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# **Report to the Secretaries of State for Transport and for Communities and Local Government**

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**an Inspector appointed by the Secretaries of State for Transport and for Communities and Local Government**

**Date: 29 October 2013**

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## **HIGHWAYS ACT 1980**

**THE A47 TRUNK ROAD (POSTWICK INTERCHANGE SLIP ROADS) ORDER 201.**

**THE A47 TRUNK ROAD (POSTWICK INTERCHANGE SIDE ROADS) ORDER 201.**

Date of Inquiry: 3 to 26 July 2013

Ref: DPI/K2610/12/16

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## ACRONYMS AND ABBREVIATIONS USED IN THE REPORT

AM peak	morning peak period
AMR	Annual Monitoring Report
AR	Alternative Route
ARCADY	Assessment of Roundabout Capacity and Delay Software
BAFB	The Best and Final Funding Bid submitted by NCC to the DfT in 2011 for the combined Postwick Hub and NDR schemes
BBP	Broadland Business Park
BCR	Benefit Cost Ratio
BDC	Broadland District Council
BGBP	Broadland Gate Business Park
BFLF	Brook Farm/Laurel Farm
BLP	Broadland District Local Plan
BRT	Bus Rapid Transit
CIF	Community Infrastructure Fund
COBA	Cost Benefit Appraisal – software released by the Department for Transport that has been used to undertake an accident appraisal
CPO	Compulsory Purchase Order
CPRE	Campaign for the Protection of Rural England
CSR	Comprehensive Spending Review
CTC	Cyclists' Touring Club
DCLG	Department for Communities and Local Government
DD	Deposit Documents
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DIADEM	Dynamic Integrated Assignment and DEMand Modelling - software released by the DfT
DM	Do-Minimum
DMRB	Design Manual for Roads and Bridges
Doc	Document
DS	Do-Something
EIA	Environmental Impact Assessment
ES	Environmental Statement
EU	European Union
the Framework	National Planning Policy Framework
GNDP	Greater Norwich Development Partnership
GVA	Gross Value Added
HGV	Heavy Goods Vehicle
HA	Highways Agency
IEL	Ifield Estates Limited
JCS	Joint Core Strategy
kt	kilotonnes
LEP	Local Enterprise Partnership
LINSIG	Traffic signal analysis software
LTP	Local Transport Plan
LTIPI	Local Transport Plan Implementation Plan
MDL	Menzies Distribution Limited
NATS	Norwich Area Transportation Strategy
NCC	Norfolk County Council
NDR	Norwich Northern Distributor Road
NEGT	North East Growth Triangle
NGP	Norwich Green Party
NIP	National Infrastructure Plan
NMU	Non-motorised user
NNTAG	Norwich & Norfolk Transport Action Group
NPA	Norwich Policy Area

NPV	Net Present Value – given by subtracting the Present Value Costs (PVC) from Present Value Benefits (PVB)
NSIP	Nationally Significant Infrastructure Project
NTEM	National Trip End Model – a database containing trip-end, journey mileage, car ownership and population/workforce planning data
OE	Other Externalities
PCU	Passenger Car Unit
PG	Planning Gain
PIA	Personal Injury Accident
PM10	Small airborne particles, more specifically particulate matter less than 10 micrometres in aerodynamic diameter
PM2.5	Small airborne particles less than 2.5 micrometres in aerodynamic diameter
PMA	Private Means of Access
PIA	Personal Injury Accident
PIM	Pre-Inquiry Meeting
PM peak	evening peak period
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
PRoW	Public Rights of Way
PVB	Present Value Benefits – the stream of benefits over the appraisal period (60 years) that are converted to 2010 prices and discounted to 2010 to give a 'present value'
PVC	Present Value Costs – the costs of the scheme over the construction period as well as maintenance and operational costs that are converted to 2010 prices and discounted to 2010 to give a 'present value'
P&R	Park and Ride
RDA(s)	The former Regional Development Agencies in England
SA	Sustainability Appraisal
SATURN	Simulation and Assignment of Traffic on Urban Road Networks software
SNUB	Stop Norwich Urbanisation
SoC	Statement of Case
SoCG	Statement of Common Ground
SSCLG	Secretary of State for Communities and Local Government
SST	Secretary of State for Transport
SRN	Strategic Road Network
Side RO	Side Roads Order
Slip RO	Slip Roads Order
sqft	square feet
sqm	square metres
SSSI	Site of Special Scientific Interest
TAG	Transport Analysis Guidance
TEC	Transport Externality Cost
TEN-T Routes	Trans-European Network of Transport Routes
TFR	Traffic Forecasting Report
TUBA	Transport User Benefit Appraisal – software released by the DfT that is used to assess transport user benefits of transport schemes
VfM	Value for Money
VISUM	Transport modelling software used (in this case) for public transport modelling
WebTAG	Web-based Transport Appraisal Guidance produced by the DfT

## CASE DETAILS

### The Slip Roads Order

- The draft Slip Roads Order would be made under Sections 10 and 41 of the Highways Act 1980, and is known as the **A47 Trunk Road (Postwick Interchange Slip Roads) Order 201..**
  - The Slip Roads Order was published on 13 November 2009.
  - The Slip Roads Order would authorise the new slip roads to be constructed, connecting the eastbound carriageway of the A47 trunk road with the A1042 Yarmouth Road (as proposed to be improved by the Secretary of State for Transport) at Postwick Interchange.

**Summary of Recommendation: that the Slip Roads Order be made with modifications.**

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### The Side Roads Order

- The draft Side Roads Order would be made under Sections 12, 14 and 125 of the Highways Act 1980, and is known as the **A47 Trunk Road (Postwick Interchange Side Roads) Order 201..**
  - The Side Roads Order was published on 13 November 2009.
  - The Side Roads Order would provide for roads, accesses and Public Rights of Way (PROWs) adjoining or crossing the trunk road to be altered or diverted as necessary. It would also authorise the Secretary of State for Transport to provide new means of access and alterations to existing highways, footpaths and Private Means of Access (PMA) to premises as necessary.

**Summary of Recommendation: that the Side Roads Order be made with modifications.**

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## 1. PREAMBLE

- 1.1 On 13 November 2009, the Secretary of State for Transport (SST) published a draft Slip Roads Order (Slip RO) (Deposit Document (DD) 01); and a draft Side Roads Order (Side RO) (DD02), for the provision of an improved interchange between the existing A47 trunk road at Postwick, on the eastern side of Norwich, and the existing A1042 Yarmouth Road. After a period of deferment, in connection with the Government's Comprehensive Spending Review (CSR) in October 2010, the draft Orders were re-advertised on 24 February 2012.
- 1.2 The highway proposals, referred to as the Postwick Hub junction ("the Scheme" or "the Postwick Hub Scheme"), received full planning permission in April 2010, as part of a joint proposal for a Broadland Gate Business Park (BGBP), for which outline planning permission was granted at the same time. Following a successful judicial review challenge, planning permission was re-granted in October 2011<sup>1</sup>. This planning application does not include all of the required highway works within the red line application site because the Highways Agency

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<sup>1</sup> see DD134 & DD135

(HA), on behalf of the SST, has permitted development rights in relation to improvement works within the existing highway.

- 1.3 The Scheme is a Local Authority Major Project promoted by Norfolk County Council (NCC). NCC is the local highway authority for all highways within Norfolk with the exception of trunk roads, whilst the HA is an executive agency acting on behalf of the SST with regard to the operation, maintenance, and improvement of the Strategic Road Network (SRN) in England, including all trunk roads.
- 1.4 The planning application supporting material included an Environmental Statement (ES) in 2 Volumes which, amongst other things, set out the full scope of the highway works and so provided a full assessment of the effects of the Scheme<sup>2</sup>. I have taken account of this ES, and the revised ES of April 2013<sup>3</sup> in arriving at my recommendations. All other environmental information submitted in connection with the Scheme, including that arising from questioning at the Inquiry, has also been taken into account.
- 1.5 Following the postponement of the Inquiry into objections to the draft Orders, originally scheduled for September 2012, I held a pre-inquiry meeting (PIM) at the King's Centre, Norwich, on 8 May 2013 to consider the administrative and practical arrangements for the Inquiry. My notes of the PIM were distributed to all parties who took part in the discussion, and those who indicated they wished to give evidence at the Inquiry. They can be found at Document (Doc) INQ/01.
- 1.6 On 3 July 2013 I opened the Inquiry at the same venue as the PIM. It sat on 14 days and closed on 26 July 2013. I carried out unaccompanied site visits to the areas affected by the Scheme on 9 and 24 July 2013 and also undertook an inspection of the site of the Scheme and the surrounding area on 10 July 2013, accompanied by representatives of the HA, NCC and objectors to the Orders.

### **Numbers of Objectors and Supporters**

- 1.7 A total of 132 objections have been lodged against these Orders, including some which were submitted whilst the inquiry was sitting<sup>4</sup>. Two of the objections came from statutory objectors but one of these, from occupiers of The Grange was subsequently withdrawn as agreement was reached with the HA on an alternative access arrangement (see later). This leaves the only statutory objector as Postwick with Witton Parish Council. In addition, 34 representations were submitted in support of the Orders. I have had regard to all of these representations, both opposing and supporting the Orders, in coming to my recommendations.

### **Main Grounds for Objection**

- 1.8 Objections raised by one or more party cover a wide range of topics, all of which are dealt with in this report. The main areas of objection relate to:
  - the closure of the eastbound diverge slip road and the consequent increases in the lengths of some journeys;
  - the scale and appropriateness of the Scheme design and the view that it would result in a less convenient and less safe arrangement;
  - the cost of the Scheme and whether a business case has been made;

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<sup>2</sup> DD141 to DD148 and DD371

<sup>3</sup> DD371

<sup>4</sup> see Doc HA/66

- the contention that the Scheme would result in increased carbon dioxide emissions;
- concerns about the traffic analysis, modelling and forecasting processes;
- that the Scheme was not being considered jointly with proposals for the Norwich Northern Distributor Road (NDR);
- that the Scheme would facilitate the first stage of the NDR;
- the contention that the Scheme had not been subject to proper public consultation;
- the contention that consideration of the Orders is premature, as consultations on the Joint Core Strategy (JCS) had not been concluded;
- the loss of greenfield/agricultural land;
- a perceived lack of facilities for pedestrians and cyclists;

### Statutory Formalities

- 1.9 The HA confirmed that all necessary statutory formalities in connection with the promotion of the Orders and the holding of the Inquiry have been complied with<sup>5</sup>.

### Alternative Routes (ARs)

- 1.10 In giving notice of the intention to hold a Public Inquiry, the SST directed that any person intending to submit alternative proposals to the Inquiry should provide details of those alternatives by a specified date. As the original date for the Inquiry was postponed, and the Orders were subsequently re-advertised, there have been several separate formally advertised periods during which alternatives to the Scheme could be put forward by objectors, with the last of these expiring on 3 May 2013.
- 1.11 In total, 13 ARs (Nos 1, 2, 3a, 3b, 4, 5, 6, 6a, 7, 8, 9, 10 and 11) were proposed prior to the start of the Inquiry. These were all publicised by the HA and some representations of support and in opposition were received. Three of these alternatives (Nos 3a, 3b and 8) were subsequently withdrawn, and whilst not formally withdrawn, No 7 was not pursued at the Inquiry by its promoter. Two further alternatives were put forward whilst the Inquiry was sitting (Nos 12 and 14) and were assessed by the HA but were received too late to be formally publicised. The lines of all the ARs and the HA's assessment of these routes are contained in Doc HA/35<sup>6</sup> and discussed later in this report.
- 1.12 A summary of the level of objection or support generated by the remaining alternative routes is shown in the table below.

Route No	1	2	4	5	6	6a	7	9	10	11	12	14
Supporters	2	2	3	3	2	2	4	1	4	1	Routes not publicised	
Counter-objectors	4	4	4	4	2	3	4	7	2	3		

### Scope of this Report

- 1.13 This report contains a brief description of the site and its surroundings, the gist of the evidence presented and my conclusions and recommendations. Lists of Inquiry appearances and documents are attached. These include details of the submitted proofs of evidence, which may have been added to or otherwise extended at the Inquiry, either during examination in chief or during cross-

<sup>5</sup> See Doc HA/20 for full details

<sup>6</sup> this includes Docs HA/OBJ28/ALT1 to HA/OBJ121/ALT14

examination. Where appropriate, references to DDs and other submitted documents are given in parentheses or footnotes.

## **2. DESCRIPTION OF THE SITE AND ITS SURROUNDINGS**

- 2.1 The A47 trunk road, which is of varying dual and single-carriageway standard, provides a link between the ports of Great Yarmouth and Lowestoft on the East Coast and the A1(M) in the East Midlands, serving both strategic and local purposes<sup>7</sup>. It was identified by the HA as part of the core trunk road network of nationally important routes<sup>8</sup> and is part of the Trans-European Network (TEN-T)<sup>9</sup>.
- 2.2 Norwich, identified as a node on this TEN-T network, is one of the largest cities in the east of England and is a major regional centre for employment, tourism, culture, and retail activity<sup>10</sup>. It has been previously identified as a Growth Point<sup>11</sup> and, as Greater Norwich, has been invited to bid for City Deal status<sup>12</sup>.
- 2.3 The A47 trunk road passes to the immediate south of Norwich, with a series of junctions from west to east connecting the SRN with radial routes into the city. Postwick is the easternmost junction on the A47 serving Norwich and its slip roads, which would be affected by the Orders, enable traffic to leave or join the SRN at this point and to connect with the A1042 Yarmouth Road radial route. Access is also possible to the Broadland Business Park (BBP) on the north side of the junction and to the Postwick Park and Ride (P&R) site on the south side of the junction. Both of these facilities are identified for expansion.
- 2.4 The general layout of the existing Postwick junction can be seen in Appendix A, of the Statement of Case (SoC)<sup>13</sup> and a fuller description is given in Doc HA/03/1. It is a grade-separated 2-roundabout "dumb-bell" junction linking the A47 trunk road, which is a rural dual-carriageway at this point, to the A1042 Yarmouth Road. The Postwick North-West roundabout lies to the north of the A47 and is connected by a single-carriageway bridge over the A47 to Postwick P&R roundabout, which provides access to a 500 space P&R site.
- 2.5 The eastbound diverge slip road connects to the Postwick North-West roundabout and includes a segregated left turn lane to the A1042 Yarmouth Road (West). The eastbound merge slip road leaves this roundabout and includes a segregated left turn lane from Broadland Way. The westbound merge slip road leaves from the P&R roundabout, whilst the westbound diverge slip road leaves the A47 carriageway about 900 m east of the rest of the junction and joins the A1042 Yarmouth Road (East). NCC is responsible for the A1042 which commences after the A47 westbound diverge slip road, and crosses the A47 by means of the aforementioned overbridge.
- 2.6 To the west of the junction the A1042 comprises a short length of dual-carriageway until it meets the Meridian Way roundabout. From this point it reduces to a single-carriageway, continuing through the Northside Roundabout some 350 m or so, further to the west. It serves a number of housing areas

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<sup>7</sup> see paras 3.2-3.5 of Doc HA/01/1

<sup>8</sup> see paras 2.3.2-2.3.3 of DD369

<sup>9</sup> the "TEN-T" network – see DD340

<sup>10</sup> see para 2.1 of DD330

<sup>11</sup> see para 7.3.1 of Doc HA/02/1

<sup>12</sup> see para 6.34 of Doc HA/04/1

<sup>13</sup> DD370



including St Andrews Park and the larger Dussindale Park, as well as the more established Thorpe St Andrew housing areas.

- 2.7 Broadland Way runs northwards from the Postwick North-West roundabout as a dual-carriageway until it meets with Peachman Way roundabout, where it provides access to BBP lying to the west. North of the Peachman Way roundabout, Broadland Way reduces to a single-carriageway and then to a narrow rural road known as Green Lane which provides a direct link to Plumstead Road and Thorpe End village.
- 2.8 A network of footways, cycle routes and PRowS exist in the vicinity of the junction, including Postwick Footpath No 2 which crosses the A47 at grade, some 670 m east of the Postwick junction. These existing non-motorised user (NMU) facilities are also shown on the plan in Appendix A to Doc DD370.
- 2.9 Private means of access (PMA) serve The Grange, a private residential property sited to the north of the A47, some 200 m to the east of the Postwick junction. These include an "entry only" access track connecting directly to the A47 eastbound carriageway. A further PMA from Broadland Way serves a group of farm and other buildings, primarily now providing housing accommodation, known collectively as Heath Farm.
- 2.10 A number of public utilities exist within the vicinity of the junction, with the most significant being a 36" diameter high pressure gas main, located some 530 m to the east of the junction.

### **3. THE CASE FOR THE HIGHWAYS AGENCY**

The material points are:

#### **Overview**

- 3.1 Full details of the HA's case are set out in its SoC<sup>14</sup>, as amplified by the written and oral evidence of its witnesses. In light of the statutory tests contained in sections 10 and 14 of the Highways Act 1980, it is the HA's view that the changes which the Orders propose to the SRN would be expedient, taking into account the reasonable convenience of the alternative routes that would be provided, and having regard to the requirements of local and national planning. The Orders should therefore be made.
- 3.2 Although the majority of the objections to the Orders relate to the proposed changes to the eastbound diverge slip road, the performance of the junction cannot be assessed only by reference to movements on this slip road. The junction needs to cater adequately for all traffic movements through it, including journeys to and from the A47 (East) which involve passing through the P&R roundabout when either leaving or joining the SRN.
- 3.3 The test of "expediency" contained in section 10 of the Highways Act 1980 is not limited to a consideration of whether existing traffic movements would be made shorter, quicker or safer by the proposed changes. Rather, section 10 also brings into play the requirements of local and national planning, as well as the requirements of agriculture. Accordingly, whilst safety, speed, and ease of movement are important considerations, it is necessary to look at more than just those factors.

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<sup>14</sup> DD369

- 3.4 The strategic and local highway network is part of the basic infrastructure of the country and its function is not only to serve the needs of existing travellers, but also to provide one of the key building blocks for economic growth. This is made clear in DfT Circular 02/2007<sup>15</sup>, and also in the Government's Response to the Cook Review<sup>16</sup>. It is therefore important to look not only at how the Scheme would change matters for existing users of the highway network, but also at the new journeys that would be facilitated by the changes, and at how the changes would enable the highway network to contribute to economic growth.
- 3.5 Due weight has to be given to the objectives of local and national planning, particularly as set out in national policy statements and development plan policies. These are detailed in the Policy section, below. It is also necessary to have regard to existing commitments and decisions of the relevant local planning authorities. The Order making process is not an opportunity to revisit or overturn planning decisions that have already been settled in another forum. Nor is it an opportunity to examine planning issues that are not relevant to the Orders which are the subject matter of this Inquiry.

### **Background**

- 3.6 The existing Postwick junction already displays some serious congestion problems at peak times<sup>17</sup>. The P&R roundabout suffers from substantial queuing and delays to traffic on the Yarmouth Road (East) approach. Although there are 2 approach lanes, the majority of traffic uses the right-hand lane heading to the Postwick Bridge to cross the A47 and this lane cannot provide the capacity for peak traffic demand. Surveys carried out in November 2012 showed maximum queue lengths of 133 passenger car units (PCUs), or a length of 650 m, in the AM peak and 61 PCUs (350 m) in the PM peak.
- 3.7 In addition the North-West roundabout is affected by queues occurring on Yarmouth Road (West), which extend back towards this roundabout and to the dedicated left turn from the A47 eastbound diverge slip road. Moreover, it should be noted that, to a certain extent, any problems on Yarmouth Road (West) are being limited by the constraining effect of the severe queuing at the P&R roundabout.
- 3.8 Other junctions in the locality also experience problems. The Meridian Way roundabout suffers from queues in the AM peak as the westbound exit from this roundabout merges into a single lane. Surveys in 2012 showed queues of up to 22 PCUs, or a length of 125 m, in the nearside lane extending back towards the Postwick North-West roundabout.
- 3.9 In the PM peak the westbound traffic flows are lower than in the morning, but traffic conflicts at the Northside roundabout cause long queues on Yarmouth Road (West) of around 102 PCUs (585 m). These queues extend back through the Meridian Way roundabout towards the Postwick North-West roundabout and the A47 eastbound diverge slip road<sup>18</sup>.
- 3.10 These problems are already constraining development in the area and can be expected to get worse in the future, as a result of general traffic growth. It is for

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<sup>15</sup> See para 4 of DfT Circular 02/2007: "Planning and the Strategic Network" (DD136)

<sup>16</sup> See para 1.5 of "A Fresh Start for the Strategic Road Network: The Government Response" (DD248)

<sup>17</sup> See paras 3.1.2-3.1.4 of Doc HA/05/1

<sup>18</sup> See Doc HA/12 "Postwick Hub Scheme – Yarmouth Road Surveys and Northside Roundabout Assessment"

these reasons that an improvement to the existing Postwick junction has been part of the city's transport strategy for some years. Further details are given in the Policy section, which follows. Without intervention the junction is predicted to be significantly over-capacity in future years, as detailed in Doc HA/05/1<sup>19</sup>, and summarised in the following section.

- 3.11 In terms of safety, personal injury accident (PIA) data for the 5 year period from 1 May 2007 to 30 April 2012 shows that a total of 9 accidents occurred on the Postwick junction during this period, resulting in 10 slight injuries, with no serious or fatal accidents recorded. With increasing traffic from the proposed developments in the locality it is important that a good safety record should be maintained, but this would be unlikely to be achieved if traffic queues formed that regularly extended back to approach the high speed A47 trunk road mainline. Further details of the accident record are set out in DD362<sup>20</sup>.

### **Transport Modelling and Forecast Traffic Conditions**

- 3.12 The Norwich Area Transportation Strategy (NATS) transport modelling framework has been used to assess the Scheme. This consists of 3 main elements<sup>21</sup>. The first is a Highway Traffic Model, developed using SATURN<sup>22</sup> software. This traffic assignment model comprises a representation of the highway network, and predicts the travel routes and costs for vehicles travelling on the network. Queues and delays at junctions are simulated and taken into account in the predictions of travel routes.
- 3.13 The second element is the Public Transport Model prepared using VISUM<sup>23</sup>. This is an assignment model for bus and rail passengers, covering the same area as the highway model, plus the key rail routes into Norwich. The final element is the Demand Model prepared using DIADEM<sup>24</sup>. This variable demand model links with the highway traffic and public transport models and is used to represent behavioural responses to changes in travel costs, such as changes in trip-end location or changes in travel mode.
- 3.14 The highway and public transport assignment models have been developed for 3 time periods: an AM peak hour (0800-0900hrs), a PM peak hour (1700-1800hrs) and an average inter-peak hour (1000-1600hrs). The overall modelling framework has been developed to be consistent with the DfT's web-based Transport Appraisal Guidance, WebTAG<sup>25</sup>.
- 3.15 For the traffic forecasts, full details of the assumptions used in creating the future year networks and matrices are given in the Traffic Forecasting Report (TFR)<sup>26</sup> and also in Section 5 of Doc HA/05/1. In summary, the forecasts have been prepared assuming that the (mainly) employment development proposals at BGBP and Laurel Farm would only be able to proceed with the construction of the Postwick Hub Scheme. These are therefore considered to be "dependent developments". The Do-Minimum (DM) scenario includes committed transport

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<sup>19</sup> paras 6.3.1-6.3.4 of Doc HA/05/1

<sup>20</sup> DD362: Postwick Hub Scheme - Economic Appraisal Report

<sup>21</sup> See section 4 of Doc HA/05/1

<sup>22</sup> SATURN: Simulation and Assignment of Traffic to Urban Road Networks

<sup>23</sup> VISUM: a software system that models all private and public transport types

<sup>24</sup> DIADEM: DfT software - Dynamic Integrated Assignment and DEmand Modelling

<sup>25</sup> See Docs HA/16, HA/17 and DD345

<sup>26</sup> DD336

- improvements, but without the Scheme or dependent developments. Growth in demand is based on the National Trip End Model (NTEM) and Road Transport Forecasts, as well as variable demand modelling. The Do-Something (DS) scenario includes both the Scheme and the dependent developments.
- 3.16 Three separate forecast years have been used - the year of Scheme opening (assumed to be 2015); 15 years after opening (2030); and an interim year (2020). Different levels of dependent development are assumed to occur in these 3 years with the Scheme - 10% in 2015, rising to 50% in 2020 and 100% in 2030. It has further been assumed that the housing development proposed at Brook Farm, as well as other JCS proposed development, is not included explicitly, as the North East Growth Triangle (NEGT) proposals are subject to review (see later). However, the Brook Farm development has been included as part of a sensitivity test as it is subject to the same planning application as Laurel Farm. A sensitivity test has also been carried out with the proposed NDR connected to the Postwick Hub.
- 3.17 The forecasts indicate that if there was no improvement to the Postwick junction or occupation of the proposed dependent development, the P&R junction would be substantially over capacity in both the AM and PM peak hours in 2015, 2020 and 2030, resulting in long queues and delays. The junction would also be over capacity in the inter-peak period in future years, with long queues and delays predicted in 2030. As a result, in 2030 the junction would be over capacity throughout the whole of the working day with long queues and delays experienced on the Yarmouth Road (East) approach to this roundabout. The Postwick Bridge approach to this junction would also exceed capacity.
- 3.18 The Meridian Way roundabout would exceed capacity on the Yarmouth Road (West) approach in all forecast years in the AM peak, whilst the Northside roundabout would exceed capacity in both AM and PM peaks for westbound traffic as well as in the inter-peak in later forecast years. The longest queues would occur in the PM peak, when westbound traffic would be in conflict with traffic emerging from St Andrews Business Park via Northside.
- 3.19 Predictions of the operation of the Postwick junction if the dependent developments were allowed to proceed, but with no improvement to the junction, indicate that long queues would extend back onto the westbound and eastbound diverge slip roads of the A47<sup>27</sup>. There would also be a risk of the queues sometimes extending back onto the main A47 carriageway<sup>28</sup>.
- 3.20 It is to prevent such problems arising, and to allow permitted development to proceed, that the existing junction needs to be improved. The forecasts indicate that with the proposed improvement, all Scheme junctions would perform satisfactorily with acceptable levels of queuing on all arms. Forecast queues and delays can be seen in the TFR<sup>29</sup>. In addition, the revised layout would provide more capacity and protection for the trunk road. The junctions would also operate satisfactorily in the "high traffic" and "with NDR" scenarios.

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<sup>27</sup> see para 6.5 of Doc HA/05/01

<sup>28</sup> see Tables 6.8-6.10 in Doc HA/05/02 and Tables G.14-G.18 and Figures G.14-G.19 in DD336

<sup>29</sup> Figures G.8-G.13 of DD336

### **Policy considerations**

- 3.21 The objective of securing economic growth has the highest national priority and the overall context for the consideration of the Scheme is therefore provided in the "Planning for Growth" Ministerial Statement of 23 March 2011<sup>30</sup>. Amongst other matters this makes it clear that the Government's top priority in reforming the planning system is to promote sustainable economic growth and jobs. It further indicates that benefits to the economy, where relevant, are an important consideration when other development-related consents are being determined, including transport consents, and particular weight should therefore be placed on the potential economic benefits offered by an application.
- 3.22 The importance of providing the necessary infrastructure to deliver this economic growth is made clear in the Government's National Infrastructure Plan (NIP) Updates of 2012<sup>31</sup> and 2013<sup>32</sup>. In the NIP Update 2013, the Government reiterated its belief that "Infrastructure is vital to the success of any modern economy; it drives growth, creates jobs and generates the networks that allow businesses and organisations to thrive. Investing in and improving this country's infrastructure in order to make the UK globally competitive is a key part of the Government's economic strategy<sup>33</sup>". It is in this context that the Scheme is being brought forward.
- 3.23 Furthermore, the National Planning Policy Framework ("the Framework") defines the purpose of the planning system as being to contribute to the achievement of sustainable growth, with paragraph 14 containing a presumption in favour of sustainable development, which is described as "the golden thread running through both plan-making and decision-taking"<sup>34</sup>. In this regard the Scheme would enable new housing and employment growth in areas adjacent to each other, and also in areas adjacent to existing housing and employment sites. This should help to encourage trips by sustainable modes.
- 3.24 However, at the local level, planned future development which has been approved in the statutory development plan is being constrained by the present and predicted problems at the Postwick junction. Dealing first with the BBP, this was established in accordance with Policy TSA2<sup>35</sup> of the Broadland District Local Plan (BLP), but Policy TSA3 sets a floorspace threshold of 85,000 sqm for a first phase of development. Before a second phase of development can proceed Policy TSA3 requires a link road to Plumstead Road to be provided and an improvement of Postwick junction to be carried out.
- 3.25 For the BGBP development, the outline permission granted in October 2011<sup>36</sup> includes a variety of commercial, business and community uses, together with a hotel, a leisure facility and a car showroom. The permission is subject to a S106 agreement to implement an agreed Travel Plan which would provide a public transport contribution, likely to be in the range of £1.5 million to £2 million. Condition 1 of this permission requires all reserved matters to be submitted to

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<sup>30</sup> DD334 - Ministerial Statement by the Rt Hon Greg Clark MP

<sup>31</sup> DD337

<sup>32</sup> DD338

<sup>33</sup> Para 1.1 of DD338

<sup>34</sup> paras 4.2-4.12 of Doc HA/04/1

<sup>35</sup> see DD235

<sup>36</sup> DD135

- the Planning Authority within 10 years of the date of permission, but Condition 3 places a restriction on the occupation of the development until improvements at the Postwick junction are completed and available for public use<sup>37</sup>.
- 3.26 The Brook Farm/Laurel Farm (BFLF) outline planning permission, issued in June 2013, has also been conditioned such that the development cannot be occupied until the Scheme is completed<sup>38</sup>. This development, which would effectively extend the BBP northwards, entails the provision of 600 dwellings, with a local centre incorporating A1 retail uses and a community hall, on the Brook Farm side of the development<sup>39</sup>. It also includes some 57,480 sqm of office/industrial/storage employment development on the Laurel Farm part of the site.
- 3.27 In accordance with BLP Policy TSA3 this development will provide a link road to connect Peachman Way with Plumstead Road East<sup>40</sup>, with the permission also conditioned to prevent occupation of any part of this development until this road is constructed and open for use<sup>41</sup>.
- 3.28 The existing problems at the Postwick junction are also preventing expansion of the Postwick P&R facility, thereby hampering its ability to encourage sustainable travel choices. Although planning permission for a further 500 parking spaces was granted in May 2010<sup>42</sup>, Condition 14 of this permission prevents the expanded area being brought into use until the Postwick junction has been upgraded through the completion of the Scheme<sup>43</sup>.
- 3.29 These developments are all consistent with the strategy for economic growth in the Norwich Policy Area (NPA) which is set out in the JCS<sup>44</sup>, being prepared by the Greater Norwich Development Partnership<sup>45</sup> (GNDP). Furthermore, the highway and P&R improvements referred to above are consistent with the NATS<sup>46</sup> and the aims of NCC's 3<sup>rd</sup> Local Travel Plan<sup>47</sup>, adopted in March 2011, and its associated Implementation Plan<sup>48</sup>.
- 3.30 Dealing first with planning matters, the JCS was adopted in March 2011, but following a legal challenge from the organisation Stop Norwich Urbanisation (SNUB), parts of the JCS dealing with aspects of growth in the Broadland part of the NPA, including the NEG, were remitted for further consideration. However, the remainder of the JCS remains adopted, including the overall scale of housing and jobs growth; the requirement for a new allocation at BBP; and the identification of the need to improve Postwick junction.
- 3.31 Paragraph 47 of the Framework makes it clear that the Government aims to "boost significantly the supply of housing", and as the overall JCS housing targets were not remitted there remains a need to deliver large scale growth in the NPA.

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<sup>37</sup> see paras 8.6-8.7 of Doc HA/04/1

<sup>38</sup> see Doc HA/18

<sup>39</sup> see DD179

<sup>40</sup> see paras 8.15-8.19 of Doc HA/04/1

<sup>41</sup> See Doc HA/18

<sup>42</sup> DD214

<sup>43</sup> Para 6.2.13 of Doc HA/03/1; para 4.5.3 of Doc HA/02/1 and paras 8.10-8.12 of Doc HA/04/1

<sup>44</sup> DD330

<sup>45</sup> A grouping of the 3 Councils of Broadland, Norwich and South Norfolk

<sup>46</sup> DD272 – Norwich Area Transportation Strategy

<sup>47</sup> DD229 – Connecting Norfolk: Norfolk's Transport Plan for 2026

<sup>48</sup> DD230 – Connecting Norfolk: Implementation Plan for 2011-2015

To this end, JCS Policy 4 requires allocations to be made to ensure delivery of at least 36,820 new homes between 2008 and 2026, of which about 33,000 will be in the NPA<sup>49</sup>. However, the latest Annual Monitoring Report (AMR)<sup>50</sup> demonstrates that currently there is not a 5-year supply of housing land and indicates that the biggest shortfall is in the Broadland part of the NPA.

- 3.32 Consequently, there is an imperative to overcome any constraints to the delivery of the 600 dwellings that benefit from planning permission at Brook Farm. As the JCS allows for at least 1,600 dwellings to be delivered following improvements to Postwick junction, a minimum of 1,000 further dwellings would be facilitated by the Scheme. New housing in this general area would be adjacent to the existing urban area, well located for strategic employment opportunities and served by proposed investment in sustainable transport. The Scheme would therefore overcome a constraint to growth for housing proposals that can come forward consistent with current strategic policy.
- 3.33 In addition, the expansion of employment opportunities in this area is critical to the success of the economic growth strategy which has been settled through the development plan process<sup>51</sup>. Policy 5 of the JCS contains a target of 27,000 jobs for the period 2008-2026 and Policy 9 requires employment development at strategic locations to include "an extension to BBP of around 25 ha for general employment uses"<sup>52</sup>. The committed land in and around BBP is seen as the key development opportunity in the near future that is close to Norwich and available for general employment development. Importantly, the identification of this BBP extension is not going to be revisited as part of the continuing debate about the merits of the NEGTT in the remitted parts of the JCS.
- 3.34 Furthermore, the permitted developments at BGBP and BFLF would provide the opportunity for large scale development plots that are not available elsewhere. It is estimated that around 5,000 jobs could be provided on these sites, with this potential being confirmed by recent information on employment densities from Homes and Communities Agency guidance<sup>53</sup>.
- 3.35 Moreover, negotiations with Government to develop a "City Deal" are predicated on significantly exceeding job growth targets<sup>54</sup> and the expansion of BBP provides the best general employment opportunity for early growth. The inability to implement this expansion, through the committed BGBP and BFLF proposals, would further undermine the JCS's economic growth strategy<sup>55</sup>.
- 3.36 Turning to transport matters, the NATS was updated and agreed by NCC's Cabinet in 2010. As part of its overall Strategy it recognises the Norwich area as a centre where growth will be focussed and looks to provide the essential infrastructure needed to accommodate this growth, including a NDR. The Strategy seeks to support the Norwich area as a sustainable community, and seeks to promote travel choice and improve bus travel in the urban area.

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<sup>49</sup> Housing requirements in the JCS are addressed in more detail at paras 6.16-6.18 of Doc HA/04/1

<sup>50</sup> Appendix A to DD365

<sup>51</sup> see paras 9.9-9.10 of Doc HA/04/1

<sup>52</sup> Economic development and targets for jobs in the JCS are addressed in paras 6.19-6.25 of Doc HA/04/1

<sup>53</sup> see Appendix F to Doc HA/04/2

<sup>54</sup> see Appendix D to Doc HA/04/2

<sup>55</sup> see para 9.8 of Doc HA/04/1

- 3.37 NATS forms part of the Local Transport Plan (LTP)<sup>56</sup>, the latest version of which was adopted in March 2011 and is called "Connecting Norfolk". It sets the longer term strategy for transport delivery up to 2026 and is supported by an LTP Implementation Plan (LTPIP)<sup>57</sup> which covers the period from 2011 to 2015. Chapter 4 of the LTP deals with sustainable growth and includes, within its short to medium term priorities, the requirement that the implementation plan for transport in the Norwich area, including a NDR, continues to be delivered as part of the JCS for enabling growth in the Greater Norwich area.
- 3.38 The LTP states that delivery of the Postwick Hub will alleviate current capacity issues, serve new development at Broadland Gate and form the junction between the NDR and the A47. It further states that these improvements will also free up capacity on the existing road network in the city centre, providing the scope to implement a package of complementary measures including bus priority, walking and cycling improvements. The Postwick Hub proposal and the NDR are both included in the capital programme in the LTPIP.
- 3.39 The concept of sustainable development is embedded in this LTP, for which a Sustainability Appraisal (SA)<sup>58</sup> was undertaken in 2011. This identified a number of sustainability objectives, the first of which was to reduce carbon dioxide emissions from transport. However, this was identified as having an adverse impact on the ability of the LTP to deliver 3 key objectives, namely delivering sustainable growth; enhancing strategic connections; and improving accessibility. As a result the SA identified that there is often a balance to be reached between reducing carbon dioxide from transport, and achieving other key objectives.
- 3.40 It comments that carbon dioxide reduction has been considered throughout the development of the LTP, influencing the final package of policies and measures to be delivered. It notes, however, that there remain some policies or measures that are predicted to have a negative impact, but that in these cases there is overwhelming evidence of their economic or social benefit to Norfolk<sup>59</sup>.
- 3.41 Policy 7 of the LTP, dealing with Strategic Connections, highlights the importance of the A47, as part of the European TEN-T network. It seeks to bring about an improvement in journey time reliability in and around Norfolk, and encourages local agencies to work together to enhance the SRN. It explains that enhancing the connections between Norfolk's 3 international gateways, namely Norwich International Airport and the ports at Great Yarmouth and King's Lynn, will help boost the contribution they make to Norfolk's economy.
- 3.42 Improvements to the Postwick junction and the protected corridor for the proposed NDR are both shown on the BLP Proposals Map<sup>60</sup> (as modified following adoption of the JCS in 2011). The Scheme is shown as located at the end of a proposed Bus Rapid Transit (BRT) corridor linking the BBP/BGBP area with the city centre. These schemes are also shown, diagrammatically in the proposed implementation plan for NATS, contained within the JCS<sup>61</sup>.

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<sup>56</sup> DD229

<sup>57</sup> DD230

<sup>58</sup> Sustainability Appraisal, incorporating a Strategic Environmental Assessment, Health Impact Assessment and a Carbon Impact Assessment for Connecting Norfolk, Norfolk's 3<sup>rd</sup> Local Transport Plan" January 2011

<sup>59</sup> See Annex 1 to Doc HA/40

<sup>60</sup> DD366

<sup>61</sup> DD330, page 61



- 3.43 Policy 6 of the JCS covers a range of transport aims, including the need to implement NATS; significant improvement to the bus, cycling and walking network including BRT; and enhancing Park & Ride. The JCS also specifically identifies the Postwick junction improvement as one of a package of measures required to deliver growth and facilitate modal shift<sup>62</sup>.
- 3.44 JCS Policy 9, already referred to above, also highlights that the transport infrastructure required to implement NATS, deliver growth and support the local economy will include the construction of the NDR; significant improvement to the bus, cycling and walking network, including BRT on key routes in the Norwich area; enhancing the Norwich Park & Ride system; and junction improvements on the A47 Norwich Southern Bypass.
- 3.45 The above points demonstrate the importance of the A47 trunk road in the region and highlight the need to ensure that the Postwick junction operates well as part of the SRN.

### **Scheme Details**

- 3.46 *Scheme Objectives.* In light of the above points, doing nothing is not a sensible option as general traffic growth means the performance of the junction would deteriorate over time. The Scheme has therefore been developed, with the following objectives:-
- to improve the operation of the A47 trunk road junction;
  - to remove the possibility of a HA "Article 14 (now Article 25) Direction that planning permission be not granted" for allocated employment development at BBP (including BGBP);
  - to release land to the north of Dussindale Park for 600 new houses, unlocking potential for at least another 1,000 houses;
  - to provide additional jobs at BBP (including BGBP) and support the continued success of the Norwich economy;
  - to co-locate housing and jobs to encourage sustainable commuting;
  - to make allowance for connection of the planned NDR and the additional traffic which could result from it;
  - to make allowance for the future planned expansion of the Postwick P&R site;
- 3.47 *Scheme development and design.* A key consideration that has influenced the design of the Scheme is the need to ensure that traffic using the slip roads to exit the A47 (both eastbound and westbound) would not experience congestion on a scale that would risk queues extending back close to or onto the mainline carriageway. Any such queues would impact directly on the ability of the A47 to cater for "through" traffic safely and conveniently. Extensive or unpredictable queues present both a safety hazard and an inconvenience to road users.
- 3.48 In addition, there are a number of physical, engineering, operational, and practical constraints that limit the realistic options to both address the existing problems and provide the capacity to cater for the committed development<sup>63</sup>. In summary they comprise the River Yare/Railway Bridge; the existing Postwick Bridge; the traffic capacity of the existing junction; the traffic capacity of Yarmouth Road (West); the vertical profile of the A47 at this location; the

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<sup>62</sup> DD330, para 5.47

<sup>63</sup> See section 6.2 of Doc HA/03/1 and Figure 3 in Appendix A to DD370

- presence of a high pressure gas main to the east of the junction; Heath Farm; Postwick Village; and the BGBP.
- 3.49 Furthermore, whilst the Scheme is justified on its own merits, provision of the NDR is a key part of NCC's transport policy, as noted above. An application for a Development Consent Order for the NDR is currently being prepared, and a Statement of Community Consultation has just been issued. Therefore, in developing the design of the Postwick junction improvements the potential effects of the NDR on the Scheme have been considered, in physical and operational terms. The potential effects of the permitted expansion of the Postwick P&R site have also been taken into account.
- 3.50 Having regard to the above constraints NCC explored a number of options for the Postwick Hub junction, both as part of the NDR scheme and as a stand-alone proposal, in an attempt to design a safe junction improvement which could accommodate the committed development and planned growth whilst retaining the existing A47 eastbound slip roads<sup>64</sup>. However, traffic modelling tests on these various alternative options have shown that releasing the constraint at the P&R junction could cause severe queuing on Yarmouth Road (West). This would block the North West roundabout and extend back on the A47 eastbound diverge slip road and onto the main A47 eastbound mainline carriageway.
- 3.51 These options included a lane drop on the A47 under the existing Postwick Bridge and the introduction of a second successive diverge slip road. But proposals for retention of the eastbound diverge slip road have not been pursued because the minimum spacing between diverges could not be achieved in accordance with the appropriate guidance<sup>65</sup>. Applications for Departures from Standard were submitted but were not successful. Furthermore, a road safety audit (included within DD267) highlighted that the successive diverge slip road layout might be confusing to drivers and could result in late lane changes and collisions.
- 3.52 Accordingly, for safety reasons, it has been found necessary to stop up the existing eastbound diverge slip road and provide a new, separate eastbound diverge slip road. This would also require the provision of a new eastbound merge slip road<sup>66</sup> and, in turn, would require a new bridge crossing the A47 in order to provide a connection between a new Postwick North-East roundabout and the P&R junction<sup>67</sup>. The Scheme layout also includes a Broadland Gate link, a Business Park roundabout and a Business Park Link, to serve the proposed BGBP development<sup>68</sup>. The published Scheme layout is shown in Appendix B to the SoC (Volume 2)<sup>69</sup>, with the general signing strategy for the Scheme shown in Appendix C to this same document.
- 3.53 Despite the concerns of some objectors, the Scheme would not close access to Thorpe St Andrew and Great and Little Plumstead. All existing journeys would remain achievable by means of alternative routes, and all local roads would remain open, but inhabitants of and visitors to these villages would need to use

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<sup>64</sup> paras 6.3.8-6.3.13 and para 8.1.8 of Doc HA/03/1

<sup>65</sup> DMRB Volume 6 Section 2 Part 1: TD22/06 Layout of Grade Separated Junctions - para 4.30

<sup>66</sup> paras 8.2.1-8.2.4 and para 6.3.19 of Doc HA/03/1

<sup>67</sup> The constraints which dictate the positioning of this new bridge are set out in paras 8.11.1-8.11.3 of Doc HA/03/1

<sup>68</sup> See Appendix B to DD370

<sup>69</sup> DD355

- the new road layout. Both eastbound and westbound traffic would still be able to join and leave the A47 at Postwick in order to travel to or from these villages.
- 3.54 There are 2 PMA which would be affected by the Scheme. Heath Farm currently has a PMA off Broadland Way, north of the Postwick North-West roundabout. As part of the Scheme, a minor realignment of this PMA would be required. The second PMA, serving The Grange, allows eastbound traffic to enter this property by turning left off the A47. However, this "entry only" access arrangement is unsatisfactory in terms of highway safety as it creates a potential conflict with traffic joining the trunk road from the eastbound merge slip road.
- 3.55 It is therefore proposed to stop up this PMA and provide a replacement via the new Postwick North-East roundabout. This is not shown in the draft Side RO as it has been negotiated and agreed separately, and was subject to a separate planning application submitted to BDC in March 2010<sup>70</sup>. Planning permission was granted by BDC in May 2010 and renewed in March 2013<sup>71</sup>.
- 3.56 Postwick Footpath No 2, which lies to the east of the Scheme and runs south from Smee Lane to the A47 (which it crosses at grade), would be stopped up and diverted. It would follow a new alignment<sup>72</sup> which would increase the length of journeys for pedestrians by about 780 m, but would avoid the need to cross the A47 mainline carriageway at grade. The new route would therefore provide a significantly safer option than the current route.
- 3.57 The current pedestrian and cycle facilities across the existing Postwick Bridge would be altered, removing the existing northbound and southbound on-carriageway facility for cyclists. Instead, the Scheme would provide a shared-use facility along the western side of the bridge, linking to the shared-use facilities on the A1042 Yarmouth Road (West) and the new facilities proposed as part of the P&R extension, which include a 3.0 m wide off-carriageway shared-use link from the P&R signalised junction to Oaks Lane<sup>73</sup>. The P&R junction would include a signal-controlled crossing with on-demand phases for pedestrians and cyclists. These proposals are consistent with both the Norwich Cycle Map<sup>74</sup> and a strategic cycle map produced by Sustrans<sup>75</sup>.
- 3.58 To ensure that cyclists would not be disadvantaged by the proposed stopping up of the eastbound diverge slip road, a modification to the draft Side RO is now proposed, as discussed later in this Report.

#### Funding<sup>76</sup>

- 3.59 The Government's Community Infrastructure Fund (CIF) was specifically targeted to support locations designated as "Growth Points", such as Norwich. The CIF bid for £21 million set out a series of objectives (consistent with the Scheme objectives set out in paragraph 3.46 above), and also included an objective to unlock growth for another 10,000 houses. At that time, this was consistent with

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<sup>70</sup> See DD208

<sup>71</sup> See DD209 and DD327

<sup>72</sup> See Appendix C to Volume 2 of the Statement of Case (DD370)

<sup>73</sup> See Appendix P to Doc HA/03/2

<sup>74</sup> DD182

<sup>75</sup> DD183 - see also Appendix Q to Doc HA/03/2

<sup>76</sup> See paras 7.3.1-7.4.7 of Doc HA/02/1

the proposals set out in the emerging JCS and also took into account the delivery of the NDR (as part of the JCS).

- 3.60 In part, this remains, as one of the objectives of the Scheme is to make an allowance for the connection of the NDR, if that scheme is delivered in the future. However, the provision of the further housing (up to a total of 10,000) within Broadland is the subject of further, on-going examination following the legal challenge to the adopted JCS referred to above. The Scheme is therefore not presented in the context of delivering this housing, but it is directly associated with unlocking the housing figure of 1,600 which has been retained in the JCS.
- 3.61 The CIF bid received funding confirmation in March 2009<sup>77</sup>, conditional on Ministers granting Programme Entry to the NDR. Programme Entry of the NDR into the Department's Local Authority Major Schemes Programme was approved in December 2009<sup>78</sup>, and the DfT made it clear that the Postwick junction improvement was being funded separately through the CIF.
- 3.62 However, following the national elections in 2010, the new Coalition Government announced its CSR and as a result, major road schemes requiring DfT funding were put on hold<sup>79</sup>. Following completion of the CSR, the DfT informed NCC that for the purposes of prioritising investments, the NDR as approved in December 2009 and the CIF scheme at Postwick Hub were being considered as a single scheme<sup>80</sup>. Following submission of a Best and Final Bid (BAFB), NCC was subsequently informed that funding had been agreed and Programme Entry for the scheme was reconfirmed<sup>81</sup>.
- 3.63 One of the conditions attached to this approval was that the overall scheme had to be implemented in accordance with the proposals as set out in the BAFB, including that it would be delivered within the timescale set out in the bid, namely that Postwick Hub would be delivered in advance of the NDR. Accordingly, although the 2 elements have been combined in a single Development Pool bid, the intention was always that the Postwick Hub Scheme could proceed separately from and in advance of the NDR.
- 3.64 Further clarity on this point was provided in a letter from the DfT<sup>82</sup> which confirmed a maximum funding contribution of £86.5 million, to include the funding reserved for the Postwick Hub. The letter confirmed that this funding reserved for the Postwick Hub would be released in advance of that for the NDR, subject to satisfactory completion of all remaining statutory procedures.

### **Transport Assessment**

- 3.65 The Scheme has been tested for peak periods for an assumed year of opening (2015); in the medium term when 50% of the dependent development is assumed to occupied (2020); and in the longer term when 100% of the dependent development is assumed to occupied (2030). The detailed ARCADY<sup>83</sup> results show that the roundabouts are predicted to operate satisfactorily, with

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<sup>77</sup> Announcement by CLG and DfT on 27 March 2009 – see page 23 of Doc HA/02/2

<sup>78</sup> Letter from DfT dated 8 February 2010 – see page 35 of Doc HA/02/2

<sup>79</sup> Fuller details are provided in paras 7.3.8-7.3.9 of Doc HA/02/1

<sup>80</sup> Letter from DfT dated 9 November 2010 – see page 33 of Doc HA/02/2

<sup>81</sup> See DD244 & DD245 and pages 41-43 of Doc HA/02/2

<sup>82</sup> see page 45 of Doc HA/02/2

<sup>83</sup> Assessment of Roundabout Capacity and Delay software

- low levels of queuing on all arms<sup>84</sup>. This can be seen diagrammatically in Appendix G to the TFR<sup>85</sup>, which shows the predicted queuing and delays at the Scheme junctions for peak hours in the 3 forecast years, compared to the situation which would exist if nothing is done to the Postwick junction.
- 3.66 The highest delays would occur at the proposed signal junction which would replace the P&R roundabout. LINSIG<sup>86</sup> results show that this junction would operate satisfactorily in the AM peak and inter-peak periods but would be heavily loaded by traffic in the PM peak<sup>87</sup>. However, the signal timings would be adjusted and a queue management system would be used to ensure that queues on Postwick Bridge would not extend back to impede the North-West roundabout. In practice, the MOVA<sup>88</sup> control system would be installed to optimise the operation of the traffic signals for dynamic, real-time traffic conditions.
- 3.67 Overall the delays at this junction would be modest, when compared to the long delays that would be experienced if nothing was done to the Postwick junction. Whilst there would still be some delays at Northside roundabout for westbound traffic, they would be much shorter than in the DM scenario for 2015 and 2020. Sensitivity checks have been undertaken which demonstrate that the junction assessments are robust and that the Scheme could accommodate the consequences of higher levels of locally generated traffic, including from the 600 dwellings proposed at Brook Farm<sup>89</sup>.
- 3.68 In addition, the design of the roundabouts on the Broadland Gate Link Road have been tested to assess whether they would perform acceptably if there was a future connection to the NDR. These tests indicate that with some minor changes to the roundabout geometries, all of the new Scheme roundabouts would operate satisfactorily with acceptably small queues and delays<sup>90</sup>. The performance of the Meridian Way and Northside roundabouts would also be substantially improved, as the NDR would provide relief to the Yarmouth Road (West) corridor, thus eliminating the substantial queues and delays that occur on it at present and that are forecast in the future without the NDR.
- 3.69 With a connection to the NDR the degree of saturation at the signalised junction would exceed the target of 90% in both 2020 and 2030 in the PM peak and in 2030 in the AM peak, although the queues would be contained acceptably in these cases. As already noted, the proposed queue management system would control the signal settings to ensure that queues would not extend back to the Postwick North-West roundabout exit<sup>91</sup>.

### **Economic Assessment**

- 3.70 The Scheme has been appraised in isolation, without the dependent developments, following WebTAG Unit 3.16 (Draft) guidance<sup>92</sup>. The economic

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<sup>84</sup> Tables G8-G13 in Appendix G to the Traffic Forecasting Report (DD336); Tables 6.4, 6.5 & 6.6 in Doc HA/05/2 DD336

<sup>86</sup> Computer assessment program for traffic signal-controlled junctions

<sup>87</sup> Tables G.19-G.27 in Appendix G to DD336; Table 6.7 in Doc HA/05/2

<sup>88</sup> MOVA: Microprocessor Optimised Vehicle Actuation

<sup>89</sup> paras 6.6.1-6.6.4 of Doc HA/05/1

<sup>90</sup> para 6.7.1-6.7.2 of Doc HA/05/1; Tables H.23-H.30 of Appendix H to DD336; and Tables 6.18 & 6.19 in Doc HA/05/2

<sup>91</sup> Tables H.31-H.36 of DD336; Table 6.20 in Doc HA/05/2 and para 6.7.2 in Doc HA/05/1

<sup>92</sup> DD322 - Web-based Transport Appraisal Guidance

benefits of land use development have also been assessed in accordance with this WebTAG guidance and the Gross Value Added (GVA) benefits of enabling 5,000 jobs at BGBP and Laurel Farm have also been assessed<sup>93</sup>.

- 3.71 As distances and times for some journeys through the Postwick junction would increase, transport user benefits assessed using TUBA<sup>94</sup> indicate that the Scheme would produce total Present Value Benefits (PVB) of -£74 million in the 60 year assessment period (at 2010 prices, discounted to 2010)<sup>95</sup>. The Present Value of Costs (PVC) is estimated to be £25 million and the Scheme would therefore have a Benefit Cost Ratio (BCR) of -2.9. The vast majority of these disbenefits would arise from small changes in journey times of less than 2 minutes, rising to up to 5 minutes in the worst case in 2030, whereas most of the benefits would derive from larger time savings of more than 5 minutes.
- 3.72 The accident analysis for the Scheme forecasts an increase in total PIAs, but a reduction in fatalities when compared with the DM scenario. This would be offset by increases in serious and slight casualties, such that there would be an overall monetised disbenefit of £4.19 million<sup>96</sup> (at 2010 prices, discounted to 2010). This disbenefit is not unexpected, because even though the Scheme is designed to safe, modern design standards the proposed layout would result in longer travel distances for a number of journeys through the junction.
- 3.73 Transport disbenefits are to be expected from a new development access if the appraisal only assesses its impact on existing highway users, and does not take account of new travel generated by the development. This is the situation here, and it is therefore important to have regard to the benefits which would arise from the dependent development.
- 3.74 The land use development benefits, assuming implementation of the Scheme, are equal to the Planning Gain (PG) arising from the development less the Transport Externality Cost (TEC) and Other Externalities (OE). PG has been calculated for BGBP assuming that 3 ha and 12 ha are unlocked in 2015 and 2020 respectively, and a further 15ha of office development takes place between 2020 and 2030. For Laurel Farm, PG has been calculated assuming that 2 ha and 7 ha are unlocked in 2015 and 2020 respectively, and a further 8 ha of mixed development takes place between 2020 and 2030 on non-previously developed land<sup>97</sup>.
- 3.75 The DfT confirmed that TEC should be calculated for a 30 year period, from 2015 to 2044, and that it should use the approach detailed in draft WebTAG Unit 3.16. Although this is entitled "Appraisal in the Context of Housing Development", Section 4 explains that much of the guidance is likely to be readily applicable to other forms of land use that impact on transport and, in some cases, can be dependent on some form of transport intervention. The approach entails using 2 transport model runs, namely, without the dependent developments but with the Scheme; and with the dependent developments and with the Scheme. The methodology behind the calculation of the TEC means that it would be lower with

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<sup>93</sup> See DD362 - Postwick Hub Junction Scheme – Economic Appraisal Report

<sup>94</sup> DfT software used to assess transport user benefits of transport schemes

<sup>95</sup> Table 8.1 in Doc HA/05/2

<sup>96</sup> Calculated with COBA (Cost Benefit Analysis) software - see Section 7 of Doc HA/05/1

<sup>97</sup> paras 8.3.4-8.3.6 of Doc HA/05/1

the dependent development, than it would if development was more widely distributed across the local districts and constrained to NTEM.

- 3.76 Put another way, with the implementation of the Postwick Hub Scheme the TEC would be lower with the development close to Postwick, than with a wider distribution of development. This outcome is consistent with the draft WebTAG 3.16 guidance and means that in this case the TEC would be negative. The OE refers to the loss or gain in amenity value of the land compared to its existing use. As a result, the overall development benefits arising from the provision of new housing (at least 600 homes) and employment (5,000 jobs) have been calculated to be significant, at £494 million<sup>98</sup>.
- 3.77 The GVA economic assessment has been conducted over a 30 year time horizon and a discount rate of 6% has been used. In addition, an assessment has been made that only two-thirds of the development would occur elsewhere if it were not to proceed at BGBP or Laurel Farm<sup>99</sup>. With all these factors taken into account, the "additional" GVA which would result from releasing the BGBP and Laurel Farm developments has been estimated to be £246 million and £132 million respectively, giving a total of £378 million in 2010 prices discounted to 2010<sup>100</sup>.
- 3.78 These development and GVA benefits would significantly outweigh the transport disbenefits of £74 million and clearly demonstrate that the Scheme would provide a significant economic benefit, both locally and to the wider economy. Accordingly, with these points in mind, the Scheme is considered to represent good value for money.

### **Environmental Assessment and other Scheme impacts**

- 3.79 The environmental impacts of the Scheme have been considered on several occasions, including as part of an Environmental Impact Assessment (EIA) carried out in 2007/2008 on outline designs for the BGBP and on the full designs for the improvement to the Postwick junction<sup>101</sup>.
- 3.80 They have also been considered in 2 Scoping Opinions given by BDC in August 2008 in relation to BGBP and the Scheme<sup>102</sup>; in an EIA carried out in March 2009 in relation to minor changes to the Scheme prompted by the Postwick P&R extension<sup>103</sup>; in an updated EIA carried out in 2011 in relation to BGBP and the Scheme<sup>104</sup>; in an environmental assessment for the HA carried out in August 2012 on cultural heritage impacts<sup>105</sup>; and in a further, revised environmental statement in April 2013 in relation to BGBP and the Scheme<sup>106</sup>.
- 3.81 In light of the above points the HA produced a Record of Determination dated 14 May 2013<sup>107</sup> that no significant environmental effect was likely to result, that was not already addressed by the previous EIAs.

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<sup>98</sup> paras 8.3.4-8.3.6 and 8.4.4 of Doc HA/05/1, and Section 7.2 of DD362

<sup>99</sup> See Doc HA/39

<sup>100</sup> paras 8.3.8-8.3.9 and 8.4.5 of Doc HA/05/1, and Section 7.1 of DD362

<sup>101</sup> Broadland Gate Planning Application - ES Vol 1 (December 2008) (DD141) & Vol 2 (December 2008) (DD142)

<sup>102</sup> Appendix 1 of Vol 2 of the Revised ES (DD147)

<sup>103</sup> DD215

<sup>104</sup> Broadland Gate Planning Application - ES - Revised Vol 1 (June 2011) (DD146) & Vol 2 (June 2011) (DD147)

<sup>105</sup> DD287

<sup>106</sup> Broadland Gate Planning Application - ES - Revised Air Quality, Noise and Water Resource Assessments (DD371)

<sup>107</sup> Doc HA/10

- 3.82 Land Use and Agriculture<sup>108</sup>. The Postwick area is identified as having high quality Grade 2 agricultural soils and the Scheme and associated access roads would result in the loss of some 9.8 ha of this land. In addition, 3 small areas of Grade 2 agricultural land, amounting to some 0.76 ha, would be severed by the scheme footprint. These areas would be converted into native planting of mixed trees, shrubs and grasses, and would be an ecological benefit of the Scheme as the sensitive planting proposed would increase the biodiversity of the area.
- 3.83 The current owner of the farm affected has confirmed that the remaining agricultural land would continue to be viable for farming<sup>109</sup>. The loss of agricultural land due to the construction of the access roads would result in a permanent negative impact on agricultural economic activity in the area, but this would be limited to within the Scheme.
- 3.84 The loss of agricultural land is an important matter, as it is referred to in the statutory tests for proposed road infrastructure, in the Highways Act 1980. However, adopted Policy 9 of the JCS has identified 25 ha of land in the vicinity of the Scheme for a range of employment uses, much of which would have to be on agricultural land. This indicates that the loss of agricultural land in this area, and for these proposals, has been considered acceptable in planning terms. In any case, the land lost would only be a very small percentage (less than 0.05%) of the total Grade 2 land in the Greater Norwich Development area, and the loss in this case should therefore not weigh heavily against the Scheme.
- 3.85 Cultural Heritage<sup>110</sup>. The EIA identified low to neutral effects on archaeology and cultural heritage which would not be significant, assuming appropriate mitigation would be carried out. It is also a planning condition that an Archaeological Written Scheme of Investigation be developed and approved before any works commence. A Written Scheme of Investigation has been produced and is currently being reviewed for approval by the County Archaeologist.
- 3.86 Ecology<sup>111</sup>. The EIA determined that there are numerous species in the area of the Scheme which might be impacted. Similarly there are some areas of habitats that would be permanently lost if the Scheme was built, although no protected areas would be directly or indirectly impacted. A number of mitigation measures have been included in the design to offset some of the negative effects, and the overall slight adverse effect would not be significant.
- 3.87 Landscape Impact<sup>112</sup>. Whilst the Scheme would have an impact on the landscape setting, the area lies on the urban fringe and the setting is already impacted by the A47, the relatively new developments in the area and the P&R site. The overall effect of the Scheme on the landscape would therefore be neutral, as new planting would provide a slight beneficial effect which would balance the slight adverse effect of loss of agricultural land.
- 3.88 Lighting<sup>113</sup>. Although lighting of the roads and junctions has the potential to create a visual impact at night, this would be minimised by using downward reflectors, using low impact lighting. In any case, the existing Postwick Junction

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<sup>108</sup> Paras 4.14-4.17 of Doc HA/06/1

<sup>109</sup> See Appendix B to Doc HA/06/2

<sup>110</sup> Section 5 of Doc HA/06/1

<sup>111</sup> Section 6 of Doc HA/06/1

<sup>112</sup> Section 7 of Doc HA/06/1

<sup>113</sup> Section 7 of Doc HA/06/1



and the P&R site are already lit, so the additional lighting is not likely to create a significant change in this visual feature.

- 3.89 Air Quality<sup>114</sup>. The air quality in the immediate vicinity of the Scheme is generally good, and there is no Air Quality Management Area defined within 4 kilometres of the Scheme footprint. The recent revised assessment on air quality<sup>115</sup>, used updated traffic forecasts and modelled air quality changes at specific locations where sensitive receptors were identified to exist (mainly along road corridors in the wider area).
- 3.90 The significant pollutants are nitrogen dioxide and fine airborne particles<sup>116</sup>. The air quality assessment has shown that the concentrations at the relatively small number of residential properties near to the junction would remain below the standards set to protect health. At some residential properties, concentrations with the scheme are predicted to increase by a small amount, and at others to decrease. Concentrations of all 3 pollutants are predicted to be well below the air quality objectives at all receptors and the effects of the Scheme on air quality would not be significant.
- 3.91 Water resources and drainage<sup>117</sup>. With appropriate drainage designs the ES concluded that there would be no significant impacts on groundwater or surface water, and that the impact on flood risk would be neutral. This conclusion was confirmed in the revised ES assessment<sup>118</sup>. The ESs have been considered by the Environment Agency and there are no outstanding matters of concern. The assessments undertaken also demonstrate that there would be no unacceptable risks to water resources from spillages arising from traffic accidents.
- 3.92 The road drainage is designed to infiltrate into the ground and accordingly there would not be any significant standing water to create a breeding ground for mosquitoes, as feared by some objectors. In any case, the maintenance regime for the drainage network would be in accordance with standard practice operated by NCC. The ES also concluded that there would be no significant risk from the scheme on ground conditions (including potential contaminated land)<sup>119</sup>.
- 3.93 Noise<sup>120</sup>. Baseline noise conditions were measured by surveys completed in October 2008<sup>121</sup> and the noise levels used in the revised ES assessment are deemed to be still valid, as no significant changes have occurred in the area since these earlier surveys. There are a number of receptors in the area which would be particularly sensitive to noise. These are the residential buildings at Heath Farm; The Grange; residential areas adjacent to Green Lane (about 900 m to the north-west of the junction); and Postwick village, to the south-east of the junction. Background noise in the area is dominated by existing traffic and is at a level such that noise should be taken into account in the planning process.
- 3.94 The revised ES assessment concluded that in the short term, on Scheme opening, impacts would be less than 1dB at all sensitive receptors and classed as

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<sup>114</sup> Section 9 of Doc HA/06/1

<sup>115</sup> DD371

<sup>116</sup> known as PM10 and PM2.5

<sup>117</sup> Section 11 of Doc HA/06/1

<sup>118</sup> DD371

<sup>119</sup> Section 12 of Doc HA/06/1

<sup>120</sup> Doc HA/09/1

<sup>121</sup> Section 11.5, Volume 1 of the Environmental Statement, DD146

negligible adverse; in the long term, with the Scheme, impacts at all locations would be less than 2dB and classed as negligible adverse; in the long term, without the Scheme, impacts at all locations would be less than 1dB and classed as negligible adverse.

- 3.95 In summary, the significance of the effects of changes in road traffic noise would be classed as slight adverse at all receptors, both on opening and in the long-term. In the long term, in the absence of the Scheme, the significance of noise effects would also be slight adverse. The overall conclusion is therefore that there would be no significant noise effects associated with the Scheme.
- 3.96 Climate change<sup>122</sup>. Climate change is an important issue, with the Government setting a challenging target in the Climate Change Act 2008 to reduce emissions of greenhouse gases by 80% by 2050 (from a 1990 base), through a series of 5-year "Carbon Budgets". The Carbon Plan 2011 sets out the pathway to achieve these reductions in the UK from all sectors, with particular focus on the 4<sup>th</sup> carbon budget, covering the period 2023-2027. The Carbon Plan is supported by the Government's White Paper (2011), which focuses on transport, as does the European Commission White Paper (2011).
- 3.97 The key to achieving reductions from the transport sector over the longer term is seen to be the use of ultra-low emission vehicles, with biofuels, traffic management and local sustainable travel also playing a role. There is no suggestion that development is to be constrained, but the Framework emphasises that locations for development should be as sustainable as possible.
- 3.98 In assessing the impacts of the Scheme, the methodology set out in the DfT's Design Manual for Roads and Bridges (DMRB)<sup>123</sup> has been used, along with up to date vehicle emission factors taken from Defra's<sup>124</sup> Emission Factor Toolkit<sup>125</sup>. Using this methodology, changes in emissions have been looked at across the wider road network, as climate change effects need to be related to the overall change in carbon dioxide emissions from the region and not just the change that would take place in the immediate vicinity of the Postwick junction.
- 3.99 Carbon dioxide accounts for around 99% of greenhouse gas emissions from motor vehicles and an assessment has therefore been made of these emissions from traffic on the road network in the study area, both without and with the Scheme, in 2015, 2020 and 2030. In addition, assessments have been undertaken for the immediate area around the junction, including all new links and changed links, as well as short sections of unaffected road.
- 3.100 The total number of trips on the wider road network is essentially the same in the without-Scheme and with-Scheme scenarios, as the network is constrained to match the expected growth for the area as a whole, as set out in the TFR<sup>126</sup>. The difference between the "without Scheme" and "with Scheme" scenarios is thus the location where future growth takes place. With the Scheme, the BGBP and BFLF traffic is added to the network in the area around Postwick Hub junction, and growth elsewhere across the road network is reduced correspondingly.

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<sup>122</sup> Docs HA/07/1 & HA/07/2

<sup>123</sup> DMRB, Volume 11, Section 3, Part 1 - DD313

<sup>124</sup> Defra – The Department for Environment, Food and Rural Affairs

<sup>125</sup> Defra's Emission Factor Toolkit version 5.2c, published in January 2013.

<sup>126</sup> see section 4 of DD336

- 3.101 Operational emissions of carbon dioxide are predicted to increase across the study area by less than 0.01 kilotonnes (kt) in 2015 and by around 0.55kt in 2020. In 2030 a decrease of 0.85 kt is predicted. These values are extremely small in comparison with the 7,487 kt emitted in 2010 from all sources in the 8<sup>127</sup> local authorities within which the study area road network lies. As such they are considered to be insignificant. As would be expected, carbon dioxide emissions are predicted to increase in all 3 years in the immediate vicinity of Postwick junction with the Scheme. These increases reflect the additional traffic emissions which would arise from the BGBP and Laurel Farm, coupled with some longer distances travelled, and off-set by reduced congestion around the junction.
- 3.102 The monetised value of the change in operational carbon dioxide emissions over a 60 year period is a net PVB of £1.9 million in 2010 prices discounted to 2010, associated with a 37 kt reduction in carbon dioxide emissions. These changes are so small that they are essentially “noise” within the calculations. The monetised benefits/disbenefits should therefore be treated as insignificant.
- 3.103 There would be a one-off figure of 6 kt of carbon dioxide emissions associated with the construction of the scheme, but this should be compared with the calculated saving of 37 kt of carbon dioxide during a 60 year operational period. In summary, there would be no material change in carbon dioxide emissions contributing to climate change with the Scheme. Furthermore, the Scheme is not inconsistent with any of the climate change policies.

#### Summary of environmental matters

- 3.104 Overall, the environmental impacts of the Scheme would be modest. They have been fully considered by BDC’s Planning Committee in the context of the ES submitted with the BGBP planning application and have been found to be acceptable in the planning process. Whilst recognising that there would be some modest adverse impacts, the Committee balanced those against the economic benefits that the Scheme would unlock in terms of growth in essential housing and employment opportunities<sup>128</sup>. This is consistent with the planning policies, as set out in the Local Plan and the adopted JCS.

#### **Statutory Criteria**

- 3.105 The draft Orders meet the statutory criteria that must be satisfied to ensure full compliance with the Highways Act 1980<sup>129</sup>. Changes to the trunk road network which would be authorised by the Slip RO<sup>130</sup> have had regard to the requirements of published plans and policies at national and local levels<sup>131</sup>. There would be no significant effects of the Scheme on land use, including agricultural land take, and the effect on individual farm holdings would be acceptable.
- 3.106 Although there would be some disadvantageous effects arising from the Scheme, primarily in terms of slightly increased journey length and time for some movements, the proposed changes are considered to be expedient because if nothing is done, over time the performance of the junction would gradually deteriorate. This is shown in the TFR in relation to the Postwick P&R junction,

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<sup>127</sup> King’s Lynn and West Norfolk, Breckland, Nth Norfolk, Broadland, Norwich, Sth Norfolk, Gt Yarmouth, and Waveney

<sup>128</sup> Planning Committee Minutes (16 August 2006 - DD192) and (17 August 2011 - DD201)

<sup>129</sup> DD24

<sup>130</sup> DD01 & Doc HA/60

<sup>131</sup> Section 4 of Doc HA/01/1 & Sections 4, 5 & 6 of Doc HA/04/1

with queuing in 2015 and 2020<sup>132</sup>. Moreover, without improvement the junction is inhibiting committed development in this part of Norwich which is required to achieve the economic objectives of both national and local planning policy.

- 3.107 The scale of the disbenefits, which would be relatively modest in terms of the effects on individual users, would be more than outweighed by benefits provided in terms of unlocking a substantial level of economic growth and providing a junction with the capacity to effectively accommodate that growth. The impact of the Scheme on the local environment is summarised in the Appraisal Summary Table<sup>133</sup>, which demonstrates that there are no significant environmental effects that could not be addressed adequately with mitigation<sup>134</sup>. The Scheme would therefore be expedient for the purpose of extending, improving or reorganising the national system of routes in England and Wales.
- 3.108 Turning to the draft Side RO, provision is being made for statutory undertakers' apparatus and liaison with the companies affected is on-going. Furthermore, where a highway, public footpath or PMA is to be stopped up, a reasonably convenient alternative route or access would be provided, as described in the Schedule and Plans of the draft Side RO, including proposed modifications as detailed below<sup>135</sup>.
- 3.109 The HA believes that all the above requirements would be met and that all statutory procedures have been followed correctly to ensure that there would be no impediment to implementation. The draft Orders provide the full range of powers necessary to implement the proposed Scheme, including mitigation.

### **Modifications requested to the Orders**

- 3.110 As a result of ongoing discussions with objectors, and further examination of the Orders, the HA is proposing a number of minor modifications to both the draft Slip RO and the draft Side RO. For the draft Slip RO a total of 5 modifications are put forward, as detailed in Doc HA/60. These are all to address either minor drafting errors, or to add clarity and ensure consistency between the Order, the Schedule and the Plan. None of these proposed modifications are contentious.
- 3.111 For the draft Side RO, 15 modifications are proposed, as set out in Docs HA/58 and HA/59. Once again the vast majority of these relate purely to drafting errors or minor matters which are not contentious. It is, however, appropriate to summarise one modification as it is put forward to address a specific matter raised by objectors.
- 3.112 It relates to the existing eastbound diverge slip road which was originally proposed to be completely stopped up. However, it is now proposed that a shared-use facility should be provided along the line of this slip road, allowing cyclists to use it to connect with the existing and proposed cycle network at the Postwick North-West roundabout. For cyclists travelling westbound down the slip road, "end of cycle route" and "cyclists dismount" signs would be provided to inform users that the facility did not continue across the A47 Viaduct<sup>136</sup>.

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<sup>132</sup> Table G.3 of the Traffic Forecasting Report (DD336)

<sup>133</sup> DD195

<sup>134</sup> see also Doc HA/06/1

<sup>135</sup> see DD02, DD07 & Docs HA/58 & HA/59

<sup>136</sup> see Appendix R in Doc HA/03/2

- 3.113 This proposal, referred to as Proposed Modification 7, would require a modification to both the draft Side RO Schedule and the draft Side RO Plan. In addition, it would necessitate other minor drafting changes to both Schedule and Plan which are referred to as Proposed Modifications 6 and 8.

### **Overall Summary**

- 3.114 The Scheme is deliverable in the short term and would provide a significant economic benefit both locally and to the wider economy without detriment to the SRN. Whilst it would give rise to a small transport disbenefit, it would satisfactorily address the transport problems that have been identified at the Postwick Interchange. In particular it would:
- provide additional highway capacity which would unlock the opportunities for the delivery of residential and commercial growth in the vicinity of the junction;
  - safeguard the SRN and address the HA's concerns regarding the impact of development on the safe operation of the A47 trunk road;
  - enable delivery of the BGBP development;
  - facilitate further improved linkages with the local road network including a possible future NDR;
  - maintain or improve facilities for pedestrians and cyclists by providing new facilities;
  - achieve these aims whilst minimising environmental impacts through measures of mitigation;
  - help serve the planned JCS growth strategy.
- 3.115 The Scheme has been subjected to a detailed appraisal on engineering, social, economic, environmental and amenity considerations and it satisfies the Secretaries of States' objectives. The HA believes that all statutory procedures have been followed correctly. The statutory tests would be met and there is no impediment to implementation. The published Scheme would provide the most appropriate solution for satisfying all of the objectives outlined above and the draft Orders provide the full range of powers necessary to implement the proposed Scheme, including mitigation. The Orders should therefore be made, in accordance with the draft versions as proposed to be modified.

## **4. THE CASES FOR THE SUPPORTERS**

- 4.1 A total of 34 supporters submitted representations in favour of the Scheme, but only one of these, Mr Starkie, appeared at the Inquiry. The points raised are set out below, along with a summary of the written submissions made by Mr Olley on behalf of Ifield Estates Limited, the promoter of the BGBP scheme.

The material points are:

### **Mr C Starkie, Managing Director of the New Anglia Local Enterprise Partnership (LEP)<sup>137</sup>**

- 4.2 New Anglia LEP (covering Norfolk and Suffolk) is one of 39 LEPs established in 2011 to bring together business and public sector partners to co-ordinate and stimulate economic development across England. Its role is to enable the creation of more private sector jobs and remove the barriers to growth.

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<sup>137</sup> Docs SUP/33/01-02 and Doc INQ/03

- 4.3 It recently began consulting on its Plan for Growth<sup>138</sup> and is working with local authority colleagues on a City Deal for Norwich which will help create new jobs in Greater Norwich and Norfolk as a whole. The greatest concentration of growth will be Greater Norwich, as the city is by far the largest economy within Norfolk and Suffolk, and one with significant prospects for growth. In this regard the area around the Postwick Hub is seen as a key business location.
- 4.4 At present there is a real shortage of quality office accommodation in Norwich and the development planned for BBP, BGBP and Laurel Farm is needed, but without the Postwick Hub this development cannot happen. It is clear that the Government sees improvement of the Postwick junction as a priority because it has allocated funding for it. The LEP's Plan for Growth also sees the Postwick Hub as a priority and, most importantly, sees it as a project which needs to be delivered in its own right.
- 4.5 Although concerns have been raised about the potential impact on Great Yarmouth, the LEP believes the business parks around the Postwick Hub are needed and are complementary to the land in Great Yarmouth. Great Yarmouth does not have enough development-ready land to cope with the £50 billion plus of development opportunities presented by the energy sector in the next few years, and the Postwick Hub development would enhance the overall offer.
- 4.6 The LEP therefore supports the proposals for Postwick Hub and the associated proposed improvements to public transport, particularly the extension of the well-used P&R site. The junction improvement would open up badly needed employment land and a significant housing site, as well as enable public transport improvements and improve connectivity. Put simply it is a scheme the LEP wishes to see happen sooner rather than later.

**Mr E Olley on behalf of Ifield Estates Limited (IEL)<sup>139</sup>**

- 4.7 As promoter of the BGBP scheme, IEL has considerable experience of property development and its Directors have over 70 years experience in the commercial property sector. Between them they have been responsible for, or associated with, the planning and development of over 185,000 sqm (2 million sqft) of major business park and town centre schemes. IEL (Company No 05577784) was formed specifically for the BGBP project.
- 4.8 The BGBP site was chosen to provide a high quality business park because of its accessibility and visibility from the A47 and the fact it could provide a natural extension to the existing employment area of BBP. This view has subsequently been acknowledged in the JCS which seeks to extend the Broadland Business Area by a further 25 ha.
- 4.9 IEL entered into a long term agreement with the landowners in 2006 to bring forward a proposal for a major new mixed use business park and during 2007 and 2008, in conjunction with NCC, it worked up the plans for the BGBP scheme. Detailed market analysis was undertaken in 2008 and a planning application was subsequently submitted jointly between IEL and NCC in 2009 for the Postwick Hub improvements (detailed application) and the BGBP scheme comprising a total of some 64,300 sqm of commercial development (outline application).

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<sup>138</sup> See Doc HA/51

<sup>139</sup> Docs SUP/02/01-02 and Doc INQ/03

- 4.10 BDC resolved to grant planning permission in December 2009 and a Section 106 planning obligation was subsequently agreed (including a public transport contribution of about £2.050 million) and executed in April 2011. This planning permission was challenged by the developers and managers of the adjacent, existing BBP (Lothbury Property Trust Company Limited) and was subsequently quashed by the High Court. However, following the necessary updating of supporting information, taking account of the legal challenge, the application was reconsidered by BDC in August 2011 and received overwhelming support, with planning permission being issued in October 2011.
- 4.11 With the confirmation of the Slip RO and Side RO, together with an implementable planning permission and the expected commitment of pre-lettings and possible land sales, IEL would be in a strong position to secure long term institutional funding to deliver the BGBP scheme. IEL has appointed Lambert Smith Hampton, one of UK's leading advisors on business parks, and given the mix of uses within the planning permission they are confident they can secure early land sales to owner occupiers, together with pre-leasing commitments, once a definitive programme for delivery can be established.
- 4.12 The criticism from other objectors, regarding the lack of marketing of the BGBP scheme, fails to recognise that much of the difficulty in marketing is a result of uncertainty surrounding the deliverability of the Postwick Hub highway improvement scheme. This has been compounded by Lothbury's challenge to the original planning permission and objections to the draft Orders. Without the certainty of an implementable planning permission, seeking investors and/or occupiers is not financially sensible or sustainable.
- 4.13 IEL is aware that objectors to the draft Orders, primarily (SNUB) and the Norfolk and Norwich Transport Action Group (NNTAG), have made negative assertions about the standing of the company and inconsistencies in its accounts. However, some of the objectors have wrongly referred to details of Company No 03965948, which was formed in 2000 and dissolved in 2006. This is not and never has been the company that NCC has been working in partnership with. The present IEL was incorporated in September 2005 and over the past 5 years has expended considerable sums in the procurement and promotion of the BGBP project.
- 4.14 IEL has also noted that it has been criticised by some objectors for not attending this Inquiry, but would respond by pointing out that the Postwick Hub Scheme is not a matter with which IEL has been directly involved, or for which it has any direct responsibility. IEL has therefore been content to leave the matter of dealing with the delivery of the Postwick Hub improvement works with NCC.

#### **Other Supporters<sup>140</sup>**

- 4.15 Other supporters include businesses and landowners in the area, who make regular use of the existing Postwick junction, together with local Councils and other public bodies with responsibilities or interests in the Norwich area. A full list of the supporters and the matters raised can be found at Doc INQ/03. As many of these supporters raised similar points, they are summarised below.
- Improvement of the existing Postwick junction is long overdue as its lack of capacity is impacting adversely upon existing businesses and proposed development in the area and is not sustainable;

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<sup>140</sup> see Doc INQ/03

- Construction of the new road system and the commercial development which has planning permission would unlock important business sites to the east of Norwich and bring economic growth to the area and much needed new employment and housing;
- The junction improvement would help deliver up to 5,000 jobs and 1,600 houses that are “locked” at present;
- An improved junction and associated infrastructure would also deliver an expanded P&R site and a substantial contribution towards public transport that forms part of a city-wide transport improvement project;
- The existing physical constraints mean that the proposed Scheme is the only design that would provide the required junction capacity whilst meeting national highway design standards;
- There is a deficiency in housing supply and early delivery of the road improvements would enable housing development to take place and make a substantial contribution towards meeting current housing need;
- The Scheme would provide a much-needed improvement to the existing situation that results in queuing on the A47 trunk road with vehicles backing up on the existing slip road and congestion on all the other related roads and at adjacent roundabouts, particularly in the morning and evening rush hours;
- The junction improvement would also provide a connection to the national trunk road network for the proposed Norwich NDR, which has recently been allocated funding by the DfT;
- Whilst improvement of the Postwick junction is an essential project in its own right, in conjunction with the NDR it would provide the high quality link to Norwich Airport that will be vital to the offshore energy industries; together these schemes hold the key to a wider transport strategy which has the potential to transform travel choices in Norwich and is fundamental to the city’s economic prosperity;
- The Postwick junction improvement and the NDR are essential infrastructure requirements to deliver NATS. In turn, NATS is essential to the delivery of growth set out in the JCS;
- The junction improvement and a future NDR would take traffic off the narrow country lanes;
- Whilst people’s right to object to the draft Slip RO and Side RO is acknowledged and respected, the inquiry should not revisit planning issues already considered by BDC, or extend into the merits of the NDR which will have to go through its own planning process.

## **5. THE CASES FOR THE OBJECTORS**

- 5.1 Many of those who spoke against the Scheme and the draft Orders at the Inquiry raised broadly similar points. These are therefore not repeated in detail for each objector, but can be seen in full in the referenced documents. As both NNTAG and the Norwich Green Party (NGP) made substantial contributions to the Inquiry process, and gave detailed closing submissions, their cases are presented first, followed by the cases of the other objectors who appeared at the Inquiry.

The material points are:



**Norfolk and Norwich Transport Action Group (NNTAG) – Case presented by Ms D Carlo and Mr K Buchan<sup>141</sup>**

Overview

- 5.2 The HA maintains that the Scheme is required to tackle tailbacks onto the A47 and that the draft Orders are required to implement conditional planning permission for dependent development. However, the layout for Postwick Hub pre-dated the BGBP and it is no coincidence that the lengthy slip road which NCC conceived in 2006 to serve the NDR is the same slip road which the HA now says is required to replace the eastbound diverge slip road. Indeed, a selection of HA papers for 2006-2010, provided by NNTAG<sup>142</sup>, show that the Scheme was specifically designed to form a key part of the NDR. BGBP became a convenient device for NCC to promote the NDR-A47 Postwick Hub under the guise of a £19 million access road serving a business park.
- 5.3 Since publication of the draft Orders in November 2009 and their re-advertisement in February 2012, completely new traffic data has been collected and issued and this has seriously disadvantaged objectors. This new traffic information should have led to a review of the published proposals against other solutions and layouts. That this has not been undertaken is a reason not to make the present Orders, but to withdraw them.
- 5.4 Furthermore, irrespective of whether the Scheme has Local Authority funding, it has planning permission as a private development and not as a County highway project. This means that DfT Circular 02/2007<sup>143</sup> and Guidance on S278 Agreements<sup>144</sup> applies. Under paragraph 31 of the Guidance, the Secretary of State cannot fetter the exercise of his discretion whether or not to make the Orders. Joint representation of the developer and the HA at this Inquiry has fettered the Secretary of State in his duty.
- 5.5 If the draft Orders are made, NCC will use Postwick Hub as the connection to the A47, in support of its application for a Development Consent Order for the NDR under the Planning Act 2008. There could be a seamless move from a business park development and access road to designation of NDR/Postwick Hub as a Nationally Strategic Infrastructure Project (NSIP). The obtaining of planning permission for the NDR-A47 Postwick Junction through these back-door means has involved an abuse of process. There is real danger that the Scheme could result in a legal challenge.
- 5.6 At the hearing on 25 July 2013 into the remitted part of the JCS, the GNDP acknowledged the need for an addendum to the Sustainability Appraisal (SA) of reasonable alternatives in respect of transport carbon emissions, because they conceded that they had not undertaken such an assessment as part of the SA. They will now generate an addendum on transport carbon emission which will go through the required consultation process.
- 5.7 Objectors at this Postwick Hub inquiry similarly consider that the ES was wrong to screen out climate change at an early stage. The ES failed to consider the increase in journey lengths and traffic reassignment on carbon emissions. The

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<sup>141</sup> See Docs OBJ/INQ/28/1/01-2/05 and Doc INQ/2

<sup>142</sup> See Doc OBJ/INQ/28/2/04

<sup>143</sup> DD136

<sup>144</sup> Doc HA/14

NSIP application, scheduled for submission in Autumn 2013, will require an EIA and so a deferred decision on the Postwick Hub Scheme, to allow time for this omission to be remedied need not result in a lengthy delay.

- 5.8 A junction improvement scheme ought to deliver net benefits to the local community who will use the junction, chief amongst which should be measurable journey time savings. It should also have neutral or beneficial impacts on driver safety and the environment. On these and other grounds, the Postwick Hub is a poor scheme, made significantly worse by the proposed slip road closure. If the Inspector is not satisfied on both counts, a recommendation to make the Orders should not be made.
- 5.9 This Scheme has an exceedingly poor BCR of -2.9 and would result in a substantial number of "losers", including the 15,000 residents of Thorpe St Andrew; existing businesses (for example at BBP); future residents in north-east Norwich; and future businesses such as BBP phase 2. In contrast there would only be a small number of "winners", namely businesses on and users of BGBP. However, the promoter of BGBP, IEL, did not attend the inquiry and its investment to date in BGBP has been paltry. It is open to question whether this speculative development will ever be built.
- 5.10 The HA argues that the negative BCR must be balanced against the benefits of the scheme, in particular the job growth the BGBP would deliver. But such benefits are not accorded much weight in DfT WebTAG guidance as there is no certainty that they would materialise. The use of TEC and GVA figures to try to justify such a poor BCR is unprecedented for a transport intervention. It cannot be trusted as non-draft guidance does not exist for it, and simply adding the 2 figures together introduces double counting<sup>145</sup>.

#### Statutory Tests in the Highways Act 1980

- 5.11 The Scheme would fail the test of expediency as the HA accepts that the proposed layout would increase journey times and costs for users. All movements would be made less convenient and slower, except (if lights are green) the A47 East to A1042 West and Broadland Way. There would be more distance to travel and more junctions to negotiate. This would result in more fuel consumption, more time spent travelling and more accidents, as a result of increased vehicle kilometres.
- 5.12 Mr White, for the HA, indicated that the SATURN model would re-assign trips in order to avoid or minimise inevitable delays, and accepted that the Scheme would result in some drivers re-assigning their journeys to avoid Postwick Hub. Indeed, the forecast figures show that there would be 500 fewer vehicles using the eastbound diverge slip road in the DS PM peak compared with the DM PM peak<sup>146</sup>. This is a not insubstantial number of vehicles.
- 5.13 The HA's evidence shows that a large majority of traffic currently using the eastbound diverge slip road would enter/exit Norwich via the Southern Bypass junction at Trowse in order to travel to Yarmouth Road West<sup>147</sup>. However, the junctions at the city end of this route are very congested and even small changes

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<sup>145</sup> Doc INQ/04: Day 8 Transcript, page 101 line 8 to page 102 line 20

<sup>146</sup> Doc HA/54

<sup>147</sup> Doc HA/RB/OBJ64/03

in traffic can have large consequences. The HA's claim<sup>148</sup> that the deterrent effect of the Scheme on the eastbound diverge slip road would be offset by the west bound slip road is not the case.

#### National Planning Test

- 5.14 Postwick Hub is not shown as a national scheme in the HM Treasury Paper "Investing in Britain's Future"<sup>149</sup>, and no improvements to the A47 trunk road are included in this document. The NDR is shown as a Local Authority Scheme but no reference is made to Postwick Hub as a separate scheme. Although NCC's NDR Development Pool Business Case to DfT<sup>150</sup> indicated an earlier start date for Postwick Hub, the DfT continues to refer solely to NDR and makes no separate reference to Postwick Hub as anything other than part of a NDR.
- 5.15 Whilst the HA maintained that the National Infrastructure Plan (NIP)<sup>151</sup> and its update<sup>152</sup> show that Local Authority major transport schemes identified in the Development Pool are national policy, these documents only contain a general reference to these schemes as a whole. The NDR is listed, but not Postwick Hub specifically. Mr Allfrey for the HA highlighted a DfT letter of 3 August 2012<sup>153</sup> to demonstrate that Postwick Hub is a separate scheme, but no specific policy reference to Postwick Hub as a stand-alone scheme can be demonstrated.

#### Economic Growth.

- 5.16 The Scheme would not meet national objectives to grow and support the economy. Its poor BCR of -2.9 has worsened from -2.7 in August 2012, as a result of further traffic surveys in 2012-2013, and to date the only DfT appraisal of Postwick Hub as a stand-alone scheme took place in 2008. The DfT letter of 27 March 2009<sup>154</sup> remains pertinent when it says that without the NDR in place Postwick Hub would be significantly over engineered. It can only be justified as part of the NDR. As part of the Full Approval Process which the DfT letter of 3 August 2012<sup>155</sup> says that Postwick Hub must undergo, a further appraisal to reflect the latest information on expected costs and benefits will be carried out.
- 5.17 There can be no guarantee that Ministers will accept a scheme with a poor BCR and whilst the HA claims the transport disbenefits would be offset by economic benefits gained from the proposed BGBP, this position was challenged by Mr Buchan who appeared for NNTAG as a transport witness.
- 5.18 Non-conventional benefit calculations. The guidance used for the unconventional benefits is draft, and has been so since January 2010<sup>156</sup>. Whilst the HA has provided 2 examples of negative BCRs being countered by other factors<sup>157</sup>, one is for a strong environmental benefit, not captured in appraisal, whilst the other is on safety grounds. Both of these topics are covered by existing full guidance

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<sup>148</sup> Doc HA/54

<sup>149</sup> Doc HA/34

<sup>150</sup> DD245

<sup>151</sup> DD337

<sup>152</sup> DD338

<sup>153</sup> DD283

<sup>154</sup> Page 29 of Doc HA/02/2

<sup>155</sup> DD283

<sup>156</sup> Doc INQ/04: Day 8 Transcript, page 89, line 1

<sup>157</sup> See Doc HA/47

Units in WebTAG, but the use of GVA or TEC to reject an established appraisal would set a dangerous precedent.

- 5.19 Contrary to the HA's case, TEC and GVA should not be counted together<sup>158</sup>. The 2 are mutually exclusive since GVA depends on there being no reductions in development to balance an increase at Postwick, while the TEC depends on there being just such a reduction, in Norwich, Broadlands and South Norfolk<sup>159</sup>. It is not accepted that the TEC is a valid approach, nor is the way in which it is calculated accepted, as the trips which would be reduced are in areas which are modelled differently. There would be implications from moving trips from a coarsely modelled area into a finely modelled area.
- 5.20 The HA has clarified the relationship between zones and how they connect to the coarse or fine model network<sup>160</sup>, but has not provided information requested by NNTAG to demonstrate where the benefits are predicted to be occurring. Without that, it is impossible to be certain what the effects of differential modelling might be and the TECs should, therefore, be regarded as untested and thus not proven.
- 5.21 Future development at Postwick has been subject to the Broadland District parking standard, but other future development has not. Thus a trip switched from a future development elsewhere in Broadland District, which has not yet obtained planning permission, but is in the model, will not have been subject to such a restriction<sup>161</sup>. If it had been, the car trips would have been fewer, and the TECs less or non-existent. Overall, if TECs are to be calculated, the model and its assumptions must be the same for all trips. The comparison has not been on a like for like basis and this makes the TECs unreliable.
- 5.22 Concerns about the transport model. The transport model is very weak in relation to public transport, walking and cycling; and the public transport assignment model was not updated in 2012 with the Highway model, but left as in 2006<sup>162</sup>. Moreover, the effectiveness of the public transport improvements proposed to accompany the BGBP development<sup>163</sup> have not been tested with the variable demand model, and no use has been made of standard access mapping software, to assess changes in public transport servicing of the development at Postwick<sup>164</sup>.
- 5.23 Furthermore, a variety of figures have been given for public transport mode share which do not seem to be compatible with one another, and this issue has not been fully clarified<sup>165</sup>. Public transport services have not been coded fully outside Norwich, although some trips originate from those areas<sup>166</sup> and there is no mode split forecasting of walking and cycling<sup>167</sup>.
- 5.24 Carbon emissions. No account has been taken of the predicted failure to meet expected reductions in carbon. The HA and NNTAG disagree over whether there is any relationship between the transport forecasts for the effects of individual

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<sup>158</sup> para 8.4.7 of Doc HA/05/1

<sup>159</sup> para 3.14 of Doc HA/RB/OBJ28/03

<sup>160</sup> Doc INQ/04: Day 8 Transcript, page 80, lines 1-12

<sup>161</sup> Doc INQ/04: Day 8 Transcript, page 79, lines 1-6

<sup>162</sup> para 4.1.3 of Doc HA/05/1

<sup>163</sup> Doc INQ/04: Day 8 Transcript, page 68-69, lines 15-18

<sup>164</sup> Doc INQ/04: Day 8 Transcript page 70, line 11

<sup>165</sup> Doc INQ/04: Day 8 Transcript, pages 73-75, & page 88

<sup>166</sup> Doc INQ/04: Day 8 Transcript, page 75 line 11 to page 76, line 17

<sup>167</sup> Doc INQ/04: Day 8 Transcript, page 71, lines 10-12

schemes, and the overall targets for carbon reduction. NNTAG cannot agree that each single scheme has no relevance to the carbon target, and that the scale of the cost is given by looking at the difference between the HA carbon prediction and the projected outcome to achieve the target, as detailed in NNTAG's Addendum<sup>168</sup>. This amounts to £437 million in 2010 prices. The HA do not dispute these numbers, only whether they apply to the scheme<sup>169</sup>.

- 5.25 Although Professor Laxen stated that he had not included some factors when producing his forecast of carbon in future years<sup>170</sup>, NNTAG has worked on the basis that speculative further improvements should not be included in the carbon forecast, and that the figures tabled by Professor Laxen therefore remain as the HA's best estimate.
- 5.26 In summary on the above points, the only reliable figure before the Inquiry is the strongly negative BCR as calculated, plus accident disbenefits. This accords with the common sense point that a large number of existing users would disbenefit by having to drive further round the new gyratory. On this basis the scheme should be rejected.
- 5.27 Moreover, introducing unconventional numbers to counter this has been shown to be double counted in one instance, and completely opaque in another. If the appraisal is to be extended in this way, it is only fair to include a disbenefit for carbon. In fact, this is a far more serious issue since failing to meet targets or at least contribute a fair share will result in the UK having to find other carbon savings to meet its target.

#### The Statutory Test for Local Planning.

- 5.28 NCC's 3rd Local Transport Plan<sup>171</sup> lists the NDR as a scheme in Policy 7 "Strategic Connections", but does not list Postwick Hub. The Scheme is only referred to in the explanatory text under Policy 6 "Transport Infrastructure to Support Growth", which states that delivery of the Postwick Hub will alleviate current capacity issues, serve new development at Broadland Gate and form the junction between the NDR and the A47.
- 5.29 NNTAG acknowledges that the dependent developments are shown in the JCS. However, local plans may be subject to review where circumstances change. The evidence base for a 25 ha further extension to BBP is based on the JCS Employment Growth Study (2008), but this study signalled a preference for the city centre, Norwich Research Park or Longwater over BBP for new, additional 50,000 sqm of office space. A key part of the JCS related to this Scheme (the NEGT) has been remitted and the re-opened JCS hearing has yet to decide the soundness of the proposed NEGT growth location.
- 5.30 On its own, Postwick Hub would not deliver BBP Phase 2, nor would it deliver 600 dwellings at Brook Farm, as both of these are also dependent on the delivery of the link road extension from Broadland Way to Plumstead Road East, in accordance with Policy TSA3 in the saved policies for BLP. The additional 1,000 dwellings which the HA claims the Scheme would release are not allocated to a specific site. The most likely geographical area is to the north of Plumstead Road

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<sup>168</sup> Doc OBJ/INQ/28/1/05

<sup>169</sup> Doc INQ/04: Day 8 Transcript, page 112, lines 19-20

<sup>170</sup> Doc INQ/04: Day 8 Transcript, page 115, line 1 onwards

<sup>171</sup> DD229

East, and in these circumstances this further housing is also contingent upon construction of this link road extension and not solely upon Postwick Hub.

- 5.31 Although construction has begun on the 500-space extension to the Postwick P&R site, in order to keep the planning permission alive, there is no guarantee that the work will progress to completion given that the existing 500-space facility is operating at below 40% occupancy rate in 2012/13.
- 5.32 There is little to instil confidence in the delivery of BGBP as the business park has outline planning permission only. The applicants have not submitted a full planning application and no business case or marketing plan was made available to the Inquiry. Whilst IEL's written statement claimed that the company was formed in 2005 for the purposes of BGBP, the company registration shows that IEL was formed as a speculative venture. IEL also claimed that the company has spent hundreds of thousands of pounds on the scheme, but the company accounts for year ending 2009 show little expenditure and activity in the run up to planning application submission.
- 5.33 Mr Radford of Lothbury Property Trust challenged the BGBP growth assumptions as unrealistic and IEL were not present at the inquiry to counter his expert view. In addition, HA witnesses agreed that growth at Postwick would result in a shift from growth in Norwich and South Norfolk and acknowledged that consideration had not been given to the impact of the Scheme on the potential loss of employment from Great Yarmouth, a weak coastal economy.
- 5.34 The HA argued that the Scheme does not rely on any growth that may come forward in the NEGТ. But this does not tally with the draft Orders Explanatory Statement<sup>172</sup> and Updated Explanatory Statement<sup>173</sup> which say the scheme is required to deliver the growth for the NPA as outlined in the Regional Economic Strategy (37,000 dwellings and 26,000 jobs in the JCS Plan period to 2026).
- 5.35 The Inspector dealing with the remitted part of the JCS, running in parallel with this Inquiry, adjourned the hearing on grounds that he did not have sufficient information to find the remitted JCS sound. Any change to the NEGТ such as redistribution of housing to other geographical locations would alter the traffic case for the Scheme. This would leave the road layout with spare road capacity which would attract new traffic.
- 5.36 Finally under this heading, as the Postwick Hub layout has been determined by the NCC's plans for a NDR-A47 Postwick Junction connection, a large amount of road space could be unnecessarily provided if the NDR proposal does not come to fruition, for whatever reason.

#### Environmental Statement

- 5.37 The original ES for the BGBP planning application remains inadequate, despite undergoing several iterations. As climate change was screened out by BDC, the ES does not assess the carbon impact of longer journeys around the Hub, or traffic reassignment, and impacts on travellers were not fully assessed as the ES did not identify longer journey times, trip reassignment or higher fuel costs. Moreover, the assessment of cumulative impacts on travellers was inadequate. Taking into account the NDR and NEGТ, all that the ES concluded was that the

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<sup>172</sup> DD03

<sup>173</sup> DD04

cumulative impacts would have a beneficial effect on walking and cycling. The ES did not assess the impacts of increased orbital travel movement around Norwich on such matters as carbon, land use, noise and air quality.

- 5.38 Nor did the ES consider the socio-economic impacts on Great Yarmouth. In unlocking employment land the Scheme would be highly likely to attract people to commute by car from Great Yarmouth, an unemployment blackspot, to jobs at Postwick, but the ES did not consider the impact of traffic generated by the Scheme on the A47 between Norwich and Great Yarmouth. Doc HA/34<sup>174</sup> shows an increase in traffic congestion on the A47 Acle Straight between 2010 and 2040 and traffic growth would have an adverse impact on the Broads Area and on Halvergate Marshes SSSI.
- 5.39 Finally, the choice of alternatives did not include the proposed Scheme without slip road closure or without the BGBP or the Postwick P&R extension.

#### Public Consultation

- 5.40 Inadequate consultation has been undertaken. The first time the public was consulted on Postwick Hub was at the pre-application exhibition held by the developers in October 2008. At that time the Scheme did not include closure of the eastbound diverge slip road. The HA's lack of public consultation runs counter to Government policy on public participation in road planning since 1973. The HA's 2012 document "Guidance on Public Consultation"<sup>175</sup> emphasises that consultation must be undertaken when proposals are still at a formative stage, before a decision has been reached on which option to implement. The HA did not hold a public exhibition until March 2012, long after publication of the draft Orders and planning permission for BGBP.
- 5.41 By not carrying out public participation on alternative junction layouts before publishing statutory Orders, the HA failed to comply with Government policy on trunk road planning. Had policy been complied with, all these issues and all alternatives for Postwick would have been able to be discussed by interested parties at the planning stage, well before any statutory Order plan was published.

#### Consideration of Alternatives

- 5.42 The HA states that the Scheme layout is required to tackle tailbacks onto the A47 and when it identified this issue in its proof of evidence to the BLP inquiry in March 2005 the measures it recommended were proportionate, involving a second bridge over the A47 and improvements to the 2 existing roundabouts.
- 5.43 The HA should consider an alternative DM layout which would involve making only those changes to the present road network which would be necessary to prevent excessive delay and queuing over the time period up to 2030. These could be to widen the slip road, put signals at the junction and widen round to the A1042 towards Norwich. Instead of doing this, the Councils have proposed levering in excessive development and making it dependent upon Postwick Hub. Mr White, for the HA, agreed that alternatives without the BGBP and Postwick P&R extension had not been modelled.
- 5.44 An option without BGBP might have avoided the need for the proposed slip road closure. The failure to consider reasonable alternatives leaves the Postwick Hub

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<sup>174</sup> Figs 2.1 and 2.2

<sup>175</sup> Doc HA/55

scheme vulnerable to legal challenge. The promoters may claim that it is merely prudent "future proofing" to allow for the NDR and NEGТ when considering options, but this does not explain the failure to consider other reasonable alternatives before publication of draft Orders.

- 5.45 AR6 is shown to produce positive traffic benefits, (a PVB of +£9 million), and a refinement to this proposal could provide the basis for a more suitable road layout. The costs of this alternative have been inflated by including £2.87 million for land, whereas the published proposal is given a zero land cost<sup>176</sup>. The PVC for a 2012 cost of £9.29 million instead of £12.16 million is (pro-rata) £11.4 million instead of £15 million. That would lift the BCR to 0.78<sup>177</sup> from the figure of 0.6 as assessed by the HA.
- 5.46 There is nothing in the AR6 description, as published in the press, to say how wide the sections of road proposed should be. The layout assessed by the HA<sup>178</sup> shows no more than 2 lanes on any leg of the gyratory and just one on some sections. Some of the entrance and diverge lanes are also single-lane. This type of gyratory would normally be twice as wide, mostly with 4 lanes, and all entry and exit sections of road would be 2 lanes, with sometimes 3 lanes at entry. Moreover, a gyratory of this type, which is essentially urban, would be signalised, but no traffic signals are assumed or included in the HA interpretation.
- 5.47 The layout does not need to be constrained by the BGBP land to the immediate east and if the layout would operate better by being further east by 200 m-300 m, then that should be examined. Properly designed, evaluated, and developed, AR6 should be able to meet the traffic requirement and have a BCR of greater than +1.0. NNTAG believes that the alternatives such as AR6 and AR14 should be evaluated on an equal footing with Postwick Hub. The Secretary of State will need to be satisfied that all alternatives have been properly considered.

#### Summary of the NNTAG case

- 5.48 For the reasons set out above the draft Orders should not be made. As currently proposed the Postwick Hub Scheme would stand as a monumental mistake resulting from ill judged decision making and mismanaged public expenditure.

#### **Norwich Green Party (NGP) – Case presented by Cllr A Boswell<sup>179</sup>**

##### Economic Assessment

- 5.49 The transport BCR of the Scheme is negative, at -2.9, and the HA acknowledges that this does not represent good value for money when isolated from "external factors"<sup>180</sup>. No assessment of the BCR has been made of the Postwick Hub, unconnected to a NDR, apart from the HA's previous 2012 Economic Appraisal for the postponed Inquiry. The original CIF funding proposal for Postwick Hub calculated a BCR for the NDR as the baseline, and then calculated an incremental BCR with Postwick Hub included<sup>181</sup>. This indicates that the long-term intention of the Scheme promoters is to build Postwick Hub as a connector for the NDR.

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<sup>176</sup> para 6.1 in Doc HA/OBJ121/ALT6

<sup>177</sup> derived from table 7 in Doc HA/OBJ121/ALT6

<sup>178</sup> see drawing R1C150-MP-ALT600

<sup>179</sup> Docs OBJ/INQ/64/01-09 and Doc INQ/02

<sup>180</sup> Para 9.35 to Doc HA/01/1

<sup>181</sup> Appendix H in Doc OBJ/INQ/64/05, and Doc INQ/04: Day 11 Transcript, page 37-38



- 5.50 The HA has supplied just 2 examples of HA projects that have gone ahead in the past despite having negative BCRs<sup>182</sup>. The first of these, the A69 Brampton Bypass in the late 1980s, went ahead because there were strong environmental grounds that were not included in the BCR appraisal. The second, A590 Newby Bridge, was only built due to a ministerial commitment to improve safety. Neither of these mitigating factors applies in the case of Postwick Hub.
- 5.51 The official position of the DfT<sup>183</sup>, provided at the highest civil service level from evidence given to the Public Accounts Committee, is that few, if any, projects that are low value for money (a BCR of between 1 and 1.5) will be undertaken. It is also the case that no scheme has gone into construction either as Local Authority scheme or as a HA scheme that was not defined as value for money.
- 5.52 A memorandum to the 2010 Transport Committee Select Committee into Transport and Economy<sup>184</sup> comments that the average BCR on 93 HA schemes was 4.66, and for 48 Local Road Schemes was 4.23. The Postwick Scheme falls a long way below these average figures, and at a time of extreme fiscal constraint and over-stretched public funds it would be rash in the extreme to go ahead with a scheme that performs so badly on current economic appraisal methods.
- 5.53 Furthermore, the DfT's guidance on Value for Money (VfM) Assessments<sup>185</sup> indicates that the initial VfM category is identified from the BCR as follows:
- poor VfM if the BCR is less than 1.0;
  - low VfM if the BCR is less between 1.0 and 1.5;
  - medium VfM if the BCR is less between 1.5 and 2.0;
  - high VfM if the BCR is less between 2.0 and 4.0;
  - very high VfM if the BCR is greater than 4.0;
- 5.54 The Postwick Hub Scheme would come out as worse than "poor" on this measure, and whilst this DfT guidance does refer to the possibility of an "adjusted BCR" being constructed, no adjusted BCR was provided to the Inquiry.
- 5.55 The TEC and GVA estimates cannot be trusted. The WebTAG guidance used for unconventional benefits has been in draft form since January 2010 and NNTAG, has indicated that the way the TEC and GVA have been added together in the HA evidence is unprecedented and involves double counting. The HA accepted that the TEC and GVA figures should not simply be added together<sup>186</sup>, and in these circumstances there can be no case for proceeding with the Side RO and Slip RO.
- 5.56 Moreover, the TEC and GVA calculations are flawed because of the assumptions made about the growth of the economy in the Norwich area up to 2030. The Inquiry heard evidence from Mr Radford<sup>187</sup>, an expert in Investment Management, development and the real estate finance sector, which casts doubt on the medium term prospects of business rental growth. With the current uncertainty about the economy it would be extremely risky to accept an Economic Appraisal that uses the TEC and GVA factors to attempt to offset the very poor VfM assessment that the BCR indicates.

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<sup>182</sup> See Doc HA/47

<sup>183</sup> A report from Sir David Rowlands KCB, Permanent Secretary, Department for Transport – Doc OBJ/INQ/28/2/04F

<sup>184</sup> From Professor Phil Goodwin - see Doc OBJ/INQ/64/05

<sup>185</sup> Doc HA/49

<sup>186</sup> Doc INQ/04: Day 8 Transcript, page 101, lines 16 and 17, and page 102, lines 15 and 16

<sup>187</sup> Speaking on behalf of Lothbury Property Trust Company Limited

- 5.57 Mr Buchan also tried, repeatedly, to establish the relationship between the TEC calculated and the NTEM zones, but the HA failed to provide this information and it has not therefore been possible to establish the method of calculation of the TEC. The TEC figure must be considered completely untrustworthy if this data cannot be provided. No other examples of TEC and GVA calculations being used to offset a very poor BCR have been provided by the HA, and its approach in this case therefore appears to be unprecedented and extremely risky.

#### Appraisal of alternatives

- 5.58 The appraisal of alternatives has been fraught with problems, including the Scheme promoters' lack of engagement with objectors and the very late delivery of HA analysis of alternative proposals submitted at the Inquiry. In view of the negative BCR and the concerns of residents and businesses regarding the negative impacts of the Scheme, it is vital that a further period for the appraisal of alternatives, involving the full co-operation of the Scheme promoters, is provided before any recommendation is made regarding the Scheme.

#### Climate Change

- 5.59 The Postwick Hub Scheme needs to be assessed against the Climate Change Act 2008 and the Framework (2012). Any scheme that generates carbon emissions makes an incremental change to the overall UK Carbon Budget, and the levels of future global carbon emissions accumulated in the atmosphere, in the wrong direction. This is counter to the socio-economic responsibilities to reduce carbon that are inherent in current national and local policy, and may make it harder for the Country to deliver that policy.
- 5.60 Whilst the national "legally binding" target for carbon emissions only exists at the level of the national 5-year Carbon Budgets, there are responsibilities at regional and local level down to the Scheme level. Professor Laxen for the HA agreed that challenging targets have been set for carbon reduction in the 5-year Carbon Budgets<sup>188</sup>, and that it would be a logical conclusion that under-achievement in one sector would require over-achievement elsewhere<sup>189</sup>.
- 5.61 Professor Laxen accepted that all parties have to contribute to regional and national sectorial targets<sup>190</sup> and he further agreed that the responsibility to take the lead is at the Local Authority level, in line with the Government's Localism agenda<sup>191</sup>. The NGP's approach is that ownership of the carbon issue at the local level (for example, by Local Authorities) is an important factor and that an evolving ownership is completely consistent with Localism<sup>192</sup>.
- 5.62 As the planning system is charged with producing reductions in carbon dioxide<sup>193</sup>, in line with its contribution to meeting national Carbon Budgets, there are very strong arguments that would preclude schemes assessed as carbon generators. In addition, any single decision process for scheme or project that increases carbon emissions should take account of a socio-economic responsibility to reduce carbon emissions under the Framework and the Climate Change Act 2008.

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<sup>188</sup> Doc INQ/04: Day 11 Transcript, page 112, line 15

<sup>189</sup> Doc INQ/04: Day 11 Transcript, page 116, line 12

<sup>190</sup> Doc INQ/04: Day 11 Transcript, page 121, line 8

<sup>191</sup> Doc INQ/04: Day 11 Transcript, page 122, line 9

<sup>192</sup> Doc INQ/04: Day 11 Transcript, page 199, line 8 & page 200, line 16

<sup>193</sup> The National Planning Policy Framework, para 94

- 5.63 Although the NGP suggested at the Inquiry that a trigger factor might be useful to eliminate very small carbon generating schemes, it now considers that it was not helpful for it to put forward a specific number for a trigger point "on the fly", under cross examination. It therefore wishes to withdraw its suggested figure of 1,000 tonnes of carbon a year, as not only should this have referred to "carbon dioxide equivalents" but, on reflection, it is considered to be at least an order of magnitude too high for a trigger point on transport schemes. Such detail may well vary from sector to sector and between types of scheme, and would be best determined by a wider policy debate.
- 5.64 A Local Authority major transport scheme must be able to demonstrate it can save carbon emissions, according to the transport sector projections under the Carbon Plan<sup>194</sup>. This assumes that an accurate and reliable carbon assessment may be made of a Scheme, but in this case the choice of the study area for the carbon assessment is the same as the entire network being modelled. This leads to the real effects of the growth attributable to the Postwick Hub Scheme, and its associated carbon footprint, being masked out. Growth within the transport model is being constrained by NTEM, and will be of a similar order in both the DM and DS cases, such that the resulting carbon emissions will also be of the same order. Professor Laxen agreed with this analysis but believes that this is a logical way to assess carbon<sup>195</sup>, whereas the NGP strongly disagrees.
- 5.65 Where the transport model is constrained to NTEM, the study area for carbon appraisal should be more focussed on a smaller area in order to avoid the masking effect and to see the real effects of the Scheme on carbon generation. Professor Laxen states that there is no need to consider the change in carbon dioxide emissions at a very local level other than as part of how they contribute to the change in overall carbon dioxide emissions. For this reason, the focus of the calculations he presents is on the change in total emissions across the entire road network used in the traffic model<sup>196</sup>.
- 5.66 However, this ignores the need to assess carbon impacts that attribute carbon to the Scheme in a realistic way, with no consideration being given to what study area would provide the optimum assessment. The local contribution to overall carbon emissions is exactly what a carbon assessment should seek to assess in a numerical way. Local emissions should therefore not be dismissed, but effort should go into scoping a study area that can be used to calculate their realistic contribution to the change in overall carbon emissions. National guidance is lacking in providing a clear steer as to scoping the study area<sup>197</sup>.
- 5.67 The ES which accompanied the Postwick Hub planning application shows that carbon emissions have not been properly scoped from the outset of this project. This is the basis of the NGP's objection to the 14 May 2013 Notice of Determination on the Environmental Assessment, which showed how carbon emissions have been scoped out of that document too.
- 5.68 A study area which only comprised the roads within the Scheme itself would not be a good choice, but one which uses the whole of the modelled network is also wrong. The best choice of study area would be one between these 2

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<sup>194</sup> Doc INQ/04: Day 11 Transcript, page 177, line 19

<sup>195</sup> Doc INQ/04: Day 11 Transcript, page 136, line 19 to page 137, line 19

<sup>196</sup> Para 4.2 of Doc HA/07/1

<sup>197</sup> Doc INQ/04: Day 11 Transcript, page 217, line 12 to line 19

extremes<sup>198</sup>. The HA's climate change evidence cannot be trusted until such a scoping exercise is carried out, and the traffic model is re-run, with NTEM constraining, but on the rationally selected study area.

- 5.69 A scoping exercise that chooses several possible study areas and runs the carbon footprinting calculation in the traffic model on each should be undertaken, to help to select a final, most realistic, study area. Such iterative processing of testing options is common in scientific computation and simulation.
- 5.70 To summarise the NGP's key points on carbon, firstly the carbon projections for transport in the national Carbon Plan have a socio-economic responsibility associated with them at each level in the hierarchy down to the individual scheme. Only in very exceptional circumstances should a transport intervention be made if it cannot demonstrate consistency with the national sector projections, in percentage magnitude (of emission reduction) and direction.
- 5.71 Secondly, the HA has not provided a reliable carbon assessment on which to determine this first point, and in the absence of such information it would be contrary to national legislation and the Framework to proceed with the Scheme, and allow the Side RO and Slip RO to be made.

**Mr A Howell – The Ramblers' Association**<sup>199</sup>

- 5.72 Mr Howell appeared at the Inquiry as the Footpath Secretary (Broadland Area), of the Ramblers' Association. He had continued to discuss his concerns with the HA and NCC in the period before the Inquiry, and also whilst the Inquiry was sitting. Some of Mr Howell's concerns would be addressed by Proposed Modification 7, detailed earlier, whilst other concerns are dealt with through a signed Statement of Common Ground (SoCG)<sup>200</sup> which also clarifies the remaining areas of disagreement between the parties.
- 5.73 Mr Howell would like to see the 1.0 m wide unbound footway which would be provided along the line of the diverted Footpath No 2 (Item 1(a) in the SoCG), extended along Church Road to meet with a proposed relocated bus stop at the junction of Church Road with Brundall Low Road (to be relocated as part of the Postwick P&R extension scheme).
- 5.74 In addition, Mr Howell would like to see the existing service path over the Yare Viaduct replaced with a shared use footway/cycle track, with segregation from the A47 highway. This would link across the railway bridge to the eastbound diverge slip road modification, and via the existing service track to Whitlingham Lane. Mr Howell has contacted his local Member of Parliament about this matter in the past. On a final point, if the draft Orders are not made, and the eastbound diverge slip road is therefore kept open, the link to Whitlingham Lane should be reviewed on an alternative alignment.

**Mr A Woods – Postwick with Witton Parish Council**<sup>201</sup>

- 5.75 Mr Woods, who has lived in the village of Postwick for more than 20 years, spoke at the Inquiry as Chairman of the Postwick with Witton Parish Council. The village has a population of some 400 people and is located less than half a mile

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<sup>198</sup> Doc INQ/04: Day 11 Transcript, page 217, line 12 to line 19

<sup>199</sup> Doc OBJ/INQ/02/01 and Doc INQ/02

<sup>200</sup> Doc HA/38

<sup>201</sup> see Doc INQ/02

from the proposed Scheme. The village community has concerns about traffic, but more especially about noise as it already suffers considerably from noise from existing roads.

- 5.76 When the southern bypass was built the bridge across the A47 was considered fit for purpose and fit for the future, but the HA now says that it cannot be extended because of engineering problems and that another bridge has to be built. In view of the amount of commercial and housing development that is planned for this area, and the proposed NDR, it is extremely important to be sure that what is proposed for the Postwick Hub is going to stand the test of time.
- 5.77 There are concerns that the proposed closure of the eastbound slip road would not result in a satisfactory junction. A lot of traffic needs to enter the city from this eastern side, and it does not seem sensible to force this traffic to undertake lengthy detours. The closure of the eastbound slip road was not part of the original design, but was imposed by the HA because of safety concerns. Whilst this is understood, if it had been fully thought through at the outset it may be that a different design solution could have been found. Furthermore, it does not seem right that some parts of the proposed layout would be dual-carriageway whilst other parts would be single-carriageway. Whilst this may well work now, it may not do so in 15 years time. The layout should all be dual-carriageway.
- 5.78 On a more general point, the shadow of the proposed NDR hangs over these proposals. Although the NDR is not part of this Inquiry, Postwick Hub and the NDR should have been dealt with as an integral road system, not in parts. The original planning application for the Postwick Hub should not have been combined with the BGBP proposal. NCC were joint applicants with IEL but there should have been separate planning applications for each part.

#### **Cllr A Townly – Great and Little Plumstead Parish Council<sup>202</sup>**

- 5.79 Cllr Townly appeared at the Inquiry representing both Great and Little Plumstead Parish Council, and Thorpe End Garden Village Residents' Association. There have been substantial increases in traffic volumes through Thorpe St Andrew and the Parish of Great and Little Plumstead, with a large proportion of this going by Green Lane North and Green Lane South to and from the Postwick Junction. As a result there is a clear need for improvements to the current Postwick junction, but the Parish Council does not support the current Scheme.
- 5.80 It would close the eastbound slip road which gives access into Thorpe St Andrew and Great and Little Plumstead Parish and would result in longer, convoluted journeys which would cause more frustration and other associated issues. Strong concerns are expressed regarding noise, greater travel times and about carcinogenic pollution. Moreover, studies have shown that children living near busy roads may be at greater risk of diabetes<sup>203</sup>.
- 5.81 The busiest junction on the A47 is the Thickthorn Interchange, but there are no tailbacks at this junction because state of the art traffic management, in the form of "clever" traffic signalling, monitors traffic movements on a constant basis. This type of control could be used for the Postwick junction with AR4. As this Alternative would keep the slip roads open and would not devour productive

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<sup>202</sup> Doc OBJ/INQ/08/01. Cllr Townly based his presentation on documents submitted on behalf of Great and Little Plumstead Parish Council (objector No 48) and also under his own name as objector No 8 – see Doc INQ/02

<sup>203</sup> See Doc HA/RB/OBJ-08/2

farmland it is strongly supported by the Parish Council. The currently proposed, over-engineered and costly Scheme is only being put forward to facilitate the start of the NDR, which the Parish Council opposes in its current form.

- 5.82 Concern is also expressed about the BFLF development and the fact that BDC has approved an alignment for the link between Peachman Way and Plumstead Road which is opposed by villagers. The Parish Council sees no good reason why Green Lane South should be closed off, as is currently proposed.
- 5.83 Scarce taxpayers' money could be saved by implementing AR4, which would allow Green Lane South to be kept open. It would also ensure efficient traffic flow in and out of Thorpe St Andrew and surrounding parishes. This would result in reduced congestion, improved journey times, reduced carcinogenic pollution and reduced carbon footprint. The public expects local government to spend taxpayers' money wisely, but the currently proposed Scheme would not be wise expenditure, because alternatives are available.

**Mr R S Lindsay**<sup>204</sup>

- 5.84 Mr Lindsay spoke as a private individual; as a Rackheath Parish Councillor; and also as a member of SNUB. The proposed Postwick Hub is an integral part of the NDR, and not a stand-alone scheme as the HA and others maintain. Indeed, NCC has put forward the Postwick Hub and the NDR to the Secretary of State, for inclusion into the NSIP Bidding Programme as a complete package. Opposition to the Scheme and the NDR is overwhelming in the village of Rackheath.
- 5.85 The layout and structure of the Postwick Hub is based on traffic modelling from 2006. There is no call for the Scheme, except as the connection between the NDR and the A47. Traffic levels have decreased in the past few years and the existing junction is perfectly adequate to take present day traffic, and will allow for normal expansion of the local population.
- 5.86 The Hub would cause very lengthy inconveniences to all users from whatever direction they approach it, as the layout is silly and would create nothing less than a huge bottle neck. The NDR would cause more carbon dioxide emissions, as all traffic would have to circumnavigate many more roundabouts resulting in more miles per journey. Concern is also expressed about the proposed destruction of agricultural land. Rackheath contains Grade 2 arable land and this Hub and its accompanying NDR would ruin the countryside forever.
- 5.87 There is no justification in spending millions of pounds on a set of roundabouts to feed a business park which will struggle to fill its premises with clients. There are business units in the surrounding areas that lie empty, and have done for years, because of the economic climate. It is therefore requested that consideration of this Scheme be dropped, and that if at all necessary in the future, an appropriate solution or junction be considered.

**Mrs M Howes**<sup>205</sup>

- 5.88 Mrs Howes spoke as a private individual and stated that she frequently uses the existing roundabouts and has never encountered any problems with holdups or queuing. Adding more roundabouts would cut off minor roads and make it extremely difficult for vehicles to find their way, as people would have to switch

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<sup>204</sup> Doc OBJ/INQ/12/01 and Doc INQ/02

<sup>205</sup> Doc OBJ/INQ/24/01 and Doc INQ/02

lanes for their intended destinations, thereby causing accidents. It would also result in more traffic in Thorpe St Andrew and the Plumsteads and would increase carbon emissions. NCC should concentrate on Great Yarmouth development so as to reduce the number of vehicles coming towards the city to use the P&R, and thereby reducing carbon emissions.

- 5.89 The Postwick Hub is being built to include the NDR, which would cover good productive agricultural land and no doubt cause flooding. There is no dual-carriageway from Norwich to the east coast and the monies allocated, including the £86 million for the NDR, should be used to dual the A47 from Great Yarmouth to Norwich. A start should be made by dualling the Acle Straight, which is an accident black spot. The HA stated that there had been 9 accidents in 5 years on the Postwick junction, but there have been 31 accidents on the Acle Straight in the 3 years up to March 2013.
- 5.90 A good road link to the Midlands would attract more businesses into the county and reduce accidents on this road. The Government recently spent millions of pounds on the East Port at Great Yarmouth, but this is hardly used. In addition, the town, together with Lowestoft, has been declared an Enterprise Zone. Dualling the A47 would accord with Government policy as it would link main centres of population and economic activity and provide access to major ports. It is the only way that new businesses will be attracted to the area. Currently there are more businesses in the south-west of the city, all of which are easily accessible from the A11.

**Mr D Eley – Thorpe St Andrew Town Council<sup>206</sup>**

- 5.91 Mr Eley spoke at the Inquiry on behalf of Thorpe St Andrew Town Council which strongly opposes the current design of the Postwick Hub Scheme. It would inconvenience the existing commuters who travel to and from the A47, including the residents of Thorpe St Andrew, which has a population of about 14,000, as well as employees and visitors to local businesses.
- 5.92 Closure of the eastbound diverge slip road would remove the direct access which currently exists to Thorpe St Andrew, the BBP, the A1042 Yarmouth Road into Norwich and the Postwick P&R site and would make these existing journeys longer and more involved. The Scheme would add extra time and mileage to these journeys of between  $\frac{5}{8}$  of a mile and  $1\frac{1}{4}$  miles a journey, or between 156 and 312 miles a year. In either case there would be an increase in frustration, journey times, fuel costs and carbon emissions.
- 5.93 By designing the Postwick Hub to accommodate the NDR, the planners have ended up in trying to put a quart into a pint pot and the decision to infill the space between the new road and the business park with the BGBP, to help pay for it, would exacerbate the problem. If NCC and the HA maintain the view that the eastbound slip road has to be closed in order to make this junction work, then the only conclusion that can be reached is that the proposed access to BGBP and the future access to the NDR is flawed, unacceptable and in the wrong place.
- 5.94 An alternative junction should be provided further to the east, as detailed in AR11. Moving the A47 junction to this new position could be cheaper and simpler

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<sup>206</sup> Doc OBJ/INQ/36/01. Mr Eley based his presentation on documents submitted originally by Mr Ford on behalf of Thorpe St Andrew Town Council (objector No 36) and also under his own name as objector No 123 – see Doc INQ/02

to construct than the new infrastructure proposed for the Postwick Hub. AR11 would enable traffic from Great and Little Plumstead to directly access the A47, and the P&R site would be easily accessible without having to use BBP roads. Moreover, it would provide direct access to the BGBP and the future NDR without interfering with or having to use the existing Postwick junction, and there would be no need for traffic lights.

- 5.95 HA witnesses indicated that as the BGBP and BFLF proposals have been endorsed through the planning process, the Secretaries of State should attach considerable weight to these commitments to economic development and housing, in determining the draft Orders. But a commitment has already been given to the existing housing and businesses in Thorpe St Andrew when planning permission was given for their construction. The eastbound slip road should have been treated as a site constraint in the same way as the high pressure gas main. NCC should not be able to remove the prized asset of this eastbound slip road from the local community without the agreement of Thorpe St Andrew Town Council.
- 5.96 All of the information and proposals contained in the inquiry documents have been put forward by experts, either independent or by NCC. Most objectors do not have the expertise to query the information or conclusions contained in any of these documents, and cannot afford to engage experts to do so. In these circumstances the Inspector should cross-examine the witnesses, or call independent experts to query and question the proposed Scheme and any objections to the proposed Alternatives.

**Mr A R Williams**<sup>207</sup>

- 5.97 Mr Williams spoke at the Inquiry as a private individual. Rather than dealing with the NDR and the Postwick Hub together, NCC has sliced up the problem into small pieces in order to deal with each one as a separate entity. This approach is wrong and the Postwick Hub scheme cannot be justified as it does not achieve any objectives, other than to provide access to the proposed NDR, which has not yet been approved and is almost certainly to be subject to a Public Inquiry. To use this mechanism to avoid proper scrutiny is not acceptable.
- 5.98 The design of the Scheme will not improve traffic flows or ease congestion as the side roads will be made more difficult to negotiate. The present junction configuration is more straightforward, much less convoluted and provides good access to both the business developments and the eastern fringes of Norwich. There are alternatives which could improve this access for future expansion without building a complicated junction like this. The proposed traffic signal junction on the south side of the A47 trunk road, which would also have to cater for traffic to and from the P&R site, would be a total disaster at peak periods.
- 5.99 The congestion created by the Scheme would necessitate more improvements, with their associated costs, on the road into Thorpe St Andrew. Two railway bridges constrain traffic more severely than any inadequacy of the present interchange and one of these (an arched bridge) effectively reduces the whole road to a single-carriageway, such that pantechinons can only go down the middle of it. However, the Council does not have any plans to take any remedial action regarding it.

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<sup>207</sup> Docs OBJ/INQ/52/01-02 and Doc INQ/02



- 5.100 Public transport facilities in the area are totally inadequate. The Councils have encouraged the building of out of town shopping centres and business parks, but if people living to the north or west of Norwich want to come and work at the BBP or BGBP by public transport they would have to travel into Norwich, change buses and come out again. The business case for the continuing expansion of this location is not well made. To continue to draw business from the centre of the conurbation to the fringes increases overall car journeys and will be more likely to exacerbate traffic congestion rather than ease it. This is without taking into account the environmental arguments for reducing car journeys.

**Mr E Newberry<sup>208</sup>**

- 5.101 Mr Newberry is a private individual and former Councillor who has lived in Thorpe St Andrew continuously since 1970. The HA has acknowledged that there has never been a major disruption because of an accident at the present junction and that the junction has performed well since it was installed. There are therefore no safety issues that need addressing.
- 5.102 The BFLF development would be served well by the link road proposed as part of that scheme, such that there is no great need for the Postwick Hub Scheme. BGBP could, if ever built, be serviced by Broadland Way with no problems. Millions of pounds could be saved as no new bridges would be required. The money could be put to better uses, such as repairing the existing roads, rather than building new roads that the Councils cannot afford to maintain properly.
- 5.103 The proposed traffic signal junction at the P&R site would be horrendous, and likely to become the worst accident black spot in the county, if not the country. Longer journey times with traffic lights and more roundabouts to be negotiated would result in increased fumes. If an accident were to happen at this traffic signal junction there would be chaos, with massive tailbacks. In addition, the road markings would be distracting and difficult to follow and the amount of street furniture needed would be horrendous, adding further blight to the area.
- 5.104 The Postwick P&R site has no services and has been used less of late. The bus from Postwick used to go via Yarmouth Road and Thorpe Road to the main railway station, but it now needs to go via the Southern Bypass to the county hall junction and requires a change of bus in the city to get to the railway station.
- 5.105 The Scheme would offer very little help to employment in the area as the A47 Acle Straight into Great Yarmouth, and the lack of a railhead, are the main reasons for the lack of companies using the port. Good road lengths and a railhead are needed, not this uneconomical Postwick Hub Scheme.

**Mr S Radford – Lothbury Property Trust Co Ltd<sup>209</sup>**

- 5.106 Mr Radford is the Chief Executive of Lothbury Investment Management and the Director of Lothbury Property Trust, referred to throughout his evidence as just Lothbury. Since acquiring BBP in 2002, Lothbury has overseen the development of over 100,000 sqm (1.1 million sqft) of buildings on the park and has recently obtained planning permission for a Phase 2 of the Business Park (the BFLF development). This will provide a further 14.6 ha of employment land and 600 houses, plus all of the necessary associated infrastructure.

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<sup>208</sup> Docs OBJ/INQ/77/01-03 and Doc INQ/02

<sup>209</sup> Docs OBJ/INQ/81/01-05 and Doc INQ/02

- 5.107 Lothbury recognises the importance of economic growth to the Government's agenda and is also supportive of local planning policy, most notably the JCS, which seeks the significant expansion of employment opportunities in this part of the county. However, it argues that no firm evidence has been submitted to support the HA's projections that 10% of dependant developments at BGBP and BFLF will be occupied by 2015; 50% by 2020 and 100% by 2030.
- 5.108 The statement from IEL<sup>210</sup> indicates that the BGBP development has not yet been marketed to either long term funders or occupiers, and that this will not happen until the Side RO and Slip RO are confirmed. Although 10% is expected to be potentially capable of occupation by late 2015 or early 2016, no mention is made of the timetable for developing the remaining 90%. The New Anglia LEP which supports the Scheme makes no attempt to evaluate the realistic chances of securing development. Consequently, there appears to be no evidence from anyone active in the market as an advisor, investor or occupier, that the economic benefits hoped for can be achieved in the timescale proposed.
- 5.109 As the investment and development advisor to the owner of BBP, Lothbury is well placed to know what rents are being achieved in the area. It considers that new development in the current market is unviable, as a recently appraised 2,800 sqm (30,000 sqft) building, on a pre-let basis, generated a required rent almost 75% in excess of the actual market levels for a standing building. As such there was no possibility of the proposal proceeding. Moreover, Lothbury's independent property research consultants estimate rental growth at only 1.6% per annum through to 2017 for the Norwich out of town market. Office development will therefore remain unviable into the medium term.
- 5.110 In this regard it must be noted that BBP already has in place full amenities and site infrastructure to its development plots. These are substantial up-front costs that other development sites, such as BGBP do not have in place, and which will only further delay development activity on such sites.
- 5.111 The views of existing occupiers of the business parks in the area should particularly be taken into account. A number of existing occupiers of premises at BBP and the adjacent Meridian Business Park, canvassed by Lothbury, are not opposed to the improvement of Postwick junction and wish to see economic growth and the success of their business. But the increased travel distances, time and therefore cost which they would experience if the eastbound diverge slip road is closed, would result in major difficulties. They, like Lothbury, are not convinced that sufficient efforts have been made to retain this slip road.
- 5.112 It is to this end that Lothbury has retained highway consultants who consider that the slip road could be retained without compromising the long term operation of an improved Postwick junction. The reality is that this is a proposal that is based upon "boom time" assumptions, but the market has slowed right down and unfortunately is not showing any signs of improvement.

**Mr D Rapson – Lothbury Property Trust Co Ltd<sup>211</sup>**

- 5.113 Mr Rapson is a Director for Ardent Consulting Engineers who have been engaged by Lothbury to assess the HA and NCC's proposal for the Postwick junction improvement.

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<sup>210</sup> Doc SUPP/02/1

<sup>211</sup> Docs OBJ/INQ/81/01-05 and Doc INQ/02

- 5.114 The HA's TFR<sup>212</sup> does not demonstrate any capacity issues at the existing North-West roundabout (with the slip lane retained) at any assessment year with DS traffic flows. Furthermore, no excessive queuing has been demonstrated to extend along Yarmouth Road beyond the downstream end of the slip lane (about 240 m from the A47 Mainline). The TFR shows that in the PM peak hour at 2030, with DS traffic, queues along Yarmouth Road would be less with the existing junction (with the slip lane in place), than with the proposed Scheme in place.
- 5.115 Based on these findings, and results demonstrated in the HA's TFR and SoC, Lothbury considers that the removal of the eastbound diverge lane from the A47 is not wholly justified and would result in an overall disbenefit. Lothbury would look to support the Alternative junction proposals put forward by other objectors, particularly those which would retain the eastbound diverge lane from the A47.
- 5.116 Although these alternative options have been assessed and dismissed by the HA, the capacity assessment methodology and calibration process adopted by the HA is flawed and inappropriate. Moreover, the HA's queuing analysis is incorrect, and misrepresents the impact of queues along Yarmouth Road West. Maximum queues have been used in the HA's assessments, whereas average queues should have been considered. The use of alternative capacity and queuing methodologies could show that an alternative proposal would be viable.
- 5.117 The Scheme would result in increased costs for existing users, resulting also in increased carbon dioxide emissions which are considered unnecessary as the removal of the slip lane has not been justified. This would have a significant and unnecessary impact on the local environment, existing junction users and business owners, who would be economically affected by increased business running costs resulting from increased fuel costs. More importantly, this impact is contrary to national and local policy in respect of economic growth and the reduction of carbon emissions.
- 5.118 In isolation the Scheme is anticipated to cost £25 million, with cost benefits of -£74 million (PVB) and -£4 million (Accidents). It is clear, therefore, that the Scheme would provide no transport benefit. This is accepted by the HA and NCC as they acknowledge that the Scheme has a BCR of -2.9. Lothbury therefore considers that the draft Orders would result in an overall disbenefit on economic and environmental grounds.
- 5.119 Lothbury maintains that improvements to the operation of either, or both, the Northside and Meridian Way roundabouts could reduce queuing on Yarmouth Road West and could result in an overall capacity improvement at the existing Postwick junction. This could therefore allow an alternative junction design to be considered, which could include the retention of the eastbound diverge slip road. This would help to alleviate the disbenefits outlined above.
- 5.120 Improvements to these junctions have been suggested by Lothbury. These are subjective at this stage, and would require further investigation into their potential delivery, in terms of capacity, uptake of land and physical constraints. However, if alternative mitigation measures could be secured, this should reduce the traffic impact on Yarmouth Road, and subsequently require reduced works at the Postwick junction. This is something that has not been undertaken to date, as part of the Scheme design or decision making process.

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<sup>212</sup> DD336 – Postwick Hub Scheme – Forecasting Report April 2013

- 5.121 In conclusion, Lothbury are not objecting to the improvement of the Postwick junction in principle, but to the removal of the A47 eastbound diverge lane. It is evident that more work is required to consider the alternatives further and to retain the diverge lane.

**Mr Tony Clarke – Cyclists’ Touring Club (CTC)**<sup>213</sup>

- 5.122 Mr Clarke appeared at the Inquiry as the CTC’s Right to Ride representative. The CTC has reached an agreement with NCC on the provision of cycle routes north-south to connect with Whitlingham Park and east-west of Brundall, and Mr Clarke therefore formally withdrew the CTC’s objections in their entirety. However, he remained concerned about the way in which the Scheme had been managed and processed by NCC and the HA, and about the cost of the Inquiry. He indicated that he had written directly to the Secretary of State for Communities and Local Government (SSCLG) separately on this matter.

**INSPECTOR’S NOTE:** *The Inspector informed Mr Clarke that he would not hear evidence relating to such matters as the costs of the Inquiry, especially as the CTC had withdrawn its objections to the draft Orders, which were the subject of the Inquiry. The Inspector did indicate, however, that Mr Clarke’s concerns would be brought to the attention of the Secretaries of State. Mr Clarke’s concerns are set out in Tab 82 of Doc INQ/02, and in Docs OBJ/INQ/82/01-02.*

**Mr S Heard (SNUB and Salhouse Parish Council)**<sup>214</sup>

- 5.123 Mr Heard is Chairman of SNUB and a Salhouse Parish Councillor. The planned development of the Postwick Hub is inextricably linked to the plans for the development of the JCS and in particular the plans for the NEGТ. This view is supported by the fact that NCC and its local authority partners in the GNDP conducted a prolonged post-legal discussion about whether the plans for the BGBP were included in the remitted elements of the JCS.
- 5.124 The revised consultations on planned development for the NEGТ propose a dispersal alternative to the 10,000 houses in the NEGТ adjacent to the NDR. If this alternative were to be favoured, then the NDR would not be needed and there would be no need to develop Postwick Hub.
- 5.125 Local opinion shows that investment in roads in and around Norwich would be better placed funding the stalled dualling of the A11, the dualling of the A47 and trunk road connections to employment hotspots in Cambridge and the new LEP centred on the off-shore industries in Great Yarmouth and Lowestoft.
- 5.126 Alternative plans for the additional development of the BBP have been submitted by Lothbury, which would negate the need for major re-development of the Postwick Hub as required by these draft Orders. A reduced level of development could be substantially opened up by a much more modest link road (the Inner Link Road) which could be paid for entirely by development. NCC has, to date, failed to undertake and publish a technical and costed appraisal of this alternative development strategy.
- 5.127 It is not accepted that there is a need for this over-engineered Scheme as there should be a much simpler and cheaper alternative. SNUB prefers AR4 which would reduce congestion, improve journey times, reduce journey costs, and

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<sup>213</sup> Docs OBJ/INQ/82/01-02 and Doc INQ/02

<sup>214</sup> Doc OBJ/INQ/86/01 and Doc INQ/02

reduce air pollution. It would also allow NCC to move towards its statutory obligations to reduce the county's carbon footprint. It is questioned how the published Scheme fits with the ideals of sustainability.

- 5.128 NCC avoided the statutory obligation to hold a planning inquiry into the Postwick Hub proposals and the BGBP by submitting a hybrid speculative planning application to BDC for the 2 schemes together. This was a "Trojan Horse approach" and a convenient device for securing planning permission for Postwick Hub as the first stage of the NDR. The financial viability of the Scheme is questioned as the planned return of £800m contains an element of double counting insofar as the TEC and GVA is concerned.
- 5.129 It is also questioned how the Scheme would achieve the desired outcome of the new Social Values Act, and how it would accord with the Natural Environment and Rural Communities Act of 2006, which is designed to ensure that natural environment is conserved, enhanced and managed for the benefit of present and future generations.
- 5.130 The Scheme would result in longer journeys and in an increase in carbon emissions, contrary to the legal requirement set out in the Climate Change Act 2008 to measure and monitor progress towards a 10% carbon reduction by 2015 on 2007 levels. The HA's, case that emissions from the proposed Postwick Hub can be spread out across the whole county of Norfolk, such that the emissions disappear and become insignificant, is not accepted. There is an adaptation requirement in the Climate Change Act 2008 and it is questioned whether there is any evidence of any adaptation in the Scheme proposals.
- 5.131 Cllr Townly's suggestion that the Postwick Hub junction could be improved and upgraded by the use of "smart technology", as deployed at the existing A47/A11 Thickthorn junction is supported. This would avoid the need to make any changes to the existing Postwick junction.
- 5.132 As there is no evidence from the emergency services it must be assumed that they have not been consulted regarding the Scheme. This is particularly relevant for the East of England Ambulance Service Trust, which is under continual and constant pressure to meet its targets for response times.
- 5.133 The NDR should be seen as a local road scheme, and an application for it to be made a NSIP, on the basis of a planning permission for an access road to a business park, is an abuse of process. For a county road scheme such as Postwick Hub it would be normal for NCC to apply to itself for planning permission, but in this case it went through an unusual route to obtain planning permission by joining up with a speculative property company (IEL), only formed in 2005. It is questioned whether due process was followed in terms of EU procurement regulations. Having researched the details of IEL it is questioned whether this company is an appropriate development partner for NCC to progress the BGBP and Postwick Hub Schemes.
- 5.134 The adoption of a "pooled" Community Infrastructure Levy (CIL), between the constituent authorities of the GNPD, adds to the economic uncertainty of infrastructure projects such as the Postwick Hub.
- 5.135 Finally, the terms of reference for this public inquiry are challenged and it is queried how the Planning Inspectorate can judge Local Plans against guidance that has not yet been published. Current guidance does not take into account the Framework, the Localism Act, or the Growth and Infrastructure Act.

**Mr C Cockcroft**<sup>215</sup>

- 5.136 Mr Cockcroft appeared at the inquiry as a private individual. The proposed Postwick Hub junction improvement Scheme presupposes that the NDR, which has not yet received planning permission or been subject to a planning inquiry, will be built. It is, therefore, premature for the HA and NCC to put it forward.
- 5.137 The Scheme is unnecessarily complicated and expensive just for the purpose of serving the proposed BGBP, and would seriously inconvenience the majority of traffic leaving the eastbound A47 at this junction. In place of a simple, protected left turn at Postwick North-West roundabout onto the A1042 westbound, drivers would be faced with lengthy diversions which would lead to longer journey times. In turn this would lead to increased pollution.
- 5.138 Traffic leaving Norwich on the eastbound A1042 would also be inconvenienced. Journeys would, typically, be lengthened by about 1.2 miles. For a regular commuter this would amount to some £40 of extra fuel a year, or about an extra £124 per year for a business person. In the current economic climate these are not insignificant amounts.
- 5.139 To address these shortcomings 2 alternative 2-phased junction improvement schemes are proposed (AR6 and AR14). AR6 would replace the Postwick North-West roundabout by a simple gyratory and a new westbound merge slip to the A47; whilst AR14 proposes a traffic signal based alternative, modelled on the junction of the A47 and the A146 at Trowse Newton. These improvements would smooth current traffic flow and provide for the added BGBP traffic. Neither design would require any of the current slip roads and side roads to be closed, although some amendments to the Heath Farm access would be desirable. AR6 would not require the expense of a new bridge, putting this cost firmly into the NDR budget, although a new 3-lane bridge would form part of AR14.
- 5.140 The second phases of each of these proposals (AR6A and AR14 Phase 2) would allow connections to be made to a future NDR or any alternative. In the case of AR6A, this would be by means of a second gyratory which would straddle the A47 and require an additional bridge. This would provide a much smoother traffic flow than the proposed Postwick Hub, without the expense of any signalisation. The HA's comment that the Scheme is needed to allow access to the permitted BGBP is noted, but it might have been designed differently if a possible, future connection with the NDR had not been taken into account.
- 5.141 Work should be put in hand to relieve the overload on the A1042 Yarmouth Road (West) as the published Scheme would be compromised by the capacity limitations of this road, with traffic queuing back from the Northside roundabout to the Postwick North-West roundabout. Indeed the Scheme appears to be designed to limit the flows on this A1042 Yarmouth Road (West) route by creating deliberate delays, thereby costing road users money. It is not logical to say that the suggested Alternatives would suffer from queuing but that the proposed Scheme would not, as the same traffic has to be catered for in each case. To fully address this, more time should have been allowed for a full and proper discussion and refinement of the ARs to take place.
- 5.142 The draft Orders should not be made at this time. Instead, the HA and NCC should prioritise the elimination of the unsafe stretches of the A47, as proposed

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<sup>215</sup> Docs OBJ/INQ/121/01-03 and Doc INQ/02

through AR10, rather than pursuing an improvement of the Postwick junction. The Inspector is requested to recommend this course of action to the SST.

**Mr A Cawdron**<sup>216</sup>

- 5.143 Mr Cawdron spoke at the Inquiry as a private individual. He maintained that granting planning permission for schemes such as BFLF and the BGBP with conditions puts a great burden upon removing those conditions, in order to allow the permissions to be implemented. The implications of such matters as sewerage plants and infrastructure and the need to cross major junctions do not appear to have been fully taken into account when these planning permissions have been granted.
- 5.144 The existing Postwick junction, completed within the last 20 years, is still fit for purpose and suitable to serve any reasonable future development needs. The existing Broadland Way and an upgrade to Green Lane South, for example by building an additional traffic lane, would cater for any proposed permitted developments.
- 5.145 The proposed junction and distributor roads for BGBP appear to be oversized and would involve excessive land-take. The major dual-carriageway link, which would form the beginning of the NDR, appears inappropriately scaled as a local distributor road. The public funds allocated for the Postwick Hub should be redirected to the A47 improvements, to provide genuine growth for the county, particularly Great Yarmouth.
- 5.146 The new road link from Plumstead Road to Peachman Way, as part of the BFLF development, will pass through housing areas and business parks, and will be an unpleasant and long-winded journey in the event of any traffic holdups. This will lead to the proposed Postwick Hub which would involve additional roundabouts, a new traffic signal-controlled junction and longer journeys. It cannot be seen as an improvement for the people who live on the north-east side of the city.
- 5.147 The main environmental concern relates to the permanent loss of agricultural land, amounting to about 95 ha. This excludes additional land loss associated with the JCS. The National Farmers Union estimate that a hectare of sound agricultural land will produce 8-10 tonnes of wheat per season, with a current price of about £195 a tonne, giving a total of about £148,000 to £185,000 per annum. These figures should be included in the economic assessment calculations.
- 5.148 The recent notification from NCC regarding a consultation under Section 47 of the Planning Act, relating to the NDR, includes the Postwick Hub in its provision. It begs the question, are all consultations and Public Inquiries forgone conclusions?
- 5.149 Overall the proposals are disproportionate to this area of Norfolk and Norwich, and the forerunner to the urbanisation of hundreds of acres of existing farmland.

**Mr Davidson (Menzies Distribution Limited)**<sup>217</sup>

- 5.150 Menzies Distribution Limited (MDL) is a leading provider of distribution and marketing services to the UK newspaper and magazine supply chain, handling around 5 million newspapers and 2.1 million magazines each day. It employs

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<sup>216</sup> Docs OBJ/INQ/127/01-02 and Doc INQ/02

<sup>217</sup> Doc OBJ/INQ/131/01 and Doc INQ/02

over 80 staff at its Norwich distribution centre at BBP and a further 25 sub-contractors, the majority of whom travel to work by car or van. Newspapers are delivered from the publishers by articulated lorries which travel directly from the A47 to the business park. Peak operations are between 2200 hours and 0700 hours, 7 days a week. Public transport does not operate during these hours.

- 5.151 The proposed closure of the eastbound slip road gives great cause for concern as the additional time and mileage taken to access BBP would have a serious impact on both inbound and outbound time-sensitive early morning local distribution runs. Late deliveries would disadvantage the 600 local retailers that are supplied on a daily basis and could result in a serious loss of business for many customers and local businesses. Any additional travel time would result in significantly increased fuel consumption and cost to the business, staff, and employees.
- 5.152 MDL is committed to minimising its carbon emissions, but making vehicles travel around in a circle to gain access and egress into BBP totally contradicts what the company is trying to achieve in respect of its Carbon Reduction targets. There is a serious contradiction between what the Government's Local Transport White Paper<sup>218</sup> proposes and what NCC is proposing to do at the Postwick junction.
- 5.153 The White Paper also forms the DfT's overall strategy in delivering the vision to tackle carbon emissions from transport by encouraging people to make more sustainable travel choices for shorter journeys. There is clearly a desire at Government level to shorten journey times and that is one which MDL fully supports, but the closure of the eastbound slip road would do the opposite and increase journey times.
- 5.154 Moreover, any removal of current and critical transport links and facilities in and out of the estates would have a detrimental impact on MDL's property value. This would seriously impact its ability to re-let in the future or sell and would have a definite (negative) effect on rental levels achievable. BBP as a whole would become less desirable as an innovative business destination.
- 5.155 MDL understands that the eastbound slip road can be retained and does not require to be closed. It therefore objects to the draft Orders and the current proposals to close the eastbound slip road.

**Mr R Bailey<sup>219</sup>**

- 5.156 Mr Bailey spoke at the Inquiry as a private individual who maintains that the Postwick Hub and removal of the eastbound slip road is totally unnecessary and would result in circuitous routes which would increase the carbon footprint. Its only function would be to make the NDR a viable entity. He maintained that EIAs for the Scheme need to be updated every 2 years, to ensure that statutory requirements are being met.
- 5.157 One of the arguments for the Postwick Hub is to create a new business park, but the adjacent BBP is not yet running at full capacity and has available space to accommodate more units. If more business space is required in Norfolk then the mass of empty sites in Norwich should be used, as they are well served by the transport links already in existence.

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<sup>218</sup> Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen - (January 2011)

<sup>219</sup> Doc OBJ/INQ/132/01 and Doc INQ/02



- 5.158 Concern is expressed about lack of public transport and bicycle infrastructure that appears on the plans. There are no dedicated bus stops or underpasses and the message given is that NCC does not want to encourage cycling.

**Matters raised by objectors in written representations<sup>220</sup>**

- 5.159 As noted earlier, all but one of the objections came from non-statutory objectors. Twenty-one of these either appeared at the Inquiry or received a specific written rebuttal from the HA; 2 objectors have deceased since submitting their original objections and one objection was not followed up as the objector could not be contacted. A further objector (No 80 - Norwich Cycling Campaign) signed a SoCG with NCC and the HA and did not pursue its objection further.
- 5.160 However, the majority of objectors chose to rely on their written representations, with some 33 objectors submitting a standard pre-printed postcard promoted by NNTAG, in conjunction with CPRE Norfolk, SNUB and Norwich and Norfolk Friends of the Earth. The points raised in these, and the other written objections can be seen in full in Doc INQ/02, but as the points raised generally echo those made orally at the Inquiry, they are not covered in detail here, but are simply summarised below:
- the Scheme is over-designed, too complex and too complicated;
  - the Scheme would lead to driver confusion;
  - the Scheme would not be safe and would lead to increased numbers of accidents;
  - the Scheme would lead to significant congestion and problems if the traffic signals failed;
  - the Scheme would take too much agricultural land;
  - the Scheme does not make proper provision for pedestrians and cyclists;
  - transport issues could be addressed by smaller, cheaper options;
  - the current design is only being pursued in order to accommodate the NDR, and can only be justified by construction of the NDR;
  - the proposed developments and surface water from the new roads could lead to flooding;
  - the existing infrastructure, particularly sewerage works, is currently at capacity;
  - evidence is sought to demonstrate that the Scheme would not lead to environmental pollution;
  - the closure of the eastbound diverge slip road would result in increased journey times and distances which would seriously inconvenience local businesses and local residents;
  - the closure of the eastbound diverge slip road would unacceptably increase pollution and carbon emissions, and matters of climate change have not been properly assessed;
  - the Scheme should not be pursued as it has a negative BCR and other economic benefits have been overstated;
  - the Scheme has not properly been considered in conjunction with the NDR;
  - BGBP development and other proposed developments are not necessary because there is already an abundant supply of office accommodation;

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<sup>220</sup> See Doc INQ/02

- planned housing to the north-east of Norwich should, instead, be to the south-west, where the jobs are;
- the Scheme would spoil Norwich by urbanisation;
- the developments should not go ahead as there is plenty of empty, derelict land available;
- that BGBP does not feature in the BLP;
- the planning application for the BGBP and the Scheme was premature because the consultations have not yet been completed on the JCS;
- Sprowston P&R site should be expanded rather than the one at Postwick, as it would be closer to new housing in north-east Norwich;
- the expansion of Postwick P&R site would increase traffic, adding further traffic movements which would increase pollution;
- 70% of traffic using the existing Postwick P&R site originates in outlying areas where there are currently large numbers of empty business parks;
- the scheme would give rise to adverse social, economic and environmental impacts;
- the Scheme would benefit developers; and
- the NDR would displace traffic to Salhouse Road, Plumstead Road and Wroxham Road.

## **6. THE CASES FOR THE COUNTER-OBJECTORS**

- 6.1 A number of Alternative Routes (ARs) have been proposed, as briefly discussed in paragraphs 1.10 to 1.12 above, with 11 of these actively pursued at the Inquiry. Fuller details of the routes themselves, including outline scheme drawings and assessments, can be found in Docs HA/OBJ28/ALT1 to HA/OBJ121/ALT14. All except AR12 and AR14 were submitted in sufficient time for the HA to formally publicise them.
- 6.2 I allowed AR12 and AR14 to be put forward during the course of the Inquiry by objectors who attended the Inquiry and who met with HA and NCC Officers, whilst the Inquiry was sitting, to discuss further options. But whilst the HA was able to undertake an assessment of these additional ARs, the timescale meant that their formal publication was not possible. However, as each of these 2 routes has distinct similarities to ARs which were publicised, I am satisfied that no one who may have wished to comment on them would have been unduly adversely prejudiced by this course of action.
- 6.3 Following publication and advertisement of the 9 ARs which were published and pursued at the Inquiry (ie excluding AR7), a total of 27 counter-objections were received from 11 separate counter-objectors. It is not necessary to report their objections in detail here, as none of the counter-objectors appeared at the Inquiry to present their cases. Mr Newberry, an objector to AR6A did appear at the Inquiry, but the main thrust of his objections has already been reported in paragraphs 5.101 to 5.105 above. Full details of all the points raised by both supporters and objectors to the various ARs can be found at Doc HA/35.

## **7. THE RESPONSE OF THE HIGHWAYS AGENCY**

The material points are:

- 7.1 The evidence presented by objectors at the Inquiry and in the written submissions focussed on a number of common themes or topics, often raised by more than one objector. These are dealt with in the following sections, with objections relating to procedural matters considered first. An extensive response

to the Alternative Routes is included, reflecting the interest in this topic expressed by many of the objectors. Finally, a response is given to a number of specific matters raised by individual objectors.

### **Procedural Matters**

- 7.2 Some objectors<sup>221</sup> have challenged the adequacy of the consultation concerning the Scheme, pointing out that the public exhibition for the planning application took place at a time when there was no proposal to close the existing eastbound diverge slip road. NNTAG has pointed out that there was no consultation by the HA prior to the publication of the draft Orders in November 2009 and it is claimed that this has hampered objectors presenting alternatives to the Scheme.
- 7.3 However, planning permission<sup>222</sup> has been granted for the Scheme and has not been subject to legal challenge. There is no regulatory requirement to hold a public exhibition in relation to a planning application. In this case, BDC consulted the public at each stage of the planning application, including a specific round of consultation after the application was revised in August 2009 to close the eastbound diverge slip road. Interested persons had the opportunity to make representations at that stage, and many did.
- 7.4 A further public exhibition was held in February 2012, when the draft Orders were re-advertised. This showed the Scheme as currently proposed, with the closure of the eastbound diverge slip road. This exhibition took place some 3 months before the first invitation for alternatives to be submitted, and over 12 months before the second invitation. Accordingly there has been ample opportunity for anyone putting forward alternatives to be aware that the Scheme was being promoted on the basis that the existing A47 eastbound diverge slip road would not be retained.
- 7.5 There is no regulatory requirement for consultation by the HA before draft Orders are published. Whilst the HA has a practice of consultation in relation to its own schemes<sup>223</sup>, this was not in place at the time the draft Orders were published in November 2009<sup>224</sup>. In any event, these draft Orders relate to a Local Authority Major Project (albeit one affecting the SRN) which only came under the aegis of the HA once the draft Orders had been published. However, it is clear that the advertising of the draft Orders (on more than one occasion) has allowed a full opportunity for interested parties to express their views. The fact that this has been effective is reflected in the range and number of representations received.
- 7.6 The advice on S278 agreements<sup>225</sup>, referred to by NNTAG, is not directly applicable here, as no such agreement is proposed here. Nevertheless, the processes undertaken in this case reflect the advice at paragraph 31 of that document, and it cannot be sensibly said that interested persons have not had an adequate opportunity to make their views known and to participate in the Inquiry process.
- 7.7 On a separate matter, NNTAG has objected on the grounds that the Scheme has planning permission as a "private" development, and that the SST has fettered

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<sup>221</sup> Objectors 3, 5, 11, 28, 44, 79, 84 and 86

<sup>222</sup> DD135

<sup>223</sup> See Docs HA/55 and HA/56

<sup>224</sup> see Doc HA/57

<sup>225</sup> Doc HA/14 – "Guidance on Agreements with the SST under Section 278 of the Highways Act 1980"

his discretion to determine whether or not to make the Orders, through the HA's reliance (in part) on evidence provided jointly at the Inquiry with NCC, through one Counsel. This objection is wholly misconceived, for a number of reasons. Firstly, the Scheme sits within the "Local Authorities Major Schemes Programme" as set out in the 2011 Local Transport White Paper<sup>226</sup>. This is clear from the submitted evidence regarding funding<sup>227</sup>. The Scheme is therefore correctly described as a "Local Authority Major Project"<sup>228</sup>.

- 7.8 Secondly, although the planning application for the Scheme was combined in a single application with commercial development at BGBP, the draft Orders still relate to works either to existing public highways, or to roads/paths that would become public highways. Such works are not "private development" as they would be undertaken by NCC as a local highway authority, and would be available for public use on completion of the works.
- 7.9 Thirdly, NNTAG appears to have misunderstood the advice on the fettering of discretion in Doc HA/14. This simply makes the point that where a legal agreement is required (such as under S278 of the Highways Act 1980) the SST cannot fetter his discretion by contractually committing to undertake works in such an agreement, before any relevant Orders required to authorise those works have been made<sup>229</sup>. Hence, the advice suggests that if the agreement is to be entered into before the relevant Orders are made, it must be made conditional on those Orders being made. This is an entirely conventional legal arrangement.
- 7.10 In the current case NCC will not enter into a S278 agreement with the SST, because if the Orders are made, an agreement will be made under S6 of the Highways Act 1980. This will enable NCC to undertake the relevant works within the Scheme that affect the trunk road<sup>230</sup>. A draft agreement is in preparation<sup>231</sup>, but will not be concluded until the outcome of the Orders process is known. This in no way fetters the discretion of the SST to consider the case for and against the Orders on its merits.
- 7.11 NNTAG's concern that it is wrong for the HA to rely on evidence provided by NCC and its consultants is similarly misplaced. If the Scheme had solely affected the SRN it would have been promoted exclusively by the HA and all of the evidence in such a case would have been provided by the HA and its consultants. The draft Orders would have been promoted by the HA (on behalf of the SST) and ultimately made by the SST<sup>232</sup>. This is a function of the legislation as established by Parliament, which has decided that the SST is still able to take an impartial view of the merits in such a case, especially as the SSCLG is also required to be involved in the decision making process. In the present case the involvement of NCC (and its consultants) in no way compromises the ability of the SST to consider the merits of the Orders on an impartial basis.
- 7.12 NNTAG also raises concern that the SST's decision to publish draft Orders in November 2009 was based on different evidence (particularly in relation to traffic

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<sup>226</sup> DD236

<sup>227</sup> See sections 7.4 and 7.5 of Doc HA/02/1; DD244; and the DfT funding letters in Appendix F of Doc HA/02/2

<sup>228</sup> See Para 1.1.5 of DD369

<sup>229</sup> See para 31 of Doc HA/14

<sup>230</sup> See Para 4.20 of Doc HA/01/1 and para 8.12 of Doc HA/RB/OBJ28/1

<sup>231</sup> See para 4.20 of Doc HA/01/1

<sup>232</sup> See para 14 of Doc HA/21

matters) to that which is now relied on. NNTAG suggests that the draft Orders should have been withdrawn and the Scheme reviewed, in the light of other alternative solutions and layouts. It is argued that the objectors have been prejudiced by the HA's reliance on new traffic evidence. However, it is not unusual with large scale transport schemes for the evidence at the Order making stage to be different to the evidence at earlier stages of scheme preparation, as such schemes take time to deliver and evidence often has to be updated.

- 7.13 In this case, the suspension of progress on the Scheme during the Government's 2010/11 CSR made an updating exercise almost inevitable. The fact that the original traffic modelling primarily used survey data from 2006 made it necessary to undertake fresh surveys to support a Present Year Validation of the traffic model<sup>233</sup>. Moreover, the evolving planning situation (including the legal challenge to parts of the JCS) made it sensible to revisit some of the modelling assumptions<sup>234</sup>. The delays in progressing the Scheme also meant that different assessment years needed to be considered because the expected year of opening was pushed back<sup>235</sup>.
- 7.14 However, the important point is not whether the evidence has changed, but whether interested persons have had an adequate opportunity to consider the latest evidence and comment upon it. The TFR<sup>236</sup>, the Adjustment of Highway Transport Model using 2012 Data report<sup>237</sup>, the Present Year Validation Report<sup>238</sup>, the Economic Appraisal Report<sup>239</sup>, and the Road Safety Audit Stage 2 Submission and Report<sup>240</sup> were all published with the SoC<sup>241</sup> on 1 May 2013, in accordance with the Inquiry Procedure Rules. The HA proofs of evidence were published on 12 June 2013, in accordance with the timetable established at the PIM, together with the Yarmouth Road Surveys and Northside Roundabout Assessment report<sup>242</sup> which supplemented one element of the traffic appraisal work.
- 7.15 Whilst not all of the HA Rebuttal Proofs were provided in accordance with the timetable, in part this was because some objectors did not submit their principal evidence on the relevant date, and in any event adjustments were then made to the programme to ensure objectors had time to consider that Rebuttal evidence before presenting their cases. There is therefore no substance in the claim that objectors have not been able to consider and respond to the updated evidence now relied on by the HA and no good reason why the draft Orders should be withdrawn and the whole process restarted.
- 7.16 Objectors 36 and 123 raised a concern about the independence of the evidence provided by the HA witnesses, and the difficulty objectors had in testing that evidence without their own expert witnesses. However, the HA witnesses have all recorded, in their proofs, their understanding of their obligations to provide true and professional evidence. All of the HA witnesses have been available for

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<sup>233</sup> See DD332 and DD333

<sup>234</sup> See para 5.4.9 of Doc HA/05/1

<sup>235</sup> See para 5.2.8 of Doc HA/05/1

<sup>236</sup> DD336

<sup>237</sup> DD332

<sup>238</sup> DD333

<sup>239</sup> DD362

<sup>240</sup> DD363

<sup>241</sup> DD369 and DD370

<sup>242</sup> Doc HA/12

cross-examination and several of the objectors have taken the opportunity to question the witnesses. Some objectors have commissioned their own expert witnesses to present opposing views. The HA considers that there have been adequate opportunities to allow for its evidence to be tested.

### **Impact of the closure of the eastbound slip roads on existing users**

- 7.17 It is accepted that users of the A47 eastbound, exiting at Postwick and travelling west into Norwich or north into the existing BBP, would be disadvantaged by the closure of the existing eastbound diverge slip road. They would still be able to leave the A47 at Postwick and reach all destinations, but the new routes would be longer and would involve negotiating additional junctions. This would involve additional journey time and, by implication, extra travel costs. However, any consideration of this disadvantage has to have regard to (i) the scale of the disbenefit; (ii) whether there are benefits to other existing users; and (iii) whether there are wider benefits to future users and others.
- 7.18 On the question of scale, the Scheme is predicted to increase some journey times by up to 2 minutes in the AM peak and by up to 5 minutes in the PM peak<sup>243</sup>. Changes of less than 2 minutes are not considered to be significant and are within the typical daily variation for an average 33 minute commuting trip into Norwich using the existing network<sup>244</sup>. Changes of over 5 minutes are considered to be significant but these would only arise for trips from A47 (West) to Yarmouth Road (West), and only by 2030. In 2020 the increase on that route would be 3.6 minutes. Even in 2030, 83% of the trips which would experience an increased journey time in the PM peak, would increase by less than a minute<sup>245</sup>.
- 7.19 In numeric terms there would be a net transport disbenefit, because there are more existing users who would experience a slight increase in journey times than there are existing users who would experience significant reductions in their journey times. However, the scale of the benefits and disbenefits to individual users is more complex than this. For those using the A47 westbound to access destinations at Postwick, there would be major savings of up to 7 minutes in the AM peak and over 5 minutes in the PM peak because the Scheme would resolve the long-standing queuing problems of the Postwick P&R roundabout<sup>246</sup>.
- 7.20 There would also be benefits to existing users through improved journey time reliability, as all of the Scheme junctions would perform satisfactorily (in contrast with the existing position)<sup>247</sup>. In addition, there would be benefits to public transport both for the existing operation (by reducing delays on Yarmouth Road (East)) and by allowing the expanded P&R facility to take place<sup>248</sup>. The Scheme would also deliver real benefits to NMUs by providing enhanced facilities<sup>249</sup>.
- 7.21 In terms of wider benefits, it is acknowledged that the standard methodology for a transport scheme focuses only on the effects on existing transport users. However, a transport intervention that is promoted to unlock economic growth, as here, would clearly have wider effects because it would enable new

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<sup>243</sup> See para 5.7.2 of Doc HA/05/1 and Tables 5.8 and 5.10 of Doc HA/05/2

<sup>244</sup> See paras 5.7.1 and 5.7.2 of Doc HA/05/1

<sup>245</sup> See para 9.17 of Doc HA/01/1

<sup>246</sup> See Tables 5.8 and 5.10 of Doc HA/05/2 and para 5.7.1 of Doc HA/05/1

<sup>247</sup> See para 6.7.18 of Doc HA/02/1

<sup>248</sup> See para 6.7.18 of Doc HA/02/1

<sup>249</sup> See paras and 8.4.8 6.7.19 of Doc HA/02/1 and section 9.3 of Doc HA/03/1

development to take place and new jobs to be provided. These benefits need to be captured in an assessment in order that the full effects of the intervention are appraised. This is recognised in the WebTAG advice in draft Unit 3.16<sup>250</sup>. The inclusion of such benefits accords with the guiding principles in the HM Treasury Green Book<sup>251</sup> that “all benefits” should form part of the appraisal<sup>252</sup>.

- 7.22 Those benefits have been assessed here, both by reference to the GVA of the additional economic development and by reference to the PG benefits after allowing for the TEC<sup>253</sup>. Both assessments produce strong positive values which substantially outweigh the negative transport disbenefits (£378 million in the case of GVA benefits and £494 million in the case of PG, as against £74 million transport disbenefits and £4 million accident disbenefits)<sup>254</sup>. Whilst criticisms have been made of the precise calculation of those benefits, no-one has seriously suggested (let alone substantiated with evidence) that the wider economic benefits would not be significantly greater than the transport disbenefits, when expressed in monetary terms.

### **Alleged absence of a sound justification for the closure of the slip roads**

- 7.23 Some objectors continue to maintain that the closure of the eastbound slip road would not be necessary if NCC was not seeking to achieve an outcome that facilitates, in due course, the provision of the NDR. This is said to be because NCC's aspirations for the NDR preceded the proposals for the Postwick Hub (and its role in unlocking dependent development), and that both preceded the specific proposal to close the existing A47 eastbound diverge slip road.
- 7.24 The chronology of events is not in dispute<sup>255</sup>, but objectors seem unwilling to accept that there is an independent case for the Scheme in order to unlock the localised growth at Postwick, irrespective of any case that might exist for the provision of a NDR. It should be remembered that NCC had taken the opportunity provided by the CIF funding regime to support its aspirations for growth at Norwich, and had identified a suitable area of land on the eastern side of Norwich that was capable of being developed, subject to highway infrastructure improvements. This area had already been identified for expansion in the BLP, and the then extant East of England Plan had suggested Thorpe St Andrew as a location for business park growth<sup>256</sup>.
- 7.25 The independent case for the Postwick Hub Scheme is not undermined by the fact that it was identified after the proposals for the NDR, with a connection to the A47 at Postwick, were first put forward. The merits of the case should not be measured by when it was suggested, but by the cogency of the evidence that supports it. That evidence, summarised earlier, shows beyond any serious doubt that the constraints at Postwick mean an improvement is required to address existing and future problems if the growth already approved in the JCS and in the planning permissions for BGBP and BFLF is to be achieved.

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<sup>250</sup> paras 1.3.5, 3.1.1, and 4.1.2. of DD322

<sup>251</sup> DD239

<sup>252</sup> See para 5.25 of DD239 and section 2 of Doc HA/08/1

<sup>253</sup> See section 7 of DD362, section 8 of Doc HA/02/1 and section 4 of Doc HA/08/1

<sup>254</sup> See para 8.4.7 of Doc HA/05/1

<sup>255</sup> See section 7 of Doc HA/02/1

<sup>256</sup> DD231, Policy NR1 on p102

- 7.26 Those same constraints, and the conclusions on the ARs (detailed below), mean that there is no realistic prospect of delivering the necessary improvement without the removal of the A47 eastbound diverge slip road and the construction of a junction arrangement that accommodates the BGBP.
- 7.27 Lothbury has challenged the traffic case for the closure of the eastbound slip road, claiming that it has not been “wholly justified”. The initial basis for this claim was that the TFR<sup>257</sup> did not show queuing from the Postwick North-West roundabout reaching the mainline of the A47, even in the scenario where DS traffic was assigned to the DM network. It was therefore suggested that there was no need for the removal of the slip road. More recently the claim was expanded to challenge the junction assessments included in the TFR on the basis that they exaggerated queuing problems by focusing on maximum queues, rather than average queues.
- 7.28 However, despite recognising that a “holistic” approach was required to the junction<sup>258</sup>, including all of its slip roads and the junctions that are fed by or feed into those slip roads<sup>259</sup>, Lothbury sought to look exclusively at the Postwick North-West roundabout and the eastbound diverge slip road. This was not a credible stance. Even just focusing on the Postwick North-West roundabout, the scenario of DS traffic assigned to the DM network shows that at 2020 there would be queues on Yarmouth Road (West) that would block the exit from the North-West roundabout and extend onto the eastbound diverge slip road. In such congested conditions, with the potential for significant variability, there would be a risk of queues sometimes extending onto the main carriageway of the A47<sup>260</sup>.
- 7.29 In addition, it is clear that in the scenario of DS traffic assigned to the DM network there would be substantial queuing on the A47 westbound diverge in both 2015 and 2020<sup>261</sup>. The Postwick P&R roundabout would also be substantially over capacity<sup>262</sup>. In terms of both queues and delays the junction as a whole would not perform satisfactorily in that scenario and improvement would be required before the dependent development could take place.
- 7.30 The second criticism foundered on the fact that it wrongly asserted the approach taken by Mr White was contrary to DMRB advice<sup>263</sup>, and ignored the conventional approach to using ARCADY of identifying maximum queues in the peak hour<sup>264</sup>. Moreover, it wholly failed to respect Mr White’s engineering judgment that, in the context of a junction with the SRN where significant growth was expected and where any queuing onto the mainline carriageway would be a serious problem, it was appropriate to look at maximum queues to ensure that the assessment would be robust enough to address and avoid any such problems<sup>265</sup>.

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<sup>257</sup> DD336

<sup>258</sup> Doc INQ/04: Day 12 Transcript, p60, lines 3-5; Doc INQ/04: Day 12 Transcript, p90, lines 4- 9

<sup>259</sup> Doc INQ/04: Day 12 Transcript, p90, lines 10 -24 to p91, lines 1-14

<sup>260</sup> See para 6.5.3 of Doc HA/05/1 and Fig G.17 of Appendix G of DD336

<sup>261</sup> See Figs G14 and G16 of Appendix G of DD336

<sup>262</sup> See para 6.5.2 of Doc HA/05/1

<sup>263</sup> Doc INQ/04: Day 12 Transcript, p99, lines 9-16

<sup>264</sup> Doc INQ/04: Day 12 Transcript, p46, lines 1- 10

<sup>265</sup> See para 2.18 of Doc HA/RB/OBJ81/3



- 7.31 A number of other criticisms of the traffic modelling were advanced, including concerns from NNTAG about the implications of moving trips from differently modelled parts of the network when the TECs were calculated; and the implications of the fact that NTEM makes no allowance for different parking standards for different developments. However, whilst Mr White acknowledged this, he pointed out that this is an inevitable consequence of NTEM being a nationally based data set which is not locationally specific as to where or whether individual developments take place<sup>266</sup>.
- 7.32 Mr Buchan, for NNTAG, produced no firm evidence to demonstrate that this matter would be likely to have any significant effect on the reliability of the traffic modelling exercises, and it is clear that Mr White's approach has been conspicuously careful, thoroughly explained, and consistent with all of the applicable guidance<sup>267</sup>. Moreover, the methodology adopted and the results presented have been reviewed by AECOM<sup>268</sup> on behalf of the HA and have been found fit for purpose<sup>269</sup>.

### **The fact that the Scheme has a negative BCR**

- 7.33 It is not in dispute that the Scheme has a negative BCR. This makes it unusual, particularly if it was to be viewed solely as a transport scheme. However, whether a scheme represents VfM is a matter for the funding department. Where no funding decision has been made, it may be relevant for the matter to be addressed at any relevant Order making stage. But where a funding decision has already been made, as is the case here, it is not the purpose of the Order making stage to revisit that decision or to review the decision making process.
- 7.34 The considerations relevant at the Order making stage are established by the relevant statutory provisions. If there was a realistic alternative to the Scheme that could be achieved at materially lesser expense, then the question of VfM could be relevant to whether the test of expediency was met. However, in this case there is no realistic alternative as the assessments detailed below demonstrate. Moreover, the considerations of local and national planning policy strongly point to the provision of the Scheme in order to unlock the identified economic growth. The fact that the funding department has given its sanction, having regard to its own assessment of VfM, is a matter that deserves respect.
- 7.35 NNTAG challenges the funding decision of December 2011<sup>270</sup> on the basis that it was linked to the decision on the NDR and that there was no VfM assessment of the Scheme in isolation. However, it is clear that the DfT was made aware of the separate basis of the 2 elements of the Development Pool bid<sup>271</sup>. It is also clear that DfT has accepted that the Scheme can come forward in advance of any decision as to whether or not to endorse the NDR at the Statutory Orders and

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<sup>266</sup> See para 3.12 of Doc HA/RB/OBJ28/3

<sup>267</sup> See Doc HA/RB/OBJ28/3

<sup>268</sup> AECOM – Consultants appointed through the HA's Spatial Planning Consultancy Arrangement, to provide consultancy services in the form of advice/support on spatial planning issues, including development proposals affecting the SRN

<sup>269</sup> See paras 9.1 and 9.2 of Doc HA/01/1

<sup>270</sup> See DfT letter of 15 December 2011 in Doc HA/02/2, p41, and DD244

<sup>271</sup> See paras 7.4.1- 7.4.7 of Doc HA/02/1

Full Approval stages<sup>272</sup>. Thus, it is entirely reasonable to infer that DfT is content with the Scheme on a stand-alone basis for funding purposes.

- 7.36 Furthermore, the Scheme is not simply a transport intervention designed to address transport problems for existing users of the network. As already noted, it has a wider scope and is directed primarily at providing infrastructure to unlock growth. This is recognised by DfT continuing to identify that funding for the Scheme is “reserved” on a separate basis to the funding for the NDR<sup>273</sup>. Thus any assessment of VfM that was limited to the BCR would be necessarily incomplete. For this reason, the information sought by (and provided to) NNTAG on highway schemes with negative BCRs<sup>274</sup>, and the information on the criteria to be applied in the assessment for funding of HA schemes<sup>275</sup>, rather misses the point.
- 7.37 What is important is the overall position, including all of the benefits and all of the disbenefits. This is clear even from the somewhat dated statement by the former DfT Permanent Secretary to the Public Accounts Committee in 2007 relied on by NNTAG<sup>276</sup>. That was explicit that VfM was not limited to “a narrow BCR calculation”. Insofar as both benefits and disbenefits can be expressed in monetary terms, it is clear that there is a strong positive value to the Scheme. The HA is satisfied, having regard to that comprehensive assessment, that the Scheme has sufficient wider benefits to outweigh the transport disbenefits<sup>277</sup>.

### **The alleged over-statement of the economic benefits**

- 7.38 The criticisms of the scale of the economic benefits challenge the timescale for their likely delivery, the quantum of new jobs that might be created, the proportion of those jobs that would be additional, and the reliance on TEC to produce much of the PG benefits.
- 7.39 The HA has provided evidence to support its judgment that the timescale for the delivery of the dependent development is realistic<sup>278</sup>. That judgment is reinforced by the material which has been submitted by the commercial developer intending to take the BGBP development forward<sup>279</sup>, and is supported by the views of the developer’s property marketing advisers. Whilst Mr Radford suggests, on behalf of Lothbury, that viability would be in issue if current conditions continue, the points he makes are not specific to development in the Postwick area but are simply a reflection of the recent wider economic difficulties.
- 7.40 Mr Radford accepts that those difficulties do not provide a good reason to defer the provision of infrastructure to facilitate economic development<sup>280</sup>. Even using the take-up rates provided by Lothbury, there would seem to be little reason to doubt that the development could be provided in line with the HA’s forecasts. But even if this is wrong, it does no more than delay the time when the benefits

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<sup>272</sup> See DfT letter of 3 August 2012 in Doc HA/02/2, p45

<sup>273</sup> See DfT letter of 3 August 2012 as above

<sup>274</sup> See Docs HA/47 and HA/57

<sup>275</sup> See Doc HA/49

<sup>276</sup> See section F of Doc OBJ/INQ/28/2/04

<sup>277</sup> See paras 9.34 to 9.37 of Doc HA/01/1

<sup>278</sup> See section 2 of Doc HA/RB/OBJ81/1

<sup>279</sup> See Doc SUP/02/2

<sup>280</sup> See para 2.1 of Doc OBJ/INQ/81/3

would be realised. Given the limited options for employment growth at Norwich, there is every reason to be confident about the development taking place.

- 7.41 The criticism that the numbers of jobs used in the GVA assessment have been overstated by reference to job density calculations has been addressed in the HA's rebuttal evidence<sup>281</sup>. That evidence has not been challenged. Moreover, the criticism of the level of additionality fails to recognise that the HA case is based on a series of conservative assumptions. Much of the literature available, as reviewed by Professor Owen<sup>282</sup>, would point to a higher level of additionality than one third but the HA has remained with that conservative assumption.
- 7.42 The calculation of PG has been undertaken in line with the applicable guidance in WebTAG Unit 3.16<sup>283</sup> and this has not been disputed. Whilst this remains as a draft Unit, Mr White explained that the DfT encouraged its use when the Development Pool bid was being prepared<sup>284</sup>. Mr Buchan, on behalf of NNTAG, has raised a series of concerns about the calculation of the TECs, primarily focused on the level of detailed information available as to where within the NTEM zones the TEC benefits arise, when comparing the DM and DS scenarios.
- 7.43 In this regard the HA has provided a substantial amount of material which shows, unsurprisingly, that the primary source of the TEC benefits arises in the 3 control NTEM districts (84% in Broadland, Norwich, and South Norfolk). Information has been provided on the split between those 3 districts and on the distribution, district by district, not only between those 3 districts but across all 28 districts (zones) in the model<sup>285</sup>. Information has also been provided on the reduction factors that have been applied to the zones within the model where the highway network was modelled (the Norfolk districts plus Waveney in Suffolk)<sup>286</sup>.
- 7.44 The HA considers that sufficient information has been provided to explain the process that has been undertaken and to provide reassurance that the calculation of the TECs is robust<sup>287</sup>. Essentially, what is happening is that in the DS scenario dependent development is concentrated in an accessible location close to large residential areas, whilst in the DM scenario the corresponding growth (within the constant NTEM constraint) is dispersed across the 3 control districts.
- 7.45 Mr Buchan did not challenge the use of NTEM in the traffic model, and agreed that traffic growth for both DM and DS scenarios should be controlled to NTEM growth<sup>288</sup>. Whilst he initially sought to limit this only to the appraisal process and not to the calculation of TECs, this distinction made no sense. It is clear that WebTAG Unit 3.16 expects the calculation to be achieved by applying the NTEM constraint<sup>289</sup>. Mr Buchan then clarified that he accepted the use of the NTEM constraint in the calculation of the TECs but he was not persuaded that the TECs were properly derived because he wanted more information on the trips and trip

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<sup>281</sup> See section 2 of Doc HA/RB/OBJ81/1

<sup>282</sup> See Section 4 of HA/08/1, Section 7 of DD362 and Doc HA/39

<sup>283</sup> DD322

<sup>284</sup> Doc INQ/04: Day 8 Transcript, p90, lines 1-8

<sup>285</sup> Doc HA/RB/OBJ28/4

<sup>286</sup> See email White to Buchan 15 July 2013 [12:30] in Doc OBJ/INQ/28/1/05

<sup>287</sup> See Docs HA/RB/OBJ28/4; HA/RB/OBJ64/3; paras 3.3-3.4 of HA/RB/OBJ28/3 and emails in OBJ/INQ/28/1/06

<sup>288</sup> Doc INQ/04: Day 8 Transcript, p85, lines 2-11; Doc INQ/04: Day 8 Transcript, p163, lines 4-7

<sup>289</sup> DD322, Appendix B, para 9.22

lengths that resulted in the TECs. The HA considers that this has been satisfactorily addressed, above.

- 7.46 The assumption in the methodology for the calculation of TECs is that employment not provided at the dependent development locations in the DS scenario would arise elsewhere in the DM scenario. This is different to the assumption in the GVA calculation, that a proportion of the employment would be foregone in the DM (ie, the one-third additionality if the dependent development is provided in the DS).
- 7.47 However, the reason for this difference is that the 2 calculations are measuring different things. This does not mean that there cannot be both PG benefits (after allowing for TECs) and GVA benefits from the same Scheme. It simply means that an arithmetic addition of the 2 different types of benefit would not be appropriate. However, even viewing each in isolation, their values would considerably exceed the transport disbenefits.

### **The alleged failure to adequately address alternatives**

- 7.48 Each of the Alternatives Routes (ARs) is the subject of a detailed report<sup>290</sup> and most have been subject to some form of operational assessment, apart from those which fail on a fundamental point (AR5 and AR10) or which are too similar to another AR which has been operationally assessed (AR6A and AR12). Detailed descriptions of the ARs are not given here, as they can be seen in the aforementioned detailed reports, along with layout diagrams. The assessments of each AR are, however, summarised in the following sections.

#### **Alternative Route 1 (AR1)**<sup>291</sup>

- 7.49 AR1, put forward by NNTAG (objector No 28), would cost much less than the published Scheme (£5.4 million compared to £20.0 million) and would have lower potential environmental effects. It would have transport disbenefits, resulting in a BCR of -0.2. However, the network would not perform acceptably as there would be queuing down the eastbound diverge slip road onto the A47 mainline carriageway, giving rise to an increased risk of accidents as high speed traffic would encounter stationary traffic.
- 7.50 The eastbound diverge slip road, and weaving lengths associated with the new Broadland Way and new Postwick North-West roundabouts would require Departures from Standards. There would be safety issues which would require justification and risk assessments, and several issues for pedestrians and cyclists. Resolution of these issues could be problematic. There would also be issues with maintaining access to statutory undertakers' apparatus and maintaining a private means of access off the A1042 Yarmouth Road (West).
- 7.51 Although this Alternative would require less agricultural land than the published Scheme, it would involve land-take from the existing BBP and would therefore result in a loss of land designated for employment. Land compensation payments would be some £0.9m more than the published Scheme as it is assumed that the land acquisition would require a Compulsory Purchase Order (CPO). The Alternative would not provide adequate access to the proposed BGBP

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<sup>290</sup> Docs HA/OBJ28/ALT1 to HA/OBJ121/ALT14

<sup>291</sup> Doc HA/OBJ28/ALT1

development so this planning permission, and that for BFLF, could not be implemented and the development benefits would therefore not be realised.

- 7.52 AR1 could not be delivered under the published draft Orders and would require new statutory and planning processes. This would mean inevitable delays due to detailed design, EIA, and taking the AR through the planning process which would add a minimum of at least a year to the programme. Negotiations with third party landowners and developers would be expected to take much longer and might cause a delay to implementation of over 2 years, plus any additional time required for a possible public inquiry.
- 7.53 AR1 would fail to meet the first of the Scheme Objectives identified in the SoC<sup>292</sup>, namely to improve the operation of the A47 trunk road junction. The subsequent objectives could therefore not be achieved. The desk-top assessment of AR1 has shown that it would not be a viable alternative to the published Scheme.

Alternative Route 2 (AR2)<sup>293</sup>

- 7.54 AR2, also put forward by NNTAG, would cost much less than the published Scheme (£7.7 million compared to £20.0 million) and would have lower potential environmental effects. It would have transport disbenefits, resulting in a BCR of -2.2. It would require a Departure from Standards for the new westbound merge slip road (the published Scheme has a similar Departure from Standards to retain the existing westbound merge slip road. There are some issues with the provision of facilities for pedestrians and cyclists, but a satisfactory design could probably be produced.
- 7.55 However, the network would not perform acceptably as there would be queuing down the eastbound diverge slip road onto the A47 mainline carriageway, giving rise to problems as already outlined for AR1. Like AR1, this Alternative would not provide adequate access to the proposed BGBP development so this and the BFLF planning permissions could not be implemented and the development benefits would not be realised. Moreover, AR2 could not be delivered under the published draft Orders and would fail to meet the first of the Scheme Objectives. For similar reasons to those outlined for AR1, above, AR2 would not be a viable alternative to the published Scheme.

Alternative Route 4 (AR4)<sup>294</sup>

- 7.56 AR4 is a further Alternative put forward by NNTAG. At £5.9 million it would cost much less than the published Scheme and would have lower potential environmental effects. It would have transport disbenefits, resulting in a BCR of -0.9. As with AR2, a Departure from Standards would be required for the new westbound merge slip road.
- 7.57 However, as with the previous ARs, the network would not perform acceptably as there would be queuing down the eastbound diverge slip road onto the A47 mainline carriageway, giving rise to safety problems as already outlined. In addition, long queues are predicted at the Postwick P&R roundabout in the PM peak in 2020 and 2030. AR4 would have similar failings to both AR1 and AR2 with regard to not providing adequate access to the BGBP, thereby failing to achieve the benefits associated with the BGBP and the BFLF developments.

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<sup>292</sup> DD369

<sup>293</sup> Doc HA/OBJ28/ALT2

<sup>294</sup> Doc HA/OBJ28/ALT4

Again as with the earlier Alternatives, AR4 could not be delivered under the published draft Orders and would fail to meet the first of the Scheme Objectives. It would therefore not be a viable alternative to the published Scheme.

Alternative Route 5 (AR5)<sup>295</sup>

- 7.58 This Alternative is an indicative route for a new link road between Salhouse Road and Plumstead Road, put forward by CPRE Norfolk Broadland District (objector No 27). No modifications are proposed to the existing A47 Postwick junction. CPRE considers that this AR would provide access to development in the NEG T and avoid the need to build a NDR to the east and further out. It would not, however, enable the approved and committed development to proceed without introducing traffic problems at the Postwick junction.
- 7.59 The proposed link road is technically feasible and a geometric design could be found that follows the suggested alignment. It would require a new planning permission and it is assumed that it would connect with the 2 proposed adjoining developments. The requirement to obtain planning permission could introduce uncertainty over the delivery timescale. AR5 could be progressed without modification to the current slip road arrangements and would therefore avoid the need for new Slip and Side Roads Orders. However, this alternative would not address the problems at the existing Postwick junction and would not meet the Scheme Objectives. For these reasons AR5 would not be a viable alternative to the published Scheme.

Alternative Route 6 (AR6)<sup>296</sup>

- 7.60 AR6 is proposed by Mr Cockcroft (objector No 121). It would cost less than the published Scheme (£12.0 million) would have transport benefits and a BCR of 0.6. It would have lower potential environmental effects than the published Scheme, but would require land take from the existing BBP and would therefore result in a loss of land designated for employment. A landowner affected by this AR has indicated that his land would not be made available unless it was the subject of a CPO.
- 7.61 Departures from Standards would be required for 2 weaving lengths on the gyratory, the eastbound diverge slip road, the spacing on the A47 between the westbound merge slip road and the bus-only merge slip road from the P&R roundabout. Highway safety concerns mean that the Departure from Standards for the short weaving lengths and bus-only slip road are unlikely be acceptable.
- 7.62 AR6 would have similar failings to ARs discussed earlier as it would result in queuing down the eastbound diverge slip road onto the A47 mainline carriageway, giving rise to safety problems as already outlined. AR6 would fail to provide adequate access to the proposed BGBP development and the benefits associated with the BGBP and the BFLF developments would therefore not be achieved. AR6 could not be delivered under the published draft Orders and would fail to meet the first of the Scheme Objectives. It would therefore not be a viable alternative to the published Scheme.

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<sup>295</sup> Doc HA/OBJ27/ALT5

<sup>296</sup> Doc HA/OBJ121/ALT6

Alternative Route 6A (AR6A)<sup>297</sup>

- 7.63 AR6A is the second phase of the proposal put forward by Mr Cockcroft. It would cost significantly more than the published Scheme (£30 million compared to £20 million). Moreover, the overall potential environmental effects would be greater than for the published Scheme due to the larger physical footprint and the increase in the land take of existing agricultural land. AR6A would require land take from the existing BBP and would therefore result in a loss of land designated for employment. As with AR6, a landowner affected by this AR has indicated that his land would not be made available unless it was the subject of a CPO.
- 7.64 A number of Departures from Standards would be required, for various weaving lengths, and the spacing between merges and between successive diverges. Highway safety concerns mean that it is unlikely that all of these Departures from Standard would be acceptable.
- 7.65 AR6A would have similar failings to ARs discussed earlier as it would result in queuing down the eastbound diverge slip road onto the A47 mainline carriageway, giving rise to safety problems as already outlined. It would fail to provide adequate access to the proposed BGBP development and the benefits associated with the BGBP and the BFLF developments would therefore not be achieved. AR6A could not be delivered under the published draft Orders and would fail to meet the first of the Scheme Objectives. In addition, the construction programme would need to be extended to accommodate diversion of the high pressure gas main, such that implementation would be 2019 at the earliest. For all the above reasons AR6A would not be a viable alternative to the published Scheme.

Alternative Route 7 (AR7)<sup>298</sup>

- 7.66 AR7 was put forward by Thorpe St Andrew Town Council but, whilst not formally withdrawn, Mr Eley who appeared for the Town Council indicated that this AR would not be pursued. It is therefore not discussed further here.

Alternative Route 9 (AR9)<sup>299</sup>

- 7.67 AR9 is proposed by Mr J Adams (objector No 129). In summary it would entail a new grade-separated junction with the A47 about 1 mile to the east of the existing Postwick junction. It would cost significantly more than the published Scheme (£44 million compared to £20 million) and land compensation payments would be some £1.9 million more. Two landowners affected by AR9 have indicated that their land would not be made available unless it was the subject of a CPO. Transport disbenefits would result in a BCR of -0.9.
- 7.68 The potential adverse environmental effects would be far greater than for the published Scheme as the larger physical footprint would have a negative impact on PRowS, landscape and visual amenity, the ecology and species in the area. There would also be increased land take of existing agricultural land and a diversion of the existing high pressure gas main would be required, which could take up to 2 years to procure.

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<sup>297</sup> Doc HA/OBJ121/ALT6A

<sup>298</sup> Doc HA/OBJ36/ALT7

<sup>299</sup> Doc HA/OBJ129/ALT9

- 7.69 It is likely that Departures from Standards would be needed for the weaving length between eastbound merge and diverge slip roads at the proposed A47 grade-separated junction, and also for weaving lengths between the slip roads at this junction and those for the proposed dumb-bell roundabout on Smea Lane.
- 7.70 Operational assessment of AR9 indicates that the Meridian Way roundabout would exceed capacity in the AM peak and that Northside roundabout would also exceed capacity in both the AM and PM peaks. In the PM peak significant queues are forecast, extending back from Northside roundabout onto the A47 eastbound carriageway in the 2030 PM peak. Furthermore, the signal-controlled roundabout replacing the existing P&R roundabout would not operate acceptably in future years. The qualitative safety assessment indicates large adverse safety issues.
- 7.71 AR9 could not be delivered under the published draft Orders and would fail to achieve the Scheme Objectives of releasing land for economic development. AR9 would not be a viable alternative to the published Scheme.

Alternative Route 10 (AR10)<sup>300</sup>

- 7.72 AR10, put forward by Mrs M Howes (objector No 24), is a proposal to dual the single-carriageway sections of the A47 between Great Yarmouth and Peterborough. Possible improvements that could form part of this Alternative are East Winch/Middleton Bypass; North Tuddenham to Easton; Blofield to Burlingham; and Acle Straight. The published Scheme would be replaced by this Alternative, which does not propose any modification to the existing A47 Postwick junction and would therefore maintain the current slip road configuration and access arrangements at the Postwick junction.
- 7.73 However, AR10 would not address the problems at the existing Postwick junction and would not enable the approved and committed BGBP and BFLF developments to proceed without introducing traffic problems at the Postwick junction. No part of AR10 could be delivered under the published draft Orders. Each individual improvement would require new statutory procedures and be subject to funding availability. This AR would not meet the Scheme Objectives and would therefore not be a viable alternative to the published Scheme.

Alternative Route 11 (AR11)<sup>301</sup>

- 7.74 AR11 is put forward by Thorpe St Andrew Town Council (objector No 36). Like AR9, it would provide a new grade-separated junction about one mile to the east of the existing Postwick junction, consisting of a new roundabout either side of the A47 connected by a single-carriageway bridge in a dumb-bell arrangement.
- 7.75 It would cost significantly more than the published Scheme (£33 million compared to £20 million) and land compensation payments would be some £1.5 million more. Two landowners affected by AR11 have indicated that their land would not be made available unless it was the subject of a CPO. Although there would be transport benefits, resulting in a BCR of 1.6, the AR would not provide adequate access to the proposed BGBP development, therefore the planning permissions could not be implemented and the development benefits could not be realised.
- 7.76 In addition, AR11 would have the same disadvantages as AR9 with regards to the need for Departures from Standards, the need to divert the high pressure gas

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<sup>300</sup> Doc HA/OBJ24/ALT10

<sup>301</sup> Doc HA/OBJ36/ALT11



main and the potential adverse environmental effects. Operationally, queues would extend back from the Northside roundabout onto the A47 eastbound carriageway and the Postwick P&R roundabout would be over capacity. Moreover, the new Business Park Link and the new dumb-bell roundabout junction would carry very low traffic flows such that the new construction would be hard to justify.

- 7.77 AR11 could not be delivered under the published draft Orders and would fail to achieve the Scheme Objectives. It would therefore not be a viable alternative to the published Scheme.

Alternative Route 12 (AR12)<sup>302</sup>

- 7.78 AR12 is put forward by the NGP (objector No 64). It has some similarities with AR1 and would satisfactorily address some of the geometric layout problems of this latter AR. However, northbound traffic from the existing Postwick Bridge would have to merge with traffic from the eastbound diverge slip road at the same location, and this would introduce added complexity and could cause confusion on the part of drivers. AR12 raises safety concerns due to the short weaving section between the Broadland Way roundabout and the diverge/merge slip roads, which would be significantly below the minimum standard. It is unlikely that these significant Departures from Standards would be acceptable.
- 7.79 In general, the same operational concerns exist with AR12 as with AR1. In particular, long queues of up to 370 PCUs in a single lane are predicted in the 2030 PM peak at Northside roundabout, amounting to a queue of over 2 km which would extend back through the Meridian Way roundabout and the new Broadland Way roundabout. This would result in queues extending back onto the A47 eastbound diverge slip road and onto the A47, giving rise to a regular and unacceptable potential risk of high speed accidents occurring. Furthermore it is predicted that the operation of the new Broadland Way roundabout would not be acceptable, even without the queues predicted that would extend back from Northside roundabout.
- 7.80 Because of the late submission of this Alternative a full economic appraisal has not been undertaken. However, the poor operational performance means that it would not be acceptable for the implementation of the planning permissions for the dependent developments and, therefore, the development benefits would not be realised. Accordingly, AR12 would fail to achieve the Scheme Objectives and could not be considered a viable alternative to the published Scheme.

Alternative Route 14 (AR14)<sup>303</sup>

- 7.81 AR14 is another Alternative put forward by Mr Cockcroft. As with AR12, this Alternative was not submitted in advance of the Inquiry and has not been published in the local press. The HA has carried out a limited desk-top assessment of AR14 but has not undertaken a detailed engineering design, or environmental assessment. It is unlikely that the Type A 2 lane diverge slip road shown for the eastbound diverge slip road would be within standards<sup>304</sup>. It would not be possible to provide a Type B layout on the existing slip road alignment

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<sup>302</sup> Doc HA/OBJ64/ALT12

<sup>303</sup> Doc HA/OBJ121/ALT14

<sup>304</sup> DMRB Volume 6 Section 2: TD22/06 "Layout of Grade Separated Junctions"

- without affecting the River Yare bridge. A Departure from Standard would be required to retain the existing Type A diverge layout.
- 7.82 The proposed Phase 2 alignment would impact on the BFLF development, for which planning permission has already been granted. Phase 2 would also result in significant traffic flows between the existing BBP and the BGBP and this would compromise the ability to encourage walking and cycling access (and hence the sustainable travel planning) for the BGBP development.
- 7.83 Operational assessments of the proposed traffic signal junctions indicate that the junction on Broadland Way would be substantially over capacity with very long queues and delays. In the AM peak, for all forecast years, queuing at this junction would be likely to extend back to the Postwick North-West junction and adversely affect its operation. This in turn could result in queuing across the bridge to the P&R junction and adversely affect its operation. In addition, the Postwick North-West junction would be substantially over capacity in the 2030 AM peak with long queues that would extend back down the eastbound diverge slip road onto the A47 main carriageway. This would present a regular, unacceptable risk of high speed accidents occurring.
- 7.84 A full economic appraisal has not been undertaken, but the very poor operational performance means that it would be unacceptable for the implementation of the planning permissions for the dependent developments and therefore the development benefits could not be achieved. AR14 would therefore fail to achieve the Scheme objectives and could not be considered a viable alternative to the published Scheme.

#### Summary of the Alternative Routes

- 7.85 Alternatives only become relevant if the published Scheme and the draft Orders can be shown to be unacceptable in some material respect. If that proves to be the case, it may then be necessary to consider whether there is some alternative way of meeting the Scheme objectives that would not involve that unacceptable consequence. Only if it is clear that the suggested alternative would not give rise to any unacceptable effects of its own, would it become necessary to consider the realism of the delivery of that apparently acceptable alternative.
- 7.86 In this case the alternatives fail at the first test, as the draft Orders would not give rise to consequences that render the Scheme unacceptable. The Scheme would facilitate the provision of substantial economic growth in line with both national and local planning policy objectives, and on whatever basis this growth is calculated the benefits would substantially outweigh the transport disbenefits.
- 7.87 Furthermore, as detailed above, all of the ARs put forward would fail at the second test, as none can claim to achieve the Scheme objectives without giving rise to unacceptable effects. None of the ARs could deliver the dependent development without unacceptable impacts on the A47 mainline. Several would also give rise to serious design constraints which would preclude them on those grounds, also. In addition, several of the ARs would be unlikely to be deliverable at reasonable expense and within a reasonable timescale, particularly where works would be required to protect or divert the high pressure gas main which runs close to the Scheme to the west of The Grange.
- 7.88 Some objectors found it hard to accept that operational problems were predicted to arise with their ARs, but not with the published Scheme, when they considered that each junction should be having to accommodate the same traffic flows. But

as Mr White explained, such assumptions do not allow for the workings of the traffic model, which tries to replicate driver behaviour by choosing different routes through the network, depending on the particular travel costs on the various routes<sup>305</sup>. As a result, whilst the number of trips between any origin and destination would be the same regardless of which AR was being tested, the routes which traffic would be assigned to, between those origins and destinations, could vary, depending on the predicted operation of the network.

- 7.89 The overall conclusion on this matter is that none of the ARs merits further consideration, in preference to the Scheme.

### **The alleged failure to adequately consider climate change**

- 7.90 Two essential points are made by the main objectors who raise this issue (NNTAG and the NGP). The first concerns the substantive issue of whether the Scheme would have a material effect on climate change. The second concerns the procedural question of EIA.
- 7.91 On the substantive issue, Mr Buchan, for NNTAG, believes that it is necessary for the Scheme to achieve a reduction in carbon dioxide emissions compared to the base figure in 2009, irrespective of any change compared to the DM scenario. Since this is not achieved by 2030 Mr Buchan considers the Scheme must be objectionable, even if the calculation of the change provided by the HA is correct. Cllr Boswell accepts that the proper comparison should be between DM and DS scenarios, but considers that the study area that has been used is too extensive and that it artificially reduces the magnitude of the change in carbon dioxide emissions.
- 7.92 It is clear from the DMRB<sup>306</sup> that the appropriate assessment of the effects of the Scheme requires a comparison of a DM scenario with a DS scenario, effectively comparing "without scheme" and "with scheme". The same point is made in WebTAG Unit 3.3.5<sup>307</sup>. Mr Buchan wrongly claims that there is a scheme-level target for a 15% reduction in carbon dioxide emissions between 2009 and 2030 because the Government has projected a potential fall of that amount for the UK transport sector as a whole by the continuation of "current policies"<sup>308</sup>.
- 7.93 Even if the 15% was a target (which it is not) and even if it applied to individual schemes (which it does not), it is not the effects of the Scheme which mean this "target" is not achieved. In the DM scenario the levels of carbon dioxide emissions at 2030 are just slightly more than they would be with the Scheme in place<sup>309</sup>. Thus any "undershoot" cannot sensibly be attributed to the effects of the Scheme. In addition, no evidence has been presented (by anyone) that, on a UK basis, the transport sector is not going to achieve the current projection, irrespective of what happens in relation to the Scheme<sup>310</sup>.
- 7.94 Mr Buchan starts from the legally binding targets in the Climate Change Act 2008, and then moves to the carbon budgets derived from those targets. But he

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<sup>305</sup> Day 6 Transcript, Page 60 lines 4-24

<sup>306</sup> See paras 3.7 and 3.31 of DD313

<sup>307</sup> See paras 2.1.1 and 2.2.1 on p45 of Doc HA/07/2

<sup>308</sup> See para 2.76 on p17 of Doc HA/07/2

<sup>309</sup> See Table 1 on p7 of Doc HA/07/2

<sup>310</sup> Doc INQ/04: Day 11 Transcript, page 151 lines 6 to 13

then applies those targets and budgets to the subordinate levels of regions, local authorities, and schemes. This approach, in effect, says that a national target is only achievable if every constituent element below the national level achieves a carbon reduction in line with the national target.

- 7.95 However, Government has not sought to place such a strait-jacket on local authorities, let alone on individual schemes. To do so would not only be unduly prescriptive, it would be to ignore the contributions of other initiatives, particularly in the field of transport. Changes to the vehicle fleet over time (including Ultra Low Emissions Vehicles) are expected to play an important part in the achievement of carbon emission reductions from the transport sector. This is recognised in the current Carbon Plan<sup>311</sup>. Whilst they have not been factored into Professor Laxen's calculations, they do mean that the modest reductions he is predicting from the Scheme are likely to be exceeded in reality<sup>312</sup>.
- 7.96 Cllr Boswell takes a different stance, but his concern about the size of the study area disregards both the geographic circumstances of Norwich and its rural hinterland<sup>313</sup>, and the relevant guidance in DD313. He considers that the inclusion of the outlying Norfolk districts (and Waveney) in the modelled highway network means that the carbon dioxide calculation is diluting the changes in movements that are attributable to the Scheme, by the inclusion of areas where there would be no change and so the degree of change is artificially minimised.
- 7.97 However, the modelled network has been identified on the basis that it embraces the areas where changes in movements as a result of the Scheme can be anticipated<sup>314</sup>. Moreover, despite Cllr Boswell's concerns about the extent of the modelled study area, he was unable to suggest any alternative study area other than to say that it should be based on "something that can be attributed to the Postwick Hub scheme"<sup>315</sup>. Essentially that is the study area that Professor Laxen has chosen, so as to capture all the changes resulting from the Scheme, and he was quite clear in his view that there would be no logic in using anything other than the wider study area<sup>316</sup>.
- 7.98 The primary changes are, understandably, in the areas closest to Norwich but there is no rationale for excluding all the changes that can be identified. Accordingly, Professor Laxen has assessed all the changes across the modelled network<sup>317</sup> between DM and DS scenarios. This indicated that in absolute terms, the change would be a minor reduction of some 0.85 kt/year of carbon dioxide by 2030 as a result of the Scheme. As a percentage change this would be a reduction of about 0.062% compared to the DM. Even the interim position in 2020 (when there is a modest increase of 0.55 kt/year) falls below the indicative threshold of 1 kt/year that Cllr Boswell indicated would mean changes were at a scale where offsetting would not be required<sup>318</sup>.

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<sup>311</sup> See paras 2.75 and 2.79 of Doc HA/07/2

<sup>312</sup> Doc INQ/04: Day 8 Transcript, p115

<sup>313</sup> See para 5.8 of Doc HA/07/1; paras 13.65 to 13.67 of DD231

<sup>314</sup> Doc INQ/04: Day 11 Transcript, p128, line 11 to p129, line 11

<sup>315</sup> Doc INQ/04: Day 11 Transcript, p216, lines 1-3

<sup>316</sup> Doc INQ/04: Day 11 Transcript, page 137, line 20 to page 138 line 15

<sup>317</sup> In accordance with the approach suggested in para 3.39, p3/6, DMRB Vol 11, Section 3, Part 1 (DD313)

<sup>318</sup> Doc INQ/04: Day 11 Transcript, p178, lines 14-23; Table 1 on p7 of VHA/07/2

- 7.99 Although Cllr Boswell subsequently sought to withdraw his suggestion that 1 kt/year would be an appropriate threshold, on the grounds that he made it “on the fly” under cross-examination, the use of closing submissions to withdraw evidence given to the Inquiry is not appropriate. The evidence is the evidence and submissions are submissions. The weight to be given to this part of Cllr Boswell’s evidence should have regard to the fact that he has undoubtedly given this matter considerable thought over the years.
- 7.100 The sensible conclusion on this topic has to be that there has been a more than adequate assessment of the potential for the Scheme to have effects on climate change, and a robust modelling exercise that fully reflects current guidance has shown that the effects would be a minimal improvement compared to the position without the Scheme.
- 7.101 With regards to Mr Heard’s query, as to what evidence there is that “adaptation” has been taken into account in these proposals, as required by the Climate Change Act 2008, the HA’s response is that climate change adaptation for roads principally requires consideration of increased rainfall in the design of the drainage network. This is embedded in highways drainage design which requires climate change impacts on rainfall to be allowed for in scheme design<sup>319</sup>.
- 7.102 On the procedural point raised by objectors concerning the EIA, it is correct to note that the EIA at the planning application stage did not fully assess the carbon dioxide effects of the proposal, but focused instead on the built development and the development traffic. Wider traffic changes on the improved highway network were not included in that assessment and none of the statutory consultees at the planning application stage suggested there was a need to include such changes.
- 7.103 However, it is now abundantly clear that the changes to carbon dioxide emissions as a result of the Scheme, when properly assessed by reference to the relevant study area, would not constitute a “significant environmental effect” and so there is and was no need to assess the changes to these emissions as part of the EIA. Nor does the effect on carbon dioxide emissions call into question the decision made by the HA on behalf of the SST that the Scheme did not require EIA<sup>320</sup>. Whilst Cllr Boswell has asked for this decision to be withdrawn, there is no basis for considering there would be a significant environmental effect and so no basis for changing the decision reached<sup>321</sup>.
- 7.104 That conclusion has been supported by clear reasons, taking into account not only the views of Professor Laxen but also the views of Cllr Boswell and Mr Rapson (on behalf of Lothbury). Whilst it is open to the Inspector to consider whether he should invite the Secretary of State to revisit the question of whether EIA should be required, there is no evidence to suggest that the conclusion reached was erroneous or that carbon dioxide changes would constitute a significant environmental effect so as to require assessment in a formal EIA. There is therefore no basis for suggesting that the decision needs to be revisited.

**The alleged failure to consider the Scheme in conjunction with the NDR**

- 7.105 Objectors contend that there would be prejudice to a proper consideration of the NDR if the current draft Orders are made on a stand-alone basis. However,

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<sup>319</sup> see DD261

<sup>320</sup> Doc HA/11

<sup>321</sup> Doc HA/40

whilst it is accepted that making the Orders would limit the options for any likely NDR route to connect to the A47, any prejudice would be reduced to the minimum as the Scheme reflects the current proposals for the NDR as shown on the BLP Proposals Map<sup>322</sup>. To ignore the NDR in the design of the Scheme when the NDR is a proposal of LTP3 (and the NATS), and has secured Programme Entry from DfT (and features in the recent Command Paper "Investing in Britain's Future")<sup>323</sup> would be perverse.

- 7.106 Assertions that the Orders are a "back-door" route to secure permission for the NDR are simply wrong. There is nothing "back-door" about the Orders process. Planning permission has already been secured for the Scheme and any further consents for the NDR will be a matter for NCC to resolve and address.
- 7.107 The final point raised by objectors is that it is inconsistent for the HA to present a case for the Scheme on a stand-alone basis, whilst NCC is currently consulting on a combined project which includes the Postwick Hub works within a proposed NDR NSIP. But this fails to recognise the timescale implications of progressing infrastructure projects. NCC has indicated that it wishes to proceed with the NDR and the NSIP route it has chosen involves considerable pre-application consultation, which has now commenced. Clearly, at present the outcome of this Inquiry is unknown and neither the HA nor NCC would seek to presume its outcome, or the timescale for it<sup>324</sup>.
- 7.108 In these circumstances, it is wholly unsurprising that NCC has taken the cautious view of including the works that comprise the Scheme within its NDR proposal, so that that proposal can proceed to its next stage. This enables NCC to minimise any delay to either proposal by allowing for both to be approved on a separate basis but also recognising that the decision on the Orders is simply unknown.

### **Individual Objections**

- 7.109 In terms of the individual objections, the current position is that objections remain outstanding from 127 separate objectors<sup>325</sup>. There is one statutory objector (objector No 3), namely the Postwick with Witton Parish Council, for whom Mr Woods presented evidence at the Inquiry. However, whilst he maintained his objection, particularly in relation to the closure of the eastbound slip road, he welcomed the proposal that a pedestrian/cycle route would be provided on the slip road, if it was to be closed<sup>326</sup>.
- 7.110 The remaining objections are from non-statutory objectors. The HA has provided a detailed Rebuttal Proof (or Proofs) to all objectors who have appeared at the Inquiry<sup>327</sup>, and Rebuttal Proofs have also been prepared for a number of objections where the objector decided not to attend the Inquiry<sup>328</sup>. These Rebuttal Proofs are comprehensive and fully address all of the points raised, with the main contentious issues being addressed above. There were, however, some

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<sup>322</sup> DD366

<sup>323</sup> See para 2.6 and Table A2 of Doc HA/34

<sup>324</sup> See Doc INQ/04: Day 3 Transcript, p35, lines 13-21

<sup>325</sup> Of the 131 objectors referred to in the HA's closing submissions, 2 had subsequently deceased, 1 could not be contacted and one signed a SOCG and did not pursue their objection further.

<sup>326</sup> See Doc INQ/04: Day 7 Transcript, p15, lines 16-24

<sup>327</sup> Objector Nos 2, 8, 12, 24, 28, 36, 52, 64, 77, 81, 82, 86, 121, 127, 131, 132

<sup>328</sup> Objector Nos 27, 35, 128, and 129

matters raised in the closing submissions given by NNTAG which warrant separate mention here.

- 7.111 The first point relates to NNTAG's reference to the hearings into the remitted part of the JCS and the fact that an addendum on transport carbon emissions is to be prepared as part of that process. The fact remains, that those hearings only relate to the remitted part of the JCS, with that Inspector making it clear that he is not considering wider matters concerning the adopted JCS<sup>329</sup>.
- 7.112 The second point relates to NNTAG's criticism of the HA's traffic assignments which show that implementation of the Scheme would result in some traffic which currently uses the eastbound diverge slip road to reach the Yarmouth Road (West) area, reassigning to enter and exit Norwich via the Southern Bypass junction at Trowse. Although NNTAG maintained that the deterrent effect of the Scheme on the eastbound diverge slip road would not be offset by the west bound slip road, Mr White clearly explained the reasoning for the reassignments and why improving traffic conditions for drivers using the westbound diverge slip road would balance flows at the Postwick junction<sup>330</sup>.
- 7.113 The third point NNTAG raises is that the provision of the 1,600 dwellings is not solely dependent on the improvements to the Postwick junction, but also require the provision of the link road from Broadland Way to Plumstead Road East. This is quite correct, but the link road now has the benefit of planning permission as part of the BFLF permission, with the development site being under the control of Lothbury, the proposed developer. Whilst Mr Radford, expressed some concerns about the timescale for delivery of those dwellings, it was clear from his evidence that Lothbury has every intention of bringing this development forward.
- 7.114 NNTAG also comments that Professor Owen has not considered the effect of the Scheme on any loss of employment at Great Yarmouth. However, evidence on this was provided by Mr Starkie on behalf of New Anglia LEP<sup>331</sup> and Mr Morris for the HA<sup>332</sup>, both of whom referred to the complementary relationships between Great Yarmouth and Norwich.
- 7.115 NNTAG asserts that the HA did not dispute that the Postwick Hub design has been determined by the County Council's plans for a NDR A47 Postwick junction connection. That is not correct, as can be seen both in Mr Kemp's written evidence<sup>333</sup>, and in his response to cross-examination by NNTAG<sup>334</sup>, where he made it quite clear that the design with or without the NDR would effectively be the design that appears before this Inquiry.
- 7.116 A further matter raised by NNTAG is its view that the Scheme is highly likely to attract people to commute by car from Great Yarmouth to jobs at Postwick. However, figures 5.2 and 5.3 in Doc HA/05/2 show the predicted flows on the A47 east of Postwick and it is clear that the traffic model is not identifying significant changes in flows that might jeopardise the performance of the A47 east of Norwich.

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<sup>329</sup> See paras 2.3 and 2.4 of Doc HA/RB/OBJ64/4

<sup>330</sup> See Doc HA/54

<sup>331</sup> Doc INQ/04: Day 11 Transcript, page 221, line 15 to page 222, line 9

<sup>332</sup> Doc INQ/04: Day 10 Transcript, page 18, line 4 to page 19, line 6

<sup>333</sup> paras 6.3.2, 6.3.19-6.3.23 and 13.2.12 of Doc HA/03/1

<sup>334</sup> Doc INQ/04: Day 10 Transcript, page 86, lines 1-12

- 7.117 The final NNTAG point that needs to be addressed is its assertion that the HA and NCC have failed to consider alternatives to the Scheme which did not include the BGBP and the Postwick P&R extension. However, both BGBP (which is a development promoted in the statutory development plan) and the P&R extension, have planning permission, with the P&R permission having been implemented. The HA does not consider it is reasonable to have modelled a scenario without those existing commitments.
- 7.118 On other matters, it is of note that although Mr Bowell (objector No 2) sought to make a case for improvements to the Yare viaduct to cater for cyclists, there is no rational basis for suggesting that such an improvement is required as a consequence of the changes to the highway network proposed by the Orders. In reality Mr Bowell conceded this in his evidence<sup>335</sup>. The bodies representing cycling groups and interests have withdrawn their objections<sup>336</sup>. In addition, when informed, at the Inquiry, that the proposed relocated bus stop at the junction of Church Road with Brundall Low Road is only used by a school bus, Mr Bowell indicated that his request for an extended footpath to serve this bus stop was not to be treated as an objection to the Scheme.
- 7.119 Furthermore, although a number of existing businesses made representations about the likely impact of the Scheme, it was apparent that there was a lack of understanding of the real scale of the changes in terms of additional journey times. In the particular case of MDL (objector No 131), the nature of their night-time operations means that the extra journey time would be about 30 seconds, for one direction only. Whilst any detrimental effects on existing businesses are regrettable, they have to be seen in the light of the substantial new economic opportunities that the Scheme would enable.
- 7.120 Although some objectors were fearful of the consequences of a traffic signal failure at the proposed P&R junction, this junction would be remotely monitored by NCC as is the case with all signal sites across Norfolk. Any faults would be automatically notified to NCC's traffic control centre and the junction would be classed as a priority site for fault and maintenance support. As a result engineer support would be available on a "24/7" basis.
- 7.121 Mr Heard commented that as there is no evidence from the emergency services, it must be assumed that they have not been consulted regarding the Scheme. This is not the case. The Scheme, along with the BGBP development, has been through the necessary planning processes and consultations twice (due to a legal challenge to the first planning permission). All of the emergency services are consulted as statutory consultees as part of the planning process and no objections were raised by those services.
- 7.122 Mr Heard also comments that the adoption of a "pooled" Community Infrastructure Levy (CIL), between the constituent authorities of the GNDP, adds to the economic uncertainty of infrastructure projects such as the Postwick Hub. However, such matters are not relevant to this case as the funding for the Postwick Hub Scheme has already been approved by central Government, as has been explained earlier.

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<sup>335</sup> Doc INQ/04: Day 7 Transcript, pp33-34

<sup>336</sup> Docs HA/29 and HA/32



- 7.123 In addition, Mr Heard made reference to the Social Values Act<sup>337</sup>, and queried how the Scheme would accord with the Natural Environment and Rural Communities Act of 2006, although no direct objection was lodged on these points. In any case, the Public Services (Social Value) Act 2012, excludes public works contracts and so is not directly relevant to this Scheme. Moreover, the Scheme has been subject to full EIA.
- 7.124 On a final, general point, it should be noted that there is no remaining objection to the stopping up of Footpath No 2.
- 7.125 Any other remaining objections have been responded to by the HA in the objection files, with specific correspondence responding to each objection<sup>338</sup>.

### **Overall Summary of the HA's Case**

- 7.126 The merits of the 2 Orders are inextricably linked and have to be considered together. However, there are no outstanding objections to the proposed stopping up of the 2 private means of access so there is no need to address section 125 of the Highways Act 1980. Similarly, as there are no outstanding objections to the stopping up of Footpath No 2 there is no need to address section 14 of this Act in relation to that highway. It is clear that in both these cases, users would be provided with a reasonably convenient alternative.
- 7.127 The key tests are therefore the interplay between sections 10 and 14 of the Highways Act 1980 in relation to the changes to the slip roads and their proposed replacements. In order for the existing slip roads to be stopped up, the Secretaries of State will need to be satisfied that "another reasonably convenient route" would be available to cater for all previously possible movements. This involves an assessment of the new slip roads, because the HA relies on their provision as an essential part of the "reasonably convenient route" that would be made available.
- 7.128 The HA considers its evidence clearly makes the case for stopping up the slip roads, because the new arrangements which would be provided by the Scheme would be "reasonably convenient" to highway users. This is an objective test, rather than a comparative test with the existing situation. Equivalent replacement is not required and the fact that some journeys would be longer than is currently the case does not mean that they would not still be "reasonably convenient". All movements would continue to be possible and whilst the transport disbenefits of the necessary re-routings have been acknowledged, the case for the Orders is nonetheless "expedient", because of the benefits that would be enabled.
- 7.129 The transport network at Postwick has the opportunity to be an engine for economic growth. That is part of the proper function of an important element of public infrastructure. That growth, which has been approved through the planning process, both in the development plan and by the grant of planning permissions, is being held back by the deficiencies of the present arrangements. Change is needed, and the Scheme would deliver that change. There have not been shown to be any lesser alternatives that could achieve the same outcomes. None of the objections should therefore be upheld, and the Secretaries of State are invited to make the Orders, as proposed to be modified.

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<sup>337</sup> Assumed to be the Public Services (Social Value) Act 2012

<sup>338</sup> See Doc INQ/02

## **8. CONCLUSIONS**

- 8.1 Bearing in mind the submissions and representations I have reported, I have reached the following conclusions, reference being given in superscript brackets <sup>□</sup> to earlier paragraphs where appropriate.

### **Structure of Conclusions**

- 8.2 These conclusions first set out the tests which the Slip Roads Order (Slip RO) and the Side Roads Order (Side RO) must satisfy if they are to be made. They then review and consider the proposed improvements to the Postwick Hub junction ("the Scheme" or "the Postwick Hub Scheme") and the associated proposal for the Broadland Gate Business Park (BGBP), in the context of the current and emerging planning and transport policies and strategies for the area.
- 8.3 The matters raised by objectors, the vast majority of whom are non-statutory, are dealt with next. Many of the objections contain common themes and, where possible and appropriate, these are dealt with on a topic basis to reduce repetition. Some of the points raised are of limited, direct relevance to the Slip RO and the Side RO but, in the interests of natural justice, these objectors were heard at the Inquiry and written submissions were also accepted. However, where these relate to matters which are clearly outside the scope of this Inquiry, they have not been responded to in detail in these conclusions.
- 8.4 Consideration is given to the various Alternative Routes (ARs) suggested by objectors, and to other more general matters raised by objectors, which do not fall easily within the aforementioned topic headings. Finally, the conclusions are drawn together into recommendations on each of the Orders.
- 8.5 I have taken account of the Environmental Statement (ES) submitted to support the joint planning application for the BGBP and the Scheme, together with the revised ES of April 2013 and all other environmental information submitted in connection with the Scheme, in arriving at my recommendations<sup>[1.4]</sup>.

### **The Statutory Tests against which the Orders need to be assessed**

- 8.6 The Slip RO is drafted under sections 10 and 41 of the Highways Act 1980. It would authorise the new slip roads to be constructed, connecting the eastbound carriageway of the A47 trunk road with the A1042 Yarmouth Road (as proposed to be improved by the Secretary of State for Transport (SST)) at the existing Postwick junction (referred to in the draft Orders as the Postwick Interchange).
- 8.7 The requirements of local and national planning policies and the requirements of agriculture must be borne in mind when making changes to the trunk road network. Furthermore it is a requirement that the changes are expedient for the purpose of extending, improving or reorganising the national system of routes in England and Wales. Many of the objections touched on matters covered by these tests, and they are explored in the following sections.
- 8.8 The Side RO is drafted under Sections 12, 14 and 125 of the Highways Act 1980. It would provide for roads, accesses and public rights of way (PRoWs) adjoining or crossing the trunk road to be altered or diverted as necessary. It would also authorise the SST to provide new means of access and alterations to existing highways, footpaths and private means of access (PMA) to premises as necessary.

- 8.9 Provision has to be made for the preservation of any rights of statutory undertakers in respect of their apparatus, and no stopping up order shall be made unless either another reasonably convenient route is available or will be provided before the highway is stopped up. Furthermore, the stopping up of a PMA shall only be authorised if the Secretaries of State are satisfied that no access to the premises is reasonably required, or that another reasonably convenient means of access to the premises is available or will be provided.
- 8.10 Many of the objections oppose the Scheme on grounds relating to the alternative routes proposed to be provided under the Side RO, and these are discussed in the following sections. It is of note, however, that none of the extant objections relate to either the proposed re-routing of Postwick Footpath No 2<sup>[2.8, 3.56]</sup>, or the replacement PMAs to Heath Farm and The Grange. The first of these points is discussed in paragraph 8.81 below.
- 8.11 On the second point, the replacement PMA for Heath Farm would be provided through implementation of the Scheme<sup>[3.54]</sup>, whilst the replacement PMA for The Grange would be provided through a separately granted planning permission<sup>[3.54-3.55]</sup>. Both would be reasonably convenient alternatives to the current accesses and, accordingly, I conclude that these replacement PMAs would satisfy the relevant test in the Side RO.

### **Policy Considerations**

- 8.12 As noted above, the statutory tests for the making of the Orders need to take account of the requirements of local and national planning policies and the requirements of agriculture when changes to the trunk road network are being considered. In this case, the key starting point in the consideration of this matter is the fact that the relevant developments, including the Scheme itself, all benefit from extant planning permissions, granted relatively recently<sup>[1.2, 3.26, 3.28]</sup>.
- 8.13 The BGBP and the Scheme were the subject of a hybrid planning application which sought outline planning permission for the business park and full planning permission for the highway works. Although the original planning permission for this joint proposal was the subject of judicial review, outstanding matters were resolved and a fresh planning permission now exists<sup>[1.2]</sup>. Some of the necessary highway works are not covered by the planning permission as they can be carried out under permitted development rights<sup>[1.2]</sup>.
- 8.14 The BGBP was granted planning permission as it is in accordance with all relevant policies of the development plan, including Policy 9 of the Joint Core Strategy (JCS), which deals with the strategy for growth in the Norwich Policy Area (NPA), within which the Postwick junction and BGBP lie. Amongst other matters this policy makes specific provision for an extension to the Broadland Business Park (BBP) of around 25 hectares (ha) for general employment uses<sup>[3.33]</sup>.
- 8.15 However, existing and forecast traffic problems at the Postwick junction, and the Highways Agency's (HA's) need to protect the operation of the A47 trunk road, mean that development in the area is being constrained until the Postwick junction is improved. As a result, the outline planning permission for the BGBP is subject to a number of conditions, including Condition 3 which requires that the approved improvements to the Postwick junction be completed and made available for public use before any part of the business park development is occupied<sup>[3.25]</sup>.

- 8.16 These junction capacity problems are also preventing any further development at the existing BBP, established under policies TSA2 and TSA3 of the Broadland District Local Plan (BLP)<sup>[3.24]</sup>. These policies make it clear that a maximum of 85,000 sqm of floorspace could be constructed as the first phase of the business park development, but that before any second phase of development could take place, 2 important elements of highway infrastructure had to be provided.
- 8.17 The first of these is a link road through the development area, to join up with Plumstead Road<sup>[3.24, 3.27]</sup>. The second is that an improvement to the A47 Postwick junction needs to be carried out<sup>[3.24]</sup>. As the first phase floorspace limit has now been reached, further development at BBP is dependent upon, amongst other things, improvements to the Postwick junction.
- 8.18 The other piece of highway infrastructure referred to above - the link road to Plumstead Road - forms part of the recently granted outline planning permission for the Brook Farm/Laurel Farm (BFLF) development, which will extend the BBP northwards, providing some 600 dwellings and 14.6 ha of employment land<sup>[3.24]</sup>. This permission is conditioned to prevent occupation of any part of the development until both the link road and the Postwick Hub Scheme have been completed and are available for use.
- 8.19 In addition to these constraints on employment and housing development, the existing and forecast conditions at the Postwick junction also mean that a 500 space extension to the Postwick Park & Ride (P&R) site, for which planning permission exists, cannot be fully progressed. Whilst a start was made on this development in April 2013, Condition 14 attached to the permission means that the extended facility cannot be brought into use until the Postwick Hub Scheme has been implemented<sup>[3.28]</sup>.
- 8.20 The aforementioned developments are all important elements in the growth strategy for the area, and clearly there is an urgent need to resolve the infrastructure constraints which are preventing them from being progressed.
- 8.21 In terms of the housing strategy contained in the JCS, Policy 4, which deals with housing delivery, seeks to ensure that allocations can be made to secure at least 36,820 new homes by 2026, with about 33,000 of these within the NPA<sup>[3.31]</sup>. At present there is still some uncertainty regarding growth of about 10,000 houses in what is referred to as the North East Growth Triangle (NEGT), as this element of the originally adopted JCS was remitted for further consideration following a legal challenge from Stop Norwich Urbanisation (SNUB)<sup>[3.30]</sup>. Hearings into this remitted part of the JCS were taking place at the same time as this Inquiry into the Slip RO and the Side RO, and the outcome is not yet known.
- 8.22 However, the remainder of the JCS remains adopted, including the overall scale of housing and jobs growth, the requirement for a new allocation at BBP, and the identification of the need to improve Postwick junction<sup>[3.30]</sup>. Therefore, leaving aside any considerations of housing provision in the NEG, the adopted JCS still makes allowance for a minimum of 1,600 dwellings to be delivered in this general area, subject to acceptable improvements to Postwick junction (in the form of the Postwick Hub Scheme or a suitable alternative)<sup>[3.32, 3.60]</sup>.
- 8.23 The 600 dwellings contained in the BFLF permission would be included within this 1,600 dwelling target, and I accept the HA's point that there is therefore an "in principle" commitment to a further 1,000 dwellings in this area, although there is no specific allocation or planning permission for them at present<sup>[3.46, 5.30]</sup>. These 1,600 dwellings would make an important contribution to the overall JCS housing

- target. Moreover, as the latest AMR demonstrates that there is currently not a 5-year supply of housing land, and that the biggest shortfall is in the Broadland part of the NPA, removing any obstacles to the release of these dwellings clearly is of great importance<sup>[3.31]</sup>.
- 8.24 In terms of employment growth, JCS Policy 5, which deals with the economy, has a target of making provision for at least 27,000 additional jobs in the period up to 2026<sup>[3.33]</sup>. The land which would be released by the Scheme would provide a significant contribution to the delivery of this economic potential. Indeed, it is estimated that around 5,000 jobs could be provided by the developments now permitted at BGBP and BFLF<sup>[3.34]</sup>.
- 8.25 Furthermore, the submitted evidence indicates that negotiations with the Government to develop a "City Deal" for Norwich are predicated on significantly exceeding job growth targets<sup>[2.2, 3.35]</sup>. The expansion of BBP provides the best general employment opportunity for early growth, but the inability to implement this expansion, through the already permitted BGBP and BFLF proposals, would undermine the JCS's economic growth strategy.
- 8.26 Turning to transport matters, the NATS was updated and agreed by NCC's Cabinet in 2010<sup>[3.36]</sup>. It has been designed to help deliver growth, address problems such as congestion, and to help ensure that Norwich develops as a sustainable urban community.
- 8.27 NATS promotes travel choice, recognising the need to maintain the economic health of the Norwich area, and does not propose radical restrictions on vehicular access. It does, however, have a policy of accommodating the growth in number of trips by means other than the car, and aims to achieve this through promotion and improvements of other modes, including public transport. A Northern Distributor Road (NDR) is identified as an important element of the NATS strategy, to enable growth within and around Norwich<sup>[3.36]</sup>.
- 8.28 NCC's latest LTP<sup>[3.37]</sup> was adopted in March 2011 and is supported by an LTPIP which covers the period from 2011 to 2015<sup>[3.37]</sup>. Chapter 4 of the LTP deals with sustainable growth and includes, within its short to medium term priorities, the requirement that the implementation plan for transport in the Norwich area, including a NDR, continues to be delivered as part of the JCS for enabling growth in the Greater Norwich area. The LTP states that delivery of the Postwick Hub will alleviate current capacity issues, serve new development at Broadland Gate and form the junction between the NDR and the A47<sup>[3.38]</sup>.
- 8.29 It further states that these improvements will free up capacity on the existing road network in the city centre, providing the scope to implement a package of complementary measures including bus priority, walking and cycling improvements<sup>[3.38]</sup>. In this regard it is of note that the BGBP permission is also subject to a S106 agreement to implement an agreed Travel Plan. This would provide a public transport contribution likely to be in the range of £1.5 million to £2 million<sup>[3.25]</sup>. The Postwick Hub proposal and the NDR are both included in the capital programme in the LTPIP<sup>[3.38]</sup>.
- 8.30 Furthermore, Policy 7 of the LTP, dealing with Strategic Connections, highlights the importance of the A47 in the region. It explains that it is part of the European TEN-T network, providing the main east-west road connection and route to the Midlands and north of England, and that via a future NDR it would provide a connection to what are referred to as Norfolk's gateways, namely Norwich Airport and the ports at King's Lynn and Great Yarmouth<sup>[3.41]</sup>.

- 8.31 Improvements to the Postwick junction and the protected corridor for the proposed NDR are both shown on the BLP Proposals Map (as modified following adoption of the JCS in 2011) <sup>[3.42]</sup>. The Scheme is shown as located at the end of a proposed BRT corridor linking the BBP/BGBP area with the city centre. All these schemes are also shown, diagrammatically in the proposed implementation plan for NATS which is contained within the JCS <sup>[3.42]</sup>.
- 8.32 Policy 6 of the JCS covers a range of transport aims, including the need to implement NATS; significant improvement to the bus, cycling and walking network including BRT; and enhancing Park & Ride. The JCS also specifically identifies the Postwick junction improvement as one of a package of measures required to deliver growth and facilitate modal shift <sup>[3.43]</sup>.
- 8.33 JCS Policy 9, referred to previously, also highlights that the transport infrastructure required to implement NATS, deliver growth and support the local economy will include the construction of the NDR; significant improvement to the bus, cycling and walking network, including BRT on key routes in the Norwich area; enhancing the Norwich P&R system; and junction improvements on the A47 Norwich Southern Bypass <sup>[3.44]</sup>.
- 8.34 The above points demonstrate the importance of the A47 trunk road, and confirm that a proposal to improve the existing Postwick junction has been a significant and important part of the transport strategy for the area for some years. They also highlight the significance of such an improvement and the implementation of the NATS generally, to the economic growth potential of the area.
- 8.35 Most of the planning permissions referred to above were granted before the National Planning Policy Framework ("the Framework") was issued in March 2012. Clearly, adoption of the BLP and the JCS also preceded the Framework. Nevertheless, as the thrust of the Framework is to promote sustainable economic growth and jobs, the development plan policies referred to above still accord with this more recent national guidance <sup>[3.23, 3.31, 3.97]</sup>.
- 8.36 Indeed, the employment and housing growth opportunities which would be released by construction of the Scheme, coupled with the improvements to non-private car modes of transport which would arise from the BGBP public transport contributions and the P&R extension, would fully accord with the Framework's aims. They would also help to secure sustainable economic growth and thereby align with what the Government has said is the highest national priority <sup>[3.21]</sup>.
- 8.37 Taking all the above points into account, I conclude that development of the BGBP and the associated construction of an improvement to the existing Postwick junction would accord with national and local planning and transport policies. I therefore further conclude that there is no policy impediment to the Scheme proceeding.

### **Issues Raised By Objectors**

#### ***The Principle of New Development in the Postwick Area*** <sup>339</sup>

- 8.38 I acknowledge that some issues concerning the remitted parts of the JCS are still to be resolved <sup>[3.30, 3.33, 5.6, 5.29, 5.35, 5.123, 7.111]</sup>. However, in light of my conclusions on the various policy matters, set out above, I give little weight to those

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<sup>339</sup> Objections covered by this topic include those raised by the following - objector Nos 4, 7, 9, 12, 15, 17, 22, 27, 28, 33, 36, 70, 74, 85, 86, 123, and 132

objections which oppose new development in this area as a matter of principle, or put forward arguments which do not go to the heart of the statutory tests for these Orders. This includes those objections which argue that:

- the BGBP development and other proposed developments are not necessary because there is already an abundant supply of office accommodation;
- planned housing to the north-east of Norwich should, instead, go to the south-west, where the jobs are;
- the Scheme would spoil Norwich by urbanisation;
- the developments should not go ahead as there is plenty of empty, derelict land available;
- that the BGBP does not feature in the BLP;
- that the BGBP and the P&R expansion should not be taken into account when junction improvements are being considered.

8.39 Notwithstanding any final resolution on outstanding JCS matters, such objections are at odds with the adopted planning and transport policies and strategy for the area, and in some cases appear to disregard the fact that planning permissions have already been granted. In these circumstances I conclude that those objections which relate to such matters cannot be supported.

### ***Objections relating to Procedural Matters***

8.40 Several objectors argued that there had been inadequate consultation on the Postwick Hub proposals<sup>340</sup>, and were particularly concerned about what was seen as a lack of opportunity to comment on the proposal to close the eastbound diverge slip road, which had not been part of the original design for the junction<sup>[5.40, 5.77, 7.4]</sup>. I acknowledge that the nature of this proposal, which is essentially a local authority highway proposal which has implications for the SRN, is a somewhat unusual Scheme. It clearly differs from a straight-forward trunk road project, initiated and promoted by the HA, and in this regard I can appreciate the disquiet expressed by some objectors.

8.41 However, it is clear that full consultation was carried out by BDC on the hybrid planning application for the BGBP proposal and the Postwick Hub Scheme, and that this included a specific round of consultation in August 2009, after the application was revised to close the eastbound diverge slip road<sup>[7.3]</sup>. In addition, a further public exhibition into the current, draft Orders was held in February 2012, when they were re-advertised<sup>[7.4]</sup>.

8.42 The advertising of the draft Orders has given interested persons full opportunity to make their comments and objections known on the proposal, and whilst some objectors consider that it would have been more meaningful to have a consultation at an earlier stage, before the Scheme design was finalised, this rather overlooks the fact that planning permission has been properly granted for the published Scheme, following normal planning application and consultation procedures, as detailed above. In view of these points I am satisfied that the consultation process which has been undertaken has been adequate, and has given all those who may have wished to comment on the Scheme, full opportunity to do so.

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<sup>340</sup> Objections covered by this topic include those raised by the following - objector Nos 5, 11, 14, 28, 44, 56, 79, 84, 86, 126

- 8.43 NNTAG expressed concerns about the fact that evidence from the HA and NCC has changed during the lifetime and development of the Scheme, particularly with regards to such matters as traffic information. It is argued that the late presentation of such evidence has adversely prejudiced objectors and has hampered their ability to put forward alternatives to the Scheme. Because of this, objectors have suggested that the draft Orders should be withdrawn and the Order advertisement procedure restarted<sup>[5.3, 7.12, 7.15]</sup>.
- 8.44 However, it is certainly not unusual for evidence to change and evolve as a Scheme is developed. This is particularly the case when, as here, an enforced delay has been imposed on development and progression of the Scheme<sup>[1.1, 3.62, 7.12, 7.13]</sup>. There is a clear need to ensure that in such circumstances evidence is brought up to date, so that the most reliable information is available to allow debate to be undertaken and decisions to be made.
- 8.45 It is apparent that the vast majority of evidence, including all the key documents, was submitted in accordance with the Inquiry Procedure Rules<sup>341</sup> and the timetable drawn up at the PIM<sup>[7.14]</sup>. As such, objectors will have had an adequate opportunity to consider the latest evidence and make comments on it. I accept that submission of some of the HA's Rebuttal Proofs of Evidence did not accord with the PIM timetable<sup>[7.15]</sup>, but Rebuttal Proofs do not form part of the formal requirement for inquiries such as this, and are usually only submitted to assist in the clarification of matters and to help focus concerns.
- 8.46 Having regard to the above points I do not consider that the manner and timescale in which the evidence has been submitted could be said to have unduly prejudiced objectors, or unduly compromised their ability to present their cases. In these circumstances I am not persuaded that there are any grounds for suggesting that the draft Orders be withdrawn and the whole process restarted.
- 8.47 On a separate matter, NNTAG lodged an objection on the grounds that the Scheme has planning permission as a private development and not as a NCC highway project<sup>342</sup>. NNTAG maintains that in those circumstances, DfT Circular 02/2007 and the Guidance on S278 Agreements apply, and that under this latter guidance the SST cannot fetter his discretion as to whether or not to make the Orders. It is NNTAG's view that joint representation of the developer and the HA at this Inquiry, through one Counsel and one set of witnesses, has fettered the SST's discretion<sup>[5.4]</sup>.
- 8.48 It seems to me, however, that this objection cannot be supported, for a number of reasons. Firstly, during the course of the Inquiry, it was clearly established, through letters from the DfT approving the funding for the project, that the joint NDR/Postwick Hub Scheme is correctly categorised as a Local Authority Major Scheme<sup>[1.3, 3.61, 7.5, 7.7]</sup>. Moreover, regardless of the specific route the HA and NCC have chosen to implement the Scheme, the end result of the Order making exercise (if successful), would be to produce public, not private, highways<sup>[3.25, 7.8]</sup>.
- 8.49 Finally on this matter, my reading of the Guidance referred to by NNTAG is that the "fettering of discretion" point means that the SST should not enter into any agreement or contract relating to the construction of the Scheme, until a decision

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<sup>341</sup> SI 1994/3263: The Highways (Inquiries Procedure) Rules 1994

<sup>342</sup> Other objectors who raised concerns about joint submission of the planning application and joint representation include objector Nos 3, 65 and 86



- has been taken on whether or not the Orders should be made. It does not relate to any matters of joint representation at the Inquiry<sup>[5.4, 5.78, 7.7-7.9]</sup>.
- 8.50 The evidence before me is that a Section 6 agreement under the Highways Act 1980 is what is intended between the HA and NCC in this case, and that whilst that currently exists in draft form, it will not be finalised until the outcome of the Inquiry is known<sup>[7.10]</sup>. In these circumstances I am satisfied that the HA has acted properly in this matter, and that the SST's discretion has in no way been fettered, especially as any decision on the Orders will be made jointly by the SST and the SSCLG<sup>[7.11]</sup>.
- 8.51 Several objectors maintained that consideration of the Postwick Hub Scheme was premature, as consultations have not yet been completed on the JCS<sup>343</sup>. In this regard I acknowledge that in view of the fairly lengthy history to this Scheme, some of the objections raising this point were lodged prior to the JCS being adopted, in March 2011. From this point of view, some of the originally lodged objections are now of lesser relevance. As noted above, I do accept, however, that some aspects of the JCS are still under consideration, as a result of a successful legal challenge. But the key matters of concern in the current case, such as the need to improve the existing Postwick junction, and the proposed extension to the BBP, remain within the adopted part of the JCS<sup>[3.30]</sup>. As such their consideration cannot be seen as premature.
- 8.52 Some objectors<sup>344</sup> raised a procedural concern relating to the independence of the evidence provided by the HA witnesses and the difficulty objectors had in testing that evidence, without their own expert witnesses<sup>[5.96, 7.16]</sup>. However, I have been mindful of the fact that all HA witnesses made clear their understanding of their obligations to provide true and professional evidence, and all were made available for cross-examination on their evidence. Several of the objectors took the opportunity to question the witnesses, and in some cases, objectors commissioned their own expert witnesses to present opposing views. Having regard to these points I am satisfied that the HA's evidence is reliable and that adequate opportunities have been provided for this evidence to be tested.
- 8.53 Finally, as NCC has recently begun a consultation process for the NDR, which includes the Postwick Hub Scheme within its provisions<sup>[5.5, 5.84, 5.133, 5.148]</sup>, Mr Cawdron<sup>345</sup> poses the question as to whether all consultations and Public Inquiries are forgone conclusions<sup>[5.148]</sup>. However, for reasons set out by the HA I agree that as the NDR is clearly an essential element of both the NATS and the JCS, it is a sensible and pragmatic approach for NCC to include the works that comprise the Scheme within its NDR proposal, so that that proposal can proceed to its next stage<sup>[3.36, 3.37, 7.108]</sup>. This in no way indicates a pre-judging of the current Inquiry into the draft Orders.
- 8.54 In summary on the above points, I conclude that there are no procedural matters which would stand in the way of the Orders being made.
- 8.55 Turning to other, general matters of principle raised, although a small number of objectors appeared to argue that no improvement at all is necessary to the existing Postwick junction<sup>[5.85, 5.88, 5.97, 5.101, 5.124, 5.145, 5.157]</sup>, this was not a view

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<sup>343</sup> Objections covered by this topic include those raised by the following - objector Nos 17, 18, 23, 25, 28, 54, 57, 62, 63, 86

<sup>344</sup> This matter was raised by objector Nos 36 and 123

<sup>345</sup> Objector No 127

generally held. Nor is it borne out by the submitted evidence, which not only indicates that there are significant present day queuing and delay problems at the P&R roundabout, but that if this “constrained” traffic was released it would add to and exacerbate present day problems at the Postwick North-West roundabout<sup>[3.6-3.9]</sup>. Moreover, these problems are predicted to significantly worsen in future years, as a result of general traffic growth and, more importantly, the existing problems are preventing already permitted development in the area from taking place<sup>[3.10, 3.19, 3.20]</sup>.

- 8.56 The vast majority of objectors accept that some improvement of the overall junction is necessary, with the main areas of objection relating to the detailed design of the published Scheme. Most of the objections, in one way or another, relate to the design, layout and operational performance of the proposed junction improvement, with the intended closure of the eastbound diverge slip road being that element of the proposal which has attracted most objection and criticism. Although there is some overlap and inter-relation between several of the points raised, they have been grouped together, wherever possible, for convenience and to avoid repetition. They are dealt with in the following paragraphs, under separate sub-headings.

### ***The Design and Layout of the Scheme***

- 8.57 *The Scheme is over-designed, too complex and too complicated.*<sup>346</sup> The Scheme has been designed to accommodate the predicted traffic flows, including traffic forecast to be generated by the dependent developments, with assessments undertaken up to the year 2030<sup>[3.16]</sup>. Whilst some of the written objections raised questions about the assumed level of traffic growth, these were not pursued in any significant way at the Inquiry. Indeed, apart from some criticisms by NNTAG of the treatment of public transport, walking and cycling within the transport model, and some concerns about the way the traffic modelling inter-related with the calculations of TECs – see later<sup>[5.10, 5.18-5.23]</sup>, no objectors seriously disputed the traffic forecasts used in the design of the Scheme. Certainly no firm, alternative traffic growth scenarios were advanced.
- 8.58 To my mind, the submitted evidence indicates that the traffic forecasting and transport modelling exercises have been undertaken in a thorough, rigorous manner and have made realistic and defensible assumptions about future growth, consistent with the adopted development plan strategy<sup>[3.12-3.16]</sup>. I therefore find no grounds to question the traffic forecasts which have been used as the basis for the design of the Scheme.
- 8.59 In terms of the design itself, several objectors make reference to a letter from the Department for Transport (DfT), dated 27 March 2009, which describes the Postwick Hub as being significantly over-engineered without the NDR in place<sup>[5.16, 5.81, 5.127]</sup>. It is clear, however, that this DfT view was provided at a relatively early stage in the development of this proposal, well before the Scheme which is now the subject of this Inquiry was accepted for Government funding<sup>[3.59-3.64]</sup>.
- 8.60 The acceptance of the combined NDR/Postwick Hub Scheme for funding, and confirmation that the funding reserved for the Postwick Hub Scheme would be released in advance of the funding contribution for the NDR, is detailed in DfT letters dated 15 December 2011 and 3 August 2012<sup>[3.62-3.64, 7.35]</sup>. This acceptance

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<sup>346</sup> Objections covered by this topic include those raised by the following - objector Nos 4, 7, 8, 11, 14, 15, 21, 24, 27-31, 35-37, 40, 42, 43, 48-53, 56, 58-60, 64-70, 72, 75, 77, 78, 86, 121, 123, 124, 127 and 129

makes it clear that whatever the DfT's previous views were, it is now content that the design of the Scheme is acceptable.

- 8.61 Notwithstanding the DfT's acceptance of the Scheme design, other objections under this heading referred to the Scheme as being over-designed and having a complicated and confusing layout. However, those objectors who are critical of the Scheme's design and layout do not appear to have had much regard to the various constraints which the HA has indicated have had to be taken into account and accommodated in the final design<sup>[3.48, 7.25, 7.26]</sup>.
- 8.62 These comprise the location of the River Yare/Railway Bridge and the location and design of the existing Postwick Bridge; the traffic capacity of the existing junction and of Yarmouth Road (West); the vertical profile of the A47 at this location and its limiting effect on the possible locations for a new bridge; the presence of a high pressure gas main to the east of the junction; the need to limit impact on properties at Heath Farm and within Postwick Village; and the need to respect the approved planning permission for the BGBP and ensure that any new road infrastructure would be able both to serve that development and avoid utilising the footprint of the development<sup>[3.48]</sup>.
- 8.63 The HA's Scheme Design witness, Mr Kemp, explained that if the existing capacity problems at the Postwick junction are to be satisfactorily addressed, and the permitted development accommodated, then the constraints highlighted above necessitate both closing the existing eastbound slip roads and providing a new bridge over the A47<sup>[3.52, 7.26]</sup>. I have noted that the HA and NCC explored a number of options to try to avoid closing these eastbound slip roads, but that no practicable alternative solution could be found<sup>[3.50-3.52, 7.34]</sup>.
- 8.64 The HA's position is therefore that once the constraints are taken into account the proposed layout not only represents a practical and cost effective design solution, but that there is no significantly reduced scale of improvement that would be workable, even if no future connection to the proposed NDR was planned<sup>[7.115]</sup>. This is borne out by the HA's assessment of the ARs (AR1 to AR14) put forward by objectors and discussed in more detail in the following main section, where the operational performance of the Scheme is discussed. On the basis of the submitted evidence I see no grounds to take a contrary view on these points.
- 8.65 In this regard, I have noted the comment from Mr Eley, representing Thorpe St Andrew Town Council, that the retention of the existing eastbound slip road should have been considered as a constraint in the scheme design<sup>[5.95]</sup>. It is clear, however, as noted above, that although the HA and NCC endeavoured to produce a design which kept this slip road open, it did not prove possible. In these circumstances I consider it both understandable and acceptable that the current design has been adopted, and because of this, this objection cannot be supported.
- 8.66 With regard to those objectors who claim that the Scheme layout is unduly complicated and would be confusing to drivers, it is certainly the case that the Scheme would result in some significant changes to some current movements through the junction. However, whilst the proposed layout may well seem somewhat involved when viewed in plan form, I do not consider that it would prove to be unduly difficult or confusing to negotiate in practice.
- 8.67 All of the individual elements – merges and diverges, roundabouts and signal-controlled junctions – would be familiar to all drivers, and details of what appears

to be a rational and sensible signing strategy have been included in the HA's SoC<sup>[3.52]</sup>. Whilst drivers may experience some difficulties the first few times they use the junction, I see no good reason why it should give rise to any insurmountable problems.

- 8.68 In view of all the above points I am satisfied that the chosen design is an appropriate and satisfactory response to the need to accommodate predicted traffic flows whilst producing a safe design, in accordance with the relevant standards, and responding to and accommodating the physical constraints described above.
- 8.69 *The Scheme would not be safe and would lead to increased numbers of accidents.*<sup>347</sup> A number of objectors pointed out that the existing Postwick junction has a good safety record, and argued that introducing greater complexity with more traffic travelling at higher speeds is likely to result in increased numbers of accidents<sup>[5.11, 5.88, 5.161]</sup>. Particular criticism was levelled at the proposed signal-controlled P&R junction, which was described by some as likely to become a significant accident black spot<sup>[5.98, 5.103, 5.161]</sup>. However, insofar as the criticism of the proposed traffic signal-controlled junction relates primarily to its design, I have already indicated above that I consider the design and layout satisfactory. In such circumstances I see no reason why it should give rise to any particular accident problem.
- 8.70 Moreover, in terms of overall safety the HA's SoC explains that as network operator, the HA is satisfied that the Scheme has been designed in accordance with standards as set out in the DfT's DMRB and has been subject to a series of road safety audits<sup>[2.4, 3.51, 7.14]</sup>. Further safety audits would provide the opportunity to assess the safety performance of the Scheme once built. I consider that this would ensure the continuing safe operation of this junction.
- 8.71 The submitted evidence is, however, quite clear that the Scheme would have an overall accident disbenefit of some £4.19 million, assessed over a 60 year period<sup>[3.72]</sup>. Whilst this may be considered regrettable, I share the HA's view that such a disbenefit would not be unexpected in a situation like this, where despite being designed to safe, modern design standards, the proposed highway layout would result in longer travel distances for a number of journeys<sup>[3.73]</sup>. For reasons set out below, I do not consider that these disbenefits should be decisive in the overall assessment of the Scheme.
- 8.72 *The Scheme would lead to significant congestion and problems if the traffic signals failed.*<sup>348</sup> As has already been noted, some objectors raised specific concerns about the proposed traffic signal-controlled junction which would replace the existing P&R roundabout. The contention was that if an accident was to happen at this junction, or if the traffic signals were to fail, this would cause a major traffic disruption, with significant tailbacks<sup>[5.98, 5.103, 5.161]</sup>.
- 8.73 However, the HA has given a clear response to these objections, pointing out that as is the case with all traffic signal sites across Norfolk, this junction would be remotely monitored by NCC and any faults would be automatically notified to NCC's traffic control centre. In this regard the HA confirmed that this junction would be classed as a priority site for fault and maintenance support. As such,

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<sup>347</sup> Objections covered by this topic include those raised by the following - objector Nos 21, 24, 27-31, 37, 40, 42, 43, 47, 50, 51, 58-60, 65-69, 72, 79, 84, 87-115, 117-120 and 122-124

<sup>348</sup> Objections covered by this topic include those raised by the following - objector Nos 52, 77

engineer support would be provided on a "24 hours a day, 7 days a week" basis<sup>[7.120]</sup>.

- 8.74 There are other traffic signal-controlled junctions in the Norwich area, including other junctions with the A47 Southern Bypass, but no evidence was placed before me to indicate that any past signal failures at other junctions in the area had caused insurmountable problems. Whilst I accept that the layout of this proposed junction differs from others in the locality this is not, in itself, reason to think that it would be more prone to signal failure, or that any such signal failure would lead to the sort of problems suggested by objectors.
- 8.75 The absence of any firm evidence demonstrating a clear likelihood of future traffic problems leads me to the view that the objections made in this regard cannot be supported.
- 8.76 The Scheme would take too much agricultural land and result in a loss of countryside.<sup>349</sup> Evidence submitted to the Inquiry indicates that the Scheme and associated access roads would result in the loss of some 9.8 ha of Grade 2 agricultural land, with about a further 0.76 ha of such land severed by the scheme footprint which would be retained and sensitively planted<sup>[3.82]</sup>. The loss of agricultural land is an important consideration, as Section 10 of the Highways Act 1980 says the requirements of agriculture need to be taken into account when changes to the trunk road network are being assessed<sup>[3.3, 3.84, 3.105]</sup>.
- 8.77 It is the case, however, that adopted Policy 9 of the JCS has identified 25 ha of land in the area of the Scheme for a range of employment uses. Much of this would have to be on agricultural land, and in these circumstances it seems self-evident that the loss of agricultural land in this area, and for these proposals, has been considered acceptable in planning terms<sup>[3.84]</sup>. In any case, I have noted that the land lost would only be a very small percentage (less than 0.05%) of the total Grade 2 land in the Greater Norwich Development area<sup>[3.84]</sup> and, that the Scheme would give rise to no significant issues of agricultural severance<sup>[3.83]</sup>.
- 8.78 For all of these reasons I conclude that the loss of this agricultural land should carry little weight in the overall assessment of the Scheme.
- 8.79 The Scheme would not make proper provision for pedestrians and cyclists.<sup>350</sup> Although a number of objectors have raised objections along these lines, no specific areas of concern have been referred to, with the objections, instead, being more of a general nature. It seems to me, however that the Scheme contains some significant provisions for pedestrians and cyclists.
- 8.80 In particular it would provide a new shared-use facility across the existing Postwick Bridge, linking in with existing cycle facilities detailed on both the Norwich Cycle Map and a strategic cycle map produced by Sustrans<sup>[3.57]</sup>. This provision would include a signal-controlled crossing with specific on-demand phases for pedestrians and cyclists at the proposed P&R signalised junction<sup>[3.57]</sup>.
- 8.81 An improvement to Postwick Footpath No 2 also forms part of the Scheme<sup>[3.56]</sup>. Whilst I acknowledge that this would result in an increased length of journey for pedestrians of some 780 m, it would remove the current at-grade, uncontrolled

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<sup>349</sup> Objections covered by this topic include those raised by the following - objector Nos 4, 6, 7, 9, 11, 12, 14, 15, 19, 20, 22, 24, 28, 33-35, 56, 70, 71, 79, 127

<sup>350</sup> Objections covered by this topic include those raised by the following - objector Nos 4, 5, 7, 11, 14, 15, 19, 27-31, 35, 37, 40, 42, 43, 49-51, 53, 56, 58-60, 64-69, 71, 72, 75, 76, 83 and 124

crossing of the A47 mainline carriageway, and accordingly would result in a much safer facility for pedestrians than the current route<sup>[3.56]</sup>. This is one of the PRowS directly affected by the Scheme, and therefore an important component of the draft Side RO. I conclude that the alternative route proposed to be provided for Postwick Footpath No 2 would be reasonably convenient for walkers to use and would therefore satisfy the Side RO test.

- 8.82 Furthermore, I note that the HA and NCC are now promoting a modification to the draft Side RO which would enable cyclists to continue to use the existing A47 eastbound diverge slip road to connect with the existing and proposed cycle network at the Postwick North-West roundabout<sup>[3.112, 3.113]</sup>. This would clearly mean that cyclists would not be disadvantaged by the proposed stopping up of this eastbound slip road. I consider that proposed modification, which I return to later, would be a clear improvement to the draft Side RO.
- 8.83 I consider that these elements of the Scheme, detailed above, would be beneficial to both cyclists and pedestrians. Significantly, I have noted that specific objections from cycling groups, lodged earlier in the Inquiry process, have been withdrawn, following discussions and negotiations between the objectors concerned and the HA/NCC<sup>[7.118]</sup>. In light of the above points, and in the absence of any specific and detailed objection on this matter, I have to conclude that those objections which contend that the Scheme would not make proper provision for cyclists and pedestrians cannot be supported.
- 8.84 *Transport issues could be addressed by smaller, cheaper options.*<sup>351</sup> Many of the objectors who lodged concerns couched in these general terms provided no further detail of what they meant by “smaller or cheaper” options and it is therefore not possible to fully appreciate what they may have had in mind. It is, however, apparent from the submitted evidence, that the HA and NCC examined a range of options for the improvement of the Postwick junction before deciding upon the published Scheme. Some of these would undoubtedly have been simpler and cheaper than the currently proposed option. But it is clear that none of these alternative options would have been capable of providing an acceptable solution which met the objectives for the improvement of this junction<sup>[3.50-3.52]</sup>.
- 8.85 It is also the case that a total of 13 ARs were submitted to the HA for consideration, with support for 11 of these being maintained at the Inquiry<sup>[1.11, 1.12, 6.1-6.3, 7.48-7.89]</sup>. The operational performance of these ARs are discussed in the following main section, but it is relevant to briefly note here that the HA’s assessment is that none of these ARs could satisfactorily accommodate the predicted traffic flows and meet the Scheme objectives<sup>[3.46]</sup>. Leaving this important point aside for the moment, of the ARs for which a cost was estimated, only 4 would have resulted in a cheaper option than the Scheme, with some of the others estimated to cost considerably more.
- 8.86 The possibility of smaller, more modest improvements was put to the Inquiry by Mr Rapson, who presented traffic evidence on behalf of Lothbury. Mr Rapson accepted the need for the Postwick Hub junction to be improved, but opposed the specific matter of the proposed closure of the eastbound diverge slip road, which he argued had not been wholly justified<sup>[5.115, 5.121]</sup>. To support this view his evidence comprised, in the main, a critique of the HA’s evidence, including

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<sup>351</sup> Objections covered by this topic include those raised by the following - objector Nos 5, 9, 27, 28, 64, 79, 81, 87-115 and 117-123

- criticisms of the HA's approach of using maximum queues rather than average queues to assess the performance of the network and the roundabouts<sup>[5.114-5.119]</sup>.
- 8.87 However, by their very nature, maximum queue lengths would exceed average queue lengths on many occasions. Accordingly, in a sensitive location such as this, where safety is at issue and where there is a clear potential for queues to impede the operation of the SRN, it is important to assess the implications of maximum queues. Reliance on average queue lengths would be neither sensible nor appropriate.
- 8.88 Moreover, despite acknowledging that the operation of the Postwick Hub junction has to be looked at holistically, Mr Rapson's evidence concentrated on the operation of the Postwick North-West roundabout, and how its performance and capacity could be improved by increasing the capacity of both the Meridian Way and Northside roundabouts<sup>[5.116, 5.119, 5.120]</sup>. But such an approach would not address the very long queues and large delays which currently occur on the westbound diverge slip road, and which are predicted to significantly worsen in the various Do-Minimum (DM) scenarios<sup>[3.17-3.19]</sup>.
- 8.89 Furthermore, such an approach does not acknowledge the traffic constraining effect of the P&R roundabout, both present day and in the future DM scenarios, and the "protection" this affords to the North-West roundabout<sup>[3.7, 3.50]</sup>. It is also of note that improving traffic capacity for general traffic on an important radial route such as Yarmouth Road, through improvements at the Meridian Way and Northside roundabouts or the existing railway bridge, would be at odds with the NATS approach which is seeking to promote non-car modes of transport, and develop the Yarmouth Road corridor for Bus Rapid Transit (BRT)<sup>[3.42, 3.44]</sup>.
- 8.90 In short, Mr Rapson put forward no firm proposals for improving the Postwick junction as a whole. Neither he, nor any other objector, was able to demonstrate that the junction could be improved in a manner which would allow the dependent developments to go ahead, and for the P&R site to be extended, through smaller and/or cheaper options than the currently proposed Scheme.
- 8.91 *The relationship of the Scheme to the NDR.*<sup>352</sup> Many of the objectors were critical of various aspects of the Scheme's relationship with the NDR, both in terms of design and timing. These included claims that the Scheme has been designed to be able to accommodate the NDR and can only be justified by construction of the NDR; that the scheme would form the start of the NDR and that by dealing with it in this way NCC is trying to avoid proper scrutiny of the NDR proposals; and that consideration of the Postwick Hub Scheme is premature, as it should form an integral part of a comprehensive planning application with full public consultation for the entire length of the NDR, to enable the traffic impact of the road scheme to be fully assessed.
- 8.92 The history of the Scheme shows quite clearly that in its early days the Postwick Hub junction improvement was being investigated as part of a wider NDR proposal<sup>[5.2]</sup>. As the NDR is an integral part of the NATS, and clearly needs to have a connection with the A47, I consider that such an exercise is perfectly understandable. However, although some objectors see the Postwick Hub Scheme as a way of getting a NDR "through the back-door", this stance does not acknowledge the fact that an improvement of the junction, unconnected with any

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<sup>352</sup> Objections covered by this topic include those raised by the following - objector Nos 3-9, 11, 12, 14, 15, 16, 19-22, 24, 26-32, 34-38, 40-44, 48-53, 55, 56, 61, 62, 64-73, 75, 78, 79, 83-115, 117-124 and 129

- wider NDR proposal, is a pre-requisite of any second phase of development at BBP, and has been since BLP Policy TSA3 was adopted in May 2006<sup>[3.24]</sup>.
- 8.93 Moreover, as has been made quite clear elsewhere in this Report, more recent planning permissions, for the BGBP, the extension to the Postwick P&R site, and the BFLF development, are all directly dependent on an improvement to the Postwick junction – not on the construction of a NDR. Such matters have prompted the need for the Scheme to be separated from the NDR, in both funding and timing terms, although it is clear that in overall assessment terms, the Government has had due regard to both elements of this overall proposal in deciding to allocate funding<sup>[3.59-3.64, 7.35]</sup>.
- 8.94 Objectors who argue that the Scheme and the NDR should be the subject of a joint planning application appear to be ignoring the fact that the Scheme already benefits from a valid, extant planning permission<sup>[1.2]</sup>. Moreover, there appears to be a reluctance on the part of some objectors to acknowledge that there are physical constraints in the vicinity of the existing junction to which any improvement needs to have regard.
- 8.95 In any case, as noted earlier and stated in the HA's SoC, the NDR is a key element of NATS for which NCC adopted a preferred route in September 2005. Furthermore, it is identified as a strategic improvement in the JCS. Whilst the NDR has not yet gone through the planning process, I share the HA's view that it is prudent infrastructure planning to ensure that if the Postwick Hub junction is to be improved, the improvement should have sufficient capacity to cater for other planned development and highway proposals that may come forward in the foreseeable future<sup>[3.68, 3.69, 7.105-7.108]</sup>.
- 8.96 This does not pre-empt or prejudice the planning process for the NDR but rather minimises the potential disruption to the A47 trunk road and the Postwick Hub junction in the event that the NDR is, in due course, approved. If there were a lesser form of junction improvement than the published Scheme, which could be demonstrated to fully cater for predicted growth and the permitted developments, then the objections set out above might carry more weight. But as has already been explained, the physical constraints mean that no suitable alternative proposal has been identified. This is covered in more detail in the section on the ARs, below.
- 8.97 I accept that if the Scheme is approved it would, in practice, limit the route alignments that would be available for consideration to provide the connection between the NDR and the A47. Indeed on this point the HA has acknowledged that to that extent, the Scheme could be seen to prejudice a full consideration of alternative options for this part of the NDR route<sup>[7.105]</sup>. However, the HA is correct to point out that it is invariably the case that transport and planning decisions are made in the context of other emerging proposals which may be at different stages of the approval process. As a result it is not uncommon that decisions taken in relation to one project or proposal may limit the options in relation to another project or proposal. But this is not a reason to not make a decision at all, or to delay making a decision.
- 8.98 In this case the Scheme design is consistent with, and would complement, NCC's published preferred route for the NDR. In turn, this reflects the proposals for the NDR and Postwick Hub in LTP3 and NATS, and which is also the protected route shown on BDC's Proposals Map and shown indicatively in the JCS<sup>[3.42]</sup>. The Scheme therefore minimises, so far as is practicable, the degree of potential



prejudice. In view of these points I consider that the objections raised in this regard cannot be supported.

### Conclusions

- 8.99 Having regard to all the above points, I conclude that none of the objections relating to various aspects of the Scheme's design and layout, including its relationship with the NDR, can be supported. None, therefore, constitute a reason for the Orders not to be made.

### ***The Predicted Operational Performance of the Scheme***

- 8.100 Closure of the eastbound diverge slip road would result in increased journey times and distances which would seriously inconvenience local businesses and local residents.<sup>353</sup> It is clearly the case that closing the eastbound diverge slip road would lead to increased journey distances and times for some users of the proposed Postwick Hub junction, primarily those who currently use the eastbound slip road to reach destinations on the BBP and along Yarmouth Road (West).
- 8.101 This has been demonstrated in both diagrammatic and tabular form in the HA's evidence, which shows that for the AM peak, the maximum increase in journey time for such movements would be just over 2 minutes in 2030. An increase of similar magnitude is predicted for the inter-peak period in this year, with a predicted increase of just over 5 minutes in the 2030 PM peak<sup>[3.71, 7.18]</sup>.
- 8.102 It is the case, however, that many of the journey time increases are predicted to be much lower than these maximum figures, with several movements predicted to increase by less than a minute in all future assessment years. Indeed the HA comments that even in 2030, 83% of the trips which would experience an increased journey time in the PM peak would increase by less than a minute<sup>[7.18]</sup>.
- 8.103 In addition, some journey times are predicted to be shorter with the Scheme, primarily those movements which currently use the A47 westbound diverge slip road to access the BBP or Yarmouth Road (West). The greatest time savings would be recorded in both the AM and the PM peak, where long queues and large delays exist currently and are predicted to continue and worsen in the DM scenarios in future years. For these movements, a maximum saving of just less than 7 minutes is predicted in the AM peak, and just over 5½ minutes in the PM peak<sup>[7.19]</sup>. Some other movements are also predicted to experience journey time savings of up to about a minute.
- 8.104 This demonstrates that, to use the words of some objectors, there would be both "winners" and "losers" in terms of changes to journey times. There would, of course, also be changes to journey distances, with most of those assessed being longer with the Scheme, to some degree.
- 8.105 However, in respect of the above points I share the HA's view that it is important to not simply look at the increases or decreases in journey times in isolation, but to relate them to the larger trips of which these discrete portions will only be part. In this regard, evidence submitted by the HA, and not disputed by objectors, indicates that the average duration of a commuting trip into Norwich, using the existing network, is 33 minutes<sup>[7.18]</sup>.

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<sup>353</sup> Objections covered by this topic include those raised by the following - objector Nos 3, 4, 6-12, 14, 15, 17-25, 28-31, 33, 35,-37, 39-44, 46-52, 54-57, 62-75, 77, 78, 81, 83, 84, 86-115, 117-126 and 129-131

- 8.106 The HA argues that when considered in this context, changes of less than 2 minutes should not be seen as significant, but rather would fall within the typical daily variation of a 33 minute peak period commuting trip. Whilst no firm evidence has been submitted to support this assertion, the fact that peak period travel conditions can be variable and unpredictable leads me to the view that the HA's position is not unreasonable. The HA acknowledges that changes in excess of 5 minutes should be regarded as significant, but points out that such increases are only predicted to arise for trips from A47 (West) to Yarmouth Road (West), and only by 2030. In 2020 the increase on that route would be just over  $3\frac{1}{2}$  minutes<sup>[7.18]</sup>.
- 8.107 In considering the matter of journey time increases I have been mindful of the fact that the dependent developments are not included in the DM scenarios, which assumes the Postwick junction remains in its current form. Instead, growth across the area in the DM scenarios would be based on NTEM figures. In the particular circumstances of this case, the realism of such a scenario has to be questioned, as it would not accord with the adopted planning or transport strategies for the area, nor take account of extant planning permissions which the developers and promoters concerned would undoubtedly wish to see implemented.
- 8.108 But notwithstanding this point, there is no dispute that insofar as existing users are concerned, the Scheme would give rise to transport user disbenefits. Assessed with TUBA, the Scheme would produce PVB of -£74 million in the 60 year assessment period (at 2010 prices, discounted to 2010). As the PVC is estimated to be £25 million, the Scheme would have a Benefit Cost Ratio BCR of -2.9<sup>[3.71]</sup>.
- 8.109 If this were the end of the matter, there would clearly be little merit in pursuing the Scheme as it would not represent VfM using the DfT's guidance, referred to by NNTAG<sup>[5.53]</sup>. However, as already made clear, the Scheme has been put forward as part of a joint application to bring about major employment development in the area, in accordance with the adopted JCS and for which an extant planning permission exists. Moreover, it would enable other permitted employment and housing development to proceed, and would also remove restrictions on the extension to the Postwick P&R site which also benefits from an extant planning permission.
- 8.110 In these circumstances, and having regard to the high national priority placed by the Government on promoting sustainable economic growth and jobs, I consider that the benefits of releasing the economic potential, which these extant planning permissions are clearly capable of giving rise to, should be taken into account in the overall assessment of whether or not the Scheme represents VfM. These additional benefits are discussed in the next section.
- 8.111 *The Scheme should not be pursued as it has a negative BCR and other economic benefits have been overstated.*<sup>354</sup> The HA acknowledges that the Scheme has a negative BCR and that this makes it somewhat unusual<sup>[7.33]</sup>. However, the HA maintained that going ahead with schemes with a negative BCR was not unprecedented, and following questioning from NNTAG it produced examples of 2 such highway schemes which it had taken forward. One of these went ahead because there were strong environmental grounds which were not included in the

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<sup>354</sup> Objections covered by this topic include those raised by the following - objector Nos 28, 35, 64 and 81

BCR appraisal. The second scheme was taken forward because of a Ministerial commitment to improve safety<sup>[5.18, 5.50]</sup>.

- 8.112 NNTAG points out that both of these topics are covered by existing full guidance units in WebTAG<sup>[5.18]</sup>, but maintains that it would be setting a dangerous precedent to use the draft guidance in Unit 3.16 to calculate TEC and Gross Value Added (GVA) benefits and use them to go against the negative BCR for the current Scheme.
- 8.113 The WebTAG Unit 3.16<sup>[3.70, 3.75, 7.42, 7.45]</sup> is, indeed, only available in a draft form, and has been since first issued in January 2010. It is entitled "Appraisal in the Context of Housing Development", but Section 4 makes it quite clear that the DfT recognises that other kinds of land use development, including industrial, impact on transport and can, in some cases, be dependent on some form of transport intervention<sup>[3.75]</sup>. This is clearly the case here.
- 8.114 Section 4 goes on to say that much of the guidance is likely to be readily applicable to other forms of land use, and that the same 2-stage assessment process should be used, as when assessing housing developments. It clarifies that this approach is to first of all assess the benefits of the transport intervention in isolation; and then assess the benefits of the land use development, assuming the transport intervention is provided. This is precisely the approach used by the HA in the current case, and despite the draft status of this WebTAG Unit, evidence presented to the Inquiry confirmed that the DfT had encouraged its use when the Development Pool bid for the NDR (incorporating the Postwick Hub Scheme) was being prepared in 2011<sup>[3.75, 7.42]</sup>.
- 8.115 I have also had regard to the 2007 Statement from a former DfT Permanent Secretary to the Public Accounts Committee, submitted to the Inquiry by NNTAG<sup>[5.51]</sup>. This makes it clear that, at that time, no scheme had gone into construction either as a local authority scheme or a HA scheme that was not defined as VfM. But, importantly, the Statement also clarifies that a VfM calculation is not a narrow BCR calculation done just on the basis of cost and obvious benefits, for example to the motorist<sup>[7.37]</sup>.
- 8.116 Although, in this regard, the Statement highlights environmental benefits and disbenefits, it goes on to refer to a key policy direction for transport investment as supporting productivity and economic growth. This chimes well with more recent Government guidance in the Framework concerning the priorities of the planning system, and the fact that benefits to the economy are important considerations when transport consents are being determined<sup>[3.21]</sup>.
- 8.117 Taken together, these points lead me to the view that the use of draft WebTAG Unit 3.16 is appropriate in this case, and that it would be acceptable to take account of development-related benefits when forming a view on the VfM credentials of the Scheme.
- 8.118 Turning then, to the calculations of TEC and GVA, the HA's case is that the TEC would be lower with the dependent development and the Scheme, than if the Scheme was constructed but development took place more widely in the local area and was constrained to NTEM figures. This is stated to be an expected outcome in accordance with WebTAG guidance, and results in a negative figure for TEC. In turn, this means that there would be positive total benefits for the development, amounting to some £494 million<sup>[3.76, 7.22]</sup>.

- 8.119 With regards to the GVA calculation, the HA's case is that implementation of the Scheme would lead to some 5,000 jobs being created at BGBP and BFLF. It has further assumed that only two-thirds of this overall development would occur elsewhere, if it was not to proceed at BGBP and BFLF, leading to an overall benefit of £378 million (in 2010 prices), attributable to these additional jobs<sup>[3.77]</sup>.
- 8.120 The main queries regarding the TEC calculations came from Mr Buchan for NNTAG who raised a number of detailed points about the modelling process. These related mainly to concerns about where, within the NTEM zones, the TEC benefits would arise; what the implications of differing parking standards for different developments would be; and how moving trips between the coarser and more detailed parts of the modelled network would influence the TEC calculations<sup>[5.18-5.23]</sup>. Mr Buchan was keen to be able to identify in which parts of the network the TECs were being generated, in order to understand the logic behind the source of this benefit and to be able to test its robustness.
- 8.121 However, despite maintaining that more information was needed, to be able to fully understand the source of the TEC benefits, Mr Buchan made no direct challenge to the TEC calculations. He confirmed his acceptance of the use of NTEM to control the growth in both the DS and the DM scenarios, and also accepted that the use of a traffic model containing both coarse and fine zones, to calculate TECs, is not unusual<sup>[7.31, 7.32, 7.42-7.45]</sup>.
- 8.122 It seems to me that the HA has supplied a wealth of information on this topic and its explanation, that the changes occur in all zones across the network, but are concentrated in the Norwich, Broadland and South Norfolk sector (where 84% of the TEC) occurs, appears both logical and understandable<sup>[7.43]</sup>. In these circumstances, and being mindful of the fact that the HA has followed the recommended procedures set out in draft WebTAG Unit 3.16, I am not persuaded that there are good grounds to question the calculation of the TEC benefits.
- 8.123 With regard to the calculation of GVA, I have noted that there has been some criticism of the numbers of jobs used in the GVA assessment, and also criticism of the growth assumptions used for development of the BGBP site and the viability of office development, in the current climate<sup>[5.33, 5.56, 5.106-5.110]</sup>. That said, the HA has provided extensive and persuasive evidence to demonstrate why it believes its judgment that the timescale for the delivery of the dependent development is realistic<sup>[7.38-7.40]</sup>. It has also pointed out that there are limited opportunities for large scale employment growth occurring elsewhere in Norwich<sup>[3.33, 3.34]</sup>, and I have further noted that IEL, the promoters of the BGBP development, have engaged a leading business park advisor to assist with the marketing and development of the site<sup>[4.11, 4.12]</sup>.
- 8.124 In these circumstances, and despite the contrary views expressed by Mr Radford for Lothbury (who will be promoting their own commercial development at BFLF), I see no firm grounds to doubt the growth forecasts for BGBP, over the period up to 2030<sup>[3.16]</sup>. I accept that viability in the office investment market may well be poor at present and I acknowledge that sites such as BBP, which already benefits from full amenities and site infrastructure, have some advantage over newly promoted sites, such as BGBP<sup>[5.110]</sup>. However, I consider that the correct approach is not to simply plan for a continuation of the current position, but rather to seek to establish the conditions for growth to take place.
- 8.125 Clearly, the expansion of the BBP contained in Policy 9 of the JCS, as part of the strategy to deliver at least 27,000 additional jobs in the NPA by 2006, cannot

take place until the Postwick junction is improved. Moreover, the Government has made it clear that the provision of infrastructure is vital to the success of a modern economy<sup>[3.22]</sup>, and whilst the provision of necessary infrastructure in the form of the Postwick Hub Scheme cannot guarantee that the economic development which it would unlock would all come forward, it is clear that it cannot come forward at all if the junction is not improved.

- 8.126 The HA has explained why it considers that one-third of the jobs would be foregone if the Scheme is not implemented, and has pointed out that this is based on conservative assumptions<sup>[7.41]</sup>. This figure has not been seriously challenged and I see no reason to not accept it as reasonable. On this basis I accept that the Scheme would give rise to GVA benefits amounting to £378 million, in 2010 prices discounted to 2010.
- 8.127 I do, however, accept the point highlighted by Mr Buchan, that whereas the GVA calculation assumes that the jobs concerned would not occur elsewhere in the area, the NTEM constraints used in the calculation of TEC means that they would<sup>[5.19, 5.55]</sup>. This apparent contradiction, brought about by the different methodologies used to calculate each figure, means that the TEC and GVA benefits cannot simply be added together, and no evidence was put to the Inquiry to suggest the most appropriate way of combining them, or indeed whether combination would be appropriate.
- 8.128 But neither was any firm evidence submitted to persuade me that the Scheme could not be legitimately seen as giving rise to both types of benefit. In these circumstances I share the HA's view that even if these benefits were viewed in isolation, their values would significantly exceed the identified transport and accident disbenefits<sup>[7.47]</sup>.
- 8.129 Having regard to all the above points I am satisfied that the calculation of TEC and GVA is acceptable, and that they should be taken into account in the overall assessment of benefits. Even if considered in isolation, I conclude that the development benefits arising from the TEC of £494 million, and GVA of £378 million, should be seen as outweighing the transport user disbenefits of £74 million and the accident disbenefits of £4.19 million.
- 8.130 As a separate matter under this general topic of economic benefits and disbenefits, I have noted Mr Cawdron's assertion that the lost value of crop production should be taken into account in the overall economic assessment. He estimates that this would be some £148,000 to £185,000 a year, based on a loss of some 95 ha of agricultural land<sup>[5.148]</sup>. However, this land figure is considerably in excess of the agreed amount of agricultural land which would be lost to the Scheme, namely about 10 ha<sup>[3.82-3.84]</sup>. As a result, the monetary figures suggested by Mr Cawdron need to be significantly reduced.
- 8.131 But notwithstanding this point, whilst the requirements of agriculture is clearly a matter which needs to be considered at Order making stage, any cost implications of lost agricultural production are matters which will have been weighed in the overall planning balance when planning permission was granted for the Scheme and the BGBP. The cost details are therefore not matters which need to be considered here, and do not alter my conclusions on this subject.

- 8.132 *The Scheme would unacceptably increase pollution and carbon emissions and matters of climate change have not been properly assessed.*<sup>355</sup> A significant number of objectors raised concerns regarding various aspects of climate change, primarily that alterations to the junction would result in increased journey distances, which would give rise to increases in carbon emissions. The concerns raised by objectors in written representations were repeated and elaborated upon by 2 of the objectors who appeared at the Inquiry, NNTAG and the NGP.
- 8.133 Several objectors also raised concerns that expansion of the Postwick P&R site would further add to traffic movements and give rise to additional pollution. But whilst I acknowledge that this expansion is dependent on the Postwick Hub junction Scheme being implemented, it is a separate scheme which already benefits from planning permission. It therefore lies outside the scope of this Inquiry.
- 8.134 All parties are agreed that the legal framework on this matter is set by the Climate Change Act 2008, which sets legally binding targets to reduce net UK greenhouse gas emissions by at least 80% by 2050, against a 1990 baseline<sup>[3.96]</sup>. This will be done through 5-year "carbon budgets", 4 of which have been set to date, covering the period up to 2027. The Carbon Plan 2011 details how the Government will deliver its plans for a low carbon economy, with particular focus on the 4th carbon budget, which covers the period 2023-2027<sup>[3.96, 5.60, 7.94]</sup>.
- 8.135 Differences between the HA and the objectors do not centre on the actual calculations of predicted carbon emissions, but rather on the way in which the assessment has been carried out and on the interpretation of the results<sup>[5.59-5.71]</sup>. Mr Buchan for NNTAG could not fully agree the HA's final figures as he had concerns and queries about the distribution and assignment of traffic, as discussed earlier, but he did not seriously dispute the actual calculations undertaken by the HA.
- 8.136 There is no dispute that the Scheme would lead to increased mileage for some existing drivers on the highway network around Postwick junction, and that by allowing the dependent developments to take place, it would also generate new traffic in the area. As a result, the HA is quite clear that carbon dioxide emissions are predicted to increase in the immediate vicinity of the Postwick junction if the Scheme were to be implemented<sup>[3.101]</sup>.
- 8.137 For many of the objectors, this is sufficient reason, in itself, to say that the Scheme should not go ahead and that the Orders should not be made. However, this rather simplistic view of the situation is not the way that current DMRB guidance indicates that such highway schemes should be assessed<sup>[3.98]</sup>. But before moving on to this matter in detail, it is essential to note that there is an acknowledged tension between the need to reduce carbon emissions, in line with the Climate Change Act and the Carbon Plan, whilst at the same time supporting and securing growth and economic development. As has already been noted, these latter objectives are the Government's top priority for the planning system<sup>[3.21]</sup>.
- 8.138 This tension has been referred to in NCC's 3rd Local Transport Plan (LTP), "Connecting Norfolk" and its accompanying Sustainability Appraisal (SA). Amongst other matters this identifies the conflict between the objective of

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<sup>355</sup> Objections covered by this topic include those raised by the following - objector Nos 4,6-8, 10-12, 14, 15, 17-25, 27-31, 33, 35-37, 40-43, 48, 50, 51, 54, 56, 57, 61-70, 72, 74, 81, 83, 84, 86-115, 117124, 131 and 132

reducing carbon dioxide and 3 of the LTP's key objectives, namely delivering sustainable growth; enhancing strategic connections; and improving accessibility<sup>[3.39]</sup>.

- 8.139 The HA has highlighted the fact that this SA states that carbon dioxide reduction has been considered throughout the development of "Connecting Norfolk", and that in those cases where some policies or measures are predicted to have a negative impact, there is overwhelming evidence of their economic or social benefit to Norfolk<sup>[3.40]</sup>. Sustainable development for this area, as set out in the JCS and supported through NATS and the LTP clearly falls into this category.
- 8.140 Having considered the submitted evidence I am satisfied that the HA has followed recommended practice, set out in the DMRB, for assessing the operational carbon dioxide emissions associated with highway schemes. Rather than simply looking at a scheme in isolation, as appears to be the approach of many objectors, the guidance is clear that the overall planning and development framework for the area in question has to be considered, in all future assessment years<sup>[3.96-3.103]</sup>.
- 8.141 Put simply, this means that assessments need to recognise that planned growth in a particular local authority area is assumed to go ahead, whether or not any specific highway schemes, or specific developments take place. In assessment terms, the growth in trips in future years is therefore constrained to NTEM, to ensure consistency of appraisal throughout the country<sup>[3.15]</sup>. In the current case, this means that the total number of trips on the wider road network is essentially the same in both the "without Scheme" and "with Scheme" situations, relating to the DM and DS scenarios used in the traffic modelling<sup>[3.100]</sup>.
- 8.142 I can fully appreciate the concerns expressed by the NGP, that this approach appears to "mask" the increased carbon dioxide emissions associated with a particular scheme<sup>[5.64-5.66]</sup>. The point is, however, that if the growth planned for in the JCS takes place at BGBP and BFLF, it will not take place elsewhere in the JCS area. But if it does not take place at BGBP and BFLF, the adopted JCS strategy will require it to take place somewhere else in the same overall planning area.
- 8.143 I have noted the specific concerns expressed by Cllr Boswell, for the NGP, regarding the choice of study area for the assessment of carbon dioxide emissions, and his contention that too large an area has been used to compare the DM and DS situations<sup>[5.64-5.66]</sup>. However, not only is the use of the entire network area used by the HA consistent with the DMRB advice, I consider it perfectly reasonable to use such an area, to ensure that the complete picture of changes in carbon emissions associated with a particular scheme is captured.
- 8.144 On this basis, the HA's evidence indicates that there would just be a slight increase, over the modelled network as a whole, of some 0.55 kt/yr of carbon dioxide emissions, by 2020, but a decrease of 0.85 kt/yr by 2030<sup>[3.101, 7.98]</sup>. To my mind this demonstrates the benefits which would arise from the Scheme by ensuring future development is in a sustainable location, close to areas of existing housing, well served by a range of transport modes other than the car.
- 8.145 Moreover, however much objectors may wish that the targets for carbon dioxide emissions should apply to individual areas or even individual schemes, or that there should be a socio-economic requirement for individual local authorities to adopt the same targets or projections as apply at the UK level, this is not the case. The submitted evidence is quite clear that the 15% figure for a reduction in carbon dioxide emissions from 2009 to 2030 is a projection, rather than a

target; and that it relates to the UK transport sector as a whole<sup>[7.92, 7.93]</sup>. In this regard I have further noted that no evidence has been submitted to suggest that the UK transport sector is not going to achieve the current projection<sup>[7.93]</sup>.

- 8.146 Under this climate change heading Mr Heard, for SNUB, queried whether the HA and NCC had made any provision for "adaptation" in the design of the Postwick Hub Scheme, as required by the Climate Change Act 2008<sup>[5.131]</sup>. I have noted the HA's comment that climate change adaptation for roads principally requires consideration of increased rainfall in the design of the drainage network and this is embedded in highways drainage design<sup>[7.101]</sup>. As no contrary evidence was presented on this point, I am satisfied that this matter has been adequately addressed in the Scheme design.
- 8.147 On a further matter, I have noted the criticisms from the NGP that the EIA undertaken at the planning stage for the joint BGBP/Postwick Hub Scheme did not fully assess the proposal in terms of carbon dioxide emissions<sup>[5.7, 5.37-5.39, 5.67]</sup>. It is indeed the case that wider traffic changes were not included in that assessment, but it is also clear that none of the statutory consultees at the planning application stage considered that there was a need to consider such changes<sup>[7.101-7.103]</sup>.
- 8.148 Notwithstanding whether this was the correct approach or not it is now apparent, from the detailed evidence prepared for the Scheme and submitted to this Inquiry (summarised above), that changes in carbon dioxide emissions, when considered over the correct assessment area, would not constitute a "significant environmental effect"<sup>[3.101]</sup>. On this basis I see no reason why the HA's decision that the Scheme did not require EIA (set out in its Record of Determination)<sup>[3.81]</sup>, needs to be reassessed.
- 8.149 Having regard to all the above points, it is my view that there is no firm evidence to show that the Scheme, when properly assessed in accordance with current guidance, would unacceptably increase carbon dioxide emissions. It follows that I am satisfied that matters of climate change have been properly assessed.
- 8.150 *Alternative Routes have not been properly considered.*<sup>356</sup> Objectors have been able to submit alternative proposals for the junction improvement on a number of occasions, with the first formal period expiring on 8 June 2012 and the last period running to 3 May 2013<sup>[1.10]</sup>. In practice the HA accepted alternatives submitted after this May 2013 date, with some ARs being submitted whilst the Inquiry was sitting<sup>[1.11]</sup>. Whilst I acknowledge that traffic data has changed during the lifetime of the Scheme, with the final TFR being issued in April 2013, I see no reason why this should have inhibited the submission of alternatives, especially as no-one submitting an AR undertook any detailed traffic assessment or testing of their proposals. In these circumstances, and having regard to the assessments of the ARs undertaken by the HA, I do not consider that any further work on seeking an alternative to the published Scheme would be justified<sup>[5.141]</sup>.
- 8.151 Of the 11 ARs which were pursued at the Inquiry, 2 (AR5 and AR10) are not, strictly speaking, alternatives to the published Scheme. AR5<sup>[7.48, 7.58, 7.59]</sup> would simply provide a new link between Plumstead Road and Salhouse Road, whilst AR10<sup>[7.48, 7.72, 7.73]</sup> proposes the dualling of the A47 between Peterborough and Great Yarmouth. Neither of these propose any alterations to the existing

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<sup>356</sup> Objections covered by this topic include those raised by the following - objector Nos 8, 24, 27, 28, 36, 48, 64, 77, 81, 86-115, 117-123, 129 and 132



Postwick junction, and therefore would not fulfil the Scheme objectives and would not allow the dependent developments or the P&R extension to take place. For these reasons these ARs cannot be supported.

- 8.152 AR9 and AR11 both propose major new grade-separated junctions well to the east of the existing junction, in the vicinity of Church Road, rather than seeking to improve the existing Postwick junction, which would remain largely unaltered in both alternatives. AR9 appears to be very much geared towards providing an element of a future NDR, whilst key parts of AR11 are forecast to carry very low traffic flows, such that the new construction would be hard to justify<sup>[7.74-7.77]</sup>.
- 8.153 Both alternatives are estimated to cost considerably more than the published Scheme (£44 million and £33 million respectively), and both would require the diversion of the high pressure gas main, would need Compulsory Purchase powers to be invoked to acquire the necessary land, and would be likely to have more significant environmental impacts than the published Scheme. Most importantly, both are predicted to give rise to significant operational problems and would fail to achieve the Scheme objectives<sup>[7.67-7.71, 7.74-7.77]</sup>. There is nothing before me to persuade me that either of these alternatives would offer any advantages over the published Scheme, and they therefore cannot be supported.
- 8.154 The remaining alternatives, AR1, AR2, AR4, AR6, AR12 and AR14 all propose new layout arrangements for the existing Postwick junction and in this regard can be considered true alternatives<sup>[7.49-7.57, 7.60-7.62, 7.78-7.84]</sup>. It should be noted that both AR6 and AR14 (both put forward by Mr Cockcroft) comprise 2-phase proposals, with the 2nd phase in each case being geared very much towards the provision of a NDR and not, therefore, capable of being assessed in isolation.
- 8.155 Whilst all of these alternatives (with the exception of the 2nd phases of AR6 and AR14) would cost appreciably less than the published Scheme, none of them would be able to be delivered under the published draft Orders and all are assessed as giving rise to operational problems and difficulties which mean that they would be unable to deliver the Scheme objectives and would therefore not allow the dependent developments to take place.
- 8.156 I have noted NNTAG's criticism of some of the detailed layout assumptions used by the HA for AR6, including criticisms of the number of lanes tested on the suggested gyratory and the form of junction control assumed<sup>[5.46-5.48]</sup>. However, the fact remains that no detailed alternative designs were put to the Inquiry by any appropriately qualified traffic or transport professionals, despite their involvement on behalf of some objectors, and despite the overall length of time which has been available for any such ARs to be developed. In these circumstances, whilst I can understand NNTAG's concerns, and similar concerns expressed by other objectors, there is no firm evidence before me to suggest that the HA's assessments of the suggested ARs have not been reasonable and carefully undertaken. I therefore give such criticisms little weight.
- 8.157 Some objectors queried why their ARs were predicted to give rise to operational problems, whereas the published Scheme was not, when each junction would have to accommodate the same traffic flows<sup>[7.88]</sup>. However, as the HA explained, this is a somewhat simplistic way of viewing the situation which does not recognise the workings of the traffic model, which seeks to replicate driver behaviour and respond to prevailing traffic conditions on the network.
- 8.158 This means that the model seeks to find alternative routes to avoid congestion on the network, such that whilst the amount of traffic between any origin and

destination would be the same, regardless of which alternative was being tested, the routes which traffic would be assigned to between those origins and destinations could well vary between alternatives, depending on the predicted operation of the network<sup>[7.88]</sup>.

- 8.159 The fact that unacceptable queuing is predicted with each of these ARs means that no preferable route could be found for traffic to be assigned to, in preference to using the Postwick junction. This serves to demonstrate that none of these alternatives would perform as well as the published Scheme, and none could therefore be supported.
- 8.160 Finally, I have noted NNTAG's criticism that alternative options were not considered without the BGBP or the Postwick P&R extension<sup>[5.39]</sup>, but as both of these already benefit from extant planning permissions, it would not have been reasonable to disregard this fact and test such options.
- 8.161 Having regard to the above points I am satisfied that adequate and satisfactory consideration has been given to all of the submitted ARs, but conclude that none of them would be preferable to the published Scheme. In these circumstances, and having regard to the fact that the published Scheme has been shown to achieve the stated objectives, I am not persuaded that any further work on any of the ARs would be justified. Nor do I consider that any AR should be recommended to be pursued in preference to the published Scheme<sup>[5.142]</sup>.

### Conclusions

- 8.162 Drawing together the matters detailed under this sub-heading, my overall conclusion is that none of the objections which relate to various aspects of the Scheme's operational performance, including its effect on climate change and the consideration of alternatives, can be supported. None, therefore, constitute a reason for the Orders not to be made.

### **Other environmental concerns**

- 8.163 Those objections which raised concerns about carbon dioxide emissions and air pollution, and the loss of farmland or countryside have already been dealt with above. Other environmental matters which were raised were likely noise impacts; increased risks of flooding and pollution from surface run-off and other water-related matters; and potential light pollution.
- 8.164 Noise.<sup>357</sup> Postwick with Witton Parish Council raised general concerns about increased noise from the proposed Scheme, claiming that the village already suffers considerably from noise from existing roads<sup>[5.75]</sup>. In this regard I have noted that Postwick village was identified as a sensitive receptor (along with a number of other locations) in the revised ES assessment undertaken in April 2013<sup>[3.93]</sup>.
- 8.165 The ES acknowledged that background noise in the area is dominated by existing traffic but concluded that the long-term significance of noise effects would be classed as slight adverse at such receptors, whether or not the Scheme went ahead<sup>[3.94, 3.95]</sup>. In these circumstances, and in the absence of any contrary evidence, I conclude that there would be no significant noise effects associated with the Scheme.

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<sup>357</sup> Objections covered by this topic include those raised by the following - objector Nos 3 and 34

- 8.166 Flood risk, surface run-off and other water-related matters.<sup>358</sup> The objections relating to these matters are all generalised concerns, with no detailed evidence to support the views expressed. The evidence before the Inquiry indicates that such matters were thoroughly explored in the original ES and the revised ES and that the Scheme would lead to no significant impacts on groundwater or surface water, or flood risk<sup>[3.91]</sup>. The assessments undertaken also demonstrate that there would be no unacceptable risks to water resources from spillages arising from traffic accidents<sup>[3.91]</sup>. Moreover, the ES has been considered by the Environment Agency and there are no outstanding matters of concern<sup>[3.91]</sup>.
- 8.167 Although an objection was raised concerning the potential for “mud and mosquitoes” arising from storage ponds to hold rainfall runoff, the road drainage is designed to infiltrate into the ground and accordingly there would not be any significant standing water to create a breeding ground for mosquitoes. The maintenance regime for the drainage network would be in accordance with standard practice operated by NCC<sup>[3.92]</sup>.
- 8.168 Air Quality.<sup>359</sup> Objectors raised concerns that the increased journey lengths which the Scheme would give rise to would lead to increased vehicle emissions, and that in turn this would result in increased carcinogenic and particulate pollution. These concerns were, however, submitted in a generalised form, unsupported by any firm data. Such matters were considered in detail in the original ES and the revised ES, and on the basis of the evidence before me, I see no reason to disagree with the HA’s assessment that overall air quality in the immediate vicinity of the Scheme is generally good and that the Scheme would not alter this fact<sup>[3.89]</sup>.
- 8.169 Assessments have shown that concentrations of nitrogen dioxide and fine airborne particles at the relatively small number of residential properties near to the Postwick junction would remain below the standards set to protect health. Concentrations of all 3 pollutants are predicted to be well below the air quality objectives at all receptors, and the effects of the Scheme on air quality would not be significant<sup>[3.90]</sup>. In view of this and the other points detailed above, I conclude that the objections relating to the topic of air quality cannot be sustained.
- 8.170 Light Pollution.<sup>360</sup> One objector raised concerns about possible light pollution. However, the ES points out that the existing Postwick junction and the P&R site are already lit, and concludes that any additional lighting would not be likely to create a significant visual change<sup>[3.88]</sup>. I see no reason to take a contrary view.

### Conclusions

- 8.171 In view of the above points I am satisfied that the likely environmental impacts of the Scheme have been thoroughly assessed by the HA and NCC and that appropriate mitigation measures have been satisfactorily planned. I therefore conclude that objections raised on these topics cannot be sustained and that there are no reasons on environmental grounds why the Orders should not be made.

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<sup>358</sup> Objections covered by this topic include those raised by the following - objector Nos 6, 9-11, 14, 17, 18, 23, 24, 48, 54, 56, 57, 62, 63

<sup>359</sup> Objections covered by this topic include those raised by the following - objector Nos 8, 18, 27, 35, 41, 48, 54, 57, 62, 63, 74, 84, 86, 121

<sup>360</sup> This matter was raised by objector No 120

## Other Matters

- 8.172 Some objectors argue that there is no sense in extending the Postwick P&R site as the existing P&R facility is operating well below capacity. Other objections on this general topic, argue that the P&R site at Sprowston should be expanded in preference to the site at Postwick, as it would be closer to new housing in north-east Norwich<sup>361</sup>. However, not only is a consideration of P&R provision outside the scope of this Inquiry, such matters do not have a direct bearing on the statutory tests for the Orders, which I must have regard to. In any case, planning permission has already been granted for expansion of the Postwick site<sup>[3.28]</sup>. For all these reasons, these objections cannot be supported.
- 8.173 A number of objectors raised concerns about the impact of the Scheme on the economy of Great Yarmouth<sup>362</sup>. However, it seems to me that these are concerns relating to the effect of the proposed BGBP and BFLF developments at Postwick, rather than the junction improvement Scheme itself. NCC and the New Anglia LEP both referred to the complementary relationships between Great Yarmouth and Norwich, rather than predicting any adverse impact, and there is no firm evidence before me to cause me to take a contrary view<sup>[4.5, 7.114]</sup>.
- 8.174 Furthermore, the traffic forecasts do not indicate any significant changes in flows on the A47 to the east of Postwick, to suggest that the Scheme would attract people to commute by car from Great Yarmouth to jobs in the Postwick area, as feared by NNTAG<sup>[7.117]</sup>. Regardless of these points, the fact that the BGBP and BFLF developments accord with the development plan, and have already been granted planning permission, mean that these objections cannot be supported.
- 8.175 NNTAG also raised concerns about the financial standing of NCC's development partner, IEL, but any such matters would have been taken into account by BDC when it was considering the planning application for the BGBP<sup>[4.13, 5.32]</sup>. It is of no direct relevance to the merits behind the case for the making of these Orders.
- 8.176 NNTAG also maintained that the HA's claim that the Scheme does not rely on any growth that may come forward in the NEG T, does not tally with the Explanatory Statement and the Updated Explanatory Statement for the draft Orders, which states that the scheme is required to deliver the growth for the NPA as outlined in the Regional Economic Strategy<sup>[5.34]</sup>. However, having regard to the points set out earlier in the Policy section of these conclusions, I am satisfied that a sound case has been made for the Orders, regardless of any further growth which may be allocated to this area in the NEG T.
- 8.177 I have noted that Mr Bowell, representing the Ramblers' Association, would like to see the existing service path over the Yare Viaduct replaced with a shared-use footway/cycle track, with segregation from the A47 highway. Such a facility would link across the railway bridge to the eastbound diverge slip road modification and, via the existing service track, to Whitlingham Lane<sup>[5.74]</sup>. This is something which Mr Bowell has been trying to achieve for some time<sup>[5.74]</sup>, but as it is not required as a consequence of the changes proposed by the Orders this matter cannot be supported<sup>[7.118]</sup>.

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<sup>361</sup> Objections covered by this topic include those raised by the following - objector Nos 7, 10, 17-20, 23, 25, 28, 30, 35, 37, 48, 50, 51, 54, 57-60, 62-69, 72, 74, 77, 12

<sup>362</sup> Objections covered by this topic include those raised by the following - objector Nos 24, 28, 77

- 8.178 A further outstanding matter raised by Mr Bowell is his wish to see a footpath extended along Church Road to meet with a proposed relocated bus stop at the junction of Church Road with Brundall Low Road<sup>[5.73]</sup>. However, only a school bus uses this bus stop at the present time and there is no evidence of a demand for the length of footpath sought<sup>[7.118]</sup>. Mr Bowell confirmed, at the Inquiry, that he made this point more as an observation than an objection to the Scheme, and because of this, coupled with the lack of any clear evidence that such a footpath would be warranted, this matter cannot be supported.
- 8.179 Mr Heard queried how the Scheme would achieve the desired outcome of the Social Values Act<sup>363</sup>, and how it would accord with the Natural Environment and Rural Communities Act of 2006<sup>[5.130]</sup>. But as no specific objection in this regard was lodged, the substance of Mr Heard's concerns is unclear. Indeed, the HA has pointed out that the Public Services (Social Value) Act 2012 excludes public works contracts and so is not directly relevant to this Scheme<sup>[7.123]</sup>. Furthermore, insofar as the Natural Environment and Rural Communities Act is concerned, the Scheme has been subject to EIA as part of the planning application process, in accordance with the relevant legislative and regulatory framework<sup>[1.4, 7.123]</sup>. In view of these points I consider that Mr Heard's concerns in these regards should not weigh against the case for making the Orders.
- 8.180 Although not raised specifically as objections, Mr Heard expressed concerns about the funding of the Scheme and also questioned the involvement of the emergency services in the design of the Scheme<sup>[5.133, 5.135]</sup>. But in view of the HA's response on these points<sup>[7.121, 7.122]</sup>, I am satisfied that neither matter throws doubt on the case for the Orders being made.
- 8.181 Mr Heard also challenged the terms of reference for the Inquiry, querying how Local Plans can be judged against guidance that has not yet been published, and arguing that current guidance does not take into account the Framework, the Localism Act, or the Growth and Infrastructure Act<sup>[5.136]</sup>. However, self-evidently this Inquiry is not directly concerned with Local Plans, but has been called to consider the draft Orders, made under the Highways Act 1980. The "requirements of local and national planning" have to be considered in the context of whether the Slip RO should be made, and I have reached my conclusion on this matter in paragraph 8.37 above.
- 8.182 Finally, many objectors argued that the Scheme would be expensive and a waste of public money which could not be justified in the current climate<sup>364</sup>. However, I have already indicated how the Scheme accords with the planning and transport strategies for the area, and clear evidence has been given that the Scheme is supported and would be funded by the Government<sup>[3.59-3.64]</sup>. In these circumstances these objections cannot be supported.

### Conclusions

- 8.183 Having taken account of the range of objections touching on other matters, as detailed above, my conclusion is that none of the issues raised go to the heart of the case for making these Orders, and none can be supported.

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<sup>363</sup> Assumed to be the Public Services (Social Value) Act 2012

<sup>364</sup> Objections covered by this topic include those raised by the following - objector Nos 5, 6, 8, 10-12, 14, 17, 18, 21, 23, 25, 27-31, 35, 37, 40, 42, 43, 48-51, 53, 54, 56-60, 62-69, 72, 74, 75, 77, 78, 82, 85, 124, 126 and 127

### **Overall Conclusions on the Slip Roads Order**

- 8.184 The HA asks that the Slip RO be made in a modified form, to incorporate the 5 proposed modifications set out in Doc HA/60<sup>[3.110]</sup>. These modifications are not contentious, and are simply put forward to address minor drafting errors in the original Order or to add clarity and ensure consistency between the Order, the Schedule and the Plan. I consider that these proposed modifications are necessary in the interests of accuracy and clarity, and can all be made in accordance with paragraph 8 of Schedule 1 to the Highways Act 1980.
- 8.185 The Slip RO would authorise the new slip roads to be constructed, connecting the eastbound carriageway of the A47 trunk road with the A1042 Yarmouth Road (as proposed to be improved by the SST) at Postwick Interchange.
- 8.186 The tests for making the Slip RO are set out in paragraphs 8.6 to 8.11 above. In paragraph 8.37 I conclude that the Scheme accords with national and local planning and transport policies and strategies and in paragraph 8.78 I conclude that the loss of agricultural land should not weigh heavily against the Scheme.
- 8.187 In paragraph 8.99 I conclude that there are no issues of design, layout, or other related matters which point to the Slip RO not being made. In paragraph 8.162 I conclude that there are no matters concerning the operational performance of the Scheme, including its effect on climate change and the consideration of alternative proposals, which would constitute a reason for the Slip RO not to be made. Finally, in paragraphs 8.171 and 8.183 I conclude that there are no environmental or other matters which would amount to a reason why the Slip RO should not be made.
- 8.188 In view of these points, in my assessment, the published Scheme is expedient for the purpose of improving the national system of routes in England and Wales and is justified in the public interest. I consider that the objections made to the Slip RO cannot be sustained and that the ARs proposed do not justify further investigation. I therefore conclude that the Slip RO should be made with the modifications detailed in paragraph 8.184 above.

### **Overall Conclusion on the Side Roads Orders**

- 8.189 The HA asks that the Side RO be made in a modified form, to incorporate the 15 proposed modifications set out in detail in Docs HA/58 and HA/59<sup>[3.111]</sup>. As with the Slip RO, these modifications are not contentious but are, in the main, put forward to address minor drafting errors or to improve clarity and ensure consistency between the Order, the Schedule and the Plan. The exception is Modification 7 which is proposed to address a specific matter raised by objectors<sup>[3.112]</sup>.
- 8.190 Under this modification the existing eastbound diverge slip road would remain open to cyclists and pedestrians through the creation of a shared-use path along its length. Cyclists and pedestrians currently use the service path over the A47 Viaduct and this proposed shared-use facility would enable cyclists to continue to use the existing A47 eastbound diverge slip road to connect with the existing and proposed cycle network at the Postwick North-West roundabout. "End of cycle route" and "cyclists dismount" signs would be provided to inform cyclists travelling westbound down the slip road that the facility does not continue across the A47 Viaduct<sup>[3.112, 3.113]</sup>.

- 8.191 The modification would require changes to the draft Side Roads Order Schedule and Plan, and would also necessitate other, associated minor drafting changes which are referred to as Proposed Modifications 6 and 8<sup>[3.113]</sup>.
- 8.192 I consider that all the above modifications to the Side RO are necessary, to ensure that cyclists would not be disadvantaged by the stopping up of the eastbound diverge slip road and to ensure clarity and accuracy. I further consider that they can all be made in accordance with paragraph 8 of Schedule 1 to the Highways Act 1980.
- 8.193 With regard to the statutory criteria to be satisfied, I am mindful that the Council is well aware of the need to make provision for Statutory Undertakers' apparatus within the proposal<sup>[3.108]</sup>. Moreover, where a highway, public footpath or PMA is to be stopped up, I have concluded in paragraphs 8.11 and 8.81 above that a reasonably convenient alternative route or access would be provided, as described in the Schedule and Plan to the Side RO.
- 8.194 I conclude that the Side RO should be made with the modifications detailed in paragraphs 8.189 to 8.192 above.

## 9. RECOMMENDATIONS

- 9.1 I recommend that the **A47 Trunk Road (Postwick Interchange Slip Roads) Order 201.** should be modified as indicated in paragraph 8.188 above, and that the Order so modified should be made.
- 9.2 I recommend that the **A47 Trunk Road (Postwick Interchange Side Roads) Order 201.** should be modified as indicated in paragraph 8.194 above, and that the Order so modified should be made.

*David Wildsmith*

INSPECTOR

## **APPENDIX 1 - APPEARANCES**

### **FOR THE HIGHWAYS AGENCY:**

Mr Michael Bedford	of Counsel, instructed by Heidi Slater, Pinsent Masons LLP and Tony Nwanodi, Treasury Solicitor.
He called:	
Mr Philip Morris	Principal Planner, Norfolk County Council
BSc(Hons) DipTP MRTPI	
Mr Mark Kemp	Project Team Manager, Norfolk County Council
CEng MICE	
Mr Christopher White	Project Director, Mott MacDonald Ltd
CEng MICE MCIHT	
Professor Glyn Owen	Consultant Economic Advisor
BA MA PhD	
Mr James Montgomery	Divisional Director, Mott MacDonald Ltd
CGeol MIEMA	
Professor Duncan Laxen	Managing Director, Air Quality Consultants Ltd
PhD MSc BSc FIAQM	
Mr Max Forni	Principal Acoustic Engineer, Mott MacDonald Ltd
CEng MIOA	
Mr David Allfrey	Highway and Major Projects Team Manager, Norfolk County Council
CEng MICE	
Mr Eric Cooper	Asset Development Team Leader, the Highways Agency
BSc(Hons)	

### **SUPPORTERS OF THE ORDERS:**

Mr Chris Starkie	Managing Director, New Anglia Local Enterprise Partnership
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### **OBJECTORS TO THE ORDERS:**

Mr Tony Clarke	Right to Ride representative of the Cyclists' Touring Club
Mrs Mollie Howes	Private individual
Mr E Newberry	Private individual
Mr A R Williams	Private individual
Mr Andrew Cawdron	Private individual
Mr C Cockcroft	Private individual
Mr Alan Woods	Postwick with Witton Parish Council
Mr Alan G S Bowell	Ramblers Association
Mr Davidson	Menzies Distribution Ltd
Cllr Alfred Townly	Great & Little Plumstead Parish Council (also appeared as a private individual)
Mr Stephen Heard	Stop Norwich Urbanisation (SNUB) and Salhouse Parish Council
Mr Keith Buchan	Norfolk and Norwich Transport Action Group (NNTAG)
Mr Dennis Eley	Thorpe St Andrew Town Council
Mr S Radford	The Lothbury Property Trust



Ms Denise Carlo	Norfolk and Norwich Transport Action Group (NNTAG)
Cllr Andrew Boswell	Norwich Green Party
Mr R Stewart Lindsay	Private individual and Rackheath Parish Councillor
Mr Robert Bailey	Private individual
Mr D Rapson	The Lothbury Property Trust

## **APPENDIX 2 – INQUIRY DOCUMENTS**

### **Highways Agency - Deposited Documents**

DD01	A47 Trunk Road (Postwick Interchange Slip Roads) Order
DD02	A47 Trunk Road (Postwick Interchange Side Roads) Order
DD03	Explanatory Statement
DD04	Updated Explanatory Statement (February 2012)
DD05	Letter from Government Office for East Midlands dated 2 August 2010- decision to defer Public Inquiry
DD06	Notice dated 24 February 2012 re-advertising draft orders
DD07	Schedule describing modifications to Side Roads Order
DD08	Notice dated 11 May 2012 in which the Secretary of State announced that a Public Inquiry would be held
DD09	Notice dated 22 June 2012 announcing Pre-Inquiry Meeting
DD10	Notice dated 10 August announcing Public Inquiry
DD11	Scheme Plan
DD12	Highways Agency Outline Statement of Case Volume 1 (June 2012) (superseded)
DD13	Highways Agency Outline Statement of Case Volume 2 (June 2012) (superseded)
DD14	Highways Agency Statement of Case (August 2012) (superseded)
DD15	Highways Agency Letter dated 31 August 2012
DD16	Not Used
DD17	Not Used

### **Acts of Parliament**

DD18	Ancient Monuments and Archaeological Areas Act 1979
DD19	Countryside Act 1968
DD20	Countryside and Rights of Way Act 2000
DD21	Control of Pollution Act 1974
DD22	Environmental Protection Act 1990
DD23	Environment Act 1995
DD24	Highways Act 1980
DD25	Planning and Compensation Act 1991
DD26	Planning (Listed Buildings and Conservation Areas) Act 1990
DD27	Planning & Compulsory Purchase Act 2004
DD28	Town & Country Planning Act 1990
DD29	Not Used

### **Statutory Instruments**

DD30	Highways (Inquiries Procedure) Rules 1994 (S.I 3263)
DD31	Highways (Assessment of Environmental Effects) 1988 (S.I 1241)
DD32	Highways (Assessment of Environmental Effects) 1994 (S.I 1002)

DD33	Highways (Assessment of Environmental Effects) 1999 (S.I 369)
DD34	Not Used
DD35	The Town & Country Planning (Environmental Impact Assessment) Regulations 2011 (S.I. 1824)
DD36	Noise Insulation Regulations 1975 (S.I 1763)
DD37	Noise Insulation (Amendment Regulation) 1988 (S.I 2000)
DD38	Groundwater Regulations 1998 (S.I 2746)
DD39	The Conservation (Natural Habitats) Regulations 1994 (S.I 2716)
DD40	The Conservation (Natural Habitats) 1994 Amended England Regs 2000 (S.I 192)
DD41	Air Quality Standards Regulations 2007 (S.I 317)
DD42	Not Used

### **Other Legislation (Acts & Statutory Instruments)**

DD43	Land Drainage Act 1991
DD44	Land Drainage Act 1994
DD45	Noise and Statutory Nuisance Act 1993
DD46	Protection of Badgers Act 1992
DD47	Water Resources Act 1991
DD48	Water Act 2003
DD49	Wildlife & Countryside Act 1981
DD50	Wild Mammals Protection Act 1996
DD51	Surface Waters (River Ecosystem Regs) 1994 (S.I 1057)
DD52	Water Supply (Water Quality) Regulations 2000 (S.I 3184)
DD53	Water Supply (Water Quality) Regulations 2000 Amendment 2007
DD54	Air Quality Regulations England 2000 (S.I 928)
DD55	Air Quality Limit Values Regulations 2003 (S.I 2121)
DD56	Air Quality Limit Values (Amendment Regs) England 2004 (S.I 2888)
DD57	Hedgerow Regulations 1997 (S.I 1160)
DD58	Conservation of Habitats and Species Regulations 2010
DD59	Not Used

### **Government White Papers**

DD60	A New Deal for Trunk Roads in England - July 1998
DD61	A New Deal for Transport: Better For Everyone 1998
DD62	Transport 2010 - The 10 Year Plan
DD63	The Future of Transport: A Network for 2030
DD64	A New Deal for Trunk Roads in England: Guidance on the New Approach to Appraisal
DD65	A New Deal for Trunk Roads in England: Understanding the New Approach to Appraisal
DD66	Delivering Better Transport: Progress Report- (DfT 2002)
DD67	A Better Quality of Life-Strategy for Sustainable Development for the UK (DETR 1999)
DD68	Our Countryside the Future: A Fair Deal for Rural England (DETR 2000)
DD69	Biodiversity Impact: A Good Practice Guide for Road Schemes (July 2000)
DD70	Landscape Character Assessment- Guidance for England & Scotland (2002)
DD71	Air Quality Strategy for England, Scotland, Wales & Northern Ireland (DETR 2000)
DD72	Air Quality Strategy for England, Scotland, Wales & Northern Ireland Addendum)

DD73 Not Used

**Planning** *(Note – these Planning Policy Statements and Planning Policy Guidance Notes have been superseded by the National Planning Policy Framework)*

DD74 Planning Policy Statement 1: Delivering Sustainable Development  
DD75 Planning Policy Guidance 2: Green Belts  
DD76 Planning Policy Statement 3: Housing  
DD77 Planning Policy Guidance 4: Industrial & Commercial Development & Small Firms  
DD78 Planning Policy Statement 6: Planning for Town Centres  
DD79 Planning Policy Statement 7: Sustainable Development in Rural Areas  
DD80 Planning Policy Statement 9: Biodiversity & Geological Conservation  
DD81 Planning Policy Statement 11: Regional Spatial Strategies  
DD82 Planning Policy Statement 12: Local Development Frameworks  
DD83 Planning Policy Guidance 13: Transport  
DD84 Planning Policy Guidance 14: Development on Unstable Land  
DD85 Planning Policy Guidance 15: Planning and the Historic Environment  
DD86 Planning Policy Guidance 16: Archaeology and Planning  
DD87 Planning Policy Guidance 17: Sports and Recreation  
DD88 Planning Policy Guidance 21: Tourism  
DD89 Planning Policy Guidance 25: Development and Flood risk

**Additional Documents**

DD90 Guidance on the Methodology for Multi Modal Studies- Volume 1, March 2000  
DD91 Guidance on the Methodology for Multi Modal Studies- Volume 2, March 2000  
DD92 Biodiversity: The UK Action Plan 1994  
DD93 Biodiversity: The UK Steering Group Report, Volume 2 Action Plan 1995  
DD94 Trunk Roads and the Generation of Traffic (The Standing Advisory Committee on Trunk Road Assessment 1994)  
DD95 Transport and the Economy (The Standing Advisory Committee on Trunk Road Assessment 1999)  
DD96 Not Used

**European Union Directives**

DD97 75/440 EEC Council Directive of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States  
DD98 76/160 EEC Council Directive of 8 December 1975 concerning the quality of Bathing Water  
DD99 78/659 EEC Council Directive of 18 July 1978 on the quality of fresh waters needing protection or improvement in order to support fish life  
DD100 79/409 EEC: Council Directive on the Conservation of Wild Birds  
DD101 80/68 EEC Council Directive of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances  
DD102 85/337 EEC Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment  
DD103 91/441 EEC Council Directive of 26 June 1991 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles

- DD104 91/692 EEC Council Directive of 23 December 1991 standardizing and rationalizing reports on the implementation of certain Directives relating to the environment
- DD105 92/43 EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora
- DD106 97/11 EC Council Directive of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment
- DD107 2000/60 EC Directive of 23 October 2000 establishing a framework for community action in the field of water policy
- DD108 2003/35 EC Directive of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment
- DD109 Not Used

### **International Conventions**

- DD110 Ramsar Convention on Wetlands (1971)
- DD111 Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
- DD112 Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
- DD113 Convention on Biological Diversity (1992)
- DD114 Not Used
- to
- DD129
- DD130 Broadland Gate Planning Application - Covering letter 8 December 2008 & 6 January 2009
- DD131 Broadland Gate Planning Application - Original application 8 January 2009
- DD132 Broadland Gate Planning Application - Amended covering letter (existing eastbound diverge slip road closed) 18 August 2009
- DD133 Broadland Gate Planning Application - Amended Covering letter (access into development from east/west link modified) 20 November 2009
- DD134 Broadland Gate Planning Application - Decision 1 April 2010
- DD135 Broadland Gate Planning Application - Decision Refreshed 19 October 2011
- DD136 DfT Circular 02/2007 Planning and the Strategic Road Network
- DD137 Broadland Gate Planning Application - Transport Assessment Original - 8 January 2009
- DD138 Broadland Gate Planning Application - Transport Assessment Amended - 18 August 2009
- DD139 Broadland Gate Planning Application - Transport Assessment Addendum and Errata - 20 November 2009
- DD140 Broadland Gate Planning Application - Transport Assessment Amended - 9 June 2011
- DD141 Broadland Gate Planning Application - Environmental Statement Vol 1 Original - 8 January 2009
- DD142 Broadland Gate Planning Application - Environmental Statement Vol 2 Original - 8 January 2009
- DD143 Broadland Gate Planning Application - Environmental Statement Non Technical Summary - 8 January 2009
- DD144 Broadland Gate Planning Application - Environmental Statement Amended - 18 August 2009

DD145	Broadland Gate Planning Application - Environmental Statement Amended - 20 November 2009
DD146	Broadland Gate Planning Application - Environmental Statement Vol 1 Revised - 9 June 2011
DD147	Broadland Gate Planning Application - Environmental Statement Vol 2 Revised - 9 June 2011
DD148	Broadland Gate Planning Application - Environmental Statement Vol 2 Revised - 9 June 2011
DD148	Broadland Gate Planning Application - Environmental Statement Non Technical Summary Refreshed- 9 June 2011
DD149	Broadland Gate Planning Application - Flood Risk Assessment Draft - 8 January 2009
DD150	Broadland Gate Planning Application - Arboricultural Assessment - 8 January 2009
DD151	Broadland Gate Planning Application - Framework Travel Plan - 8 January 2009
DD152	Broadland Gate Planning Application - Framework Travel Plan Amended Addendum - 8 June 2011
DD153	Broadland Gate Planning Application - Framework Travel Plan Amended - 18 August 2009
DD154	Broadland Gate Planning Application - Framework Travel Plan Amended - 20 November 2009
DD155	Broadland Gate Planning Application - Site Waste Management Plan - 8 January 2009
DD156	Broadland Gate Planning Application - Statement of Community Involvement - 8 January 2009
DD157	Broadland Gate Planning Application - Design and Access Statement 8 January 2009
DD158	Broadland Gate Planning Application - Design and Access Statement Addendum - 18 August 2009
DD159	Broadland Gate Planning Application - Design and Access Statement Addendum - 20 November 2009
DD160	Broadland Gate Planning Application - Planning Statement - 8 January 2009
DD161	Broadland Gate Planning Application - Amended Planning Statement - 08 June 2011
DD162	Broadland Gate Planning Application - Amended Retail Impact Assessment - 8 June 2011
DD163	Broadland Gate Planning Application - Sustainability Strategy - 8 January 2011
DD164	Broadland Gate Planning Application - Office Market Report - 18 November 2008
DD165	Broadland Gate Planning Application - Office Market Report Addendum - 18 August 2009
DD166	Broadland Gate Planning Application - Heath Farm Proposed Landscape Strategy - November 2009
DD167	Broadland Gate Planning Application - Section 106 - April 2010
DD168	Broadland Gate Planning Application - Section 106 - October 2011
DD169	Planning Policy Statement – Eco-towns
DD170	Broadland Gate Planning Application - PLAN: Landscape Framework Plan - November 2009

DD171	Broadland Gate Planning Application - PLAN: Landscape Framework Plan - January 2009
DD172	Broadland Gate Planning Application - PLAN: Landscape Framework Plan - August 2009
DD173	Broadland Gate Planning Application - Road Infrastructure Drawings November 2008 / submitted January 2009
DD174	NATS Model Update for Norwich Northern Distributor Road Development Pool Bid - Highway Local Model Validation Report - September 2011
DD175	NATS Model Update for Norwich Northern Distributor Road Development Pool Bid - Public Transport Local Model Validation Report - September 2011
DD176	NATS Model Update for Norwich Northern Distributor Road Development Pool Bid - Supplementary Data Collection Report - September 2011
DD177	Postwick Hub Scheme- Forecasting Report - August 2012 - Amended on 17 August 2012 - Superseded, please see DD336
DD178	Postwick Hub Scheme - Economics and Safety - superseded, please see DD362 and DD363
DD179	Brook Farm Laurel Farm 20090886 development - Application
DD180	Brook Farm Laurel Farm 20090886 development - Planning meeting minutes
DD181	SuDS Manual C697
DD182	Norwich Cycle Map
DD183	Extract from Sustrans website showing proposed cycling route.
DD184	GNDP (Greater Norwich Development Partnership) - Greater Norwich Employment Growth and Sites & Premises Study - Final Report
DD185	Broadland Gate Planning Application - PLAN: Development Framework Plan - January 2009
DD186	Broadland Gate Planning Application - PLAN: Red Line Plan - January 2009
DD187	Broadland Gate Planning Application - PLAN: Red Line Plan - August 2009
DD188	Broadland Gate Planning Application - Revised Road Alignment Supplementary Submission - August 2009
DD189	Broadland Gate Planning Application - PLAN: Development Framework Plan - August 2009
DD190	Broadland Gate Planning Application - PLAN: Development Framework Plan - November 2009
DD191	Broadland Gate Planning Application - Revised road alignment Supplementary Submission - November 2009
DD192	Broadland Business Park - Planning Committee Minutes -16 August 2006
DD193	Broadland Business Park - Plot L1 - Broadland Bus Park - 20060918 - 16 August 2006
DD194	Broadland Business Park - Supplementary Schedule of Applications - 16 August 2006
DD195	Appraisal Summary Table
DD196	Social and Distributional Impacts Assessment
DD197	DMRB Volume 12 Section 1: The Application of Traffic Appraisal to Trunk Roads Schemes
DD198	DMRB Volume 12 Section 2: Traffic Appraisal Advice
DD199	DMRB Volume 13 Section 1: The COBA manual
DD200	The Highways (Assessment of Environmental Effects) 2007
DD201	Broadland Gate - Planning Committee - 17 August 2011
DD202	Broadland Gate Planning Application - PLAN: Proposed Mid-Section from Business Park and Dual Carriageway Links - November 2009

- DD203 Broadland Gate Planning Application - PLAN: Residential Boundary Treatments Northern Boundary Section A-AA - November 2009
- DD204 Broadland Gate Planning Application - PLAN: Residential Boundary Treatments Northern Boundary Section B-BB - November 2009
- DD205 Broadland Gate Planning Application - PLAN: Illustrative Master Plan - November 2009
- DD206 Broadland Gate Planning Application - PLAN: Infrastructure Plan Amended - November 2009
- DD207 Broadland Gate Planning Application - PLAN: Red Line Plan Amended - November 2009
- DD208 Infiltration drainage lagoon and vehicular access to the lagoon and The Grange Planning Application - Application Form - 15 March 2010
- DD209 Infiltration drainage lagoon and vehicular access to the lagoon and The Grange Planning Application - Decision - 19 May 2010
- DD210 Infiltration drainage lagoon and vehicular access to the lagoon and The Grange Planning Application - Infrastructure drawing
- DD211 Infiltration drainage lagoon and vehicular access to the lagoon and The Grange Planning Application - Envirocheck® Historical Data Report Datasheet - 15 March 2010
- DD212 Infiltration drainage lagoon and vehicular access to the lagoon and The Grange Planning Application - Design & Access Statement - 15 March 2010
- DD213 Postwick Park & Ride Planning Application - Application form - July 2009
- DD214 Postwick Park & Ride Planning Application - Decision - 10 May 2010
- DD215 Postwick Park & Ride Planning Application - Environmental Statement - March 2009
- DD216 Postwick Park & Ride Planning Application - Flood Risk Assessment March 2009
- DD217 Postwick Park & Ride Planning Application - Site Waste Management Plan March 2009
- DD218 Postwick Park & Ride Planning Application - Design and Access Statement July 2009
- DD219 Postwick Park & Ride Planning Application - Planning Supporting Statement July 2009
- DD220 Norwich Area Transport Strategy - Public Consultation Analysis Report May 2004
- DD221 Norwich Area Transport Strategy - Public Consultation Analysis Report June 2004 Supplement
- DD222 Northern Distributor Route Questionnaire Public Consultation Results - February 2005
- DD223 Norwich Area Transportation Strategy Public Consultation and Engagement Outputs and Analysis - March 2010
- DD224 NCC report to Cabinet 2 April 2012 'Delivering Economic Growth in Norfolk' – the strategic role for Norfolk County Council
- DD225 High Court Case Report 24 February 2012 - legal challenge to the adoption of the Joint Core Strategy: Heard –v- Broadland District Council, South Norfolk District Council and Norwich City Council [2012] EWHC 344 (Admin)
- DD226 Order issued by Mr Justice Ouseley in the High Court on 25 April 2012 in connection with the case of Heard –v- Broadland District Council, South Norfolk District Council and Norwich City Council [2012] EWHC 344 (Admin)

DD227	Report on the Examination of the Joint Core Strategy for Broadland, Norwich & South Norfolk Development Plan Document, 22 February 2011
DD228	East of England Plan to 2031 Draft revision - March 2010
DD229	Local Transport Plan (LTP3) Connecting Norfolk Strategy - Norfolk's Transport Plan for 2026
DD230	Local Transport Plan (LTP3) Connecting Norfolk Implementation Plan - 2011-2015
DD231	East of England Plan - May 2008
DD232	Norwich Area Transportation Strategy (NATS) Public Consultation October 2009
DD233	Joint Core Strategy (JCS) for Broadland - Adoption statement 24 March 2011
DD234	Joint Core Strategy for Broadland, Norwich and South Norfolk - Adopted March 2011
DD235	The Broadland District Council Local Plan (Replacement) May 2006
DD236	Making Sustainable Local Transport Happen - White Paper January 2011
DD237	National Infrastructure Plan - November 2011
DD238	National Planning Policy Framework
DD239	HM Treasury Green Book - 2011
DD240	The New Anglia Local Enterprise Partnership Business Plan
DD241	Responses to HA issue no.1 -11 September 2009
DD242	Broadland District Council's Parking Standards Supplementary Planning Document (June 2007)
DD243	Construction Environmental Management Plan
DD244	Department for Transport (DfT) Local Authority Major Scheme decisions December 2011
DD245	Best & final funding bid form September 2011
DD246	Department for Transport - 'The Transport Business Case' April 2011
DD247	Alan Cook's Review of the Strategic Road Network 'A Fresh Start for the Strategic Road Network'
DD248	The Government's Response to Alan Cook's Review of the Strategic Road Network, 'A Fresh Start for the Strategic Road Network: The Government Response' (May 2012)
DD249	DfT Communities and Local Government (CLG) Guidance on Transport Assessment (March 2007)
DD250	Design Manual for Roads and Bridges (DMRB) Volume 6 Section 1 Part 1: TD9/93 Highway Link Design
DD251	DMRB Volume 6 Section 1 Part 2: TD27/05 Cross Sections and Headrooms
DD252	DMRB Volume 6 Section 2 Part 1: TD22/06 Layout of Grade Separated Junctions
DD253	DMRB Volume 6 Section 2 Part 3: TD16/07 Geometric Design Of Roundabouts
DD254	DMRB Volume 6 Section 2 Part 3: TD50/04 The Geometric Layout of Signal-Controlled Junctions and Signalised Roundabouts.
DD255	DMRB Volume 2 Section 2 Part 8: TD19/06 Requirement for Road Restraint Systems
DD256	DMRB Volume 5 Section 2 Part 2: HD19/03 Road Safety Audit
DD257	DMRB Volume 6 Section 3 Part 5: TD51/03 Segregated Left Turn Lanes and Subsidiary Deflection Islands at Roundabouts
DD258	DMRB Volume 6 Section 3 Part 5: TA90/05 The Geometric Design of Pedestrian, Cycle & Equestrian Routes
DD259	DMRB Volume 1 Section 3 Part 8: BA57/01 Design for Durability



DD260	DMRB Volume 1 Section 3 Part 7: BD57/01 Design for Durability
DD261	DMRB Volume 4 Section 2 Part 3: HD33/06 Surface and Sub-surface Drainage System for Highways
DD262	DMRB Volume 8 Section 3: TD34/07 Design of Road Lighting for the Strategic Motorway and All Purpose Trunk Road Networks
DD263	DMRB Volume 11 Section 3 Part 7 : Noise and Vibration HD 213/11
DD264	Department for Transport Local Transport Note 1/09 - Signal Controlled Roundabouts
DD265	Department for Transport Local Transport Note 02/08 - Cycle Infrastructure Design
DD266	The Construction (Design and Management) Regulations 2007
DD267	Road Safety Audit - Stage 2
DD268	DMRB, Volume 11, Section 3 Part 10 : Road Drainage and the Water Environment HD 45/09
DD269	Postwick Junction Options Report Vol 1 Rev A - November 2008
DD270	Postwick Junction Options Report Vol 2 Rev A - November 2008
DD271	DMRB, Volume 11, Section 3 Part 5 : Landscape Effects
DD272	Norwich Area Transportation Strategy (NATS) 2006 (Incorporating 2010 changes)
DD273	HA Postwick Junction Options Report
DD274	DMRB Volume 6 Section 3: Roadside Features TA 57/87
DD275	DMRB Volume 5 Section 2 Part 4 : Provision for non-motorised users TA 91/05
DD276	The Town and Country Planning (Environmental, Impact Assessment) (Amendment) (England) Regulations 2008.
DD277	The Air Quality Standards Regulations 2010
DD278	Part IV of the Environment Act 1995 updated 2000
DD279	Air Quality (England) (Amendment) Regulations 2002 (SI: 2002/3043)
DD280	Communities and Local Government letter to Broadland District Council - Application for planning permission for proposed Broadland Gate Business Park and Postwick (A47) Junction improvements 20081772 - 28 September 2011
DD281	Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 (SI: 2003/3242)
DD282	The Renewable Fuel Obligations Order 2011 No. 2937
DD283	Department for Transport funding clarification letter dated 3 August 2012
DD284	Local Investment Plan And Programme Prepared By Greater Norwich Development Partnership and dated February 2012
DD285	EC Directive on the Conservation of Wild Birds (Birds Directive 2009) (2009/147/EC);
DD286	Broadland Gate - Broadland District Council acquiesced to judgment 9 December 2009
DD287	The Highways Agency Application for a Record of Determination and Notice of Determination - Submission to Secretary of State for Screening Opinion - August 2012
DD288	Bonn Convention on the Conservation of Migratory Species of Wild Animals - Agreement on the Conservation of Bats in Europe (1991).
DD289	Consent Order issued by the High Court (Admin) on 15 August 2011 in respect of agreed terms of settlement in connection with judicial review challenge by Lothbury Property Trust Limited (Claimant) -v- Broadland District Council (Defendant)
DD290	Broadland District Council Letter to SoS RE: Planning Application

DD291	The Conservation of Habitats and Species Regulations 2010
DD292	Natural Environment and Rural Communities Act 2006
DD293	Contaminated Land (England) Regulations 2000 and 2006
DD294	Norfolk Structure Plan 1999
DD295	Planning Policy Statement 23 - Planning and Pollution Control (PPS23)
DD296	Planning Policy Guidance PPG24: Planning and Noise (PPG24)
DD297	Planning Policy Statement 5: Planning for the Historic Environment (PPS5, DCLG 2010) March 2010
DD298	Department for Communities and Local Government, June 2006. Guidance On Changes To The Development Control System (Circular 01/2006);
DD299	Department for Communities and Local Government, June 2006. Environmental Impact Assessment: A guide to Good Practice and Procedures: A Consultation Paper
DD300	Department for Environment, Transport and the Regions, 1999. Environmental Impact Assessment (Circular 02/1999)
DD301	Environmental Resources Management, June 2001. Guidance on EIA: EIS Review. European Union
DD302	Institute of Environmental Management and Assessment, Guidelines for Environmental Impact Assessment, 2006 updates
DD303	Office of the Deputy Prime Minister, 1999. Note on Environmental Impact Assessment Directive for Local Planning Authorities;
DD304	Office of the Deputy Prime Minister, January 2000. Environmental Impact Assessment: A Guide to Procedures.
DD305	Postwick P&R Red Line Plan
DD306	Postwick P&R Site Plan
DD307	Institute of Ecology and Environmental Management (IEEM), Ecological Impact Assessment 2006.
DD308	Guidelines for Landscape and Visual Assessment (3rd Edition Consultation Draft), Institute of Environmental Management and Assessment and the Landscape Institute
DD309	Assessing the Effect of Road Schemes on Historic Landscape Character, Highways Agency and English Heritage, Draft for discussion March 2007.
DD310	Traffic Signs Regulations and General Directions (2002)
DD311	National Planning Policy Framework and associated guidance document on flood risk.
DD312	Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions, European Commission, May 1999.
DD313	DMRB, Volume 11, Section 3, Part 1 : Air Quality
DD314	DMRB Volume 11, Section 3 Part 2 : Cultural Heritage - Interim Advice Note 92/07 (note this is now superseded by HA 208/07)
DD315	NCC Cabinet Report 19 September 2005
DD316	NCC Cabinet Report 2 April 2012
DD317	Dft Transport Analysis Guidance Unit 2.7
DD318	Dft Transport Analysis Guidance Unit 3.4.1 – April 2011
DD319	Dft Transport Analysis Guidance Unit 3.5 modules 1-14
DD320	Dft Transport Analysis Guidance Unit 3.10 modules 1 to 7
DD321	Dft Transport Analysis Guidance Unit 3.15 modules 1,2 and 5
DD322	Dft Transport Analysis Guidance Unit 3.16D
DD323	Dft Transport Analysis Guidance 3.19D – May 2012
DD324	Postwick P&R Transport Assessment
DD325	Postwick P&R Environmental Statement Addendum December 2009
DD326	Infiltration drainage lagoon and vehicular access to the lagoon and The

	Grange Planning Application - Application to extend the time limit for implementation - Application - December 2012
DD327	Infiltration drainage lagoon and vehicular access to the lagoon and The Grange Planning Application - Application to extend the time limit for implementation - Decision - March 2013
DD328	Infiltration drainage lagoon and vehicular access to the lagoon and The Grange Planning Application - Application to extend the time limit for implementation - Infrastructure drawing
DD329	NCC report to Cabinet 3 December 2012
DD330	Joint Core Strategy for Broadland, Norwich and South Norfolk - Submission Document February 2013
DD331	DfT draft policy document: The Strategic Road Network and the Delivery of Sustainable Development February 2013
DD332	Postwick Hub Junction Scheme - Adjustment of Highway Transport Model using 2012 data - March 2013
DD333	Postwick Hub Junction Scheme - Present Year Validation Report - March 2013
DD334	The Ministerial Statement of 23 March 2011 by Rt Hon Greg Clark MP
DD335	Government's invitation to Greater Norwich to negotiate a "2nd Wave" City Deal (HM Treasury Press Notice 101/12 Norwich dated 29 October 2012)
DD336	Postwick Hub Scheme - Forecasting Report April 2013
DD337	National Infrastructure Plan - Update 2012 - December 2012
DD338	National Infrastructure Plan Update: HM Treasury, March 2013
DD339	Highways Agency - Scheme Identification Study - A47 Postwick - River Yare Crossing - Draft February 2000
DD340	European Commission - Annex to the Proposal for a regulation of the European Parliament and of Council on Union guidelines for the development of the trans-European transport network - December 2011
DD341	Duplicate of DD317
DD342	DfT Transport Analysis Guidance Unit 3.4.1 - August 2012
DD343	Duplicate of DD319
DD344	Duplicate of DD320
DD345	DfT Transport Analysis Guidance 3.19 - August 2012
DD346	Notice dated 1 March 2013 announcing Pre-Inquiry and Public Inquiry Meeting
DD347	The Town and Country Planning (General Development Procedure) Order 2010 (SI 1995/419)
DD348	Direction Under Paragraph 1(3) of Schedule 8 to the Planning and Compulsory Purchase Act 2004 - Policies contained in Broadland District Local Plan (Replacement 2006) - 17 March 2009
DD349	Brook Farm Laurel Farm 20090886 development - Planning meeting minutes - August 2011
DD350	The Treaty on the Functioning of the European Union ("TFEU")
DD351	Letter dated 27 March 2009 from DfT to NCC
DD352	The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (SI 1999/293)
DD353	DMRB Volume 11, Section 3, Part 2 : HA 208/07, Cultural Heritage
DD354	Highways Agency Outline Statement of Case Volume 1 (April 2013)
DD355	Highways Agency Outline Statement of Case Volume 2 (April 2013)
DD356	NATS Model Update For Norwich Northern Distributor Road Development Pool Bid
DD357	Housing Monitoring Report April 2009 - March 2010

DD358	Highways Agency Departure from Standard Approval - Westbound Merge, DAS ID 67370
DD359	Highways Agency Departure from Standard Approval - Eastbound Merge, DAS ID 52545
DD360	Highways Agency Departure from Standard Approval - Eastbound diverge, DAS ID 52543
DD361	Highways Agency Departure from Standard Approval - Abutment Galleries, DAS ID 59837
DD362	Postwick Hub Scheme - Economic Appraisal Report – April 2013
DD363	A47/A1042 Postwick Hub Junction Road Safety Audit - Stage 2 Submission and Report April 2013
DD364	Strategic road network performance specification 2013-2015 (April 2013)
DD365	GNDP JCS Annual Monitoring Report 2011-2012
DD366	Broadland Local Plan proposals map as modified as a result of the adoption of the JCS in 2011
DD367	Environment Agency, Groundwater Protection: Principles and practice
DD368	A47 Wider Economic Benefits, Mott MacDonald (August 2012)
DD369	Highways Agency Full Statement of Case Volume 1 (May 2013)
DD370	Highways Agency Full Statement of Case Volume 2 (May 2013)
DD371	Environmental Statement – Revised Air Quality, Noise and Water Resource Assessments – April 2013
DD372	DfT Transport Analysis Guidance Unit 2.13 - Summary Guidance on Social and Distributional Impacts of Transport Interventions
DD373	DfT Transport Analysis Guidance Unit 3.17 - Detailed Guidance on Social and Distributional Impacts of Transport Interventions

## **Highways Agency - Statement of Case and Proofs of Evidence**

HA/01/1	Eric Cooper Proof of Evidence - Highways Agency
HA/01/2	Eric Cooper Appendices to Proof of Evidence - Highways Agency
HA/01/3	Eric Cooper Summary of Proof of Evidence - Highways Agency
HA/02/1	David Allfrey Proof of Evidence - Scheme Justification
HA/02/2	David Allfrey Appendices to Proof of Evidence - Scheme Justification
HA/02/3	David Allfrey Summary of Proof of Evidence - Scheme Justification
HA/03/1	Mark Kemp Proof of Evidence - Scheme Design
HA/03/2	Mark Kemp Appendices to Proof of Evidence - Scheme Design
HA/03/3	Mark Kemp Summary of Proof of Evidence - Scheme Design
HA/04/1	Philip Morris Proof of Evidence - Planning
HA/04/2	Philip Morris Appendices to Proof of Evidence - Planning
HA/05/1	Christopher White Proof of Evidence - Traffic, Safety and Economics
HA/05/2	Christopher White Appendices to Proof of Evidence - Traffic, Safety and Economics
HA/05/3	Christopher White Summary of Proof of Evidence - Traffic, Safety and Economics
HA/06/1	James Montgomery Proof of Evidence - Environmental
HA/06/2	James Montgomery Appendices to Proof of Evidence - Environmental
HA/06/3	James Montgomery Summary of Proof of Evidence - Environmental
HA/07/1	Professor Duncan Laxen Proof of Evidence - Climate Change
HA/07/2	Professor Duncan Laxen Appendices of Proof of Evidence - Climate Change
HA/08/1	Glyn Owen Proof of Evidence - Economics

HA/08/2 Glyn Owen Appendices of Proof of Evidence - Economics  
HA/09/1 Max Forni Proof of Evidence - Noise

### **Rebuttal Documents submitted by the Highways Agency**

HA/RB/OBJ02/1	Rebuttal Proof to Evidence of Mr Bowell - The Ramblers' Association
HA/RB/OBJ03/1	Rebuttal Proof to Evidence of Mr Woods - Postwick with Witton Parish Council
HA/RB/OBJ08/1	Rebuttal Proof to Evidence of Cllr A Townly - Great and Little Plumstead Parish Council
HA/RB/OBJ08/2	Addendum to the written objections of Cllr A Townly - Great and Little Plumstead Parish Council
HA/RB/OBJ12/1	Rebuttal Proof to Evidence of Mr R Lindsay
HA/RB/OBJ24/1	Rebuttal Proof to Evidence of Mrs M Howes
HA/RB/OBJ27/1	Rebuttal Proof to Evidence of Mr P Woolnough on behalf of CPRE Norfolk
HA/RB/OBJ28/1	Rebuttal Proof to Evidence of Ms D Carlo - Norwich and Norfolk Transport Action Group
HA/RB/OBJ28/2	Rebuttal Proof to Evidence of Mr K Buchan - Norwich and Norfolk Transport Action Group
HA/RB/OBJ28/3	Rebuttal to Supplementary Proof of Evidence of Mr K Buchan on behalf of NNTAG
HA/RB/OBJ28/4	Analysis of TECs
HA/RB/OBJ35/1	Rebuttal Proof to Evidence of Ms S Berry - Campaign for Better Transport
HA/RB/OBJ36/1	Rebuttal Proof to Evidence of Thorpe St Andrew Town Council (Mr Eley and Mr Ford)
HA/RB/OBJ52/1	Rebuttal Proof to Evidence of Mr A Williams
HA/RB/OBJ52/2	Addendum to the Rebuttal to the written objections of Mr A Williams
HA/RB/OBJ64/1	Rebuttal Proof to Evidence of Cllr A Boswell on behalf of Norwich Green Party
HA/RB/OBJ64/2	Addendum to the Rebuttal Proof to Evidence of Cllr Boswell on behalf of the Norwich Green Party
HA/RB/OBJ64/3	Analysis of Traffic Reassignment caused by the implementation of the Scheme & Forecast Traffic Movements through Postwick Junction
HA/RB/OBJ64/3A	Traffic Reassignment Routes, to be read with HA/RB/OBJ-64/3 (Map showing Street Names)
HA/RB/OBJ64/4	Second Addendum to Rebuttal Proof of Cllr Boswell on behalf of the Norwich Green Party
HA/RB/OBJ77/1	Rebuttal Proof to Evidence of Mr E Newberry
HA/RB/OBJ77/2	Addendum to written objections of Mr Newberry
HA/RB/OBJ81/1	Rebuttal Proof to Evidence of Mr P Wilkinson - Lothbury Property Trust
HA/RB/OBJ81/2	Rebuttal Proof to Evidence of Mr D Rapson - Lothbury Property Trust
HA/RB/OBJ81/3	Rebuttal Proof to Additional Evidence of Mr D Rapson - Lothbury Property Trust
HA/RB/OBJ82/1	Rebuttal Proof to Evidence of Mr Clarke - CTC Norfolk
HA/RB/OBJ86/1	Rebuttal Proof to Evidence of Mr S Heard - SNUB

HA/RB/OBJ86/2	Addendum to the Rebuttal of Mr Heard on behalf of SNUB and Salhouse Parish Council
HA/RB/OBJ121/1	Rebuttal Proof to Evidence of Mr C Cockcroft
HA/RB/OBJ127/1	Rebuttal Proof to Evidence of Mr A Cawdron
HA/RB/OBJ128/1	Rebuttal Proof to Evidence of BNP Paribas Real Estate on behalf of Aviva PLC
HA/RB/OBJ129/1	Rebuttal Proof to Evidence of Mr J Adams
HA/RB/OBJ131/1	Rebuttal Proof to Evidence of Menzies Distribution Limited
HA/RB/OBJ132/1	Rebuttal Proof to Evidence of Mr R Bailey

### **Alternative Route Reports submitted by the Highways Agency**

HA/OBJ28/ALT1	Alternative Route 1 Report
HA/OBJ28/ALT2	Alternative Route 2 Report
HA/OBJ28/ALT4	Alternative Route 4 Report
HA/OBJ27/ALT5	Alternative Route 5 Report
HA/OBJ121/ALT6	Alternative Route 6 Report
HA/OBJ36/ALT6a	Alternative Route 6a Report
HA/OBJ36/ALT6a/1	Correction to Report on Alternative Route 6a
HA/OBJ36/ALT7	Alternative Route 7 Report
HA/OBJ129/ALT9	Alternative Route 9 Report
HA/OBJ24/ALT10	Alternative Route 10 Report
HA/OBJ36/ALT11	Alternative Route 11 Report
HA/OBJ64/ALT12	Alternative Route 12 Report
HA/OBJ121/ALT14	Alternative Route 14 Report

### **Other documents submitted by the Highways Agency**

HA/10	Signed Record of Determination dated 14 May 2013
HA/11	Environmental Impact Assessment - Notice of Determination
HA/12	Postwick Hub Scheme - Yarmouth Road Surveys and Northside Roundabout Assessment Final Version dated June 2013
HA/13	Calculation of Road Traffic Noise
HA/14	Department for Transport - Section 278 Agreement Guidance
HA/15	Impact of RDA Spending - National Report, Volume 1, Main Report dated March 2009
HA/16	Department for Transport - Introduction to Modelling - TAG Unit 3.1.1
HA/17	Department for Transport - Model Structures and Traveller Responses for Public Transport Schemes - TAG Unit 3.11.1
HA/18	Planning Permission for BFLF dated 28 June 2013
HA/19	NCC Screening Option on Northside Roundabout
HA/20	Compliance Pack
HA/21	HA Opening Statement
HA/22	Corrections to Planning Proof of Evidence by Phillip John Morris
HA/23	Corrections to Scheme Design Proof of Evidence by Mark Kemp
HA/24	Corrections to Traffic, Safety and Economic Proof of Evidence by Chris White
HA/25	Corrections to Environmental Impact Proof of Evidence by James Montgomery
HA/26	Corrections to Climate Change Proof of Evidence by Duncan Laxen
HA/27	Corrections to Scheme Justification Proof of Evidence by David Allfrey

HA/28	Correction to Economics Proof of Evidence by Glyn Owen
HA/29	Statement of Common Ground between the Highways Agency, Norfolk County Council and John Elbro on behalf of Norwich Cycling Campaign
HA/30	Statement of Common Ground between the Highways Agency, Norfolk County Council and Mr D Eley on behalf of Thorpe St Andrew Town Council
HA/31	Corrections to Highways Agency Proof of Evidence by Eric Cooper
HA/32	Statement of Common Ground between the Highways Agency, Norfolk County Council and Tony Clarke on behalf of the Cyclists' Tourist Club (CTC)
HA/33	NNTAG Transcript of Exchanges at Pre-Inquiry Meeting held on 8 May 2013
HA/34	HM Treasury Statement 27 June 2013 - Investing in Britain's Future
HA/35	Alternatives Pack
HA/36	Updated Correction to Report on Alternative Route No. 6A
HA/37	Note to Inquiry regarding SRO Modifications
HA/38	The Ramblers' Association signed Statement of Common Ground
HA/39	Glyn Owen's Additional Statement regarding Calculation of One Third Additionality
HA/40	Response to Cllr Boswell's letter of 27 June 2013
HA/40/1	Appendix to HA/40
HA/41	Alternative 11 amendments proposed by Mr Eley in an email dated 17 July 2013 (received on 18 July 2013)
HA/42	Notes from the meeting between NCC and objectors on 11 July 2013 to discuss alternative routes
HA/43	Approval of non-material amendments
HA/44	Comments on the addendum on climate change submitted by Cllr Boswell (OBJ/64) on 22 July 2013
HA/45	M1 J19 Improvement Environmental Statement Volume 2
HA/46	Planning Inspectorate Guidance - Transport Orders
HA/47	Responses to questions put by Denise Carlo (NNTAG) to Eric Cooper (Highways Agency) during cross-examination on Day 9 of the Postwick Inquiry, Friday 19 July 2013
HA/48	Responses to questions put by Cllr Boswell (Green Party) to Eric Cooper (Highways Agency) during cross-examination on Day 11 of the Postwick Inquiry, Tuesday 23 July 2013
HA/49	Value for Money Assessments
HA/50	Investment in Local Major Transport Schemes : 2nd Update
HA/51	New Anglia Local Enterprise Partnership for Norfolk and Suffolk - Towards a growth plan July 2013
HA/52	Response to question on Alternative Route 1 (during day 6)
HA/53	Response to question on Queues reported in HA/12
HA/54	Response to question from Denise Carlo regarding reassignment
HA/55	Guidance on public consultation
HA/56	Consultation principles Highways Agency guidance
HA/57	Response to question from Denise Carlo to Eric Cooper during cross-examination on Day 9
HA/58	Proposed modifications to A47 Trunk Road (Postwick Interchange Side Roads) Order
HA/59	Further proposed modifications to A47 Trunk Road (Postwick Interchange Side Roads) Order
HA/60	Proposed modifications to A47 Trunk Road (Postwick Interchange Slip

	Roads) Order
HA/61	Not Allocated
HA/62	Addendum to corrections to traffic, safety and economics Proof of Evidence by Chris White
HA/63	Response to question put by Mr Buchan (NNTAG) to Eric Cooper during cross-examination on Day 8
HA/64	Scheme Evaluation Table, November 2012
HA/65	Closing Submissions
HA/66	Details of all objections that did not have specific rebuttals

### **Documents submitted to the Inquiry by Supporters**

	<b>Mr Edward Olley on behalf of Ifield Estates Limited</b>
SUP/02/01	Written Statement
SUP/02/02	Letter dated 24 July 2013
	<b>Mr Chris Starkie on behalf of New Anglia Local Enterprise Partnership</b>
SUP/33/01	Letter
SUP/33/02	Statement

### **Documents submitted to the Inquiry by Objectors**

	<b>The Ramblers' Association</b>
OBJ/INQ/02/01	Letter dated 27 February 1986, referred to at the Inquiry by Mr A Howell
	<b>Great and Little Plumstead Parish Council</b>
OBJ/INQ/08/01	Statement and Appendix from Cllr Alfred N Townly
	<b>Mr R Stewart Lindsay</b>
OBJ/INQ/12/01	Statement
	<b>Mrs M Howes</b>
OBJ/INQ/24/01	Statement and Appendices
	<b>Norwich and Norfolk Transport Action Group (NNTAG)</b>
OBJ/INQ/28/1/01	Proof of Evidence of Mr Keith Buchan
OBJ/INQ/28/1/02	Appendix to Mr Buchan's Proof of Evidence
OBJ/INQ/28/1/03	Supplementary Proof of Evidence of Mr Keith Buchan
OBJ/INQ/28/1/04	Appendices to Mr Buchan's Supplementary Proof of Evidence
OBJ/INQ/28/1/05	Addendum to the Supplementary Proof of Evidence on transport and sustainable transport
OBJ/INQ/28/1/06	Submission including material referred to during cross examination on transport and sustainable transport
OBJ/INQ/28/2/01	Proof of Evidence of Ms Denise Carlo
OBJ/INQ/28/2/02	Appendices to Ms Carlo's Proof of Evidence
OBJ/INQ/28/2/03	Supplementary Note on Planning Matters
OBJ/INQ/28/2/04	Appendices to Supplementary Note on Planning Matters
OBJ/INQ/28/2/05	Closing Submissions
	<b>Thorpe St Andrew Town Council</b>
OBJ/INQ/36/01	Addendum to Statement from Mr D Eley
	<b>Mr A R Williams</b>
OBJ/INQ/52/01	Statement/Speaking Notes
OBJ/INQ/52/02	Response to the rebuttal proof HA/RB/OBJ52/1
	<b>Norwich Green Party</b>
OBJ/INQ/64/01	Proof of Evidence of Cllr Andrew Boswell



OBJ/INQ/64/02	Appendix to Cllr Boswell's Proof of Evidence
OBJ/INQ/64/03	Summary to Cllr Boswell's Proof of Evidence
OBJ/INQ/64/04	Addendum on Climate Change
OBJ/INQ/64/05	Addendum Appendix on Climate Change and Scheme Overall
OBJ/INQ/64/06	Additional Addendum Appendix on Climate Change and Scheme Overall
OBJ/INQ/64/07	Supporting documents accompanying Proof of Evidence
OBJ/INQ/64/08	Joint Core Strategy note on Resumed Hearings 24-25 July 2013
OBJ/INQ/64/09	Closing Statement
	<b>Mr E Newberry</b>
OBJ/INQ/77/01	Written Statement dated 4 June 2013
OBJ/INQ/77/02	Statement and Appendices
OBJ/INQ/77/03	Letter dated 24 July 2013
	<b>Lothbury Property Trust Company Ltd</b>
OBJ/INQ/81/01	Proof of Evidence of Mr Peter Wilkinson (not presented orally at the inquiry)
OBJ/INQ/81/02	Proof of Evidence of Mr Daniel James Rapson
OBJ/INQ/81/03	Statement from Simon Radford
OBJ/INQ/81/04	Rebuttal Proof of Evidence from Mr Rapson
OBJ/INQ/81/05	Statement from Mr Rapson
	<b>Cyclists' Touring Club</b>
OBJ/INQ/82/01	Statement from Mr Tony Clarke (not presented orally at the inquiry)
	Letter dated 16 July 2013
	<b>Stop Norwich Urbanisation (SNUB) and Salhouse Parish Council</b>
OBJ/INQ/86/01	Statement from Mr Stephen Heard
	<b>Mr Christopher Cockcroft</b>
OBJ/INQ/121/01	Statement
OBJ/INQ/121/02	Letter dated 17 July 2013
OBJ/INQ/121/03	Letter dated 25 July 2013
	<b>Mr Andrew Cawdron</b>
OBJ/INQ/127/01	Statement
OBJ/INQ/127/02	Further Statement
	<b>Menzies Distribution</b>
OBJ/INQ/131/01	Memo from Mr Davidson, dated 1 July 2013
	<b>Mr Robert Bailey</b>
OBJ/INQ/132/01	Statement

### General Inquiry Documents

INQ/01	Notes of the Pre-Inquiry Meeting held at the King's Centre on 8 May 2013
INQ/02	Two lever arch folders containing letters of Objection received by the Highways Agency
INQ/03	One lever arch folder containing letters of Support received by the Highways Agency
INQ/04	Daily Transcripts of the Inquiry proceedings – covering Days 1 to 14