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# The Norfolk County Council (Norwich Northern Distributor Road (A1067 to A47(T))) Order

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## Responses on Transport, Economics and Modelling Issues arising at Issue Specific Hearing held on 28<sup>th</sup> November 2014

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Planning Act 2008

Infrastructure Planning

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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## **Introduction**

The purpose of document is to set out the Applicant's case for the three documents for submission at deadline 12, i.e. summary of oral case, comments on written representations of IPs, and further information requested by the Examining Authority.

## 1 Summary of Applicant's Oral Case

- 1.1.1 This response provides a written summary of the oral case presented by the Applicant at the Issue Specific Hearing held on 28 November 2014 concerning Agenda item 3 on any unresolved issues relating to economic appraisal and related matters.
- 1.1.2 In response to the Examining Authority's questions about the treatment of the developer link roads in the different scenarios, the Applicant made some introductory remarks about the rationale for the scenarios. The Applicant explained the distinction between the PT Option (which was assessed as a potential alternative to the NDR) and the NDR + NATS PT scenario (which was assessed not as an alternative but only on a cumulative basis with the NDR to provide an indication of the *"big picture"*). Because the assessments were for different purposes there was no particular need for consistency between them in relation to the treatment of the developer link roads.
- 1.1.3 It is worth keeping in mind the context in which the consideration of alternatives is material to the merits of the DCO application. The Applicant considers that the question of alternatives is relevant to the EIA of the NDR and to the case for compulsory acquisition.
- 1.1.4 In relation to EIA, Regulation 2(1) and paragraphs 18 and 27 of Schedule 4 to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 require that the ES should include *"An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects."* It is clear from this that it is for the Applicant to select the alternatives to be studied and to make a choice as to its preferred option, and that the explanation of those matters in the ES is not expected to be as detailed as the assessment of the scheme itself but need only cover an *"outline"* of the *"main alternatives"* and an *"indication"* of the *"main reasons"* for the Applicant's choice.

- 1.1.5 The Applicant suggests that the material on alternatives provided by the Applicant to the Examining Authority more than fulfils these obligations. A summary of the main documents addressing alternatives is provided at paragraph 4.3.4 of NCC/EX/67. The main reasons for the Applicant's choice are fully explained in section 3 of Vol. 1 of the ES (Document Ref 6.1). To this can be added the further information on the PT Option in NCC/EX/71 and the Applicant's further responses on alternatives in the light of comments made by Interested Parties in NCC/EX/91 (in particular at sections 1 (response to Professor Goodwin), 5 (response to NGP), 13 (response to NNTAG), and 15 (response to Gt & Little Plumstead PC)).
- 1.1.6 With regard to compulsory acquisition, s.122(3) Planning Act 2008 requires that compulsory acquisition can only be authorised in a DCO if the Secretary of State is satisfied that *"there is a compelling case in the public interest for the land to be acquired compulsorily."* As noted at paragraph 8 of the DCLG *'Guidance related to procedures for the compulsory acquisition of land'* the existence of a reasonable alternative that would not entail compulsory acquisition or as much compulsory acquisition as is required for the scheme would be relevant to whether there was a compelling case in the public interest for the compulsory acquisition of the land and rights included in the DCO. The question of whether a lesser intervention is a reasonable alternative needs to be considered in the context of the objectives of the scheme. An option which failed to meet all or most of those objectives would not be a reasonable alternative because it would be incapable of taking the place of the NDR. In addition, an option which was not realistically deliverable within a reasonable timeframe would not be a reasonable alternative. This would include options which rely on diverting the funding provided by Government for the delivery of the NDR to alternative transportation initiatives.

- 1.1.7 It is with these two aspects in mind (EIA and compulsory acquisition) that the question of alternatives needs to be considered. Alternatives have been explored in considerable detail, including combining different elements of different options, both in the written material presented by the Applicant and at the hearings. Given the extensive information that has been provided, the Applicant would suggest that there is no question of any failure to meet the requirements for EIA. The only possible issue is whether it can be seriously claimed that there is a reasonable and deliverable alternative transportation intervention such that the compelling case is not made out for compulsory acquisition. The Applicant is clear that such a claim cannot be sensibly made or substantiated. What is in effect the fall-back claim by a number of Interested Parties that there has not yet been a proper testing or consideration of alternatives is in reality a tacit acceptance that there is no credible alternative to the NDR. It is no more than a way of avoiding a decision and of addressing the needs that arise.
- 1.1.8 Whilst a wide range of alternatives has been considered, attention at the hearing on 28 November 2014 focused on the PT Option. The PT Option includes within it the extended developer link roads (as explained at paragraph 10.2.2 of Document Ref 5.12).
- 1.1.9 The Applicant explained at the hearing that the purpose of assessing the PT Option was to see whether an option which focused on maximising the provision of public transport across Greater Norwich could meet all or most of the scheme objectives. The Applicant identified that those objectives were set out at paragraph 3.5.6 of the Environmental Statement (Document Ref 6.1). The Applicant explained that the question of whether such an option was economically viable or provided value for money (VfM) was secondary to the question of whether it could meet the objectives, because an option that could not meet all or most of the objectives would not be a reasonable alternative to the NDR and so would not be worth pursuing further. The Applicant referred back to the remarks made at the

Issue Specific hearing on 17 September 2014 on alternatives, as summarised at section 4.3 of NCC/EX/67.

- 1.1.10 With this consideration in mind, the PT Option was therefore not formulated on the basis of identifying a level of public transport improvement that would necessarily be economically viable but on the basis of providing a significant improvement in the level of public transport provision to see if such an improvement could realistically meet the scheme objectives in the absence of the NDR. This is explained in section 10.2 (Appendix B) of Document Ref 5.12 and in sections 4.4 and 4.5 of NCC/EX/67. As identified at the hearing, the Traffic Analysis Results and Junction Analyses presented in Document Ref 5.12 show that, even with the significant enhancement of public transport provision and the utilisation of the enhanced developer link roads to provide an orbital bus service, the PT Option is incapable of catering for the levels of travel demand in 2017 or 2032 or of meeting the scheme objectives to reduce traffic on inappropriate routes, materially reduce city centre through traffic crossing the cordons, or provide improved transport connectivity (particularly on the North Walsham Road and Wroxham Road radials). There is no credible evidence available to challenge these conclusions.
- 1.1.11 These outcomes remain the same whatever view is taken on the economic viability of the PT Option. They are not affected by the error in the initial economic appraisal of the PT Option (as reported in Document Ref 5.12). The correction of that error (as reported in NCC/EX/71) does not change the Traffic Analysis Results or the Junction Analyses for the PT Option but only its economic performance. Even looking just at the economic appraisal, the corrected PT Option has a negative BCR and represents poor VfM but the key point is that the PT Option is not a reasonable alternative because it cannot deliver the scheme objectives.
- 1.1.12 In relation to the developer link roads, the cost of these has been included in the economic appraisal of the PT Option because the PT Option is dependent on the provision of those link roads in order to accommodate



the orbital bus service from Postwick to the Airport. This is explained at paragraphs 10.2.9 and 10.2.12 of Document Ref 5.12. The costs of initial provision are attributed to the private sector and the costs of ongoing maintenance and operation are attributed to local government as explained at paragraph 10.2.13 of Document Ref 5.12.

- 1.1.13 Whilst Interested Parties suggested that it was unrealistic to test a PT Option that was not economically viable, this missed the point of the exercise. The aim was to see if a significantly enhanced public transport “offer” could obviate the need for the NDR. Thus both existing services and additional services were proposed with high levels of frequency throughout the day and with qualitative improvements to make the “offer” as attractive as possible. Notwithstanding such an “offer” the PT Option was unable to cater adequately for the projected levels of travel demand in either of the assessment years, such that the network would continue to suffer operational problems and traffic would continue to use inappropriate routes. The Applicant suggested that reducing service levels (by number, frequency, or quality) in an attempt to find a public transport intervention that might be economically viable would not overcome these fundamental shortcomings of the PT Option. If anything, a lesser public transport intervention would be even less able to cater for projected travel demand and so the shortcomings as against the scheme objectives would be more likely to be increased. In short, if the PT Option, which maximised public transport provision, could not deliver the scheme objectives, a lesser option (even if viable) could not be expected to do so. There was, therefore, no need for a specific assessment of such a lesser option.
- 1.1.14 With regard to the NDR + NATS PT scenario, the Applicant emphasised at the hearing that this was not to be seen as an alternative to the NDR (because the NDR was an integral part of the scenario). The scenario was provided (in NCC/EX/72) in response to the Examining Authority’s request for information on how the NDR would fit together with the wider NATS measures as a transportation package. The Applicant had previously

explained (at the hearing on 17 September 2014) why an appraisal of such a package would involve a departure from the WebTAG methodology because it would entail the inclusion of measures that would not ordinarily be included in an assessment based upon the compilation of an Uncertainty Log. Nonetheless, the Applicant confirmed at the hearing that the NDR + NATS PT scenario had not been constrained by reference to the Uncertainty Log and took a broader view as to the NATS measures that should be included in the assessment. Those measures are explained in section 2 of NCC/EX/72.

- 1.1.15 The assessment of the NDR + NATS PT scenario (as reported in NCC/EX/72) showed that the progressive implementation of the PT strategy which forms part of the NATS IP together with the NDR would result in further economic benefits in addition to those secured by the NDR itself and that the overall package would continue to have a positive BCR (as explained at paragraph 5.1.7 of NCC/EX/72).
- 1.1.16 Whilst the developer link are part of the highway network which is assumed to be in place in the NDR + NATS PT scenario, the NDR + NATS PT scenario is intended to assess the effects of adding NATS PT measures to the NDR, and in order to remain consistent with the NDR, the costs of the developer link roads are not included in the economic appraisal of the scenario (as explained in section 2 of NCC/EX/90). Whilst the NDR + NATS PT scenario does include an orbital service in 2032, the developer link roads such a service would use would, by then, be “sunk” costs and part of the general highway network rather than costs referable to the scenario.
- 1.1.17 At the hearing, various Interested Parties commented on the elements within the economic appraisal of the NDR + NATS PT scenario which suggested that the PT elements would not be viable to commercial operators (because of negative revenue) and so would not be delivered. The Applicant explained that the economic appraisal followed the WebTAG methodology of an appraisal period of 60 years. The Applicant

also explained that the revenue assumptions derived from fare data at the time of assessment (which was broadly distance based) whereas operators had more recently been introducing mixed fare packages, including flat fares for some journeys. The Applicant made the point that it could not be assumed that the operators' assessment of the commercial viability of introducing a new or enhanced service would be tested by them using the WebTAG methodology. Rather, the operators would make their own commercial decisions based on their own viability appraisals, with flexibility to adapt fares and services as appropriate to ensure a commercial return.

- 1.1.18 Whilst some Interested Parties suggested that the fact operators would make their own decisions on viability implied that the economic appraisal of the NDR + NATS PT scenario could not then be relied on, this missed the point that the purpose of the appraisal (as set out in Table 6 of NCC/EX/72) was simply to see whether if the NATS PT measures were added to the NDR the resulting package would still be VfM in terms of the scale of the BCR. This outcome was clearly shown (as reported at paragraph 5.1.3 of NCC/EX/72). If a different formulation of the NATS PT measures was tested, perhaps utilising a different fare structure, so as to increase the operators' revenue, the results would be likely to simply improve the BCR of the combined package and so increase the VfM of that scenario.
- 1.1.19 It must also be borne in mind that the scheme under assessment at the DCO Examination is a scheme which comprises the NDR. The focus of the economic appraisal should therefore be on the performance of the NDR. This has a clearly positive BCR and represents Very High VfM (as explained in Table 10.1 of the Economic Appraisal Report (Document Ref 5.7)). The further assessment presented in NCC/EX/72 is necessarily subject to a higher degree of uncertainty (for the reasons explained at paragraph 1.1.1 of NCC/EX/72). However, what it shows is that the addition of the NATS PT measures to the provision of the NDR is likely to

increase the overall scale of the benefits. For the purposes of the assessment of the NDR (as opposed to a fully detailed assessment of the NDR + NATS PT scenario) nothing more is required. Refinement of the NDR + NATS PT scenario to address the negative revenue of the PT elements would only be necessary were a Business Case being presented for public funding of the NDR + NATS PT scenario. That is not an exercise which the Applicant has sought to present at this DCO Examination into the merits of the NDR.

- 1.1.20 At the hearing other matters were also raised and the Applicant's response to those matters is now set out.

## 2 Responses to Other Points Raised

<i>Q2.1</i>	<i>Correction to referencing in previous documents</i>
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### Applicant's Response

- 2.1.1 Document 5:12 – Traffic and Economic Appraisal of NDR Alternatives:
- *Section 10.2 Appendix B – the page headers should include ‘Document Reference: 5.12’ (to replace ‘Document Reference: 5.13’).*
  - *Section 5.1.5 – should commence ‘Table 5.1 below ...’ (to replace ‘Table 5.2 below ...’).*
- 2.1.2 Doc NCC/EX/90 - Response to Examining Authority's Third Written Questions relating to the revised economic appraisal
- Section 1.1 line 9 – reference should be amended to ‘Table 10.9 of Document 5.12’ (to replace ‘Table 10.3 of Document 5.12’).
  - Section 3.4, Table 4 – the table header should be amended to include ‘ – NDR + NATS PT strategy’ (to replace ‘ - PT option’).
  - Section 3.7, Table 5 – the table header should be amended to include ‘ – PT Option / NDR + NATS PT strategy’ (to replace ‘ - PT option’).
- 2.1.3 Doc NCC/EX/91 - Responses to comments made by Interested Parties
- Section 1.1.1 line 3 – reference should be amended to ‘Document Ref 6.1, Part 1 Vol 1, section 3’ (to replace ‘Document Ref 6.1, Part 1 Vol 1, section 2’).
  - Section 1.3.1 line 2 - reference should be amended to ‘Document Ref 6.1, Part 1 Vol 1, section 3’ (to replace ‘Document Ref 6.1, Part 1 Vol 1, section 2’).
  - Section 4.2.1 line 3 - reference should be amended to ‘Document Ref 6.1, Part 1 Vol 1, section 3’ (to replace ‘Document Ref 6.1, Part 1 Vol 1, section 2’).

**Q2.2** *Public Accounts tables for DCO, NDR+NATS and PT Option*

Applicant's Response

- 2.2.1 The Public Accounts tables for the DCO Scheme, the corrected PT Option, and the NDR + NATS PT scenario were provided in Document Ref NCC/EX/90 Appendix A – TUBA Tables. They are located in Appendix A immediately following the TEE (Transport Economic Efficiency) tables.

**Q2.3** *Map of BRT and Core bus interventions*

Applicant's Response

- 2.3.1 A map of the elements of the PT Option can be found in Document Ref 5.12 Appendix B Figure 10.21.
- 2.3.2 A map of the PT elements of NDR + NATS PT scenario can be found in Document Ref NCC/EX/72 Figures 1 and 2.

**Q2.4** *Micro time choice / peak spreading*

Applicant's Response

- 2.4.1 The issue of time shifting / peak spreading in transport modelling is given in Document Ref NCC/EX/52 Section 3.11.4.

**Q2.5** *BRT characteristics*

Applicant's Response

- 2.5.1 Document Ref NCC/EX/67 - Response to requests and points made at Issue Specific Hearings – Sections 3.2.1 to 3.2.28 gives details of the NATS vision for delivering Bus Rapid Transit in Norwich. Section 3.2.3 explains that there is no single standard model for BRT and section 3.2.6 sets out the specification for BRT in Norwich. Section 3.2.7 explains why

segregation over the whole of the route corridor is neither necessary nor practical in the context of the existing highway network in Norwich.

- 2.5.2 As far as the Applicant is aware the Department of Transport do not give a definition of Bus Rapid Transit in their publications. The Applicant considers that its proposals for BRT (as explained in Section 3.2 of NCC/EX/67) are able to function as an effective and meaningful BRT service.

*Q2.6 Coupling effect – to what extent has it been demonstrated that the NATS measures could not be achieved without implementing NDR*

Applicant's Response

- 2.6.1 A distinction needs to be drawn between 2 different issues. The first is whether the economic appraisal of different options has relied on a “*coupling effect*” so as to improve the performance of PT measures when the NDR is in place in comparison to when it is not. That is not an approach that has been adopted in the economic appraisals of either the PT Option or the NDR + NATS PT scenario (as explained in Section 8.1 of Document Ref NCC/EX/90). The second issue is whether the full range of NATS measures (i.e. not limited simply to bus provision) can be achieved in practice without the NDR.
- 2.6.2 Sections 3.4.45 to 3.4.55 of Vol. 1 of the Environmental Statement (Document Ref 6.1) summarise the detailed assessment that was provided in the JCS Baseline Conditions Report of the existing conditions for public transport, pedestrian, and cycle movements and indicate the difficulties of putting in place measures to improve those conditions so as to cater for more movements to be made by those modes. A common problem was the presence of high levels of traffic which constrained the opportunities to re-allocate road space to non-car modes.
- 2.6.3 The Transport Assessment (Document Ref 5.5) sets out the detailed results of the Do Minimum (DM) Appraisal in Section 7 and identifies the

problems with the existing highway network in catering for both existing and projected traffic. This includes the effects on highway journey times, public transport journey times, and traffic flows along inappropriate routes (including those which should cater for substantial flows of cyclists and pedestrians). Sections 8 and 9 of Document Ref 5.5 identify how the NDR will address those problems, remove traffic from inappropriate routes, and improve both journey times and reliability, in particular for public transport.

- 2.6.4 The Traffic Forecasting Report – Document Ref 5.6 – gives information on forecast total queues on the network for the situations without and with the DCO Scheme (Do Minimum - DM and Do Something - DS) in Section 7.2. Section 7.2.1 gives information as follows:-

*“In the AM peak the queues increase from a base of 2831 PCU.hrs to 3372 PCU.hrs in 2017 DM and 4265 PCU.hrs in 2032 DM. These levels are reduced with the scheme by 13% in 2017 to 2948 PCU.hrs and by 8% in 2032 to 3908 PCU.hrs. Changes in the PM peak are from a base of 2353 PCU.hrs to 3116 PCU.hrs in 2017 DM and 4201 PCU.hrs in 2032 DM. These levels are reduced with the scheme by 7% in 2017 to 2889 PCU.hrs and by 5% in 2032 to 3993 PCU.hrs. It should be noted that the queues are representative of the whole of the city network (the detailed model area) so in this context the Scheme would have a significant effect, especially in the AM peak.”*

- 2.6.5 The Traffic Forecasting Report – Document Ref 5.6 – gives forecast total traffic flows crossing 3 cordons in the city for the situations without and with the DCO Scheme (Do Minimum and Do Something) in Section 7.4. The 3 cordons are:-

*“• Inner Ring Road Inner – just inside the Inner Ring Road;  
• Inner Ring Road Outer – just outside the Inner Ring Road; and  
• Outer Ring Road Outer – just outside the Outer Ring Road.”*

- 2.6.6 Traffic flow reductions (from the Do Minimum flows) are forecast:-



*“7.4.4 With the proposed city centre traffic management measures in the Do Something scenario through traffic in the city centre is reduced from the Base level and almost halved in 2032.*

*7.4.5 On the Inner Ring Road cross city traffic that uses the Inner Ring Road reduces with the Scheme by 3783 AADT (5%) in 2017 and by 8016 AADT (9%) in 2032 to levels only just higher than those in the base year.*

*7.4.6 On the Outer Ring Road, cross city traffic is reduced with the scheme by 10270 (14%) in 2017 and by 12371 (16%) in 2032 to levels below those in the base year.”*

- 2.6.7 The Traffic Forecasting Report – Document Ref 5.6 – gives forecast journey times on selected public transport routes for the situations without and with the DCO Scheme (Do Minimum and Do Something) in Section 7.6. Section 7.6.3 states:-

*“In 2017 AM peak journey times into the city centre reduce with the Scheme by between 5% and 14%, with a journey time reliability improvement of around half of one minute. In the 2017 PM peak the journey times out of the city centre reduce with the Scheme by between 1% and 13%, with an average journey time reliability improvement of around one quarter of a minute. Journey time changes in 2032 are more affected by the complementary city centre measures. In 2032 AM peak journey times into the city centre change with the scheme by between a 1% increase and an 11% reduction, with the average journey time reliability improvement of 18 seconds. In the 2032 PM peak the journey times for routes out of the city reduce by between 3% and 24%, with an average journey time reliability improvement of around half of one minute.”*

- 2.6.8 These various queue reductions, traffic flow reductions, and journey time reductions (from the Do Minimum times) resulting from the DCO Scheme show the ‘headroom’ provided by the NDR, which will be used to facilitate NATS PT improvements. It is a fundamental feature of the NDR that it will

accommodate journeys that would be otherwise taking place on the existing highway network in Norwich and unless that traffic is displaced from that existing network the DM conditions are such (as shown by the assessments summarised above) that there is limited potential to introduce the NATS measures. There is therefore a considerable body of evidence which leads to the conclusion that a significant step change is needed in the basic transport infrastructure of Greater Norwich if it is to provide improved conditions for journeys by all modes, whilst catering for the JCS committed growth, and progressively introduce the full range of measures set out in the NATS IP to encourage more journeys to be made by non-car modes.

<p><i>Q2.7 Public Transport fares and effects</i></p>
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Applicant's Response

- 2.7.1 The issue of bus fares and how these might affect traffic on the network was discussed at the Issue Specific Hearing held on 28 November 2014.
- 2.7.2 In 2012 when the public transport model was based the bus operators used distance-based fare structures. As explained at the Hearing First has since introduced revised fare models but the approaches used vary significantly across operators.
- 2.7.3 First offer the widest range of flat fare ticket types, which are primarily aimed at travel within a defined geographic area which has recently been expanded over the last 12 months to include more outlying towns such as Attleborough, Dereham and Brundall. There are 5 zones with the principle being that the furthest away you travel from Norwich city centre, the more expensive the fare. The longest distance service provided by First is the X1 and this has a combination of distance based and flat fares. The other major operators (konectbus/anglianbus) also provide flat fare tickets across the Norwich area with distance based fares for longer distance journeys into Norwich.

2.7.4 It was suggested at the Hearing that a flat fare could have a material effect on the traffic on NDR due to longer distance trips by bus being relatively much cheaper with a flat fare system. However the longer distance bus trips retain a distance-based fare structure so this effect would not occur. Furthermore, whilst a more attractive and cheaper bus network would be more attractive for some users, it is not considered that it would have a material effect on forecast traffic on the NDR.

Q2.8	<i>Bus Operator</i>
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Applicant's Response

2.8.1 During discussions raised at the Hearings, it has been suggested that the Applicant's approach to assessing and delivering transport schemes is somewhat isolated from the delivery of public transport by private bus operators. The Applicant does not accept this and would point out that significant information has already been provided in sections 3.1 and 3.2 of NCC/EX/67 regarding public transport measures that have already been undertaken or are proposed to be delivered shortly. This level of public transport scheme delivery would simply not be possible without the Applicant having a close working arrangement with commercial bus operators. The recent letter from First to the Norwich and Norfolk Transport Action Group (NNTAG), dated 21 November and copied to Nicholas Coombes, confirms the status of information being shared readily between the Applicant and bus operators and that First firmly believe the building of the NDR will bring about the conditions necessary for a sustainable bus based public transport system to be delivered. This response provides further information and evidence of the Applicant's commitment to working in partnership with commercial bus operators.

2.8.2 The Applicant's approach to developing the public transport network is based on a strategic, voluntary partnering approach. Senior staff from the Applicant meet with senior managers from Norfolk bus operators at regular

intervals (usually six monthly) to discuss long-term ambitions, service developments and areas of joint working. Operational meetings are also held regularly to discuss the preparation and delivery of schemes on the ground. This approach has been used in the development of strategic work such as the Norwich Area Transportation Strategy (NATS) and its associated Implementation Plan. A brief summary of initiatives that demonstrate close working with commercial bus operators is outlined below.

- Launch of a Voluntary Quality Partnership ('Norwich Bus Charter') in April 2014 representing a joint commitment from the Applicant, Norwich City Council and bus operators to deliver high quality bus service and customer care
- Delivery of Punctuality Improvement Partnerships representing a joint commitment to maximising bus service performance. The Applicant is a leading authority in the development of Punctuality Improvement Partnerships (PIPs) and has more than any other shire County
- Delivery of multi-operator ticketing in the form of the 'Fusion' bus ticket in Norwich, multi-modal ticketing through the joint promotion of *PLUSBUS* ticketing and reduced fares for all 16-19 year olds in Norfolk
- Delivery of smart ticketing ('holdall' card) for Norwich Park and Ride during 2014, which has required development of hardware and back-office systems by the Applicant and bus operators
- Delivery of a Joint Investment Plan between the Applicant, Norwich City Council and First from 2009. This was the first voluntary agreement in the UK signed between First and a County Council and has delivered investment in new vehicles, training and improved performance

- Delivery of an award winning ('Highly commended' at 2014 National Transport Awards) printed information project in Norwich city centre during 2013/14, which is being extended to cover the BRT corridors into Norwich
- Delivery of Strategic Traffic Light priority, providing one of the most extensive networks outside of London, utilising equipment and systems developed jointly by the Applicant and bus operators. Over 1000 requests for priority from buses are handled every day
- Route corridor development for Dereham Road, Newmarket Road and Yarmouth Road corridors in terms of assessing bus stops, priority lanes, walking and cycling facilities and information provision
- Regular half-day workshops between the Applicant, City Council and bus operators, introduced from 2012, covering the planning, development and monitoring of public transport improvement schemes
- Delivery of an additional 10 bus layover locations in Norwich city centre during 2013/14 based on direct feedback from bus operators regarding the need for such facilities to improve bus service performance
- Sharing access to back-office software that enables bus operators to use electronic displays funded by the Applicant to update customers on any bus service delays and disruptions

Q2.9 <i>Guide to traffic and economics evidence</i>
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Applicant's Response

<b>NDR Examination - guide to traffic and economics evidence</b>											
Intervention	Document reference	Description	Traffic base data	LMVR	Modelling details	Do Minimum	Forecasting	Transport and safety assessment	Costs	Economics	Conclusions
<b>DCO Scheme</b>											
<b>DCO Scheme</b>	Various	Doc 6.1 Environmental Statement Vol 1	Doc 5.8 Survey report	Doc 5.9 - Highway model LMVR and Doc 5.10 - Public transport LMVR		Doc 5.6 Traffic forecasting report and Doc NCC/EX/02 Corrections to documents	Doc 5.6 Traffic forecasting report	Doc 5.5 Transport assessment	Doc 5.7 Economic appraisal report	Doc 5.7 Economic appraisal report	See individual reports
<b>DCO Scheme - sensitivity tests</b>	Doc 5.11 Summary Results of Sensitivity Tests and Doc NCC/EX/02 Corrections to documents										
New WebTAG guidance		Section 3.2			Section 3.2		Section 5.1	Section 5.2		Section 5.3	Section 9
Low and High growth		Section 3.3			Section 3.3		Section 6.1	Section 6.2		Section 6.3	Section 9
Postwick scheme in the Do Minimum		Section 3.4			Section 3.4		Sections 7.1 and 7.2	Section 7.2 Section 7.3	Section 4	Section 7.4	Section 9
Dependent development		Section 3.5			Section 3.5		Sections 8.1 and 8.2	Section 8.2 Section 8.3		Section 8.4	Section 9
<b>DCO Scheme Economic Appraisal based on WebTAG October 2014</b>	Doc NCC/EX/88 - NDR Economic Appraisal based on WebTAG October 2014	Sections 1.1.1 to 1.1.5			Sections 1.1.1 to 1.1.5			Sections 1.1.6 and 1.1.7		Sections 1.1.8 to 1.1.12	Section 1.1.13
<b>Alternative 5 - Developer link roads</b>											
<b>Alternative 5 - Developer link roads</b>	Doc 5.12 Traffic and Economic Appraisal of NDR Alternatives	Section 3.2.1	As DCO Scheme	As DCO Scheme	Sections 3.1 and 3.2	Section 3.1.6	Section 8.1	Section 8.2 and 8.3	Section 4	Section 8.4	Section 9.1.6
<b>Public transport (PT) option</b>											
<b>Public transport (PT) option</b>	Appendix B - Doc 5.12 Traffic and Economic Appraisal of NDR Alternatives	Sections 10.2.8 to 10.2.11	As DCO Scheme	As DCO Scheme	Section 10.2	Section 10.2.7	Section 10.2.3	Sections 10.2.15 to 10.2.20	Sections 10.2.5 and 10.2.12 to 10.2.14	Sections 10.2.21 to 10.2.26 - but see NCC/EX/71 below	Section 10.2.27 - but see NCC/EX/71 below
<b>Revised PT Option economic appraisal and breakdown of benefits</b>	Doc NCC/EX/71 - Revised PT Option economic appraisal and breakdown of benefits	Section 1.1.1			As Public Transport (PT) option	As Public Transport (PT) option	As Public Transport (PT) option	As Public Transport (PT) option	As Public Transport (PT) option	Sections 1.2.1 to 1.2.6 and 2.1.1	Section 1.2.7

<b>NDR plus NATS PT</b>											
<b>NDR plus NATS PT</b>	Doc NCC/EX/72 - Response to ExA Issue Specific Hearing question: NATS economic appraisal	Section 2	As DCO Scheme	As DCO Scheme	Sections 1 and.2	Section 1.1.5		Section 4 - safety only as economic appraisal only requested	Section 3	Section 5	Section 5.1.7
<b>NDR plus NATS PT all improvements from 2017</b>	Doc NCC/EX/90 - Response to Examining Authority's Third Written Questions relating to the revised economic appraisal - Section 4	Section 4.2							Section 4.2	Section 4.3 to 4.7	Section 4.5

# Appendix A

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First  
Unit 6  
Lansdowne Road  
Norwich, NR6 6NF  
Tel: 08456 020 121  
Fax: 01603 408231

Denise Carlo  
NNTAG  
c/o 213 College Road  
Norwich  
NR2 3JD

21<sup>st</sup> November 2014

Dear Ms Carlo

**Proposed Norwich Northern Distributor Road (NDR) and Public Transport Option**

Thank you for your letter of the 13<sup>th</sup> November concerning the above and your comments regarding buses in particular.

The figures which you have quoted in terms of Norwich area bus investment, operating costs, revenue and profit, are for all operators, of which First is just one, and we were asked to supply data, as would all of the other operators concerned. I am unable to make any further comments on the information contained in the papers as I do not have a detailed breakdown of it and any assumptions made.

I think it is worth stating why we, as the local principal bus operator, support this investment. As you will be aware Norwich has a growing economy and there are many predictions regarding increased population within the commute time of Norwich, together with large numbers of new homes and job opportunities, which will come on stream within the next 10-20 years. In order for all for these to be served efficiently by bus based public transport we need a road system that is able to cope with the increased demand. The simple truth is that the current road system cannot cope with the current demand and indeed the road system is so vulnerable that a minor collision can have a devastating effect across the City, in some cases for many hours after the original incident. As a bus operator we need to provide a reliable and punctual service. This is our customers number one priority and is confirmed by all of the independent bus passenger surveys.

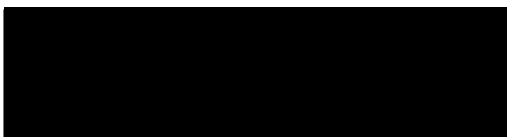
Currently the effect of traffic congestion can have a negative effect on our ability to deliver a punctual and reliable service and we therefore support the building of the NDR, as we feel this is a missing link in dealing with current and future traffic congestion in the City.



Our view is that the building of the NDR will ensure that we can provide a sustainable bus based public transport solution for the future of our growing City, without which traffic congestion will cause the City to grind to a halt and will severely limit the future expansion of bus services.

I trust that this makes our position clear and if you wish to ask any further questions please contact me on the above number.

Yours sincerely



David Squire FCILT  
Managing Director  
First Eastern Counties Buses Ltd

CC: Nicholas Coombes, Planning Inspectorate, Norwich NDR Caseworker