Gatwick 2nd Runway DCO – CAGNE Advice for Written Representation

1. Sterling Transport Consultancy Limited has been instructed by CAGNE to provide support on traffic and transportation matters in respect of the Gatwick 2nd Runway DCO application. It is understood that formal submissions to the DCO examination are to be developed by Ms Merrow Golden of Counsel based partially upon this and subsequent advice.

The Scheme

2. The Gatwick 2nd Runway DCO application provides two distinct commentaries on traffic and transport matters, namely the environmental statement (ES) and supporting document and the transport assessment and its supporting documents. The applicant's analysis of traffic and transport has been built up from the Airport's demand model which sets out their view of the new level of passenger and freight demand to be generated by the scheme. A further piece of analysis sets out the applicant's view on the traffic and transport impact of staff accessing the airport.

3. The scheme is defined in terms of infrastructure and services which the applicant claims are sufficient to deal with the increase in use of the airport expected.

4. Key elements of the scheme are set out by the applicant to be: -
   - amendments to the existing northern runway including repositioning its centreline 12 metres further north to enable dual runway operations;
   - reconfiguration of taxiways;
   - pier and stand alterations (including a proposed new pier);
   - reconfiguration of other airfield facilities;
   - extensions to the existing airport terminals (north and south);
   - provision of additional hotel and office space;
   - provision of reconfigured car parking, including new car parks;
   - surface access (including highway) improvements;
   - demolition and relocation of Central Area Recycling Enclosure (CARE) facility;
   - water treatment facilities;
   - reconfiguration of existing utilities, including surface water, foul drainage and power; and
   - landscape/ecological planting and environmental mitigation.

5. In terms of transportation, the scheme proposes:
   a. Car parking – an increase of 10,000 spaces compared to today when included with increases in capacity outside of the proposed scheme. This equates to further additional 1,100 spaces

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created by the scheme for passengers when anticipated other developments are considered. No further staff car parking is planned through the submitted scheme.

b. Surface access infrastructure – road and junction capacity increasing schemes within the airport campus and its immediate vicinity.

c. Surface access services – development of the rail / bus / coach and sustainable travel offers at the airport.

6. Each of these scheme elements is tested by the applicant in a series of transport models. The applicant does however indicate that rail, bus and coach provision is based on *"operators responding to increased level of demand",* i.e., on the basis of market forces.

Travel Demand

7. The demand assessment made by the applicant for the scheme is summarised below. From the without scheme opening year (2029) the 2047 reference year shows a 40% in passenger numbers.

Table 1. Passenger Numbers

	2029	**2032**	**2047**
Baseline passengers (m)	57.3	59.4	67.2
With project (m)	61.3	72.3	80.2
Net increase relative to baseline (m)	4.0	12.9	13.0
% change	6.98%	21.72%	19.34%
% change from scheme opening (2029)	6.98%	26.17%	39.96%

8. Freight traffic is considered separately to this with the following projections of freight demand:

Table 2. Freight Traffic

Year	**Future baseline (tonnes p.a.)**	**With Project (tonnes p.a.)**	**% change**	**% change from scheme opening (2029)**
2029	227,705	250,816	10.15%	10.15%
2032	234,969	304,626	29.64%	33.78%
2047	290,499	348,430	19.94%	53.00%

9. Assuming a 15-tonne payload for an HGV this increase equates to circa 8,000 loaded HGV movements per annum (around 150 per week) from scheme opening to 2047.

10. Amendments to the scheme design have been made by the applicant and accepted by the Examining Authority (ExA). In terms of freight movement

11. From the passenger demand assessment, a series of mode share targets have been generated. These only run to the 2032, i.e., three years after opening. The applicant appears to be operating on the basis that the mode shares have been chosen, not on detailed evidence but on the presumption that the targets would avoid major highway mitigation works.

Table 3. Mode Share

	Passenger	**Staff**		
Mode	**Public transport**	**Public transport**	**Walk/cycle**	**Shared modes**
Historic 2016-18	45%	28%	3%	14%
2022	43.7%	TBC		
Target (3 years after opening – assumed 2032)	55% (+11.3%)	55% (+10% and including 15% of staff journeys under 8km by active modes as stated in the TA)		

12. The staff projections used by the applicant give the following information:

Table 4. Staff Numbers

	Baseline	**With Scheme**	**Increase**	**Increase from 2029**	**% increase**	**% increase from 2029**
2029	27,609	28,596	987	987	3.57%	3.57%
2032	28,077	31,199	3,122	3,590	11.12%	11.31%
2047	29,721	32,822	3,101	5,213	10.43%	18.88%

13. From the above table the 'with scheme' situation produces the following additional public transport patronage and sustainable modes travel (for passengers only):
    - 2029 2.2m
    - 2032 7.1m
    - 2047 7.2m

14. The change from 2029 to 2047 is +12.6m passengers or 34.2k additional air passengers per day accessing the airport by public transport and sustainable modes over 365 days. The additional staff on a 5 day per week basis add circa 1.45m journeys per year on public transport and sustainable modes.

Traffic Analysis

General

15. The Transport Assessment sets out the applicant's view of the traffic and transport impacts of the scheme. Chapter 12 of the Environmental Statement is provided to assess the impacts of the assessed levels of traffic and the effects of mitigations proposed. As a general point assessment of conditions and mitigation on the transport and traffic issues in the ES is central to the analysis of other ES factors including air quality and noise / vibration. Even excluding air movements and their effects the matter of surface access is central to ES assessment. An initial consideration of the assessment suggests that the analysis for surface access is predominately strategic in nature with detailed surface access analysis in the immediate vicinity of the airport only; mitigation proposals are similarly limited in geographic scope.

16. The transport assessment indicates the high level of car accessibility available to the airport in a series of journey time isochrones. In contrast the public transport (rail) isochrones show the geographic limitations of the rail network.

Strategic traffic model

17. The strategic traffic model used covers a significant section of the south east of England including much of East and West Sussex, Surrey and south London within the M25. The nature of the model is such that only major roads, predominantly A roads and motorways are modelled. Not covered in model geography is the Brighton and Hove urban area which is considered in the rail analysis. Given the likely peak time periods for passenger and staff travel to the airport when train services are less frequent analysis of roads in Brighton area is a notable oversight.

18. As the model is used to dynamically assign traffic to routes on the basis of journey costs (predominantly related to journey time and congestion effects) the model does cover many of the routes available via cross-country or minor roads. In reality, the model's coverage will not enable analysis of many car movements on local, potentially unsuitable, roads.

19. The model has been validated in 2018 from a 2016 base model. The revalidation of the base model is therefore 5 years old against the advised DfT TAG requirement of using data to validate of no more than 6 old years old. The applicant presents in its strategic modelling report the validation outcomes in summary form only. No detailed Local Model Validation Report (LMVR) is available. Whilst the summary results suggest that the model is validated DfT's TAG criteria it is not possible to verify this statement.

20. The strategic model incorporates an 'uncertainty log' which lists developments committed or planned that will affect the future year modelling. The growth elements of the uncertainty log have not been reviewed in detail. It is expected that local planning authorities will make a detailed

commentary on the growth sites listed in their examination submissions. In addition to planned growth, the uncertainty analysis includes details of highways and transport schemes in the modelled area that may affect the modelled outcomes. The schemes are ranked by the level of certainty. An initial review notes that the scheme listing has made limited consideration of the cancellation / moratorium on new 'Smart Motorway' schemes and the delays to many strategic road schemes announced by Written Ministerial Statement on 9 March 2023. It is noted that the M23 junction 8 to 10 Smart Motorway immediately adjacent to the airport is recorded correctly in the documentation. From a policy perspective as applied to the scheme, it is clear that draft NPS-NN is likely to be in place for the development of a majority of the future intended highway schemes. A review of the draft NPS-NN suggests that the development of such schemes will be harder to achieve on environmental grounds. This and the bow wave of delayed or paused schemes created by the WMS of 9th March 2023 indicate that the list of schemes considered is not accurate and therefore cannot be relied upon.

21. To growth background traffic the model deploys TEMPRo 7.2 (Trip End Model Presentation Program), drawn from the National Trip End Model (NTEM). An updated TEMPRo version (8.0) was released by DfT on 23 February 2023 so it is legitimate to query why this has not been incorporated. Further, the DfT has released updated traffic forecasts in November 2022 and also updated the TAG guidance on handling uncertainty in appraisal, through the release of the TAG Uncertainty Toolkit. It introduced and outlined seven Common Analytical Scenarios (CAS). These were developed to enable appraisals to reflect seven different scenarios of the future. The seven scenarios are.

    a. High Economy – economic productivity, migration and population increases above official forecasts.

    b. Low Economy – economic productivity, migration and population grows at a lower rate than official forecasts.

    c. Regional – people leave London, the South East, and East of England in search of more affordable housing, with lower employment and population growth in these regions.

    d. Behavioural Change –people embrace new ways of working, shopping and travelling.

    e. Technology – a high take up of connected autonomous vehicles makes road travel far more attractive and accessible.

    f. Vehicle-led decarbonisation – a high take up of electric and zero emission vehicles, resulting in increasing road traffic and reduced public transport use.

    g. Mode-balanced decarbonisation – similar to vehicle-led decarbonisation, but with an unspecified intervention which equalises electric vehicle costs with petrol and diesel and maintains public transport mode share.

22. These scenarios have not been considered by the applicant. As the application was made on 6 July 2023 it is unclear why the applicant failed to fully follow the TAG guidance in place from November 2022.

23. The strategic model has been run for a series of years 2029, 2032, 2038 and 2047. In each case a do minimum (without scheme) and do something (with scheme) has been assessed. At each year the following scenarios have been assessed:
    - AM Peak Hour 1 (AM1) – representing the peak in flows on the SRN network between 07:00 – 08:00;
    - AM Peak Hour 2 (AM2) – representing the peak in vehicles on the local road network between 08:00 – 09:00;
    - Inter Peak Average Hour (IP) – representing an average hour flow between 09:00 – 16:00;
    - PM Average Hour (PM) – representing an average hour flow between 16:00 – 18:00;
    - Off Peak Average Hour (OP) – representing an average hour flow between 18:00 – 07:00.

24. The assessed time periods present some notable issues. In the AM the assessment period of the strategic (National Highways) network is not aligned that on the local network. At the interface between networks therefore the analysis may not be robust and provide limited valid information on delay and queues. In the PM peak, the use of an average hour within a two-hour window has the potential to report less than maximum queues. The off peak (overnight) average hour is not an appropriate measure given the known peaks of demand for staff and passenger access to the airport in the 0430 to 0630 window. A more representative off peak (overnight) case would be to model the 0500 to 0600 period which would enable assessment of the airport's operation. This would also enable local modelling and environmental assessment of traffic flows in this key time period where noise and vibration are key to local communities.

25. The strategic model reports on journey tine changes and changes in the volume to capacity ratio (v/c) of individual links within the model. This assume that junctions operate to maximum efficiency and that road capacity on an individual link is optimised. No plots of with / without schemes changes in v/c or journey time (JT) are presented. This makes determination of impacts (changes in v/c and JT caused by the scheme difficult if not impossible to determine with any degree of certainty). The Transport Assessment sets out a matrix for v/c severity. In practice, this information does adopt the standard approach of considering a v/c of 85% as one where congestion is starting to occur. The DfT's own analysis of the Gatwick 2nd Runway for the Airports

Commission[1] sets out this position in the following terms *"It is expressed as either a ratio or percentage (as is the case in this analysis) representing the degree of saturation of a particular stretch of road, with values closer to 0 representing free-flow conditions and values approaching or greater than 100% indicating high levels of congestion. Observations on many roads have shown that delay rises steeply at V/C values of above 85%, and that severe delays occurs at V/C values of above 100%.".* Thus, for applicant to not follow standard practice in reporting the modelled outcomes deprives parties of the ability to make considered judgements nor to benchmark the current application against DfT's previous 2015 analysis.

26. The strategic model is suspectable to the mode share assumptions made in the analysis. The non -highway scheme proposals for rail, bus / coach and sustainable travel are considered below.

Local Model

27. The local traffic modelling is based on VISSIM software that provides micro-simulation assessment of junctions in close proximity to the airport. The VISSIM model simulates individual vehicle movements rather than 'flows'.

28. The input traffic flows are taken from a cordon of the Saturn Strategic model and developed into asset of matrices suitable for VISSIM. A convergence process has then been conducted to ensure that a range of simulations operate in a similar way and deliver consistent outputs. In this case the VISSIM modelling report reports that *"After running 100 simulations, convergence has not been achieved in the 2032 and 2047 future baseline scenarios."* Further manipulation has therefore been required to ensure models of a suitable stable state have been developed. Whilst inherently not a flawed approach, the approach taken does run the risk of lowering the reliability of the final modelled outcomes. The do minimum models are reported as 'stable' after this further manipulation.

29. The results presented highlight the positive effect of the scheme mitigations when considered at a local level. Journey times, vehicle delay and speeds all improve in 2032 and 2047 with scheme assessments. This is unsurprising given the concentration of scheme mitigation in the modelled area which only covers the airport campus and immediately adjacent junctions.

Updated Transport Assessment and change to the Application

[1] Appraisal Framework Module 4. Surface Access: Local and Strategic Roads Modelling Study Gatwick Airport Second Runway 2015

30. The applicant submitted a revised Transport Assessment (As-079 and AS-080). On initial review it is clear that the applicant is strongly resisting a 'rebasing' of the traffic model to reflect the effect of covid19.

31. The issue that is at the heart of this matter is not the base model *per se* which has its own issues (for example out of date traffic information and no validation information available) but rather the growth factors to be applied to reach the do-minimum traffic levels in the future years of 2029, 2032 and 2047.

32. DfT TAG M4 indicates that scenario based testing is the way to deal with uncertainty whether caused by covid19 or otherwise. What is seen here is a single central forecast of aviation demand and therefore a single forecast of traffic induced by the proposed. The previous TAG guidance for forecasting allowed a mathematical construct to develop high and low growth scenarios springing from a central case. This formulaic approach is what appeared to have been applied here.

33. It was certainly used and defended by the Lower Thames Crossing application which faced similar issues with the modelled base.

34. What TAG M4 now seeks is for the future year do-minimum cases to include high and low traffic growth scenarios based on interpretation of the various DfT traffic growth scenarios (e.g. Road Traffic Forecasts – RTF18 and RTF21) and also an appraisal of high and low growth spatial development scenarios which spring from the traffic model's uncertainty log which records what land developments are likely to come forward in the intervening years. It is understood that high and low predictions of aviation demand are available but do not follow through into the transport analysis.

35. In theory one should have the following forecast year scenarios:

    - 2029 Do minimum : low, central and high aviation + low, central and high traffic growth
    - 2029 Do something : low, central and high aviation + low, central and high traffic growth
    - And similar for 2032 and 2047.

36. A sensible review of the DfT traffic growth factors, the aviation assessment and the uncertainty log would in all likelihood reduce the number of scenarios to be assessed. However, no attempt to make such a series of analysis is documented.

37. In addition to the revised Transport Assessment, the applicant has submitted a variation to the proposed scheme. One particular element that will affect traffic movements is the move to a non-incinerating waste disposal plant.

38. This change will affect the levels of traffic seen. Para 16.6 of the v2 transport assessment (submitted November 23 ref AS-079 and AS-080) provides no detailed numbers of airport servicing movements simply a set of growth factors from the 2016 base position to the assessment years of 2029, 2032 and 2047. There is no clarity as to what trips those factors actually include. They almost certainly exclude the revised working of the waste facility. In terms of impacts, much would depend on the routing of the trips involved. Given the firm proposal for the change in the scheme it can be presumed that the trip routing (distribution) for these trips would be a known entity and therefore capable of detailed analysis including the effect on amenity along the routes used.

IEMA guidance

39. An update to the Institute of Environmental Management and Assessment's (IEMA) guidance on the Environmental Assessment of Traffic and Movement was published on 12th July 2023 i.e. it post-dates the DCO application made by Gatwick Airport Limited by 6 days.

40. The Gatwick Airport Limited position paper (AS-119) in response to the ExA's procedural decision PD-006 sets out the applicant's position on the new guidance. The applicant's view is that the following areas of the transport analysis are not affected by the revised guidance.
    - Study area - No change required
    - Assessment years - No change required
    - Receptors - No change required
    - Severance - Review method in light of EATM 2023 and update assessment if necessary
    - Road vehicle driver and passenger delay - No change required
    - Non-motorised user delay - Review method in light of EATM 2023 and update assessment if necessary
    - Non-motorised user amenity - No change required.

41. On balance, the review of the severance criteria is significant as severance is one of the major effects likely to be seen outside of the core area subject to VISSIM modelling. On many local roads, whilst the change in flow may not trigger a formal assessment, the specific localised impacts are not currently assessed. This is a key issue for local communities in the wider area surrounding the airport where 'rat running' is a commonly quoted issue whether the formal assessment threshold is reached or not.

42. In terms of the detailed commentary on the IEMA guidance offered by the applicant, At 2.2.5 of their document the applicant appears to accept that beyond the vicinity of the airport that the transport analysis is at best unreliable to assess matters of severance and by implication other transport and movement related matters *"….In addition, there would be challenges in accurately estimating the likely number of people using each of the links across such an extensive area, particularly at some distance from the Airport in areas where the effects created by the Project are likely to be smaller".*

43. Any assessment under the IEMA guidance is reliant on reliable outputs from the traffic modelling being secured. The commentary on review of the traffic models shows that this has not been demonstrated by the applicant.

Mode Specific Analysis

Rail

44. The rail analysis is predicated on rail being the principle non-car mode of access for passengers and staff.

45. An initial analysis suggests that a 50% increase in throughput at Gatwick Station is likely based on pre-covid ORR data and the projections made by the applicant. The applicant indicates AM peak (0800-0900) demand in 2047 will rise by 1.9m passengers above baseline and the PM peak (1700-1800) by 1.4m passengers annually.

46. The key to rail access is the limited range of destinations / origins served by the rail network. Provided that passengers / staff are located on the Brighton mainline north -south axis rail may be a valid option. Although the Brighton mainline from the London is open 24/7 the level of train service at key times for the airport is limited. The Network Rail engineering access statement requires that not all lines are closed at the same time (maximum of 2 out of 4 lines closed and at least 3 platforms always available at Gatwick) so although services will operate any increase in frequency overnight is difficult to achieve.

47. Services to Horsham and the south coast via Arundel are limited and will not increase in quantum under the plans advanced by Network Rail's Sussex Coast modular future service planning document, 2020. The line to Horsham is closed overnight at weekends 0050 to 0600, Sunday, 0035 to 0455 Monday, 0110 to 0455 Tuesday to Friday and 0005 to 0615 Saturday so no services can operate to Gatwick from this direction to service the very early morning activity at the airport.

48. The link from Gatwick towards Reading also has limited potential for development; electrification is not planned due to health and safety concerns over expanding third rail electrification. The line is closed overnight west of Redhill between 0005 and 0620 Sunday, 2325 Sunday to 0530 Monday, 0001 to 0530 on other days. Again, no services can operate to Gatwick from this direction to service the very early morning activity at the airport.

49. The analysis sets out extensive pedestrian capacity Legion assessments for Gatwick Station. Given the role played in scoping the improvements to the station the outcomes are unsurprisingly positive in nature. Of course, station capacity is only one element of the capacity equation; track and on train capacity are also key factors. The analysis presented suggests that no on train capacity constraints exist. Whilst it is acknowledged that peak hour demand from 'normal' non-airport rail users has dropped it cannot be assumed that for non-peak hour, non-work travel, has not returned to pre-covid levels. DfT evidence indicates that this has in some cases exceeded pre-covid levels. With additional roiling stock sent off lease by operators and the well-documented funding issues facing the rail sector it cannot be assumed by the applicant that sufficient on-train capacity will be available to meet its rail travel aspirations. There is no evidence of the applicant committing funding to *guarantee* sufficient rolling being available to meet its additional demand. A reliance on extra on train capacity being available when the airport require it is not an evidenced mitigation strategy, indeed it simply puts the additional rail users predicted by Gatwick to be in competition for limited on board space with other rail users. The indication that the additional levels of predicated use will not affect the on-train experience through crowding is simply untenable given the applicant's lack of commitment to fund or deliver addition rolling stock.

50. Also, the applicant has no control of the quantum of train services. The previous history of train services to Gatwick shows the volatile nature of the Brighton mainline timetable with dedicated Gatwick Express services removed, instated and removed again.

51. Train service levels are determined by DfT not the train operator, nor Gatwick Airport. The current contractual situation only provides certainty until 2025 which places the opening of the scheme into a situation where the train services are not guaranteed. The applicant notes the effect of the long-planned Croydon major improvement scheme is not critical to their future with scheme train service analysis. Given the status of this scheme as uncertain at best any reliance on its delivery would be misplaced.

52. The reliance on a level of train service and level of on train capacity that the applicant has no control over, and it could be argued little influence over, is a flawed approach that does not provide the certainty the DCO and ES require.

Bus / Coach

53. Bus and coach mode share for passengers was around 6% in 2017/18, whereas these modes accounted for 16% of staff travel. The applicant notes that it provided over £1m in funding support to local bus services in the period 2018 to 2020. It is not made clear whether this was financial support due under planning obligations or a response to the covid 19 situation.

54. The assessed demand for bus and coach travel to/from the airport is set out below.

Table 5. Bus and Coach Usage

Year	Future baseline (daily journeys)	With Project (daily journeys)	% change	% change from scheme opening (2029)
2029	8,599	10,520	22.34%	22.34%
2032	8,976	12,232	36.27%	42.25%
2047	9,743	13,409	37.63%	55.94%

55. Based a typical bus size of 42 + standees and a coach of 53 with passenger seats the above numbers broadly equate to 100 additional loaded bus and coach movements a day in the 2047 situation when compared to the 2029 starting point.

56. The applicant's assessment of future with scheme bus and coach activity is based on market led provision; *"bus and coach operators respond to sustained increases in demand by increasing the number of services".* This is at odds with the Transport Assessment's stated aim of achieving a specific mode share for bus and coach in year 1 subsequent years. The provision of services will need to pre-empt the market to ensure services are available when needed not until after the market has spoken. This lack of control or commitment to levels of service (and funding) typically delivered by planning obligation is a material weakness in the applicant's approach to secure its stated mode share outcomes. The Transport Assessment simply records a vague commitment to "*provide financial support to enable the above services, or others which result in an equivalent level of public transport accessibility, to be established and to sustain their operation and promote their use for a minimum of five years from their implementation."* How such a vague situation could be recorded in a planning obligation is unclear. The mismatch between market forces and operational necessity is a flawed approach that does not provide the certainty the DCO and ES require.

Sustainable Travel

57. The applicant's consideration of sustainable travel is baselined again current levels of activity. This shows that walking is a plausible travel option from Horley and cycling from both Horley and Crawley is feasible.

58. Given the localised nature of cycling and walking the applicant has concentrated on staff travel as being the major target for this mode of travel in the with scheme scenarios. This does not however consider the localised nature of many of the passenger related movements around the airport campus. In many cases, car park to terminal and hotel to terminal journeys can be potentially made on foot without reliance on fleets of shuttle buses.

59. In the with scheme situation, the applicant will upgrade road junctions local to the airport to provide 'cyclist friendly' links. No reference is made to the design standards for such infrastructure in DfT LTN 1/20 'Cycle Infrastructure'.

60. The applicant states *"it is committed to implementing incentives for active travel. The precise nature of those measures will need to be defined in due course and in a future surface access strategy, in consultation with employers and staff. No further mitigation for active travel is considered to be required."* This statement is significant for two reasons:

    a. The applicant has backed off the development of incentives and active travel measures to an undefined and therefore unfunded future surface access strategy. This offers no certainty into DCO process that the sustainable travel targets can be delivered.
    b. By claiming no further measures are necessary contradicts the acknowledged deficiencies in National Cycle Route NCN21 that staff resident in Horley may use to access the airport.

Draft Commentary for the Written Representation

61. The transport policy framework in the wider south east region and nationally has been applied inconsistently by the applicant. This shows in the submitted Transport Assessment where no formal hierarchy of travel modes has been established. A range of guidance has not been quoted or engaged with, e.g.
    - DfT Circular 01/2022 which replaced DfT Circular 02/2013 in December 2022, i.e., well in advance of the application being made.
    - Williams / Shapps Review of the Rail Industry 2020 which unhelpfully for the applicant confirms they will have no / limited influence on the delivery of rail services.
    - Bus Back Better / West Sussex BSIP; these documents set out the approach to bus priority provision which has been ignored by the applicant.
    - Gear Change – National Cycling and Walking Strategy 2020 and the West Sussex LCWIP.

62. The traffic modelling is strategic in nature with no detailed analysis of local traffic conditions adversely affected by the proposed scheme beyond the immediate environs of the airport. Irrespective of this, mitigation proposals are limited and do not address the matter of operational resilience on the M23. The actual modelling itself has a series of flaws and limitations that prevent a comprehensive traffic impact picture being provided by the applicant. In particular the model's log of schemes has not been corrected post the 9th March 2023 ministerial statement on the roads investment programme, nor has it included the latest DfT traffic forecasts and growth factors which were available well before the submission of the application. The validation reporting for the strategic model is not sufficiently comprehensive to allow a definitive view to drawn on its accuracy and reliability. The strategic traffic analysis does not consider the operational effects of the known peak hours of airport operations (0430 to 0600) nor the effect of proposals on the dispersed parking offer prevalent at the airport. The model also has a number of missing local links that provide routes to the airport and where adverse effects to local communities may be present. The reported modelled hours present an inconsistent set of time period and averaged time periods that may not reveal fully the extent of traffic issues.

63. The local traffic model produced is limited in scope and has required significant matrix manipulation to ensure a suitable level of convergence. The with scheme scenarios unsurprisingly perform well in terms of vehicle throughput, delay and journey time. Given the concentration of highway mitigation in the modelled is area this is unsurprising but does not consider the operational situation at junctions and links further afield.

64. The heightened proposed use of the railway is noted, however the analysis presented fails to consider capacity issues in detail and fails to acknowledge that Gatwick Airport has no / limited influence on the rail timetable, which is controlled, *de-facto*, by central government with no contractual certainty beyond 2025 with regards to train operations. The lack of east-west rail connectivity and the fixed hours of rail operations which are restricted by Network Rail's engineering requirements are further concerns given the proposed staff catchment areas for the expanded airport operation. The applicant has failed to demonstrate to the required degree of certainty therefore that its rail proposals are achievable.

65. In the case of bus / coach the applicant assumes that market forces and not the applicant will dictate service delivery which therefore fails to provide certainty the mode share target for bus / coach can be achieved.

66. The Airport's proposed sustainable transport mitigations are limited in scope and local in nature. The 'backing off' of incentives and active travel measures to an undefined and therefore unfunded

future surface access strategy does not generate the degree of certainty in the DCO process that the sustainable travel targets can be delivered.

67. The surface access analysis presented by the applicant has, notwithstanding aviation matters, material effects on the ability to conduct meaningful air quality and noise analysis for the ES. Given the lack of confidence that can be attributed to the analysis presented and the failure of the applicant to demonstrate the certainty of delivery for non-vehicular modes of travel it can be concluded that the ES analysis drawn from it is not fully reliable.

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