A14 Cambridge to Huntingdon Improvement Scheme – first written representation from Campaign for Better Transport

From Sian Berry and Chris Todd, interested parties 10030656 and 10030494

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Summary – our 500 word submission to register as interested party
Campaign for Better Transport strongly objects to these proposals.

Our objections cover a number of issues, and we urge that all of these are examined closely:

• The creation of a new 6-lane elevated highway across the Ouse flood plain and other sensitive areas of the countryside.

• The lack of evidence for the need for the scheme, including recent trends of falling traffic and parallel increases in rail capacity and other improvements that are planned, particularly to serve ports on the east coast, which help to reduce the number of heavy good vehicles on this route. Rail has around 27 per cent of the freight market out of Felixstowe now and, when upgrades that are already funded for the current control period for Network Rail investment, this share will rise to 35-38 per cent and remove 40 million lorry miles each year from the A14 corridor.

• The impact of the newly announced A428 improvement as part of the Road Investment Strategy from 2015-2021. This also reduces the justification for the scheme by improving the resilience of alternative routes.

• The over-reliance of the business case for the scheme on driver time savings. (These make up 67% of the adjusted present value of benefits, 102% of the unadjusted present value of benefits. Total net environmental damage - only including air pollution, greenhouse gases and noise – is monetised in the business case at £172.8 million. Without driver time savings, the scheme causes far more damage than the other benefits can make up for.)

• The poor design and detrimental visual effects of the scheme on the landscape, contrary to recent commitments to 'make roads beautiful' by the roads minister. These effects are not included in the business case. If they were, the scheme's value for money would be further eroded.
• The induced traffic that would be created by building up to 10 lanes of new road space, the consequences of which would be to fill up Huntingdon and Cambridge with more congestion in the long term, despite the intentions of the concept of a bypass.

• Increased air pollution from more vehicles passing close to homes and schools, particularly in Brampton, and areas to the north of Cambridge. Increasing pollution in this way is contrary to recent court rulings that the UK Government must act to reduce air pollution ‘as soon as possible’.

• The priority given to car travel, ahead of the needs of those on foot, bikes and buses.

• The huge cost of the scheme when other services are being cut, including buses.

More detail on some of these points, with reference to the first questions from the Examining Authority:

1. The lack of need for the scheme, and the priority given to car travel ahead of other modes

1.1 Recent traffic trends do not support major road building in this area

Traffic levels nationally have not grown as expected, in a trend dating to before the economic downturn. The charts below illustrate these trends, nationally, regionally and in the area of the A14.

**Fig 1.1: Total traffic volumes in England (billion vehicle miles)**

![Chart showing total traffic volumes in England (billion vehicle miles)](https://www.gov.uk/government/organisations/department-for-transport/series/road-traffic-statistics)

This general pattern is also shown in the chart in figure 1.2, from the 2013 national traffic forecasts document, which shows trends since for different road types, including rural A roads similar to the A14.

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1 Department for Transport road traffic statistics 2012, table TRA5102
Overall, traffic on the A14 itself has decreased from a peak in 2005-8. The changes in traffic vary from section to section, as shown in the charts below, but the overall pattern is for less not more traffic, casting doubt on future predictions of increased congestion.

- For all vehicles, the reduction in traffic on the A14 from 2005 to 2013 was -5.3%.
- For HGVs, the reduction in traffic on the A14 from 2005 to 2013 was -5.9%.

Fig 1.2: Road traffic on different road types across Great Britain

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Fig 1.3: Traffic on the A14 2000-2013

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Road Transport Forecasts 2013. Department for Transport, July 2013
1.2 The need for revised traffic and transport modelling in the light of the new forecast scenarios

There has also been a discrepancy between actual road traffic volumes and the predictions made by successive Department for Transport traffic models, particularly over the long term. This has been recognised by the Department for Transport and amendments have been made in the methodology for the newest forecasts, published in March 2015.

Further research is being undertaken and more changes are envisaged in future, but several changes have already been made, and are summarised as:³

"Summary of changes to the forecasting approach

- The introduction of a forecast scenario in which income growth does not result in rising car travel for comparison with other scenarios where increased income increases car ownership and car travel.
- The introduction of a forecast scenario where the past trend in trip rates has been extrapolated forward to 2040 for comparison with the other scenarios where trip rates have been held constant from 2010.
- Update to the speed and capacity of the London road network to reflect observed data.
- Update of fuel price, fuel efficiency and GDP forecasts.
- Update to the capacity of the road network to reflect the December 2014 Road Investment Strategy."

The resulting scenarios result in at least one future scenario in which traffic growth over 25 years is minimal and congestion remains almost flat. In response to ExA question 1.12.1, we await the publication of revised traffic modelling for the A14 project and a revised business case, and will make further comments when they are received. These new documents must include at least a sensitivity test against the new lowest

forecast (Scenario 3) and an estimate of the effect of this on the monetised time savings for drivers and the overall estimated benefit-cost ratio of the scheme.

**Fig 1.5: New scenarios in the 2015 National Road Traffic Forecasts**

<table>
<thead>
<tr>
<th>Trip rates</th>
<th>Income relationship</th>
<th>Macroeconomic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>Historic average</td>
<td>Positive and declining</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>Historic average</td>
<td>Zero</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>Extrapolated trend</td>
<td>Positive and declining</td>
</tr>
<tr>
<td>Scenario 4</td>
<td>Historic average</td>
<td>Positive and declining</td>
</tr>
<tr>
<td>Scenario 5</td>
<td>Historic average</td>
<td>Positive and declining</td>
</tr>
</tbody>
</table>

**Fig 1.6: Forecasts for total traffic under the new scenarios**

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5 Ibid
Fig 1.7: Forecasts for congestion under the new scenarios

![Figure 3.5: Congestion (proportion of traffic in congested conditions)](image)

Fig 1.8: Comparison of the scenarios with past national forecasts

![Government traffic forecasts 2015](image)


7 Adapted from a chart first published in 'Due diligence, traffic forecasts and the Pension Infrastructure Programme' by Phil Goodwin, Local Transport Today, 13/4/2012
1.3 The need for revised modelling to take other projects into account

The Road Investment Strategy, published in December 2014 includes a substantial scheme of works to the A428, currently used as a diversion route for the A14 during incidents. The Brampton A14 Campaign Group’s written submission will describe this scheme in detail, in response to ExA question 1.12.16, and how it relates to the alternative route proposal they put forward during the 2010 public inquiry.

The scheme is described in the RIS, and options are currently being considered:

"A428 Black Cat to Caxton Gibbet – improvement of the A428 near St Neots, linking the A421 to Milton Keynes with the existing dual carriageway section of the A428 to Cambridge, creating an Expressway standard link between the two cities via Bedford. The scheme is expected to include significant improvements to the Black Cat roundabout, where the A1 currently meets the A421."

There are likely to be two main effects from this project that could affect the business case for spending up to £1.5 billion on the A14 proposals in different and complex ways:

1. Diversion, particularly in the short term, to the A428 for some journeys that currently take the A14. The traffic charts in Figures 1.3 and 1.4 of this document already show that while the A14 is not experiencing traffic growth, the number of journeys on the A428 to St Neots and further south towards Bedford and Milton Keynes on the A421 – has increased. This suggests the alternative route has some attractions that might increase after the project is completed and reduce traffic further on the A14.

2. Additional induced traffic across the corridor and on feeder roads. The existence of an 'improved' road is known to generate new and longer journeys, which will increase the levels of traffic on the feeder roads, including the sections of A14 leading to the proposed bypass, the M11 around Cambridge and other roads inside Cambridge city (increasing air pollution), but affecting the A14 much less, as the A428 is an alternative route. This change in traffic patterns will change the results of traffic modelling for the A14 proposals.

New modelling should also take account of the current and likely parallel increases in rail capacity and other rail improvements that are planned, particularly to serve ports on the east coast. These improvements will do much to reduce the number of heavy good vehicles on this route.

Rail has around 27 per cent of the freight market out of Felixstowe now and, when upgrades that are already funded for the current control period for Network Rail investment, this share will rise to 35-38 per cent and remove 40 million lorry miles each year from the A14 corridor.

Recent evidence published by the Freight on Rail campaign and Campaign for Better Transport, shows that the impact on congestion of moving freight onto rail from HGVs is consistently underestimated due to the use of national averages rather than looking at the real distribution of trips on the road corridors that would be most affected.\(^8\)

The report published in April 2015 concludes that, contrary to statements made in the National Policy Statement for National Networks,\(^9\) the transfer of freight from road to rail and water could reduce congestion significantly:

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\(^9\) While acknowledging that "rail freight has the potential to nearly double by 2030", the NPS says "If freight carried by rail was to increase by 50% this would only be equivalent to a reduction of around 7% in goods carried by road" (NPS page 14 [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387222/npsnn-print.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387222/npsnn-print.pdf))
"HGV traffic overall could fall by 21%, all vehicle traffic by 5-6% and, in the most congested places, congestion could fall by 15-25%.

We therefore request that any updated transport, economic and environmental impact assessments also present scenarios and sensitivity tests that take account of the likely impact of both the A428 planned works and the currently funded upgrades to rail capacity.

2. Reliance of business case on time savings

The over-reliance of the business case for the scheme on driver time savings. (These make up 67% of the adjusted present value of benefits, 102% of the unadjusted present value of benefits.

The total net environmental damage – only including air pollution, greenhouse gases and noise – is monetised in the business case at £172.8 million. Without driver time savings, the scheme causes far more damage than the other benefits, valued at £208 million can make up for and still achieve a reasonable BCR.

Figure 2.1 – Table 5.1 from the Case for the scheme

Note that the adjusted BCR adds in journey reliability benefits – a related concept to time savings, which risks double counting. Also note that the landscape and visual impacts of the proposals are not included in calculations of costs and benefits, and that these will be highly significant, as the next section outlines.
3. The visual effects of the scheme on the landscape

3.1 Current and emerging policies

The Government has stated in its National Policy Statement for National Networks (NPS) that it “expects applicants to avoid and mitigate environmental and social impacts in line with the principles set out in NPPF and the Government’s planning guidance.”\(^{10}\)

It also expects that: “design should be an integral consideration from the outset of the proposal”\(^{11}\) and that “visual appearance should be a key factor in considering the design of new infrastructure.”\(^{12}\) The Government believes that this will lead to “sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible.”\(^{13}\) [our emphasis]

The importance of aesthetics is repeated within the NPS\(^{14}\) and the Government highlights that while it may not always be possible to address all aspects of new infrastructure that “there may be opportunities for the applicant to demonstrate good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation.”\(^{15}\)

It also expects that “applicants should be able to demonstrate in their application how the design process was conducted and how the proposed design evolved.”\(^{16}\)

A similar theme is contained within the National Planning Policy Framework (NPPF) which highlights that sustainable development is about (in part) “replacing poor design with better design”\(^{17}\) and that planning should “always seek to secure high quality design” and “take account of the different roles and character of different areas.”\(^{18}\)

Since the publication of NPPF in 2012 and NPS in 2014 the Government has further highlighted the need for higher quality design in new road building, particularly with regards to visual and landscape impacts\(^{19}\). In his speech in 2015, Transport Minister, the Rt Hon John Hayes MP said:

“Two paths lie before us. There is the well-trodden path we have travelled down as a nation many times, when driving major public projects over the past century and that is the path of mere utility, of banality - even ugliness. But then there is the road less travelled. The road of beauty of form enhancing function. The road, I will argue today, that we must now take.”

And he went on to say that:

“So today I want to make the case for a new vision for roads and the architectural features on and around them. A change in the way we perceive the network, and the way it interacts with the landscape and environment. I want to raise awareness of the unparalleled opportunity we have now.

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\(^{10}\) Paragraph 3.3, page 24, National Policy Statement for National Networks (NPSNN), December 2014
\(^{11}\) Paragraph 4.28, page 36, NPS, December 2014
\(^{12}\) Paragraph 4.29, page 36, NPS, December 2014
\(^{13}\) Paragraph 4.29, page 36, NPS, December 2014
\(^{14}\) Paragraphs 4.32 & 4.33, page 36, NPSNN, December 2014
\(^{15}\) Paragraph 4.34, page 37, NPS, December 2014
\(^{16}\) Paragraph 4.35, page 37, NPS, December 2014
\(^{18}\) Paragraph 17, page 5, NPPF, fourth and fifth bullet points
\(^{19}\) Rt Hon John Hayes speech, 4 February, 2015 https://www.gov.uk/government/speeches/beautiful-roads
As part of the most ambitious ‘Road investment strategy’ in modern times.
To make the design of the infrastructure as important as the design of other buildings around us.
To protect and even enhance the beauty of our countryside.
To create a road system in harmony with its surroundings.
And to establish a robust set of design principles that can transform the way we plan and deliver road projects.

3.2 The A14 scheme is not in compliance with these policies

Unfortunately, the applicants in the case of this project have produced a low quality and highly damaging proposal that fails to demonstrate it has followed good design principles. There is little or no evidence that Highways England has followed Government policy in this respect or that it has submitted its plans to independent scrutiny. This is highlighted by the Examining Authority’s questions on this issue.

While, some allowance might be made of the fact that the NPS was only published in December 2014 and the Minister’s speech in February 2015, this does not mean that these issues can be ignored, as they appear to have been done with these proposals. The NPPF which promotes good design and a respect of local character, was published in 2012 while the draft NPS was consulted upon in December 2013. Highways England have since submitted an update to the case for the scheme, but this only briefly mentions aesthetics and provides no real detail as to how the visual element of the design was developed.

In response to ExA questions 1.9.6, 1.9.9, 1.9.10 and 1.9.15, we would welcome an independent design review but believe it is already obvious that no account has been taken of these requirements in the current designs.

We believe the current proposals should be withdrawn and new designs made and submitted. These should conform to Government policy and be properly and sensitively integrated into the landscape. At present, it is formed of unsympathetic landscaping and a brutish concrete and steel girder bridge at the Brampton Interchange and a similar, but longer bridge across the Great Ouse valley, an area that many locals were aspiring to have designated an Area of Outstanding Natural Beauty. Unless the designs are dramatically altered in appearance, this aspiration could be severely compromised. This lack of sensitivity is repeated elsewhere. In its current form, Highways England should be refused permission to build its proposal.

What is even worse is that the full impact of the current unsympathetic design is not fully apparent from the documentation submitted to the Examination. Indeed, there are a number of issues of concern with the photomontages and viewpoints submitted. ExA question 1.9.5 is addressed to local authorities, but our views below also provide responses that we hope the ExA will find useful in assessing the huge visual impact of this scheme:

1. Viewpoint 1 on footpath P3, does not show the full impact of the new A14 crossing the A1. This is because the viewpoint is directly behind some existing woodland, which blocks the highest part of the A14. Had the viewpoint been taken from slightly higher ground to the north at the corner of the footpath P3 before it heads in a westerly direction, the full height and impact of the crossing would be visible and it would not have been obscured by the woodland. This viewpoint should be relocated.

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20 In particular, Q1.9.6, Q1.9.9 and Q1.9.15, The Examining Authority’s (ExA’s) first written questions and requests
21 HE/A14/EX/21 Designation of the National Policy Statement for National Networks - Update to the Case for the Scheme, 12 May 2015
22 AONB bid launch brochure
2. Viewpoint 2 is a photomontage which is showing an apparently moderate impact\textsuperscript{23}, yet opposite this viewpoint, there is a footpath with a very large adverse impact along its whole length and yet only a photograph of the existing situation is provided for this location (photo 3). At the very least, there should be a photomontage from this path, preferably at a higher location along it, close to the Brampton interchange. This will allow for the full visual impact of the Brampton interchange to be properly assessed.

3. Viewpoint 3 on the Great Ouse Way (a long distance walking path) is quite close to the bridge but there is no broader viewpoint. Given that the documentation states that the road will have a very large adverse impact upon the path\textsuperscript{24} a fuller (head on) picture should be provided here or at a nearby appropriate location.

4. Viewpoint 5, north of Hilton, manages to avoid capturing any sight of the Potton Road crossing the A14 by its location and orientation. Given that there are three road crossings in the vicinity of Hilton, these are likely to have a pronounced impact on the local landscape and more and better viewpoints should be sought out in this area, as asked by ExA question 1.9.7.

5. The impact of the bridge across the Great Ouse is underplayed when seen from the railway, particularly from the south looking north. Here, the railway is closer to the bridge than viewpoint 13 and with the passenger eye level being a lot higher than a person standing on the ground the whole span of the bridge will be far more visible. As with the grading of impact on public rights of way, the visual impact from the railway should be likewise graded. If this was done, at reasonably close quarters, the impact is likely to be very large adverse rather than just moderate adverse as described

\textsuperscript{23} Sheet 4, Figure 10.7, Environmental Statement 6.2 http://infrastructure.planningportal.gov.uk/wp-content/uploads/projects/TR010018/2.%20PostSubmission/Application%20Documents/Environmental%20Statement/A14%206.2%20ES%20Figure%2010.7a.pdf

\textsuperscript{24} Sheets 4 & 5, Figure 10.7, Environmental Statement 6.2 http://infrastructure.planningportal.gov.uk/wp-content/uploads/projects/TR010018/2.%20PostSubmission/Application%20Documents/Environmental%20Statement/A14%206.2%20ES%20Figure%2010.7a.pdf
in the Environmental Statement. Therefore at least one, preferably two photomontages should be provided from the railway south of the road looking north in the vicinity of the existing viewpoint 13.

6. The height that the photomontages are presented at also seems designed to underplay the impact of the road. The camera height is given as being between 149 and 159cm, with quite a number around the 149 / 150cm height. However, the average UK male height is 177cm (5ft 9.5inches)\(^{25}\). With walking boots and allowing for a reduction in height to eye level, would give a height of around 170cm, which for structures like the bridge with obstacles in between could make quite a difference to the visibility and hence impact of the road such as from viewpoint 13. If anything, the photomontages should be giving a worst case scenario, not trying to downplay the impact. Even allowing for an average of male and female heights (169 / 170cm), the camera height is still low.

7. The photomontages are not consistent and need to show more traffic on them to illustrate the potential impact of the road. For example, the photomontage for viewpoint 13 only has 3 HGVs illustrated in dark blue and one of those happens to coincide with a large bund, another with a bush in the foreground. This results, at year 15, in the growth reducing the HGVs’ visibility (which it otherwise wouldn’t) and the road appears to be far less visible. However, that is down to two tricks. One is that there are no HGVs present on the vast bridge section nearest the camera, between the bund and the railway. If there were these would still be visible above any screening that was planted. Secondly, the HGVs that are present in the photomontage have been faded out and their colouring is lighter in year 15 than in year 1, making them less obvious in the image.

8. The legend for the landscape or visual impact is poorly designed and as a result can make it difficult to appreciate the full impact of the proposals. It seems utterly bizarre to have a light pink assigned to slight adverse impact and a slightly darker pink (which is not always so obviously different) to represent large beneficial impact. There is no logic to go in the legend from yellow to pink, to light blue, to dark blue, to green, to pink again and then purple. If you are to have two pinks, like the blues, you place them adjacent to each other and if they are confused, the confusion is less serious.

In addition, issue is taken with the statement that:

*Impacts on PRoW that are removed have not been assessed because public access would no longer be available and there would no longer be a view to consider. Views from completely*

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realigned PRoW and proposed non-motorised user (NMU) routes have not been assessed because there is no public access currently and a description of the existing view and an assessment of impact are therefore irrelevant.\textsuperscript{26}

This is quite misleading as a removed PRoW could have been through quite an attractive area so the loss to local amenity could be high and if the replacement PRoW is of poor quality, as is quite likely due to noise and visual intrusion, this loss would be maintained. Therefore, there does need to be an assessment of removed and replacement PRoW and it is not correct for Highways England to dismiss these issues as irrelevant.

Overall, these deficiencies added together result in the current landscape photomontages and the assessment of visual impacts at risk of being significantly misleading. Therefore these should be redone at a higher camera height, better legend, more viewpoints, more traffic and consistent colouring of traffic and landscape features.

3.3 Impact on Landscape Character

The landscape affected by the construction of the new A14 is wholly within National Character Area 88: Bedfordshire and Cambridgeshire Claylands. As described by the applicant:

"Immediately north and west of Cambridge, the scheme falls within an area designated as green belt. Whilst not strictly a landscape designation, the ‘openness’ of the landscape within the green belt is relevant to landscape impact assessment."\textsuperscript{27}

"To the west of Cambridge the landscape south of the existing A14 is predominantly undulating and north of the A14 predominantly flat. Both landscapes offer expansive views of large scale intensive arable farmland, divided by sparse trimmed hedgerows, open ditches or streamside vegetation. The scattered woods, some of which are designated as ancient, form important landscape and wildlife features."\textsuperscript{28}

The applicant then provides a lot more detail, but the underlying thread throughout all of this is that the landscape is ‘open’ and gently undulating to near flat. As a result, the building of bunds, embankments and bridges has the potential to have a significant impact on the landscape character and quality. This can be through foreshortening views and creating a more enclosed feeling within the landscape, or it can be through incongruous and ill-fitting features within the landscape, such as the bridge across the Great Ouse valley.

\textsuperscript{26} Paragraph 10.2.26, page 19, Environment Statement, Chapter 10: Landscape
\textsuperscript{27} Paragraph 10.3.11, page 21, Environment Statement, Chapter 10: Landscape
\textsuperscript{28} Paragraph 10.3.18, page 23, Environment Statement, Chapter 10: Landscape
Viewpoints 2, 3, 4, 8, 10, 12 and 13 from the photomontages show how the scheme reduces the openness of the landscape, changing its feel to one which is more enclosed. It is clear that this is not a subtle intrusion, but a rather more dominating one, one which does not appear to be "sensitive to place".

This is further exemplified in viewpoints 5 and 6 which show the creation of a strong linear feature within the landscape, demonstrating how the landscaping and planting has not been designed to reflect local character, which is more random and small scale.

Also, the profile or gradient of the embankments, particularly in viewpoint 12, is quite alien to the open nature of the landscape and its gently rolling hills. These have not been sympathetically designed. It would be better to reduce the height of the road so that the embankments are not so steep, or where this is not possible to reduce the gradient of the embankments. These changes would help reduce the visual intrusion and result in the road becoming a less incongruous element in the landscape.

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29 Environmental Statement, Figure 10.6
30 Paragraph 4.29, page 36, NPSNN, December 2014
31 Environmental Statement, Figure 10.6
4. Induced traffic from building the new capacity proposed is likely to be an underestimate

The current scheme massively increases road capacity across the A1 and A14 corridors, inducing new traffic that will have an impact across a wide area. Figure 4.1 is an adaptation of Figure 07.01 in the application documents. It shows the additional traffic predicted in the 'with scheme' scenario, and adds a calculation of the percentage increase or decrease. We have also calculated the total traffic across the corridor in both the 'without scheme' and 'with scheme' scenarios.

Figure 4.1 shows that the scheme is estimated to create up to 87% more traffic in opening year than without the scheme (on the A1 near Brampton) and that it will significantly increase traffic levels on all roads shown, except the bypassed A14.

Across the Huntingdon corridor (the new A14 plus the bypassed road), traffic is predicted to be 5.8% higher in 2020, rising to 24.3% higher than if the scheme were not built by 2035. In reality, induced traffic is likely to be even more significant, as the potential for new capacity, especially in areas of congestion, to encourage mode, time and route shifting is well known and almost always underestimated.

In particular, within these figures, there is seen to be almost no increase in traffic within Huntingdon on the existing A14 between 2020 and 2035 in the 'with scheme' scenario.

Given experience with previous road-building schemes where the benefits of bypasses have tended to be quickly eroded due to increased traffic, the applicants should be asked to comment directly on their assumptions about induced traffic.

Are they for example planning to take any measures within Huntington to ensure their estimate – that traffic growth within Huntingdon will be effectively halted during this period even when using the high national growth forecasts – transpires in reality?

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32 Figure showing traffic flows and forecasts in application documents: [http://infrastructure.planningportal.gov.uk/wp-content/ipc/uploads/projects/TR010018/2.%20Post-Submission/Application%20Documents/Environmental%20Statement/A14%206.2%20ES%20Figure%2007.01.pdf](http://infrastructure.planningportal.gov.uk/wp-content/ipc/uploads/projects/TR010018/2.%20Post-Submission/Application%20Documents/Environmental%20Statement/A14%206.2%20ES%20Figure%2007.01.pdf)

5. Impact on air pollution

There are serious questions raised by the details of the Environmental Statement (ES) about the air pollution impact – particularly around Brampton and within Cambridge city where several areas are currently above the legal limits for Nitrogen Dioxide pollution.

5.1 Questions about the low estimates of impact on air pollution

We welcome the ExA’s questions 1.1.10 to 1.1.14, which seek clarity on the ES and air pollution, and will reserve most of our comments on this issue until the answers are received.

In brief, we have some concerns over the very low calculated impact of the scheme reported in the ES. Chapter 8 demonstrates that air pollution in Brampton is increased with the scheme in place but the difference in NO$_2$ pollution levels between the 'without scheme' and 'with scheme' situations is expected to be less than 1 µg/m$^3$ in most places. However, the traffic figures above show that the amount of traffic passing close to Brampton increases with the scheme by nearly 87% compared with the do-minimum scenario.
The baseline estimates in some cases also seem to be lower than recent measurements. Examples include:

<table>
<thead>
<tr>
<th>Location (example HE reference points)</th>
<th>HE estimate of baseline NO(_2), (\mu\text{g/m}^3)</th>
<th>Last measured annual average NO(_2), (\mu\text{g/m}^3) (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar Hill (867)</td>
<td>22.7</td>
<td>43 (2011 – monitoring site closed 2012)</td>
</tr>
<tr>
<td>Impington (1050)</td>
<td>16.3</td>
<td>27 (2013)</td>
</tr>
</tbody>
</table>

We therefore question the accuracy of some of these figures, including the validation of baseline data and the assumptions behind the predicted impacts, and look forward to clarification.

5.2 Locations suffering illegally high levels of air pollution left out of impact assessments

We also question why only a small band of locations in the north of Cambridge was chosen for assessment in the study of air quality impact in the ES. A section of Figure 08.09 from this report is shown below, demonstrating how the centre, including the central ring road, has been excluded from the assessment.

Two examples of locations inside Cambridge that currently exceed or come close to the legal limits for NO\(_2\) are identified on the map. These (black dots, added by us) were not considered as part of the ES impact assessment, even though the new road is likely to increase the number of vehicles driving into Cambridge by encouraging mode shift to cars and the other well-known mechanisms of induced traffic.

The most recent (2014) measures of average annual NO\(_2\) at these sites are:

- Gonville Place (site ID CAM3) 2014 – 37 \(\mu\text{g/m}^3\)
- Parker Street (site ID CAM1) 2014 – 45 \(\mu\text{g/m}^3\)

Fig 5.1: Air pollution assessment within Cambridge, adapted from Figure 08.09 from the ES

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34 Data from local authority air pollution monitoring, via Air Quality England [http://www.airqualityengland.co.uk/](http://www.airqualityengland.co.uk/)

35 ibid
The applicants should be asked why such a narrow area of Cambridge close to the A14 was chosen for its air pollution impact assessment and why areas in breach of EU limits were not included.

5.3 Likelihood that future vehicle emissions estimates will be far too low

Air pollution evaluation is a constantly evolving topic and the subject of much research. For example, the most recent EURO VI standards designed to reduce vehicle emissions have already been called into question in terms of the real-world reductions they bring, compared with those demonstrated in tests.36,37 Many other factors are also involved in determining the concentrations of pollutants experienced by people living near busy roads.

We note therefore that one of the Highways Agency's Interim Advice Notes (IANs) giving guidance on the methodology used to carry out the assessment is currently suspended, with a new note pending – this is IAN 175/13.38 Another advice note on the treatment of pollution emissions with changes in speed during congestion (IAN 185/15) has also been updated in January 2014.

The use of out of date emissions factors and risk assessment advice will serve to reduce the impact of the scheme modelled for 2020, and we recommend that the Environmental Statement is reassessed using the newest advice and emissions data before the scheme is examined.

A professional opinion should also be sought on the potential impact of the recently recorded failures of vehicles to meet the EURO VI standards when tested in the real world on the assumptions used and assessments provided in the ES.

5.4 Legal developments on the issue of air pollution

The position of the UK in terms of its non-compliance with EU air quality legislation39 is becoming increasingly clear, casting doubt on the legality of any major road building near or within polluted urban areas. Recent developments include:

- A 2013 Supreme Court ruling that the UK is failing in its legal duty to protect people from the effects of air pollution40
- A 2014 European Court of Justice judgment that the government must act to bring pollution within legal limits ‘as soon as possible’41
- The ruling by the UK Supreme Court in April 2015 that new national air quality plans must be drawn up to achieve this.

We welcome ExA question 1.1.15 seeking to ask about the effects of these developments. For us, in terms of this scheme, it is very clear that areas currently within legal limits cannot be pushed over them, and it is unlikely that projects that make pollution worse and delay compliance in areas currently affected by air pollution will be permissible either.

36 High diesel NOx emissions ‘likely for decades’ due to failing tests. Transport and Environment, August 2014 http://www.transportenvironment.org/News/high-diesel-nox-emissions-%E2%80%98likely-decades%E2%80%99-due-failing-tests
37 The great diesel car deception speeding us to a toxic death, Sunday Times, 24 May 2015 http://www.thesundaytimes.co.uk/sto/news/uk_news/Health/article1560169.ece
38 Details of Interim Advice Notes: http://www.standardsforhighways.co.uk/ians/
40 News about Supreme Court decision with links to summary and full judgment http://www.healthyair.org.uk/clientearth-triumph-in-the-supreme-court/
It is also not acceptable to ‘net off’ gains in one place against increases in pollution in another. Only schemes that seek to improve air pollution impact overall – for example a scheme that kept overall levels of road capacity stable and sought to keep induced traffic to a minimum should be acceptable.

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Campaign for Better Transport

Campaign for Better Transport’s vision is a country where communities have affordable transport that improves quality of life and protects the environment. Achieving our vision requires substantial changes to UK transport policy which we aim to achieve by providing well-researched, practical solutions that gain support from both decision-makers and the public.

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