Victoria Square and then running parallel to the Town Hall were retained. The 2014 scheme would regrade the area, eliminating the needs for the steps and making the square more accessible for the mobility impaired.⁸
 - In Paradise Street, the 2014 scheme would reduce the amount of tram stop furniture on the Wolverhampton-bound platform

¹ CEN/P1.1/SCH, 8.5

² CEN/P3.1/ENG, 4.3.1b

³ CEN/P1.1/SCH, 8.6, 14.7; Order schedules 1 parts 1 and 2, and 3

⁴ CEN/P3.1/ENG, 4.9.5

⁵ CEN/P1.1/SCH, 8.9

⁶ CEN/P1.1/SCH, 8.10

⁷ CEN/P1.1/SCH, 8.11

⁸ CEN/P3.1/ENG, 4.9.7

outside the Town Hall.¹

- 4.3.16 All these design changes would be inside the Limits of Deviation established by the 2005 Order and all are approved by Birmingham City Council (document CD40). They are unrelated to the proposed Variation in the tramway alignment at Paradise Circus.²

4.4 **Environmental Impacts**

General

- 4.4.1 Document CD13 is the submitted ES ("the Variation ES") Main Statement for the Paradise Circus Variation to the Midland Metro Birmingham City Centre Extension. The application for the 2005 Order was accompanied by a number of documents, including an ES that was published in February 2003 ("the 2003 ES", which is re-issued as an appendix to the Variation ES). The Variation ES assesses any different or new environmental impacts that may result from the proposed variation and associated changes, considers the significance of impacts and, where required, proposes appropriate mitigation measures to address any potentially significant impacts. The Variation ES also focuses on identifying differences between the previously consented scheme under the 2005 Order and the Variation scheme.³
- 4.4.2 The approach taken in the Variation ES reflects the Scoping Report and the Scoping Opinion issued by the DfT on 14 May 2013 (in document CD14). The Variation ES considers two scenarios⁴:
- "Do minimum" – the 2005 Scheme including committed developments and committed transport and Metro-related schemes; and,
 - "Do something" – the Variation including committed developments and committed transport and Metro-related schemes.
- 4.4.3 The list of committed developments has been agreed with Birmingham City Council and is set out in Table 8.5 in the Variation ES.⁵
- 4.4.4 The comparison of impacts under these two scenarios aims to identify the following:⁶
- Any additional impact arising and the impact significance;
 - Any net change to impacts;
 - Any necessary mitigation measures; and,
 - Any potential for significant residual impacts following the implementation of mitigation measures.

¹ CEN/P3.1/ENG, 4.9.8

² CEN/P1.1/SCH, 8.12

³ CD13, section 1.1

⁴ CD13, 4.4.1 see also 4.4.3

⁵ CD13, 4.4.2

⁶ CD13, 4.4.4

Additional Evidence

- 4.4.5 Additional environmental evidence was given for the applicant at the Inquiry, particularly with regard to cultural heritage, townscape, transport, noise and vibration, and planning.

Code of Construction Practice

- 4.4.6 Volume 2B of the Variation ES (in document CD14) contains the Code of Construction Practice (CoCP) Part 1. It sets down a series of measures to minimise the environmental impacts of the construction of the works, and defines minimum standards of construction practice that would be required of the contractor. The contractor will be required to prepare the Part 2 CoCP to show how the contractor intends to comply with the CoCP Part 1.¹
- 4.4.7 Section 2.7 of the Part 1 CoCP makes provision for access across the site and to frontages. The Contractor is to prevent or reduce disturbance or inconvenience to owners, tenants or occupiers of adjacent properties, and to the general public. The Contractor is required to liaise with adjacent occupiers and to provide every reasonable assistance to them in servicing their properties.
- 4.4.8 The CoCP is the subject of draft planning condition 6 in Appendix 1.

Land Use and Land Take*Construction Impacts*

- 4.4.9 In the "Do Minimum" case, the 2005 Scheme would require land acquisition for the construction of a new bridge over Suffolk Street Queensway and for large earth retaining structures nearby, close to Alpha Tower. It would also require land acquisition for a western extension of a pedestrian subway at Easy Row.²
- 4.4.10 In the "Do Something" case the Variation would remove the need for a new bridge over Suffolk Street Queensway and for retaining structures at Alpha Tower and so the temporary land take associated with those works would not be necessary.³ (However, at the time of preparing the Variation ES the possible need to strengthen the Suffolk Street Queensway south portal in relation to the Variation had not been assessed, the question having been raised by Birmingham City Council.⁴)
- 4.4.11 The Variation would require land for the extension of Easy Row subway, as would the 2005 Scheme, and for the creation of a visibility splay on part of a hotel forecourt. During construction, the Variation would require some land take from the consented redevelopment of Paradise Circus; this would comprise land in the newly created highway, and the siting of OLE poles in land that the PCR scheme would use as landscaping. The land take associated with the Variation is not so

¹ CoCP, 1.1.1 and 1.1.2

² CD13, 7.4.4

³ CD13, 7.4.1 to 7.4.3

⁴ CEN/P8.1/PLA, 4.6

extensive as the 2005 Scheme.¹

Operational Impacts

- 4.4.12 Operation of the "Do Minimum" scheme would require permanent loss of land at the south-eastern corner of the junction between Paradise Circus Queensway and Suffolk Street Queensway, and there would be a need to provide permanent replacement walkways in the Arena Central development. Those uses of land would not be necessary for the "Do Something" case.²

Mitigation

- 4.4.13 A planning condition is proposed that would require compliance with a CoCP which would establish a series of measures to mitigate adverse environmental impacts associated with construction of the scheme.³

Residual Impact

- 4.4.14 The Variation is likely to reduce the amount of land acquisition required in comparison with that needed for the 2005 Scheme.⁴

Traffic and Transport

Transport Assessment

- 4.4.15 The Transport Assessment (TA) for the Variation is presented in Volume 2E of the ES (in document CD14). Its purpose is stated on its page 1 as being to "identify the net transport-related impacts of the Variation relative to the 2005 Scheme and, where net impacts arise, to consider how these might affect the level and type of mitigation proposed for the 2005 Scheme."
- 4.4.16 The most recent guidance for transport assessment is the DfT's "Guidance on Transport Assessment" (GTA, document CEN/GEN2), first issued in 2007. The GTA applies primarily to development schemes, but its principles are applicable for assessing the transport impacts of schemes similar to the Variation. It follows the principles of the New Approach To Appraisal. In its paragraph 4.30 the GTA states that its approach "will ensure that a proposed development's impacts are considered in the context of two alternative scenarios – with-development and without-development – and will enable a comparative analysis of the transport effects of allowing the development to take place." The GTA also states that future year assessment scenarios should include the effects of committed developments and transport schemes. This is therefore the approach adopted in the TA for the Order.⁵
- 4.4.17 In the case of the Order, the "without development" scenario (referred to as the "Do Minimum" scenario in the TA and the Variation ES) includes all relevant committed developments and committed transport

¹ CD13, 7.4.1 to 7.4.3

² CD13 7.5.1 and 7.5.2

³ CD13, 7.8.1

⁴ CD13, 7.10.3

⁵ CEN/P6.1/TRA, 10 - 11

schemes, including the 2005 Order. The “with development” scenario (“Do Something” in the TA and the Variation ES) is concerned with the same committed developments and transport schemes, but also with the Variation. The TA is therefore concerned with the assessment of the net impact of the Order only, over and above that envisaged in the case of the 2005 Order. It considers impacts on a wide range of transport-related receptors.¹

- 4.4.18 This approach was agreed in principle with the DfT Orders Unit in May 2013 through the Environmental Impact Assessment (EIA) scoping process and with Birmingham City Council as Highway Authority through the TA scoping process. The findings of the TA informed the Transport Chapter of the Variation ES.²
- 4.4.19 Birmingham City Council’s SATURN model was used for the strategic assessment of the highway impact for the “Do Something” and the “Do Minimum” scenarios. The model includes all the relevant schemes and developments identified by Birmingham City Council at the Variation TA scoping stage. The SATURN model assumes a tram frequency of one tram every six minutes in each direction in the peak hours, which represents a robust scenario.³
- 4.4.20 The TA concludes that the net transport-related impacts of the Variation relative to those of the 2005 Order scheme would be either neutral or beneficial. Mitigation works proposed as part of the 2005 Order scheme would be appropriate to facilitate the Variation. Additional mitigation works recommended to support the Variation concern road safety at the Paradise Circus junction, as follows:⁴
- (a) Signage on the westbound traffic approach to Paradise Street, a visible change in road surface treatment, and number plate recognition cameras, to deter general traffic from following trams into Paradise Street; and,
 - (b) Traffic signal control to allow trams to pass through Paradise Circus junction in one movement, to minimise tram/traffic interactions and to prevent trams from obstructing the junction.

Construction Impacts

- 4.4.21 The “Do Minimum” option would require construction works that would be more substantial than those for the “Do Something” case. The traffic and transport impacts of both options would be similar during the construction phase but, because its works would be more substantial, the “Do Minimum” option would require a longer construction period and would generate more traffic than the “Do Something” option. Construction traffic associated with the “Do Minimum” case is assessed to have a “Low-Moderate adverse” impact on local highway capacity, whereas the impact of the “Do Something” case would be “low adverse”

¹ CEN/P6.1/TRA, 12 – 14`

² CEN/P6.1/TRA, 15, 16

³ CD13, table 8.2

⁴ CEN/P6.1/TRA, 23

during the construction period.¹

- 4.4.22 Both the "Do Something" and the "Do Minimum" options are expected to result in a "significant" impact on bus routes during construction, and a potentially "low adverse" impact on pedestrians and cyclists. Any residual impacts would be reduced to "not significant" if appropriate mitigation measures (including temporary re-routeing of buses and revised bus timetabling, and temporary alternative pedestrian/cycle routes) were implemented.²

Operational Impacts

- 4.4.23 In the "Do Minimum" scenario, trams would follow a segregated route to Broad Street. The future performance of the proposed signal controlled junction between Paradise Circus Queensway West and Broad Street has been tested in this scenario, using LinSig software. The finding was that the junction would be loaded with traffic a little beyond its operating capacity during the busiest hours of a weekday (08:00 to 9:00 and 17:00 to 18:00); assessed as being a significant adverse effect on conditions for general traffic.³
- 4.4.24 The "Do Something" case remodels the Paradise Circus Queensway West/Broad Street junction to enable trams to run on-street. When modelled with LinSig software in this case the junction was found to have a greater operating capacity than in the "Do Minimum" case such that it would function within its operating capacity during the busiest hours of a weekday (08:00 to 9:00 and 17:00 to 18:00). The "Do something" case was therefore assessed to have no impact on conditions for general traffic.⁴
- 4.4.25 The effects of the "Do Minimum" and "Do Something" cases on types of road user other than general traffic (that is, on pedestrians, cyclists, buses, hackney cabs, and access and servicing traffic) were also assessed and no significant differences were found.⁵
- 4.4.26 The effect of the proposed change from "Do Minimum" to "Do Something" has also been assessed with regard to total travel time and total distance travelled for all vehicle movements in the area bounded by the A4540 ring road during weekday AM and PM peak hours. No significant difference was found between the effects of the two cases.⁶

Mitigation Measures

- 4.4.27 The only significant adverse construction impacts identified for the "Do Something" scenario are⁷:

- 1 Temporary re-routeing of pedestrian and cycle routes during construction;

¹ CD13, section 8.7

² CEN/P6.1/TRA, 19, 20

³ CD13, 8.8.7-8.8.10 and table 8.9.

⁴ CD13, 8.8.1-8.8.6 and table 8.8

⁵ CD13, tables 8.8 and 8.9; also 8.8.12

⁶ CD13, 8.8.13-8.8.14

⁷ CD13, 8.9.1

- 2 Temporary amenity impacts on pedestrians and cyclists of construction vehicle movements; and,
 - 3 Temporary re-routeing of bus services, stop relocations and increased journey times.
- 4.4.28 Measures to mitigate those effects are identified in paragraphs 8.9.2 and 8.9.3 of the ES. Temporary traffic management measures would be introduced, alternative pedestrian/cycle routes would be provided, the interaction of construction traffic with pedestrians and cyclists would be managed, and bus timetables would be temporarily revised.
- 4.4.29 No significant adverse operational period impacts requiring mitigation are identified for the "Do Something" scenario¹.

Residual Impacts

- 4.4.30 The measures proposed in mitigation of the effects that construction of the "Do Something" case would have on traffic and transport would reduce residual impacts of that type to an acceptable level². And no significant adverse operational period impact requiring mitigation has been identified for the "Do Something" scenario³.
- 4.4.31 No cumulative impacts have been identified.

Noise and Vibration

Assessment Criteria: Construction Noise

- 4.4.32 The criteria used in the 2003 ES for evaluating the significance of impacts due to airborne noise during construction are appropriate for this assessment and are as follows:

Assessment Criteria For Noise Impact From Construction		
Period	Building/location	Criterion for assessment LAeq
Day (07:00-19:00)	Dwelling/office (façade)	75 dB
	Educational buildings	65 dB
Evenings (19:00-23:00)	Dwellings (façade)	65 dB
Night (23:00-07:00)	Dwellings (façade)	45 dB
Amount by which the noise criterion is exceeded dB(A)		Impact descriptor
0		None
0 to 3		Slight

¹ CD13, 8.9.4

² CD13, 8.10.1-8.10.2

³ CD13, 8.9.4

3 to 5	Moderate
5 to 10	Substantial
10 and above	Severe

- 4.4.33 British Standard BS 5228 "Code of practice for noise and vibration control on construction and open sites" (1997), which formed the basis for the assessment of construction noise in the 2003 ES, was revised in 2009. However, this does not require a revision of the methodology of this assessment.¹

Construction Impacts

- 4.4.34 In the "Do Minimum" case, noise impacts arising during the construction phase are expected to be greater and/or longer in duration (than the "Do Something" case because the scale of works for the "Do Minimum" would be greater. The noise impacts arising during the construction of the "Do Minimum" alignment due to heavy vehicle movements is assessed as No Impact as predicted noise levels are below the daytime criterion of 75 dB(A).²
- 4.4.35 Noise impacts during the construction of the "Do Something" revised alignment due to heavy vehicle movements is assessed as No Impact as predicted noise levels are below the daytime criterion of 75 dB(A).³

Net Change In Construction Impacts

- 4.4.36 With the "Do Something" scenario, the net change to construction noise and vibration impacts could be neutral to slight beneficial; however, this is not expected to be significant. Under both scenarios, noise and vibration during construction would be controlled by measures set out in the CoCP.⁴

Airborne Noise Due To Tram Operation

- 4.4.37 Calculations have been carried out in accordance with standard guidance set out in The Calculation Of Railway Noise (1995).⁵ Noise levels at 8 receptors were predicted on the basis of those calculations and background noise surveys made in July 2013⁶. The findings are set out in tables 9.5 and 9.6 of the ES. Among other things, the tables show predicted differences between noise levels in the "Do Minimum" and "Do Something" scenarios. Daytime and night time conditions are modelled, and both lead to the conclusion that there would be no impact to airborne noise from trams in adopting the Variation alignment⁷.

Ground-Borne Noise

¹ CD13, 9.3.5

² CD13, 9.5.7-9.5.8

³ CD13, 9.5.6

⁴ CD13, 9.5.10

⁵ CD13, 9.6.1

⁶ CD13, 9.3.3

⁷ CD13, 9.6.3 and 9.6.6

- 4.4.38 Ground-borne noise may arise where vibration generated by the movement of a tram is transmitted via the ground into buildings and building elements such as walls or floor respond by radiating audible noise. The 2003 ES indicated that receptors including the Town Hall and Symphony Hall are expected to be particularly sensitive to ground-borne noise and vibration associated with trams and that further studies may be required to inform the design of the track in those areas. This would be carried out at the detailed design stage. Proposed planning condition 10 (in Appendix 1) provides criteria for ground-borne noise affecting noise sensitive rooms in residential buildings and offices. The same criteria are imposed on the 2005 planning permission by its condition 11.¹

Ground-Borne Vibration Performance Criteria

- 4.4.39 Ground-borne vibration is assessed in terms of potential disturbance to building occupants. Relevant assessment criteria are provided in BS 6472 Part 1 "Guide To Evaluation Of Human Exposure To Vibration In Buildings (Vibration Sources Other Than Blasting)" 2008. The Midland Metro Extensions Noise and Vibration Policy 2003 included the following requirement²:

"Trackforms will be designed adjacent to sensitive receptor buildings using Best Practicable Means to keep within the guideline levels of Vibration Dose Value (VDV) given in BS 6472, 1992 below which the probability of adverse comment is low:

- Daytime (07:00 to 23:00) 0.4 m/s^{1.75}; and,
- Night-time (23:00 to 07:00) 0.13 m/s^{1.75}."

- 4.4.40 There are slight differences between the 1992 version of BS 6472 and the 2008 version, but those differences make no significant difference to the assessment of impacts.³

Ground-Borne Vibration Due To Tram Operation

- 4.4.41 Paragraphs 9.6.7 to 9.6.11 of the ES (CD13) describe an assessment of the daytime VDV_s likely to arise at receptors in the Paradise Circus Development and adjacent to the Variation. The assessment relies on data previously presented in the 2003 ES. The results show that, while the 0.4 m/s^{1.75} daytime criterion might be exceeded at receptors within 4 metres of the nearest tram track, the distances of such receptors from the Variation would be greater than 4 metres such that the estimated VDV_s would fall below the daytime criterion at all receptors.
- 4.4.42 Equivalent estimated VDV_s specifically for night-time operation were not provided in the 2003 ES. However, the impacts are expected to be significantly lower than daytime due to the relatively few tram movements in the 23:00 to 07:00 period. The 0.13 m/s^{1.75} night-time criterion would be exceeded at the nearby receptors only if the cumulative impacts of night-time tram movements were the same as

¹ CEN/P7.1/NOI, 5.18-5.20

² CD13, 9.3.7

³ CD13, 9.3.9

those during the day, which would be unrealistic.¹

- 4.4.43 Therefore, harmful operational impact of tram-related vibration is not likely as a result of the Variation.²

Net Change In Operational Impacts

- 4.4.44 With the "Do Something" scenario, the net change to construction noise and vibration impacts could be neutral to slight beneficial; however, this is not expected to be significant. During the operational stage, the net change to impacts between the two scenarios is not expected to be significant.³

Noise and Vibration: Mitigation

- 4.4.45 Noise and vibration associated with construction of the Variation would be regulated through proposed planning condition 6 and the CoCP (CD14), which sets out normal working hours, noise limits at sensitive receptors, noise mitigation and noise control.⁴
- 4.4.46 Operational noise and vibration is the subject of proposed planning condition 9, which requires that the development shall be designed and operated in accordance with the Midland Metro Extensions Noise And Vibration Policy 2003 (Annex 2, document CEN/INQ36.1). Among other things, this provides that⁵:
- (a) Insulation shall be offered to residential properties that qualify for consideration under the Noise Insulation Regulations;
 - (b) Supplementary mitigation shall be considered where tram noise levels exceed thresholds of $L_{Aeq07:00-23:00}$ 55 dB and $L_{Aeq23:00-07:00}$ 45 dB, and where the thresholds are exceeded by at least 3 dB ambient levels measures will be implemented where ambient levels are expected to increase such that they exceed pre-existing ambient levels by more than 3 dB;
 - (c) Track shall be designed so that vibration levels in sensitive receptors do not exceed criteria taken from BS 6472:1992; and,
 - (d) The system is to be monitored and maintained.

Residual Noise and Vibration Impacts

- 4.4.47 During construction, the "Do Minimum" option and the "Do Something" option would each be obliged to comply with the CoCP and the details of agreement with the local authority under section 61 of the Control of Pollution Act. As such, during construction of the revised alignment, no residual impact is anticipated.⁶

Cumulative Impacts

¹ CD13, 9.6.10

² CD13, 9.6.11

³ CD13, 9.6.14-9.6.15

⁴ CD13, 9.7.1

⁵ CEN/P7.1/NOI, 6.3

⁶ CD13, 9.8.1

- 4.4.48 No cumulative impacts have been identified¹.

Overall Conclusion – Noise and Vibration

- 4.4.49 Following the implementation of appropriate mitigation measures during construction and with design measures incorporated in the scheme so as to meet the stated noise and vibration standards, no significant noise or vibration impacts are predicted during construction or operation of the Variation.²

Air Quality and Dust

Construction Plant Emissions

- 4.4.50 Given the local and temporary nature of construction plant, impacts of construction plant emissions on local air quality are expected to be negligible and not significant in either the “Do Minimum” or the “Do Something” scenario³.

Construction Traffic Emissions

- 4.4.51 Guidance provided by Environmental Protection UK advises that air quality impact assessments are necessary for construction sites only if the site would generate at least 200 movements per day, for at least one year. The “Do Minimum” scenario would generate between 434 and 475 HGV (heavy goods vehicle) movements over a period of about 27 to 30 days, and the “Do Something” scenario would generate between 20 and 275 HGV movements over a period of between 12 and 16 days. Neither scenario would give rise to significant impacts from construction traffic emissions (including nitrogen dioxide and fine particulates).⁴

Construction-Related Dust

- 4.4.52 Construction phase dust impacts from the “Do Minimum” scenario and the “Do Something” scenario would be not significant.⁵

Operational Impacts

- 4.4.53 Comparison of the “Do Minimum” and “Do Something” scenarios indicates that there would be no net change in operational impacts; therefore there would be no change in the overall significance of impacts on air quality. Impacts as a result of the “Do Something” scenario would be negligible and not significant, and no impacts are anticipated on the City-wide Air Quality Management Area in which the site is located.⁶

Mitigation Measures

- 4.4.54 A CoCP will be developed for the Variation as a control measure. As no significant air quality and dust impacts are predicted associated with the

¹ CD13, 9.9.3

² CD13, 9.10.1

³ CD13, 10.5.2 and 10.5.8

⁴ CD13, 10.5.3, 10.5.4, 10.5.9, 10.5.10

⁵ CD13, 10.5.7 and 10.5.14

⁶ CD13, 10.6.11 and 10.6.9

Variation, no additional mitigation would be required.¹

Residual Impacts and Cumulative Impacts

- 4.4.55 No significant residual or cumulative impacts are predicted with regard to air quality or dust.²

Archaeology and Cultural Heritage

Study Area

- 4.4.56 The 2003 ES defined a study area of 100 m in all directions from the proposed tramway, but with monuments of particular significance within the wider locale also included. In order to facilitate comparison of the "Do Minimum" and "Do Something" scenarios, and given the urban context of the site, a 100 m study area in all directions from the centreline of the Variation alignment is used by the Variation ES.³ Drawing MMD-300207-CS21-DRA-0000-1101 in CD14 illustrates this.

Archaeological Remains

- 4.4.57 No Scheduled Ancient Monuments are recorded in the study area. Five non-Statutory archaeological find spots have been identified in the study area. These are listed in Table 11.6 of the Variation ES. They are each of low heritage value. Within the study area the Variation ES assessment focuses on the most sensitive receptors – that is, those of medium or high heritage value.⁴
- 4.4.58 According to historical mapping of the site there is the potential for unknown archaeological remains to survive in the basements of previous buildings now beneath Paradise Row. But redevelopment of that area in the 1960s is likely to have truncated all potential archaeological remains, and the comparative shallowness of excavation for the Variation, disturbance of unknown assets is unlikely and thus not considered further in the Variation ES.⁵

Heritage Assets Potentially Affected

- 4.4.59 Table 11.6 of the Variation ES (document CD13) identifies the following heritage assets in the study area as being of medium or greater heritage value; table 11.3 of the same ES explains how the heritage value has been determined. The list is modified here in the light of document CEN/INQ14.1, which reports the change to the statutory listing of the Hall of Memory, made on 27 October 2014. Drawing Number MMD-300207-CS21-DRA-0000-1101 (in document CD14) shows the locations of the heritage assets.

Assets of High Heritage Value

Colmore Row and Environs Conservation Area

Grade I Listed Building: Town Hall

¹ CD13, 10.7.1 and 10.7.2

² CD13, 10.8 to 10.10

³ CD13, 11.3.5

⁴ CD13, 11.6.4

⁵ CD13, 11.6.3

Grade I Listed Building: Hall of Memory

Assets of Medium Heritage Value

Grade II Listed Building: Queens College Chambers

Grade II Listed Building: General Post Office (now Victoria Square House). The northernmost element, known as the Chateau, is listed (document CD38).

Grade II Listed Building: Baskerville House

Grade II Listed Building: former Birmingham Municipal Bank

Grade II Listed Building: Joseph Chamberlain Memorial

Non-statutory, locally listed building: Alpha Tower.

Sensitive Receptors

4.4.60 Within the study area, the ES focuses on the most sensitive receptors (those of medium or high heritage value). These include:

- (a) Colmore Row and Environs Conservation Area is of high heritage value. It contains Victoria Square and other locally important public spaces.¹
- (b) Birmingham Town Hall Grade I listed building, approximately 25m east of the Variation site boundary (Area A), is the most significant receptor in the study area. It is of high heritage value.²
- (c) Grade II listed buildings in the study area are all of medium heritage value.

Construction Impact Assessment

4.4.61 Impacts during construction of both scenarios would be similar. In the "Do Something" scenario, two OLE poles would be erected in Area A and retained until a new building is in place on the PCR site (potentially until 2022). The poles would adversely impact on the setting of the Town Hall. The impact would not be significant given the temporary nature of the poles and the OLE requirements for the wider BCCE scheme. Overall, construction in the "Do Something" scenario would have no significant effect on the heritage assets listed in paragraph 4.4.60; the impacts would be adverse but minor.³

4.4.62 In the "Do Minimum" scenario, there would be more construction activity, leading to a temporary moderate adverse impact on the setting of Grade II listed buildings. This would be a significant impact.⁴

4.4.63 The net change in construction impacts would be that adoption of the "Do Something" scenario would lead to a slight beneficial impact on the setting of the Grade II listed buildings.

Operational Impact Assessment

¹ CD13, 11.6.5

² CD13, 11.6.6

³ CD13, 11.7.1 to 11.7.4 and table 11.7

⁴ CD13, 11.7.5

- 4.4.64 In the "Do Something" scenario, integrating the Variation alignment with the PCR would use urban space more efficiently, reducing clutter and thus slightly reducing operational impacts on the setting of heritage assets. Operation of the tram through the "Do Minimum" scenario would have the same impacts as the "Do Something" scenario.¹
- 4.4.65 There would be no net change in operational impacts as a result of adoption of the "Do Something" scenario.²

***Archaeology and Cultural Heritage: Alternative Assessment
Assessment Methodologies***

- 4.4.66 There have been a number of assessments of the impact that the BCCE, or parts of it, would have on heritage assets:
- (a) The 2003 ES drew on policies set out in PPG15 "Planning and the Historic Environment". Impacts were considered on the overall character of the historic environment, including conservation areas, and also on individual historic buildings and structures and their settings; an approach to assessment that is consistent with PPG15. In relation to setting assessment, the ES recognised the extent and variety of setting and again was consistent with the policies of PPG15. And the Inspector found that the ES had accurately assessed the levels of impact and that the scheme met the tests in section 16(2), 66(1) and 72(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990.³
- (b) The Variation ES refers to "The Setting Of Heritage Assets" published by English Heritage initially in October 2011 and subsequently in June 2012 with a revision note to reflect the March 2012 launch of the National Planning Policy Framework (NPPF). The document's methodologies and assessment of impacts and harm are therefore consistent with current policy. The Variation ES adopts the methodology of "The Setting Of Heritage Assets" in the determination of whether impacts are "significant" or not; but it did not and was not required to summarise of the levels of harm coming from the proposals in terms of those set out in NPPF paragraphs 131-135. The relevance of determining the level of harm as set out in the NPPF relates directly to the potential for balancing harm against potential public benefits (NPPF paragraphs 133 and 134). Where "substantial harm or total loss" would result, those impacts may be considered acceptable where such harm or loss is necessary to achieve "substantial public benefits"; whereas harm which is "less than substantial" should be weighed against "the public benefits of the proposal". It is therefore relevant to interpret the methodology of the Variation ES to determine the levels of harm in the manner expressed in the NPPF, while having regard for sections 16(2),

¹ CD13, 11.8.2 to 11.8.4

² CD13, 11.8.6

³ CEN/P4.1/CUL, 4.2 to 4.9

66(1) and 72(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990.¹

4.4.67 The Barnwell Judgment (OP/SOC2.2/OBJ11 Appendix 6) confirmed the importance of applying considerable importance and weight to the desirability of preserving or enhancing the setting of listed buildings and conservation areas. Harm to assets, where experienced, should be carefully considered in the context of the "special regard" test of the 1990 Act and, where public benefits may result, they should be balanced in the context of this over-riding preference for preservation.²

4.4.68 The National Planning Practice Guidance (NPPG), at reference ID 18a-017-20140306, offers advice for determining levels of impact and/or harm. Substantial harm is a "high test". To constitute substantial harm, an adverse impact would need to be judged to "seriously affect a key element of its special architectural or historic interest".³

Impact Assessment: Colmore Row And Environs Conservation Area

4.4.69 The 2003 ES commented⁴, with regard to the Victoria Square to Broad Street via Paradise Circus Queensway section of the route, that:

"The proposed route passes through the Colmore Row and Environs Conservation Area. However, the construction of the proposed route will not require the demolition of any buildings and Conservation Area Consent is therefore not required."

"However, the setting of the Conservation Area will be permanently affected by the scheme, and it will be necessary to remove street trees in this section of the alignment, some of which are located within Victoria Square and the Colmore Row and Environs Conservation Area." (CD14, Volume 2A, 6.7.7)

4.4.70 A number of mitigation measures were proposed "to preserve or enhance important views". In relation to the Victoria Square to Broad Street via Paradise Circus Queensway section of the route, the mitigation measures were presented as follows⁵:

"High quality design will be used in accordance with the design guidelines, to preserve and enhance the setting and important views of the Grade I and II listed buildings in and around Victoria Square, in particular the Grade I listed Town Hall. Mitigation measures will be required to preserve and enhance the character of the Colmore Row and Environs Conservation Area in this section of the proposed route." (CD14, Volume 2A, 6.7.8)

4.4.71 The conclusion of residual impact on the Conservation Area, which includes a wider assessment of setting, was described as follows⁶:

"There are also Grade I, II* and in particular Grade II listed buildings in

¹ CEN/P4.1/CUL, 4.10 to 4.18

² CEN/P4.1/CUL, 4.20

³ CEN/P4.1/CUL, 4.21-4.23

⁴ CEN/P4.1/CUL, 5.5

⁵ CEN/P4.1/CUL, 5.8

⁶ CEN/P4.1/CUL, 5.9

the vicinity of the proposed route. Adverse impacts on both the structure and setting of these buildings are anticipated. However, a range of mitigation measures have been developed and all works will be carried out in consultation with Birmingham City Council." (CD14, Volume 2A, 6.7.9)

- 4.4.72 Adverse impacts were therefore anticipated to derive from the proposals. It is evident (from paragraphs 6.18.8 and 6.18.9 of the 2003 Inspector's report, CD22) that adverse impacts were expected to derive from the proposals, and that the then Inspector applied the appropriate tests of the 1990 Act in reaching his conclusion that the very substantial benefits of the scheme outweighed the adverse levels of harm identified.¹
- 4.4.73 The 2013 ES assigned a "high" level of heritage value to the Conservation Area. It found that construction of the "Do Minimum" option or the "Do Something" option would involve limited works which would have no significant adverse impact on heritage assets, including the Conservation Area. In the operational phase, the effects on the Conservation Area of both options were identified to be significant, moderate adverse and permanent in that there would be changes to the setting of the Conservation Area due to tram operation and the presence of OLE (poles and headspan wires).²
- 4.4.74 CD43 is a heritage impact assessment produced in November 2013. It concludes in relation to impacts in the Victoria Square area, and in balancing the effects of the project as a whole, including the reduction of street clutter and relocation of telephone boxes, that the effect of the works would be to "have a neutral impact".³
- 4.4.75 Mr Surfleet gave evidence for the applicant at the Inquiry. The impact of the proposed operational works on the character and appearance of the Conservation Area would vary from minor adverse to moderate adverse⁴. The presence of the vertical poles and catenary would introduce an assemblage of physical elements which, resulting in a detrimental visual intrusion within the current openness of certain parts of the Conservation Area, particularly Victoria Square, would have a harmful impact on its character and appearance. Various works would be undertaken to enhance the streetscape and the design of the local environment, but the noticeable presence of the poles and wires would be to the detriment of the appearance of the Conservation Area. There would be some reduction in the quality of space and townscape through this part of the Conservaton Area as a result of the scheme. Although there are enhancement works associated with the provision of the system, it would be wrong to conclude (as the 2013 ES does) that there would be "no residual impact" on the Conservation Area.⁵
- 4.4.76 The residual impact on the Conservation Area, taking into account the

¹ CEN/P4.1/CUL, 5.10-5.12

² CEN/P4.1/CUL, 5.13 to 5.18

³ CEN/P4.1/CUL, 5.19 to 5.23

⁴ CEN/P4.1/CUL, 5.27

⁵ CEN/P4.1/CUL, 5.28

mitigation measures, would be minor adverse; at the level of "less than substantial" harm in terms of NPPF Paragraph 134.¹

Impact Assessment: Town Hall Grade I Listed Building

- 4.4.77 The 2003 ES noted that "Vibration from the operation of trams is not expected to give rise to levels of vibration that could cause structural damage. Centro will not attach fixings to the Town Hall. Although the use of building fixings reduces visual clutter associated with poles, the use of fixings has the potential to affect listed buildings, both in terms of their structural integrity and visual impacts." A level survey would be used to check for settlement. Mitigation measures would include the use of high quality design in accordance with the design guidelines, to preserve and enhance the setting and important views of the Town Hall. Residual impacts were expected to be adverse on the structure and setting of the Town Hall, offset by a range of mitigation measures. The 2003 ES therefore noted the adverse impacts resulting to the setting of the Town Hall and potential permanent impacts of vibration and settlement.²
- 4.4.78 The Variation ES notes that "The operation of the tram will introduce significant permanent impacts to the heritage setting of the Birmingham Town Hall ... For example, OLE (poles and headspan wires) will be an impact on the setting of heritage assets." In terms of mitigation, the ES notes the use of granite to complement the historical setting of the area, the use of OLE poles for street lighting to reduce clutter, and the use of standard asphalt in Area B within the Variation site. With that mitigation, and integration of design principles, "no residual impacts are anticipated on archaeology and cultural heritage assets".³
- 4.4.79 The 2013 Heritage Impact Assessment (CD43) found "a neutral to minor positive impact on the setting of the [Town Hall] and the Conservation Area when compared to the existing arrangement."⁴
- 4.4.80 Mr Surfleet has assessed the proposals in the Variation as they affect the Town Hall and its setting⁵:
- (a) Officers of Birmingham City Council prefer direct fixings (of OLE) to the Town Hall, to avoid the cluttering effect that poles would otherwise have. That view is correct. The fixings would result in the removal of a minor amount of original fabric and the insertion of a resin-fixed eye bolt. Listed building consent would be sought. The previous Inspector rightly found that the fixings would be scarcely noticeable.
 - (b) Any effect on the significance of the Grade I listed building would be derived from the visual intrusion of the wires in the setting and their evident attachment to the building's front elevation. There would be a minor harmful impact on the

¹ CEN/P4.1/CUL, 5.29

² CEN/P4.1/CUL, 5.30

³ CEN/P4.1/CUL, 5.32 to 5.38

⁴ CEN/P4.1/CUL, 5.40

⁵ CEN/P4.1/CUL, 5.41-5.54

- ability to appreciate the asset in its setting.
- (c) The Town Hall is a building of considerable scale and powerful architectural expression. While character of such architectural potency can withstand a degree of intervention, development which has a detrimental impact on the purity of the Town Hall's design and/or its setting may be considered to have a harmful effect on its significance.
 - (d) The method of fixing wires to the Town Hall would have a negligible effect on the special architectural or historic interest of the building. But the visual effect of the wires running through the colonnade to attach to the solid wall behind would be more apparent.
 - (e) That effect must be considered in terms of the impact on the special interest which warranted the building's addition to the Statutory List in 1952, in Grade I, as well as on its setting. The wires would be slender and their visual impact limited. Nevertheless, the Town Hall has a high level of sensitivity and townscape prominence and the wires will tend to add to visual clutter and can act as a material interference to the appreciation of the asset. Due to the high status of the building in architectural, historic and townscape terms, the level of impact resulting from the presence of the overhead lines would be moderate adverse. This level of impact would cause "less than substantial" harm to the significance of the Town Hall in the terms of NPPF paragraph 134.
 - (f) With regard to the setting of the Town Hall, the visual intrusion caused by the OLE attached in two places to the listed building and spanning across Paradise Street would cause harm to the building's setting and the ability to appreciate the asset. The visual intrusion of the overhead wires running towards and past the Town Hall would be harmful to the setting but, since the wires would be slender while the building is substantial, the level of visual interruption or challenge to prominence would be contained, representing a moderate adverse level of impact. There would be "less than substantial" harm as the development would not "seriously affect a key element of its special architectural or historic interest" (NPPG 017).
 - (g) The exact levels of residual harm caused by the scheme as a whole in this location would depend not only on the harm (as identified in (f) previously) but also on the elements of beneficial improvement which might also result. That improvement is proposed to take the form of a replacement streetscape in Paradise Street that would deliver the tram system at a higher level of environmental and design quality than the current street. Details¹ are to be found elsewhere in this report (4.4.102, 4.4.126).
 - (h) Taking into account the alterations (fixings), the effect of the

¹ CEN/P4.1/CUL, 5.52

OLE and the street scene changes, the resultant residual impact on the setting of the Town Hall would be minor adverse, at the level of "less than substantial" harm due to the permanent visual intrusion caused by the overhead lines and poles in the setting of a receptor of high sensitivity.

Impact Assessment: Hall of Memory Grade I Listed Building

- 4.4.81 The Variation ES finds as follows in respect of the Hall of Memory, which was a Grade II listed building when that ES was prepared¹:
- (a) In the "Do Something" scenario there would be a construction impact on the setting of the building arising from construction of the tram tracks and of committed developments. The impact would be temporary and moderate adverse, and not significant.
 - (b) Operation of the scheme in the "Do Something" scenario would result in changes to the setting of the building due to tram operation and the presence of OLE. The impact would be permanent and minor adverse, and not significant.
- 4.4.82 Subsequently (on 27 October 2014) the listing was altered to Grade I. The amendment of the building's grading raises its sensitivity as a receptor, but that does not result in a different conclusion as to the level of resultant impact reported in the Variation ES. The level of impact remains not significant, with no mitigation required.²
- 4.4.83 The Hall of Memory is sufficiently physically or visually separated from the proposals for there to be no significant harm caused to its significance or setting. There would be no residual impact on this asset.³

Impact Assessment: Queens College Chambers Grade II Listed Building

- 4.4.84 The 2003 ES acknowledged that there would be permanent effects to the setting of the listed building as a result of the proposed development, assumed to be the presence of the tramway and overhead lines. The Inspector concluded that the settings of all the Grade II listed buildings would not be adversely affected and may even be improved due to the reduction in vehicular traffic.⁴
- 4.4.85 The Variation ES found that the "Do Something" scheme would result in a temporary minor adverse impact on setting during construction. The "Do Minimum" option would increase this to a temporary moderate adverse impact due to the additional works involved. During operation the setting would be changed by tram operation and the presence of poles and headspan wires; a permanent minor adverse effect. Following mitigation in Paradise Street described in paragraph 4.4.80(g), the ES concludes that no residual impacts are anticipated on

¹ CEN/P4.1/CUL, 5.101 to 5.104

² CEN/INQ14.1

³ CEN/P4.1/CUL, 5.105

⁴ CEN/P4.1/CUL, 5.57-5.58

archaeology and cultural heritage assets.¹

4.4.86 Mr Surfleet has assessed the effect of the Variation on Queens College Chambers²:

- (a) There would be no affixation direct to the fabric of the listed building but there would be effects resulting from the presence of the tram tracks and the OLE, and the catenary would be fixed to adjoining buildings.
- (b) Queens College Chambers is one of a group of buildings that make a defined and continuous frontage. Although the listed building provides the highest quality architectural element in this group, it nevertheless forms an integral part of it.
- (c) Consequently, the visual effect of the overhead lines would be judged in the wider context of the group; and that context currently contains a number of lighting columns and functional street furniture.
- (d) The overhead wires would be a slightly harmful visual intrusion into the setting of the listed building. But in this less sensitive context the effect of that intrusion would be negligible. And the streetscape would be upgraded which would bring significant benefits over the existing highway-dominated layout and detailing.
- (e) The residual impact of the scheme on Queens College Chambers would therefore be neutral.

*Impact Assessment: General Post Office (Victoria Square House)
Grade II Listed Building*

4.4.87 The 2003 ES, in referring to Victoria Square House (the former General Post Office)³:

- Notes that retaining walls were proposed to be built adjacent to the listed building;
- Reports that the proposed route would pass within 300 mm of the building and that tram-induced vibration was not expected to cause structural damage;
- Reports that Centro intended to seek Listed Building Consent to attach headspan wires and fixings to the building;
- Observes that the use of building fixings reduces visual clutter associated with poles but can affect the appearance and structural integrity of the building.

4.4.88 The Variation ES identifies the "Do Something" case as having a minor adverse permanent impact on Victoria Square House. This takes into consideration the affixation of OLE, the effects of vibration and the proximity of the tramway to the building. The "Do Minimum" scenario

¹ CEN/P4.1/CUL, 5.59-5.71

² CEN/P4.1/CUL, 5.72-5.78

³ CEN/P4.1/CUL, 5.80

was judged to have a similar effect¹. Following mitigation, the ES concludes that there would be no residual impact on cultural heritage assets. Mitigation as described in paragraph 4.4.78 of this report would result in there being no significant residual impacts on cultural heritage assets as a result of the "Do Something" scenario².

4.4.89 Mr Surfleet has assessed the effect the scheme would have on Victoria Square House³:

- (a) The residual impact would be greater than set out in the Variation ES.
- (b) Fixing the overhead lines to the building would have a negligible effect in terms of the building's special architectural or historic interest.
- (c) The requirement to permanently close the north-east door of Victoria Square House to enable trams to safely pass would retain an existing limitation to access to the building (which is currently taken through the central door, an arrangement which does not appear to constrain use of the building). The building's special architectural or historic interest would not be affected.
- (d) As to setting, the permanent proximity of the tramway would reduce the ability to appreciate the building in its wider setting. The setting of Victoria Square House has evolved to form part of the pedestrianised space within Victoria Square; until the 1990s the building abutted a conventional street – but it is the existing context of the building within which current proposals should be judged. Victoria Square House forms an important edge to the south side of the Square, and therefore is particularly significant. This streetscene role (which also forms part of the setting of the building) would be diminished by the tramway with its rails, overhead equipment and vehicles; but the harm associated with that change needs to be clearly defined.
- (e) The rails would have a negligible impact on the setting of the building. The overhead lines and out-lying poles around two sides of this corner building would be intrusive and would have a moderate adverse impact on the appreciation of the building in the setting of the square.
- (f) The associated works to de-clutter the street scene and raise the quality of design and materials, while beneficial, would not neutralise the intrusion of the poles and wires to result in "no residual harm". Rather, there would remain a minor adverse impact on the setting of the listed building; less than "substantial harm" in the terms of NPPF paragraph 134. The harm could not be considered "substantial" since the building

¹ CEN/P4.1/CUL, 5.84

² CD13, 11.10.1

³ CEN/P4.1/CUL, 5.86 to 5.100

would retain its significance architecturally and the majority of its role and prominence in the square. The proposals would not "seriously affect a key element of its significance" (NPPG 017).

- (g) The additional works proposed to accommodate level differences on the building's Pinfold Street frontage are acceptable and would cause no harm.
- (h) The grant of Listed Building Consent for the re-opening of doors at the north-eastern and north-western corners of the building would not prejudice the scheme; the permanent closure of the north-eastern door could still be achieved without harm to the building's architectural and historic interest.

Impact Assessment: Other Heritage Assets in the Study Area

- 4.4.90 These assets are the Grade II listed buildings Baskerville House (reference LB041 on drawing MMD-300207-CS21-DRA-0000-1101), the former Birmingham Municipal Bank (LB043), and the Joseph Chamberlain Memorial (LB038). The locally-listed Alpha Tower is also included.¹
- 4.4.91 All these assets are sufficiently physically or visually separated from the proposals for there to be no significant harm caused to their significance or settings. The level of change and the differences between the existing settings and the proposals have had special regard to the desirability of preserving their settings. With the proposed mitigation measures, there would be no residual impact on these assets.²

Townscape and Visual Amenity

Townscape and Visual Amenity: the Environmental Statement

- 4.4.92 Chapter 12 of the ES (document CD13) identifies the townscape and visual amenity impacts of the Variation in the "Do Something" scenario and then compares those with the impacts of the 2005 scheme in the "Do Minimum" scenario.³
- 4.4.93 Chapter 12 describes in its section 12.3 the assessment methodology used in its preparation. Section 12.4 sets out assumptions and parameters within which the ES's assessment of the Variation's townscape and visual impacts was made. Section 12.5 assesses the townscape and visual impacts arising from construction works in the "Do Something" scenario and in the "Do Minimum" scenario. Sections 12.6 to 12.9 are concerned with the effects each scenario would have in operation. A summary of the findings is provided in section 12.10.

Construction – Related Impacts

- 4.4.94 In the "Do Something" scenario, impacts on the townscape resource

¹ CEN/P4.1/CUL, 5.101 and CD13 table 11.6

² CEN/P4.1/CUL, 5.105

³ CD13, 12.1.1

and visual amenity would arise during construction of the Variation as a result of:¹

- Installing OLE;
- Building the tramway and highway changes;
- Road closures and traffic management; and,
- The presence of the construction compound.

4.4.95 The townscape effects during construction of this scenario would include:

- (a) A smaller area of construction works than in the "Do Minimum" scenario, because the "Do Something" scenario would avoid the need for a new bridge over Suffolk Street Queensway, and for new retaining walls near Alpha Tower. The magnitude of impact of the works during construction of the Variation would be minor and the overall impact, not significant².
- (b) The installation of two temporary OLE poles in Area A (see paragraphs 4.3.11 and 4.4.61). The poles would not be dominant in the view, in the context of the large-scale buildings nearby; and the poles would be temporary. Their impact on the townscape would not be significant.³
- (c) The minor kerbing changes in Area C would result in a minor alteration to the character of the area.⁴

4.4.96 The visual amenity effects during construction of this scenario would be moderate and negative in views closest to the Variation (from the Alpha Tower), but only minor or less from views further away. The impacts would be not significant at any of the assessed receptors in table 12.7 of the ES.⁵

4.4.97 In the "Do Minimum" scenario, impacts on the townscape resource and visual amenity would arise during construction of the Variation as a result of:⁶

- Installing OLE;
- Building the tramway and highway changes;
- Road closures and traffic management;
- The presence of the construction compound; and,
- Construction of a bridge over Suffolk Street Queensway, and new retaining walls at Alpha Tower.

4.4.98 The townscape effects during construction in the "Do Minimum" scenario would be of major magnitude, with moderate significance of

¹ CD13, 12.5.1

² CD13, 12.5.3

³ CD13, 12.5.4

⁴ CD13, 12.5.5

⁵ CD13, 12.5.6; see also CD13 table 12.7

⁶ CD13, 12.5.7

impact.¹

- 4.4.99 The visual amenity effects during construction of this scenario would be moderate and negative in views closest to the Variation (from the Alpha Tower), but only minor or less from views further away. The impacts would be significant in views from Alpha Tower, Centenary Square and nearby hotels but not significant at any of the other assessed receptors in table 12.8 of the ES.²

Net Difference: Construction Phase

- 4.4.100 Construction impacts on townscape and visual amenity arising in the "Do Something" scenario would be less adverse than in the "Do Minimum" scenario.³ No mitigation measures are required.⁴

Operational Impacts

- 4.4.101 The Variation would enable the tram route to be integrated within the PCR development and hence to have a less adverse impact on the wider public realm. Comparison (in the ES) of the impacts of the "Do Something" and "Do Minimum" scenarios shows that overall there would be a slight beneficial change in operational impacts on townscape or visual receptors.⁵

- 4.4.102 Overall, the introduction of OLE would create some visual clutter during operation of the tram. However, the following design principles of the BCCE would complement the surrounding environment in order to mitigate impacts on townscape and visual amenity:⁶

- Granite materials will be used to complement the existing townscape and the Character Zone;
- OLE poles will be combined with street lighting to reduce cluttering of street space; and,
- Land in Area B will be tied into the highway corridor with standard asphalt.

- 4.4.103 No residual impacts are anticipated.⁷

Townscape and Visual Amenity: the evidence of Ms Bolger

- 4.4.104 Ms Bolger's evidence addresses townscape issues along the whole length of the CSQ including areas outside the Variation.⁸

The Existing Townscape

- 4.4.105 The CSQ would extend from the east to the west, in two townscape character zones. To the east, in the retail centre, are Stephenson

¹ CD13, 12.5.9

² CD13, 12.5.10; see also CD13 table 12.8

³ CD13, 12.5.11

⁴ CD13, 12.7.1

⁵ CD13, 12.6.10

⁶ CD13, 12.7.2

⁷ CD13, 12.9.1

⁸ CEN/P5.1/TOW, 1.2.4

Street and Pinfold Street. To the west is the Civic/Cultural Centre, with Victoria Square, Paradise Street and Paradise Circus Queensway, and Centenary Square.¹ The area is illustrated by Exhibit 1 of Ms Bolger's evidence (CEN/P5.3/TOW).

- 4.4.106 Stephenson Street has changed significantly since the 2003 ES with the redevelopment of New Street Station (with its stainless steel cladding) and The Palisades shopping centre. The BCCE to New Street Station is under construction and the eastern section of Stephenson Street is closed to vehicular traffic. The CSQ would begin to the west of the tram stop at the Station.
- 4.4.107 West of Stephenson Street, the CSQ would enter Pinfold Street. This is a relatively narrow street, rising steeply to the north, with an attractive, active street frontage to the east.² The western side of Pinfold Street, which has been redeveloped in the last 25 years, does not have an active frontage for most of its length, containing only garage access and a fire exit. However, towards the northern end of the western side is the entrance to the Post Office. The entrance is set back from the building line with a forecourt for people using the post boxes or queuing for the post office, set back from the pavement.³ The northern end of Pinfold Street is formed by the side of Victoria Square House and, facing that, 80-83 New Street. Together they frame a striking view of the Grade II* listed Council House and its 1885 clock tower⁴ on the northern side of Victoria Square.
- 4.4.108 Victoria Square is the civic heart of Birmingham, described by the 2003 ES as "an urban space of the highest quality, which has a civic character that complements the surrounding listed buildings"; in particular the Town Hall and the Council House. Central to the history of Victoria Square is its dynamic nature, having been subject to a series of changes over the last 200 years. It is a busy through route for pedestrians, as well as a destination.⁵
- 4.4.109 Paradise Street runs west from Victoria Square along the southern frontage of the Town Hall. Historically it was one of the key civic streets but 1960s/1970s highway development degraded its character and adversely affected the quality of the public realm. Paradise Street is a busy road with a series of level changes, a wall and railings that act as traffic barriers.⁶
- 4.4.110 A major redevelopment of Paradise Circus (PCR) is currently in preparation. A separate, much smaller development is taking place at Beneficial Buildings to the south of Paradise Street. The PCR has allowed realignment of the CSQ route and the proposed Variation starts to the west of the Town Hall. Almost all the proposed limits of deviation

¹ CEN/P5.1/TOW, 2.1.3

² CEN/P5.2/TOW, summary, 2.3

³ CEN/P5.1/TOW, 2.3.3

⁴ CEN/P5.2/TOW, 2.3

⁵ CEN/P5.2/TOW, 2.4

⁶ CEN/P5.2/TOW, 2.5

lie outside the Colmore Row and Environs Conservation Area.¹

- 4.4.111 The existing townscape at Paradise Circus is generally of poor quality and dominated by traffic. Due to the PCR the townscape will have changed considerably in any future baseline. Alpha Tower is located west of Paradise Circus, in a peaceful landscaped and pedestrianised plaza.²
- 4.4.112 Centenary Square, which lies to the north of Broad Street, is a successful area of public realm containing both historic buildings and the new landmark Birmingham Library. New development is proposed to the south of Broad Street.³
- 4.4.113 The CSQ would pass through the civic heart of Birmingham, which contains its most important 19th century civic buildings. Over the last 20 years developments such as Victoria Square and the Birmingham Library have significantly improved the character and quality of the townscape. The 1970s Paradise Circus Queensway development which did such damage to the quality of the townscape is about to be redeveloped. These projects are being guided by the Birmingham Big City Plan.⁴

Townscape and Visual Impacts: General

- 4.4.114 Illustrative visualisations of the CSQ are presented in Exhibit 5 of CEN/P5.3/TOW.⁵
- 4.4.115 The principle of introducing trams into Birmingham's city centre is sympathetic to the underlying active character of the city. City trams are more easily integrated with pedestrians than highways and can be designed coherently to respond to the existing character of spaces along the route.⁶
- 4.4.116 In particular:
- (a) Unlike ordinary traffic, trams are not constant; it is intended that the tram frequency would be 20 tph (10 in each direction). The trams would be incidents in the townscape in contrast to the constant presence of traffic. Thus in Pinfold Street each tram would take 30 seconds to transit the street; effectively a tram would be present in Pinfold Street for approximately 10 minutes out of every hour. Victoria Square would take 25 seconds to transit and so a tram would be present in Victoria Square for less than 8½ minutes out of every hour.⁷
 - (b) Visually the tram has a different impact from a highway. Tram infrastructure can be consistent across the route, unlike

¹ CEN/P5.1/TOW, 2.5.5

² CEN/P5.2/TOW, 2.6

³ CEN/P5.2/TOW, 2.7

⁴ CEN/P5.2/TOW, 2.8

⁵ CEN/P5.1/TOW, 3.1.1

⁶ CEN/P5.2/TOW, 3.1

⁷ CEN/P5.1/TOW, 3.1.4, 3.1.6

highways infrastructure which tends to “grow” over time. In their Centro livery the trams would become a characteristic feature of the City.¹

- (c) City trams have a different feel from other light rail options. They can be integrated both physically and visually. The previous Inspector found that “trams, being on a fixed route, co-exist with pedestrians more readily than do motor vehicles” and that “trams are inherently compatible with pedestrian use of the streets.”²

4.4.117 The underlying objectives that have informed the development of the CSQ in consultation with Birmingham City Council landscape and urban designers are³:

- The final design is consistent with Birmingham City Council’s wider urban design objectives for Birmingham;
- Wherever possible opportunities are taken to enhance the townscape;
- Potential adverse landscape and visual impacts are mitigated wherever possible; and,
- Mitigation measures, wherever possible, make a positive contribution to Birmingham’s townscape.

4.4.118 As part of the process of discharging planning conditions for the CSQ, a set of landscape details drawings has been prepared and a selection of those is presented as Exhibit 6 of CEN/P5.3/TOW.

Townscape and Visual Impacts in Stephenson Street⁴

4.4.119 The CSQ would introduce tram movement into Stephenson Street but vehicular movement would be restricted. Overall, any OLE clutter would be offset by the reduction in vehicular traffic and improved paving. The impact on the townscape would be moderate beneficial.

4.4.120 Visual receptors on Stephenson Street are pedestrians and workers in the adjacent shops and offices. The moderate beneficial improvements to the townscape would result in a moderate beneficial effect on their visual amenity.

Townscape and Visual Impacts in Pinfold Street⁵

4.4.121 The CSQ would introduce tram movement into Pinfold Street but access for other vehicles would be curtailed. The OLE would interrupt views toward the Council House; but the OLE structures would be slender and would emphasise the view up the street. The OLE’s effects would be offset by removal of parked cars, bollards, advertising boards and lighting columns. Paving works in the street would be designed to make the street appear wider. The western footway would be adequate

¹ CEN/P5.1/TOW, 3.1.5

² CEN/P5.1/TOW, 3.1.7

³ CEN/P5.2/TOW, 3.2

⁴ CEN/P5.1/TOW, section 3.5

⁵ CEN/P5.1/TOW, section 3.6

as a pedestrian refuge but too narrow to comfortably walk along, and that would emphasise the fact that development on the western side of the street has resulted in a "dead" frontage. The effect on the townscape of Pinfold Street would be minor adverse.

- 4.4.122 Pinfold Street is in the Colmore Row and Environs Conservation Area, and so expectations of visual amenity are likely to be higher than elsewhere. The visual experience would be constrained by the passing of trams. The townscape effect would be as described. Overall the impact on the visual amenity of pedestrians and workers in Pinfold Street would be minor adverse.

Townscape and Visual Impacts in Victoria Square¹

- 4.4.123 The 2003 ES identified these impacts on Victoria Square:

- (a) Moderate/substantial significant adverse impact as a result of tram movement in the southwest corner of the pedestrianised square;
- (b) Substantial significant adverse impact from the introduction of OLE and consequent visual clutter;
- (c) Slight/moderate significant adverse impacts from loss of specimen trees (to be replaced) and ground level changes including those at the top of Pinfold Street.

- 4.4.124 Development of the design has reduced the need for level changes, for the reason given in paragraph 4.1.3. Tram movement and the OLE remain. However, the ability to create a single space defined by the Town Hall and the new feature terrace seating would have beneficial impacts on Victoria Square. The overall townscape impact in Victoria Square would be moderate/minor adverse.

- 4.4.125 Although the tram line would introduce some visual clutter into Victoria Square, a city tram is appropriate in a city centre and would introduce additional animation to the Square. Reorganisation of the space to the east of the Town Hall would be a visual improvement although the southwest corner of the Square and the area in front of Victoria Square House would become more confined, particularly when the tram is present. Overall the impact on the visual amenity of Victoria Square would be minor adverse.

Townscape and Visual Impacts in Paradise Street and Paradise Circus Queensway²

- 4.4.126 A new tram stop would be located in front of the Town Hall. This affords an opportunity to improve the current unsatisfactory relationship between the Town Hall and Paradise Street, currently segregated by differences in levels, traffic barriers and traffic. Improvements would be effected by the consistent use of paving materials and the removal of level changes, traffic barriers and the existing wall to create the sense of a more generous frontage to the south side of the Town Hall. Equipment at the tram stop would be

¹ CEN/P5.1/TOW, section 3.7

² CEN/P5.1/TOW, section 3.8

limited to a simple canopy on the side furthest from the Town Hall and nearer the Town Hall a modest electronic signboard and some discrete seating (Viewpoint 9 in Ms Bolger's Exhibit 5; CEN/P5.3/TOW). The adverse visual effect of the OLE and poles that would be introduced would be offset by the removal of the level changes and associated barriers. The tram itself would be considerably less intrusive than the current traffic.

- 4.4.127 The wall that currently marks the change of level between the road and the pavement alongside 1 Victoria Square would be replaced by a glazed barrier behind the platform. Between the Town Hall and Paradise Circus Queensway traffic and traffic barriers would be removed, although a retaining wall and steps would be required to accommodate level differences between the pavement and the carriageway.
- 4.4.128 Overall, the townscape impact on Paradise Street would be minor beneficial. That slight improvement in the townscape would result in a minor beneficial change in visual amenity for pedestrians using Paradise Street and for users of the Town Hall.
- 4.4.129 The Variation would avoid the need, established by the 2005 Order scheme, for a bridge over the approach to the Suffolk Street Queensway tunnel and a new retaining wall outside Alpha Tower. Those two major infrastructure elements would have caused major disruption during their construction. The bridge would have added another major transport structure to a townscape already dominated by transport infrastructure. The retaining wall would reduce the extent of the Alpha Plaza and would require the removal of a number of mature and semi mature trees.
- 4.4.130 The 2005 Order scheme would have a minor adverse townscape effect, as found by the 2013 ES. The Variation route would form part of an overall improvement to the townscape of Paradise Circus Queensway and is itself a significant improvement on the 2005 Order scheme, notwithstanding the contrary view expressed in the 2013 ES. The Variation would improve visual amenity for workers at Alpha Tower, users of Centenary Square and its associated buildings, and residents of nearby hotels. It would improve visual amenity in the locality when compared with the 2005 Order scheme.

Townscape and Visual Impacts in Centenary Square¹

- 4.4.131 As identified in the 2003 ES (at page 168) the scheme would have a moderate beneficial effect on the townscape of the Square. The replacement of vehicular traffic with the tram would also bring opportunities for the redesign of the Square, which is about to be the subject of an international design competition (document CEN/INQ17).

Townscape and Visual Impacts: Summary²

- 4.4.132 The most effective mitigation of potential adverse townscape and visual impacts is through the scheme design. The scheme design has been

¹ CEN/P5.1/TOW, section 3.9

² CEN/P5.1/TOW, section 3.10

developed since the 2005 Order was made. Significant improvements have been achieved to the scheme proposals in Victoria Square, and the Variation creates a similar opportunity at Paradise Circus Queensway.

4.4.133 The landscape and townscape impacts of the CSQ include:

- Some adverse impacts on the townscape character of Pinfold Street and Victoria Square, although detailed design has reduced those to minor adverse and moderate/minor adverse.
- Townscape improvements at Stephenson Street, Paradise Street, Paradise Circus Queensway and Centenary Square.

Contaminated Land

Introduction

4.4.134 The Environmental Protection Act (EPA) 1990 provides a statutory definition of contaminated land:

"Contaminated land is any land which appears to the Local Authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that¹ ...

- Significant harm is being caused or there is a significant possibility of such harm being caused; or,
- Significant pollution of controlled waters is being, or is likely to be caused."

4.4.135 The ES presents a desk-based assessment of the impacts of the Variation with respect to geology and soils. An Envirocheck Report has been used to aid understanding of the baseline conditions. It is assumed that the Envirocheck Report baseline information will remain valid for 2015 to 2017.² The ES compares the contaminated land, soils and geology (including groundwater quality and unstable land) impacts of the 2005 scheme in the "Do Minimum" scenario with the corresponding impacts of the Variation "Do Something" scenario.³

Construction Impacts

4.4.136 Construction of the "Do Minimum" scenario would have the following significant impacts with regard to contaminated land, soils and geology:⁴

- (a) A permanent major adverse impact on groundwater in aquifers below the site. The removal of topsoil and hard surfacing would expose soils and may allow leachate to be produced. Piling for the proposed bridge and retaining walls could provide new contaminant pathways between soils and controlled waters.
- (b) A permanent moderate adverse impact on groundwater in aquifers below the site. If contaminated soils were identified

¹ CD13, 13.3.14

² CD13, 13.3.26

³ CD13, 13.1.1

⁴ CD13, table 13.10

beneath the areas of development there would be potential for the removal or remediation of a large quantity of material. Piling may increase the pathways for potential in-situ contaminants to reach the aquifer below the site.

- (c) A permanent minor beneficial effect on soils. If contaminated soils were identified under the site, remediation would be carried out in accordance with the CSQ CoCP.
- (d) A permanent moderate adverse effect on construction and maintenance workers, due to the likelihood of them coming into contact with potentially contaminated soils and vapours, leading to harm to human health.

4.4.137 Construction of the "Do Something" scenario would have the following significant impacts with regard to contaminated land, soils and geology:¹

- (a) A permanent moderate adverse effect on groundwater in aquifers below the site. Removal of topsoil and hard surfacing would expose soils. The naturally granular soils and made ground are unlikely to provide much impediment to leachate production.
- (b) A permanent moderate adverse effect on construction and maintenance workers, due to the likelihood of them coming into contact with potentially contaminated soils and vapours, leading to harm to human health.

Net Change In Construction Impacts

4.4.138 Overall there is little difference in the potential construction impacts associated with the two scenarios. There would be a decreased risk to groundwater in the "Do Something" scenario because no piling would be required.²

Operational Impacts

4.4.139 Operational impacts with regard to contaminated land, soils and geology have been scoped out of this assessment, as was the case in the 2003 ES.³

Mitigation Measures and Residual Impacts

4.4.140 Mitigation would be provided in accordance with the CoCP.⁴ Such mitigation would result in there being no significant residual impacts relating to contaminated land, geology and soils⁵. No cumulative impacts have been identified.⁶

¹ CD13, table 13.9

² CD13, 13.5.8

³ CD13, 13.6.1

⁴ CD13, 13.7

⁵ CD13, 13.8.1

⁶ CD13, 13.9.1

Land Drainage and Water Resources

Introduction

- 4.4.141 The ES presents assessments of the effects the "Do Minimum" and "Do Something" scenarios would have on the land drainage and water resources.¹ "Land drainage" refers to surface water runoff and combined sewers, and "water resources" includes (surface) watercourses (for example, rivers, streams and canals) and groundwater.² The assessments employ the methodology set out in WebTAG.³ Baseline conditions have been assessed from a desktop study as described in paragraph 14.3.9 of the ES.

Construction Impacts

- 4.4.142 Given the proximity of the two scenarios and the relatively small distance between the 2005 Scheme alignment and the Variation alignment, the impacts of the assessment scenarios are anticipated to be similar.⁴
- 4.4.143 Construction of the "Do Something" scenario would have the following significant impacts on land drainage and water resources:
- (a) A moderate potential impact on land drainage due to sediment-laden water reaching combined sewers.⁵
 - (b) A moderate potential impact on groundwater, by virtue of increased suspended solids loading to groundwater from construction runoff.⁶
 - (c) A moderate potential impact on groundwater, by virtue of accidental spillage of pollutants.⁷

Operational Impacts

- 4.4.144 Operational impacts have been scoped out of the ES assessment.

Mitigation Measures and Residual Impacts

- 4.4.145 Mitigation would be provided in accordance with the CoCP.⁸ Such mitigation would result in there being no significant residual impacts relating to land drainage and water resources⁹. No cumulative impacts have been identified.¹⁰

Electromagnetic Issues

Introduction

¹ CD13, 14.1.1

² CD13, 14.1.6

³ CD13, 14.3.5

⁴ CD13, 14.5.11

⁵ CD13, Table 14.6

⁶ CD13, Table 14.8

⁷ CD13, Table 14.8

⁸ CD13, 14.7

⁹ CD13, 14.8.1

¹⁰ CD13, 14.9.1

- 4.4.146 Electric and magnetic fields are produced whenever electricity is used. They can cause two types of effect¹:
- (a) Electromagnetic interference (EMI) to sensitive electric and electronic equipment; and,
 - (b) Potentially harmful effects in the human body through electromagnetic fields (EMF).
- 4.4.147 The Variation would alter the position of tram tracks and OLE and so would have the potential to result in higher EMF/EMI levels, particularly where the tracks and OLE are brought closer to future users and occupiers of the PCR.²

Construction Impacts

- 4.4.148 As the scheme elements for the "Do Minimum" and the "Do Something" cases are essentially the same, the construction impacts under the two scenarios are likely to be very similar³. To control the EMI/EMF emissions level, construction of the Variation will comply with the following standards (which is consistent with the approach adopted for the 2005 scheme)⁴:
- (a) Machinery Directive 2006/42/EC;
 - (b) Radio and Telecommunications Terminal Equipment Directive 1999/5/EC; and,
 - (c) EMC Directive 2004/108/EC.

Operational Impacts

- 4.4.149 The Variation is a small section within the 2005 Scheme, comprising only tram tracks and the necessary OLE. In view of the size of the Variation, it is not expected that there would be any substantial increase in the levels of electromagnetic radiation under the "Do Something" scenario when compared with the "Do Minimum" scenario.⁵

Mitigation Measures

- 4.4.150 Construction contractors will be required to follow safe working practices in order to minimise their risk of exposure to EMF. Centro has procedures in place to manage EMI/EMF⁶.
- 4.4.151 During the operational stage, good engineering practice would be adopted for the Variation. For both scenarios, the testing of equipment prior to operation will ensure that, where receptors are considered to be at significant risk, appropriate mitigation measures could be undertaken. Those would include ensuring that emissions from the tramway are within relevant limits (those specified in BS EN 50121 series Railway applications – EMC; and ICNIRP Guidelines), and analysis

¹ CD13, 15.1.1

² CD13, 15.1.2

³ CD13, 15.6.1

⁴ CD13, 15.6.3

⁵ CD13, 15.7.1

⁶ CD13, 15.10.1

of the immunity of potentially susceptible non-Centro third party electric and electronic equipment¹.

Residual Impacts

- 4.4.152 With the proposed mitigation measures, any potential risk of EMI/EMF during construction and operation of the Variation would be low. No residual impacts have been identified.²

Cumulative Impacts

- 4.4.153 No cumulative impacts have been identified.³

Environmental Statement

Adequacy Of The ES, And Compliance With Statutory Procedure

- 4.4.154 The Variation 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.⁴
- 4.4.155 Centro has carried out a thorough and comprehensive consultation process. A comprehensive and robust assessment has been taken in the preparation of the ES. It complies with the requirements of the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006.⁵
- 4.4.156 Document CD14 includes the Scoping Report, a Scoping Opinion issued by the Secretary of State, and copies of material sent to the Secretary of State in response to consultation by him regarding the Scoping Report. Document CEN/INQ4 contains material illustrating the applicant's compliance with statutory procedures.

4.5 Planning

Background to the Scheme

- 4.5.1 The 2005 Order came into force on 22 July 2005. The Order gave Centro powers to construct and operate the tramway extension between Henrietta Street and Five Ways. The approved route passes via Colmore Circus, Bull Street, Corporation Street, Stephenson Place, Stephenson Street, Pinfold Street, Victoria Square, Paradise Street and Broad Street, terminating on Hagley Road in Edgbaston.⁶
- 4.5.2 Deemed planning consent (reference TWA/03/APP/04) (Exhibit 1, in document CEN/P8.3/PLA) was also granted, subject to conditions (Exhibit 2). These include "pre-commencement" conditions requiring the submission and approval of various details.⁷
- 4.5.3 Alongside the Order, a series of Listed Building Consents (Exhibit 3, in

¹ CD13, 15.10.3

² CD13, 15.11.1

³ CD13, 15.12.2

⁴ CEN/P8.1/PLA, 6.86

⁵ CEN/P8.1/PLA, 6.89

⁶ CEN/P8.1/PLA, 3.2

⁷ CEN/P8.1/PLA, 3.3

document CEN/P1.3/SCH) were secured as part of the TWA Assimilated procedures for those properties identified at the time as being desirable to attach supports for the OLE. Victoria Square House was among the properties for which such consent was given. These listed building approvals have since lapsed. Further applications for Listed Building Consent have been made.

- 4.5.4 The deemed planning consent is subject to a time limit condition; Condition 1 specified that the development must be begun before the expiration of five years from the date that the Order came into force (that is, by 21 July 2010). The local planning authority confirmed by letter dated 21 June 2010 that the construction of a lift shaft, which is a part of the approved scheme, had been observed on 11 June 2010; and that those works, combined with the discharge of relevant pre-commencement conditions, constituted a material start to the BCCE. The powers associated with the deemed planning permission are therefore protected in perpetuity.¹
- 4.5.5 Centro secured conditional funding in 2011 to construct the BCCE between Henrietta Street and Stephenson Street. The relevant pre-commencement conditions were discharged and construction began in 2013.²
- 4.5.6 An application to discharge planning conditions linked to the CSQ was made to the local planning authority in 2013. The interface with the PCR was excluded. The submitted details were approved by the local planning authority on 8 May 2014 (document CD40). Among other things, they relate to properties on Pinfold Street and Victoria Square House³. Works at those two locations are to be the subject of further applications for Listed Building Consent.⁴

National And Local Planning Policies Relevant To The Variation Order

- 4.5.7 These include⁵:
- The NPPF
 - The Birmingham Unitary Development Plan (UDP) – Saved Policies
 - The Birmingham Development Plan 2031
 - Big City Plan – City Centre Masterplan (July 2011)
 - Vision for Movement (2010)
 - Towards a World Class Integrated Transport Network (2013)
 - West Midlands LTP 2011-2026.

National Planning Policy Framework

¹ CEN/P8.1/PLA, 3.5 to 3.7

² CEN/P8.1/PLA, 3.8

³ CEN/P8.1/PLA, 3.9

⁴ CEN/P8.1/PLA, 3.10

⁵ CEN/P8.1/PLA, 5.1

- 4.5.8 The NPPF sets out what sustainable development means in practice for the planning system in England and provides the basis for planning decisions. It states that economic, social and environmental gains should be sought jointly and simultaneously through the planning system. Paragraph 6 confirms that the purpose of the planning system is to contribute to the achievement of sustainable development as defined by paragraphs 18 to 219 of the NPPF taken as a whole¹.
- 4.5.9 In the NPPF²:
- (a) Paragraph 7 outlines the three dimensions of sustainable development (economic, social and environmental) and corresponding roles for the planning system.
 - (b) Paragraph 8 makes clear that these roles should not be undertaken in isolation, because they are mutually dependent and so should be addressed together.
 - (c) Paragraph 14 says that at the heart of the NPPF is the presumption in favour of sustainable development. For decision taking this means approving development proposals that accord with the development plan without delay (unless material considerations indicate otherwise).
 - (d) Section 4 of the NPPF seeks to promote sustainable transport and seeks to widen transport choice. Paragraph 29 makes clear that the transport system needs to be balanced in favour of sustainable modes. 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. Paragraph 35 says that planning authorities should exploit opportunities for the use of sustainable transport modes for the movement of goods and people.
 - (e) Section 7 of the NPPF confirms that great importance is attached to the design of the built environment. Paragraph 64 says 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.
 - (f) Section 12 of the NPPF seeks to preserve and enhance the historic environment, recognising that heritage assets are an irreplaceable resource. Conservation should be carried out in a way appropriate to the significance of the heritage asset. 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

¹ CEN/P8.1/PLA, 6.5, 6.6

² CEN/P8.1/PLA, 6.7 to 6.16

harm should be weighed against the public benefits of the proposal.

- 4.5.10 In so far as the above national planning policies are relevant, the Variation Order accords with them in all respects¹.

Statutory Development Plan (Adopted)

- 4.5.11 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that applications for planning permission be determined in accordance with the statutory development plan, unless material considerations indicate otherwise.²
- 4.5.12 The adopted statutory development plan for Birmingham is comprised of the UDP (document CD26) which was first adopted in 1993 and reviewed in 2005.³ The UDP plan period ended in 2011. Although now out of date, a number of the UDP policies have been saved and continue to be part of the statutory development plan. The Secretary of State's Direction is attached to document CD26. The weight that can be attributed to those policies in planning decisions depends on the extent to which they are consistent with the NPPF (NPPF paragraph 215).⁴
- 4.5.13 The current adopted UDP reflects Birmingham City Council's support for the Midland Metro and supports its extension from Snow Hill to Edgbaston.⁵ The UDP contains a series of specific transport based policies⁶, all of which are saved:
- Policy 4.54 prioritises transport provision to underpin the City Centre's economic well-being.
- Policies 6.19 and 6.33 specifically support the development of a modern light rail/rapid transit system that is complementary to the existing heavy rail network.
- Policy 6.34 specifically committed the Council to supporting the extension of Midland Metro Line One to serve the heart of the City Centre, and then on to Five Ways/Edgbaston.
- Policy 15.18 identifies implementation of the BCCE as a priority to facilitate the physical expansion of the central area's activities.
- Policies 15.4 and 15.13 are also relevant and reflect the need for improved accessibility for the future development of the City Centre.
- 4.5.14 Additionally⁷:
- Policy 3.14 relates to the design of new development. A high standard of design is essential. The design and landscaping of new developments will be expected to contribute to the enhancement of the City's environment.

¹ CEN/P8.1/PLA, 6.17

² CEN/P8.1/PLA, 6.18

³ CEN/P8.1/PLA, 6.19

⁴ CEN/P8.1/PLA, 6.20

⁵ CEN/P8.1/PLA, 6.21

⁶ CEN/P8.1/PLA, 6.23, 6.24

⁷ CEN/P8.1/PLA, 6.25 to 6.28

Policy 3.22 states that proposals which would adversely affect buildings or areas of architectural interest will not normally be allowed.

Policy 3.25 states that any development affecting a listed building should preserve or enhance its character and setting.

Policy 3.27 states that development proposals in Conservation Areas should preserve or enhance the character or appearance of the area.

4.5.15 The Variation Order accords with those policies in all respects.

4.5.16 Exhibit 6 to Mr Ellingham's proof of evidence (CEN/8.3/PLA) includes a series of extracts from the UDP proposals map, on which the route of the CSQ is indicated to pass along Pinfold Street, Victoria Square, Paradise Street, Paradise Circle Queensway and Broad Street.

Statutory Development Plan (Emerging)

4.5.17 Birmingham City Council is preparing a new Strategic Plan to replace the 2005 UDP saved policies. The Pre-Submission Birmingham Development Plan (document CD35) was published for consultation in December 2013. Document CD36 lists the modifications to CD35 that the Council made following consultation. Documents CD35 and CD36 were submitted for examination on 1 July 2014¹ and are expected to be adopted by the City Council in April 2015².

4.5.18 In the emerging Plan³:

Policy TP40 specifically addresses public transport, supports the development and extension of Metro/bus rapid transit, and expresses particular support for an extension of the Midland Metro tram network from New Street to Centenary Square.

Policy GA1.2 identifies those parts of the City Centre where growth is particularly proposed, and confirms that the extension of the metro line and other improvements to connectivity within the area will be supported.

Policy PG3 focuses on place making. Development should be designed to the highest possible standards, contributing to a strong sense of place. Designs should respond to site conditions and the local area context, including heritage assets. Areas of public realm should be attractive, functional and inclusive.

Policy TP12 relates to the historic environment and says that great weight shall be given to the conservation of the City's heritage assets. New development affecting a designated heritage asset or its setting will be expected to make a positive contribution to its character, appearance and significance.

4.5.19 The Variation is in accordance with the policies listed in paragraph 4.5.18 in all respects⁴.

4.5.20 Exhibit 6 to Mr Ellingham's proof of evidence (CEN/8.3/PLA) includes

¹ CEN/P8.1/PLA, 6.30

² Ellingham, day 5

³ CEN/P8.1/PLA, 6.32 to 6.35

⁴ CEN/P8.1/PLA, 6.35

Plan 5 from the emerging Birmingham Development Plan, on which the route of the CSQ is indicated to pass along Pinfold Street, Victoria Square, Paradise Street, Paradise Circle Queensway and Broad Street.

The Big City Plan City Centre Masterplan

- 4.5.21 The Big City Plan (document CD37) is a non-statutory planning and regeneration framework for Birmingham City Centre.¹ It aims to deliver transformational change in the city centre, building on committed schemes including the consented Metro extension. Among other things, the Big City Plan seeks the growth of the Colmore Row Central Business District into Westside and eastwards around Snow Hill Station, which would be facilitated by improved linkages (including the Midland Metro extension to Five Ways and Edgbaston). Five Ways itself will develop as a focus for major office activity.²

Vision for Movement

- 4.5.22 "Vision for Movement" (document CD33) is dated November 2010. It was produced by three City Centre Business Improvement Districts, Birmingham City Council, Centro and National Express to set out their shared vision for movement designed to benefit all users of the City Centre.³ The Vision intends that the City Centre be served by a range of high quality, attractive and safe transport choices that are easy to use and provide a sustainable means of travel. Metro is central to the delivery of high quality rapid transit routes to "create a step change in the quality and convenience of public transport".⁴

Towards a World Class Integrated Transport Network

- 4.5.23 In 2013 Centro produced this long term vision document for public transport (document CD31) which aims to inform decisions by stakeholders so as to achieve a truly world class transport system.⁵ The Midland Metro vision includes delivery of the BCCE to Edgbaston. The document says that Midland Metro would provide important connections across central Birmingham and would have a key role in serving demand in some of Birmingham's main arterial corridors.⁶

West Midlands Local Transport Plan 2011-2026

- 4.5.24 The LTP, (document CD27) focuses on providing sustainable travel and transport choices in the West Midlands, with improved connectivity within and between centres. Midland Metro extensions in Birmingham City Centre and new rapid transit lines elsewhere are key challenges for the Region to underpin private sector led growth and economic regeneration; tackle climate change; improve health, personal security and safety; improve equality of opportunity; and enhance wellbeing, quality of life and quality of the local environment.

¹ CD37, page 4

² CEN/P8.1/PLA, 6.36-6.37

³ CD33, page 3

⁴ CEN/P8.1/PLA, 6.38

⁵ CD31, page 4

⁶ CEN/P8.1/PLA, 6.39

- 4.5.25 The LTP describes ten long-term themes, which define the more detailed outcomes and outputs sought for the West Midlands. Long term theme 5 is: "A rail and rapid transit network – Backbone for Development". The main ambition for the Birmingham/Solihull sub region is to support investment there, in line with global city aspirations, and to serve the ensuing increased travel demand in sustainable ways which do not exacerbate existing congestion levels.

Conclusion: National and Local Planning Policies

- 4.5.26 The Variation is in accordance with both the adopted and emerging planning policy framework, which promotes the regeneration of Birmingham City Centre and the promotion of further economic and cultural activity. The principle of the Variation is consistent with the emerging vision for the Westside area of the City Centre and will support delivery of major regeneration sites at Paradise Circus, Arena Central and Centenary Square.¹
- 4.5.27 The Variation also aligns with transportation policies and plans at national, regional and local levels.²

Draft Planning Conditions

- 4.5.28 The application for deemed planning consent (document CD20) included a series of draft planning conditions. Those conditions have been discussed with Birmingham City Council as local planning authority. They were based on those contained in the deemed planning consent that accompanied the 2005 Order, adapted in the light of joint experience in the "discharge of conditions" process associated with earlier phases of the Metro Extension.
- 4.5.29 Documents CEN/INQ39.1, CEN/INQ39.2 and CEN/INQ39.3 were submitted to the Inquiry in response to points raised during the conditions "round table" session held on the fifth day of the Inquiry. Centro would be content in respect of planning consent if consent were deemed to be granted subject to the conditions in Schedule 1 of document CEN/INQ39.3.

4.6 **The Draft Order**

Suggested Changes

- 4.6.1 Document CEN/INQ9.2 is a "filled up" version of the draft Order in which the proposed changes (from the published version of the Order (CD03)) are identified by "tracked changes" marks. Document CEN/INQ9.1 is a consolidated version of the revised draft Order.
- 4.6.2 The only substantive change proposed is the removal of Article 47 "Crown Rights", which is unnecessary.³

¹ CEN/P8.1/PLA, 6.43

² CEN/P8.1/PLA, 6.44

³ CEN/INQ9

5 THE CASE FOR THE SUPPORTER

No party (other than the applicant) appeared at the Inquiry to give evidence in support of the scheme. One written representation was received in support of the scheme, and the gist of that was as follows:

5.1 Birmingham City Council

- 5.1.1 The Birmingham City Centre Extension is a project of key importance to Birmingham and has been a longstanding priority for improving public transport connectivity and facilitating the wider regeneration of the city centre. The City Council's ongoing commitment to the extension of the Midland Metro Network and, in particular, the connection between Snow Hill and Edgbaston is reflected in both the current and emerging plans and policies. The Council is fully supportive of the project and is delighted that the first phase of construction is now under way.
- 5.1.2 The City Council has worked in partnership with Centro over the last 15 years or so to develop the BCCE and is pleased to see it proceeding step by step across the city centre. The first phase of the extension, to New Street Station, is progressing well towards an opening to public service in 2015. This second phase, to Centenary Square, is included in the Birmingham City Centre Enterprise Zone Investment Plan, and was approved by Cabinet at its meeting on 21 October 2013. Further funding has also been secured through the Local Growth fund to complete the full route to Edgbaston and to provide a link to the proposed HS2 station at Curzon Street and beyond into Digbeth.
- 5.1.3 The proposed Variation at Paradise Circus was developed in close co-operation with the City Council. It offers the benefits of cost saving and a significant reduction in construction disruption, due to the combination of the Metro works with the PCR highway works. This joint working and desire to integrate the two very important projects was reflected in the Council's determination of the outline planning approval for the PCR. The PCR and its highway works are progressing well and the developer has now satisfactorily discharged the first batch of planning conditions, with the intention that enabling works should start in January 2015.
- 5.1.4 Mindful of the importance of securing approval of the Order, the City Council has worked closely with Centro in developing the TA for the project and is satisfied with its finding that there would be an improvement in the performance of the Paradise Circus Queensway West/Broad Street junction with the Variation, when compared with the 2005 Order proposals. The Council is also satisfied that the submitted ES identifies all of the relevant impacts and necessary mitigation measures.
- 5.1.5 The Council is very proud of Birmingham's civic buildings and spaces and has worked closely with Centro on the detailed alignment of the 2005 scheme in the Colmore Row and Environs Conservation Area and the setting of the Town Hall and other important historic buildings. The Council is confident that the changes made through the design process have resulted in a greatly improved scheme, with a lower impact on the townscape and heritage assets than the 2005 Order alignment proposals. In this respect the Council has granted planning approval for the application for the discharge of conditions in relation to hard and soft landscape works in Pinfold Street and Victoria Square (Application Ref

2013/09125/PA).

- 5.1.6 The Council is aware of the objection made by VSH and does not support the view that there are more suitable alternative routes. The current and emerging Development Plans clearly demonstrate the Council's support for the 2005 Order alignment along Pinfold Street and through Victoria Square. The Council would strongly oppose these alternative routes should they be taken forward.
- 5.1.7 The Centenary Square Extension would:-
- Create a better connected city by helping to establish high quality, high capacity public transport links across the city centre.
 - Stimulate economic growth and help to create jobs; sustain and improve access to the major city centre development sites at Paradise Circus and Arena Central.
 - Support culture and tourism by encouraging more visitors to the International Convention Centre, Symphony Hall, the Library of Birmingham, the Repertory Theatre, the Ikon Gallery, Birmingham Museum and Art Galleries and the many other key entertainment and leisure destinations around Broad Street and Brindley Place.
 - Help to reduce congestion and encourage sustainable travel for visitors and commuters in the city centre.
 - Improve the link between the west side of the City and the city centre: Metro would create direct connections with the proposed Curzon Street Station for HS2, New Street Station and Birmingham International Station for Birmingham Airport.

6 THE CASE FOR THE OBJECTORS

The only objector to appear at the Inquiry was VSH.

The gist of the case for VSH was as follows.

6.1 Introduction

VSH

- 6.1.1 VSH Nominees 1 Limited and VSH Nominees 2 Limited are the freehold owners of Victoria Square House and are statutory objectors to the proposed Order. They submitted their objection by letter dated 21 January 2014. VSH was in the process of buying the freehold of Victoria Square House around the time that the Applicant made the application for the Order. Objections were made on the seller's and VSH's understanding at that time of the likely impacts of the Order on Victoria Square House. Subsequently, additional information became available to VSH which enabled VSH to better assess the impacts of the proposal on VSH's property and which led VSH to question the decision-making process that led to the publication of the draft Order.¹

¹ OP/SOC2.1/OBJ11, 1.1, 1.2, 1.3

The Applicant's Case

- 6.1.2 The Applicant has in its case sought to concentrate on a "comparatively modest variation". However, it is not open to a Applicant to confine consideration of proposals solely to an area affected by a variation order if the case for compulsory purchase or for use of public monies relies upon the whole route going forward beyond the area of the variation order itself. That is the case here. Justification for the confirmation of the Orders must here be on the basis of the route of the extension from New Street Station to Centenary Square ("CSQ"), albeit that the Order before the Inquiry is a variation order. Furthermore, the justification must be carried out against current policy, current assessments and current factors pertaining in 2015 for the expenditure of over £40 million of public and private money. In fact, a significant amount of the PCR counted as private money is attributable to the injection of public monies; contrary to what is on the face of it stated to be private monies the true position is that public monies from the GBSLEP and Local Growth Funding are being used (see CEN/INQ/40).¹
- 6.1.3 Here, as Centro cannot in reality construct any part of its proposed CSQ Order route without the whole of the route being able to be fully justified economically, it is not open to Centro to concentrate solely upon the Variation Order area and then to say, as it has done in its evidence and submissions, that the rest of the route can be constructed tomorrow without there being any necessity for further orders or a new order. That might be what it might interpret as the current legal position, but that would be entirely wrong. The current Order is not able to be carried out because compulsory purchase is required of land, including land outside the Variation Order area, and that compulsory purchase must be justified on the basis of consideration of the CSQ route as a whole. It may well be, and VSH accepts that it is a material consideration, that the previous decision made by the Secretary of State in 2004 in relation to the previous TWA Order is to be taken into account and given weight. However, that weight is limited as the Order is not able to be implemented. The Applicant must fully justify the whole of the CSQ route afresh against current circumstances. If it is the position of Centro that it is merely the Variation Order area that requires to be considered, it is to be rejected. This concentration on the Variation Order area is telling of Centro's late production of drawings and other evidence concerning the rest of the route, and also its reluctance to consider any alternatives (see its trenchant correspondence with VSH from earlier parts of 2014 until the opening of the Inquiry). There has been strong reluctance to consider any alternatives in terms of independent assessment of them. Its failure to understand such requirements may well go to the root of the reasons why it has failed to consider alternatives properly and adequately, relying solely on the 2004 Inspector's report and assuming its contents not to be open to reconsideration.²

VSH's Objection

- 6.1.4 Therefore, in addition to the direct and indirect effects on VSH's property,

¹ OP/INQ26/OBJ11, 6

² OP/INQ26/OBJ11, 7

the objection concerns public interest matters of supreme importance relating to transport and other policy considerations.¹

6.2 **Impact of the Scheme on Victoria Square House**

- 6.2.1 VSH objects to the section of the CSQ which is proposed to run along Pinfold Street and through Victoria Square. The objection to this part of the route includes matters concerning maintenance of Victoria Square House, access to and egress from that property, and the effect of the proposed tramway on the surrounding area including Pinfold Street and Victoria Square.²

Victoria Square House

- 6.2.2 Victoria Square House is an office building which extends to approximately 14,864 square metres and currently accommodates in the region of 600 workers. Its main entrance is on Victoria Square. Within this property, and accessed from Pinfold Street, is a Post Office.³
- 6.2.3 The property has two distinct elements. The original building was built in 1889 in the French renaissance style and is at the northern end of the site. It is Listed as Grade II, and is known locally as the Chateau. The more recent element to the rear of the property was built by John Laing Developments Limited and opened in 1991. The northern elevation to the Chateau is more than 27m from ground level to the roof finials. The height of the façade to Pinfold Street varies between 26m and 29m.
- 6.2.4 Pinfold Street is a cul de sac, closed to vehicles by bollards at its northern Victoria Square/New Street end, which currently results in minimal traffic using the street.⁴

Effect on Maintenance of Victoria Square House

- 6.2.5 The proposed tramway would have a significant impact on the ability to maintain and repair the fabric of the property (which is not in good condition). Pinfold Street is narrow and the proposed tramway would leave minimal space for building maintenance; the proximity of the tramway operating corridor varies along the street but would be just over 1m to below 2m from the building elevation for much of its length. Neither on the west or east side of Pinfold Street is a sufficient working area being proposed, especially where access above ground floor level is needed. Therefore, all but minimal maintenance to all buildings in Pinfold Street must be carried out when trams are not running.
- 6.2.6 The "Code of Practice for Working On Or Near To Midland Metro" (Appendix 5 to Mr Martin's evidence OP/P3.2/OBJ11) describes working arrangements. Notice of access must be given to Centro and agreed by them; access will be available only between 01:00 and 04:30. Space constraints in Pinfold Street would preclude the use of scaffolding⁵. Vehicle-mounted booms are likely to be the most appropriate form of

¹ OP/INQ15/OBJ11, 1.

² OP/P3.1/SUM/OBJ11, 1.3

³ OP/P1.1/OBJ11

⁴ OP/P3.1/OBJ11, section 2

⁵ OP/P3.1/OBJ11, 2.17- 2.24

access but the tight configuration of some of the building's features would mean that even this technique would be difficult. The building also has a roof drainage system that is prone to blockage which if not treated promptly can cause water to enter the building, but the access restriction imposed by the Code of Practice means that remedial works would be delayed. Tenants would be inconvenienced and the building fabric damaged; and costs would increase.¹

6.2.7 The restrictions and difficulties encountered in undertaking emergency repairs and maintenance/repair works would apply to all building facades in Pinfold Street.²

6.2.8 Extra costs caused by making an Order can be matters for compensation. But building owners are reluctant over time to spend money on maintenance, especially when the costs are higher than usual, and that could lead to deterioration of this listed building in a conservation area.³

Effect On Fire Exits From The Property

6.2.9 There are four fire escape exits to Pinfold Street where, in the event of a fire, occupants and visitors would flow out of the property into the street. Up to 204 people might occupy the Chateau, and they would require a final exit width of 1000mm. The Centro proposal shows the kerb to be within 800mm of the Victoria Square House fire exit onto Pinfold Street. Expert opinion on means of escape has been obtained (Appendix 8 in document OP/P3.2/OBJ11), as follows. The Rotunda fire exit from the Chateau is recessed and hidden from the view of a tram driver, and so additional consideration should be given to the flow of occupants onto Pinfold Street from this exit. To help prevent occupants from discharging directly onto the track, a pedestrian barrier may be installed at the discharge point. Any barrier should be at least 1000mm from the edge of the building, to maintain the escape route width. And the door leading from the Rotunda is a single door approximately 1000mm wide, which would collide with a passing tram in the event of a fire. The Rotunda staircase would be un-usable in the event of a passing tram and a fire. This part of the building requires at least two protected staircases. Should the Rotunda exit not be available the Chateau would not comply with the means of escape provisions of the Building Regulations.⁴

6.2.10 Up to 2,136 people might occupy the more recent extension which would result in 624 people discharging onto Pinfold Street from each of two fire exits on the elevation. The rate of arrival from within the building would be approximately 2 persons per second. The escape routes should be 1,600mm wide at fire exits 3 and 4.

6.2.11 The proposal from Centro shows the kerb line in Pinfold Street to be 700mm to 1,000mm from the building. Therefore the clear width required by the Building Regulations would not be achieved⁵.

¹ OP/P3.1/OBJ11, 3.5 – 3.7

² OP/P3.1/OBJ11, 3.12

³ OP/P3.1/OBJ11, 3.8 – 3.10

⁴ See also OP/P3.1/OBJ11, 3.16

⁵ OP/P3.1/OBJ11, 3.13 – 3.17

- 6.2.12 The Building Regulations require (through Approved Document B) that an escape route should not be reduced in its clear width over its length. However, occupants from fire escape 2 cannot traverse north due to a reduction of the pavement width to 0.4 metres; the pavement to the south narrows to 1.03 metres adjacent to fire escape 3¹.

Effect On Ground Floor East Entrance

- 6.2.13 VSH proposes to re-open the door at the north-eastern corner of the Chateau, so as to improve significantly access and egress to and from the property and the internal ground floor hall, and to restore its previous attractiveness and style. The entrance hall currently lacks animation. Listed building consent was granted by Birmingham City Council for works associated with the door re-opening, on 17 October 2014 (document OP/P2.2/1/OBJ11).
- 6.2.14 The current proposals preclude the re-use of the north-east entrance due to the proximity of the tramway operating corridor to the doorway.²
- Plots 39, 40, 41, 42 and 49***
- 6.2.15 The basement provides storage space and car parking for tenants of the building and interference with those spaces is likely to have a disproportionate effect on the tenants. Works should not compromise the integrity of the building. Access via plot 49 is important for cars, deliveries and pedestrians while also requiring security control.³

6.3 Public Interest Matters

Pedestrians In Pinfold Street And Victoria Square

- 6.3.1 At present Pinfold Street is a cul-de-sac which is accessed by vehicles from Navigation Street. It is approximately 140m long and the first 40m forms part of a one-way gyratory with Stephenson Street to provide service access to properties and drop-off/taxi access to New Street Station. The north western end of Pinfold Street, as it passes Victoria Square House, is pedestrianised with block paving surfacing across its entire width. The overall corridor between buildings is typically 11m wide with some slightly wider areas where Victoria Square House, in particular, is set back. The footway on the north eastern side of the road is typically 2.4m wide and serves frontage access to ground floor shops. On the south western side the footway is generally 3m wide, reducing to 2.4m at the southern end for around 10m.⁴
- 6.3.2 At its northern end Pinfold Street enters Victoria Square next to New Street. Here, New Street is wholly pedestrianised and around 17m wide. In Victoria Square the pedestrian is offered a row of steps (around 3m high) and a gently sloping step-free route around 16m wide. The step-free route gives access to all the buildings around Victoria Square and

¹ OP/R3.1/OBJ11, section 2

² OP/P3.1/OBJ11, 3.18 – 3.21

³ OP/SOC2.1/OBJ11, 6.3 to 6.5

⁴ OP/P4.1/OBJ11, 4.1.1 to 4.1.3

destinations beyond.¹

6.3.3 Pedestrian flows in the area have been surveyed, by Birmingham City Council in 2002, and for VSH in September 2014 (document OP/P4.2/5/OBJ11). Among other things, the survey dated 2002 shows²:

- Two-way flows between Pinfold Street and Victoria Square were in the order of 7,000 pedestrians per day on a weekday. This reflects the desire line between New Street Station and Victoria Square, and is likely to be greater now as access to New Street Station has changed.
- Combined New Street and Pinfold Street flows into the Square on a Saturday were in the order of 28,000.

6.3.4 The 2014 survey shows³:

- Two-way flows between Pinfold Street and Victoria Square amounted to 8,500 pedestrians between 07:00 and 19:00 on a Thursday.
- Of those, 6,400 used the south western side of Pinfold Street and around 50% of the total turned to or from the west in front of Victoria Square House.
- The peak flow in Pinfold Street was 1,275 pedestrians per hour (pph).

Impact Of Submitted Tramway Alignment In Pinfold Street And Victoria Square

6.3.5 The tramway alignment now proposed by Centro would⁴:

- (a) Completely remove the currently well-used west side footway in Pinfold Street. Access to the existing Post Office in Victoria Square House would be retained by the provision of a new pedestrian crossing point.
- (b) Reduce the width of the east side footway in Pinfold Street from 2.5m to around 1.6m. Centro's proposals for the vertical alignment of the tramway here are not clear.
- (c) Obstruct the key desire line for pedestrians in front of Victoria Square House. All pedestrians would be required to walk to the north east of the Metro line and cross at the crossing in the Square. The level access route for all pedestrians crossing the Square from Pinfold Street and New Street would be reduced from 17m to 3.2m in width (assuming that pedestrians will not be encouraged to walk on the tram tracks on this right-angled corner).

6.3.6 Pinfold Street would be the narrowest section of any street running on the entire section of the tramway through Birmingham. There is no

¹ OP/P4.1/OBJ11, 4.1.5, 4.1.6

² OP/P4.1/OBJ11, 4.1.7, 4.1.8

³ OP/P4.1/OBJ11, 4.1.9, 4.3.9

⁴ OP/P4.1/OBJ11, 4.2.1

known UK location of on-street tram running where pedestrian access has been retained with less than 2m footways on both sides of the track save at the Colmore Row/Bull Street junction in Birmingham, where an alternative route is provided for pedestrians.¹

- 6.3.7 Since the Pinfold Street footway would be reduced to around 1.6m wide, the pedestrian flows are such that it would become congested. Physical separation of the Metro line and footway would be necessary in the form of a barrier. The usable width of the footway is therefore more likely to be at most 1.5m.² Applying the standards of "Manual for Streets" makes clear that a width of 1.5m will not allow two wheelchairs or pram users to pass.³
- 6.3.8 The Transport for London publication "Pedestrian Comfort Level Guidance" (2010) ("the Guidance") (document OP/P4.2/8/OBJ11) sets out recommended footway widths in its Appendix B. Flows of less than 600 pph can be accommodated by footways up to 2.6m wide (with no street furniture). Flows between 600 and 1200 pph require 3.3m and over 1,200 pph at least 5.3m is recommended, or 3.3m where there is no street furniture. However, in this case the narrowing of the pedestrian route would coincide with the proposed pedestrian crossing.⁴ It is likely that pedestrians in Pinfold Street would need to try and walk on the tram route where levels allow and if they did not the pedestrian route would be cramped and uncomfortable, particularly at points where the tracks would be some 600mm above footway level and within 1 metre of pedestrians.⁵
- 6.3.9 Adopting the assessment of Pedestrian Comfort Levels, as summarised by Figure 8 of the Guidance, leads to the conclusion that the impact of the Metro on Pinfold Street would be a substantial reduction in the attractiveness of the route for pedestrians and create a significant safety problem. The accessibility of the Post Office would be reduced.⁶
- 6.3.10 The area of restricted width in Victoria Square would be at a place where pedestrians would be both seeking to cross Victoria Square and waiting to cross the tramway. Although some would be able to use the steps it can conservatively be assumed that at least 2,500 pph (half of the total), including all mobility impaired users, would choose either the level access route across the square or a route across the tramway. Pedestrian congestion would occur, to a similar degree to that in Pinfold Street, and there would be a clear risk of people stepping off the pedestrian route into the Metro line. The design does not comply with relevant standards.⁷

Comment on Centro's Response: Pinfold Street and Victoria Square

¹ OP/P4.1/OBJ11, 4.3.1

² OP/P4.1/OBJ11, 4.3.2

³ OP/P4.1/OBJ11, 4.3.5

⁴ OP/P4.1/OBJ11, 4.3.7, 4.3.8

⁵ OP/P4.1/OBJ11, 4.3.6

⁶ OP/P4.1/OBJ11, 4.3.10

⁷ OP/P4.1/OBJ11, section 4.4

6.3.11 The case put by Centro regarding Pinfold Street is not based on appropriate evidence. Centro has failed to assess the impact on pedestrian safety on routes through Victoria Square. The scheme therefore fails the tests set out in paragraph 35 of the NPPF in that it does not:¹

- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter; and,
- Consider the needs of people with disabilities by all modes of transport.

Consideration of Alternative Routes

6.3.12 It is for the Applicant to demonstrate clearly that there is a compelling case in the public interest in favour of making the Order. The Applicant must produce evidence that all necessary regulatory and legal processes have been properly undertaken. It is also a legal requirement of the statutory process of compulsory acquisition that before it can be lawfully approved by the Secretary of State, all material and relevant considerations must be taken into account.²

6.3.13 There should be objectivity in the consideration of alternatives; particularly in the Applicant's comparison of alternatives which would cause a decision to be made against its preferred route. The public interest is paramount.³

6.3.14 The last time any scheme for a tramway between New Street Station and Centenary Square was reviewed publicly was over ten years ago. Significant public monies would be used for the promotion and implementation of the Applicant's scheme. The WebTAG process has the purpose of ensuring that decision making and the use of public money are scrutinised. The Treasury requires this as a matter of public policy. Any scheme must obtain value for money and opportunities to avoid harm to interests of acknowledged importance should be maximised. The emphasis is on optimisation, not merely upon going forward to achieve the objective with a sub-optimal scheme.⁴

6.3.15 It is not open to a Applicant to confine consideration of proposals solely to an area affected by a Variation order if the case for compulsory purchase, or for use of public monies, relies on the whole route going forward. Justification for the making of the Order must be on the basis of the route from New Street Station to Centenary Square, and the justification must be carried out against current policy, current

¹ OP/R4.1/OBJ11, 5.1

² OP/INQ26/OBJ11, 1, 2

³ OP/INQ26/OBJ11, 3

⁴ OP/INQ26/OBJ11, 4, 5

assessments and current factors.¹

- 6.3.16 Centro cannot in reality construct any part of its proposed CSQ Order route without the whole of the route being fully justified economically. It is not open to Centro to concentrate solely on the Variation area and then to say that the rest of the route can be built tomorrow with no need for further Orders, or a new Order. The 2005 Order is not able to be carried out because compulsory purchase is required of land, including land outside the Variation; and that compulsory purchase must be justified on the basis of the CSQ route as a whole. The previous decision made by the Secretary of State in relation to the 2005 Order is a material consideration; but the weight to be attributed to that decision is limited as the Order is not able to be implemented. The Applicant must fully justify the whole of the CSQ route afresh against current circumstances.²
- 6.3.17 The harm done by the proposed Order to public interests is set out in the evidence of VSH. Such harm should be avoided if possible. The Applicant should therefore consider alternatives which would avoid such harm or cause less harm than the Order route. Such consideration should include quantitative as well as qualitative factors. And if unacceptable harm is caused by any route and a reasonable alternative exists, that route should be rejected in favour of the alternative even if it is significantly less costly or has a higher BCR than such alternative.³
- 6.3.18 It is clear from the Inspector's report that followed the 2003-4 inquiry (document CD22) that he found that, on the facts before him there was no cost-effective and feasible alternative. He concluded that the alternative routes via Navigation Street and either Hill Street (Alternative Option A) or Suffolk Street Queensway (AOB) were not cost effective for reasons given by him (see paragraph 3.13.4 of CD22). That situation is now radically different; in particular the crossing of Navigation Street bridge has been found to be feasible for trams.

Alternative Routes: Navigation Street Bridge

- 6.3.19 Alternative routes proposed to the Inquiry by VSH would route the tramway onto Navigation Street, part of which passes on bridges over numerous railway tracks at the western end of New Street Station. The point at issue here was the adequacy of strength of the bridges along Navigation Street to accommodate the Midland Metro trams.⁴

Bridge Loading

- 6.3.20 The alternative routes would result in Navigation Street bridges being used by road traffic and the proposed Metro tram. In the assessment, loading for road traffic has been taken from the Design Manual for Roads and Bridges (DMRB) document BD21/01 "The Assessment of Highway Bridges and Structures".⁵ Light rail tram track loads are represented in

¹ OP/INQ26/OBJ11, 6

² OP/INQ26/OBJ11, 7

³ OP/INQ26/OBJ11, 8, 9

⁴ OP/P5.1/OBJ11, 2.1

⁵ OP/P5.1/OBJ11, 4.1

accordance with DMRB document BD37/01 "Loads for Highway Bridges" and are derived on the same basis as that used for tram structures at Nottingham, Edinburgh and Salford.¹

Navigation Street Bridges

- 6.3.21 The portion of Navigation Street that runs from the entrance to New Street Station to west of the junction with Hill Street crosses four separate bridge structures, and a fifth bridge carries Hill Street going north. The bridges are of different forms and were built at different times. They are a complex arrangement of bridge girders and decks, due to the presence of the Navigation Street/Hill Street junction and due to the roads being at 45 degrees to the general direction of the many converging railway lines below.²

Bridge Assessments

- 6.3.22 No access to bridge records or drawings was possible before the Inquiry as Network Rail had not released any information to VSH or their consulting engineers.³ During the Inquiry various bridge assessment reports were provided by Network Rail, as listed in paragraph 1.4 of document OP/INQ18/OBJ11. A review was undertaken of those reports and other material available at the Inquiry and identified in paragraph 1.2 of the same document.⁴ Document CEN/INQ33 is the result of a meeting held on 1 December 2014 between engineers appointed for VSH and engineers appointed by Centro.
- 6.3.23 The bridge assessment reports cover assessment of the structures over a period exceeding ten years and by two different firms of consulting engineers engaged by Network Rail. The earlier assessments (up to about 2006) were by WSP and the later assessments were by Gifford, who later became Ramboll.⁵
- 6.3.24 The two reports by WSP concluded that the capacities of the bridges were limited, in some cases to less than dead load (i.e. the bridge has insufficient capacity to support itself). Subsequent assessment by Gifford/Ramboll concludes that the bridges are able to accommodate 40 tonne Assessment Live Loading (ALL), except for some elements of bridge structure 2c, which carries the junction of Navigation Street with Hill Street, as well as Hill Street south of the junction.⁶ Those elements found (by Ramboll, in document CEN/INQ/31.3) to have a capacity less than 40 tonnes ALL are to the south of the junction of Navigation Street and would not be subject to load from trams on Navigation Street.⁷
- 6.3.25 Initial assessment work for VSH, undertaken before the Inquiry and without the benefit of the bridge assessment reports subsequently provided by Network Rail, showed that it was highly likely that trams

¹ OP/P5.1/OBJ11, 4.2 and CEN/INQ33 Appendix C.

² OP/P5.1/OBJ11, 3.2

³ OP/P5.1/OBJ11, 3.1

⁴ OP/INQ18/OBJ11, 1.1 - 1.4

⁵ OP/INQ18/OBJ11, 1.5

⁶ OP/INQ18/OBJ11, 1.6 and 2.1

⁷ OP/INQ18/OBJ11, 2.2 - 2.4

could be accommodated along Navigation Street from New Street Station to Navigation Street west of Hill Street¹. Review of the bridge assessment reports provided by Network Rail during the Inquiry led to the conclusion that the bridges are better able to support tram loadings along Navigation Street than indicated by the initial assessment work for VSH. If the tramway was routed along Navigation Street, its rail track slab would further improve load distribution into the bridge decks and no further strengthening of the bridges would be required. The tram works would not affect the train services below the Navigation Street bridges and there would be no requirements for possessions of the railways. The sum of £500,000 as an additional cost to the normal tramway construction for provision of the track slab over the bridges is a reasonable estimate.²

- 6.3.26 The review of bridge assessment reports referred to in paragraph 6.3.25 did not include the Hill Street bridge north of Navigation Street.³
- 6.3.27 The following evidence was given for VSH in examination. The reports provided by Network Rail were sufficient to secure approval in principle to the Navigation Street route, and detailed assessment would be needed of the "with-tram" case. VSH's engineering consultants have worked for Network Rail on other projects in Birmingham. To locate a tramway on a bridge increases the cost and complexity of bridge maintenance; all other things being equal, tramway designers avoid bridges over railways. In Navigation Street, a two-way tramway could co-exist with two lanes of road traffic.⁴

Assessing Alternative Routes: Transport Assessment

- 6.3.28 The submitted transport assessment ("TA") has not been the subject of a reconsideration of potential options for the route from New Street Station to Five Ways. This should have taken place. Instead the TA has assumed, without reconsideration of the relevant circumstances upon which the decision to confirm the 2005 Order was made, that the route alignment approved under the 2005 Order remains the optimal route without change except in relation to matters of detail relating to Paradise Circus and Paradise Street.⁵

Assessing Alternative Routes: Transport Analysis Guidance

- 6.3.29 Extracts from the DfT's Transport Analysis Guidance (TAG) were before the Inquiry as follows:
- "An overview of transport appraisal" dated January 2014: Appendix 2 in document OP/P4.2/OBJ11; referenced here as "App2".
- "The transport appraisal process" dated January 2014: Appendix 3 in document OP/P4.2/OBJ11; referenced here as "App3".
- 6.3.30 There has been a failure to address such matters as the scheme's

¹ OP/P5.1/OBJ11, 6.1, 6.2

² OP/INQ18/OBJ11, 1.8

³ OP/INQ18/OBJ11, 1.1

⁴ Mr Parsons, day 6

⁵ OP/SOC2.1/OBJ11, 2.3

objectives and possible options and alternatives as required by WebTAG and, currently, the Transport Analysis Guidance published in January 2014.¹

- 6.3.31 Transport Analysis Guidance in App2 makes it clear (para 1.2.2) that "development of analysis using WebTAG guidance is a requirement for all interventions that require Government approval". Paragraph 1.4.2 of App2 is clear that all assessments should be carried out in a proportionate manner. But this is not to be interpreted as being not carried out in a proper manner let alone not at all. As stated in paragraph 1.4.3 of App2:²

"The design of the process ensures that, before any decision is made about an intervention, promoters and assessors have considered whether there are better ways to achieve the objectives that the intervention is set out to achieve. Overall, it also aims to make the transport appraisal process more transparent and consistent with other Government departments".

- 6.3.32 Paragraph 1.1.5 of App3 makes it clear that the following key principles should be followed through the appraisal process, including that:

"there must be consideration of genuine, discreet options and not an assessment of a previously selected option against some clearly inferior alternatives. The range of solutions should be considered across networks and modes."

- 6.3.33 It is clear that there has been no adherence to this requirement and key principle of the appraisal process by the Applicant in this case. The Alternative Option B (AOB) is, as appraised, "a clearly inferior alternative". It was not a reasonable alternative, as Centro failed to seek the relevant information from Network Rail, it seems. As stated in the next "key principle" in paragraph 1.1.5:

"there should be an auditable and documented process which identifies the best performing options to be taken forward for further appraisal."

- 6.3.34 As stated in paragraph 2.5.10 of App3

"problems should not be defined in a way that could bias the statement of objectives, which might then bias the development and selection of options".

- 6.3.35 This is precisely what has occurred in this case.³

- 6.3.36 App3 makes it clear that setting targets will also be an iterative process (paragraph 2.6.7 to 2.6.9):

"setting specific quantitative targets too early in the process might overly shape the search for solutions or might then require significant revisions later as more evidence becomes available".

- 6.3.37 It is important to note that "significant revisions" are not to be ruled

¹ OP/SOC2.1/OBJ11, 2.4

² OP/INQ26/OBJ11, 37

³ OP/INQ26/OBJ11, 37

out and should not be equated with "proportionate response". Ideas considered previously should be reviewed to check whether any of the proposals discarded in the past may now be worth reconsidering – see paragraph 2.8.10 of App3. It is clear that the Web TAG approach is one which requires the decision maker to go through a structured appraisal which is not solely concerned with BCR and economic considerations, but must consider matters much more widely. There has here been no proper consideration of the benefits in this case of the alternative which would generate significantly more patronage and which has been wrongly appraised in any event in economic terms. Furthermore, there has been insufficient consideration given to the requirement for enhanced connectivity between different parts of the city centre and retail core. That can only come about as a result of the proposed AOB if the Mailbox and South Arena South area is to be integrated into the city centre by the tram system and not left isolated from the tram system for all time.¹

- 6.3.38 It may well be the case that Birmingham City Council supports the Order scheme, as Centro has indicated. But the appraisal of the evidence contained in the officer reports before Birmingham City Council, which were before the Inquiry, failed to consider alternatives and failed to take into account the points made by VSH at this Inquiry. On no occasion has Birmingham City Council members, committee or the public been given proper information concerning any alternative route, let alone that which is promoted by VSH along the AOB route which is both feasible and cost effective when considered on a like for like basis. That is important and indeed crucial when it comes to consider the weight to be given to any supporters evidence, including that of Birmingham City Council. On no occasion, has the Applicant placed such evidence before the City Council or consulted upon such matters with the public. That error is an error of law and unless and until that is carried out properly, any decision made by the City Council in relation to the appraisal carried out by it including in relation to EIA and the assessment of alternatives was not properly carried out.²

Alternative Option A

- 6.3.39 Alternative Option A would follow the route Stephenson Street – Navigation Street – Hill Street – Paradise Street – Paradise Circus Queensway – Centenary Square. It is shown on Exhibit 16 of Mr Adams' evidence (document CEN/P1.3/SCH). This alternative was proposed in VSH's Statement of Case but was neither abandoned nor pursued with any vigour by VSH at the Inquiry.³
- 6.3.40 Centro suggests that significant changes are required to the bridge to accommodate visibility splays between Hill Street (north) and Navigation Street (east), but the need for that could be overcome either by moving the junction stop lines forward (the junction is signal controlled) or by a

¹ OP/INQ26/OBJ11, 38

² OP/INQ26/OBJ11, 39

³ "Vigour" – Mr Steel, day 6

departure from standard. Centro also states that levels at the top of Hill Street would require the tram stop to be located away from the Town Hall; such a change would be beneficial in terms of heritage impacts.¹

Alternative Option B

- 6.3.41 AOB would follow the route Stephenson Street – Navigation Street – Suffolk Street Queensway – Paradise Circus Queensway – Centenary Square. It is shown on document OP/INQ19/OBJ11.

Previous Assessments of Alternative Option B

- 6.3.42 In 1997, officers of Centro and Birmingham City Council Transportation Department² prepared the Midland Metro Surface Running Study Birmingham City Centre Engineering Evaluation (appendix 10 to document OP/P4.2/OBJ11) (the Surface Running Study, or SRS). Constraints identified by the SRS relevant to AOB at the time it was rejected included:³

- (a) At SRS paragraph 3.3.2.2: “The headroom at the Suffolk Street Queensway overbridge is 5.2m and that [necessitates] either road lowering or solid OLE”. But the matter of headroom here is one that the SRS confirms can be dealt with by the provision of solid OLE. And, in its evidence to the current Inquiry, Centro has had no regard in this context to the option of fitting its new trams with Rapid Charge Accumulators (ACR) (appendix 1 of document OP/R4.1/OBJ11[S]) which would allow the tram to operate on short sections of track without need of OLE and which would therefore allow trams to pass below the Queensway viaduct without having to lower the highway levels and without having to close this route to highway traffic and pedestrians. On this basis there is no reason why the tram could not run more or less at grade through the Suffolk Street bridge.⁴
- (b) Also at SRS paragraph 3.3.2.2: “The route parallel to Suffolk Street Queensway is at a gradient of more than 6.25% and hence significant level alterations are required to obtain an acceptable alignment. This would result in lowering Holliday Street by a maximum of 1.5m”. This conclusion is wrong. The gradient between the crossing of Suffolk Street Queensway and Holliday Street is within the original design gradient for the tram (8%) and that vehicle now proposed by Centro (9%). On this basis no significant level changes will be required. An appropriate vertical curve could be accommodated, with the tramway design guidance, and Holliday Street could remain open.⁵
- (c) At SRS paragraph 3.3.2.4: “Railtrack [now Network Rail] have

¹ OP/R4.1/OBJ11, 4.2.4, 4.2.5

² Accreditation at page 55 of the document

³ OP/P4.1/OBJ11, 5.2.4

⁴ OP/R4.1/OBJ11[S], 4.2.7 – 4.2.11

⁵ Last sentence: OP/R4.1/OBJ11[S], 4.2.13

advised that the Hill Street/Navigation Street bridge structures should be assumed to have been designed to accommodate 24 tonne vehicle loads. Detailed assessment of these structures would be required if this route is to be progressed." There is no weight limit on the bridge, nor is there any sign posted on the approaching roads.

- 6.3.43 The "Midland Metro Bite Size Chunks Initiatives" document (appendix 11 of OP/P4.2/OBJ11) is dated January 1998 and was produced by Birmingham City Council and Centro. It considered alternative route options local to Victoria Square House, via Pinfold Street, Hill Street or Suffolk Street. The option under Suffolk Street was considered beneficial in general terms but the report considered it constrained by "remoteness from the main civic centre" and said that "a second potential major constraint will be the accommodation of service traffic from Holliday Street to Suffolk Street Queensway will be severed by the Metro"; as described in paragraph 6.3.42, this is now known to not be a constraint. The option of a route via Hill Street was considered to be subject to "severe constraints at the Victoria Square end of Hill Street" where vertical and horizontal limitations on track alignment would "require substantial changes in level to accommodate it". Overall, this report raises no fundamental constraint to the Suffolk Street Queensway Route and is generally supportive. There has been no substantial change to the highway network since then to change this conclusion. But significant development has taken place at and near the Mailbox and this option would improve accessibility in that area.¹ The Mailbox area is identified in the UDP as lacking accessibility.²
- 6.3.44 A consortium of objectors at the 2003-4 Inquiry proposed an alternative route via Suffolk Street Queensway. Centro's response (reported by the Inspector at 5.10 in CD22) confirmed that their reason for resisting that option was solely based on issues of cost³ ("In 2004, the total [cost at the railway crossing] can be estimated at over £20m. The tram stop in Victoria Square would also serve the Bus Mall and the key points of the Town Hall, the Central Library, the Council House, and many business areas which would be omitted by a stop in Navigation Street. The principal argument against [AOB] is, however, besides those of engineering complexity and consequent time, above all that of cost.")
- 6.3.45 Appendix 12 to document OP/P4.2/OBJ11 includes material submitted by Centro to the 2003-4 Inquiry regarding bridge works in Navigation Street. A cost of £21.25m at 1998 prices was forecast, including £8.5m for bridge strengthening, plus 25% for utility diversions, plus 100% for compensation costs for Network Rail. But recent work for VSH has found there to be no significant utilities in the Navigation Street structure, no requirements for railway possessions, and a cost of £500,000 for work to the bridge. There is no basis for the estimated £21.25m cost. Nor was there engineering evidence at that Inquiry to support consideration of alternative routes or to rebut Centro's case. The Inspector's

¹ OP/P4.1/OBJ11, 5.2.5 – 5.2.9

² OP/P4.1/OBJ11, 5.2.20

³ OP/P4.1/OBJ11, 5.2.12

recommendation was made on the basis of the evidence before him.¹

- 6.3.46 As to the detailed points raised, a tram stop at Victoria Square would no longer serve the Central Library (which has moved to Centenary Square); the Bus Mall is no longer part of the Council's transport strategy; the Council House is now used only for civic functions and the Town Hall is limited in its demand. And surface level links would be available to this area from stops at Centenary Square, and a new stop on Suffolk Street Queensway could be provided if desired.²

Patronage Comparison

- 6.3.47 AOB would substitute a tram stop near the Mailbox for that which the Order scheme would provide at Victoria Square.³
- 6.3.48 The proposed stop at Victoria Square would serve the Square itself and the adjacent offices. All of these are already within easy walking distance of the front of New Street Station. On this basis the only possible increase in demand resulting from the Victoria Square stop would arise from those passengers currently arriving into the City at Snow Hill.⁴ Consideration of walking distances between stops and likely trip ends (i.e. premises in the catchment of each stop) shows that the Victoria Square stop would not compete well with Snow Hill Station in terms of catchment for the majority of the Birmingham Business Improvement District, and walking from Snow Hill would remain more attractive for most movements.⁵
- 6.3.49 Those offices which are in the vicinity of the proposed Victoria Square stop (including Victoria Square House) are within around 300m of either New Street Station or the proposed stop in Centenary Square and so would remain within walking distance of all main transport nodes. Whereas a stop near the Mailbox would give access to some 50,000 square metres of mixed use retail, leisure and employment space and, as a significant night time economy area, would have positive benefits in terms of out of peak hour patronage.⁶ The alternative route could significantly improve patronage.⁷

Proposed Closure of Hill Street

- 6.3.50 The scheme promoted by Centro requires the closure of Hill Street to through traffic. As a result, Birmingham City Council is pursuing a scheme (forecast to cost £3.6m) which involves the compulsory purchase of land and the introduction of a north facing slip road from Navigation Street to Suffolk Street Queensway – principally required to mitigate the loss of the traffic exit from the New Street core area as a result of the closure of Hill Street (Appendix 2 in OP/P1.2/OBJ11). This highway scheme broadly follows the line of AOB. Since the Alternative would

¹ OP/P4.1/OBJ11, 5.2.14 – 5.2.16

² OP/P4.1/OBJ11, 5.2.21

³ OP/P4.1/OBJ11, 5.3.16

⁴ OP/P4.1/OBJ11, 5.3.17

⁵ OP/P4.1/OBJ11, 5.3.18 – 5.3.22

⁶ OP/P4.1/OBJ11, 5.3.23, 5.3.24

⁷ OP/R4.1/OBJ11, 4.4.8

remove the need to provide this link, a cost saving of £3.6m would result. And if this road scheme is considered a fundamental part of the Metro extension it should have been included in the scheme and its value for money assessment.¹

Land Acquisition for Alternative Option B

6.3.51 The alternative scheme may require some third party land acquisition but that would be limited to land to the west of Suffolk Street Queensway. The slip road mentioned in paragraph 6.3.50 would require the compulsory purchase of a similar area of land. The highway boundary in this area is shown in Appendix 14 of document OP/P4.2/OBJ11. If the alternative tram route was kept within the highway there would be no need for compulsory acquisition.² Appendix 2 of OP/R4.1/OBJ11[S] shows that it is feasible to provide a route along the existing highway in the vicinity of Alpha Tower, while retaining the two traffic lanes on the northbound off-slip approach to Paradise Circus Queensway.³

Comparison of Costs and Scheme Economics

6.3.52 Document CEN/INQ6 “Note on Capital Cost for VSH Alternative Routes” was submitted by Centro on day 3 of the Inquiry. It has deficiencies which show that Centro did not assess the alternatives on a like for like basis:⁴

- (a) The alternative routes were costed at a base cost of circa £25,000 per metre run, plus abnormal costs, whereas the CSQ has been costed at £20,900 per metre all in.
- (b) Centro has applied a total of 23% and 20% inflation and risk to the alternative route in comparison with 7% and 10% for the CSQ route.

6.3.53 Furthermore, the Centro costs provide for an additional £1.6m to allow for retaining structures and £4m to cover compensation for third party land which would not be needed [paragraph 6.3.51]. The advice of TAG [cited here at 6.3.32] has not been followed and the assessment by Centro is not reasonable. Once those refinements are properly assessed through appropriate modelling, a proper assessment of the alternative routes can be undertaken.⁵

6.3.54 The following tables are reproduced from document OP/INQ23/OBJ11. The first reviews the scheme costs.

Items listed in CEN/INQ6	Order scheme	Alternative Option B		Notes
		Centro cost (CEN/INQ6)	VSH Revised costs	

¹ OP/P4.1/OBJ11, 5.3.7 – 5.3.10

² OP/P4.1/OBJ11, 5.3.12 see also OP/P1.1/OBJ11 table 6.1 page 55

³ OP/R4.1/OBJ11, 4.4.7

⁴ OP/INQ17/OBJ11, 6.15

⁵ OP/INQ17/OBJ11, 6.16 – 6.18

Base capital costs	13.6	44.2	17.8 + 0.5 = 18.3	£20,900 per metre x 1.066 inflation plus £500,000 Navigation Street bridge
Development and management costs	1.5	4	1.5	Should be the same
Detailed design	2.7	3.2	2.7	Should be the same
Land acquisition	0.8	4.5	0.8	Should be the same
Management	1.5	2.5	1.5	Should be the same
Supervision	2.3	2.9	2.3	Should be the same
Utilities	6.0	6.0	6.0	As CEN/INQ6
Compensation to TOCs	0	5.0	0	Not required. No possessions
Commissioning	0.8	1.0	0.8	Should be the same.
Navigation St Link	3.5	0	0	See paragraph 6.3.50 of this report
Suffolk Street portals	1	0	0	Estimate (undefined by Centro)
Sub-total	33.7	73.3	33.9	
Inflation	2.1	17	2.4	7% as per Centro
Risk/Contingency	2.8	14.6	3.4	10% as per Centro
Total	38.6	104.9	39.7	

6.3.55 The second table provides assessments of the economic performance of AOB and the Order scheme:

	Order Scheme Chadwick CEN/P2.3/ECO Exhibit 9 Table 9	Alternative Option B		Notes
		CEN/P2.3/ECO Exhibit 11 Table 11	VSH Reference case	
Costs (PV)				
Capital costs	40.1	101.21	39.7	See Table 1 above
Renewal costs	11.7	31.08	12.2	30.7% (as Order scheme)
Operating costs	20.3	20.47	20.47	CEN/P2.3/ECO Exhibit 11 Table 11
Benefits (PV)				

Journey time benefits	68.5	60.08	68.5	CEN/P2.3/ECO Exhibit 9 Table 9
Highway externalities	1.3	1.22	1.22	CEN/P2.3/ECO Exhibit 11 Table 11
Revenue	93.9	91.48	107.99	15% increase in patronage at 2021: CEN/P2.1/ECO paras 2.38 and 3.17; CEN/P2.3/ECO exhibit 9 table 4 and exhibit 11 table 4. ¹
Indirect tax	-14.8	-14.45	-14.45	CEN/P2.3/ECO Exhibit 11 Table 11
Appraisal				
Present value of cost	40.1	101.21	39.7	
Present value of benefits	116.8	86.78	130.59	
Net present value	76.7	-14.43	90.89	
Benefit:Cost ratio	2.9:1	0.9:1	3.3:1	

Journey Time

6.3.56 It has been stated for Centro that the journey time between the New Street Station tram stop and that at Centenary Square would be 49 seconds longer for AOB than for the CSQ scheme (Appendix 1, document OP/INQ17/OBJ11). Centro argues that delay to arise from a difference in route length (Centro states that AOB's route would be 60m longer²), and because AOB would pass through 7 road junctions whereas the CSQ would pass through 3 (and the tram would stop at one additional junction on the AOB route compared to the CSQ).

6.3.57 However:

- (a) It would take 10-14 seconds for a tram travelling at 15-20kph to pass over 60m of track³; and,
- (b) Centro has provided no assessment of delays at individual junctions and, in any event, all signalised junctions passed by

¹ Mr Tucker, day 7, in examination.

² Appendix 1 to OP/INQ17/OBJ11

³ OP/INQ17/OBJ11, 6.5

trams on either route could be linked and provided with "hurry up" loops (possibly excepting the Paradise Circus junction for the CSQ route), thereby causing junctions on either route to cause no delay to trams.¹

- 6.3.58 Therefore it would be more appropriate to adopt the routes as being equal, and at most a 10-14 second delay if linked signals were able to prevent any delay to CSQ trams at Paradise Circus.²

Stephenson Street

- 6.3.59 If either Alternative was implemented, a short length of track to the immediate west of the tram stop in Stephenson Street that would have been laid should be removed. That work could be done without disrupting tram services that would terminate at the Stephenson Street stop because (at the time of the Inquiry) a crossover was being fitted to the track immediately to the east of the stop.³

Suffolk Street Queensway south portal

- 6.3.60 It is reported for Centro (at paragraph 4.6 of CEN/P8.1/PLA) that the Variation scheme might necessitate strengthening of the Suffolk Street Queensway south portal. The extent of any such works, and their potential impacts, are unknown. In the absence of such an assessment, the Variation ES should be considered incomplete.⁴

6.4 **Heritage Implications**

Heritage Assets Potentially Affected by the Order Scheme

- 6.4.1 These include:

The Town Hall

The Council House, Museum and Art Gallery

Victoria Square House

80-83 New Street

84-87 New Street

88-91 New Street

92-93 New Street.

Colmore Row and Environs Conservation Area.

The Town Hall

- 6.4.2 The Town Hall is a grade I listed building. It is meant to be viewed as a monumental temple, set apart from surrounding development, to be admired and recognised as one approaches. The high quality redesign of the public open space of Victoria Square has contributed significantly to

¹ OP/INQ17/OBJ11, 6.6, 6.7

² OP/INQ17/OBJ11, 6.8

³ S Tucker, day 7; photograph OP/INQ22/OBJ11

⁴ OP/R1.1/OBJ11, 2.18, 2.19

enhancing the setting of this monumental building.¹

6.4.3 The Town Hall has considerable architectural and aesthetic significance by virtue of its design aspirations, its influence, its position in the history of European architecture, and its role in defining the civic aspirations of a great manufacturing city at the point of its expansion.²

6.4.4 Its setting in the Square, and near to other civic buildings faced in fine stonework, contributes materially to its significance. That significance is marred by the traffic passing below it, on the main entrance or southern façade, in Paradise Street. The proposals would remove that traffic, although replacing it with another engineered environment.³

The Effect of the Scheme Proposals on the Town Hall and the Associated Part of the Colmore Row and Environs Conservation Area

6.4.5 No doubt care will be taken in designing the tramway and stop at the south front of the building. To form the stop the pavement must increase in height to create a shallow platform; and there would be some paraphernalia. As a bare minimum there would be a ticket machine, a real-time indicator and a station sign along with safety lighting. The result would be to create an engineered environment on the principal south-facing façade of the most important historic building in the City centre. This effect would be enhanced by the visual impact of the OLE. The net effect would be to draw attention to the tram. And trams would be stationary here for a short time, discharging or taking on passengers, all adding to the change in character.⁴

6.4.6 The tram stop would also reduce the immediate relationship the Town Hall has with the pedestrian level in front of it, an effect which is more pronounced because of the change in level to the south. The original building concept was that the south front should rise up sheer from the level, with a footway passing within it to an entrance. That direct relationship with the surrounding land enhances the aesthetics of the building, and its symbolic form on a platform removes it from the mundane streets around it. Thus the stop would not just intrude visually; it would undermine an important aesthetic characteristic of the building.⁵

6.4.7 The BCCE Order does not allow for canopies and so forth. But these are required, and would bring with them associated lighting which will attract the eye. It is the point of a tram stop, to be visible over a distance, and that objective would have to be achieved irrespective of the sensitivity of this location.⁶

6.4.8 The interaction of the stop with the Town Hall is most important because the original south arcade to the Town Hall was open to and level with the surrounding pavement, a novel and unusual feature of the design. Those

¹ OP/P2.1/OBJ11, 4.31

² OP/P2.1/OBJ11, 4.32

³ OP/P2.1/OBJ11, 4.33

⁴ OP/P2.1/OBJ11, 6.6, 6.8, 6.9

⁵ OP/P2.1/OBJ11, 6.10

⁶ OP/P2.1/OBJ11, 6.12

openings are now glazed but the effect, of openness and direct communication with the surrounding pavement, is the same.¹ Pedestrians can now get up to the foot of the building at this point, and that would continue to be the case with the PCR proposals. The scheme proposal would lose that relationship, and the loss would be heightened by the marked level difference in the platform to the south.² Mr Adams' Exhibit 7 (in CEN/P1.3/SCH) indicates the tram stop to be "positioned tight up to Town Hall" and steps are shown suggesting the north platform would be raised. Ms Bolger's Exhibits (drawings and visualisations) (in CEN/P5.3/TOW) show a flush treatment. The south platform keeps to that level, and is therefore formed on a retaining wall which stands above the adjoining pavement and is set skew to the building line on the south side of Paradise Street.³

- 6.4.9 The tram stop would appear incongruous at the foot of a classical temple.⁴
- 6.4.10 It is not clear how the OLE would be attached to the Town Hall. There is no listed building consent enabling attachment to the Town Hall.⁵ The OLE would be harmful, whether suspended from poles (which would introduce more clutter) or from the Town Hall (which would impact directly on the columns on the south front, a defining feature of the building). In either scenario the OLE would intrude into key views of the building, harming its purity of form.⁶
- 6.4.11 The turning between Victoria Square and Pinfold Street is a critical part of the conservation area, around a defining feature at its edge. The visual intrusion of the scheme would be increased here by the more complex array of OLE necessary to turn the corner. That intrusiveness would harm the appearance and character of the conservation area, by introducing a tram into what is a partly pedestrianised space.⁷
- 6.4.12 Overall, there would be harm to the Town Hall that would fall within the scope of NPPF paragraph 134; it would be less than substantial. Nevertheless, in the terms of the ES the harm would be major adverse.⁸
- 6.4.13 Victoria Square (in the Colmore Row and Environs Conservation Area) is of considerable community and symbolic value, used for major events and for more informal activities. It is the place where primary and secondary pedestrian routes converge. The junction with Pinfold Street is where important ones meet⁹. The adopted planning policies for the area have been for the creation of a pedestrianised area. The introduction of vehicular traffic to the pedestrianised Square would be

¹ OP/R2.1/OBJ11, 2.8

² OP/P2.1/OBJ11, 6.13

³ OP/R2.1/OBJ11, 2.7

⁴ OP/P2.1/OBJ11, 6.19

⁵ OP/P2.1/OBJ11, 6.7

⁶ OP/R2.1/OBJ11, 2.9

⁷ OP/P2.1/OBJ11, 6.17, 6.18

⁸ OP/P2.1/OBJ11, 6.21

⁹ OP/P2.1/OBJ11, 2.12

wholly adverse to its character, appearance and function.¹

The Council House, Museum and Art Gallery

- 6.4.14 The Council House, Museum and Art Gallery is listed Grade II*². It is Birmingham's principal municipal building and is also a major architectural monument to the regeneration of the city in the 19th century. It is a large and richly detailed classical composition by Yeoville Thomason. The Council House extension is a work of impressive massive Baroque classicism, linked visually to the Council House by its rusticated ground floor and Aberdeen granite basement.³

The Effect of the Scheme Proposals on The Council House, Museum and Art Gallery

- 6.4.15 The setting of these buildings would be affected in two ways:
- (a) The scheme would erode Victoria Square's quality as a cohesive, pedestrianised space. The Council House, Museum and Art Gallery is part of the same well-defined group as the Town Hall and Victoria Square House and any works in any way undermining that group value is clearly to be avoided. That harm would be significant, notwithstanding distance and level changes, because of the group or ensemble value.⁴
 - (b) The changes in Pinfold Street (confined space for pedestrians, building deterioration, and the harmful introduction of an engineered character⁵) would affect the experience of pedestrians who can currently enjoy a fine view of the Council House clock tower from anywhere in the street. That experience would be compromised severely, and the OLE would further intrude into the view.⁶

Victoria Square House

- 6.4.16 This Grade II listed building⁷ occupies a block on the southern side of Victoria Square contained by Pinfold Street and Hill Street.⁸

The Effect of the Scheme Proposals on Victoria Square House

The gist of evidence given for VSH on the scheme's effect on the use and upkeep of this building appears elsewhere in this report.

- 6.4.17 The scheme would introduce various minor physical works close to the building, at roadway level, including:⁹
- New surface treatment around the building;

¹ SOC2.1/OBJ11, 4.2

² OP/P2.1/OBJ11, 6.35; list entry in appendix 21 of OP/P2.2/OBJ11

³ OP/P2.1/OBJ11, 4.34, 4.35

⁴ OP/P2.1/OBJ11, 6.35 – 6.37

⁵ OP/P2.1/OBJ11, 6.43, 6.44

⁶ OP/P2.1/OBJ11, 6.38, 6.45

⁷ OP/P2.1/OBJ11, 6.34

⁸ OP/P2.1/OBJ11, 4.36

⁹ OP/P2.1/OBJ11, 6.22, 6.23

- A new bench;
 - A new gate, infill wall and railings;
 - New levels at certain points, reducing footway levels;
 - New stone steps to Pinfold Street;
 - Modification of steps to a fire exit.
- 6.4.18 Considered individually, those works each would have either a neutral or a minor adverse effect, and the restoration of the railing and gate would be positive. But, taken as a whole with other scheme changes to the footway, those works would be seen as part of a more engineered environment than what is there now. That change in the general character on the setting would be harmful. Particular harm would arise from the alignment of the tram line close to an original entrance.¹
- 6.4.19 Access to the frontage of the building would be less attractive because of the tramway, which would discourage people from congregating in front of the building.²
- 6.4.20 The OLE would be intrusive because turning the corner requires a more complex array and closer fixings.³
- 6.4.21 There are proposals to fix the OLE cables to the building. It is challenging to find good fixing points on a building such as this, with elaborate architectural detailing, and the poor condition of the stone facing compounds the problem.⁴ Stanchions may be required and that would introduce clutter at this highly sensitive corner.⁵
- 6.4.22 The proximity of the line would harm the cultural value of the building.⁶ The proposed works near the building would result in a more engineered environment than at present, which would harm the setting of the building.⁷ Therefore the provisions of sections 16 and 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 would not be satisfied, and there is no clear and convincing alternative as required by paragraph 132 of the NPPF. The visual intrusion of the OLE and severance caused by the tramway would harm the character of the conservation area, contrary to section 72 of the Act.⁸
- Other Listed Buildings in Pinfold Street*
- 6.4.23 The heritage asset plan⁹ shows the north-eastern side of Pinfold Street north of Stephenson Street to consist of the south-western elevations of four Grade II listed buildings, all of which extend north to New Street and

¹ OP/P2.1/OBJ11, 6.24 – 6.26

² OP/P2.1/OBJ11, 6.28

³ OP/P2.1/OBJ11, 6.29

⁴ OP/P2.1/OBJ11, 6.30

⁵ OP/P2.1/OBJ11, 6.33

⁶ OP/P2.1/OBJ11, 6.34

⁷ OP/P2.1/OBJ11, 6.25

⁸ OP/P2.1/OBJ11, 6.34

⁹ OP/P2.2/OBJ11, appendix 8

for each of which a List Entry is provided¹. The listed buildings are:

80-83 New Street

84-87 New Street

88-91 New Street

92-93 New Street.

6.4.24 The Pinfold Street elevations of the group, numbered 43 to 51 Pinfold Street, are listed as part of the late Victorian, Venetian Gothic style properties in New Street. The description does not extend to the rear elevations but that does not mean the rears are not sensitive. This long, varied red brick elevation has a lively character, with a varied roof profile. There follows, moving south to Stephenson Street, an Italianate façade and finally a most attractive and elaborate brick elevation, including number 43. The street is broadly contemporary with Victoria Square House and the Council House.²

6.4.25 Applying English Heritage's guidance on The Setting Of Heritage Assets makes clear that the shared setting of these listed buildings, overlapping with the conservation area, makes a significant contribution to their significance and to its significance. Any proposals which cause harm to the unity of the group, through visual intrusion, for example, or the way the space functions, should attract very significant weight in the planning process.³

The Effect of the Scheme Proposals on Other Listed Buildings in Pinfold Street

6.4.26 These listed buildings are outside the study area assessed by the Variation ES. The proposed tram route, a revision of the route assessed in 2003, would directly affect the listed buildings in Pinfold Street, as overhead wires would be attached to the buildings;⁴ although there are few concerns about attachments to brick buildings.⁵ And the overall character of the street would be harmed, having an engineered character.⁶

6.4.27 The tramway would make this street less attractive for pedestrians, who would be constrained to the new narrow footway on the east side⁷. That will be bound to affect the commercial properties on the east side, and their maintenance and servicing, and over time their condition would deteriorate.⁸

6.4.28 Appendix 15.0 of OP/P2.2/OBJ11⁹ presents a critique of the 2003 ES

¹ OP/P2.2/OBJ11, appendix 21

² OP/P2.1/OBJ11, 4.51 to 4.60

³ OP/P2.1/OBJ11, 4.69-4.70

⁴ OP/P2.1/OBJ11, 6.39

⁵ OP/P2.1/OBJ11, 6.40

⁶ OP/P2.1/OBJ11, 6.43

⁷ OP/P2.1/OBJ11, 6.43

⁸ OP/P2.1/OBJ11, 6.44

⁹ OP/P2.2/OBJ11, tab 13

regarding heritage and townscape considerations. Cultural heritage adverse impacts to listed buildings in Pinfold Street were expected. Paragraph 6.7.9 of the 2003 ES concludes:

“There are also Grade I, II*, and in particular Grade II listed buildings in the vicinity of the proposed route. Adverse impacts on both the structure and setting of these buildings are anticipated. However, a range of mitigation measures have been developed and all works will be carried out in consultation with Birmingham City Council.”

- 6.4.29 That effect, and the changes in Pinfold Street described in paragraphs 6.4.15(b), 6.4.26 and 6.4.27 would cause significant harm to the character and appearance of the conservation area, and the settings of attractive elevations to listed buildings.¹

Alternative Route – Heritage Assets and Townscape Effects

- 6.4.30 The alternative route proposed by VSH would have an effect on the setting of only one heritage asset: the Grade II listed New Street Station Signal Box. The list entry is at appendix 17 of OP/P2.2/OBJ11 and a location plan is at appendix 22. This is a bold, robust concrete structure, strongly associated with the rail infrastructure in Navigation Street. The construction of a tramway, another piece of transport infrastructure, would complement and reinforce the significance of this heritage asset².
- 6.4.31 The environmental improvements associated with the tram would materially improve the setting of the listed building and with it the character of the street. The tram would add visual interest and movement. Environmental improvements could extend to lighting or art work in the Queensway underpass, continued to the west of the underpass in an area of poor and ill-defined character. The proposals would meet policy aspirations of the NPPF and development plan regarding good design.³
- 6.4.32 There would still be an opportunity to reduce traffic in Hill Street, thereby improving pedestrian facilities at the junction into Paradise Circus, improving pedestrian connectivity in Victoria Square and enhancing the setting of the Town Hall, Victoria Square House and Queens College Chambers.⁴

2013 Environmental Statement: Heritage Considerations

- 6.4.33 This ES considers only the impact of the Variation, using the 2003 ES to set the baseline.
- 6.4.34 VSH has concerns with the assessment of cultural heritage in the 2003 ES:
- (a) Section 2.9.3 of the 2003 ES summarises the route selection. The method concentrates on the engineering options and no

¹ OP/P2.1/OBJ11, 6.48

² OP/P2.1/OBJ11, 10.2 – 10.5

³ OP/P2.1/OBJ11, 10.6, 10.7, 10.9, 10.11

⁴ OP/P2.1/OBJ11, 10.12, 10.13

reference is made to heritage assets.¹

- (b) Proposed changes in Pinfold Street are stated by the 2003 ES to have a moderate/substantial positive impact on the character of the Colmore Row and Environs Conservation Area, but that assessment cannot be supported in the light of the proposals.²
- (c) The Cultural Heritage section of the 2003 ES identifies listed and locally listed buildings and conservation areas within 100m of the tram route. It discusses Victoria Square House with buildings in Pinfold Street, rather than as part of Victoria Square (which it fronts), a quite breathtaking error, reflecting an inadequate analysis of heritage sensibilities.³
- (d) No specific effect on the Town Hall is mentioned in this section of the 2003 ES, although it is the most important building in the group.⁴
- (e) The cultural heritage chapter does not follow industry standards for ES assessment.⁵
- (f) It is unsatisfactory that the 2003 ES finds that the scheme's residual effect on listed buildings in Pinfold Street and Victoria Square, and their settings, would be mitigated by good design and with no residual impact on the conservation area. The Inspector at that time found excessive the applicant's claim that "the alterations will, if anything, enhance the appearance of the listed building in terms of the overall effects".⁶

6.4.35 In its treatment of landscape and visual impacts, the 2003 ES does not mention the attractive rear facades of the New Street properties, which define the townscape of Pinfold Street⁷.

6.4.36 The 2013 ES, and the documents relying on its findings, have not undertaken the correct planning assessment on the basis of the Planning (Listed Buildings and Conservation Areas) Act 1990. The correct assessment should have proceeded on the basis of residual harm factored into the overall planning judgement. The planning judgement fails to consider whether benefits outweigh harm, in line with the paragraph 134 provision. Therefore the 2013 ES's Heritage findings are flawed.⁸

The Presumption Against Development⁹

6.4.37 Sections 16(2), s.66(1), s.72(1) of the Planning (Listed Building and

¹ OP/P2.1/OBJ11, 7.27

² OP/P2.1/OBJ11, 7.40

³ OP/P2.1/OBJ11, 7.42-7.43

⁴ OP/P2.1/OBJ11, 7.45

⁵ OP/P2.1/OBJ11, 7.48

⁶ OP/P2.1/OBJ11, 7.50-7.53

⁷ OP/P2.1/OBJ11, 7.33

⁸ OP/P2.1/OBJ11, 8.7

⁹ OP/INQ26/OBJ11, 40 to 43

Conservation Areas) Act 1990 are engaged. Considerable weight must be given to the desirability of preserving the setting of all listed buildings. Following the *Barnwell Manor Farm* case there is also a strong presumption against the grant of planning permission where harm would be caused to the character and appearance of a conservation area.

- 6.4.38 The NPPF is also an important material consideration and identifies as one of its core planning principles the conservation of heritage assets in a manner appropriate to their significance. As stated in paragraph 132, "when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation... Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification." Even substantial harm or loss of a Grade II listed building (such as Victoria Square House) "should be exceptional". It should lead to the refusal of consent "unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss".
- 6.4.39 Pursuant to paragraph 134 of the NPPF, where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.
- 6.4.40 There is therefore a presumption against the grant of any consent which involves harm to a designated heritage asset. Firstly, a full and proper expression of the extent of the harm to designated heritage assets is required to inform the weighing exercise that is necessary when applying the presumption. Secondly, it must also be demonstrated that there is a clear and convincing case for any harm to displace that presumption and, in particular, that this harm is necessary to achieve the benefits that outweigh the harm. The question is ultimately a matter for the Secretary of State. However, it is noteworthy that AOB put forward by VSH would render unnecessary the harm that would be caused by the proposed Order scheme both to Victoria Square House and its setting and that of other listed buildings in Victoria Square and Pinfold Street.

6.5 **Scheme Context and an Alternative Route**

Preamble

- 6.5.1 Section 3 of proof of evidence OP/P1.1/OBJ11 briefly sets out the history of the Midland Metro City Centre Extension. A timeline is presented. Some points from the previous Inspector's report (dated 2004) are summarised. Relevant planning policy at that time is identified.
- 6.5.2 Section 4 of proof of evidence OP/P1.1/OBJ11 describes Victoria Square House, the surrounding area and nearby developments. The developments are those at New Street Station ("Gateway Plus/Grand Central"), Suffolk Street Queensway ("The Mailbox"), Paradise Circus, Centenary Square ("Arena Central") and 103 Colmore Row.

Scheme Context: Current Policy and Strategies

The Birmingham Unitary Development Plan 2005

- 6.5.3 The adopted development plan currently comprises the saved policies (as

- at September 2008) of the 2005 alterations to the 1993 UDP, extracts of which are at document CD26.¹
- 6.5.4 Chapter 15 of the 2005 UDP is about the City Centre. Fundamental change was envisaged. The International Convention Centre ("ICC"), the National Indoor Arena, new visitor facilities and associated developments had provided major attractions for residents and visitors. Other development, proposed at the Bull Ring and Martineau Galleries, and elsewhere associated with growth in office and service sector employment as well as residential development, would create a very different pattern of activity in the city centre over the plan period. Figure 15.1 of the UDP shows the main areas of development potential.²
- 6.5.5 Paragraph 15.23 of the 2005 UDP notes that the "city centre core" is within the area bounded by Queensway.³ UDP Figure 15.1 shows two major development areas to the west of the city centre core – Brindleyplace/ICC and the former Central TV area (now Arena Central). An illustrative route for Metro is shown to cross the city centre from Snow Hill via Broad Street to Five Ways. Arrows straddling Queensway illustrate the desire for "improved integration with city centre core" and one such arrow appears to cross Suffolk Street Queensway somewhere in the vicinity of Navigation Street.⁴
- 6.5.6 It is evident from the 2005 UDP – which is based on a document first adopted in 1993 and altered between circa 2001 and 2005 – that one of the major developments of the past 20 years – the Mailbox – did not issue from a site allocation/UDP proposal; the only references to it are reports that it was under construction. Furthermore, there is little reference to Paradise Circus; apart from reference to the lowering of Queensway at Paradise Circus, the only reference is to a development brief which was added to the 2005 version of the UDP.⁵
- 6.5.7 The CSQ forms part of the BCCE, which dates from the late 1990s. The BCCE was not brought forward as part of the statutory development plan; the 1993 UDP pre-dated by several years Centro's consultation on a number of street-running options (the 1993 UDP envisaged underground routes across the city centre⁶), and a disconnect arose between route selection and future development in the city centre. For example, a route taking in the Bull Ring (which attracts some 38 million people each year) was avoided because of supposed planning uncertainty. But the Bull Ring was open for trading almost two years before the Secretary of State confirmed the BCCE in 2005. This was a significant lost opportunity. Nevertheless, it is clear from the 2004 Inspector's Report that the tramway was seen as a tool to promote development and vitality; and contemporary planning policy emphasises

¹ OP/P1.1/OBJ11, 5.2

² OP/P1.1/OBJ11, 5.3

³ OP/P1.1/OBJ11, 5.5

⁴ OP/P1.1/OBJ11, 5.4, 5.6

⁵ OP/P1.1/OBJ11, 5.8

⁶ OP/P1.1/OBJ11, 6.3

the importance of integrating transport and land uses.¹

6.5.8 Ease of pedestrian movement and quality of the pedestrian environment are clear aims of the City Council's planning policies, for example in the following parts of the 2005 UDP:²

- (a) Paragraph 6.19 encourages traffic management measures to divert city centre traffic to the Ring Road and improve conditions for pedestrians in the city centre;
- (b) Paragraph 6.45 seeks to radically improve the city centre environment through expanding pedestrianisation (among other things); and,
- (c) Paragraph 7.17 points to the importance of the Regional Shopping Centre, the continued success of which will be supported through measures including (among others) improvements to the quality of the environment, including pedestrianisation.

6.5.9 Furthermore, the 2005 UDP proposals map shows four primary pedestrian routes and one secondary pedestrian route converge in Victoria Square near Victoria Square House. This is the most significant concentration of pedestrian routes in the city centre and it is a situation that could be affected by the tramway.³

Scheme Context: Recent Development And Emerging Policy

6.5.10 Since the Inspector considered the position in December 2003/January 2004, significant changes have taken place in the city centre:

- (a) The attraction and importance of the Mailbox have grown, and the city centre retail core in the draft Birmingham Development Plan has extended across the Queensway to include the Mailbox, and it is an important component of the City Council's 2014 draft Retail Strategy (document OP/P1.2/OBJ11 appendix 16). This did not feature in the adopted and draft development plan documents before the Inspector in 2003/4.⁴
- (b) Major redevelopment is under way at New Street Station, with redevelopment of the Pallasades shopping centre and the creation of a new John Lewis department store which will form part of a retail axis connecting Selfridges in the Bull Ring, John Lewis, and Harvey Nichols at the Mailbox.⁵
- (c) The previously-mooted retail growth area (Martineau Galleries, on Corporation Street), which would have been served by the part of the BCCE now under construction, is now slated by the 2014 draft City Centre Retail Strategy (document OP/P1.2/OBJ11 appendix 17, page 18) for office-orientated

¹ OP/P1.1/SUM/OBJ11, 4, 5

² OP/R1.1/OBJ11, 2.35

³ OP/R1.1/OBJ11, 2.36

⁴ OP/P1.1/SUM/OBJ11, 6

⁵ OP/P1.1/SUM/OBJ11, 7

development because of its proximity to the proposed HS2 station at Curzon Street.¹

- (d) The area between New Street Station and the Mailbox is also identified in the Big City Plan as an opportunity for development.²

6.5.11 The NPPF is clear, in its paragraph 29, that transport policies have an important role to play in facilitating development but also in contributing to wider sustainability and health objectives, and that the transport system needs to be balanced in favour of sustainable transport modes. Paragraphs 34 and 35 confirm that:³

“Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. However, this needs to take account of policies set out elsewhere in this Framework, particularly in rural areas.

“Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- Accommodate the efficient delivery of goods and supplies;
- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
- Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and,
- Consider the needs of people with disabilities by all modes of transport.”

Scheme Context: Conclusion

6.5.12 Given that: the currently-proposed route is now more than 15 years old; there have been significant changes to the shape of the city centre and to future strategy for the city centre as set out in the Big City Plan, the related draft Retail Strategy and the emerging Birmingham Development Plan; and there is potential to avoid harm to a number of important heritage assets: the opportunity should be taken to review the route of the CSQ rather than pressing ahead with the currently-proposed route.⁴

Comparison of the Order Scheme and VSH’s Alternative Option B

6.5.13 As it is now clear that the information on which the Inspector and Secretary of State made their respective recommendation and decision in 2004 is unable to be relied upon, all weight concerning its conclusions in

¹ OP/P1.1/SUM/OBJ11, 7

² OP/P1.1/SUM/OBJ11, 8

³ OP/P1.1/OBJ11, 5.61

⁴ OP/P1.1/OBJ11, 7.17

favour of the Order route should be set aside. This totally alters the approach to the case in favour of the Order route, which relies on the 2004 decision being correctly based. The Hill Street alternative is put forward by VSH as one which is clearly feasible, but which is to be relied upon only if the AOB route was found to be unacceptable for one reason or another. It is now clearly the case that the AOB route has been found to be wholly feasible and indeed wholly cost effective.¹

6.5.14 AOB has significant policy, planning, heritage and townscape advantages over the Order route, as follows:²

- (a) It would avoid all the problems and difficulties the Order scheme would bring to Pinfold Street;
- (b) It would avoid all the problems of passing through Victoria Square;
- (c) It would avoid all the problems of the direct and indirect effects the Order scheme would have on the Grade I Listed Town Hall;
- (d) It would avoid harmful effects on heritage and cultural considerations, including on the setting of listed buildings, townscape and effects upon the conservation area as well as on businesses along its route which clearly would be significantly and detrimentally effected by the tram route passing through Pinfold Street and Victoria Square;
- (e) The patronage and passenger numbers for the AOB route would be significantly greater than the Order route by reason of the stop at the Mailbox and able to serve the south western side of the city centre. This patronage is likely to increase as the Mailbox develops over future years and as stated above, it is important that the full picture over the 60 years is appraised with the knowledge and software tools only available to the Applicant. This must be before any decision is taken by the Secretary of State. The benefits in 2031 are likely to be significantly greater for the alternative than that previously assumed by the Applicant too and be likely to be greater than the Order Route if the time en route is comparable, given the costs are comparable. Higher patronage would then clearly favour a higher BCR for the alternative;
- (f) connectivity between various areas of the city centre and in particular with the Mailbox area would be significantly improved in accordance with local policy and Government policy if AOB were to be chosen;
- (g) AOB would avoid conflicts between trams and other traffic on Paradise Circus and entrances to the PCR;
- (h) AOB would avoid the need for compulsory purchase of properties on Holliday Street;
- (i) AOB would avoid the need for closure to through traffic of

¹ OP/INQ26/OBJ11, 25

² OP/INQ26/OBJ11, 26

Bridge Street and Paradise Street, thus permitting the continuation uninterrupted of access to properties along these two streets and without the need for alteration of traffic flow. There is no reason put forward other than the tram proposals for such alterations to be made.

6.6 **Strategic Environmental Assessment and Environmental Impact Assessment¹**

- 6.6.1 EU Directive 2001/42/EC (the "SEA Directive") is one of the key planks in the European system of environmental protection and it is essential that its requirements are complied with as a matter of both EU and UK law. It operates in parallel with EU Directive 2011/92/EU (the "EIA Directive") and sets the framework for those individual projects to which the EIA Directive applies.
- 6.6.2 The SEA Directive complements the EIA Directive and concerns the consideration of effects on the environment when development consent is granted for projects.
- 6.6.3 The application of the EIA Directive, at the time of the assessment of projects, reveals that major effects on the environment are already established on the basis of earlier planning measures. Whilst it is true that those effects can be examined during the EIA, they cannot be fully taken into account when development consent is given for the project. It is therefore appropriate for such effects on the environment to be examined at the time of preparatory measures and taken into account in that context.
- 6.6.4 It is clear that SEA (Strategic Environmental Assessment) is required to be carried out for the tram route forming part of the Midland Metro tram project in Birmingham as a whole. Such requirement includes the need for assessment of alternatives. There was no evidence before the Inquiry that there has to date been such an assessment carried out in relation to consideration of alternative routes (only of modes) and there is no evidence that consideration has been given to whether any such alternatives exist along Navigation Street from New Street Station let alone what they may be.
- 6.6.5 It is now clear that a feasible alternative exists, in the form of AOB. Any such option must be properly considered on an equal basis to the Order scheme during the SEA process; and that is also true of the EIA process.
- 6.6.6 The SEA Directive, and hence the Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004/1633), are to be interpreted in a purposive manner so as to promote the intended objects of the Directive. These are to ensure that proper environmental assessment takes place. It is only if the Directive is adhered to fully that there would be the taking into account of the significant effects on the environment before the adoption of a plan or programme, such as that relating to the tram. It is also important to ensure that an iterative process is adopted in relation to environmental assessment such that if previous environmental assessment has been carried out but on an erroneous

¹ OP/INQ26/OBJ11, 44 to 69

basis for whatever reason it is reconsidered and carried out properly and fully before the decision to approve a plan, project or development is made. As stated by Collins J in *Save Historic Newmarket Limited v Forest Heath DC* [2011] EWHC 606 (Admin) at paragraph 17:

"It is clear from the terms of art 5 of the SEA Directive and the guidance from the Commission that the authority responsible for the adoption of the plan or programme as well as the authorities and public consulted must be presented with an accurate picture of what reasonable alternatives there are and why they are not considered to be the best option (See Commission Guidance paras 5.11 to 5.14). Equally, the environmental assessment and the draft plan must operate together so that consultees can consider each in the light of the other."

- 6.6.7 In this case the public has not been consulted on what can reasonably be regarded as an accurate picture of alternatives. Rather, the Applicant has wrongly proceeded on the basis that AOB would require reconstruction of the Navigation Street bridges.
- 6.6.8 It is possible to discard options and narrow them progressively as the process moves towards a preferred option such that options discarded at earlier stages do not have to be revisited at every subsequent stage, but the premise for this is that the options were accurately assessed i.e. on an accurate factual basis. This clearly is not the case here.
- 6.6.9 An assessment is required on an equal or like for like basis and on a basis which does not bias a preference for the preferred scheme over another; an equal examination of the alternatives which it is reasonable to select alongside the preferred option is required and proper and adequate reasons must be given for discarding any particular option. If those reasons do not exist (as here) or are in error of fact, it can be argued too, then the decision to discard an alternative option is in error of law.
- 6.6.10 The EIA process is complementary to the SEA process. SEA is here required to be carried out prior to the decision-maker making a decision not merely on the CSQ element of the tram project but on the whole route from New Street Station westwards to Five Ways and Hagley Road Edgbaston.
- 6.6.11 However, in the instant case there has not been, it seems, any decision to consider let alone discard an alternative route option via AOB as it seems one has not been considered at all at any stage either during the SEA or EIA processes undertaken. Even if this had been carried out for the 2004 public Inquiry, it was not on an "accurate" basis due to the erroneous assumptions being made concerning the reconstruction of the Navigation Street bridges. The alternatives must now be considered and the subject of EIA.
- 6.6.12 The EIA carried out in relation to the proposed Order in November 2013 considers alternatives. See section 3.2 of Volume 1 (page 15) of the ES. The options considered were however limited and failed to consider any off-line route option let alone one along Navigation Street and Suffolk Street Queensway. On the evidence which is now clear and before the Inquiry, such an option should be considered. It is a reasonable alternative. First, it is feasible and able to be constructed in engineering and physical terms along this route. Further, if considered, by equal,

accurate and fair examination against the preferred option (the Order route) then the economics would be more than likely to be significantly in its favour compared to the Order Route due to greater patronage, revenue and other benefits obtained over its lifetime of 60 years as discussed above.

- 6.6.13 A fair and reasonable assessment should be carried out and would be likely to reach such a conclusion. It should be carried out fairly and openly using the economic appraisals software programmes and information exclusively within the Applicant's ownership and control (not available to objectors). It should then be the subject of public consultation and analysis of the alternative against the preferred option. None of these have been done and the public has not had the opportunity to consider environmental assessment on this basis. This is a key part of the environment assessment process. Before any decision is made by the Secretary of State, the EIA process must be carried out properly, including public participation, as any decision which is made without taking into account environmental assessment in accordance with the EIA Directive and regulations would be in error of law.
- 6.6.14 In conclusion, there is a requirement under SEA that alternatives be properly appraised. In this case, they have not been and before the Secretary of State makes a decision upon the Order, full and proper SEA must also be carried out as well as full and proper EIA. This has not been carried out to date as it is clear that there has been inadequate consideration of the alternatives by the Applicant and the facts have not been properly presented to him. That appraisal will need to be carried out fully and properly first. In addition to that, it is also clear that he must take into account material considerations relating to the alternative, absent considerations of environmental appraisal. That too has not been carried out by the Applicant properly and inadequate information is currently before him. That therefore affects the lawfulness of his decision. He is unable properly to confirm the Order unless such appraisal is first carried out.

6.7 **Additional Matters Raised In Objections Made Wholly By Written Representations**

The objection of Now Leisure Ltd was made by letter dated 10 January 2014 and was not withdrawn. The gist of the objection was as follows:

- 6.7.1 Now Leisure Ltd operates a tanning shop in ground floor and basement premises at 49 Pinfold Street (Obj/3). This is a long-established, successful business. The proprietor is concerned that trade may be seriously affected by the proposed works and that customers would be unable to walk by and into the shop during and subsequent to the works.

7 **THE RESPONSE OF CENTRO**

The material points were:

7.1 **Impact of the Scheme on Victoria Square House** ***Effect on Maintenance of Victoria Square House***

- 7.1.1 There is an opportunity for planned maintenance of the building before

the tramway in Pinfold Street is brought into use. Even where this is not possible, works could be undertaken once the tramway became operational. Centro works collaboratively with all parties.¹ In the current city centre tramway works, Centro has co-operated with both the New Street Station redevelopment and the project to convert Martineau Place to the Staybridge Suites Hotel, to ensure that all parties were able to work in a timely and safe manner.²

- 7.1.2 Alternatively, sufficient space (meeting the standard set by the Office of Rail Regulation, document CEN/GEN1, paragraph 111(b)) would be available on the building's Pinfold Street frontage for scaffolding to be used to the full height of the building³. The scaffolding would have to be erected during possessions of the tramway. The first platform on the scaffolding would be at least 2.4m from ground level, allowing pedestrian access below. Above this level the tramway face of the scaffolding would be bonded and sheeted. This would allow work to be undertaken on the building during the day when the tram is operational.⁴ Suspension wires (to support the OLE) that would be fixed to the building could accommodate the scaffolding safely and expediently.⁵
- 7.1.3 For minor and emergency maintenance a mobile hoist could be used during possession of the tramway.⁶
- 7.1.4 The copy of the "Code Of Practice For Working On Or Near To Midland Metro" that is Appendix 5 to OP/P3.2/OBJ11 is a more recent version than, and supersedes, that which is Exhibit 3 to CEN/P3.3/ENG.⁷
- 7.1.5 Emergency maintenance would be dealt with on a case by case basis. Safety would take priority. If operation of the tram along Pinfold Street (for instance) became unsafe then tram services would have to be terminated prior to Pinfold Street. Crossovers are incorporated in the tramway design to allow for such scenarios; one to the north of the tram stop in Bull Street and the other to the east of the tram stop in Stephenson Street.⁸

Effect on Fire Exits From Victoria Square House

- 7.1.6 The existing emergency exits could be retained in conjunction with the tram. General traffic would be removed from Pinfold Street, and trams would be present only once every six minutes in each direction. For most of the time the street would be for pedestrians only. Tram drivers would be trained to drive the route and would be aware of potential hazards. Trams are driven on "line of sight"; they can be safely stopped in the distance that the driver can see. If people were leaving the

¹ CEN/R1.1/OBJ11/ENG, 2.1.1

² CEN/P1.1/SCH, 14.25

³ Mr Last in examination, day 4. See also CEN/R1.1/OBJ11/ENG, 2.1.2

⁴ CEN/R1.1/OBJ11/ENG, 2.1.2

⁵ Mr Last in examination, day 4

⁶ CEN/R1.1/OBJ11/ENG, 2.1.2

⁷ CEN/R1.1/OBJ11/ENG, 2.1.3

⁸ CEN/R1.1/OBJ11/ENG, 2.1.8

building onto the street then the tram would stop.¹

7.1.7 The street door at the Rotunda fire exit is 1000mm wide. At this point the DKE of the tram would be 1.37m from the building (see section F in exhibit 13d in CEN/P1.3/SCH). The open door would be clear of the tram.²

7.1.8 Exhibit 13 in CEN/P1.3/SCH shows the following distances between Victoria Square House and the tram DKE on the western track in Pinfold Street:

Section in Ex.13	Location	Distance (m)
B-B	Victoria Square House car park	2.33
C-C	Opposite Eastern Footway Pinch Point	1.06
D-D	Western pinch point	1.03
E-E	Post Office entrance	4.49
F-F	Victoria Square House Fire Exit	1.37

7.2 Highways and Transport

Pedestrians in Pinfold Street and Victoria Square

Pedestrians and Trams

7.2.1 In the pedestrian areas generally all the width of the street would be available for pedestrians to walk across for most of the time. The swept path of the tram is exactly the same for each tram vehicle and would be clearly marked either by kerbs or on the road surface. Pedestrians would know exactly where to stand to avoid the moving vehicle. Experience with other tram systems, at Wolverhampton and Manchester, is that pedestrians walk at will across the tram tracks, moving out of the way when they see a tram approaching. The disturbance to pedestrian movement by the passage of a tram on a clearly and closely defined route through a pedestrian area is quite different from the constraint imposed by motor traffic. The tram system allows greater freedom to pedestrians.³

7.2.2 When trams approach, pedestrians would be able to move to the nearest footway while the tram passes. A 30m long tram travelling at 9kph takes 12 seconds to pass; the remainder of the 6 minute service frequency would be tram free. If the tram driver were to see people standing on the track side of the kerb he would slow the tram down and stop if necessary.⁴ It was confirmed in examination that the maximum speed of trams in Pinfold Street would be 15kph⁵.

¹ CEN/R1.1/OBJ11/ENG, 2.4.1

² CEN/R1.1/OBJ11/ENG, 2.4.2

³ CEN/P3.1/ENG, 4.3.5

⁴ CEN/R1.1/OBJ11/ENG, 3.1.1

⁵ Mr Last in examination, day 4

- 7.2.3 Pinfold Street (north of Stephenson Street) and Victoria Square would be traffic-free, apart from trams, and reserved for pedestrians.¹
- Pinfold Street*
- 7.2.4 Given that Pinfold Street would be a pedestrian area, with the tramway, the main purpose of the pedestrian crossing at the Post Office entrance would be to guide pedestrians away from the narrow footway on the west side of Pinfold Street between the Post Office entrance and Victoria Square.²
- 7.2.5 At no point on Pinfold Street would the tramway be above the level of the proposed footway.³
- 7.2.6 The scheme design for Pinfold Street includes a continuous demarcated footway along the north-eastern side of the street. When an eastbound tram passed through Pinfold Street, pedestrian movements would be accommodated in this footway. When a westbound tram passed, pedestrians would be able to use the footway and the adjacent eastbound tramway. In between tram passes, pedestrians could use the full width of the street.⁴
- 7.2.7 Trams would be scheduled to pass in each direction once every six minutes and would therefore be present in the street once every three minutes on average. The section of Pinfold Street in question is about 80m long and so, at a standard design walking speed of 1.4 metres per second, takes about a minute for a pedestrian to traverse. Therefore, about one-third of all pedestrian users of Pinfold Street would encounter a tram there, and one-sixth of all pedestrian users of Pinfold Street would encounter an eastbound tram that would cause them to use the north-eastern footway. Pinfold Street would therefore operate acceptably as a shared space between trams and pedestrians.⁵
- 7.2.8 Documents CEN/INQ21.1 and CEN/INQ21.2 present a detailed assessment of the width of the proposed north-eastern footway throughout its length. For 73% of its length the footway would be at least 2m wide. There would be three sections less than 2m wide:
- (a) At the junction with Stephenson Street, a narrowing below 2m over a length of 5.3m, to a minimum width of 1.38m at the corner of a building;
 - (b) Two-thirds of the way up Pinfold Street, a narrowing below 2m over a length of 6.0m, to a minimum width of 1.79m; and,
 - (c) At the top of Pinfold Street, where the width would taper from 2m to 1.995m over a length of 7.7m and then from 1.995m to 1.95m over a further 3.3m.
- 7.2.9 The DfT's document "Inclusive Mobility" (document CEN/GEN3) is cited by "Manual for Streets" as a source document for "further guidance on

¹ CEN/P3.1/ENG, 4.3.1

² CEN/R1.1/OBJ11/ENG, 3.1.2

³ CEN/R1.1/OBJ11/ENG, 3.2.3

⁴ CEN/P6.1/TRA, 41

⁵ CEN/P6.1/TRA, 42

minimum footway widths". "Inclusive Mobility" considers footway widths, in the first paragraph of its section 3.1. There are two exceptions to the recommended desirable minimum footway width of 2m (allowing two wheelchairs to pass comfortably): a minimum width of 1500mm (to allow a wheelchair and walker to pass each other) and an absolute minimum of 1m (where there are obstacles).¹ The maximum length of restricted width (i.e. less than 2m wide) should be 6m². Therefore the proposed footway on the north-eastern side of Pinfold Street would meet the DfT's "Inclusive Mobility" guidance in that the footway would be at least 2m wide for 73% of its length and only materially less than that width in three sections that would be either less than or equivalent to the specified maximum length of 6m.³

- 7.2.10 The suitability of the proposed footway width to meet pedestrian demand has been assessed, using Transport for London's "Pedestrian Comfort Guidance for London" (document CEN/GEN4). Figure 9 of the Guidance shows that any Pedestrian Comfort Level (PCL) of B or above is considered "comfortable" for "Office and Retail" areas. Using a minimum continuous clear footway width of 1.6m, this PCL category of B can accommodate up to 1,440 pph. The Guidance also indicates that up to 1,632 pph using the path would find conditions "Acceptable". Pedestrian survey data presented for VSH found flows of almost 1,275 pph, a figure that could be increased by 28% and remain "Acceptable". And off-peak pedestrian flows were found by that survey to be some 40% lower, corresponding to an average PCL value of A- the rest of the time.⁴
- 7.2.11 It is argued for the objector that the Guidance recommends a minimum width of 3.3m for the pedestrian flow observed on Pinfold Street. But the Guidance states that this value only provides an initial indication of comfortable footway widths in advance of a more detailed assessment – such as is presented in paragraph 7.2.10.⁵
- 7.2.12 In any event, pedestrians would only experience these levels of comfort for about 12 seconds in every 6 minutes, while an eastbound tram is passing. During the other 95% of the time considerably greater width would be available. There would be no impediment to free pedestrian movement between the footway and the tram running area as both would be on the same plane.⁶

Victoria Square

- 7.2.13 The majority of the tram tracks in Victoria Square would be bounded by a bull nosed kerb, 6mm high, that would allow pedestrians to cross the tramway and use the tramway as a pedestrian area when trams are not present.⁷

¹ CEN/P6.1/TRA, 41

² CEN/INQ21.1, 1

³ CEN/INQ21.1, 4

⁴ CEN/R1.3/OBJ11/TRA, 3, 4, 6

⁵ CEN/R1.3/OBJ11/TRA, 3

⁶ CEN/R1.3/OBJ11/TRA, 5

⁷ CEN/R1.1/OBJ11/ENG, 3.2.2

- 7.2.14 The objector expresses concern regarding conditions for pedestrians in that section of public realm between the proposed Metro alignment and the relocated Victoria Square wall. At its narrowest point and for a limited length, this area of public realm would provide a width of 2.71m between bollards proposed to protect the tramway and the Victoria Square wall. While an eastbound tram is passing, pedestrians walking on the north side of the tramway would be accommodated in this section of public realm. Trams would pass here at the same frequency as in Pinfold Street. During the 95% of the time when no eastbound tram is present, pedestrians would be able to use both the footway area and at least the adjacent eastbound tram running area, which considerably increases the width available. The footway here would be on the same plane as the tramway and so there would be no obstacle to movement between the two. Any eastbound tram would also wait at the Victoria Square stop before passing through this section, so pedestrians would have ample warning of an approaching tram.¹
- 7.2.15 The area identified in paragraph 7.2.14 is not on the desire line of any pedestrian route that would involve crossing the tracks and so few pedestrians would wait there to cross the tramway. Therefore the full width of this area of public realm would normally be available for pedestrian movements.²
- 7.2.16 Applying the document "Pedestrian Comfort Guidance for London" as before (paragraph 7.2.10), the minimum clear footway width here is assessed to be 2.31m. The objector estimates a peak demand of 2,500 pph for the desire line leading past the Victoria Square wall, equivalent to 18 pedestrians per metre per minute. The Guidance places this level of flow in the "Acceptable" bracket, for "Retail and Office" area. Pedestrian survey data provided by the objector (appendix 5 of document OP/P4.2/OBJ11) leads to the conclusion that this section of public realm would operate at a "Comfortable" level for all but 3 hours out of the surveyed 12.³
- 7.2.17 The scheme design was developed in consultation with the Highway Authority and was approved by the Planning Authority in May 2014.⁴

Alternative Routes

- 7.2.18 Centro has already been granted powers and consents etc. which include⁵:
- (a) Statutory powers to build the tram within the limits of deviation permitted under the 2005 Order. As noted, the TWA Order seeks statutory authority only for the minor variation to take account of the new development at PCR – the easternmost extent of those variation powers lies some 80 m west of the junction of Hill Street with Paradise Street;

¹ CEN/R1.3/OBJ11/TRA, 8

² CEN/R1.3/OBJ11/TRA, 9

³ CEN/R1.3/OBJ11/TRA, 10

⁴ CEN/R1.3/OBJ11/TRA, 11

⁵ CEN/INQ43, 8

- (b) Deemed planning permission for development under the 2005 Order¹. That deemed permission has been implemented². Under the TWA Order, new deemed planning permission is sought in so far as it does not already exist³. Pursuant to the 2005 deemed planning permission, Centro has also secured detailed consent (clearing down matters reserved under Conditions 2-4, 6, 8, 9 and 12 of the deemed permission), including for the area of Pinfold Street⁴.
- (c) Various listed building consents⁵ were granted in 2005, including consent to fix overhead electrification brackets to Victoria Square House. These have lapsed. Where, when and as necessary, fresh applications will be made to Birmingham City Council
- (d) Compulsory purchase powers, including in respect of Victoria Square House, were similarly granted in 2005. These too have lapsed. The TWA Order seeks to renew such powers, in so far as the land/interest required remains the same, and seeks new powers where the alignment change around PCR so requires.
- (e) Building agreements, re fixing of the catenary-support system etc. to the building, were entered into with previous freeholders, including with the then freeholders of the property purchased by VSH in 2014⁶.
- 7.2.19 There is a fallacy in VSH's objection in so far as concerns its proposed route options.
- 7.2.20 In making its objection, VSH, or at least some of its witnesses, seemingly disregarded the fact of the route alignment between Stephenson Street and Broad Street (and indeed on to Five Ways) having been authorised and continuing to enjoy the statutory authorisation etc. inherent in the powers and consents itemised in paragraph 7.2.18. Evidence given for VSH to that extent, proceeds from a fundamentally flawed factual and legal basis. That there is a requirement to refresh compulsory purchase powers (and, in due course, listed building consents), does not alter the important fact of extant statutory authorisation etc. There is a basic difference between the position (i) where all necessary powers are being sought concurrently and for the first time and (ii) where, as here, compulsory acquisition powers are being sought to unlock a scheme which has already been authorised (and where, moreover, such compulsory purchase powers as affect the objector are being renewed rather than being sought afresh). VSH seeks, however illogically, to argue that the present applications trigger a full-scale review of alternatives. That assertion is not supportable for reasons Centro gave at

¹ CEN/P8.3/PLA Ellingham Exhibits 1 and 2

² Confirmed by letter from Birmingham City Council dated 21 June 2010 – Adams Exhibit 4 (CEN/P1.3/SCH)

³ MMD 4.5J

⁴ CEN/P8.3/PLA Ellingham Exhibit 3

⁵ CEN/P1.3/SCH Adams Exhibit 3

⁶ Ibid Adams Exhibits 14 and 15. The agreement is expressed to include successors in title

the Inquiry. They can be summarised thus:¹

- (a) In making its renewed adjournment application on Day 1 of the Inquiry, VSH itself referred to the Treasury Green Book² citing thus:

1.1 All new policies, programmes and projects... should be subject to comprehensive but proportionate assessment, wherever it is practicable, so as best to promote the public interest... The purpose of the Green Book is to ensure that no policy, programme or project is adopted without first having to answer [this question]: Are there better ways to achieve this objective? ...

1.8 This guidance applies .. at the start .. to any analysis used to support a Government decision to adopt a new policy, or to initiate, renew, expand or re-orientate programmes or projects, which would result in measurable benefits and/or costs to the public. This is the appraisal project..

- (b) As has always been accepted, it is correct that some compulsory purchase powers – and, in due course, listed building consents – need to be re-granted. But the present applications cannot sensibly be viewed as seeking to *renew* a project where, subject to one minor caveat, the main powers to construct it remain extant and need no renewal.
- (c) The caveat is the seeking of new powers to authorise a minor diversion from the approved route, a diversion promoted the better to serve PCR. There must be some doubt whether so minor a departure from the approved route is other than *de minimis* in terms of the Green Book. But, even assuming it could be brought within paragraph 1.8 of that guidance – as being to initiate, expand or re-orientate the BCCE project – that would, at most, only require consideration of alternative options capable of meeting a geographically limited need, namely the need better to serve PCR. Given the relationship of PCR and the approved route, any options to meet that tightly constrained need are necessarily limited to very modest diversions from the 2005 approved route in the immediate vicinity of PCR. The following points arise:
- (i) VSH's options spring from examination of a much wider need. None of VSH's evidence has sought to show that, whatever else it may achieve, AOB – termed SSQ in VSH's Closing – serves PCR better than the Order route. It is presumably for this reason that they feel constrained to couch the need – and thus the potential for alternatives – much more widely. As VSH's Statement of Case records³:

The submitted transport assessment ("TA") has not been the

¹ CEN/INQ43, 9

² CEN/P2.3/ECO Exhibit 1 at paragraphs 1.1 and 1.8

³ OP/SOC2.1/OBJ11 at paragraph 2.3 under the heading Alternative Routes

subject of a reconsideration of potential options for the route from New Street Station to Five Ways. This should have taken place. Instead the TA has assumed, without reconsideration of the relevant circumstances upon which the decision to confirm the 2005 Order was made, that the route alignment approved under the 2005 Order remains the optimal route without change except in relation to matters of detail relating to Paradise Circus and Paradise Street ... (emphasis added)

By contrast, for the purposes of the present TWA Order Centro has examined alternative options in the respect of the relevant need, namely the need better to serve PCR¹. This is also effectively how the Secretary of State has correctly framed Statement of Matter 3, namely *the alternative alignment options in Paradise Circus ... (emphasis added)*. VSH, as revealed by its own Statement of Case, advances options in relation to a materially different need; ostensibly that need is how best to get from New Street Station to Five Ways – though, in reality, it seems more driven by a desire to avoid Pinfold Street and VSH’s own property. VSH further describes the actual change of alignment here promoted by Centro as *matters of detail*; this further supports Centro’s view of any re-orientation etc being *de minimis*.

(ii) Alternative Option A, via Hill Street, is unachievable on engineering grounds (which are not challenged by VSH and thus necessarily common ground), as explained below. Nor can it, on any sensible basis, be seen as an option meeting a need the better to serve PCR. It simply seeks to avoid Pinfold Street. There is no tenable basis for VSH’s having persisted with this Option throughout the Inquiry; it should have been conceded as being unachievable long since. Even though VSH continues to suggest this option remains on the table, its own witness, Mr S Tucker does not dispute the alignment/gradient aspects which make it unachievable and further accepts that, even ignoring that, it necessarily performs less well than either AOB or the Order route. It can be discounted.

(iii) VSH effectively now advances only AOB.

(iv) VSH sought to argue that various changes in guidance now found an alleged need effectively to go back to the beginning and ignore the extant authorisation under the 2005 Order etc. This is mistaken on at least two bases: first, as Mr Chadwick explained, the supposed guidance changes are illusory and nothing of substance has changed; and, second, even were that not the case, it would be passing strange were changes of guidance to dictate that pieces of (delegated) legislation such as the 2005 Order must effectively be set aside to reflect such change were this the case the result would be little different from allowing Government to legislate by guidance, thus bypassing the legislature. On a practical note,

¹ See eg Table 5.1 in Centro Statement of Case – CD/01

to be for ever revisiting decisions already made is to risk achieving nothing, the precise opposite of what Government guidance, and policy, is seeking.

(v) In so far as VSH now seeks to criticise the validity of the 2005 decision and resulting Order, it has advanced no argument or explanation to justify such criticism in the light of the preclusive provision under section 22 of the Transport and Works Act 1992¹.

(vi) In so far as concerns that part of the alignment between Stephenson Street and Centenary Square (and in Broad Street) – i.e. that part for which statutory authorisation, deemed planning permission and detailed consent thereunder already exist – the question of alternatives might theoretically be said to arise in one very limited sense. In the context of seeking compulsory purchase powers for that element, this would be the hypothetical question whether there were plots other than those proposed for acquisition under the TWA Order which might better deliver the already authorised alignment along Pinfold Street, the first part of Paradise Street and the residual part of Broad Street. But this question does not arise on the facts here because, as shown by Centro's evidence, the identified plots are the ones which are required and no such potential substitutes exist. Nor does VSH argue that there is other land which could be substituted.

- (d) One can summarise the position thus. Neither of VSH's options is an alternative route to meet the relevant need, namely the requirement better to serve PCR. Moreover one of those Options is unachievable in engineering terms.
- (e) Additionally, Mr Parsons accepted in cross-examination on the penultimate Inquiry day that, having regard to the additional complications attendant on having a tram scheme, with its own additional maintenance requirements, crossing an active rail line, there was a presumption against such crossing if another option was available to allow such crossing and complications to be avoided. Centro submits that presumption is even stronger here given matters such as the potentially disastrous consequences of a derailed tram descending, or dislodging debris, onto the very busy western throat of New Street Station.
- (f) In the alternative, even were that not the case, the relevant guidance imposes a requirement of proportionality. The exercise for which VSH argues would be wholly disproportionate.
- (g) In any event, and in the further alternative, even were the foregoing arguments all wholly misconceived and wrong, the VSH options have here been examined and found to represent

¹ See eg paragraph 10 of the VSH Closing. Sub-section 22(3) provides that, other than by challenge on prescribed grounds and within the six-week challenge period, ...a [TWA Order] ..shall not be questioned in any legal proceedings whatever

materially worse value for money than the 2005 Order route, as proposed to be varied by the TWA Order. This is further examined under the separate heading *Benefit/Cost Ratio* below.

- 7.2.21 So far as concerns the newly articulated legal argument re SEA, the point is misconceived. But, even were Centro wrong in all such arguments, the point remains that any earlier defect has been corrected given that the only two options advanced by VSH have here been examined and shown to be either unachievable or not to be preferred; and, by the very nature of a public inquiry, there has been the opportunity for public participation in the exercise. Additionally, VSH accepts that, even were its SEA/EIA arguments re alternatives to succeed, that would not amount to a reason to dismiss the present applications; the highest at which VSH puts it is that there would be requirement to (re)visit SEA/EIA before making the Order etc.

Navigation Street Bridge

- 7.2.22 The following points reflect the gist of evidence, regarding the capacity of Navigation Street bridge, that was given for Centro in examination:¹
- (a) Document CEN/INQ33 sets out points of agreement and points not agreed by Mr Last (for Centro) and Mr Parsons (for VSH) when they met on 1 December 2014.
 - (b) To avoid operational delay, two trams should be able to use the bridge at the same time.
 - (c) The approval of Network Rail to the use of the bridge by trams would be needed. Centro's experience was that obtaining approval could be time-consuming; for example agreement to relocating the track on a railway structure between St Paul and Snow Hill was the result of a process that ran from 2008 to 2012. For Navigation Street a 5-stage approval process, and an asset protection agreement, would be needed.
 - (d) The "reverse engineering" approach initially adopted by Mr Parsons would not be rigorous enough to satisfy Network Rail, who would need thorough calculations and bridge inspections as parts of a detailed assessment.
 - (e) Network Rail might from time to time need access through the bridge deck to maintain the structure, which could disrupt tram services on the bridge.
 - (f) Reverse engineering was the only approach available to Mr Parsons when he wrote his initial proof of evidence. Since then, Network Rail had provided more information: bridge assessments for the last 10 years.
 - (g) Mr Last works with a team that includes bridge engineers and had access to the assessment reports from Network Rail. He brought no evidence contrary to Mr Parsons' "Review of Aspects of the Network Rail Bridge Assessment Reports"

¹ Mr Last, day 6, in chief and in cross examination

(OP/INQ18/OBJ11). Two trams, or two lanes of traffic, could be supported.

- (h) All the recently-available reports are very thorough. All show 40-tonne loading minimum. Discussions with Network Rail would therefore have a starting point. If no fundamental adverse comments arose agreement might be reached with Network Rail in less than a year.

Assessing Scheme Options – Transport Analysis Guidance

Accordance with Transport Analysis Guidance

- 7.2.23 The TA was prepared in accordance with the DfT's 2007 GTA and 2013 WebTAG guidance. Both are based on the DfT's NATA (New Approach to Appraisal) principles and so the GTA is consistent with the WebTAG process. For the reasons given in paragraphs 4.4.16 to 4.4.18, the TA is focussed on the net transport impacts of the Variation only, over and above those envisaged in the 2005 Order.¹
- 7.2.24 Paragraph 4.31 of the GTA says that "A TA should adopt the principles of NATA by assessing the potential impacts of a development proposal within the framework of the five NATA objectives." Those objectives are: Environment, Safety, Economy, Accessibility and Integration. The TA and associated EIA process considered those objectives, as follows:²
- (a) A full EIA was undertaken to support the Order;
 - (b) The TA assessed the impact of the Variation on road safety;
 - (c) Regarding economy, the TA assessed the impact of the Variation on general traffic flows and journey times in the weekday peak hours;
 - (d) Regarding accessibility, the TA assessed the impact of the Variation on pedestrian and cycle routes, public transport operations and on local access and servicing;
 - (e) Regarding integration, the TA identified no negative impacts arising from the Variation, but the Scheme itself would beneficially promote better integration between modes and key land uses in the city centre.
- 7.2.25 It should therefore be concluded that the Order TA was prepared in accordance with the principles of relevant guidance. Although the 2005 TA was prepared before the GTA was issued, it was also based on NATA principles and so there is a consistency of approach between the two TAs.³

Reconsideration of Alternative Routes

- 7.2.26 The TA does not include a reassessment of the 2005 Order route as the preferred route. That is primarily because the TA was specifically an assessment of the transport impacts of the Order alone, with a view to identifying the need for any associated mitigation measures beyond

¹ CEN/P6.1/TRA, 29 - 31

² CEN/P6.1/TRA, 32

³ CEN/P6.1/TRA, 34

those already committed for the 2005 Order. This approach accords with the GTA, which does not require the assessment of alternatives.¹

- 7.2.27 A WebTAG appraisal was undertaken separately to support the Order business case. This assessed alternative route options through Paradise Circus in order to justify the preferred Order alignment, as summarised in paragraphs 4.3.6 to 4.3.11 of this report. The approach taken to the more substantial alternatives to the 2005 Order route proposed by VSH, is set out in the following paragraphs.²
- 7.2.28 It is the professional opinion of Mr Parkhouse (a Master of Civil Engineering and a Member of the Chartered Institution of Highways and Transportation, with 18 years relevant experience) that the Order route still represents the preferred route option between Stephenson Street and Centenary Square. Neither the circumstances on the ground nor the principles of transport appraisal have changed sufficiently since the making of the 2005 Order to suggest that the Order route is not still the preferred option. The alternatives put forward still involve the same significant engineering and cost issues which caused them to be discounted in the original appraisal.³

Alternative Option A

- 7.2.29 Both alternative options proposed at the Inquiry would have the Stephenson Street tram stop (currently under construction) at the eastern end. Track alterations there would be necessary and, because the OLE could not be "live" during the works, tram services to New Street Station would be suspended. Those works would last for between 4 and 6 months.
- 7.2.30 The objector proposes Alternative Option A, which would leave the BCCE in Stephenson Street to follow Navigation Street and Hill Street before entering Paradise Street to re-join the BCCE. Attention is drawn to the following aspects of this option:⁴
- (a) Structural issues associated with Navigation Street bridge;
 - (b) The junction of Navigation Street and Hill Street;
 - (c) Vertical profile;
 - (d) Hill Street to Paradise Street geometry;
 - (e) Tram stop position on Paradise Street and Access to PCR;
 - (f) Programme and economic implications.

Navigation Street Bridge

- 7.2.31 An assessment of the Navigation Street bridge (between Pinfold Street and Hill Street) in 2004 found that it was inadequate for 40 tonne live loading (exhibit 11 in document CEN/P3.3/ENG). This suggests the structure would fail to carry the proposed tram loading. This would

¹ CEN/P6.1/TRA, 35

² CEN/P6.1/TRA, 36, 37

³ CEN/P6.1/TRA, 38

⁴ CEN/P3.1/ENG, 5.4.1.1

require the bridge to be either strengthened or replaced. Any option that would involve replacement of the bridge would be very costly and time consuming. A number of possessions of the rail network would be required. Any replacement of the deck would also require major utility diversion works and very large craneage along with laydown areas and major road closures.¹

The junction of Navigation Street and Hill Street

- 7.2.32 In order to maintain standard footways and necessary visibility at this junction, an additional structure would be required on the north-east side of the junction. This would require the main structural girders to be cut back, which would necessitate major structural modifications to the bridges or even their replacement.²

Vertical Profile

- 7.2.33 Hill Street climbs steeply from Navigation Street to Paradise Street, with an average gradient of 7%. At the Navigation Street/Hill Street junction the tramway would be more than 500 mm above the existing road surface. That would add additional load to the structure and reduce the effective height of the bridge parapets.³

Hill Street to Paradise Street Geometry

- 7.2.34 Geometric constraints related to the horizontal curvature, vertical curvature and twist of the tram track would result in the track being some 0.87m above ground level at this junction, occupying the footway on both sides of Hill Street at the Paradise Street junction, and being twisted to a degree unacceptable on maintenance and safety grounds. The level difference would have significant implications for both Victoria Square House and One Victoria Square.⁴ There would be considerable adverse impact on the setting of the Grade I listed Town Hall, and access to retail premises in Hill Street would be disrupted – as would the western (and the only step-free) access to the Post Office in Victoria Square House.⁵

Tram Stop Position on Paradise Street and Access to Paradise Circus Redevelopment

- 7.2.35 Tram stops are located on straight lengths of track, with an additional 10m at either end. In the case of Alternative Option A, these constraints and the track curvature at Hill Street would result in the tram stop being some 25m west of the Town Hall. In that position the stop would block the currently proposed access to the PCR, requiring a new layout to be developed and agreed with all relevant parties.⁶

Programme and Economic Implications

- 7.2.36 Alternative Option A would require a new TWA Order which in turn would

¹ CEN/P3.1/ENG, 5.4.1.3, 5.4.1.7

² CEN/P3.1/ENG, 5.4.1.4

³ CEN/P3.1/ENG, 5.4.1.5

⁴ CEN/P3.1/ENG, 5.4.1.8, 5.4.1.9

⁵ CEN/P1.1/SCH, 14.20.7, 14.20.8

⁶ CEN/P3.1/ENG, 5.4.1.10, 5.4.1.11

require further detailed engineering design, environmental assessment, etc. Construction would be delayed by an estimated four years compared with the current programme.¹

- 7.2.37 Taken together, the factors above lead to an increased capital cost stated at the Inquiry to be some £102.7 million, or some 170% more than the current project costs. Assuming that the benefits of this Alternative in economic terms remain as for the Order scheme, the increase in costs would lead to a reduction in the BCR of the scheme from 2.9:1 to 1.0:1, making it incapable of funding in accordance with Government criteria as it would provide Poor Value For Money.²

Conclusion: Alternative Option A

- 7.2.38 This Alternative has no benefits to outweigh the above disbenefits when compared with the 2005 Order alignment.³

Alternative Option B

- 7.2.39 The objector proposes AOB, which would leave the BCCE in Stephenson Street to follow Navigation Street and pass under Suffolk Street Queensway; it would then turn right to Broad Street to re-join the BCCE. AOB would be 740m long whereas the length of the CSQ route would be 680m (both distances measured between the western end of the Stephenson Street platform to a corresponding point at Centenary Square); the run time on AOB would be 49 seconds greater than on the CSQ. During construction the loss of service described in paragraph 7.2.29 would apply. Attention is drawn to the following aspects of this option:⁴

- (a) Structural issues associated with Navigation Street bridge, detailed elsewhere in this report;
- (b) Vertical profile and impact on the existing highway;
- (c) Patronage;
- (d) Programme implications;
- (e) Economic implications.

Vertical Profile and Impact on the Existing Highway

- 7.2.40 Suffolk Street Queensway is on a viaduct at the point where Navigation Street crosses beneath; AOB would take the tramway to that end of Navigation Street and then run northward (on the western side of Suffolk Street Queensway) to Broad Street. The available headroom beneath the viaduct is 5.35m. The Office of Rail Regulation Guidance on Tramways states (document CEN/GEN1, paragraph 201) that where the contact wire is above any carriageway, it must be at a height not less than 5.8m. At other places, accessible to pedestrians (paragraph 202), the contact wire height must be not less than 5.2m. Any proposal to use

¹ CEN/P1.1/SCH, 14.20.9

² CEN/P1.1/SCH, 14.20.10, 14.20.11. The sum of £102.7 million given by Mr Adams in examination, day 2

³ CEN/P1.1/SCH, 14.20.14

⁴ CEN/P3.1/ENG, 5.4.1.1. Route lengths CEN/R1.1/OBJ11/ENG. Run time CEN/P1.1/SCH 14.20.21

a lower position (for example, because of an existing bridge) would require an exemption from the Secretary of State and should be discussed with HM Railway Inspectorate at the design stage.¹

- 7.2.41 In examination, it was added² that a gap of about 100mm would be necessary between the contact wire and the underside of the bridge, and a further allowance for the catenary form the contact wire would adopt in suspension; thus 6.0m headroom beneath the bridge is desirable. If that was achieved by lowering the carriageway, the western end of Navigation Street would be lowered by 0.65m. The resulting gradient up to Holliday Street (at its current level) would be less than 9% and therefore within the capability of Centro's new trams (contrary to paragraph 5.4.1.13 of CEN/P3.1/ENG). And there would be no need for a retaining wall near Alpha Tower.

Patronage

- 7.2.42 Although a stop could be provided on Navigation Street, AOB would not serve the civic heart of Birmingham at Victoria Square and it would not serve the very large PCR site.³ Forecasts of demand, revenue and benefits have been derived to reflect proposed stop locations and the run times between those stops.⁴ The Reference case and the Alternative case (paragraph 4.2.10) have been considered:

- (a) For the Reference case, AOB is forecast to increase Midland Metro patronage by 8% in 2021 and 13% in 2031. User benefits are forecast to be an additional £0.71 million in 2021 and £1.30 million in 2031 (2010 prices).⁵
- (b) For the Alternative case, AOB is forecast to increase Midland Metro patronage by 8% in 2021 and 8% in 2031. User benefits are forecast to be an additional £0.71 million in 2021 and £0.76 million in 2031 (2010 prices).⁶

Programme Implications

- 7.2.43 AOB (and Alternative Option A) would require a new Order, which in turn would necessitate further detailed engineering design, environmental assessment, etc. This requirement for new powers would increase the costs of the project and delay construction by an estimated four years when compared with the current programme.⁷ The capital spend profile for the CSQ is expected to be completed in 2018⁸ whereas that for AOB is expected to end in 2022⁹.

Economic Implications

¹ CEN/P3.1/ENG, 3.2.2, 5.4.1.12; CEN/R1.1/OBJ11/ENG 3.3.1 and Appendix C

² Mr Last, day 6

³ CEN/P1.1/SCH, 14.20.17

⁴ CEN/P2.1/ECO, 3.11

⁵ CEN/P2.1/ECO, 3.17

⁶ CEN/P2.1/ECO, 3.18

⁷ CEN/P1.1/SCH, 14.20.19 and 14.20.9

⁸ CEN/P2.3/ECO, exhibit 9 table 7

⁹ CEN/P2.3/ECO, exhibit 11 table 8

- 7.2.44 The objector has presented a review of scheme costs and scheme economics (paragraphs and tables commencing at 6.3.52). Centro's comments on that material are set out in detail in document CEN/INQ41 and summarised here as follows.
- 7.2.45 With regard to scheme costs:
- (a) Base Capital Cost of AOB: In CEN/INQ41 Centro assumes the approach taken by VSH and accepts the figure of £18.5m.
 - (b) Development and Management Costs: Neither option put forward by VSH is more than schematic. AOB lacks (and would need) engineering studies, ground and structural investigations, public consultation, Outline Business Case, programme entry/funding approval, EIA, agreement of utilities diversions, approvals from Network Rail, promotion of a TWA Order. For CSQ the majority of this work has already been completed. It is inconceivable that all the work required could be undertaken for £1.5m, as VSH suggest. Centro's assumption that AOB would cost £4.5m in this respect is prudent and robust.
 - (c) Detailed Design: AOB is longer than CSQ and has particular complexities at Suffolk Street/Holliday Street and at New Street Station. The correct figure is £3.2m.
 - (d) Land Acquisition: Impacts of AOB have not been assessed by the objector in their effects on New Street Station car park and the Grand Central development, the Mailbox, Dandara Tower, Arena Central and Alpha Tower. There would be impacts on third-party land, resulting in compensation/ land purchase. The costs would be likely to be higher than for CSQ. The correct figure for AOB is £4m.
 - (e) Management: The best possible programme that could be achieved for AOB is four years longer than for the CSQ; and so the management effort would be greater. The correct figure for AOB is £2.5m.
 - (f) Supervision of construction: Centro's assessment reflects the larger size of AOB than the CSQ, and the Alternative's need for "re-work" in Stephenson Street. The correct figure for AOB is £2.9m.
 - (g) Utilities: Centro's assumption – to assume the same cost (£6.0m) for AOB – favours the objector's case and ignores the increased length of the Alternative.
 - (h) Compensation to Train Operating Companies: Railway possessions may be required for bridge inspections, but this falls in the 20% risk allowance below to avoid double counting, and no allocation is needed here.
 - (i) Commissioning: AOB would be longer than the CSQ, with more traffic signals, and hence a higher commissioning cost of £1m is the correct figure here.
 - (j) Navigation Street Link Road: The inclusion of this cost in the table misunderstands the Business Case methodology and is

erroneous. The capital cost for all the CSQ's complementary highway measures is included in the Business Case¹. The objector has not shown that no complementary highway measures would be needed for AOB. Centro submits that no cost need be shown at this point in the table.

- (k) Suffolk Street Portal: This is an extra cost of £1m for tram loading and derailment risks at Suffolk Street portal associated with the CSQ, accounted for with other things at reference 5.21 in CEN/P1.1/SCH (paragraph 4.1.21). No such cost falls to AOB.
- (l) Sub-Total: The total of the items at (a) to (k) above is £42.6m.
- (m) Inflation: Centro's experience is the design costs increase at 3% to 3.5% per year, and construction costs at 3.5% to 4% per year. Since AOB would be built at least 4 years later than the CSQ, the allowance for inflation should be £8.9m.
- (n) Risk Contingency: Whereas the CSQ has been the subject of detailed design for 10 years, and has a fully developed, managed and mitigated Quantified Risk Assessment, no work of any significance has been undertaken on the alternative route and so a risk allowance of 20% is appropriate. As a comparator, Webtag recommends optimism bias of 66% in comparable circumstances. The figure for risk associated with AOB is therefore £8.4m.

7.2.46 The total estimated outturn cost of AOB is therefore £59.9 million. The corresponding figure for the CSQ is £38.6m.

7.2.47 Document CEN/INQ41 also sets out Centro's comments on VSH's assessment of the economic performance of AOB, summarised here as follows:

- (a) Present Value of Capital Costs: For the purpose of a DfT compliant economic appraisal all monetary values should be discounted to a common base year (in this case, the year 2010). Further, to be consistent with WebTAG the cost should take account of the market price adjustment, real inflation, and an appropriate level of optimism bias. But VSH takes the total estimated out-turn cost of AOB to be the same sum as the present value of its capital costs; an assumption that is methodologically incorrect.
- (b) Present Value of Renewal Costs: VSH's figure is in error because, as a ratio of the capital cost, the presented renewal cost will vary proportionately with the factors described at (a) above.
- (c) Present Value of Operating Costs: No comment.
- (d) Present Value of Benefits - Journey Time: VSH contends that the journey time benefits of the Alternative would be the same as those of the Order scheme but, given the different routes,

¹ See CEN/P2.3/ECO page 683

- stop locations and journey times, there is no reason why that should be so. Mr Chadwick's exhibit 11 (in CEN/P2.3/ECO) sets out the Alternative's benefits.
- (e) Present Value of Benefits – Highway Externalities: No comment.
 - (f) Present Value of Benefits – Revenue: Consistent with WebTAG, Centro bases its assessment on a 60-year profile derived from interpolation between two forecast years and then a "steady state". VSH takes a different approach, apparently arbitrarily picking the one year that favours its case, ignoring the need for a 60-year profile and the unfavourable 2031 figure (which predicts a 4% decrease in incremental demand for that year), and applying a blanket 15% increase to the revenue figures. Such an approach is fundamentally incorrect.
 - (g) Present Value of Benefits – Indirect Tax: VSH's finding is not agreed. VSH has adopted Centro's estimate but to do so is inconsistent with VSH's estimate of revenue; and, in any event, VSH's revenue estimate is flawed.
 - (h) Appraisal: for the reasons summarised in (a) to (g) above, the BCR reported by VSH for AOB does not comply with WebTAG and is meaningless.
- 7.2.48 Document CEN/INQ41 refers the reader to CEN/INQ26, table 1 of which has the capital cost of AOB as £70.5m in 2010 prices. Footnote 3 in table 1 confirms that the £70.5m figure is taken from table 8 of exhibit 11 of Mr Chadwick's proof of evidence (CEN/P2.3/ECO).
- 7.2.49 In evidence given on day 3 of the Inquiry, Centro estimated the economic performance of AOB as follows:¹
- (a) For the Reference case, AOB is forecast to generate £1.75 million of revenue in 2021 and £3.90m in 2031. Patronage of the Metro would increase by 8% in 2021 and 13% in 2031, with £0.71m and £1.30m of user benefits at 2010 prices. For the Alternative case, AOB's revenue is forecast at £1.75m in 2021 and £1.80m in 2031; patronage would increase by 8% in 2021 and 8% in 2031, with £0.71m and £0.76m of user benefits at 2010 prices.
 - (b) The capital cost of AOB in both cases is projected to be £70.51m in 2010 prices. The maintenance and renewal costs for both cases have been assumed as £31.08m (2010 prices) which represents 31% of capital costs, including optimism bias. Operating costs for AOB in the Reference Case are anticipated to amount to an additional £0.42m and £0.89m in 2021 and 2031 respectively and, in the Alternative Case, AOB's operating cost is anticipated to be an additional £0.42m annually.
 - (c) Based on the inputs and assumptions outlined in (a) and (b) above, and those in paragraph 7.2.42, the BCR of AOB has been calculated as:

¹ CEN/P2.1/ECO, 3.17 to 3.20

- | | | |
|--|------------------|--------|
| | Reference case | 0.9:1 |
| | Alternative case | 0.4:1. |
- (d) However, if one were to remove from the above the capital costs associated with the Navigation Street/Hill Street Bridges, and compensation to train operators, and then add the £0.5m estimated by VSH in respect of bridge works, then the BCR of AOB would be calculated as:¹
- Alternative Option A: Reference case: BCR = 1.5:1
- Alternative Option B: Reference case: BCR = 1.2:1.
- (e) Therefore even if the bridge position taken by VSH is adopted, the alternative options would fail to gain funding.

7.3 Heritage and Townscape

The Scheme's Effects on Heritage and Townscape

Tramways and Public Spaces

- 7.3.1 The objector considers tramways to be "wholly adverse" to pedestrianised character. From the point of view of heritage impact, the nature of the space-use in Victoria Square has evolved over many years, sometimes rapidly and very significantly. A public space in this urban context should be capable of entertaining and encouraging activity, as a feed for the land uses within it. The tram system itself has the potential to enhance the use of the city centre, and consequently the use of heritage assets in the city centre. The removal of vehicles and modes of movement entirely can have a detrimental and sterilising effect on a public space. Examples in this country and abroad demonstrate that trams can co-exist in spaces which are predominantly for pedestrians while retaining a dynamic which helps to reinforce the urbanity of a city. Modern tram systems are designed to co-exist as part of multi-use city centre spaces. The basis of the objection is unproven².

Setting as an Asset

- 7.3.2 On page 7 of "The Setting Of Heritage Assets" (appendix 2 in document CEN/P4.3/CUL), English Heritage explains that "Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset." Therefore, change to setting does not necessarily cause harm to the asset; but one might wrongly conclude so if one considered setting to be the asset. On its page 15, the same guidance states: "Protection of the setting of heritage assets need not prevent change. Most places are within the setting of a heritage asset and are subject to some degree of change over time."³

Assessments of Harm

- 7.3.3 Evidence given for VSH refers to the "creation" of an "engineered

¹ CEN/INQ6, 21, 23, 25, 26

² CEN/P4.1/CUL, 7.15

³ CEN/R1.2/OBJ11/CUL, 1.2 - 1.5

environment” as a result of the tram stop to the south of the Town Hall. It is important to recognise the presence of the current road, kerbing and railings as an existing “engineered environment”.¹

7.3.4 For the objector, the Town Hall is described as a “classical temple”, but the building is in reality a civic building designed in the 19th century to perform administrative functions, occupying an adapted classical building type. In the 19th century, horse-drawn trams fed the city centre, including the immediate context of the Town Hall and Victoria Square. The relationship between the classically-inspired Town Hall and the tramway is not so polar as is suggested for VSH.²

7.3.5 There are opportunities to fix OLE to Victoria Square House, despite its elaborate detailing. A number of appropriate fixing points exist on the elevation as part of the pilaster elements, and those have been used as fixing points in the past.³

2013 Environmental Statement

7.3.6 The 2013 ES refers to relevant guidance and employs an appropriate method. In its written representations on the matter, VSH has not been sufficiently specific or detailed in its criticisms of the method or findings of the ES.⁴

Alternative Routes

Alternative Option A

7.3.7 Alternative Option A would result in equivalent or greater impacts to the setting of the Town Hall due to the landscaping and OLE required to overcome the level changes and to negotiate the corner into Paradise Street. It offers no advantage in heritage terms.⁵

7.3.8 The townscape and visual benefits of Alternative Option A would be:⁶

- Some potential to improve the townscape and visual qualities of Navigation Street;
- Avoidance of Pinfold Street entirely and the minor adverse impacts identified there;
- Avoidance of most of Victoria Square and therefore avoidance of most of the moderate/minor adverse townscape and minor adverse visual impacts resulting there from the OLE and its poles.

7.3.9 The key adverse townscape and visual effects of Alternative Option A would be:⁷

- At least moderate adverse impacts on Hill Street at the

¹ CEN/R1.2/OBJ11/CUL, 1.7

² CEN/R1.2/OBJ11/CUL, 1.10

³ CEN/R1.2/OBJ11/CUL, 1.14

⁴ CEN/R1.2/OBJ11/CUL, 1.20

⁵ CEN/R1.2/OBJ11/CUL, 1.21

⁶ CEN/P5.1/TOW, 4.2.7

⁷ CEN/P5.1/TOW, 4.2.8

junction with Victoria Square;

- At least a minor adverse impact on townscape surrounding the Town Hall.

7.3.10 Overall in terms of townscape and visual impact, Alternative Option A would be slightly worse than the CSQ.¹

Alternative Option B

7.3.11 AOB would have a lower direct impact on the fabric and settings of listed buildings along the CSQ route, but would offer much less support for the use and vitality of Victoria Square and its associated heritage assets.² The Conservation Area would not be affected to a significant degree; nor would the setting of the Town Hall or the other listed buildings identified in the study area.³

7.3.12 AOB would provide a tram stop alongside the Grade II listed Birmingham New Street signal box of 1964, having a minor adverse impact on its setting due to the increased visual intrusion resulting. The increased proximity of the route to the Alpha Tower would also erode its setting to a minor degree.⁴

7.3.13 The townscape and visual benefits of AOB would be:⁵

- Some potential to improve the townscape and visual qualities of Navigation Street;
- Avoidance of Pinfold Street entirely and the minor adverse impacts identified there;
- Avoidance of Victoria Square and therefore avoidance of the moderate/minor adverse townscape and minor adverse visual impacts resulting there from the OLE and its poles.

7.3.14 The key adverse townscape and visual effects of AOB would be:⁶

- The introduction of a number of major new structures (retaining walls alongside Suffolk Street Queensway south of Holliday Street⁷) which would add to the sense of an area dominated by transport infrastructure;
- Adverse impacts on Alpha Tower Plaza, particularly during construction;
- Loss of the opportunity to integrate the tramway into the new highway improvements associated with the PCR;
- Poor location for the relocated tram stop;
- Lack of connection with Victoria Square and loss of the

¹ CEN/P5.1/TOW, 4.2.9

² CEN/R1.2/OBJ11/CUL, 1.21

³ CEN/P4.1/CUL, 7.27

⁴ CEN/P4.1/CUL, 7.25, 7.26

⁵ CEN/P5.1/TOW, 4.3.7

⁶ CEN/P5.1/TOW, 4.3.8

⁷ CEN/P5.1/TOW, 4.3.4 and 4.3.5

increased vitality which the tramway would have the potential to bring to the civic heart of Birmingham.

- 7.3.15 Overall in terms of townscape and visual impact, AOB would be slightly worse than the CSQ.¹

The "Presumption Against Development"

- 7.3.16 Notwithstanding any scope for parallel arguments re whether sections 66(1) and 72 of the Listed Buildings Act are engaged Centro submits that matters should be considered on the basis of their applying with full force.²
- 7.3.17 If that submission is accepted, the present applications are to be approached on the basis that sections 66(1) and 72(1) of the Planning (Listed Buildings etc) Act 1990 are engaged. There is no listed building application before this inquiry and it is difficult therefore to understand VSH's submission³ that section 16(1) is engaged. It is also to be assumed that Dr Miele – and others of VSH's witnesses such as Mr Burley – approached their analysis on the basis of a legal view that section 16(1) was engaged; any resulting downstream assessment is thus necessarily flawed to that extent.⁴
- 7.3.18 VSH's Closing refers only to less than substantial harm⁵. It is not open to VSH to assert that whatever harm here may be considered to arise in terms of cultural heritage assets, including listed buildings and conservation areas, cannot be justified in the overall balance. VSH suggests that the hypothetical availability of an alternative route with lesser such impacts is capable of forcing rejection of another route notwithstanding that second route showing better value for money. Even were that the case in theory – and it would have to be an extreme case – such an argument cannot hold on the facts here. First, AOB performs materially less well in terms of value for money, fails to serve the relevant need – i.e. better to serve PCR (than the 2005 Order scheme) – and would delay delivery of benefits materially to a materially later date than the promoted scheme. Second, any difference between AOB and the Order route in cultural heritage terms is minimal; whilst Mr Surfleet is prepared to assume some lesser direct adverse impact with AOB, that is to be balanced by its disbenefit in terms of supporting the vitality and use of heritage assets in the immediate vicinity of Victoria Square. And Ms Bolger points to the townscape benefits which would be lost if the TWA Order were not pursued. In all the circumstances, there is little more than an immaterial difference between AOB and the Order route in cultural heritage terms and AOB performs materially and decisively worse in virtually all other respects. That position is unchanged by the application of the important and relevant statutory duties under sections 66 and 72 of the Listed Building Act (nor would the position be different

¹ CEN/P5.1/TOW, 4.3.9

² CEN/INQ43, Annex, 4

³ OP/INQ26/OBJ11, 40

⁴ CEN/INQ43, 79

⁵ OP/INQ26/OBJ11, 41-2

even were section 16 engaged)^{1,2}

7.4 **Scheme Context**

Adopted Development Plan Policy – the Birmingham UDP³

7.4.1 Policy 15.18 of the adopted 2005 UDP relates to the development of a light rail network serving the City Centre. The initial route links Snow Hill Station with Wolverhampton, and an extension is proposed to link the City Centre, Broad Street and Five Ways (T45). The reference (T45) draws attention to site reference T45 in the Index of Proposals at the front of the UDP document. The entry is as follows:

“Site Reference: T45. Location: Metro Line One Extension between Snow Hill, New Street and Five Ways. Constituency: City Centre and Edgbaston. Para Ref: 15.18, 15.26, 15.36, 15.41, 15.70 & 16.10.”

7.4.2 Policies 6.33 and 6.34 make further reference to site reference T45 (see also paragraph 4.5.13).

Emerging Birmingham Development Plan

7.4.3 An extract from the emerging Birmingham Development Plan is provided (in exhibit 6 in CEN/P8.3/PLA). It clearly shows the route of the Metro extension to accord with the 2005 Order.⁴

7.4.4 VSH argues that emerging planning policy and retail strategy provide the basis for a review of the route alignment of Midland Metro and, in particular, that it should serve the Mailbox and the emerging John Lewis development. But that position has no regard to the fact that both the Adopted and Emerging policies provide an ongoing commitment to the route that is the subject of the 2005 Order.⁵

Assessment of Changes in Policy and Procedure, Fact and Matters Since the 2005 Order and Review of the Scheme Objectives

7.4.5 Other than the major redevelopment at Paradise Circus, which increases the need for the scheme, there has been no material change in Birmingham City Centre that would require fundamental reassessment of the remainder of the BCCE.⁶ Centro has maintained a close interest in completing the full route.⁷

7.4.6 Any alternative routes have significant cost penalties, would disrupt train services at New Street Station, and have many other disadvantages. Similar alternatives were given full consideration at the previous inquiry; they were found not viable then and remain so. Given that the CSQ

¹ In making these submissions Centro has had regard to appropriate case law, including the *Barnwell Manor* case (cited by VSH at paragraph 40 of its Closing). That case confirms the law to be as it has always been and does not alter the outcome in considering the present applications

² CEN/INQ43, 80

³ CEN/R1.4/OBJ11/PLA, 1.8 – 1.12

⁴ CEN/R1.4/OBJ11/PLA, 1.17

⁵ CEN/R1.4/OBJ11/PLA, 1.19, 1.20

⁶ CEN/P1.1/SCH, 14.15.1

⁷ CEN/P1.1/SCH, 14.15.2

would be a short tramway extension of about 800 metres, and the need for due proportionality in the assessment of alternatives, it is self evident that the approved and partially completed route should be constructed as and when funding becomes available.¹

Decision-Making Process That Led To The Making of The 2005 Order

7.4.7 The 2005 Order was the subject of a thorough statutory process under TWA, and a lengthy public inquiry at which the Inspector considered numerous objections. The Secretary of State subsequently made the 2005 Order. The validity of the process was further underlined by the funding provided by the DfT for the construction of the first phase of the works authorised by the 2005 Order. In addition, Birmingham City Council has continued to discharge detailed planning conditions for the project, which is now fully funded. The process was in full accordance with all relevant statutory procedures.²

7.5 Strategic Environmental Assessment and Environmental Impact Assessment

7.5.1 VSH's argument in this respect is difficult to follow and lacks a logical or reasoned progression. Further, Centro has been materially prejudiced by the very late emergence of the SEA point; this has left little time properly to consider all the ramifications whilst at the same time having to respond to the other points made in VSH's Closing. Nonetheless, Centro sets out its response below.

7.5.2 In short, and by way of overview, VSH's SEA and EIA points are inadequately reasoned and misconceived. The nub of them is an allegation of a breach of SEA and/or EIA requirements through a failure to consider – or an erroneous rejection/dismissal of – the two route options which VSH has sought to advance. Responding to that allegation is made the more difficult since VSH's argument is in generalised terms and fails to identify precisely what legislative provision(s) is breached. Even were the Secretary of State to conclude – contrary to Centro's primary submissions – that there was substance in VSH's SEA/EIA argument, the points still go nowhere for at least two reasons:

- (a) The result of this public inquiry process has been that AOB (and indeed A) have been fully and appropriately considered and any earlier failure to consider, or erroneous dismissal of, them thereby cured and validated. As VSH acknowledges³, the relationship between SEA and EIA is *complementary*. Even if an 'error' occurs at an earlier stage, there is nothing to prevent other possible alternatives which only, and for whatever reason, arise or come to the fore afterwards or about which new information becomes available, being considered at a subsequent stage. Were it otherwise the effect would be that any such 'error' would require the whole process being rolled back and effectively started afresh; such a construction would

¹ CEN/P1.1/SCH, 14.15.3

² CEN/P1.1/SCH, 14.14.1 – 14.14.3

³ VSH Closing paragraph 47

make a nonsense of the legislation. All processes have to recognise the potential for fallibility and/or inadvertent omission; if something is not considered at the outset, whether through error or because it simply could not have been foreseen at that stage or because there has been a change of circumstances, it would be absurd not then to be able to deal with it as part of whatever stage the process has reached. And a public inquiry is a very good and transparent forum in which to consider matters.

- (b) Alternatively, even if there still remains some outstanding requirement for further consideration in accordance with SEA or EIA requirements, VSH acknowledges¹ that this does not dictate refusal of the applications, merely a pause in the decision-making whilst such consideration occurs.

7.5.3 Should the Secretary of State be minded nonetheless to conclude there may be substance in VSH's point and that further work may be required, Centro asserts a legitimate expectation that, before reaching a concluded view, the Secretary of State would so notify the applicant and allow it an opportunity to make further submissions before the Secretary of State took any further action. Centro makes this submission in the light of VSH's unreasonable and late springing of the SEA point which has left Centro with but very limited time to consider it and respond. Were the Secretary of State minded to differ from Centro's submissions herein, including the submission that the SEA/EIA point goes nowhere, Centro would accordingly seek the opportunity to make further, considered submissions should that be appropriate.

7.5.4 It is appropriate first to consider the SEA point. It appears that VSH's submission depends upon the BCCE 'project' also being a relevant 'plan or programme'². This is a surprising submission. VSH fails to identify what it is within the BCCE project that it alleges to constitute a plan or programme which requires SEA.

- (a) Centro notes that, for instance, the emerging development plan which carries through, from the existing development plan, support for BCCE and its alignment has itself been the subject of SEA. VSH makes no challenge to or criticism of the development plan, present or emerging³. Nor has VSH adduced any evidence of having made any representations in this regard to Birmingham City Council re the emerging plan.
- (b) In *Walton v Scottish Ministers*⁴ Lord Reed, having referred to the view of Advocate General Kokott, stated in respect of the SEA Directive:

[18] Article 2 of the Directive is headed 'Definitions', and provides:

'For the purposes of this Directive:

¹ OP/INQ26/OBJ11, 71

² OP/INQ26/OBJ11, 65

³ And note the effect of the challenge and preclusive provisions in sections 284 and 287 of the 1990 Act

⁴ [2012] UKSC 44 at [18] et seq

- (a) "plans and programmes" shall mean plans and programmes, including those co-financed by the European Community, as well as any modifications to them:
- which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared for adoption, through legislative procedure by Parliament or Government, and
 - which are required by legislative, regulatory or administrative provisions.'

[19] Although Article 2(a) is headed 'Definitions', it does not in fact define the terms 'plan' or 'programme', but qualifies them. For the purposes of the Directive, 'plans and programmes' means plans and programmes which fulfil the requirements set out by the two indents: that is to say, they must be 'subject to preparation and/or adoption by an authority at national, regional or local level or ...prepared by an authority for adoption, through a legislative procedure by Parliament or Government', and they must also be 'required by legislative, regulatory or administrative provisions'.

[20] The terms 'plan' and 'programme' are not further defined. It is however clear from case law of the Court of Justice that they are not narrowly construed... The interpretation of the Directive, in this respect as in others, has been based primarily upon its objectives rather than upon its literal wording.

7.5.5 Centro accepts that the Article 2 definition of 'plan or programme' may be wide. But that merely makes it the more strange that VSH has failed to identify what actually constituted the alleged plan or programme.

- (c) So far as concerns Article 3, not only does VSH fail to identify what precisely constitutes the alleged plan or programme, it also fails to specify or explain how or why such plan is alleged to require SEA. Indeed, VSH seems to assume that every project must be preceded by a plan or programme and that therefore, somewhere, there must have been SEA. This is plainly wrong. Centro notes the analysis of this issue in the *HS2 Alliance* case¹; it was there argued that a command paper required SEA. As identified by Lord Sumption²:

The main reason why a command paper cannot require assessment under the SEA is that it is nothing more than a proposal. Naturally, the fact that it is a Government proposal and appears in a command paper makes it influential in the broader sense that I have mentioned above. It means it is politically more likely to be accepted. But the command paper does not operate as a constraint on the discretion of Parliament. None of the factors which bear on the ultimate decision whether to pass the hybrid Bill into law have [sic] been pre-empted, even

¹ [2014] UKSC 3; [2014] 1 WLR 324

² *ibid* at [125]

partially. I accept that this means that governments may in some cases be able to avoid the need for an environmental assessment by promoting specific legislation authorising development. But that is not because the SEA has no application to projects authorised in that way. It is because (i) the SEA Directive does not require member states to have plans or programmes which set the framework for future development consent, but only regulates the consequences if they do; (ii) where development consent is granted by specific legislation there are usually no plans or programmes which set the framework for that consent; and (iii) legislative grants of development consent are exempt from the EIA Directive by virtue of article 1(4), subject to conditions which replicate some of the benefits of a requirement for an environmental impact assessment, and which like every other member of the court, I consider to be satisfied by the proposed hybrid Bill procedure. (emphasis added)

- 7.5.6 The instant case is not a hybrid Bill nor is there a command paper. But the principles hold good. VSH has not identified any aspect here which would require SEA. Even had it identified something, it would still have had to show that element amounted to something more than a proposal. It has not.
- (d) VSH further fails to specify or particularise its case in respect of the remainder of the SEA Directive. And, though it mentions the Environmental Assessment of Plans and Programmes Regulations 2004 ("the SEA Regs"), it similarly fails to detail its allegations in that respect.
- 7.5.7 In all the circumstances, VSH has failed to make out any case that there has been a plan or programme which, though requiring SEA, has breached the relevant legal requirements, either European or domestic.
- 7.5.8 So far as concerns EIA, the matter can be taken more shortly:
- (a) It is again very difficult to understand precisely what point is being made; this, in turn, makes any detailed rebuttal difficult if not impossible. VSH's allegations fail to specify, much less make out, any material breach of any relevant legal requirement.
- (b) Nor has there been such a breach. The ES was prepared in accordance with the Scoping Opinion and, as noted above, rule 11(3) of the Transport and Works (Applications & Objections Procedure) (England & Wales) Rules 2006 is engaged. The ES was produced in accordance with the relevant prevailing legislation and is not defective, whether in terms of alternatives or otherwise.
- (c) In the circumstances, VSH's EIA allegation fails.
- 7.5.9 In any event, even if and contrary to Centro's submissions above, there were any material breach, that still fails to make out VSH's case:
- (a) As already identified, the only matter of which VSH here complains, namely its alleged route options, has been fully

considered at this public Inquiry. Thus any prior 'breach' has been cured. In the *Cogent Land* case¹ Singh J considered an SEA challenge in the context of a development plan:

*I also consider... that the claimant's approach would lead to absurdity, because a defect in the development plan process could never be cured. The absurdity of the claimant's position is illustrated by considering what would now happen if the present application were to succeed, with the result [the policies] were to be quashed. In those circumstances, if the claimant is correct, it is difficult to see how the defendant could **ever** proceed with a Core Strategy which preferred [one site over another]. Even if the defendant were to turn the clock back four years to the Preferred Options stage, and support a new Preferred Options Draft with an SEA which was in similar form to the Addendum, the claimant would, if its main submission is correct, contend that this was simply a continuation of the alleged "ex post facto rationalisation" of a choice which the defendant had already made. Yet, if that choice is on its merits the correct one or the best one, it must be possible for the planning authority to justify it, albeit by reference to a document which comes at a later stage of the process. (emphasis as in the original)*

... an analogy can be drawn with the process of Environmental Impact Assessment where it is settled that it is an:

"unrealistic counsel of perfection to expect that an applicant's environmental statement will always contain 'the full information' about the environmental impact of a project. The Regulations are not based upon an unrealistic expectation. They recognise that an environmental statement may be deficient, and make provision through the publicity and consultation processes for any deficiencies to be identified so that the resulting 'environmental information' provides the local planning authority with as full a picture as possible. There will be cases where the document purporting to be an environmental statement is so deficient that it could not reasonably be described as an environmental statement as defined by the Regulations... but they are likely to be few and far between"

See Sullivan J in **R (Blewett) v Derbyshire County Council** [2004] Env LR 29 at para 41, approved by the House of Lords in **R (Edwards) v Environment Agency** [2008] Env LR at paras 38 and 61.

- (b) Here the matter concerns not a challenge to the plan or programme itself, but is at one step removed since it concerns TWA Order applications; these have been considered at public inquiry and the matters complained of as breaching any SEA requirement have *ex hypothesi* been fully considered also. Any SEA breach has thus been cured. It would thus here be even more absurd than in the *Cogent Land* case for any putative

¹ [2012] EWHC 2542 (Admin) at 125 to 126

breach of SEA requirement to infect or affect the validity of the present process and any decision thereon i.e. even if SEA is assumed to have been defective, that does not infect any consideration of or decision on the present applications.

- (c) Centro notes the discussion in the *Walton* case¹ of the discretion (not to quash) on a given challenge.
- (d) So far as concerns EIA, even if the ES here, contrary to Centro's case were to be viewed as deficient in its consideration of options, such deficiency has been cured or rectified.

7.5.10 In the result, no further work is required and the TWA Order and deemed planning permission can be issued.

7.5.11 In the further alternative, even if the Secretary of State considered further work were required, that does not dictate refusal of the applications. As VSH accepts, in such circumstances the mechanisms exist to require further information or work. The Secretary of State, were he so minded, can so indicate and defer a decision on the applications until that further information or work has been provided.

7.5.12 However one analyses VSH's submissions on this element, they must fail.

7.6 **The Objection Of Now Leisure Ltd**

7.6.1 The objector has sold his business and has indicated in writing that he regards the objection as being "no longer valid".²

7.6.2 Land Parcel 45 in the Book of Reference (CD17) refers to land or property at 49 Pinfold Street. The basement of the premises is occupied by Bodycare International Limited, trading as The Tanning Shop.

¹ at paragraphs 95, 103, 122-4, 130-3, 138-40, 155-6

² CD01, page 39

8 INSPECTOR'S CONCLUSIONS

Bearing in mind the submissions and representations I have reported, I have reached the following conclusions, reference being given in brackets [] to other paragraphs where appropriate.

I consider general matters first. My next sections deal with the matters identified in the Secretary of State's Statement of Matters, dated 23 September 2014 (Document X2), and other relevant issues raised. References to those items are to be found as follows:

Item in Statement of Matters	Section in these Conclusions
1	8.2 Objectives
2	8.14 Need and Justification
3	8.6 Alignment in Paradise Circus
4	8.3 Policy Consistency Of the Order's Objectives
5	8.7 Environmental Impacts of the Revised Tramway Alignment
6	8.8 Mitigation of Adverse Impacts
7	8.4 Environmental Statement
8	8.9 Property Interests
9	8.16 Compulsory Purchase of Land
10	8.15 Crown Land
11	8.11 Funding
12	8.10 Planning Conditions
13	8.5 Changes to the Order
Other relevant issues	
	8.12 Modified CSQ – Pedestrians, Heritage, Townscape
	8.13 CSQ Alternative Route Options

Finally, I conclude on the matters of whether an Order should be made and whether deemed planning permission should be granted.

8.1 General Matters

Environmental Assessment

8.1.1 The Variation ES is set out in the following documents:

CD13 Volume 1: Main Statement

CD14 Volume 2A: 2003 ES, (Birmingham City Centre Extension, etc) Order

Volume 2B: CoCP Part 1

Volume 2C: Environmental Scoping Report, Scoping Opinion

and consultation responses

Volume 2D: Drawings

Volume 2E: TA

Volume 2F: Technical Appendices

Volume 2G: Geoenvironmental Desk Study

CD15 Volume 3: Non-Technical Summary

- 8.1.2 The Variation ES and other environmental information, including comments and representations made by statutory consultees and other parties, have all been taken into account in the preparation of this report, as has subsequent evidence given at the Inquiry regarding the environmental effects of the Scheme.

Assessment Cases

- 8.1.3 Centro's assessment of the CSQ, including the Variation, includes two models:
- (a) The Reference Case, in which 10 tph would operate in each direction between Wolverhampton and Centenary Square, plus a shuttle service (also 10 tph each way) between Centenary Square and Eastside from 2026 [4.2.11]; a total of 20 tph each way on the CSQ. The operating cost of this case is reported to be £20.3m, discounted to 2010 [4.2.16].
 - (b) The Alternative Case, in which 10 tph would operate in each direction between Wolverhampton and Centenary Square [4.2.12]; a total of 10 tph each way on the CSQ. The operating cost of this case is reported to be £10.5m, discounted to 2010 [4.2.16].
- 8.1.4 No case was put that a tramway would be provided between the Birmingham City Centre Extension (BCCE) and Eastside as part of the current scheme.
- 8.1.5 Centro's case relies on the service frequency on the CSQ being 10 tph, with regard to:
- (a) Traffic modelling for the Variation TA and ES [4.4.20];
 - (b) Townscape and visual impacts [4.4.116];
 - (c) Fire exits from Victoria Square House [7.1.6];
 - (d) Interactions between trams and pedestrians [7.2.2, 7.2.12].
- 8.1.6 I therefore rely in my findings on the applicant's Alternative case except where I have explicitly indicated otherwise.

8.2 Objectives

SM1 The objectives of the TWA Order in the context of the proposed Centenary Square Extension of the Midland Metro Light Rapid Transit System.

- 8.2.1 The objectives of the proposed CSQ of the Midland Metro, and of the

whole Metro, are to [4.1.14]:

- Improve access to markets, enabling businesses to better access their customers;
- Reduce transport costs for businesses by lowering journey times and increasing reliability;
- Support business growth by delivering sustainable multi-modal access to new development sites;
- Deepen labour pools by improving physical access to jobs;
- Increase competitiveness by reducing journey time uncertainty;
- Support growth by addressing constraints on network performance.

8.2.2 No case was put that those objectives lacked merit, or that the CSQ would not contribute to them. Rather, the evidence of Birmingham City Council was that the CSQ would [5.1.7]:

- Create a better connected city by helping to establish high quality, high capacity public transport links across the city centre;
- Stimulate economic growth and help to create jobs; sustain and improve access to the major city centre development sites at Paradise Circus and Arena Central;
- Support culture and tourism by encouraging more visitors to the International Convention Centre, Symphony Hall, the Library of Birmingham, the Repertory Theatre, the Ikon Gallery, Birmingham Museum and Art Galleries and the many other key entertainment and leisure destinations around Broad Street and Brindley Place;
- Help to reduce congestion and encourage sustainable travel for visitors and commuters in the city centre.
- Improve the link between the west side of the City and the city centre.

8.2.3 The Order is intended to serve those objectives and in so doing to allow the following enhancements to be made to the 2005 Order scheme [4.1.13]:

- Better integration with the proposed major changes to the highway as a result of the PCR than would be possible under the 2005 Order;
- Utilisation of land made available by the PCR, thereby bringing the tramway closer to the redeveloped site and its various facilities;
- Avoiding the need for construction of a bridge over the Suffolk Street Queensway Tunnel, with its associated costs and disruption effects; and,
- Avoiding the need for a new retaining wall outside Alpha Tower at the junction of Suffolk Street Queensway and Broad Street.

8.2.4 No case was put that those objectives lack merit, or that the provisions of the draft Order and the proposed planning permission would be inconsistent with the stated objectives.

8.3 **Policy Consistency Of The Order's Objectives**

SM4 The extent to which the objectives of the TWA Order are consistent with national, regional and local transportation policies, the National Planning Policy Framework and local planning policies.

Transportation Policies

8.3.1 The West Midlands LTP 2011-2026 has "A rail and rapid transit network – Backbone for Development" as one of its ten long-term themes. The main ambition for Birmingham and Solihull is to support investment and to serve the ensuing increased travel demand in sustainable ways which do not increase congestion. Midland Metro extensions in Birmingham City Centre are a key challenge to underpin those goals [4.5.24, 4.5.25].

8.3.2 There was no reference in evidence to national transportation policies.

8.3.3 I am satisfied that the Order's objectives are fully consistent with relevant transport policies as expressed by the West Midlands LTP.

National Planning Policy Framework

8.3.4 The applicant has drawn attention [4.5.9] to various elements of the NPPF. Insofar as those relate to the Order's objectives, I find as follows:

- (a) The Order's objectives are consistent with the three dimensions to sustainable development described in NPPF paragraph 7.
- (b) NPPF paragraph 29 highlights the importance of sustainable transport, the provision of which is among the CSQ's objectives.
- (c) Paragraph 31 encourages transport providers and neighbouring local authorities to work together in the provision of viable infrastructure to support sustainable development, and such joint work lies behind the LTP. The tramway would operate between the CSQ and Wolverhampton [4.1.1], a cross-boundary means of serving the Order scheme's objective to deepen labour pools.
- (d) Paragraph 35 encourages the location of development so as to exploit opportunities for the use of sustainable transport modes. The juxtaposition of the Order scheme and the PCR site, and the proximity of tram stops to that site, illustrate the mutual consistency of paragraph 35 and the Order objectives.

8.3.5 The applicant goes on to consider other elements of the NPPF, relevant to the built environment and to the historic environment. VSH does the same. VSH also draws attention to NPPF paragraph 35 in the context of Pinfold Street and Victoria Square [6.3.11]. Although those considerations are relevant to the scheme they are not among the Order objectives and so I consider them later in my conclusions.

- 8.3.6 No other representation having been made regarding the Order objectives' harmony with the NPPF, my finding here is that the Order objectives are fully consistent with the NPPF's relevant provisions.
- Local Planning Policies*
- 8.3.7 The adopted statutory development plan for Birmingham is comprised of the UDP which was first adopted in 1993 and reviewed in 2005. The UDP plan period ended in 2011. Although now out of date, a number of the UDP policies have been saved and continue to be part of the statutory development plan. The weight that can be attributed to them in planning decisions depends on the extent to which they are consistent with the NPPF (NPPF paragraph 215).
- 8.3.8 The applicant draws attention [4.5.13] to the following saved policies of the UDP:
- (a) Policy 4.54, which prioritises transport provision to underpin the City Centre's economic well-being.
 - (b) Policy 6.19: "The transport strategy comprises the following principal elements:- (a) A package [of] infrastructure improvements including: Enhancement of heavy rail lines; In addition to the extension of Midland Metro Line 1 from Snow Hill to Five Ways ... [other measures]."
 - (c) Policy 6.33: "The development of a modern light rail/light rapid transit system (Midland Metro) complementary to the existing heavy rail network would further the City's strategy for economic and urban regeneration."
 - (d) Policy 6.34: "The light rail/light rapid transit system will be provided by the West Midlands Passenger Transport Authority, the Strategic Rail Authority, transport operators, the private sector, and with the active support of the City Council. ... The initial element will be an extension of the Midland Metro Line One ... to serve the heart of the city centre and on to Five Ways/Edgbaston (T45). ..."
- 8.3.9 UDP policies 4.54, 6.19, 6.33 and 6.34 are fully congruent with the Order's objectives.
- 8.3.10 I am satisfied that, by virtue of their evident consistency with NPPF paragraphs 29, 31 and 35, UDP policies 4.54, 6.19, 6.33 and 6.34 have a high degree of consistency with the NPPF; therefore full weight may be attributed to those policies.
- 8.3.11 The applicant also refers to UDP policies 15.4, 15.13 and 15.18 [4.5.13], all of which are in the City Centre chapter of the UDP. Policy 15.4 provides a high-level narrative, mentioning various planned changes. In addition to policies listed in paragraph 8.3.9, I am satisfied that the Order's objectives also serve:
- Policy 15.13, which reflects the need for improved accessibility for the future development of the City Centre; and,
 - Policy 15.18, which identifies implementation of the BCCE as a priority to facilitate the physical expansion of the central area's activities.

The Emerging Development Plan

- 8.3.12 The emerging Birmingham Development Plan (document CD35) was submitted for examination on 1 July 2014 [4.5.17]. Attention has been drawn to the following draft policies that are relevant to the Order objectives:
- (a) Draft Policy TP40 "Public Transport". Measures for bus, coach and rail are set out. The draft policy concludes:
"Rapid Transit – Midland Metro and Bus Rapid Transit
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."
 - (b) Draft Policy GA1.2 "City Centre Growth and Areas of Transformation". High-level aspirations for development in the City Centre are outlined, and detail is added for Eastside, Southern Gateway, New Street Southside, Westside and the Snow Hill District. The entry for Westside includes:
"Commercial led mixed use developments will be supported in this area including the redevelopment of the Paradise Circus and Arena Central sites. ... The extension of the metro line and other improvements to connectivity within the area will be supported. The redesign of Centenary Square will need to provide improved public transport accessibility and significantly enhanced pedestrian environment alongside a useable event space."
- 8.3.13 It seems to me that the Order objectives are consistent with these draft policies taken as a whole.
- 8.3.14 VSH reviews the policy context of the CSQ, and recent developments, and concludes [6.5.12] "the opportunity should be taken to review the route of the CSQ rather than pressing ahead with the currently-proposed route." I am mindful of the currently-emerging Birmingham Development Plan and its provisions in respect of the Metro [4.5.18, 4.5.20]. I have no reason to doubt that the route of the CSQ was considered by the local planning authority in framing the emerging Plan, and I do not accept that a further review is necessary. The route shown in the emerging Plan is consistent with the Order proposals. I consider the merits of suggested alternative routes, elsewhere in these conclusions.
- 8.3.15 By virtue of the progress the emerging plan has made toward adoption, at least moderate weight should be attributed to its draft policies.

8.4 **Environmental Statement**

SM7 The adequacy of the ES 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 requirements have been complied with.

Scenarios Considered

8.4.1 The approach taken in the Variation ES reflects the Scoping Report and the Scoping Opinion issued by the DfT on 14 May 2013 (in document CD14). The Variation ES considers two scenarios [4.4.2]:

- “Do minimum” – the 2005 Scheme including committed developments and committed transport and Metro-related schemes; and,
- “Do something” – the Variation including committed developments and committed transport and Metro-related schemes.

Environmental Statement

8.4.2 The Variation ES includes, among other things:

- (a) A description of the project comprising information on the site, design and size of the proposed works (document CD13, Chapter 2 “Scheme Description”).
 - (b) Descriptions of the measures proposed to be taken in order to avoid, reduce and, if possible, remedy any significant adverse effects on the environment of the proposed works (document CD13, sections 4.10, 5.3, and in Chapters 7 to 15, summarised in table 16.1).
 - (c) Data required to identify and assess the main effects which the proposed works are likely to have on the environment (document CD14, Volumes 2F and 2G).
 - (d) An outline of the main alternatives to the proposed works studied by the applicant and an indication of the main reason for his choice, taking into account the environmental effects (document CD13, Chapter 3, “Need and Alternatives”).
- And
- (e) A non-technical summary of the information provided under sub-paragraphs (a) to (d) (document CD15).

8.4.3 The Secretary of State has given a Scoping Opinion in respect of this application [4.4.156]. Table 4.2 in the Variation ES (document CD13) lists the additional matters identified in the Scoping Opinion and indicates where in the Variation ES Main Statement those matters are considered.

8.4.4 VSH raises various matters regarding the adequacy of the ES:

- (a) The Variation ES contains no assessment of the environmental effects of the potentially-necessary strengthening of the Suffolk Street Queensway south portal as part of the Variation and, in VSH’s view, the Variation ES is therefore incomplete. [6.3.60]. I note that proposed planning condition 6 would require compliance with the CoCP, purposes of which include defining minimum standards of construction practice and identifying (through the site- and context-specific CoCP Part 2) how those standards are to be achieved. It seems to me that, by that means, sufficient environmental safeguard should be

provided through the CoCP, which is a technical appendix to the Variation ES. There can be confidence that the environmental standards set by the CoCP would not be breached.

- (b) VSH raises two matters with regard to the assessment of the Variation's heritage effects in the Variation ES.
- i) The Variation ES does not consider whether the Variation's benefits outweigh the harm it would cause, in the way described by paragraph 134 of the NPPF, and VSH holds that to be a flaw [6.4.36]. I do not agree; there is no such requirement in either Rule 11 or Schedule 1 to the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006. Nor does paragraph 134 require that the weighing described should be attempted in the ES.
 - ii) VSH finds several shortcomings in the Cultural Heritage section of the 2003 ES [6.4.34] which sets the baseline for the Variation ES. VSH's consequent concern for the Variation ES is not clearly articulated in their written representation. I have considered whether any such error could affect the Cultural Heritage findings of the Variation ES. My findings on the environmental impacts of constructing and operating the revised tramway alignment appear later in this report. I find that the Variation would have no significant effect on archaeology and cultural heritage. Since the Variation would not worsen the tramway's effect on cultural heritage the validity of the Variation ES in that respect does not depend on the 2003 ES's assessment with regard to cultural heritage.
- (c) The Variation ES considers alternative alignments for the Variation but, in VSH's submission [6.6.12 to 6.6.14], is deficient in that it does not "consider any off-line route option let alone one along Navigation Street and Suffolk Street Queensway". In my view, (i) nothing in the Rules requires an ES to consider any particular Alternative but rather Rule 11(1)(d) requires information about "the main alternatives to the proposed works studied by the applicant" and the applicant having done that (a reference is provided in 6.6.12) is not at fault. And (ii), in any event, AOB (which follows Navigation Street and Suffolk Street Queensway) is not in my view an alternative to the works that are the subject of the Variation ES, that is, the Variation. The Variation extends from Paradise Street to Centenary Square whereas AOB extends from Stephenson Street to Centenary Square. I find no fault in the approach to alternatives taken by the Variation ES.

8.4.5 I am satisfied that the ES is adequate in the terms of Rule 11.

Statutory Requirements

8.4.6 Centro confirmed that the Variation ES was prepared in accordance with the Applications Rules and with current legislation, Government policies and regulations [4.4.154].

Strategic Environmental Assessment

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- 8.4.7 In its closing submissions, VSH raised the matter of strategic environmental assessment (SEA), arguing that SEA is required to be carried out for the tram route forming part of the Midland Metro tram project in Birmingham as a whole; that such an assessment should include the assessment of alternatives; that those requirements have not been met; and that, before the Secretary of State makes a decision on the Order, full and proper SEA must be carried out [6.6.1 to 6.6.13].
- 8.4.8 Centro, replying in its closing submission, indicates that VSH's submission depends on the BCCE "project" also being a relevant "plan or programme" but VSH has not explained how that is so or, if it were a plan or programme, why SEA would be necessary; and that even if Centro's position was wrong with regard to SEA, evidence given at the Inquiry regarding alternative route options for the tramway allowed the situation to be recovered even if the Variation ES itself was held to be deficient in its non-consideration of the route options advanced by VSH (a proposition that Centro does not support) [7.5.1 to 7.5.12].
- 8.4.9 For my part:
- (a) Article 1 of European Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment" (the SEA Directive) seeks to achieve the objectives of the SEA Directive "by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment".
 - (b) Article 2 of the SEA Directive defines "plan" and "programme" in terms that are not narrowly construed by the Courts [7.5.4]. But VSH has not explained what it is about the CSQ proposal that elevates it from what is a relatively modestly-scaled transport scheme proposal some 680m long [7.2.39] to something within the Article 2 definition. In the absence of such an explanation I am satisfied that the scheme that the Order would facilitate is a project rather than a plan or programme. And that view is supported by Planning Practice Guidance.
 - (c) Planning Practice Guidance on SEA includes the following at reference ID 11-003-20140306:

"Sustainability appraisal and strategic environmental assessment are tools used at the plan-making stage to assess the likely effects of the plan when judged against reasonable alternatives. A sustainability appraisal of the proposals in each Local Plan is required by section 19 of the Planning and Compulsory Purchase Act 2004 and incorporates the required strategic environmental assessment.

"SEA alone can be required in some exceptional situations. This is usually only where either neighbourhood plans or supplementary planning documents could have significant environmental effects.

"In contrast, EIA is applied to individual projects which are likely to have significant environmental effects (also see the
-

Town and Country Planning (EIA) Regulations 2011)."

- (d) It is not my purpose to scrutinise the preparation of the emerging Birmingham plan and, in any event, no evidence was submitted regarding that process.
- (e) I find no reason to accede to VSH's submission regarding SEA.

8.5 Changes To The Order

SM13 The purpose and effect of any substantive changes proposed by the Executive to the TWA Order since the application was made, and whether anyone whose interests are likely to be affected by such changes have been notified.

- 8.5.1 The only substantive change proposed is the removal of Article 47 "Crown Rights", the retention of which is unnecessary as no Crown rights would be affected [4.6.2, 4.3.3]. There was no objection to this proposed change. The change should be made.
- 8.5.2 If made, the Order should therefore be as the draft submitted at the Inquiry, Document CEN/INQ9.1 [4.6.1].

8.6 Alignment in Paradise Circus

SM3 The alternative alignment options in Paradise Circus considered by the Executive.

- 8.6.1 Four design options were considered by Centro for that part of the CSQ in Paradise Circus, as a result of the highway changes proposed in conjunction with the PCR scheme. The two-stage selection process, and the options considered, are described in paragraphs 4.3.7 and 4.3.8 of this report. Three of the options could be accommodated in the limits of deviation established by the 2005 Order. The preferred option, which went forward into the Works Plan (CD04), was chosen for its superior traffic efficiency compared with the other options considered. Centro's unchallenged view is that the revised proposed tramway alignment in Paradise Circus offers advantages over the 2005 alignment [4.3.10]:
- (a) Better integration with the proposed major changes to the highway as a result of the PCR than would be possible under the 2005 Order;
- (b) Avoids the need for construction of a bridge over Suffolk Street Queensway, with its associated costs and disruption; and,
- (c) Avoids the need for a new retaining wall outside Alpha Tower.
- 8.6.2 For each of those reasons, I am satisfied that the variation in the tramway alignment, that the Order would allow, has merit.

8.7 Environmental Impacts Of The Revised Tramway Alignment

SM5 The likely environmental impacts of constructing and operating the revised tramway alignment, including:

- **Land use and land take;**

- **Traffic and transport;**
- **Noise and vibration;**
- **Air quality and dust;**
- **Archaeology and cultural heritage;**
- **Townscape and visual amenity;**
- **Contaminated land;**
- **Land drainage and water resources; and,**
- **Electromagnetic impacts.**

Land Use And Land Take

- 8.7.1 The revised tramway alignment (“the Variation”) would remove the need for a new bridge over Suffolk Street Queensway and for retaining structures at Alpha Tower, and so the Variation would reduce temporary land use and land take associated with the construction of the CSQ [4.4.10].
- 8.7.2 Once operational, the Variation would require less permanent land take than was authorised by the 2005 Order, particularly at the south-eastern corner of the junction between Paradise Circus and Suffolk Street Queensway, and in the Arena Central development [4.4.12].
- 8.7.3 No objection was raised at the Inquiry with regard to land use and land take associated with the Variation.
- 8.7.4 I am satisfied that the Variation would give rise to no major or significant adverse environmental impacts in respect of land use and land take.

Traffic and Transport

Environmental Impacts: Construction

- 8.7.5 Construction traffic associated with the “Do Minimum” and “Do Something” options would be of a similar intensity in either case but, because its works would be less substantial, the traffic impact of the construction of the “Do Something” scenario would be felt for less time. Construction of the Variation would therefore have a modest beneficial effect on traffic congestion. Construction of either option would have a significant adverse effect on bus routes and, potentially, a low adverse impact on pedestrians and cyclists [4.4.21]. Mitigation measures are proposed, as described in section 8.8 of this report.

Environmental Impacts: Operation

- 8.7.6 The “Do Something” scenario is estimated to result in slightly less traffic congestion at the Paradise Circus Queensway West/Broad Street junction than would be the case in the “Do Minimum” scenario. The applicant characterises this as a null impact. There would be no significant differences between the two scenarios for pedestrians, cyclists, buses, Hackney cabs, and access and servicing traffic. [4.4.24, 4.4.25]

Conclusion: Environmental Impacts Without Mitigation

- 8.7.7 Without mitigation, the Variation would, during its construction and operation, give rise to no adverse impact for road users, other than bus

users, pedestrians and cyclists during construction of the scheme.

Noise and Vibration

Environmental Impacts: Construction

- 8.7.8 There would be no significant difference between the construction noise and vibration associated with the "Do Minimum" scenario and that associated with the "Do Something" scenario. [4.4.36]

Environmental Impacts: Operation

- 8.7.9 There would be no significant difference between the operational noise and vibration associated with the "Do Minimum" scenario and that associated with the "Do Something" scenario. [4.4.44]

Conclusion: Environmental Impacts Without Mitigation

- 8.7.10 Operational noise and vibration is the subject of proposed planning condition 9, which is closely derived from condition 10 in the 2005 consent. With both options subject to that control, no other mitigation is necessary and the noise and vibration effects of the "Do Something" scenario would be insignificant.

Air Quality And Dust

Environmental Impacts: Construction

- 8.7.11 Atmospheric emissions and dust generated by construction of the Variation would not be significant. [4.4.50 to 4.4.52]

Environmental Impacts: Operation

- 8.7.12 Operational impacts in the "Do Something" scenario would be negligible. [4.4.53]

Conclusion: Environmental Impacts Without Mitigation

- 8.7.13 As no significant air quality and dust impacts are predicted associated with the Variation, no additional mitigation would be required.

Archaeology And Cultural Heritage

Preamble

- 8.7.14 The applicant has provided two main bodies of evidence regarding cultural heritage: Chapter 11 of the Environmental Statement, and the evidence of Mr Surfleet. There is also other evidence.

- 8.7.15 Chapter 11 of the Variation ES takes the same approach (which I will term "relative") as Chapters 7 to 10 and 12 to 15; it is concerned with the difference the Variation would make to the environmental effects of the CSQ scheme. The Scoping Report explains the approach in its section 2.5:

"The original ES had already considered the potential environmental impacts of the whole BCCE. The ES for the new TWA Order application will focus on the difference between the consented BCCE and the proposed revision to the route. In particular, the ES will only assess any potential for significant environmental impacts that are new (i.e. unintended or not previously assessed) and/or additional (i.e. improved or worsened), compared to those already assessed in the original ES. The potential sensitive receptors could include the future occupiers within

the redeveloped Paradise Circus (mainly at its southern part) and on any existing/future receptors around the Paradise Street/Queensway area. These are considered further in the remaining chapters of this Scoping Report and will be the focus of the EIA.

"The proposed Midland Metro Development would not affect the CSQ sections at the eastern end (i.e. from Corporation Street to the Birmingham Town Hall section) or the western end (i.e. Broad Street to Five Ways section). These two sections will be delivered within the current BCCE TWA Order Limits of Deviation. ..."

8.7.16 ES paragraph 11.1.1 confirms the approach:

"This ES chapter identifies the archaeology and cultural heritage impacts of the Variation in the "Do Something" scenario and then compares [them] against those impacts of the 2005 Scheme in the "Do Minimum" scenario."

8.7.17 In contrast, Mr Surfleet (for Centro) takes what I will term an "absolute" (rather than "relative") approach, illustrated by the table of findings at 6.6 in CEN/P4.1/CUL, in which the "Do Something" scenario appears but the "Do Minimum" does not. And there are references to (for example) the effect of out-lying poles and overhead lines around two sides of Victoria Square House [4.4.89]; and fixings to the Town Hall and the wires that would depend on them [4.4.80]. These are clearly not part of the Variation; they are references to design elements outside the proposed limits of deviation and they are not part of "constructing and operating the revised tramway alignment".

8.7.18 I therefore address SM5 and SM6 in the context of evidence that addresses the relative effects of the Variation.

Environmental Impacts: Construction

8.7.19 There would be no significant difference between the scheme's construction effect on archaeology and cultural heritage associated with the "Do Minimum" scenario and that associated with the "Do Something" scenario. [4.4.58, 4.4.63]

Environmental Impacts: Operation

8.7.20 There would be no net change in the scheme's operational effect on archaeology and cultural heritage as a result of adoption of the "Do Something" scenario. [4.4.58, 4.4.65]

Hall of Memory

8.7.21 When the Variation ES was prepared, the Hall of Memory was a Grade II listed building but shortly before the Inquiry it was reclassified to Grade I. The applicant has considered this change and considers that it should not affect these conclusions [4.4.81 to 4.4.83]. I find no reason to take a different view.

Conclusion: Environmental Impacts Without Mitigation

8.7.22 Without mitigation, the Variation would have no significant effect on archaeology and cultural heritage.

Townscape And Visual Amenity

Preamble

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- 8.7.23 The applicant has provided two main bodies of evidence regarding townscape and visual amenity: chapter 12 of the Variation ES, and the evidence of Ms Bolger. There is also other material.
- 8.7.24 Chapter 12 of the Variation ES takes the same “relative” approach as I have described in paragraph 8.7.15; it confirms in its paragraph 12.1.1 that it is concerned with the difference the Variation would make to the environmental effects of the CSQ scheme. Ms Bolger takes an “absolute” approach, considering (for example) townscape issues along the whole length of the CSQ [4.4.104].
- 8.7.25 I therefore address SM5 and SM6 in the context of evidence that addresses the relative effects of the Variation.
- Environmental Impacts: Construction*
- 8.7.26 Construction impacts on townscape and visual amenity arising in the “Do Something” scenario would be less adverse than in the “Do Minimum” scenario. No mitigation measures are required. [4.4.100]
- Environmental Impacts: Operation*
- 8.7.27 In operation, the Variation would enable the tram route to be integrated within the PCR development and hence to have a less adverse impact on the wider public realm. Overall the Variation would result in a slight beneficial change in operational impacts on townscape or visual receptors. [4.4.101]
- Conclusion: Environmental Impacts Without Mitigation*
- 8.7.28 Without mitigation, the Variation would have a small beneficial effect on townscape and visual amenity.
- Contaminated Land**
- Environmental Impacts: Construction*
- 8.7.29 There would be little difference between the scheme’s effects regarding contaminated land in the “Do Something” and “Do Minimum” scenarios. There would be a decreased risk to groundwater in the “Do Something” scenario because no piling would be required. [4.4.138]
- Environmental Impacts: Operation*
- 8.7.30 Operational impacts with regard to contaminated land, soils and geology have been scoped out of the Variation ES, as was the case for the 2003 ES. [4.4.139]
- Conclusion: Environmental Impacts*
- 8.7.31 Mitigation would be provided in accordance with the CoCP. With that, there would be no significant residual impact relating to contaminated land, geology and soils. [4.4.140]
- Land Drainage And Water Resources**
- Environmental Impacts: Construction*
- 8.7.32 The scheme’s effects regarding land drainage and water resources would be similar in the “Do Something” and “Do Minimum” scenarios. [4.4.142]
- Environmental Impacts: Operation*
- 8.7.33 Operational impacts on land drainage and water resources have been
-

scoped out of the Variaton ES. [4.4.144]

Conclusion: Environmental Impacts

- 8.7.34 Mitigation would be provided in accordance with the CoCP. Such mitigation would result in there being no significant residual impacts relating to land drainage and water resources.

Electromagnetic Impacts

Environmental Impacts: Construction

- 8.7.35 The electromagnetic impacts during the construction phase are likely to be very similar with or without the Variation. [4.4.148]

Environmental Impacts: Operation

- 8.7.36 There is not likely to be any substantial increase in the levels of electromagnetic radiation in the "Do Something" scenario when compared with the "Do Minimum" scenario. [4.4.149]

Conclusion: Environmental Impacts Without Mitigation

- 8.7.37 The Variation would not give rise to any additional substantial electromagnetic impact.

8.8 Mitigation Of Adverse Impacts

SM6 The measures proposed by the Executive to mitigate any adverse impacts of the proposals in the TWA Order, including any measures to avoid, reduce or remedy any major or significant adverse environmental impacts of the proposals; and whether any adverse environmental impacts would remain after the proposed mitigation.

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- 8.8.1 The following paragraphs catalogue the mitigation measures proposed with regard to the Variation, and its residual environmental effects. None of the evidence reported here was in dispute.
- 8.8.2 The CoCP would be generally applicable, through proposed planning condition 6. It would mitigate various adverse effects of constructing the Variation. [4.4.6, 4.4.8]
- Land Use And Land Take*
- 8.8.3 No addition mitigation is proposed. The residual impact of the Variation on land use and land take is likely to be a reduction in the amount of land required for the CSQ. [4.4.13, 4.4.14]
- Traffic and Transport*
- 8.8.4 To mitigate adverse traffic and transport impacts during construction of the Variation, temporary traffic management measures would be introduced, alternative pedestrian/cycle routes would be provided, the interaction of construction traffic with pedestrians and cyclists would be managed, and bus timetables would be temporarily revised. Residual impacts during construction of the Variation would be not significant. The Variation would give rise to no significant operational adverse impacts on traffic and transport. [4.4.21, 4.4.29]

Noise And Vibration

- 8.8.5 No additional mitigation is proposed during construction of the Variation. Planning conditions are proposed, to allow operational noise to be regulated. The Variation's residual effect on noise and vibration would be neutral. [4.4.34 to 4.4.49]

Air Quality and Dust

- 8.8.6 No significant air quality and dust impacts are predicted associated with the Variation, and no additional mitigation is proposed. [4.4.54, 4.4.55]

Archaeology And Cultural Heritage

- 8.8.7 The site of the Variation was redeveloped in the 1960s and excavation for the Variation would be shallow. Disturbance of unknown archaeological assets is unlikely and no additional mitigation is proposed in that respect. [4.4.58]
- 8.8.8 As I have found in paragraph 8.7.22, without mitigation the Variation would have no significant effect on archaeology and cultural heritage. No additional mitigation would be provided in that respect.

Townscape And Visual Amenity

- 8.8.9 Without additional mitigation, construction of the Variation would cause no significant adverse effect on townscape and visual amenity [4.4.95, 4.4.96]. In the operational phase the Variation would give rise to a slight beneficial change in townscape and visual amenity. No mitigation would be necessary [4.4.101].

Contaminated Land

- 8.8.10 No additional mitigation, beyond that to discharge the CoCP, would be provided unless found necessary by the application of planning condition 7. The Variation would give rise to no significant residual effect relating to contaminated land. [4.4.140]

Land Drainage And Water Resources

- 8.8.11 Application of the CoCP would result in the Variation causing no significant residual impacts on land drainage and water resources. [4.4.145]

Electromagnetic Issues

- 8.8.12 Mitigation measures are required by planning condition 12 to ensure that the risk of EMI/EMF remains low during construction and operation of the Variation. Subject to that, there would be no residual impact in respect of electromagnetic issues.

8.9 Property Interests

SM8 To the extent that objections made by the owners and occupiers of land that would be affected by the proposals in the TWA Order have not been withdrawn, the likely impact of those proposals on the property interests concerned.

Victoria Square House

- 8.9.1 The objector was VSH Nominees 1 Limited and VSH Nominees 2 Limited ("VSH"), owners of Victoria Square House and therefore a statutory objector [4.3.4]. The parts of VSH's objection that are directly related to their property interest include:
- (a) The CSQ scheme's effect on maintenance at Victoria Square House [6.2.5 to 6.2.8];
 - (b) The effect on fire exits from Victoria Square House [6.2.9 to 6.2.12];
 - (c) The effect on the north-eastern door to Victoria Square House [6.2.13, 6.2.14]
 - (d) Plots 39, 40, 41, 42 and 49 [6.2.15]
- 8.9.2 VSH raises other matters, including the heritage effects the CSQ would have on Victoria Square House; I consider those elsewhere in the conclusions.
- The CSQ's effect on the maintenance of Victoria Square House*
- 8.9.3 VSH is concerned that the tramway would pass too close to the building's Pinfold Street frontage to allow access to the façade and roof drainage etc for maintenance [6.2.5 to 6.2.8]. The "Chateau" at Victoria Square House is a listed building [4.4.59] and the whole property is in a conservation area and so there is a public interest in the property's upkeep alongside that of VSH.
- 8.9.4 Centro's reply [7.1.1 to 7.1.5] has four main elements. The possibility that VSH might arrange for planned maintenance of the building before the tramway came into use is no more than a short-term remedy. But, in the longer term, short-term night possessions of the tramway could be obtained for minor maintenance work and, for larger tasks, scaffolding could be used. And ad hoc arrangements could be made in emergencies. It seems to me that access could be safely arranged as necessary for its maintenance.
- 8.9.5 It is undeniable that with the tramway such access would be less convenient, and therefore possibly more expensive, than at present. This can be a matter for compensation, as VSH suggests. I do not accept VSH's suggestion that the compensation code should be set aside on the basis that a building owner might decide to not maintain his property properly, particularly where the building is Listed and in a conservation area.
- 8.9.6 I find that the scheme would not preclude the proper maintenance of Victoria Square House.
- The Effect On Fire Exits*
- 8.9.7 Victoria Square House is on the western side of Pinfold Street. VSH is concerned that means of escape from Victoria Square House in the event of an emergency would be rendered unsafe by the presence of the tramway in Pinfold Street [6.2.9 to 6.2.12]. Attention is drawn to Approved Document B of the Building Regulations. To help prevent occupants from discharging directly onto the tram track, a pedestrian barrier may be installed at the discharge point; but there would in places be insufficient width available to do so. And VSH is concerned that the

exit door at the Rotunda could not be opened safely as (in VSH's opinion) it could be struck by a passing tram.

8.9.8 This part of Pinfold Street would be traffic-free, apart from trams, and reserved for pedestrians [7.2.3]. Trams would pass along the western side of the street (and also along the eastern side) once every six minutes. The speed of the trams here would be up to 15 kph [7.2.2]. If people were leaving the building onto the street in an emergency then any approaching tram would stop; tram drivers would be trained to drive the route and would be aware of potential hazards [7.1.6]. The Rotunda door is 1,000mm wide whereas the DKE would be 1,370mm from the face of the building at that point and so there would be no risk of a tram hitting the door [7.1.7].

8.9.9 Centro proposes that the final exit from each fire escape should be by direct access to Pinfold Street. I note the low speed and low frequency of the trams, the clear visibility that I saw a tram driver would have along Pinfold Street, and Centro's expectation that, faced with evacuation of the building into Pinfold Street, the trams would stop until it was safe to proceed. I conclude that the arrangement proposed by Centro would be acceptable in respect of the proposed means of escape.

The Effect On The North-Eastern Door To Victoria Square House

8.9.10 Centro proposes to close this door permanently for safety reasons arising from its proximity to the proposed tramway [4.4.89]. The door had been closed on a permanent basis for some time at the time of the Inquiry but VSH (having recently acquired the building) intended to re-open it, so as to improve the usefulness of the building. Listed building consent for associated works has been obtained.

8.9.11 Permanent closure of the door would not affect the building's special architectural or historic interest [4.4.89(c)].

8.9.12 I am satisfied that, were the scheme to proceed, permanent closure of the door would be necessary for safety reasons arising from its proximity to the proposed tramway. The matter would therefore be one of compensation.

Plots 39, 40, 41, 42 and 49

8.9.13 Aside from the matter of the north-eastern door to Victoria Square House, interests in these plots are sought by Centro for the purpose of accommodation works as I have reported [4.3.4, 4.3.5]. No reason was identified by VSH as to any deficiency in the Order in respect of the matters raised by VSH [6.2.15]. Nor was there any contention that the measures at these plots proposed by Centro would not be necessary. The matter would therefore be one of compensation.

Conclusion: Property Interests at Victoria Square House

8.9.14 I conclude that the likely impact on property interests at Victoria Square House of the proposals in the TWA Order would be acceptable.

Premises at 49 Pinfold Street

8.9.15 Centro brought no evidence in support of its contention that the objection of Now Leisure Ltd (Obj/3) was withdrawn [6.7.1, 7.6.1].

8.9.16 Now Leisure Ltd's objection expresses concern that customers would be

unable to walk by, and into, the shop both during the works and afterward. The Part 1 CoCP would provide for access to premises that would be affected by the works [4.4.7]. And, for reasons given elsewhere in these conclusions, I find in paragraph 8.12.5 that the proposed provision for pedestrians in Pinfold Street would be adequate when the scheme is in operation.

8.9.17 I conclude that the likely impact on property interests at 49 Pinfold Street of the proposals in the TWA Order would be acceptable.

8.10 **Planning Conditions**

SM12 The conditions proposed to be attached to the deemed planning permission for the revised tramway alignment, if given, and in particular whether those conditions satisfy the six tests referred to in Planning Practice Guidance, Use of Conditions (Section ID:21a).

8.10.1 The Order application was accompanied by the Order planning request (document CD20), to which was appended a Schedule of proposed planning conditions. Those have been discussed with the local planning authority [4.5.28], which raises no objection [5.1]. No objection was raised, by any party, to any proposed planning condition in document CD20; nor were any other conditions suggested.

8.10.2 Discussion at the Inquiry identified a number of points of clarification, which are most readily identified from document CEN/INQ39.2. I adopt those changes, and further modify proposed condition 12 to incorporate further technical standards identified by the applicant as necessary to control the EMI/EMF emissions level [4.4.148].

8.10.3 I have set out in the first Appendix to this report the conditions which I consider should be attached to deemed planning permission for the Variation, if given.

8.10.4 I am satisfied that the planning conditions I recommend would meet the six tests referred to in Planning Practice Guidance, Use of Conditions 21a-003-20140306 and in paragraph 206 of the NPPF of being necessary, relevant to planning and to the development permitted, enforceable, precise and reasonable in all other respects.

8.11 **Funding**

SM11 The Executive's proposals for funding the cost of the Centenary Square Extension.

8.11.1 Centro proposes that funding for the CSQ would be drawn from four sources [4.1.20 to 4.1.22]:

- (a) GBSLEP has been given responsibility by Government for an indicative allocation of £27 million for local major transport schemes between 2015 and 2019. £5 million of devolved local transport funding will be allocated to the CSQ.
- (b) The Birmingham City Centre Enterprise Zone was approved by

Government on 28 July 2011. The GBSLEP approved the City Centre Enterprise Zone Investment Plan on 26 July 2012, which includes investment in the CSQ. This was re-confirmed in an updated version of the Investment Plan published in July 2014. Funding from this source amounts to £18.50m [4.1.22].

- (c) Developer Contributions – At the Inquiry, Centro expected that the developers of the PCR would undertake to make an “in kind” contribution to CSQ worth £4.7m. A “final draft” of the agreement by which this was expected to be secured is at Annex 7 of document CEN/INQ40. The agreement would be between Centro, Birmingham City Council and Paradise Circus Partnership Ltd. To minimise construction disruption the developers will construct CSQ infrastructure as part of the highway alterations that they will undertake, commencing from 2015.
- (d) Centro Prudential Borrowing of £6.00m, in accordance with the Prudential Code for Capital Finance in Local Authorities. Centro would meet the borrowing costs from the increased Metro revenues generated by the CSQ in operation [4.1.20(d), 4.1.22].

8.11.2 These arrangements were not challenged at the Inquiry.

8.11.3 Annex 7 of CEN/INQ40 is the draft agreement (“the Annex 7 Agreement”, referred to in paragraph 8.11.1(c) above) between Centro, Birmingham City Council and Paradise Circus Partnership Ltd. At the inquiry this was expected to be completed in January 2015. Centro then intended to provide to the Secretary of State a copy of the completed agreement.

8.11.4 I conclude that, subject to submission to the Secretary of State, by Centro, of the completed “Annex 7 Agreement”, sufficient arrangements have been made for funding the modified CSQ.

8.12 **The Modified CSQ – Pedestrians, Heritage, Townscape etc**

Introduction

8.12.1 In addition to the Variation, Centro made revised proposals for elements of the CSQ scheme within the 2005 Order limits, at Centenary Square [4.3.12], Pinfold Street, Victoria Square and Paradise Street [4.3.15]. I now consider representations made in respect of those and in respect of the effects the CSQ, with those modifications and with the Variation (“the modified CSQ”), would have on the pedestrian environment, cultural heritage, townscape and visual amenity of the area.

Centenary Square

8.12.2 The new proposal for a terminus tram stop in the centre of Broad Street was not contentious. [4.3.12]

Pinfold Street and Victoria Square

Pedestrians In Pinfold Street

8.12.3 Pinfold Street is currently a cul de sac to vehicles but it is open to pedestrians at each end. A recent survey found that some 8,500

pedestrians used Pinfold Street during 12 consecutive daytime hours. The scheme would allow only trams and pedestrians to use Pinfold Street north of its junction with Stephenson Street. A tram-free footway would be provided on the north-eastern side of Pinfold Street [7.2.6]. VSH is concerned that, once trams were introduced to Pinfold Street, conditions there for pedestrians would become cramped, unattractive and dangerous; and draws attention to Appendix B of "Pedestrian Comfort Guidance for London" [6.3.7 to 6.3.10].

- 8.12.4 I am satisfied that "Inclusive Mobility" and "Pedestrian Comfort Guidance for London" offer the most suitable guidance available for an assessment of the proposed footway. Detailed dimensions produced by Centro [7.2.8] seem to me to indicate that full compliance with "Inclusive Mobility" would be "missed" in that, over a distance 5.0m greater than indicated by the guidance, the footway would be less than 5mm too narrow for two wheelchairs to pass comfortably. And Centro's detailed assessment using "Pedestrian Comfort Guidance for London" [7.2.10] found the proposed footway capacity to be greater by some margin (even in the peak hour) than the observed demand for pedestrian activity in Pinfold Street. Appendix B of the Guide does not provide a detailed assessment [7.2.11] and so the applicant's findings are to be preferred.
- 8.12.5 Overall, I conclude that the proposed provision for pedestrians in Pinfold Street would be adequate. The development would make sufficient separate provision for pedestrians alongside a mixed use area of a type that functions satisfactorily elsewhere [7.2.1]. In a practical way the relevant goals of NPPF paragraph 35 would be met.

Pedestrians and Trams In Victoria Square

- 8.12.6 Centro's evidence includes the following. Experience with tram systems in Wolverhampton and Manchester is that, where trams operate in areas which are primarily for pedestrian use, pedestrians experience greater freedom of movement than in areas penetrated by motor traffic [7.2.1]. Victoria Square would take 25 seconds to transit and so a tram would be present in Victoria Square for less than 8½ minutes out of every hour. And the previous Inspector found that "trams, being on a fixed route, co-exist with pedestrians more readily than do motor vehicles" and that "trams are inherently compatible with pedestrian use of the streets." [4.4.116]
- 8.12.7 VSH considers that the area of restricted width in Victoria Square (near the junction with Pinfold Street, where the tramway would turn from Pinfold Street toward Paradise Street) would be hazardous by virtue of conflicts between trams and pedestrians, and the quantity of pedestrians [6.3.10]. VSH is concerned that pedestrian congestion would occur, and the people might step off the pedestrian route into the Metro line.
- 8.12.8 Centro replies that for a large proportion of the time there would be no tram present in the area in question, and so no hazard to pedestrians in the tramway at those times. At other times, there would (according to Centro's use of "Pedestrian Comfort Guidance for London") be enough space, to the side of the tramway and separated from it by bollards, for the estimated number of pedestrians to proceed in "Acceptable" conditions at the busiest times, and in "Comfort" otherwise [7.2.14 to 7.2.17].

- 8.12.9 I am mindful too of the evidence and conclusion I have cited in paragraph 8.12.6; there was no evidence of experience to the contrary. Tram drivers on the CSQ would be trained to drive the route and would be aware of potential hazards [7.1.6].
- 8.12.10 In conclusion, I find nothing in the likely interaction between pedestrians and trams at Victoria Square that weighs against the Order. The development would make sufficient separate provision for pedestrians alongside a mixed use area of a type that functions satisfactorily elsewhere [7.2.1]. In a practical way the relevant goals of NPPF paragraph 35 would be met.

The Modified CSQ's Implications For Cultural Heritage

- 8.12.11 Both parties submitted assessments of the Cultural Heritage implications of the CSQ with the proposed Variation and changed design proposals within the 2005 limits of deviation. Those assessments were prepared in awareness of changes to policy and guidance in the intervening period [4.4.66 to 4.4.68].
- 8.12.12 In concluding on these matters, I have regard to the following (among other things):
- (a) S66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 ("the PLB&CA Act"): in considering whether to grant planning permission for development which affects a listed building or its setting, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.
 - (b) S72(1) of the same Act: ... with respect to any buildings or other land in a conservation area ... special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area.
 - (c) In the Barnwell Manor case (Appendix 6 in OP/SOC2.2/OBJ11), the Court of Appeal held that:
 - (i) "despite the slight difference in wording, the nature of the duty is the same under both" s66 and s72(1), and
 - (ii) a decision-maker, having found harm to a heritage asset, must give that harm "considerable importance and weight".Having regard to the judgement in the Barnwell Manor case it seems to me that it does not follow that if the harm to the listed buildings or their settings is found to be less than substantial, the subsequent balancing exercise undertaken by the decision maker should ignore the overarching statutory duty imposed by S66(1) of the PLB&CA Act. There is therefore a need to give considerable importance and weight to the desirability of preserving all listed buildings and their settings, in this application, that the scheme would harm. And the same applies in the case of Conservation Areas and the provision made by S72(1) of the PLB&CA Act.
 - (d) NPPF paragraph 134 provides that where a development proposal will lead to less than substantial harm to the

significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use. And paragraph 132 makes general reference to the "great weight" to be given to the conservation of designated heritage assets.

- (e) Current planning practice guidance on conserving and enhancing the historic environment. My attention is drawn to NPPG reference ID 18a-017-20140306 [4.4.68].
- (f) UDP policies 3.22, 3.25 and 3.27, and policy TP12 of the emerging Birmingham Development Plan [4.5.14, 4.5.18]. These state that proposals which would adversely affect buildings or areas of architectural interest will not normally be allowed (3.22); that any development affecting a listed building should preserve or enhance its character, and that the setting of listed buildings will be preserved and enhanced by the exercise of appropriate control over the design of new development in their vicinity (3.25); that development proposals in Conservation Areas should preserve or enhance the character or appearance of the area (3.27); and that great weight shall be given to the conservation of Birmingham's heritage assets, and new development affecting a designated heritage asset or its setting will be expected to make a positive contribution to its character, appearance and significance (TP12).
- (g) Although VSH draws attention to section 16 of the Planning (Listed Buildings and Conservation Areas) Act 1990 [6.4.22, 6.4.37], no application for listed building consent was before the Inquiry and so I do not include section 16 of that Act in my reasoning.

8.12.13 There was no contention that any harm, caused by the modified CSQ to any designated heritage asset, would be greater than the "less than substantial" level of harm to which NPPF paragraph 134 refers.

Birmingham Town Hall

8.12.14 Suspension wires would be attached to the solid wall within the south-facing colonnade of this listed building and extend through the colonnade and across Paradise Street [4.4.80]. That arrangement would be harmful to the building due to the juxtaposition of wires and colonnade and the sensitivity of the building. The setting of the Town Hall contributes to its significance, as noted for VSH [6.4.2 to 6.4.4]. The setting would change by virtue of the added harmful presence of the tramway, OLE, tram stop and its paraphernalia; and by virtue of what is termed a replacement streetscape [4.4.80]. The new streetscape would go some way toward mitigating the harm to the setting of the Town Hall, through the consistent use of paving materials and the removal of various incongruous, "engineered" features [4.4.102, 4.4.126 - 4.4.128, 7.3.3]. VSH is additionally concerned by the relationship between the Town Hall's south arcade and the surrounding pavement [6.4.8] but it seems to me that that relationship, with the scheme in place, would be very similar to that which I saw during my visits. VSH considers the overall effect to be a major adverse impact [6.4.12] but does not refer to the

proposed replacement streetscape, which would mitigate the harm to an extent; Centro does, and finds a moderate adverse impact on the building and a minor adverse impact on its setting [4.4.80].

- 8.12.15 It is clear to me that there would be harm to the Town Hall and its setting. With the proposed mitigation there would be a moderate adverse impact on the building and a minor adverse impact on its setting. Section 66(1) of the PLB&CA Act would be engaged, and UDP policies 3.22 and 3.25 and emerging Birmingham Development Plan policy TP12 would not be satisfied. In view of the considerations I have set out in paragraph 8.12.12, I attribute considerable importance and weight to the harm to the Town Hall and its setting.

Victoria Square House

- 8.12.16 Victoria Square House is a former civic building set in Victoria Square (an impressive civic space) with other civic buildings; its setting adds to its significance. Centro proposes to fix suspension wires to this listed building and has identified locations for that; the heritage effect would be negligible [4.4.89, 7.3.5]. Overhead line equipment and its poles would harm the setting of the building, which stands on a corner; and it seems to me that the passing of trams very close to the closed north-east door would be an incongruous and harmful feature in the setting, by virtue of the close juxtaposition of tram and doorway [4.4.89, 6.4.18, 6.4.22]. I am not persuaded that the proposed minor changes at street level (a new bench, a new gate and railings, new stone steps and so on [6.4.17]) would give the Chateau an "engineered" appearance, as VSH contends.

- 8.12.17 I believe the residual effect of the scheme on the setting of Victoria Square House would be minor and adverse. Section 66(1) of the PLB&CA Act would be engaged, and UDP policy 3.25 and emerging Birmingham Development Plan policy TP12 would not be satisfied. In view of the considerations I have set out in paragraph 8.12.12, I attribute considerable importance and weight to the harm to the setting of Victoria Square House.

Council House, Museum and Art Gallery

- 8.12.18 There is a fine view of the Council House clock tower as one ascends Pinfold Street [4.4.107]; the tower is framed by the buildings on either side of Pinfold Street, and so this part of its setting contributes to the significance of the building. VSH contends the OLE the scheme would bring to Pinfold Street to be intrusive and severely harmful to the setting of the listed building [6.4.15]. I agree there would be intrusion, but as this is one of several views of the building it seems to me that the overall harm to the setting would be no more than minor. Section 66(1) of the PLB&CA Act would be engaged, and UDP policy 3.25 and emerging Birmingham Development Plan policy TP12 would not be satisfied. In view of the considerations I have set out in paragraph 8.12.12, I attribute considerable importance and weight to the harm to the setting of the Council House, Museum and Art Gallery.

- 8.12.19 I consider Victoria Square separately, as part of the Colmore Row And Environs Conservation Area.

Listed Buildings in Pinfold Street

- 8.12.20 Four Grade II listed buildings stand on the north-eastern side of Pinfold

Street [6.4.23]. I have considered the matters raised by VSH. I am not persuaded that to guide most pedestrians to walk close to that frontage would harm trade there, as is argued for VSH [6.4.27], and so I do not agree that deterioration of those buildings would be a likely consequence of the scheme. Connection of OLE to brick, as would be done here, need not be harmful [6.4.26] and would be the subject of control through listed building consent. As anticipated in the 2003 ES, measures have been identified for Pinfold Street that are intended to offset the visual harm otherwise associated with the introduction of OLE and other “engineering” elements of the scheme [6.4.28]. It is argued for VSH that the effect of those harmful elements would be one of significant harm (a term which is not defined in this written representation) to the settings of the listed buildings, and to the character and appearance of the Colmore Row and Environs Conservation Area [6.4.29]. VSH’s witness makes no allowance for mitigation measures proposed by the applicant [4.4.121]. However, the evidence is that the shared setting of these listed buildings makes a significant contribution to their significance and to that of the Conservation Area [6.4.25]. I find (in paragraph 8.12.27) that (when mitigation is taken into account) the scheme’s net effect on the townscape and visual characteristics of Pinfold Street would be minor and adverse, and it seems to me that the net harm to the settings of the listed buildings and the character and appearance of the Conservation Area would therefore be minor and adverse. Section 66(1) of the PLB&CA Act would be engaged, and UDP policy 3.25 and emerging Birmingham Development Plan policy TP12 would not be satisfied. In view of the considerations I have set out in paragraph 8.12.12, I attribute considerable importance and weight to the harm to each of these four buildings.

Other Listed Buildings

- 8.12.21 The evidence is that the scheme would not harm the Hall of Memory or (with mitigation) Queens College Chambers, or their settings. There is no reason to disagree. [4.4.83, 4.4.86]. There was no evidence that any other listed building, or its setting, would be harmed.

Colmore Row And Environs Conservation Area

- 8.12.22 The CSQ would introduce trams and their equipment into some of the parts of the Conservation Area not touched by the current works. I heard evidence about the effects that was expected to have on the character and appearance of the Conservation Area, generally with reference to Victoria Square and Pinfold Street. [4.4.73, 4.4.74, 4.4.75, 4.4.76, 6.4.13, 6.4.22, 6.4.28, 7.3.1] I have concluded in paragraph 8.12.10 that the likely interaction between pedestrians and trams at Victoria Square should not weigh against the Order; and I have reached a similar conclusion in paragraph in respect of Pinfold Street (paragraph 8.12.5).
- 8.12.23 Having considered the evidence, I find as follows. By virtue of visual intrusion, the OLE would neither preserve nor enhance the character or appearance of the Conservation Area, although the harm would be offset to an extent by street enhancements. I agree with the applicant’s view that the residual impact on the Conservation Area, taking into account the mitigation measures, would be minor adverse and at the level of “less than substantial” harm in terms of NPPF paragraph 134 [4.4.76].

8.12.24 It is clear to me that there would be harm to the character and appearance of the Colmore Row and Environs Conservation Area. Section 72(1) of the PLB&CA Act would be engaged, and UDP policy 3.27 would not be satisfied. In view of the considerations I have set out in paragraph 8.12.12, I attribute considerable importance and weight to the harm to the character and appearance of the Colmore Row and Environs Conservation Area.

Townscape And Visual Amenity Effects Of The Modified CSQ

8.12.25 The applicant provides separate analyses of these effects on a street by street basis, which I have taken into account alongside the corresponding evidence given for VSH.

Stephenson Street

8.12.26 In Stephenson Street, the modified CSQ would result in the presence of fewer vehicles and improved street paving. Trams OLE would be present in part of the street in any event following the current works. I find there would be moderate beneficial effects on townscape and visual amenity in Stephenson Street. [4.4.119, 4.4.120]

Pinfold Street

8.12.27 In Pinfold Street, OLE would be introduced and the street would be repaved. The OLE's effects would be offset by the removal of parked cars, bollards, advertising boards and lighting columns. Nevertheless, the new paving configuration would emphasise the "dead" frontage on the western side of the street. Space for pedestrians would be more confined than at present, although not unacceptably so in capacity terms. I find that the net effect of the scheme, with its mitigation measures, would be minor adverse with respect to the townscape and visual characteristics of the street. [4.4.121, 4.4.122, 6.4.15]

Victoria Square

8.12.28 Victoria Square would be subject to some beneficial change but the introduction of OLE and trams would be harmful. I find that overall there would be moderate/minor adverse effects on townscape and minor adverse visual effects in Victoria Square. I consider the heritage effects separately. [4.4.124, 4.4.125, 6.4.11, 6.4.13, 6.4.15]

Paradise Street

8.12.29 Paradise Street would be refurbished and, apart from trams, through traffic would be removed. OLE and a tram stop would be introduced. I find that the overall changes to townscape and visual effects would be beneficial and minor. I consider the heritage effects separately. [4.4.126 to 4.4.128, 6.4.5 to 6.4.7]

Paradise Circus

8.12.30 Centro's position is that the Variation route would form part of the overall improvement to Paradise Circus that the PCR is expected to bring [4.4.130]. It seems to me that, considered in absolute terms, the townscape and visual effects of the PCR without a tramway would be superior to the corresponding effects with a tramway; and so the contribution the tramway would make to the whole would be negative. The magnitude of the contribution would be minor.

Centenary Square

- 8.12.31 Centenary Square is expected to be the subject of regeneration, for which a design competition was being held at the time of the Inquiry. Without that, the 2003 ES found that the BCCE would have a moderate positive impact on the character of Broad Street [4.4.131] and I am satisfied that the modified CSQ would have a similar effect.

Conclusion: Townscape and Visual

- 8.12.32 I have found that the townscape and visual effects of the modified CSQ would be beneficial in Stephenson Street, Paradise Street and Centenary Square; and harmful in Pinfold Street, Victoria Square and Paradise Circus. But the Paradise Circus proposals should be viewed in the context of the overall townscape and visual benefit associated with the PCR.
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8.13 CSQ Alternative Route Options

- 8.13.1 VSH proposed two alternative route options for the CSQ between Stephenson Street and Centenary Square.

Alternative Option A

- 8.13.2 Alternative Option A would follow the route Stephenson Street – Navigation Street – Hill Street – Paradise Street – Paradise Circus Queensway – Centenary Square [6.3.39].

- 8.13.3 This option has a number of drawbacks when compared with the 2005 Order scheme. Prominent among those are the three-dimensional geometry at the junction of Hill Street and Paradise Street, where the tram track would necessarily be some 0.87m above ground level, would occupy the footway on both sides of Hill Street, and would be twisted to a degree unacceptable on maintenance and safety grounds. The setting of the Grade I listed Town Hall would be compromised, and the scheme cost would be higher [7.2.29 to 7.2.37]. None of this was in dispute.

- 8.13.4 Because of those fundamental difficulties, I conclude that Alternative Option A need not be considered further.

Alternative Option B

- 8.13.5 AOB would follow the route Stephenson Street – Navigation Street – Suffolk Street Queensway – Paradise Circus Queensway – Centenary Square. It is shown on document OP/INQ19/OBJ11. [6.3.41]

- 8.13.6 As a consequence of its different route, AOB would have characteristics that distinguish it from the modified CSQ proposal.

Heritage Implications Of AOB

- 8.13.7 I have found that the modified CSQ would cause harm to the Town Hall and its setting, the setting of Victoria Square House, the setting of the Council House, Museum and Art Gallery, and the character and appearance of the Colmore Row and Environs Conservation Area. I have attributed considerable importance and weight to each of those harms. AOB would not give rise to those harms. Instead it would enter the setting of the Grade II listed signal box at New Street Station, close to

Navigation Street [6.4.30, 7.3.12]. It seems to me that, while the presence of the tramway with its OLE and tram stop would be apparent in the setting of the signal box, there would be some synergy between the tramway and the signal box since both would be rail-related and so the change to the setting of the listed building would not be harmful to it. The setting would be preserved.

Townscape And Visual Implications Of AOB

- 8.13.8 AOB would avoid the harmful townscape and visual effects that I have found the modified CSQ would have in Pinfold Street and, overall, in Victoria Square, and would not secure the corresponding benefits in Paradise Street. AOB would have the potential to improve the townscape and visual qualities of Navigation Street [7.3.13]. It was agreed in examination for Centro that there would be no need for a retaining wall near Alpha Tower [7.2.41]. However, a retaining wall would be needed at Suffolk Street Queensway south of Holliday Street which Centro expects would be visually harmful [7.3.14].
- 8.13.9 In summary, I find the townscape and visual implications of AOB to be neutral overall.

The Engineering Feasibility Of AOB

- 8.13.10 AOB would require the bridge to be of sufficient strength that carries Navigation Street over the numerous railway tracks at the western end of New Street Station. (Alternative Option A would require the same, as it also would in Hill Street.) The understanding at the Inquiry held in 2003-4 was that the bridge was not strong enough to support the operational tramway; the Inspector's report in considering this route referred to costs and programming risks associated with bridge strengthening, of substantial disruption to rail services and of substantial compensation payments.¹
- 8.13.11 Following submissions at the recent Inquiry, and with the agreement of both parties, I arranged for an approach to be made to Network Rail (document X11.1) to seek certain assessment reports relating to the Navigation Street bridges. The documents are listed in Appendix 3 as "Network Rail documents". Those were provided to the parties during an adjournment of the Inquiry and were the subject of examination at the inquiry on 17 December 2014.
- 8.13.12 The following points given in evidence are particularly relevant:
- (a) For VSH: If the tramway was routed along Navigation Street, its rail track slab would distribute loading into the bridge decks and no further bridge strengthening would be required. [6.3.25]
 - (b) For VSH: In Navigation Street, a two-way tramway could co-exist with two lanes of road traffic. [6.3.27]
 - (c) For VSH: The tram works would not affect the train services below the Navigation Street bridges and there would be no requirement for possession of the railway. [6.3.25]

¹ CD22, 6.13.6

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- (d) For VSH: The sum of £500,000 is a reasonable estimate of the additional cost for provision of the track slab over the bridge. [6.3.25]
- (e) For VSH: The reports provided by Network Rail were sufficient to secure approval in principle to the Navigation Street route, but detailed assessment would subsequently be necessary. [6.3.27]
- (f) For VSH: A tramway on a bridge increases the cost and complexity of bridge maintenance; all other things being equal, tramway designers avoid bridges over railways. [6.3.27]
- (g) Centro brought no evidence contrary to items (a) to (e) above. [7.2.22]
- (h) Centro considered that the approval of Network Rail to the use of the bridges by trams would be needed, taking perhaps between one and four years. [7.2.22]
- (i) Centro estimated that tramway alterations in Stephenson Street needed for AOB would result in loss of tram services to New Street Station for between 4 and 6 months [7.2.39].
- 8.13.13 I find that the evidence is that a tram route could be built to pass along Navigation Street at an additional works cost of £500,000 and that some four years might be needed to secure the necessary agreement of Network Rail, if that was forthcoming at all. But there is a presumption against tramways on bridges over railways.
- 8.13.14 Suffolk Street Queensway passes over the western end of Navigation Street on a bridge. The headroom beneath that bridge is less than the minimum necessary to accommodate a tram and its OLE in accordance with the Office of Rail Regulation Guidance on Tramways. Design responses canvassed at the Inquiry included lowering the surface of Navigation Street at the bridge by the necessary distance (0.65m); obtaining a derogation from the Office of Rail Regulation; fitting the tram fleet with rapid charge accumulators to allow trams to run beneath the bridge without access to OLE; fitting solid OLE beneath the bridge in conjunction with an arrangement to accommodate general traffic [7.2.40, 7.2.41, 6.3.42].
- 8.13.15 I am satisfied that suitable track geometry could be provided between Navigation Street (west of Suffolk Street Queensway) and Paradise Circus [6.3.42].
- 8.13.16 My overall conclusion on the engineering feasibility of AOB is that previously perceived difficulties at the bridges in Navigation Street appear capable of solution; that a satisfactory arrangement beneath the Suffolk Street Queensway flyover may be possible but remains to be proved; and that no other serious engineering impediment to AOB remained at the end of the Inquiry.
- User Benefits and Patronage of the Tramway With AOB*
- 8.13.17 VSH provides a qualitative assessment which concludes with the finding that the alternative route could significantly improve patronage. [6.3.48, 6.3.49 see also 6.5.14]
-

- 8.13.18 The applicant follows an approach set out in WebTAG [4.2.14], providing similar analyses for the modified CSQ and for AOB. The applicant's choice of method persuades me to attribute greater weight to the applicant's findings. The findings are reproduced in the following table:

Patronage and user benefit projections [4.2.15, 7.2.42]						
		Modified CSQ		AOB		
Case	Year	Patronage	User benefits	Patronage	User benefits	Column 7
Reference	2021	7%	£0.84m	8%	£0.71m	15.5%
Reference	2031	13%	£1.48m	13%	£1.30m	12.2%
Alternative	2021	7%	£0.84m	8%	£0.71m	15.5%
Alternative	2031	7%	£0.90m	8%	£0.76m	15.6%
Patronage = % growth in Metro patronage due to scheme						
User benefits: Increase, in 2010 prices						
Column 7 = Reduction in user benefits increase from modified CSQ to AOB						

- 8.13.19 Patronage, measured in percentage points throughout Line One, is modelled to increase by up to 1 percentage point more with AOB than with the modified CSQ. Patronage growth with AOB is modelled to be 14% greater than patronage growth with the modified CSQ, in three out of the four cases.
- 8.13.20 User benefits in most scenarios are modelled to be some 15% greater with the modified CSQ than with AOB.
- 8.13.21 Because user benefits are, in these projections, the measure of public utility, I conclude that the modified CSQ scheme would be of greater public utility than AOB. I rely on that finding in respect of the CSQ and AOB generally but, because of its particular circumstances, consider the utility of the Victoria Square stop.
- 8.13.22 AOB would have no stop in Victoria Square. At the 2003-4 Inquiry Centro reportedly drew attention to premises that would be served by such a stop ("a Bus Mall, the Central Library, the Town Hall, the Council House and many business areas"). Now, the Bus Mall is no longer part of the Council's transport strategy and the Library has relocated to Centenary Square [6.3.44]. Centro's explanations of four of the six CSQ scheme objectives [4.1.14] single out Victoria Square as a trip end by implication, through reference to PCR. The PCR would be between stops at Victoria Square and Centenary Square and would be served by both, or either. The Victoria Square stop would be closest to the PCR site perimeter and so it seems to me that it would have a substantial part in contributing to the achieving of those four objectives. However, I do not accept Centro's contention [7.3.18] that the modified CSQ would better serve the PCR than would the 2005 Order scheme; neither stop would be significantly closer to the PCR as a result of the modifications.

Programme Implications Of AOB

- 8.13.23 It is beyond dispute that, were the applicant to decide to abandon the modified CSQ and to instead promote AOB, the process of preparing for

and building a tramway from Stephenson Street to Centenary Square would be extended; and the applicant's assessment that the extension would be of four years is not in dispute.

- 8.13.24 But the rationale for that assessment was the subject of challenge, which I consider in the following paragraphs.

AOB's Costs and BCR

- 8.13.25 VSH point out the lack of a "like for like" comparison [6.3.32] as required by WebTAG as part of a process designed to ensure that promoters and assessors have considered whether there are better ways to achieve the objectives that the intervention is set out to achieve [6.3.31].

- 8.13.26 The tramway route was identified over 10 years ago [4.1.5 to 4.1.8] as reflected in the 2004 Inspector's Report. That report describes (in its section 3.13) the applicant's route selection process, which included an alternative to the promoted route, and (at its 5.9.10) a further alternative, similar to AOB, promoted at the Inquiry by objectors. In reply, Centro gave evidence that the Navigation Street bridge "was deliberately avoided ... because of the difficulty and extreme expense involved in strengthening the bridge." Further potential solutions were considered before the 2003-4 Inquiry [4.2.7]. Having received and considered the 2004 Inspector's Report the Secretary of State made the Order and gave deemed planning permission, both of which remain extant.

- 8.13.27 The Transport Appraisal process set out in the TAG Unit to which I refer as "App3" [6.3.29] has three stages:

Stage 1: Option Development, a principal output of which is the Option Assessment Report as described in section 2.11 of "App3". The extracts from "App3" on which VSH relies are all part of the process that leads up to section 2.11. They are considerations intended to apply early in a project's life.

Stage 2: Further Appraisal; the further appraisal of a small number of better-performing options to enable decision-makers to decide whether or not to proceed with intervention. Alongside modelling and environmental analysis, the obtaining of statutory powers to implement the proposal is a consideration at this stage.

Stage 3: Implementation, Monitoring and Evaluation.

- 8.13.28 Implementation of the 2005 Order scheme is currently under way for a substantial part of its length, an order is in place (but with lapsed compulsory acquisition powers) and deemed planning permission is extant. VSH argues that Stage 1 should be repeated for that part of the 2005 Order scheme not yet built [6.3.30] for the reasons given (for example, at 6.3.37). The applicant replies that the guidance has changed but little since 2005 and, second, it would be strange were changes of guidance to dictate that pieces of legislation such as the 2005 Order must effectively be set aside to reflect such change [7.2.20(c)(iv)].

- 8.13.29 Because the 2005 Order scheme has already been through an option development process, because its Order and planning permission are in place (but with lapsed compulsory acquisition powers), and for the

reasons cited by the applicant, I am satisfied that the 2005 Order scheme is not at such a stage in its development that a new Stage 1 Option Development is either necessary or desirable. That stage passed some ten years ago.

- 8.13.30 There remains the matter of the lapsed compulsory acquisition powers, which the current Order would restore. In responding to SM9 I consider whether there is a compelling case in the public interest for the restoration of those powers. In so doing, the circumstances of this case are such that proportionate consideration of alternatives can be helpful. That consideration should not be on a "like for like" basis, such as that suggested by VSH [illustrated at 6.3.54]. Rather, it should be based on the best available evidence of the resource implications of the various proposals, taking into account the different degrees of development of the proposals and their other differences. In view of the detailed substantiation provided by Centro of its figures, relative to the approach taken by VSH, I attribute greater weight to the applicant's evidence in respect of resource implications.

Economic Implications Of AOB

- 8.13.31 Each party provided an assessment of the cost of AOB in comparison with Centro's cost estimate for the modified CSQ [6.3.54, 7.2.45], and assessments of the economic performance of each route option [6.3.55, 7.2.47]. I have considered both sets of information.
- 8.13.32 With regard to the cost estimates:
- (a) Centro estimates the outturn cost of AOB to be £59.9m and VSH has it at £39.7m. Of the £20.2m difference between the outturn cost estimates, some £15.5m is attributed by Centro to matters that relate to the more advanced state of the scheme design for the modified CSQ (development and management costs (£3m difference); project management (£1m difference); inflation (£6.5m difference); and risk (£5m difference)).
 - (b) Centro reports that the CSQ has been the subject of detailed design for 10 years whereas AOB has been the subject of no work of any significance.
 - (c) It would seem to me wholly artificial and misleading to base decisions made now on a disregarding of substantial costs that would be very likely to arise if the action that is expected to incur those costs was chosen as a result.
- 8.13.33 With regard to the economic assessments:
- (a) I accept Centro's submission that VSH's assessment of the present value of capital costs of AOB is methodologically and numerically incorrect and does not comply with WebTAG. Centro's position meets my understanding.
 - (b) Centro has applied VSH's estimates of the capital costs of AOB to its economic assessment model [7.2.49(d)] and found the BCR to be
Reference Case 1.2:1.
 - (c) The corresponding BCR figure for the CSQ, in the reference

case, is calculated by Centro as 2.9:1 [4.2.16]. I conclude that Centro's contention, that AOB performs materially less well in terms of value for money, is made out [7.3.18]. And, if the Reference Case were to form the basis of assessments of value for money on the basis of paragraph 2.4 of the DfT's "Value for Money Assessment: Advice Note for Local Transport Decision Makers", the Value for Money of AOB would be categorised as Low.

Transport Assessment

- 8.13.34 VSH argues the submitted transport assessment (TA) to be deficient in that it does not reconsider potential options for the route from New Street Station to Five Ways [6.3.28]. But it seems to me that that is not a function of the TA. The Variation is only a part of the section of the proposed tramway between New Street and Five Ways. The purpose of the TA is related to the Variation in the way described by Centro [4.4.15]. It was prepared in accordance with the DfT's "GTA", which does not require the assessment of alternatives [4.4.16, 7.2.26]. The WebTAG assessment undertaken by the applicant considers alternative alignments for the Variation, and that is a matter about which the Secretary of State wishes to be informed.

8.14 **Need and Justification**

SM2 The need and justification for renewing the compulsory acquisition powers for the Centenary Square Extension previously conferred by the Midland Metro (Birmingham City Centre Extension, etc) Order 2005 ("the 2005 Order") and for varying the tramway alignment authorised by the 2005 Order.

Compulsory Acquisition Powers Previously Conferred

- 8.14.1 The terms of the 2005 Order are such that the compulsory acquisition powers that it established lapsed in 2010. Having considered the representations made, the land plans, the book of reference and the scheme drawings, and having visited the site, I am satisfied that renewal of those powers would be necessary if the CSQ scheme was to proceed as envisaged in the 2005 Order.

Preamble

- 8.14.2 Stated simply, the need and justification for the compulsory acquisition powers that the Order would establish is the same as the need and justification for the modified CSQ project.

Need For The Modified CSQ

- 8.14.3 The objectives of the proposed modified CSQ are to [4.1.14]:
- Improve access to markets, enabling businesses to better access their customers;
 - Reduce transport costs for businesses by lowering journey times and increasing reliability;

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- Support business growth by delivering sustainable multi-modal access to new development sites;
 - Deepen labour pools by improving physical access to jobs;
 - Increase competitiveness by reducing journey time uncertainty;
 - Support growth by addressing constraints on network performance.
- 8.14.4 No case was put that those objectives lacked merit, or that the modified CSQ would not contribute to them. Rather, the evidence of Birmingham City Council was that the modified CSQ would [5.1.7] improve public transport links across Birmingham City Centre; stimulate economic growth by improving access to the major city centre development sites at Paradise Circus and Arena Central; support culture and tourism by encouraging more visitors to the key entertainment and leisure destinations around Broad Street and Brindley Place; helping to reduce congestion; and improving the link between the west side of the city and the city centre.
- 8.14.5 Growth continues in the area the modified CSQ would serve, with potentially millions of square feet of new retail, office and residential space coming to the market, including the 17-acre PCR [4.2.5].
- 8.14.6 The Transport Business Case explains that major developments in Centenary Square have stimulated new demand for access from elsewhere in Birmingham, and that further development will increase that demand. The limited transport provision is an obstacle to the success of the cultural, commercial and social facilities on offer. Centenary Square needs to be connected to rail and air hubs, and to key developments [4.2.6].
- 8.14.7 The modified CSQ would serve the Birmingham City Centre Enterprise Zone, a project with the potential to attract some 40,000 jobs and to add over £2bn GVA per year to the local economy. The modified CSQ would provide direct access to the Enterprise Zone for people living in north-west Birmingham and the Black Country. The areas served by Line 1 are some of the most deprived in the country; nearly all the stops on the existing Line 1 are in Lower Super Output Areas among the 10% most deprived in England. And the modified CSQ would also benefit the elderly, and young people, by giving better access to social, cultural, retail and other facilities in the City Centre. [4.2.34 to 4.2.38]. Since deprived populations rely heavily on public transport, such groups would particularly benefit from the enhanced access the modified CSQ would provide to services and employment at Centenary Square and redeveloped Paradise Circus [4.2.23].
- 8.14.8 I am satisfied that there is a growing need for improved public transport access to Centenary Square and the West Side; that the modified CSQ would make a major contribution to meeting that need; and that substantial public benefits would be likely to arise, particularly in and near Centenary Square and in the deprived areas along Line 1, if the CSQ was provided.
- 8.14.9 I attribute substantial importance and weight to those important public benefits.
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Need For The Variation

- 8.14.10 The Variation would be part of the modified CSQ. It is needed in order to provide better interchange than previously proposed between buses and trams at the Centenary Square tram terminus [4.3.12 to 4.3.14], to better integrate the tramway with the imminent PCR development project, and to avoid the need (established by the 2005 Order) for a new bridge over Suffolk Street Queensway and a new retaining wall nearby [4.3.10].
- 8.14.11 I am satisfied that the Variation in Centenary Square would improve the functionality of the CSQ and that the Variation in Paradise Circus would enable more efficient use to be made of land. I assign significant weight to those attributes of the Variation.

Justification For The Modified CSQ*Justification*

- 8.14.12 To my mind and in this context, the modified CSQ should be considered to have been justified if the identified factors that weigh in its favour outweigh those that weigh against it.
- 8.14.13 Factors relevant to the modified CSQ that should weigh in the balance include:
- (a) The need that the scheme would help to meet, a consideration to which I have attributed substantial importance and weight. The scheme would be available for use from 2018 [7.2.43].
 - (b) The compliance of its objectives with relevant policies of the West Midlands LTP 2011-2026, the NPPF, the Birmingham UDP and the emerging Birmingham Development Plan.
 - (c) The compliance of its route with diagrams in the Birmingham UDP and the emerging Birmingham Development Plan.
 - (d) Its beneficial townscape and visual effects in Stephenson Street, Paradise Street and Centenary Square.
 - (e) Its harmful townscape and visual effects in Pinfold Street and Victoria Square.
 - (f) The scheme's BCR of 1.6:1, rated Medium by the DfT's standard assessment method. When calculated on the applicant's "Reference" basis, a BCR of 2.9:1 is indicated [4.2.17].
 - (g) The scheme's estimated out-turn cost of £38.6m.
 - (h) The harm the scheme would cause to each of the following: Birmingham Town Hall (moderate harm) and its setting (minor harm), the setting of Victoria Square House (minor harm), the setting of the Council House, Museum and Art Gallery (minor harm), the settings of the four listed buildings numbered 43 to 51 Pinfold Street [6.4.24] (minor harm to each) and the character and appearance of the Colmore Row and Environs Conservation Area (minor harm). The considerations in paragraph 8.12.12 apply. In the section of this report starting at 8.12.11, I have found that these harms would each be contrary to the UDP and, in the case of listed buildings and

- their settings, the emerging Birmingham Development Plan; that in each case either s66(1) or s72(1) of the PLB&CA Act is engaged, and that since those overarching statutory duties would not be met considerable importance and weight should be attributed to each instance of harm identified.
- 8.14.14 For the avoidance of doubt, I note that factors in this case that have no effect in the balance applied to the modified CSQ include (among others):
- (a) The environmental effects of the modified CSQ (with proposed mitigation) other than those listed in paragraph 8.14.13; because those effects with proposed mitigation would be insignificant [4.2.19, and the Variation ES as reported in section 4.4].
 - (b) VSH's unsupported contention that businesses along the tram route would be adversely affected by it [6.5.14(d)].
 - (c) The provision that would be made for pedestrians in Pinfold Street and Victoria Square, which I have found to be adequate and to not weigh against the scheme.
 - (d) The scheme's effect on property interests including those at Victoria Square House, which I have found acceptable.
- 8.14.15 The 2003 Inspector considered the effects that the scheme before him would have on listed buildings, their settings, and Conservation Areas. On the evidence before him, he concluded that the benefits of that scheme outweighed the harm associated with it [4.4.72]. The modified CSQ with which I am concerned is only a small part of the BCCE (with which the 2003 Inspector was concerned) and so the harms and benefits to be considered now are not the same as for the BCCE in 2003. Nor did that Inspector have the guidance now provided by the Barnwell Manor judgement (to which I have referred in paragraphs 8.12.12(c)). Applying that guidance, I have regard to the scheme's harmful effects on each of (i) a listed building and its setting (to which harm considerable importance and weight must be attributed); (ii) the settings of six other listed buildings (to each of which harms considerable importance and weight must be attributed); and (iii) the character and appearance of a conservation area (to which harm considerable importance and weight must be attributed). I find that the combined importance and weight of those harms to important heritage assets or their settings exceeds the substantial importance and weight that I attribute to the modified CSQ's benefits to public transport.
- 8.14.16 As to the other matters identified in paragraph 8.14.13, it seems to me that the scheme's policy compliances, in terms of its objectives and its route, are little more than statements of the need for the benefits it would bring, to which I have already referred. The BCR is rated "Medium" and the scheme can be afforded (as I find in paragraph 8.11.4), which weigh to a limited degree in favour of the scheme. And the overall balance of the scheme's beneficial and harmful townscape and visual effects would in my view be neutral.
- 8.14.17 Overall, I conclude that the factors that weigh in favour of the modified CSQ are outweighed by those that weigh against it; and that the scheme

is therefore not justified.

- 8.14.18 In the event that the Secretary of State does not accept my conclusion in the preceding paragraph and, having special regard to the desirability of preserving the Listed Building, the settings of Listed Buildings and the conservation area that the scheme would affect, he may wish to consider whether there is a feasible alternative scheme that would secure the benefits offered by the modified CSQ while achieving the preservation desired by legislation and policy.
- 8.14.19 In addition to the modified CSQ, there was evidence regarding two further alternative options. For the reasons in paragraph 8.13.4, I have dismissed one. AOB remains.

Alternative Option B

- 8.14.20 Factors relevant to the consideration of AOB include:
- (a) The need that the scheme would meet. But AOB would be available for use from 2022 [7.2.43], four years later than the CSQ; it would be less effective than the CSQ in that respect.
 - (b) The compliance of its objectives with relevant policies of the West Midlands LTP 2011-2026, the NPPF, the Birmingham UDP and the emerging Birmingham Development Plan.
 - (c) Its route would not comply with relevant diagrams in the Birmingham UDP and the emerging Birmingham Development Plan, as the CSQ's route would.
 - (d) When calculated on the applicant's "Reference" basis, a BCR of 1.2:1 is indicated for AOB, which would therefore fail to gain funding [7.2.49].
 - (e) AOB's estimated out-turn cost is £59.9m.
- 8.14.21 For the avoidance of doubt, I note that factors in this case that have no effect in this assessment of AOB include (among others):
- (a) The apparent feasibility in engineering terms of AOB.
 - (b) AOB's neutral effects on cultural heritage and townscape and visual effects. Neutral effects are not benefits in absolute terms.
- 8.14.22 The considerations identified in paragraph 8.14.20 lead me to the view that AOB is not feasible in financial terms and, even if it were, it would provide a lesser benefit than the modified CSQ.
- 8.14.23 I therefore find that, although it would achieve the preservation desired by legislation and policy, and would avoid other townscape and visual harm associated with the modified CSQ, AOB should be disregarded.

Crown Land

SM10 Having regard to section 25 of the TWA, whether the relevant Crown authority has agreed to the compulsory acquisition of interests in, and/or the application of provisions in the TWA Order in relation to, the Crown Land identified in the book of reference.

8.14.24 No Crown land would be required for the scheme. The Book of Reference is in error in this respect [4.3.3].

8.15 **Compulsory Purchase Of Land**

SM9 Whether the tests in paragraphs 16 to 23 of ODPM Circular 06/2004, which gives guidance on the making of compulsory purchase orders, are satisfied; in particular whether there is a compelling case in the public interest for conferring on the Executive powers compulsorily to acquire and use land for the purposes of the Centenary Square Extension and whether there are likely to be any impediments to the implementation of the powers in the TWA Order.

8.15.1 If the compulsory purchase of land is to be authorised, then Government guidance as set out in paragraphs 16 to 23 of the Memorandum to Circular 06/2004 "Compulsory Purchase and the Crichel Down Rules" is that:

- (a) There should be a compelling case in the public interest. The purposes for which the order would be made should sufficiently justify interfering with the human rights of those with an interest in the land affected (with particular regard to the provisions of Article 1 of the First Protocol to the European Convention on Human Rights and, in the case of a dwelling, Article 8 of the Convention);
- (b) The acquiring authority should have a clear idea of how it intends to use the land which it is proposing to acquire;
- (c) Sufficient resources should be available to complete the compulsory acquisition within the statutory period following the making of the Order; and,
- (d) There should be a reasonable prospect of the Scheme going ahead and it should be unlikely to be blocked by an impediment to implementation.

Item (a)

8.15.2 Having found, in paragraph 8.14.17, that the scheme is not justified, I find that there is not a compelling case in the public interest for conferring on Centro powers compulsorily to acquire and use land for the purposes of the Centenary Square Extension.

8.15.3 I have considered the circumstances of this case in the light of Articles 1 and 8 of the European Convention on Human Rights. Article 1 establishes that no-one shall be deprived of his possessions except in the public interest and subject to the conditions imposed by law. Article 8 identifies that interference with a person's right to respect for the home, private and family life (for the purpose of compulsory acquisition) may be justified if it pursues a legitimate aim, is in accordance with the law, is in the interest of the economic well-being of the country and is proportionate.

8.15.4 No case was put that the aim of the scheme is not legitimate or not in

accordance with the law, or that it is not proportionate or that it is not in the interest of the economic well-being of the country.

Item (b)

- 8.15.5 I am satisfied that the acquiring authority has a clear idea of how it intends to use the land which it now proposes to acquire.

Item (c)

- 8.15.6 I have found that, subject to the submission to the Secretary of State, by Centro, of the completed "Annex 7 Agreement" referred to in paragraph 8.11.3 of this report, sufficient arrangements have been made for funding the modified CSQ.

Item (d)

- 8.15.7 The applicant has applied to the local planning authority for listed building consent for similar purposes to that which was granted by the Secretary of State in 2005 (and has since lapsed) [4.5.3]. It seems to me unlikely that the outcome of those applications would impede the scheme, if the Secretary of State was minded to make the Order.
- 8.15.8 I consider that, if the Secretary of State was minded to make the Order, there would be a reasonable prospect of the Scheme going ahead; it would be unlikely to be blocked by an impediment to implementation.

8.16 **Overall Conclusion**

- 8.16.1 By virtue of the harm it would cause to a listed building, the settings of listed buildings, and the character and appearance of the Colmore Row and Environs Conservation Area, the scheme is not justified. The Order should therefore not be made and a Direction should not be issued.

9 **RECOMMENDATIONS**

- 9.1 I recommend that the Order should not be made and a Direction should not be issued.
- 9.2 In the event that the Secretary of State is nevertheless minded to make the Order and issue a Direction then I recommend that, subject to the submission to the Secretary of State, by Centro, of the completed "Annex 7 Agreement" referred to in paragraph 8.11.3 of this report,
- (a) The Order should be amended as sought by the applicant in the submitted draft Order, document CEN/INQ9.1, as I have recommended in paragraph 8.5.2 of this report, and then made; and,
 - (b) A direction should be issued that planning permission for the Variation shall be deemed to be granted, subject to the conditions set out in Appendix 1 to this report.
 - (c) In the event that the completed "Annex 7 Agreement" is not provided to the Secretary of State, I recommend that the Order should not be made.

J.P. Watson

INSPECTOR

APPENDIX 1 – RECOMMENDED PLANNING CONDITIONS

Interpretation

In the following conditions:–

“Code of Construction Practice” means a code of construction practice in two parts of which Part 1 relates to the entirety of the development authorised by the Order (a draft of which accompanies the Environmental Statement) and Part 2 is site specific, to be submitted to, and approved in writing by, the local planning authority;

“the development” means the development authorised by the Order;

“the environmental statement” means the statement of environmental information submitted with the application submitted on 4 December 2013 for the draft Order pursuant to Rule 10(2)(g) of the Applications Rules;

“land” means the land within the limits of deviation and limits of land to be acquired or used described in the Order as shown on the land plan and described in the Book of Reference certified by the Secretary of State as the land plan and Book of Reference for the purposes of the Order;

“the limits of deviation” has the same meaning as in the Order;

“the Order” means the Midland Metro (Birmingham City Centre Extension Land Acquisition And Variation) Order 201[X].

Conditions

Time limit

1. The development hereby permitted shall be begun before the expiration of 5 years from the date that the Order comes into force.

Reason: In order to comply with Section 91 of the Town and Country Planning Act 1990 (as amended) and the National Planning Policy Framework 2012.

Design and External Appearance

2. Works of construction shall not begin in respect of any:
 - (i) permanent boundary treatment;
 - (ii) poles and brackets required to support the overhead line system;
 - (iii) poles and brackets required to provide lighting;
 - (iv) ancillary electrical equipment; or
 - (v) highway infrastructure over Easy Row subway.until details of the design and external appearance of that element have been submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the approved details.

Reason: In order to secure the satisfactory development of the application site and safeguard the character and appearance of the Colmore Row and Environs Conservation Area and setting of listed buildings in accordance with Paragraphs 3.8, 3.10, 3.14, 3.16A, 3.22, 3.23, 3.25 and 3.27 of the Birmingham UDP 2005 and the National Planning Policy Framework.

Materials

3. Details of materials to be used in any external surface of any:
 - (i) permanent boundary treatment;
 - (ii) poles and brackets required to support the overhead line system;
 - (iii) poles and brackets required to provide lighting;
 - (iv) ancillary electrical equipment;
 - (v) highway infrastructure over Easy Row subwayshall be submitted to and approved in writing by the local planning authority before that element of the development is commenced. The materials used shall be in accordance with the approved details.

Reason: In order to secure the satisfactory development of the application site and safeguard the character and appearance of the Colmore Row and Environs Conservation Area and setting of listed buildings in accordance with Paragraphs 3.8, 3.10, 3.14, 3.16A, 3.22, 3.23, 3.25 and 3.27 of the Birmingham UDP 2005 and the National Planning Policy Framework.

Landscaping

4. Development shall not begin until details of all proposed landscaping and the proposed times for the implementation of planting have been submitted to and approved in writing by the local planning authority. All landscaping shall be carried out in accordance with the approved details and at the approved times. If, within a period of two years from the date of the planting, that planting, or any replacement planting, is removed, uprooted or dies, another plant of the same species and size as that originally planted shall be planted at the same place in the next available planting season, unless the local planning authority gives its written consent to any variation.

Reason: In order to secure the satisfactory development of the application site, ensure a high quality of external environment, reinforce local landscape character and safeguard the character and appearance of the Colmore Row and Environs Conservation Area and setting of listed buildings in accordance with Paragraphs 3.8, 3.10, 3.14, 3.16A, 3.22, 3.23, 3.25 and 3.27 of the Birmingham UDP 2005 and the National Planning Policy Framework 2012.

Archaeological Investigation

5. Development shall not begin until a scheme of archaeological investigation has been submitted to and approved in writing by the local planning authority. All archaeological work shall be undertaken in accordance with the agreed scheme of investigation.

Reason: In order to secure a scheme of archaeological assessment requiring observation, analysis of the significance and recording of any surviving archaeology in accordance with Paragraphs 3.31 and 8.36 of the Birmingham UDP 2005, the National Planning Policy Framework 2012 and the archaeology strategy Supplementary Planning Guidance.

Code of Construction Practice

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6. Development shall not begin until Part 1 and Part 2 of the Code of Construction Practice has been submitted to and approved in writing by the local planning authority. Development shall be carried out in accordance with the details approved in each part.

Reason: In order to ensure adequate environmental protection during construction and to safeguard the amenities of occupiers of premises/dwellings in the vicinity in accordance with Paragraphs 3.8 and 3.10 of the Birmingham UDP 2005 and the National Planning Policy Framework 2012.

Contamination

7. Development shall not begin until a scheme to deal with any contamination of the land has been submitted to and approved in writing by the local planning authority. The scheme shall include an investigation and assessment to identify the extent of contamination and measures to be taken to avoid risk to the public and the environment when the works are carried out. The development shall not begin until the measures approved in the scheme have been fully implemented.

Reason: In order to secure the satisfactory development of the application site in accordance with Paragraphs 3.8 and 3.10 of the Birmingham UDP 2005 and the National Planning Policy Framework 2012.

Means of Access

8. Details of the siting, design and layout within the limits of deviation of any new permanent means of access to a highway to be used by vehicular traffic, or of any permanent alteration of an existing means of access to a highway used by vehicular traffic, shall be submitted to and approved in writing by the local planning authority before the development begins. The development shall be carried out in accordance with the approved details.

Reason: In order to secure the satisfactory development of the application site in the interests of highway safety in accordance with Paragraphs 3.8, 3.10, 6.17 and 6.39 of the Birmingham UDP 2005 and the National Planning Policy Framework 2012.

Noise and Vibration

9. The development shall be designed and operated in accordance with the Midland Metro Extension Noise and Vibration Policy 2003. For the purposes of Section 5 of the policy, Noise Mitigation at Source, the pre-existing ambient noise levels shall be those in Tables 9.5 and 9.6 of the Environmental Statement (Volume 1 Main Statement), or from any later survey which has been agreed in writing by the local planning authority.

Reason: In order to safeguard the amenities of occupiers of premises/dwellings in the vicinity from airborne noise caused by the running of trams in accordance with Paragraphs 3.8 and 3.10 of the Birmingham UDP 2005 and the National Planning Policy Framework 2012.

Ground Borne Noise

10. Where the dominant source of noise is ground-borne, the following noise standards shall be applied to the development for the application of Sections 6 and 7 of the Noise and Vibration Policy:
- (i) Inside noise sensitive rooms in residential buildings – LA_{max},S40dB; and
 - (ii) Inside noise sensitive rooms in offices – LA_{max},S45dB.

Reason: In order to safeguard the amenities of occupiers of premises/dwellings in the vicinity from ground-borne noise and vibration caused by the running of trams in accordance with Paragraphs 3.8 and 3.10 of the Birmingham UDP 2005 and the National Planning Policy Framework 2012.

Ecological Checks

11. Prior to the commencement of development, check survey for species of interest together with details (to include timescales) of any necessary programme of mitigation measures for any protected species affected by the development shall be submitted to and approved in writing by the local planning authority. The approved programme of mitigation shall be implemented in full in accordance with the timescales agreed in writing by the local planning authority.

Reason: In order to ensure that protected species and its habitat within and adjacent to the development site are properly protected and appropriate ecological mitigation is undertaken in accordance with the Birmingham UDP 2005, the National Planning Policy Framework and the Nature Conservation Strategy for Birmingham Supplementary Planning Guidance.

Electro-magnetic compatibility

12. The development shall be designed and constructed in accordance with:
- (a) The electromagnetic compatibility standards set out in BS EN 50121-4:2006: "Railway applications – Electromagnetic compatibility", or any successor standards;
 - (b) Machinery Directive 2006/42/EC;
 - (c) Radio and Telecommunications Terminal Equipment Directive 1999/5/EC; and,
 - (d) EMC Directive 2004/108/EC.

Reason: In order to ensure that the tramway does not give rise to unacceptable electromagnetic interference in accordance with Paragraphs 3.8 and 3.10 of the Birmingham UDP 2005 and the National Planning Policy Framework 2012.

