



Paper On Safeguarded Land For Car Parking – Gatwick Airport Wide Spaced Runway Scheme

1. This note has been produced for Crawley Borough Council (CBC) to provide advice on matters relating to Gatwick Airport Limited's (GAL's) objection to draft policies set out in the revised Draft Local Plan. In particular, these are policies that look to allocate as strategic employment land that was previously allocated as safeguarded as part of a possible future wide spaced runway scheme at the Airport.
2. We understand that landowners, Gatwick Green Limited (GGL) have submitted representations to promote a strategic employment opportunity on approximately 44 hectares (ha) of land to the east of the Airport, which would require the land being removed from the Safeguarded Land, as identified under draft Policy GAT2 of the draft Local Plan. As part of that representation GGL has commissioned Mott Macdonald to undertake an assessment of the objection put forward by GAL and, in particular, the supporting information provided by Ove Arup & Partners Limited (Arup) in June 2021.
3. In this note, we have reviewed points made by both Mott Macdonald and Arup particularly in relation to car parking requirements but have not confined ourselves to points already made. We consider whether the claimed car parking need has been assessed on a correct basis, what appropriate assumptions to make in respect of assessing the necessary landtake for car parking, what an efficient use of land here would be likely to look like and whether the concerns of ARUP on matters such as the viability of decking, multistorey and mechanised car parking are justified. We assume that provision of car parking meets the tests for safeguarding and that the eastern area would be the only appropriate location for such car parking (although we understand that the Council does not concede either such point) and simply seek to assess whether the quantum of the area identified for long stay car parking is necessary as part of a southern runway project.
4. Whilst York Aviation is not first and foremost a surface access consultancy. However, our experience and expertise in aviation means that we understand well the components of airport master planning, as well as the requirements relating to provision of passenger and staff car parking and routinely carry out benchmarking exercises for airport facilities including ancillary elements such as car parking.
5. Broadly, our understanding of the objection from GAL centres around the fact that land at Gatwick Green to the east of Balcombe Road has historically been safeguarded for a potential future master plan option with wide spaced runways achieved through the delivery of a new southern runway. This plan indicated land take to the south for the second runway and to the east for what we understand from Plan 20 of the Gatwick Airport Master Plan 2019, to be long stay surface car parking.
6. We do not comment on the policy test for safeguarding or the legal framework.

Masterplans

7. The information available to assess for the potential future proposals comes in the main from this Master Plan and the previous 2014 version. Master plans, particularly those that aim to plan for the very long term, are high-level in their detail and often seek to reserve land on an excessively generous basis. This appears to be the case for the plans put forward for the wide spaced runway option in both the 2014 and 2019 master plans where, in relation to car parking, the plans provide only an overview of the anticipated requirement, and the figures provided for numbers of spaces required are not backed up with any detail or the calculations underpinning the scale of the landtake. This point is highlighted by Mott Macdonald in relation to the suggested future requirement used by Arup and we agree with it.

Cautious approach to masterplanning not justified for car parking

8. With this in mind, when assessing long term master plan requirements, there is usually a significant degree of uncertainty due to a range of factors, not least the effect the long passage of time can have on actual future requirements. For this reason, master plans often look to safeguard far more than is required and, in several respects, this may be both prudent and necessary. However, we consider that there are several reasons why, for car parking, there can be a high degree of confidence that long-term future requirements are likely to be less than anticipated in 2014 – for reasons addressed below.

No Consistent Masterplan showing Northern Runway Project and Southern Runway Project

9. With regards to the wide spaced runway master plan, we would also highlight the fact that it is not entirely compatible with the Northern Runway Project (NRP) that looks to deliver additional capacity through the widening and extended operation of the current standby runway. The NPR plans to incorporate additional terminal infrastructure in the northeast of the site with a satellite pier linked by a passenger road transit system to the North Terminal. This scheme reduces the area of existing long stay parking in that area, however, replaces this capacity by proposing an estimated ten hectares of decked parking on the remaining land in that area.
10. In the wide spaced runway plan, this same area of the airport is used for cargo and maintenance with terminal expansion delivered in a new terminal between the runways. All car parking is consolidated in the area east of the railway in that scheme. Therefore, it is not clear how the wide spaced runway scheme would be developed should the NRP go ahead, although we assume that terminal and decked car parking infrastructure developed as part of NRP would not be replaced with alternative infrastructure as per the wide spaced runway scheme plans. This suggests that the starting point from which Arup assessed the space requirements for car parking to the east of the rail lines in a future wide spaced runway scenario does not assume the NRP and its associated decked parking is developed.

Failure to reflect increased parking infrastructure

11. As noted above, the Arup assessment only assesses the car parking requirement for the future wide spaced runway scheme as set out in the 2014 masterplan with no consideration of near term development, including the NRP that plans to develop decked parking on the existing North Terminal long stay over an area of approximately 10 ha. There is or is proposed very significant additional car parking infrastructure absent the southern runway. More MSCPs have been provided at the existing terminals (totalling 9400) and decking has been introduced on a significant area of the South Terminal's long stay car park (1455 spaces). More MSCPs are proposed as part of the NRP.
12. With the southern runway, further MSCPs at the new terminal are proposed.

13. The basis of Arup’s assessment was the assumed need to accommodate all their future car parking (other than just 8500 short stay in MSCPs) for a potential 95 mppa capacity airport on land east of the rail line. This appears to be a significant underestimate of short stay MSCP provision.

Failure to account for lawful established off airport parking

14. We further note that the figure used by Arup as the future requirement for spaces (not including short stay) is 95,750 which they state is taken from the 2014 master plan. In that document, the 2012 baseline figures provided, state that they include 26,280 off-site spaces within the long stay and staff parking figures resulting in an on-airport requirement of 61,300 spaces. Below, we have consolidated data provided across three separate tables¹ in the 2014 master plan Appendix A5 stating the baseline and future projections of parking space requirements up to 95 mppa. We have added totals and a spaces/mppa metric for further comparison.

Table 1.1: 2014 Master Plan Car Parking Spaces Requirements

	Year	MPPA	No of Staff	No of Parking Spaces				Spaces / mppa
				Short-stay	Long-stay	Staff	Total Spaces	
Existing	2012	35	21,000	5,000	**46,300	10,000	61,300	1,751
Option 0	2025	45	24,000	5,700	52,700	10,100	68,500	1,522
Option 3	2040	79	33,700	8,500	78,700	12,100	99,300	1,257
-	2050	95	-	8,500	83,650	12,100	104,250	1,097

*** Long term and staff spaces include off site provision of ~26,280 spaces*

15. It is clear from the information provided in **Table 1.1** above that the future figures for long stay parking have been calculated from a baseline that includes the off-site parking provision of what was at the time 26,280 spaces (which included some unauthorised spaces). We understand from information² provided by CBC that there were just over 19,000 authorised off-airport spaces in 2022. We are advised that there is no reason in law and no evidence on the facts that any of that lawful off-airport parking will be removed in the future and therefore the Arup assessment appears to include double counting of the overall requirement. This is a point also made by Mott Macdonald in their representation for GGL and, like them, we believe this is very significant to the assessment of need for the total area of land claimed by GAL.

Car Mode share reductions not adequately taken into account

16. We note that GAL sets out its aspirations for mode share in the 2019 master plan indicating a plan to improve public transport use by passengers and staff. CAA passenger survey data shows a general downward trend in private car use at Gatwick with approximately 59% private car and taxi use in 2010 dropping to 52% in 2019. Data for 2022 shows a slight increase in car use but this is mostly likely a temporary shift in the trend due to Covid. Mott Macdonald highlights also that GAL’s longer term plan indicated in their 2014 Master Plan was to reduce car and taxi use to around 38% by 2050 / 95 mppa. However, more recently in the Airport’s DCO application, their Environmental Statement (ES)³ sets a commitment for “A minimum of 55% of air passenger journeys to and from the Airport to be made by public transport;” and “minimum of 55% of airport staff journeys to and from the Airport to be made by public transport, shared travel and active modes;” This document also sets out longer term aspirations for the public transport use to be a minimum of 60%⁴ which suggests that for a potential wide space runway scenario, 60% is conservative.

¹ Table 1.2_1 - Baseline airport facilities, Table 3.7_1 Car Parking Provision for Eastern Zone, Table 4.5.2_1 Future Car Parking Space Requirements

² Information from 2022 Gatwick parking survey – data for Crawley, Horsham, Mid Sussex, Mole Valley, Tandridge and Reigate & Banstead

³ Environmental Statement: July 2023 - Appendix 5.4.1: Surface Access Commitments, page 5

⁴ Ibid, page 14

17. For a range of reasons, although primarily in relation to driving down carbon emissions, it is not surprising that GAL, like other airports, plans to reduce private car use. However, it is not clear why Arup has not made any attempt to factor this into their calculations for future car parking requirement especially in the longer term. As Mott Macdonald rightly point out, this is another reason why the assessment by Arup, exaggerates the overall future requirement for parking spaces.

Efficiency of car parking use – block parking, decking, MSCPs

18. When we look at the figures Arup use to calculate parking capacity per square meter, we again find an exaggeration that underestimates the capacity that can be provided for different parking solutions. What we think is key is the omission of block parked MSCP solutions that have much higher capacity per footprint area whether surface, decked or MSCP. As an example, Manchester Airport have recently implemented two block parked MSCPs, the larger of which delivers 8,000 long stay spaces on a footprint of only three hectares, and the smaller delivers approximately 6,000 on just 1.7ha. These car parks are over six storeys which for comparison is the same as the short stay MSCPs found at Gatwick.

19. **Table 1.2** below provides a comparison of the figures used by Arup for each car park type with alternative values drawn from actual benchmarked examples from Gatwick and Manchester airport car parks. We note that the examples from Manchester airport are all from MSCPs constructed in the last five years and so represent what is achievable with modern airport car park designs and economically deliverable for long stay car parking.

Table 1.2: Car Parking Density Values Comparison

	Arup Car Parking Density	Benchmark examples from LGW and MAN Car Parking Density
Surface	1 space per 20 m ²	1 space per 20 m ²
Decked	1 space per 31 m ² (15.6 m ² of ground floor area)	1 space per 24.5 m ² (12.2 m ² of ground floor area)
MSCP	1 space per 42 m ² (density by ground floor area subject to the number of floors)	1 space per 25 m ² (density by ground floor area subject to the number of floors)
Surface block	-	1 space per 16.5 m ²
Decked block	-	1 space per 17.5 m ² (8.8 m ² of ground floor area)
MSCP block	-	1 space per 17 - 20.5 m ² (density by ground floor area subject to the number of floors)

Source: Arup and York Aviation data

20. The comparison illustrates starkly that Arup’s assessment of parking requirement was conservative and not in line with the efficiencies available from modern car parking solutions particularly when considering block parking solutions for long-stay.

21. If we further consider the planned decked long stay on the existing North Terminal car park area, an estimated up to 5,750 spaces could be provided using conventional parking layouts. However, if 50% of the parking area was developed as block parked MSCP over 6 levels, similar to Manchester Airport, then we estimate up to 15,300 spaces could be provided over an area of just 10 hectares. We recognise that the NRP latest plans⁵ looked to scale back car parking provision in this area to what we understand to be just 2,000 spaces over an area half that was originally planned (approx. 5ha.),

⁵ Northern Runway Project - Design & Access Statement, volume 1, Book 7, v1.0, July 2023, page 60

but note that the original area of around 10ha. in principle could accommodate a much greater number of spaces if needed.

22. In addition to this if we consider using a similar combination of decked conventional and block parked areas to the east of the rail line, as well as utilising conventional MSCP and surface parking solutions, it would be possible to accommodate any future parking requirement for up to 95 mppa on an area much smaller than the available area estimated by Mott Macdonald of approximately 94 ha. We concur with Mott Macdonald that the likely demand at 95 mppa is likely to be closer to 65,000 spaces or potentially less due to future mode share, other provision on the airport and particularly when considering the need to deduct the existing off-site parking provision.

Constraints

23. We recognise that building heights would be constrained in areas under the future take-off and approach slopes of the Obstacle Limitation Surface (OLS) however, we agree with Mott Macdonald's assessment of the impact suggests that the range of decked and MSCP solutions on offer can be accommodated within the constraints of the OLS. Furthermore, we believe it is possible that areas outside of the take-off and approach slopes could be used to accommodate some of the taller MSCP structures up to 6 storeys.

Airport Safeguarding Precedents

24. We think it is also important to highlight, that as far as we know there are no other airports in the UK that have land safeguarded for car parking provision or indeed ancillary land uses or facilities. We believe that the only UK airport aside from Gatwick that has any land safeguarded within a local development plan, is Edinburgh who have an area of land north of the existing runway safeguarded for a second runway which forms part of their current masterplan. As stated, the safeguarded land to the north is for the provision of a second wide spaced runway and as such would allow the airport to deliver new terminal infrastructure in the space between the runways, much like Gatwick has planned.

Conclusion

25. In summary, we do not believe there has been robust evidence provided on the quantum of land area needed to safeguard future car parking provision for a potential wide spaced runway scheme at Gatwick Airport. Insufficient detail is available on how the current NRP plans relate to the wide spaced runway scheme, particularly in terms of car parking provision. The approach to date has clearly been excessively cautious and we do not accept the claimed need for anything like the area of car parking shown. At its lowest:
 - a. The lawful use of off-site parking must be accounted for – reducing the requirement by 19,000;
 - b. The provision which has been made or will be made elsewhere on the airport before the southern runway comes forward must be accounted for;
 - c. An efficient use of land should be assumed and would dramatically reduce the required land;
 - d. There is no reason why decking and MSCPs cannot be used for long stay car parking significantly reducing land take.

YAL/02.11.23