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Case Ref. 2032278

Appeal by BAA Ltd and Stansted Airport Ltd following the refusal by Uttlesford District Council of planning application UTT/0717/06/FUL

Proof of Evidence on behalf of Stop Stansted Expansion

Surface Access Issues with particular reference to Roads

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1 INTRODUCTION

1.1 Personal details

1.1.1 My name is Ken McDonald and I appear at the Public Inquiry on behalf of Stop Stansted Expansion ('SSE') of which I am a member.

1.1.2 I was the joint author (with John Rhodes) of Chapter 10 of Volume 1 of the SSE response [CD/201] to Uttlesford District Council ('UDC') objecting to planning application UTT/0717/06/FUL dated 14 July 2006.

1.2 Qualifications and experience

1.2.1 I am a Fellow of the Institute of Chartered Accountants in England and Wales. I have lived in Stansted Mountfitchet for 26 years and been a frequent user of roads throughout Essex and Hertfordshire, both as a driver and a cyclist.

1.2.2 I was Financial Director of medium-sized businesses for over twenty years, and for much of that time also served as Company Secretary. I regularly prepared or analysed statutory and management accounts, business forecasts, budgets and legal documents. I retired in 2002 and have since been heavily engaged in the Stop Stansted Expansion campaign. For the past two years one focus has been on surface access issues, particularly road.

2 SCOPE OF EVIDENCE

2.1 Core evidence

2.1.1 SSE's evidence on the surface access effects of the proposed development was originally set out in Volume 1 of SSE's response to UDC, July 2006, [CD/201] and also in paras 2.8 and 2.9 of Volume 3 of the SSE response to UDC dealing with additional information provided by BAA in September 2006 [CD/203].

2.1.2 That evidence is superseded by proofs of evidence SSE/13/a and SSE/14/a, which have been supplemented by SSE/15/a. These proofs incorporate more recent information and contain further analysis.

2.1.3 In April 2007 BAA published an Addendum [CD/14.1] to its Transport Assessment [CD/14]. There has been insufficient time to fully digest and analyse this document, so comments within our full proofs and this summary are somewhat cursory.

2.2 Further evidence

2.2.1 We wish to reserve the right to comment further during the Inquiry once we have fully considered the implications of the Addendum.

3 KEY ISSUES

3.1 Need to look beyond 2014

3.1.1 BAA is presenting this planning application as a proposal that would enable Stansted to handle 'about 35mppa' in 2014 and at most 40mppa. However, as we have shown in Proof of Evidence SSE/4/a, the reality is that if 243,500 passenger ATMs were to be permitted, Stansted would be capable of handling 45mppa by 2021, increasing to about 50mppa in 2030.

3.2 The scale of the surface access challenge

3.2.1 If this planning application were to be approved, the surface access implications for Stansted would be of the same magnitude as those facing Heathrow today. (At Heathrow, a hub airport, 35% of passengers in 2004 were transfer passengers, i.e. not requiring surface access).[1] It is vital that planners recognize the scale of the surface access challenge which Stansted would face if the runway were to be used to its full capacity. Heathrow is served by London Underground as well as a 15-minute Heathrow Express rail service from central London, whereas Stansted is served only by a 45-50 minute rail connection from Liverpool Street – a service which is shared with local commuters.

3.3 Need to learn from past under forecasting and under investment

3.3.1 Historically, BAA surface access modelling studies have consistently underestimated the impacts, and this has resulted in significant under-investment in infrastructure, particularly rail infrastructure. The chronic road congestion and traffic pollution around Heathrow today – despite its London Underground and Heathrow Express connections – are the result of a lack of proper planning and investment in the past. It would be inexcusable if the same mistakes were made in relation to Stansted.

3.3.2 Similarly, Junction 8 of the M11 was regularly gridlocked as Stansted expanded and before corrective action was taken.

3.4 Cannot be viewed in isolation

3.4.1 The effect of the proposed airport expansion on road and rail cannot be viewed in isolation. The Sustainability Appraisal Report (non-technical summary) on the draft East of England Plan[2] comments on transport capacity in the Stansted/M11 and Harlow sub-region:

> *'A number of routes in the sub-region have existing heavy traffic flows. The sub-region has many transport problems, including capacity of rail links, poor quality of east-west rail links and localised areas of congestion. Public transport links are poor in this area and will need substantial improvement to accommodate growth.'*

[1] CAA Annual Passenger Survey Report, 2004 [CD/210]: Heathrow handled 67.1m passengers of whom 43.6m (65%) originated or terminated at Heathrow; Stansted handled 20.9m passengers of whom 18.3m (88%) originated or terminated at Stansted. 50mppa x surface access 88% = 44mppa.

[2] East of England Plan Non-Technical Summary of the Sustainability Report, 2004, page 8, Table 3.1h [CD/310].

3.5 Need to address Government policy

3.5.1 It is not sufficient for this major planning application to claim that its impact on road transport will be only a minor worsening of what is projected to happen because of a general growth in road transport. There should be a demonstration of how BAA's proposal will contribute to the Government's transport policy objective of 'reducing the need to travel, especially by car' (PPG13, para 4.3) [CD/106]. The Transport Assessment is sadly lacking in tackling the challenge to move more people out of cars and onto trains.

3.5.2 Rail's modal share of passenger travel to and from the airport has been declining: 27.2% in 2001 to 25.3% in 2005.[3] This application appears to have no ambition to reverse this. It simply proposes running longer trains as demand increases with passenger numbers. This is not acceptable. If the Assessment were based on the kind of mode shift necessary to meet Government objectives, the impacts and the need for mitigation would be very different.

4 NATIONAL, REGIONAL AND LOCAL PLANNING POLICY CONTEXT

4.1 National policy

4.1.1 The Future of Air Transport White Paper ('ATWP')[CD/87] states the following:

> *'Local controls should operate ...to manage the environmental impact of aviation and airport development so that: ..surface access to airports is designed to help limit local environmental impacts.' (para 3.6)*

and

> *' ...a balanced approach is required which ... seeks to reduce and minimise the impacts of airports on those who live nearby, and on the natural environment.'* [4]

The only interpretation that we can put on these two statements is that airport-related road traffic should be minimised.

4.1.2 The 1998 Transport White Paper 'A New Deal for Transport: Better for Everyone' [CD/129] sets down a policy framework to 'reduce road traffic growth' and 'respond to the challenge of climate change.'[5] It specifically addresses the surface access issue at airports:

> *'As managers of some of the nation's largest public transport interchanges, airport operators will be well placed to make a positive contribution to integration. We will therefore expect airport operators to be partners in implementing surface transport initiatives to improve the quality of the public transport journey to their airports ...The needs of surface access to airports should be considered as part of the wider transport strategy for the local area. Airport-related transport issues must be integrated with, not divorced from, local transport problems and opportunities."*[6]

4.1.3 The Transport White Paper also sets down Government policy on how improvements to airport surface access should be funded:

[3] BAA Environmental Statement, Volume 11, Table 4.1[CD/14].
[4] ATWP, Executive Summary [CD/87].
[5] 'A New Deal for Transport: Better for Everyone', DTLR, 1998, Chapter 2, p20 [CD/129].
[6] Ibid, Chapter 3, p71.

'- from the aviation industry - where a scheme is viable or there are wider benefits to the industry;

- for airports to levy a surcharge on car parking charges.

With both options we would expect the proceeds to be applied to public transport improvements or measures to mitigate the undesirable impacts of road traffic to and from the airport.' [7]

4.1.4 The emphasis throughout the Transport White Paper is upon reducing road traffic and increasing the proportion of journeys made by public transport. The clear preference is for rail-based rather than road-based public transport.

4.2 Regional policy

4.2.1 The Draft East of England Plan [CD/74] mirrors the national policy context. The first objective of Policy T1: Regional Transport Strategy Objectives and Outcomes is:

'to manage travel behaviour and the demand for transport with the aim of reducing the rate of road traffic growth and ensuring the road transport sector makes an appropriate contribution to the required reduction in greenhouse gas emissions'. [8]

4.3 District policy

4.3.1 The Uttlesford Local Plan [CD/57] states as its first general planning policy (Policy GEN1 – Access):

'Development will only be permitted if it meets all of the following criteria: (a)...(e) The development encourages movement by means other than driving a car.'

4.4 Some way to go to meet policy objectives

4.4.1 In 2005, 74.3% of Stansted's passengers travelled to/from the airport by road (60.4% by car/taxi and 13.9% by bus/coach) and only 25.3% by rail. For airport employees the position is even worse, with 93.5% travelling by road (86.3% solo) and only 4.5% by rail. Quite apart from the increase in the absolute scale of Stansted which BAA is proposing, we are also looking at an increased proportion of airport users travelling by road. The inconsistencies with relevant planning policies hardly need explaining.

5 PLANNING BASED ON UNRELIABLE FORECASTS

5.1 Unreliability of BAA's forecasts

5.1.1 The Surface Access volume of the Environmental Statement (ES Vol 11) [CD/14] fails to adequately test the impacts of the proposal, mainly because it is founded on unreliable forecasts.

[7] Ibid, Chapter 3, p72.

[8] East of England Plan, Secretary of State's Proposed Changes, Government Office for the East of England, Dec 2006: Part 2: Modified Text of RSS incorporating Proposed Changes, page 133 [CD/76].

5.1.2 CD/14 tells only part of the story. The information is often incomplete or misleading. Consequently, the assessment of impact and the need for mitigation are unreliable. The document seems to consistently seek to represent BAA's share of responsibility for the cumulative consequences of its past actions and future proposals as minimal and, in so doing, all too frequently dismisses the consequences of further growth as being negligible. First hand experience of the airport's impact to date and the prospect of doubling passenger throughput by 2021 make such throwaway dismissals hard to believe.

5.1.3 Practically all expressions of growth are focused on just part of that growth, the slice between 25mppa and 35mppa. The baseline of 25mppa is not even an extrapolation from today, but a kind of 'worst-case' scenario if the passenger limit of 25mppa were not removed. The most frequently used 35mppa picture is the 'enhanced' one, with projected benefits from a number of potential additional public transport facilities. The Transport Assessment therefore does not give the full impact against the current level of activity, ignores the very real potential for passengers to grow beyond 40mppa and assumes all interventions are implemented in due time. The appearance of occasional so-called 'sensitivity' tests at 40mppa suggests that 40mppa is beyond what can reasonably be expected, but that is not so.

5.1.4 The 2003 ATWP [CD87] states that up to 46mppa could be handled on a possible second runway at Stansted[9], and this number could surely be handled on Stansted's single runway. Gatwick acknowledges capacity of 45mppa on its existing runway and the indications for Heathrow are that about 106mppa could be handled on two runways if mixed mode were to be permitted. And our own modelling shows that 50mppa could eventually be handled on the Stansted runway. BAA's projections should recognise this and consider 45mppa to be the base case, with a more realistic 'sensitivity' test at 50mppa. The focus of attention on a 40% growth between a worst-case 25mppa and a best-case 35mppa gives a totally false impression.

5.1.5 Even within BAA's 40% growth scenario, the apportionment of growth has been unreasonably skewed towards elements that would cause least stress to surface access infrastructure. There are a number of questionable basic assumptions which, taken together, create a very unstable platform upon which many projections are then based. Four particular assumptions contribute to this concern:

- The baseline of 25mppa is very close to a 'worst-case' scenario if the passenger limit of 25mppa were not removed.
- BAA focuses upon 35mppa as the maximum number of passenger movements, whereas 45mppa is likely by 2021 and 50mppa by 2030.
- BAA projects that the number of transfer passengers will decline (compared to 2004) in the 25mppa scenario but grow very considerably in the 35mppa scenario. The 'connectivity' variable does not fully explain this.

[9] ATWP, para 11.27, p114 [CD/87].

- BAA asserts that the number of passengers travelling to and from London will grow far more slowly than those travelling from other areas. This is contrary to the historic trend and also conflicts with its projection that inbound foreign tourists will grow at a disproportionately fast rate. It also seems at odds with BAA's assertion that a lack of capacity at Heathrow and Gatwick will result in passengers who would otherwise use these airports 'spilling' over to Stansted. One cannot resist forming the impression that the numbers have been massaged to suit BAA's arguments.

5.1.6 The combination of these factors leads to a significant under-statement of demand for surface transport between Stansted and London, both in numbers and in proportion to non-airport traffic. The effect is to divert attention away from surface transport infrastructure which is already severely stretched and will almost certainly require expensive upgrading.

5.1.7 There is no airport masterplan (as required by the ATWP [CD/87] and by UDC's Scoping Opinion [CD/24]), so the full context of this proposal is not clear. The statement in the Planning Application that it is not part of a bigger plan is contrary to indications given by BAA in respect of a proposed second runway, and at variance with the fact that specific anticipated additional developments are outlined in the proposal. The Surface Access assessment includes several references to on-airport facilities that are likely to be required to satisfy 35mppa (let alone 45mppa or 50mppa) and which do not yet have planning approval. Appendix A.44 refers to two additional hotels, a restaurant and an increase from four to six car rental bases, yet planning permission for these is not being sought. A.53 lists these again, together with various car park extensions, all of which would require planning permission. The status of these additional items is unclear, particularly in the absence of an airport masterplan. The application should not be considered in isolation without a clear picture of the potential ultimate scale of development and its surface access consequences. In the context of the long lead times traditionally associated with provision of road and rail infrastructure, planning needs to be more far sighted and not dependent on creeping incrementalism.

5.1.8 The Transport Assessment focuses primarily on 2014, yet para 2.5.18 confirms that the DTLR/DfT requirement is for consideration of impacts for 15 years beyond opening (i.e. approx 2023). Occasional 2023 figures are given but not consistently or with such explanation as 2014. For example, in Appendices Q and R, M11 airport-related traffic is shown as reducing between 2014 and 2023, but there seems to be no explanation. There are no rail projections beyond 2014. The application cannot be properly considered without taking into account the full consequences in the medium and long term. The 2021 regional planning horizon and the 2030 planning horizon for the ATWP are also very material milestones for planning purposes.

5.1.9 Forecast airport-related growth is frequently expressed as a percentage of total traffic on a particular route, usually a low percentage. However, this fails to give a true impression of the scale of impact. An increase of 3% on a quiet route is quite different to a 3% increase on a route that is operating close to capacity. BAA should provide an analysis which expresses the increases in traffic densities as a percentage of the available capacity so that the key impacts at the margin can be properly assessed.

5.1.10 Percentages quoted in para 6.3.6 cannot be taken at face value and, indeed, are misleading. The increase in total passengers from 20.9mppa in 2004 to 35mppa in 2014 is 67%. The 67% growth is not declared anywhere in this section and it is

not easy to calculate. Within that overall 67% growth, and without visibility or explanation, a much higher rate of growth (124%) is attributed to transfer passengers, leaving 'only' an increase of 59% in non-transfer passengers (i.e. those requiring surface access to the airport). Then, within that 59% growth of surface access passengers, a higher rate of growth is attributed to travellers outside the illustrative sample of September midweek passengers, leaving 'only' 55% growth in the September midweek passengers. As if that were not enough manipulation, the growth is not expressed even as 55%, but as a 27% increase from 2004 to 2014 in the 25mppa case and a further increase of 22% in the 35mppa case. So, as if by magic, an overall passenger increase of 67% is expressed as 'a further 22% increase'. The perception of the scale of increase as given by the quoted percentages appears to be deliberately designed to mislead.

5.1.11 BAA argues there will be an acute shortage of airport capacity in the south east in 2014 – and, indeed, through to 2030 – and that this will result in demand 'spilling over' from Heathrow and Gatwick to Stansted. One would therefore expect to see at Stansted a disproportionately large increase in passenger traffic to and from London and the rest of the south east. However, BAA's projections show a disproportionately small increase from London and the rest of the south east. This is simply not credible.

5.1.12 Table 6.2 on page 83 contains BAA's forecasts of passenger growth from 2004 to 35mppa in 2014, analysed by place of origin or destination. There is great variation in the assumed rates of growth from different areas. This variation is contrary to the pattern of growth in recent years as reported in para 4.2.3 and Table 4.2. These assumptions have a significant impact on key surface access forecasts. The numbers of passengers on surface access routes currently under greatest stress are generally forecast to grow much less than those from areas where there is greater capacity.

5.1.13 In response to the Scoping Opinion [CD/24.1] – the final item under Surface Access – BAA promised to look at sensitivities for the day of the week. Most assessments relate to September midweek. There is no evidence of findings related to other times of the year or week. Stansted Airport is 10%-12% busier in August than in September and therefore airport-related road traffic is about 10%-12% higher. Although the opposite is generally true in relation to non-airport traffic, this may not be the case in respect of the smaller local roads heavily used by airport-related traffic.

5.1.14 The ES Volume 11 Addendum [CD/14.1] purports to address questioning by UDC of the diverse rates of growth in passenger origins, but this sensitivity test retained most of the surprising features of the forecast growth rates.

5.1.15 The rates of growth can be summarised as follows, showing mppa in 2004 and forecast growth over nine years to 2014, firstly from CD/14 Table 6.2 and secondly from Addendum Table B.1:

2004 actual	Table 6.2	Table B.1	
2.6mppa	33%	37%	Central London
1.5mppa	39%	43%	South East – south of Thames
4.2mppa	49%	55%	South East – north of Thames
3.0mppa	50%	55%	London, apart from Central & NE
2.2mppa	62%	68%	London - North East
2.5mppa	86%	58%	Rest of UK
2.3mppa	104%	105%	East Anglia (Suffolk, Norfolk, Cambs)
18.3mppa	59%	59%	Total passengers requiring surface access
2.6mppa	124%	124%	Transfer passengers
20.9mppa	**67%**	**67%**	**All passengers**

5.1.16 In particular, the forecast rates of growth for the areas which would place least strain on road and rail (East Anglia at 104% or 105% and transfer passengers at 124%) seem quite inconsistent with the forecast 33% or 37% growth for central London - which would place greatest pressure on the London – Stansted rail link. Table 4.2 on page 28 of CD/14 shows an analysis over the past six years of passengers' surface origins and there is nothing to suggest that central London's share of passengers is about to decline.

5.1.17 If growth in passenger demand were to be evenly spread, as indicated by past trends, the 35mppa forecasts would generate almost a million extra passenger movements per annum to or from central London in 2014 over and above BAA's forecast. This is a significant number, especially given the heavy loading already on this transport corridor. Table 1, below, illustrates the potential impact on surface access between Stansted and London if growth is achieved evenly. Our long term projection of 50mppa in 2030 suggests that there would be a total of 18.64m passenger journeys between Stansted and London in 2030, compared with 7.79m in 2004 and 11.50m forecast in CD/14 at 35mppa. This would impose an enormous additional unplanned burden on road and rail infrastructure.

Table 1 Passenger origins/destinations

	All Passengers	Central London	All London
2004 Actual mppa	20.90	2.63	7.79
BAA 35mppa projection	35.00	3.49	11.50
Growth	67.5%	32.7%	47.6%
Alternative scenarios with even passenger growth across origins/destinations			
35mppa	35.0	4.40	13.05
40mppa	40.0	5.03	14.91
45mppa	45.0	5.66	16.77
50mppa	50.0	6.29	18.64

Source: BAA Environmental Statement Vol 11, Table 6.2 or para 4.2.1 [CD/14]

5.1.18 In CD/14, paras 8.2.6 to 8.2.9 and the following Tables 8.2 to 8.5 show forecast 'Air Passenger Travel Demand' for an average September weekday for each case,

analysed by hour. The sum of the three categories (cars and taxis, Stansted Express and Other PT) falls short of the daily totals in para 6.3.6 and Table 17 of Volume 16: Air Traffic Data. For example, the 2014 25mppa case in Table 8.2 gives 37,602 + 16,923 + 10,569 = 65,094, yet the total should be 73,120 as stated in para 6.3.6. No explanation is given for this shortfall. Similarly, the 2014 35mppa case in Table 8.3 gives 46,346 + 20,169 + 13,274 = 79,789, yet the total should be 89,540. See also comments above regarding para 6.3.6 where there seems to be some inconsistency in calculating the average day figures. These simple arithmetic errors cast doubt on the general reliability of forecast impacts.

5.1.19 CD/14 Chapter 6 explains the sophisticated modelling that has generated the surface traffic forecasts and impacts, yet the modelling is based on questionable assumptions that have been queried in the previous paragraphs. Some data is several years old and the end point for the forecasts is only 2014. No matter how sophisticated the computer model, the input data needs to be up to date and reliable.

5.1.20 The objective of the tests in the Addendum [CD/14.1] was to consider the impact of changes to the Draft East of England Plan [CD/74] and to take account of the views of UDC's consultants, SH&E. These two factors appear to have had minimal consequences, yet a number of changes in assumptions and modelling have caused substantial variations in output compared with the original forecasts. For example, Stansted Express mode share is down around 4 percentage points[10], with peak time travel down around 20%[11], whilst M11 and A120 traffic flows are down around 10%[12]. Para 6.5.2 states that "there are larger differences in non-airport trips which arise from new planning data, revised network assumptions and model updates". The changes are so significant that they cast doubt on the validity of both the original forecast and this recent test. Perhaps this merely illustrates that transport planning is far from a science. The changes that can be made by a little tweaking of the assumptions seem to outweigh the changes predicted for massive passenger growth. That a few 'tweaks' can have such a major effect when compared with what was previously held out to be a robust forecast reduces the level of confidence. This in itself (together with BAA's past record of under-estimation) reinforces the argument for applying the precautionary principle to surface access planning.

5.2 Inadequacy of BAA's responses to UDC's Regulation 19 Notice

<u>UDC Requirement 8</u>: *'Total increase in road vehicle mileage resulting from the development by mode.'*

5.2.1 BAA did not answer this question in its Regulation 19 response [CD/22] despite its relative simplicity. The road mode comprises car journeys (including hire car and taxis) and bus/coach journeys to and from the airport for air passengers, airport employees and other airport users. BAA should have provided a road vehicle mileage estimate for each of these mode shares for 2005 and projections for the 2014 'baseline' at 25mppa, for 2014 at 35mppa and also for the higher mppa throughputs which can reasonably be anticipated in 2021 and 2030. BAA has provided information only for the 'busy day' scenario and only to 2014.

5.2.2 BAA attempts to claim that there is a 'saving' in road vehicle mileage but can only make this claim by comparing what would happen if 35mppa were permitted and

[10] CD/14.1, para 3.2.3.
[11] Ibid, Table 3.2.
[12] Ibid, para 5.2.5 and Fig 5.1.

there were no 'transport interventions' and what would happen if 35mppa were permitted and there **were '**transport interventions', i.e. under the enhanced 35mppa case.

5.2.3 The first point to make here is that the claimed 'saving' is not only hypothetical but also relative, i.e. the difference between two projected 35mppa scenarios.

5.2.4 The second point to make is that the transport interventions as described appear to be of a relatively minor nature, mostly 'soft' measures. Hard measures such as park and ride, restricting on-site car parking provision for airport users and investment in rail infrastructure are either explicitly rejected or not considered. It is difficult to understand how significant reductions in car use can be anticipated on the basis of 'soft' measures alone.

5.2.5 The third and perhaps most important point is that there is no reason why the transport interventions that are proposed for the 35mppa 'enhanced' case should not also be applied to the 25mppa baseline for 2014. Indeed, as BAA points out, Government policy is to reduce car use and the policy states that airport operators are meant to play a full part in achieving this.[13] This is true regardless of whether the airport is to be handling 25mppa or 35mppa in 2014.

5.2.6 In short, all of the transport interventions that are proposed by BAA for the 35mppa 'enhanced' case, should already be part of BAA's plans for 25mppa (if not, why not?) and any comparison between the two should be on a like-for-like basis.

5.2.7 Turning to more detailed points, in para 2.5.7 of its response BAA refers to 'about 400,000' being the increase from row 3 to row 4 in Table 14. The increase is actually 478,200 (2,813,400 less 2,335,200)

5.2.8 In para 2.5.8 of its response, on the basis of the flawed analysis referred to above, BAA claims that:

> *'This demonstrates that the proposed public transport improvements (rail, bus and coach) would deliver a 31% reduction in the potential growth in vehicle-km travelled as a result of growth between the 25mppa and 35mppa cases. This reduction demonstrates that the approach adopted accords with Government policy to promote more sustainable transport choices as set out in ATWP, ITWP and PPG13.'*

Not only is the 31% mathematically incorrect (131,200 is 27% of 478,200), but the whole basis for claiming a reduction is highly questionable. This is examined in further detail below.

5.2.9 Using the figures provided by BAA in Table 4.1 of CD/14, car journeys accounted for 60.4% mode share for departing passengers at Stansted in 2005 and bus/coach accounted for 13.9%. Rail accounted for 25.3%. (It should be noted that BAA's figures are slightly different from the official figures published by the CAA, which is BAA's claimed source: 60.3%, 14.3% and 25.0%, respectively.)

5.2.10 For 25mppa in 2014, BAA projects (Table 8.1 in ES Vol 11) that car journeys will account for 58.9% mode share for departing passengers at Stansted, i.e. a slight reduction on the current 60.4% figure (or 60.3% if the CAA data is used). Public transport is expected to account for 41.1% mode share at 25mppa in 2014, a slight improvement on today's figure. BAA does not provide a breakdown between rail

[13] 1998 Transport White Paper: 'A New Deal for Transport: Better for Everyone', Chapter 3, p71 [CD/129].

and bus/coach and we suspect that this may be because it would show a continuing reduction in rail mode share in favour of road-based public transport, i.e. bus and coach. Stansted's rail mode share has declined from 27.2% in 2000 to 25.3% in 2005 (or to 25.0% if the actual CAA figures are used).

5.2.11 For 35mppa in 2014, BAA projects (Table 8.1 in CD/14) a **decreased** public transport mode share with car journeys accounting for 60.1% of departing passengers at Stansted and public transport for 39.9%. Again, BAA does not provide a breakdown between rail and bus/coach.

5.2.12 BAA shows a higher public transport mode share under the 'enhanced' 35mppa case (43.2%) (also in Table 8.1) although the justification for this is not explained and again no breakdown is provided between road-based public transport and rail.

5.2.13 With regard to employee travel, the figures provided by BAA [CD/14 Table] show that in 2005 car drivers accounted for 76.6% mode share. The car drivers' mode share is forecast to worsen to 79.0% by 2014 for the 25mppa baseline and then improve to 77.9% under the 35mppa scenario and to 75.9% (0.7% less than today's figure) under the 'enhanced' 35mppa scenario.

5.2.14 The key yardstick which BAA applies everywhere else in its ES is to compare its theoretical 25mppa baseline in 2014 with its projections for 35mppa in 2014. On this basis, it is clear that the projected change in mode share for both passengers and employees combined would be adverse. The numbers point to a **lower** public transport mode share in 2014 for airport passengers under the 35mppa scenario as compared to the 25mppa scenario. It is invalid to compare the 'enhanced' 35mppa scenario with the non-enhanced 25mppa scenario. This is to compare apples with oranges.

5.2.15 BAA claims (in para 2.5.8 of its response) that its approach to the surface access issue in relation to its proposed development 'accords with Government Policy' and BAA specifically cites the ITWP (the 1998 [Integrated] Transport White Paper, 'A New Deal for Transport: Better for Everyone' [CD/129]). However, the very first paragraph of the ITWP states

> *'There is now a consensus for radical change in transport policy. The previous Government's green paper paved the way with recognition that we needed to improve public transport and reduce dependence on the car.'*

It is fair to say that there is no sign of any 'radical change in transport policy' or attempt to 'reduce dependence on the car' if one looks at the mode share projections provided by BAA in Tables 4.1, 4.6, 8.1 and 8.6 of CD/14.

5.2.16 BAA's claim of a '31% reduction in the potential growth in vehicle-km travelled as a result of growth between the 25mppa and 35mppa cases' is based on such a flimsy and flawed construct that it should simply be ignored. In addition to the failure to compare like with like, described above, BAA has manipulated the transfer passenger projections, passenger origin and destination assumptions and other key input data. BAA's surface access projections and conclusions should therefore be viewed with considerable suspicion until or unless BAA provides convincing evidence to support its assertions.

5.2.17 As an example, BAA projections assume that the proportion of airport passengers who are transferring to other flights (and thus making no demand on road and rail services) reduces from 12.5% in 2004 to 10.0% in 2014 at 25mppa. However, the proportion then increases to 16.6% under the 35mppa scenario for 2014. These

assumptions are not supported by evidence to explain why transfer passengers should decline sharply between now and 2014 under the 25mppa scenario but rise sharply under the 35mppa scenario. Unsurprisingly, BAA's chosen assumptions have the effect of increasing surface access demand under the baseline 25mppa scenario and reducing surface access demand under the 35mppa scenario. By narrowing the differential in this way, BAA seeks to claim that the effect of approving 35mppa has 'minimal' road and rail implications.

UDC Requirement 9: ***'Hourly road traffic data around local roads outside the airport for the 24 hour weekday and, separately, for weekends, for the baseline, 25mppa and 35mppa situations.'***

5.2.18 For the reasons set out earlier, including paragraphs 5.2.1 to 5.2.17, we attach no credibility whatsoever to Tables 15 - 24 provided by BAA in its Regulation 19 Response [CD/22]. BAA has systematically understated the surface access implications of its proposed development.

5.2.19 We have major concerns in this area, not only in relation to the impact upon traffic congestion and local air quality, but also the wider issue of quality of life and the increasing problem of airport-related 'rat runs' along country lanes and through previously tranquil local villages, by day and by night.

5.3 Over-reliance on BAA's forecasts

5.3.1 A statement in Essex County Council's Local Transport Plan 2006-2011[14] is worth repeating. Para 4.84, in anticipation of this planning application from BAA, states:

> *'Serious concerns remain that there will be a repeat of the previous three phases of growth at Stansted which have each been based on forecasts and planning assumptions that later transpired to be so different in reality that the transport impacts were seriously misunderstood and not properly planned for.'*

5.3.2 Essex County Council ('ECC') expresses distrust of BAA's forecasts and concern for the consequences for surface access[15][16] yet it appears not to have critically examined BAA's surface access forecasts. Concern is also expressed by their consultants, both on BAA's past forecasting record[17] and regarding the forecast of passenger origins and destinations.[18]

[14] Transport Plan 2006-2011, Essex County Council [CD/86].

[15] Local Transport Plan 2006-2011, [CD/86], para 4.84, in anticipation of this planning application from BAA, states: 'Serious concerns remain that there will be a repeat of the previous three phases of growth at Stansted which have each been based on forecasts and planning assumptions that later transpired to be so different in reality that the transport impacts were seriously misunderstood and not properly planned for'.

[16] Essex County Council submission to UDC 04 October 2006 [CD/274, para 3.2] states that consultants SH&E, working for the two county and two district authorities, 'have not reviewed the surface access data for passengers or staff'. The paragraph goes on to say 'There is some uncertainty about the voracity (sic) of the BAA forecasts'.

[17] SH&E: Review of BAA Traffic Forecasts, Feb 2006 [CD/133], para 3.4 'Actual passenger throughput in 2005 was more than double that forecast by BAA in 1993, a difference of 11.4mppa. This does raise some credibility and reliability issues regarding BAA's traffic forecasting.

[18] SH&E Review of BAA Traffic Forecasts, Feb 2006 [CD/133], para 3.48: 'The BAA forecasts for Stansted indicate changes in the pattern of passengers UK origin and destination that we find surprising'

5.3.3 Hertfordshire County Council ('HCC') notes[19] that BAA forecasts a 40% increase in passengers, yet road and rail traffic will increase by only 19%. It is surprising that the 'loss' of five million passengers did not ring alarm bells and lead to a critical review.

5.3.4 Similarly, there is no indication in the submission by the Highways Agency ('HA') that it sought to test BAA's forecasts.

5.3.5 ECC and HCC have each urged that the risk of understated forecasts be limited by imposing an absolute 35mppa cap and by certain infrastructure improvements, yet their responses give no indication that they have recognised the true potential impact on surface access, even at 35mppa. Nor have they addressed the risk that 35mppa may not be final.

5.4 Need to look beyond 35mppa and 2014

5.4.1 BAA's forecasts generally do not go beyond 2014. Given the usual timescales for provision of road and rail infrastructure, it is essential to plan further ahead. SSE estimates that, if this application were to be approved, surface access infrastructure would be needed to support 45mppa by 2021 and 50mppa by 2030 on a single runway.

5.4.2 Even if a condition of 35mppa were to be set now, we could not take it as final. Inspector Eyre set a 25mppa ultimate limit and the Government confirmed it, yet here we are again. Given BAA's track record for coming back and asking for more, we must ensure that potential surface access problems are avoided by forward planning and timely investment.

6 FAILURE TO ADEQUATELY ADDRESS GOVERNMENT POLICY

6.1 Inadequacy of proposals to constrain the need to travel by car

6.1.1 Para 4 above cites policies that seek a modal shift away from the car and onto public transport, especially rail.

6.1.2 Government transport policy is misrepresented by focusing on the public transport mode share. Specifically, para 11.9.1 of CD/14 refers to the Government's agenda of 'reducing the proportion of trips to the airport by car'. We note that no reference source has been cited for this assertion. In fact, Government policy is to reduce the need to travel, especially by road, and even more especially by car. Specifically in relation to airports, Government policy is 'to mitigate the undesirable impacts of road traffic to and from the airport' [our emphasis]. Public transport is supported by Government but especially non-road (i.e. rail) modes. But, above all, Government policy – and the East of England regional transport policy – is very clearly focused on reducing the need to travel. Creating increased capacity to fly, and consequently increasing the need to travel to the airport, has a far greater impact on car use than tinkering with the mode share of that increased activity.

6.1.3 However, leaving aside the issue of air travel, the key point here is that BAA's focus on buses and coaches is a mere sop to the Government and East of England Region policy agenda and an excuse to (once again) avoid long overdue

[19] Hertfordshire County Council letter to UDC 22 Sep 2006 – Cabinet Report 11 Sep 2006 - paras 8.1 to 8.3 [CD/276]

investment in rail infrastructure. This is wholly unacceptable. Providing the necessary rail infrastructure would require a substantial level of investment and BAA would be expected to meet a large part of the cost. However, people arriving by car – and using the airport's parking facilities – would generate substantial revenues for BAA. (Our proof of evidence on economic issues [SSE/8/a] shows the importance of car park revenues to the Stansted business model.) Investment in rail infrastructure is long overdue even on the basis of the current scale of operations at Stansted.

6.1.4 Meanwhile, BAA should be asked to provide data on bus and coach seat utilisation for the past five years as well as forward projections. We may find that this particular form of public transport is less environmentally friendly than we are being led to believe.

6.1.5 In July 2004 SSE published a paper entitled 'Towards a Lo-Car Strategy for Stansted Airport' [CD/264]. This set out a range of policy measures aimed at securing a significant modal shift to public transport for surface access to the airport. This paper received strong endorsement from the key local authorities[20] and the principles set down therein were almost universally supported, including at Ministerial level within the DfT.[21] Implementation of the 'Lo-Car' strategy requires a range of measures, including improvements to rail access, development of park-and-ride interchanges, restrictions on airport parking and introduction of an airport access or congestion levy. All these concepts are supported within the East of England Regional Transport Strategy [CD/68] and could make a significant contribution to the reduction of private car usage if given sufficiently high priority. Essex County Council wish to fully evaluate the option of a Stansted Airport access levy and we understand that Essex County Council is also keen to explore the option of workplace parking charges.

6.1.6 For the reasons explained earlier, it is not surprising that BAA is seeking to resist any policies that might discourage driving to, or parking at, the airport. However, the potential environmental mitigation benefits are too significant for these to be dismissed so swiftly. CD/14, para 7.5 rejects a possible forecourt charge, doubling of parking charges or restricting parking spaces as being likely to increase car movements through a switch from park-and-fly to kiss-and-fly or taxi, with the consequent doubling of mileage and encouragement of off-airport fly-parking. Para 7.6 and Appendix L dismiss the idea of a remote Park-and-Ride, say, at M11 J7 as not commercially viable: 'No advantages of operating an off-airport facility have been identified'. This conclusion may have been driven by other considerations.

6.1.7 Since publishing our 'Lo-Car' strategy paper [CD/264], three years ago, we have learned of further initiatives at airports in Europe and elsewhere which reinforce our opinion that there is considerable potential to create a far less environmentally damaging 25mppa scenario for Stansted by 2014, based on international best practice. BAA has presented the opposite scenario.

6.1.8 Notwithstanding the current BAA planning application, we believe there is very considerable scope to bear down on airport-related road traffic at Stansted. Between now and 2014, far from there being an increase in road traffic as BAA

[20] Uttlesford District Council (July 2004 & September 2004), East Herts District Council, Essex County Council (October 2004) Herts County Council (February 2005) and the East of England Regional Assembly (May 2005).

[21] Presented to DfT Aviation Minister Karen Buck and senior civil servants in November 2005 and 'commended' as being consistent with DfT transport policy and wider Government policy.

would wish us to believe if its application is not approved, a proactive approach based on international best practice could bring about a significant reduction. .

6.2 Inadequacy of surface access strategy to address climate change

6.2.1 There is likely to be a significant growth in carbon dioxide emissions from increased surface access to the airport, especially if there is no significant shift from private car to public transport. BAA has failed to provide an estimate of emissions from surface access but it seems highly likely that BAA's proposal will result in increased emissions and therefore be incompatible with Government policy on climate change.

7 POTENTIAL CONSEQUENCES

7.1 General

7.1.1 In a number of major respects the Transport Assessment [CD/14] has failed to test adequately the effects of the proposed expansion and has therefore failed to identify the true scale of impact. Where unacceptable impacts have been identified, the ES consistently seeks to minimise BAA's share of responsibility for the cumulative consequences of the airport's development. BAA's consultants therefore claim that there is either no need for mitigation or that only minor mitigation is necessary. In reality, however, the outlook is for serious detrimental impact on many surface access routes, including rail, major roads and minor roads.

7.1.2 Specific concerns are dealt with in our Proofs of Evidence SSE/14/a and SSE/15/a.

7.1.3 The Transport Assessment's Appendix A (and supporting narrative) shows substantial new facilities, including car parks and additional road capacity within the airport, but does not show any meaningful investment to expand either rail access or road access into the airport. The only planned access improvements are slip roads firstly from the southbound M11 and secondly avoiding Priory Wood roundabout. These are requirements ROA1 and ROA2 imposed under UDC's planning approval for 25mppa. These conditions were imposed at the direction of the Highways Agency and were opened to traffic in December 2006. There appears to be no planned allowance to cater for the scale of change that would arise from a doubling of today's 22mppa by 2021 and more by 2030.

7.1.4 Para 8.3 of the Transport Assessment forecasts travel patterns for airport employees. No significant change is forecast in mode share between 2005 and the various 25mppa and 35mppa options. The trend of recent years of steadily reducing car use is expected to halt because BAA initiatives will be outweighed by an expected fall in the cost of car operation, whilst rail and bus fares will increase in real terms. These assumptions run counter to Government transport policy which is to reduce car usage in favour of public transport. Airport employers should be expected to continue to maintain the present impetus to reduce the very high levels of employee car usage.

7.2 Roads

7.2.1 The forecast growth in airport-related road traffic is not clearly compared with non-airport-related growth and in any case the calculation of both is questionable.

Assumed rates of growth for non-airport-related traffic are shown in para 10.4.2, Table 10.3 of the Transport Assessment [CD/14]. The assumed growth between 2003 and 2023 ranges from 39% to 56% for different times of day. Although the assumed growth drivers for this assumption are stated in Table 10.3, little account appears to have been taken of Government policy to reduce the need to travel, especially by car; or the growing awareness and pressure for action to combat climate change; or the likely progressive constraints on availability of fossil fuels as world demand is expected to overtake supply. Para 6.4.12 refers to economic assumptions used for modelling and listed in Table K1. This has been 'agreed with DfT'. There are some rather perverse forecast trends, especially that in 2021 the cost of car fuel will be only 80% of 2003, whilst rail and coach fares will be 120% and bus fares 150%. This seems to go against what one would expect given Government transport policy, which is aimed at reducing car use, and Government's ability to affect these prices.

7.2.2 Our Annex 1 summarises BAA's projections for one element of surface access, M11 traffic in the morning peak, and also includes an attempt to give a more realistic picture of the impact of the proposed development. It is based on 45mppa (i.e. less than 'full use') and assumes that growth rates are consistent across places of origin and destination. Currently, airport-related traffic is relatively light during the morning commuter peak, but the proposed increase in passenger ATMs is expected to even out the times of aircraft movements and therefore the times of passenger surface access movements. BAA's 40mppa forecast is for a 77% increase in airport-related traffic from 2003 to 2023, whilst our 45mppa extrapolation shows growth of 144%. BAA forecasts total morning peak M11 traffic (including non airport-related traffic) to grow by 54% whilst we show 63%. These differences are significant for a road which is already extremely busy at that time.

7.2.3 BAA assumes that the extra road traffic is virtually all off-peak because the additional ATMs can only be accommodated during off-peak hours. However, BAA also argues that there will be an acute capacity shortage in the south east by 2014. Surely then it can be anticipated that load factors on existing peak-time flights will increase sharply over the period to 2014, to 2021 and to 2030 and that, at least in some instances, airlines will respond to this by using larger aircraft. BAA needs to explain the specific assumptions it has made for these trends and to provide a detailed breakdown of its input modelling data, including for employee journeys and other non-passenger journeys e.g. freight-related.

7.2.4 Para 10.5.12 and Figures 10.5 to 10.8 in the Transport Assessment review peak hour traffic flow forecasts on main roads within about 20kms of the airport, comparing projections for 2014 and 2023 for different passenger numbers. No figures are shown for current volumes or 45mppa volumes. The relatively modest forecast increase in peak flows on local main roads is explained by the use of these roads at this time of day being by airport workers, not passengers, with worker travel at peak times little changed between 25mppa and 40mppa. One of the roads expected to be worst affected is the B1383. Essex County Council's draft Local Transport Plan 2006-2011 comments in para 6.3 that the B1383 through Stansted Mountfitchet carried traffic flows in excess of its operational capacity as long ago as 2001. BAA claims that an increase from 25mppa to 40mppa will increase traffic here by about 3%. Figures 10.5 and 10.7 anticipate a further 10% to 15% increase in overall peak hour road traffic flows on the B1383 north of Stansted Mountfitchet between 2014 and 2023 – increases that are claimed to have little to do with the airport. This may be a reference to planned local housing developments, e.g. the (airport-related) development at Rochford Nurseries, but whatever is meant by BAA's comment here, it is a fundamental

planning requirement for cumulative and aggregate impacts to be considered. Where the existing infrastructure is operating at the margin, any planning application should be resisted if it has the potential to lay 'the last straw'.

7.2.5 Para 10.5.16 suggests prohibiting non-airport traffic from the Coopers End access. The impacts of this upon local traffic flows, and on construction traffic flows, should be clearly spelled out by BAA so that this can be fully assessed as part of this planning application.

7.2.6 The Highways Agency, in its submission to the examination in public of the draft East of England plan, commented:

> *'Modelling work undertaken by the Highways Agency (CD TRN6) indicates that growth provided for in the draft plan, including maximum use at Stansted Airport, is likely to result in regular congestion occurring on the section of the M11 between junctions 6 and 8.'*

Transport Assessment para 10.5.17 indicates that 'queue lengths could exceed available space' on the M11 J8 roundabout in morning and evening peaks by 2014 – but claims that this would not be seriously exacerbated by increases in airport traffic beyond 25mppa. Potential gridlock, but BAA's focus is on disclaiming responsibility for who laid the 'last straw'. We reiterate that it is a fundamental planning requirement for cumulative and aggregate impacts to be considered and where the existing infrastructure is operating at the margin any planning application that has the potential to lay 'the last straw' should be resisted.

7.2.7 Para 10.5.16 deals with traffic flows on the short 'weaving' section of the A120 (i.e. the section where there is lane crossover between airport and A120 traffic between M11 J8 and the diverge/merge from the Bassingbourn roundabout). It indicates that by 2023 the westbound three lane weaving section would be approaching the design capacity. The problem will arise earlier if passenger numbers exceed 40mppa and/or if the relative growth of London passengers is not as low as assumed.

7.2.8 Para 10.5.18 indicates that roundabouts connecting the A120 with the A1250 (Dunmow Road to Bishop's Stortford) and the B1383 (Stansted Road to Bishop's Stortford) would be above capacity by 2014 – but claims that this would not be seriously exacerbated by increases in airport traffic beyond 25mppa. Potential gridlock, but BAA's focus is once again on disclaiming responsibility.

7.2.9 The Transport Assessment focuses on the strategic road network but makes no attempt to explain how local roads would cope with the increases in passenger and employee traffic. Whilst traffic flows on these roads do not approach saturation level, the increased traffic is likely to adversely affect travel conditions for other road users and adversely affect the quality of life for residents who live alongside them. Many country lanes and village streets have already been increasingly badly affected by airport-related traffic at all hours of the day and night over the last ten years. They are now threatened with worse to come – more traffic, more noise and more fly-parking.

7.2.10 The present effective nightly respite from airport-related road traffic and its associated noise is less than four hours. This is summarised in our Annex 2. Para 4.2.6 Figures 4.1 and 4.2 of the Transport Assessment show flight arrival and departure profiles. It is significant that the peak flight departure time is from 06:00 to 09:00 and peak flight arrival time from 22:00 to midnight. Appendix D finds that most passengers arrive at the airport at least two hours before their flight and take around 45 minutes from landing to leave the airport. These leads and lags

suggest that airport traffic contributes to road and rail traffic (and therefore also to noise around the airport) from around 4am to past midnight. Thus, the 'quiet' night period locally is less than four hours. This conclusion is supported by Table 4.4 on page 31. Even that brief respite is interrupted by freight movements, both air and surface. Table 8.5 on page 114 shows the projected breakdown by mode and hour for 40mppa in 2014. These figures are included without adjustment in our Annex 2, which shows around one quarter of road surface access taking place during what most people would call 'night', between 11pm and 7am. Growth to 40mppa is projected to create over 3,000 additional passenger surface access movements every night between 11pm and 7am. This does not seem consistent with the ATWP promise that the Government would 'bear down' on night flights.

8 CONCLUSIONS

8.1.1 Given the inadequacies of the Transport Assessment, it is not possible to reach firm conclusions on the anticipated residual impacts after mitigation. BAA's assessment of the surface access implications of its proposed development is wholly unreliable. Much work has to be done to make this assessment fit for purpose. We have listed some of the steps that should be taken.

8.1.2 There is no airport masterplan, so the full context of this proposal is not clear. Lead times for putting in place road and rail infrastructure are notoriously lengthy and so at the very least there should be detailed traffic projections for 2021 and 2030. The impacts of this application cannot be properly assessed without a clear picture of the potential ultimate scale of development.

8.1.3 The assessment fails to look at the whole picture, fails to look far enough into the future and has been based on a series of assumptions which lack credibility. We cannot avoid the conclusion that much of the key input data for the modelling work has been contrived to suit BAA's arguments.

8.1.4 The treatment of this planning application must be consistent with Government policy (re-iterated at regional policy level) to 'reduce the need to travel, especially by car'. Our 'Lo-Car' strategy paper [CD/264] referred to earlier, provides a number of proposals for progressing this policy. Reduction of car use would reduce road congestion and CO_2 emissions.

8.1.5 Without a fundamental shift in transport mode, the increase in road surface access movements would increase carbon emissions, contrary to the objectives of Government climate change policy.

8.1.6 BAA should first be required to address the backlog of investment in surface access infrastructure, particularly rail infrastructure, which has arisen as a result of the rapid growth that the airport has experienced over the past ten years. With regard to any expansion beyond 25mppa, infrastructure investment must not be a distant prospect; it must precede any further expansion.

8.1.7 When we submitted our response to UDC in July 2006, we asked the Council to thoroughly scrutinise the input data which BAA had used for its modelling and to seek advice on the whole BAA surface access analysis and strategy from Essex and other local county councils, EERA, the Highways Agency, Network Rail and One Rail. We asked that this should not simply relate to BAA's projections for 35mppa by 2014, but to full use of the runway, which can reasonably be projected at 45mppa by 2021 and 50mppa by 2030. We feel that too much reliance has

been placed on BAA's underlying assumptions, especially its forecast of passenger origins/destinations, such that the likely consequences even of 35mppa have not been fully understood.

ANNEX 1: Forecast traffic flows on M11

This summarises BAA's projections for M11 traffic in the morning peak, and also includes an attempt to give a more realistic picture of the impact of the proposed development. It is based on 45mppa (i.e. less than full use) and assumes that growth rates are consistent across places of origin or destination.

ANNEX 2: Hourly surface access travel by airport passenger

This summarises, without adjustment, BAA's figures of hourly demand for surface access in 2004 and as projected for 40mppa. This clearly shows that the nightly respite is less than four hours and that vehicle movements between 11pm and 7am will increase substantially.

ANNEX 1

Forecast traffic flows on M11 between J7 or 7a and J8 - Morning Peak Hour

(i) Extracts from Environmental Statement Volume 11 Appendices Q and R

	From Figs Q1 and R1			From Figs Q2 and R2			Total North + Southbound		
25mppa case	M11 Northbound AM peak			M11 Southbound AM peak			M11 Two-way AM peak		
	Airport	Other	Total	Airport	Other	Total	Airport	Other	Total
2003 - base	570	2,450	3,020	330	3,360	3,690	900	5,810	6,710
2014 - core	850	3,110	3,960	540	4,790	5,330	1,390	7,900	9,290
2023 - core	790	3,520	4,310	510	5,280	5,790	1,300	8,800	10,100
20 year increase %	39%	44%	43%	55%	57%	57%	44%	51%	51%

40mppa case	M11 Northbound AM peak			M11 Southbound AM peak			M11 Two-way AM peak		
	Airport	Other	Total	Airport	Other	Total	Airport	Other	Total
2003 - base	570	2,450	3,020	330	3,360	3,690	900	5,810	6,710
2014 - core	1,030	3,100	4,130	660	4,730	5,390	1,690	7,830	9,520
2023 - core	960	3,510	4,470	630	5,200	5,830	1,590	8,710	10,300
20 year increase %	68%	43%	48%	91%	55%	58%	77%	50%	54%

(ii) Simple extrapolation from 2003 base to full use (taken as 45mppa in 2023)

. . . increasing Airport passengers in proportion to growth in total passengers (2003: 18.44mppa to Full Use: 45mppa)

. . . 'Other' traffic taken as forecast by BAA in 2023

45mppa case	M11 Northbound AM peak			M11 Southbound AM peak			M11 Two-way AM peak		
	Airport	Other	Total	Airport	Other	Total	Airport	Other	Total
2003 - base	570	2,450	3,020	330	3,360	3,690	900	5,810	6,710
2023 - core	1,391	3,510	4,901	805	5,200	6,005	2,196	8,710	10,906
Increase %	144%	43%	62%	144%	55%	63%	144%	50%	63%

(iii) Proportion of total traffic

	M11 Northbound AM peak			M11 Southbound AM peak			M11 Two-way AM peak		
	Airport	Other	Total	Airport	Other	Total	Airport	Other	Total
2003 - base	19%	81%	100%	9%	91%	100%	13%	87%	100%
As (i) 2023 40mppa	21%	79%	100%	11%	89%	100%	15%	85%	100%
As (ii) 2023 45mppa	28%	72%	100%	13%	87%	100%	20%	80%	100%

ANNEX 2

Hourly surface access travel by airport passengers - average September weekday - BAA figures without adjustmen

Hour	Table 4.4 September 2004						Table 8.3 2014 35mppa scenario						Increase in numbers: 2004 to 35mppa						Percentage increase: 2004 to 35mppa					
	Cars & Taxis		STN Express		Total PAX		Cars & Taxis		STN Express		Total PAX		Cars & Taxis		STN Express		Total PAX		Cars & Taxis		STN Express		Total PAX	
	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport	To airport	From airport
0000 - 0100	182	904	19	140	201	1044	171	896	18	95	189	991	-11	-8	-1	-45	-12	-53	-6%	-1%	-5%	-32%	-6%	-5%
0100 - 0200	111	215	0	0	111	215	91	186	0	0	91	186	-20	-29	0	0	-20	-29	-18%	-13%			-18%	-13%
0200 - 0300	93	133	0	0	93	133	101	94	0	0	101	94	8	-39	0	0	8	-39	9%	-29%			9%	-29%
0300 - 0400	254	169	0	0	254	169	394	206	0	0	394	206	140	37	0	0	140	37	55%	22%			55%	22%
0400 - 0500	839	361	0	0	839	361	1173	510	0	0	1173	510	334	149	0	0	334	149	40%	41%			40%	41%
0500 - 0600	1300	609	227	46	1527	655	1663	764	325	45	1988	809	363	155	98	-1	461	154	28%	25%	43%	-2%	30%	24%
0600 - 0700	1042	449	200	104	1242	553	1671	781	457	132	2128	913	629	332	257	28	886	360	60%	74%	129%	27%	71%	65%
0700 - 0800	805	466	257	297	1062	763	1462	1014	674	818	2136	1832	657	548	417	521	1074	1069	82%	118%	162%	175%	101%	140%
0800 - 0900	658	506	337	396	995	902	1232	1045	706	1046	1938	2091	574	539	369	650	943	1189	87%	107%	109%	164%	95%	132%
0900 - 1000	817	485	360	226	1177	711	1422	976	752	681	2174	1657	605	491	392	455	997	946	74%	101%	109%	201%	85%	133%
1000 - 1100	797	449	365	341	1162	790	1449	1161	644	812	2093	1973	652	712	279	471	931	1183	82%	159%	76%	138%	80%	150%
1100 - 1200	722	797	329	573	1051	1370	1217	1301	539	785	1756	2086	495	504	210	212	705	716	69%	63%	64%	37%	67%	52%
1200 - 1300	652	726	303	511	955	1237	1077	1230	431	679	1508	1909	425	504	128	168	553	672	65%	69%	42%	33%	58%	54%
1300 - 1400	748	677	361	266	1109	943	1129	1311	499	599	1628	1910	381	634	138	333	519	967	51%	94%	38%	125%	47%	103%
1400 - 1500	765	614	344	241	1109	855	1099	979	538	417	1637	1396	334	365	194	176	528	541	44%	59%	56%	73%	48%	63%
1500 - 1600	719	783	358	372	1077	1155	1009	1056	477	376	1486	1432	290	273	119	4	409	277	40%	35%	33%	1%	38%	24%
1600 - 1700	816	707	683	304	1499	1011	1053	1089	930	546	1983	1635	237	382	247	242	484	624	29%	54%	36%	80%	32%	62%
1700 - 1800	814	754	732	156	1546	910	1098	1162	1090	495	2188	1657	284	408	358	339	642	747	35%	54%	49%	217%	42%	82%
1800 - 1900	829	1173	501	410	1330	1583	1145	1382	964	537	2109	1919	316	209	463	127	779	336	38%	18%	92%	31%	59%	21%
1900 - 2000	640	1188	319	436	959	1624	1009	1347	534	397	1543	1744	369	159	215	-39	584	120	58%	13%	67%	-9%	61%	7%
2000 - 2100	421	951	94	316	515	1267	644	1268	146	350	790	1618	223	317	52	34	275	351	53%	33%	55%	11%	53%	28%
2100 - 2200	355	557	57	173	412	730	523	928	52	355	575	1283	168	371	-5	182	163	553	47%	67%	-9%	105%	40%	76%
2200 - 2300	574	695	59	200	633	895	689	1099	52	422	741	1521	115	404	-7	222	108	626	20%	58%	-12%	111%	17%	70%
2300 - 0000	622	1206	63	683	685	1889	652	1388	61	693	713	2081	30	182	-2	10	28	192	5%	15%	-3%	1%	4%	10%
Total	15575	15574	5968	6191	21543	21765	23173	23173	9889	10280	33062	33453	7598	7599	3921	4089	11519	11688	49%	49%	66%	66%	53%	54%
8 hour night 2300 - 0700	4443	4046	509	973	4952	5019	5916	4825	861	965	6777	5790	1473	779	352	-8	1825	771	33%	19%	69%	-1%	37%	15%
Night as %	29%	26%	9%	16%	23%	23%	26%	21%	9%	9%	20%	17%	19%	10%	9%	0%	16%	7%						

Note: Vol 11 Table 8.3 also includes Other Public Transport (other rail, bus, coach, etc totalling 6,800 to airport and 6,474 from airport), but this detail is not provided for 2004.

Doc. No. SSE/13/b
Case Ref. 2032278

Appeal by BAA Ltd and Stansted Airport Ltd following the refusal by Uttlesford District Council of planning application UTT/0717/06/FUL

Summary Proof of Evidence on behalf of Stop Stansted Expansion

Surface Access Issues with particular reference to Roads

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30 April 2007

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1 INTRODUCTION

1.1 Personal details

1.1.1 My name is Ken McDonald. I appear at the Public Inquiry on behalf of Stop Stansted Expansion ('SSE') of which I am a member.

1.2 Qualifications and experience

1.2.1 I am a Fellow of the Institute of Chartered Accountants in England and Wales. I have lived in Stansted Mountfitchet for 26 years and been a frequent user of roads throughout Essex and Hertfordshire, both as a driver and a cyclist.

1.2.2 I was Financial Director and Company Secretary of medium-sized businesses for twenty years. I regularly prepared or analysed statutory and management accounts, business forecasts, budgets and legal documents. Since retiring in 2002 I have been heavily involved in SSE. For the past two years one focus has been on surface access issues, particularly road.

2 SCOPE OF EVIDENCE

2.1 Core evidence

2.1.1 SSE's evidence on the surface access effects of the proposed development was originally set out in Volume 1 of SSE's response to UDC, July 2006, [CD/201] and also in paras 2.8 and 2.9 of Volume 3 of the SSE response to UDC dealing with additional information provided by BAA in September 2006 [CD/203].

2.1.2 That evidence is superseded by proofs of evidence SSE/13/a and SSE/14/a, which have been supplemented by SSE/15/a. These proofs incorporate more recent information and contain further analysis. This is a summary of SSE/13/a.

2.1.3 In April 2007 BAA published an Addendum to its Transport Assessment[1]. There has been insufficient time to fully digest and analyse this document, so comments within our full proofs and this summary are somewhat cursory.

2.2 Further evidence

2.2.1 We wish to reserve the right to comment further during the Inquiry once we have fully considered the implications of the Addendum.

3 PLANNING BASED ON UNRELIABLE FORECASTS

3.1 Unreliability of BAA's forecasts

3.1.1 ES Volume 11 [CD/14] fails to adequately test the impacts of the proposal, mainly because it is founded on unreliable forecasts which significantly understate the

[1] CD/14.1.

cumulative impact on surface access, especially along the Stansted to London corridor.

3.1.2 Our proof of evidence SSE/4/a deals with overall passenger numbers, showing that they could reach 50mppa by 2030.

3.1.3 There are several further questionable assumptions, each contributing towards lowering the forecast surface access demand on the key London to Stansted corridor. These shortcomings, together with other misleading or incomplete statements, are detailed in SSE/13/a.

3.1.4 In particular, the combined effect of limiting impacts to 35mppa and forecasting a dramatic shift in the origins of new passengers leads to understatement of those requiring surface access to London. This is illustrated in Table 1.

Table 1 Passenger origins/destinations

	All Passengers	Central London	All London
2004 actual mppa	20.90	2.63	7.79
BAA 35mppa projection	35.00	3.49	11.50
Growth	67.5%	32.7%	47.6%
Alternative scenarios with even passenger growth across origins/destinations			
35mppa	35.0	4.40	13.05
40mppa	40.0	5.03	14.91
45mppa	45.0	5.66	16.77
50mppa	50.0	6.29	18.64

3.1.5 If BAA's surprising range of growth rates for different places of origin were replaced by an even rate of growth, the forecast annual passenger movements to and from central London would increase by almost a million, even at the 35mppa level.

3.1.6 The objective of the tests reported in the Addendum[2] was to consider the impact of changes to the Draft East of England Plan and to take account of the views of UDC's consultants, SH&E. These two factors appear to have had minimal consequences, yet a number of changes in assumptions and modelling have caused substantial variations in output compared with the original forecasts. The changes are so significant that they cast doubt on the validity of both the original forecast and this recent testing. That a few 'tweaks' can have such a major effect when compared with what was previously held out to be a robust forecast reduces still further our overall level of confidence in BAA's forecasts.

[2] Environmental Statement Volume 11 Addendum, BAA, April 2007 [CD/14.1].

3.2 Over-reliance on BAA's forecasts

3.2.1 Essex County Council ('ECC') expresses distrust of BAA's forecasts and concern for the consequences for surface access[3], yet it appears not to have critically examined BAA's surface access forecasts. [4] Concern is also expressed by their consultants, both about BAA's past forecasting record[5] and about the forecast of passenger origins and destinations.[6]

3.2.2 Hertfordshire County Council ('HCC') notes[7] that BAA forecasts a 40% increase in passengers, yet road and rail traffic will increase by only 19%. It is surprising that the 'loss' of five million passengers did not ring alarm bells and lead to a critical review.

3.2.3 Similarly, there is no indication in the submission by the Highways Agency that it sought to test BAA's forecasts.

3.2.4 ECC and HCC have each urged that the risk of forecasts being understated be limited by imposing an absolute 35mppa cap and by certain infrastructure improvements, yet their responses give no indication that they have recognised the true potential impact, even at 35mppa. Nor have they addressed the risk that 35mppa may not be final.

3.3 Need to look beyond 35mppa and 2014

3.3.1 BAA's forecasts generally do not go beyond 2014. Given the usual timescales for provision of road and rail infrastructure, it is essential to plan further ahead. SSE estimates that if this application were to be approved, surface access infrastructure would be needed to support 45mppa by 2021 and 50mppa by 2030 on a single runway.

3.3.2 Even if a limit of 35mppa were to be set now, we could not take it as final. Inspector Eyre set a 25mppa ultimate limit and the Government confirmed it, yet here we are again. Given BAA's track record of repeatedly asking for more, we must ensure that potential surface access problems are avoided by forward planning and timely investment.

4 FAILURE TO ADEQUATELY ADDRESS GOVERNMENT POLICY

4.1 Inadequacy of proposals to constrain the need to travel by car

4.1.1 National and regional policies seek a modal shift away from the car and onto public transport, especially rail.

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[3] Local Transport Plan 2006-2011 [CD/86, para 4.84].

[4] Essex County Council submission to UDC 04 October 2006 [CD/274, para 3.2].

[5] SH&E: Review of BAA Traffic Forecasts, Feb 2006 [CD/133, para 3.4].

[6] SH&E Review of BAA Traffic Forecasts, Feb 2006 [CD/133, para 3.48].

[7] Hertfordshire County Council letter to UDC 22 Sep 2006, Cabinet Report 11 Sep 2006 [CD/276, paras 8.1 to 8.3].

4.1.2 We contend that BAA's failure to take these policies on board was driven by economic considerations. A step change in rail provision would be an expensive option, whilst airport car parking provides STAL with a major element of its income.

4.1.3 BAA has failed to declare any intention of actively pursuing new strategies to reduce passenger and employee reliance on accessing the airport by car. In July 2004, SSE published a paper entitled 'Towards a Lo-Car Strategy for Stansted Airport'.[8] Despite strong endorsement from the key local authorities, it has been largely ignored or dismissed by BAA.

4.2 Inadequacy of surface access strategy to address climate change

4.2.1 BAA has failed to provide an estimate of CO_2 emissions from airport-related surface transport even though its proposal would result in substantially increased emissions since there is no significant shift from private car to public transport. This is incompatible with the Government's transport policy and its climate change objectives.

5 POTENTIAL CONSEQUENCES

5.1.1 If BAA's application were approved, the potential surface access demand for Stansted would be similar to that for Heathrow today.[9] Heathrow is served by London Underground as well as the Heathrow Express rail service from central London, whereas Stansted is served only by one rail connection from Liverpool Street – a service shared with local commuters.

5.1.2 Historically, BAA surface access modelling studies have underestimated the impacts, and this has resulted in significant under-investment in infrastructure.

5.1.3 The forecasts underlying BAA's surface access strategy are so fundamentally flawed that its projections of consequences are wholly unreliable and irresponsibly understate the problems that would ensue if this application were approved even at 35mppa, not to mention higher levels of throughput. These are discussed in SSE/13/a, SSE/14 and SSE/15.

6 CONCLUSIONS

6.1.1 Given the limited value of the projections and findings of BAA's Transport Assessment, it is not possible to reach firm or complete conclusions on the long term impacts on strategic, regional or local roads, even after such mitigation as is proposed by the highways authorities. It seems likely that the impacts will be worse, possibly far worse, than BAA has projected.

6.1.2 Given the traditionally long lead times for implementing road and rail upgrades, the full potential for increases in passenger numbers up to 2030 should be considered.

[8] CD/264.

[9] CAA Annual Passenger Survey Report, 2004: Heathrow handled 67.1m passengers of whom 35% were transfer passengers and 65% (43.6m) originated or terminated at Heathrow; Stansted handled 20.9m passengers of whom 18.3m (88%) originated or terminated at Stansted. Stansted's potential 50mppa x surface access 88% = 44mppa.

6.1.3 BAA should make positive commitments to achieving a significant modal shift in the balance of surface access, away from private car and towards rail, and should commit to securing that the appropriate infrastructure is in place before it is required, not afterwards.

6.1.4 The increase in surface access movements, especially without a fundamental shift in transport mode, is likely to increase carbon emissions, contrary to government climate change policy.