

Policy STR3B: Strategic Sites allocates Warren Hall for 300 new homes, 22.7 hectares of B1 and high quality B2 employment land, a commercial hub involving hotel, leisure, local centre and retail; plus associated landscaping and transport links.

Airbus has operational concerns with the Warren Hall allocation, but expresses material concerns / reservations about the sustainability and full deliverability of the strategic allocation, in terms of Airfield Safeguarding and the potential effects on future residential amenity. Warren Hall is situated under the flight path of Runway 04 at Hawarden Airport and within the last section of the approach slope. Under current safeguarding criteria, the ground levels in the area already infringe the approach and take-off slopes and any development in this location may infringe further upon these surfaces. This would erode the safety margins between the safeguarded surfaces and the trajectory that an aircraft has during its instrument and visual approach phase, thus leading to regulatory challenge and a possible impact to the safe operation of the Aerodrome. Airbus comments on potential future, and more stringent, safeguarding rules within its objection to draft LDP Policy PC8.

In this context it is the European Aviation Safety Agency's (EASA) rules that specify that no new objects should be permitted above the approach surface. EASA Regulation (EU) No 139/2014) - CS ADRDSN.J.480 Precision approach runways states (extract):

(e) Fixed objects should not be permitted above the inner approach surface, the inner transitional surface or the balked landing surface, except for frangible objects which because of their function should be located on the strip. Mobile objects should not be permitted above these surfaces during the use of the runway for landing.

(f) New objects or extensions of existing objects should not be permitted above an approach surface or a transitional surface except when the new object or extension would be shielded by an existing immovable object.


(g) New objects or extensions of existing objects should not be permitted above the conical surface and the inner horizontal surface except when an object would be shielded by an existing immovable object, or if after a safety assessment, it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of aeroplanes.


(h) Existing objects above an approach surface, a transitional surface, the conical surface and inner horizontal surface should, as far as practicable, be removed except when an object would be shielded by an existing immovable object, or if after a safety assessment, it is determined that the object would not adversely affect the safety or significantly affect the regularity of operations of airplanes.


Following our initial statement in the LDP consultation here are some more details to support it. The Warren hall proposal is under the final section of the Approach slope for Hawarden aerodrome and on high ground which is already infringing the protected surfaces. In 2015/16 – Our transition to a EASA certificate has now lost all previous variations agreed with CAA. From this date Airbus has to safeguard to Approach slope of 1:50 instead of 1:40 which was not standard and it constituted a variation on the licence.


Based on the information provided in the (SOCG007) Flintshire Local Development Plan 2015-2030 Statement of Common Ground STR3B dated February 2021- Aeronautical Constraints Development Potential, further assessments have been done to identify any impact or infringement to the OLS (Obstacle Limitation Surfaces) & IFP (Instrument Flight procedures)


P3	332413.05	362349.89	57.12	50.095	15.02m	-7.022
P4	332270.95	362194.27	61.26	50.095	19.06m	-11.161


	Eastings	Northings	Ground Level	Max AMSL	Penetrates	Max AGL
P1	332732.32	362871.41	41.43	50.095	0.66	8.66
P2	332642.05	362450.19	48.65	50.095	6.56	1.442
P3	332493.44	362293.43	53.68	50.095	11.58	-3.584
P4	332353.08	362142.12	57.58	50.095	15.48	-7.483


	Eastings	Northings	Ground Level	Max AMSL	Penetrates	Max AGL
P1	332760.83	362692.37	39.93	50.095	2.16	10.161
P2	332693.23	362390.13	45.23	50.095	3.14	4.863
P3	332560.03	362246.13	49.77	50.095	7.67	0.329
P4	332416.56	362085.28	54.11	50.095	12.01	-4.013

	Eastings	Northings	Ground Level	Max AMSL	Penetrates	Max AGL
P1	332802.29	362562.60	37.78	50.095	4.31	12.31
P2	332746.95	362326.63	41.79	50.095	0.3	8.304
P3	332620.30	362198.61	45.43	50.095	3.33	4.67
P4	332473.28	362036.26	49.45	50.095	7.36	0.643

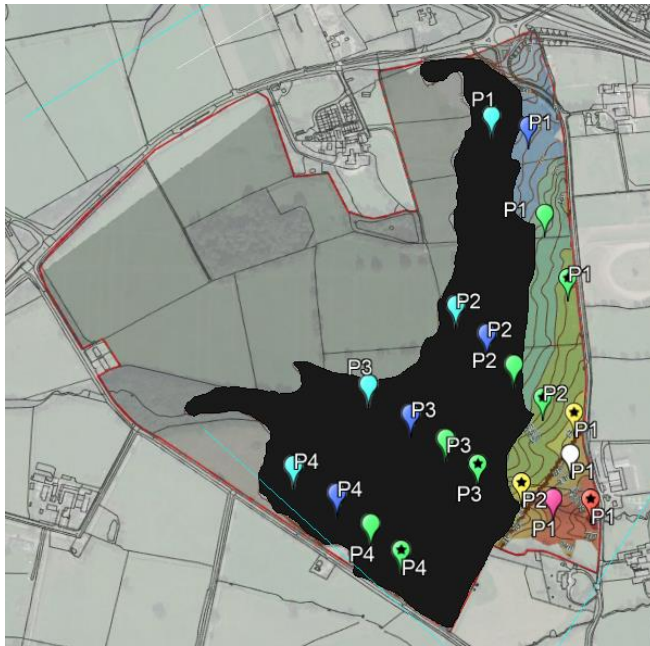
	Eastings	Northings	Ground Level	Max AMSL	Penetrates	Max AGL
P1	332806.75	362298.28	38.34	50.095	3.76	11.759
P2	332702.48	362163.45	39.74	50.095	2.35	10.351

	Eastings	Northings	Ground Level	Max AMSL	Penetrates	Max AGL
P1	332797.45	362218.37	38.75	50.095	3.34	11.344

	Eastings	Northings	Ground Level	Max AMSL	Penetrates	Max AGL
P1	332762.26	362133.67	38.81	50.095	3.29	11.286

	Eastings	Northings	Ground Level	Max AMSL	Penetrates	Max AGL
P1	332833.78	362132.87	34.58	50.095	7.52	15.517

All these assessments were based on a structure of an 8m build height or even trees, street lighting on the existing ground level as it is today. Based on previous layout this will require extensive landscaping and terracing of the ground level to allow buildings to comply with heights below the OLS. The detailed image below shows (In black) the areas of the OLS which are infringed by the development to a height of 8m.

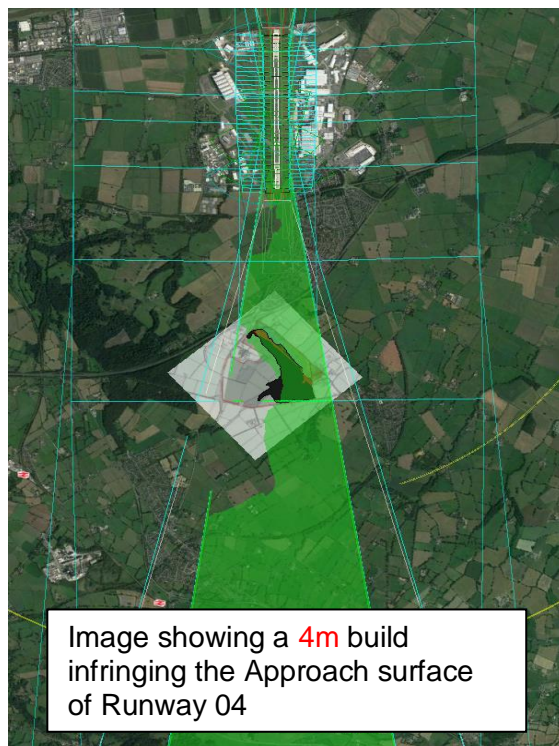
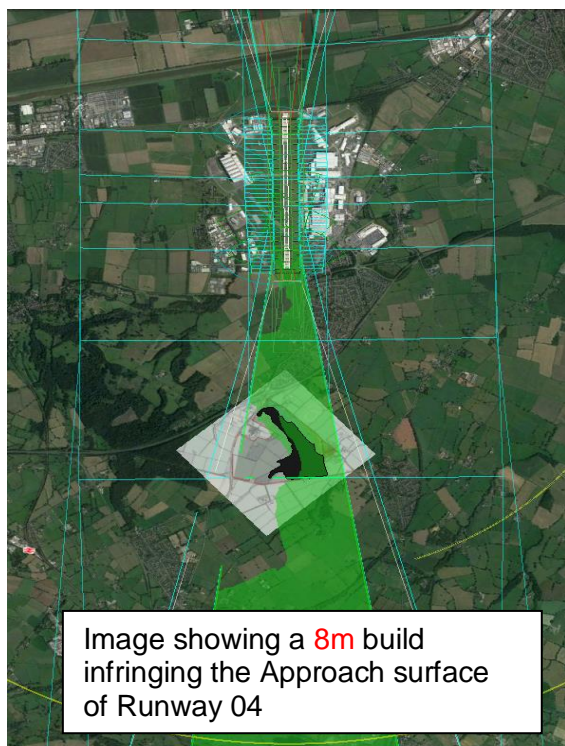


Showing area of infringement of the OLS with a build height of 8m, against ground level as it is today



Showing area of land suitable for a bungalow type dwelling based on 4m height, against existing ground level today

The Ground Level varies between 37m to 71m AMSL, so the permitted heights of dwellings will be limited by these levels, due to the maximum height of the Inner Horizontal Surface of 50.095 AMSL (m)



Airbus would also note, for the Authority's information, that airfield safeguarding is not a 'fixed' regime and may well change over the LDP period. In brief:

- The ICAO (International Civil Aviation Organization) is reviewing the current OLS (Obstacle Limitation Surfaces) which determine the safeguarding criteria for aerodromes at present. The new surfaces are going to be approved in 2022 and become effective from 2024;

2018 IFP checks done against the old layout (as per 2004 approved layout) by Cyrrus

The OAS analysis indicates that the assessed IFPs are not impacted by the proposed development, however, the development is restricted to a maximum elevation of 74.2m amsl. Although the ILS basic surfaces are penetrated, and the subsequent assessment resulted in the obstacles not affecting the surfaces it is recommended that CRM is conducted for the ILS Approach.

Given the limited information available at this stage Hawarden Aerodrome cannot make a full assessment of the impact on safe operations until a designed proposal of the development including buildings, associated infrastructure, inclusive of landscaping, trees, lighting, schemes, PV panels and SUD's etc) is fully assessed against the OLS and IFP's. This may then lead to further specific technical assessment such as CRM (Critical Risk Modelling) being provided by an approved technical body

Regulations is always being updated and reviewed so the development will need to be assessed against the current legislation at that point in time.