HERITAGE STATEMENT

Stansted Airport Terminal Extension, Stansted, London

ARS Report Nº: 2023/125

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HERITAGE STATEMENT: STANSTED AIRPORT TERMINAL EXTENSION, STANSTED, LONDON

ARS LTD REPORT 2023/125

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Prepared on behalf of:	Stansted Airport Limited (STAL)
Date of compilation:	September 2023
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Local Authority:	Uttlesford District Council
Site central NGR:	TL 55726 23687

EXECUTIVE SUMMARY

Project Name:	Heritage Statement: Stansted Airport Terminal, Essex, London
Planning Authority:	Uttlesford District Council
Location:	London Stansted Airport, Bassingbourn Road, Stansted, CM24 1QW
Parish:	Takeley
Hard Geology:	London Clay Formation – Clay, Silt and Sand
Soil Type:	Lowestoft Formation - Diamicton
NGR:	TL 55726 23687
Date of Fieldwork:	September 2023
Date of Report:	September 2023

In September 2023 Archaeological Research Services Ltd was commissioned by Stansted Airport Limited (STAL) (the clients) to produce a Heritage Statement to assist a proposed development at Stansted Airport (Application Ref No. S62A/2023/0022). The development works would see the construction of a new three-bay full-width extension to the existing passenger Terminal, as well as the decommissioning and partial demolition of the existing Track Transit System (TTS), construction of three new sky link walkways and other associated changes to the building.

The Stansted Airport Terminal building was constructed in 1991 and designed by Foster and Partners for the British Airports Authority. The design of the building was influenced by the High-Tech style of architecture. It comprises a rectangular structure, formed over two main levels: the main concourse and services undercroft. The concourse level is open, spacious and simply designed, with the complex services of the building neatly concealed in the undercroft. The Terminal was constructed with large structural steel 'trees', which support a tall, lightweight, modular roofing formed of lattice steel roof domes with triangular roof lights and daylight protectors. The passenger concourse is an open, spacious and flexible space, with segregated departures and arrivals zones. The original intention was for departures and arrivals passengers to move in a direct straight line through the building, creating a simple circulation and flow to their destination. Phase 2 for the extension of the building to the southwest and northeast was approved in 1999. The Terminal building has seen a range of alterations from the original design. The concourse cabins have been heavily altered, which has changed the flow of the building. This circulation is no longer direct, which is a shift from the original intention of the designers. However, the departures and arrivals remain segregated, and the single level for the passenger concourse has been retained.

Overall, the Stansted Terminal Building is deemed to possess a high degree of importance. The Terminal represents a seminal piece of aviation architecture, designed by Norman Foster, a pioneer of the High-Tech style of architecture. The building has an innovative design, with a single level passenger concourse and complex services concealed below within the undercroft. There is a crucial balance between aesthetics and functionality, as seen with the structural 'trees' and lightweight domed roofing. Although a number of the early design concepts have been lost, the core principle of the building's design—its modular nature and the repeatable effective components—have allowed for the flexibility and adaptability of this important building, whilst retaining its crucial philosophy of simplicity and openness.

Overall, the proposals should be deemed to have a minor harm to significance. The changes, which have balanced the significance of the building with the importance of meeting the airport's current and future needs, should be seen as acceptable.

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1 INTRODUCTION

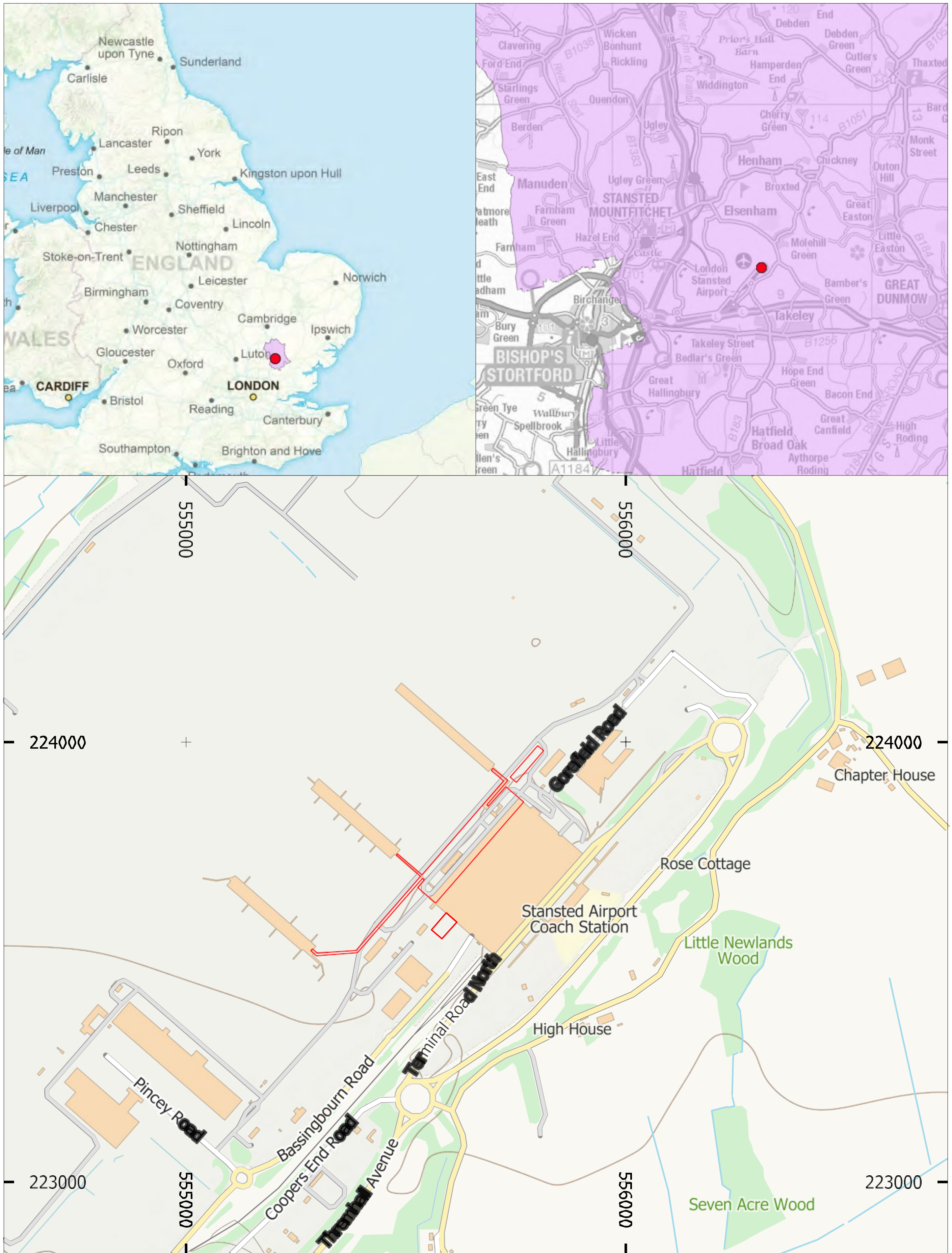
1.1 Project Background

Archaeological Research Services Ltd was commissioned by Stansted Airport Limited (STAL) (the clients) to produce a Heritage Statement to support a proposed development at Stansted Airport, Bassingbourn Road, Stansted, CM24 1QW. The development works would see the construction of a new three-bay full-width extension to the existing passenger Terminal, as well as the decommissioning and partial demolition of the existing Track Transit System (TTS), the construction of three new sky link walkways and other associated changes to the building. (Application Ref. No. S62A/2023/0022). This report assesses the significance of the Stansted Airport Terminal building and includes a heritage impact assessment considering the potential impacts to heritage significance.

The proposed development area is located at Stansted Airport, Bassingbourn Road, Stansted (**Figure 1**). The airport is situated *c.*7km to the north-east of Bishop's Stortford, with the town of Great Dunmow situated *c*.7.5km to the south-east. The airport is bounded by agricultural fields on all sides, with the M11 located to the west and the A120 to the south. The main Terminal building, comprising the building in question, represents the core of the site. The Terminal building dates to 1991 and represents a seminal piece of aviation architecture. It was designed by Norman Foster, a pioneer of the High-Tech architectural style, and has an innovative design with a single level passenger concourse and complex services concealed below, in the undercroft. There is a crucial balance between aesthetics and functionality, as seen in the structural 'trees' and lightweight domed roofing.

The proposed development works would result in a range of benefits, that should be taken into account when balancing the potential impacts to the significance of the Terminal building. The proposed changes would significantly improve the passenger experience for the Terminal, which would deliver expanded facilities to provide the best possible customer experience and customer service standards for both passengers and airlines. The designs have centered upon providing efficient operations and processing, improved service, and greater space, ensuring the development provides additional capability to accommodate the existing and future permitted passenger numbers at peak times, and provide an improved passenger experience. These changes will make best use of the existing airport capacity, and would see more spacious check-in facilities, additional security lanes equipped with the latest technology, and enlarged immigration and baggage halls for inbound passengers. Most urgently, it would provide an extended departure lounge for outbound customers, which has been identified as a key area currently under strain. The works would address the strain to the passenger journey caused by the current level of passenger numbers coupled with the inability of the TTS(TTS) to meet future passenger demand. The addition of the sky links would provide increased reliability and flexibility to all passengers, as well as allow the flow of both inbound and outbound passengers to be regulated much better.

The proposals would help to provide a wider range of services and facilities, more able to meet the needs of a broader range of airlines from long haul to full service, as well as low-cost carriers. This would enable more sustainable patterns of travel for local people, preventing the need to travel to an airport further away. Stansted Airport represents a key catalyst for economic growth and productivity in the East of England. The increase in network air services from the development would enable the airport to strengthen its role as a key part of the infrastructure promoting growth in the East of England. The Terminal extension will result in direct employment relating to the construction of the building, with the airport's approved growth to 43mppa, estimated to provide 16,300 direct total jobs across all sectors.



Site name:	Stansted Airport	
Date:	September 2022	
Drawn by:	JE	
Scale:	Varies	

Site Location

Uttlesford District Council

Red Line Boundary

N

This drawing: © ARS Ltd

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Figure 1:
Site location

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2 METHOD STATEMENT

2.1 Approach

This Heritage Statement was undertaken in accordance with National Planning Policy as enshrined in the *National Planning Policy Framework* (NPPF) (MHCLG 2021).

The approach to the assessment of 'heritage significance' is as described in the National Planning Policy Framework (NPPF), which defines '*heritage significance'* as the '*value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting*' (MHCLG 2021, 71 -72).

The NPPF (para 203) requires the decision maker for schemes involving non-designated heritage assets to consider applications as follows.

> *'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset'* (MHCLG 2021, 57 & 58).

Reference is also made to the concept of '*heritage values'* as defined in Conservation Principles (English Heritage 2008), which states that the significance of heritage assets derives from the '*heritage values'* that they possess, which may be evidential, historical (either illustrative or associative), aesthetic or communal.

The approach is also cognisant of the professional guidance detailed in Principles of Cultural Heritage Impact Assessment in the UK (IEMA/IHBC/CIfA 2021), which identifies that as well as the assessment of significance, the assessment of importance is also a key stage in the process of Cultural Heritage Impact Assessment (CHIA):

> '*The importance of a cultural heritage asset is a measure of the degree to which cultural significance of that asset is sought to be protected through, for example, legislation and planning policy. Determining the importance of a cultural heritage asset is a key component in the CHIA process as it will influence the way in which decisions are made during the development of a proposal as well as the weight to be given it by the decision-maker.*
>
> *Importance is scaled (unlike cultural significance) and requires the competent practitioner to make a judgement regarding the merits of different cultural heritage assets. It is therefore appropriate to refer to 'high', 'medium' or 'low' importance or any other simple scale that offers a form of gradation'* (IEMA/IHBC/CIfA 2021, 9).

The principal statement of aviation policy remains the *Aviation Policy Framework* (APF). The APF recognises the contribution of built heritage to society, and states in paragraph 3.55:

> *'It is likely that any proposals for any new hub airport or nationally significant infrastructure would be taken forward through an Airports National Policy Statement (NPS). This would take a similar approach to existing NPSs and be consistent with the Government's stated policies on sustainability and environmental protection. Loss of protected habitats, protected species, protected landscape and built heritage, and significant impacts on water resources and ecosystems would only be advocated if there were no feasible alternatives and the benefits of*

proposals clearly outweighed those impacts. Any unavoidable impacts would be mitigated or compensated for. Our policy will be to ensure there is full consideration of the environmental impacts of the most credible options for maintaining our international connectivity' (DfT 2013, 66).

Many local planning policies (not only those pertaining to design and conservation) can affect development with regard to heritage assets. These might include policies on sustainable development, meeting housing needs, affordable housing, landscape, biodiversity, energy efficiency, transport, people with disabilities, employment and town centres. However, policies concerned with design quality and character generally take greater importance in areas concerning heritage assets. These, along with other matters, will be considered in the ongoing management of development in the area.

The *Uttlesford Local Plan*, adopted in 2005, is the current and principal document outlining planning policies relevant to Uttlesford District (Uttlesford District Council 2005). The following policies concerning cultural heritage and Stansted Airport are of relevance to the application for the extension to the Terminal building:

Policy S4 – Stansted Airport Boundary – states that: *'The boundary of Stansted Airport is defined on the Proposals Map. Provision is made for development directly related to or associated with Stansted Airport to be located within the boundaries of the airport. Industrial and commercial development unrelated to the airport will not be permitted on the site'.* The Terminal building is located within the boundary of Stansted Airport where Policy S4 permits development directly related or associated with the airport to be carried out.

Policy AIR1 – Development in the Terminal Support Area – states that: *'Land adjoining the Terminal, as shown on the Inset Map, is principally reserved for landside road and rail infrastructure and a telecommunications building, airside roads, the apron, passenger vehicle station rapid transport system and other airside operational uses; Terminal support offices; an hotel and associated parking; a bus and coach station and short term and staff car parks'.* The Terminal building is located within the boundary of Policy AIR1 where development related to Stansted Airport is reserved for infrastructure supporting the Terminal building.

Policy ENV9 – Historic Landscapes – states that: *'Development proposals likely to harm significant local historic landscapes, historic parks and gardens and protected lanes as defined on the proposals map will not be permitted unless the need for the development outweighs the historic significance of the site'.*

Additional policies related to Stansted Airport, although not directly related to the Terminal building, include policies AIR2, AIR3, AIR4, AIR5, AIR6 and AIR7.

Beyond planning policy, the Government has published a strategic framework for the future of aviation, highlighting the Government's support for airport expansion and recognising that this is key for 'levelling up' in the UK by boosting both global and domestic connectivity (DfT 2022, 26). It is also stated that the improvement of consumer experience is a part of their 10-point plan for the future of UK aviation (DfT 2022, 11), in which Terminal expansion would allow for.

2.2 Methodology

The assessment follows the guidelines set out in *Historic England Advice Note 12: Statements of Heritage Significance: Analysing Significance in Heritage Assets* (Historic England 2019) which recommends a 5-stage approach to decision-making in applications affecting heritage assets:

- Stage 1: Understand the form, materials and history of the affected heritage asset(s), and/or the nature and extent of archaeological deposits
- Stage 2: Understand the significance of the asset(s)
- Stage 3: Understand the impact of the proposal on that significance
- Stage 4: Avoid, minimise and mitigate negative impact, in a way that meets the objectives of the NPPF
- Stage 5: Look for opportunities to better reveal or enhance significance

The assessment is also cognisant of the staged approach described in *Principles of Cultural Heritage Impact Assessment in the UK* (IEMA/IHBC/CIfA 2021). This good practice guidance document identifies two main principles and six analytical stages that allow Cultural Heritage Impact Assessment (CHIA) to be used to make informed decisions about the sustainable management of cultural heritage assets:

A. Understanding cultural heritage assets:

1. describing the asset;
2. ascribing cultural significance; and
3. attributing importance.

B. Evaluating the consequences of change:

1. understanding change;
2. assessing impact; and
3. weighting the effect.

2.3 Information sources

The following sources of information were consulted to inform this assessment:

- The Heritage Gateway for information regarding heritage assets, details of previous fieldwork, and Historic Landscape Characterisation (HLC) mapping.
- Groundsure Historic Mapping Report for historic Ordnance Survey maps (Appendix 3).
- The British Geological Survey onshore digital maps at 1:50 000 scale (DiGMapGB-50 – WMS).
- Cranfield University's *Soilscapes* free interactive online viewer for a simplified version of the 1:250,000 scale Digital National Soil Map for England and Wales.
- Google Earth and Bing online historical satellite imagery.
- Archives at Stansted Airport
- Various other relevant books, journals and publications identified during the course of the assessment, details of which can be found in the references section of the report.

3 THE HERITAGE ASSET AND ITS SIGNIFICANCE

3.1 Historical Background

3.1.1 Historical Development

Stansted Airport has its origins in the Second World War as an RAF airfield. The runway at RAF Stansted Mountfitchet was laid in 1943, with the airfield opening the same year (Powell 1992, 18). During the Second World War the site was used as a bomber airfield and maintenance depot by the US Air Force's 344 Medium Bombardment Group. After the USAF occupation ended, the airfield continued to be utlised by the Royal Air Force (RAF) until 1949 (EHER MEX1033803 & MEX1039535).

By 1946, civil flights started to use Stansted and the Ministry of Civil Aviation took control of the airport in 1949 (Powell 1992, 18). Stansted's military use looked to be revived in the 1950s during the Cold War, but the US Air Force moved further into East Anglia, while Stansted expanded its civil and RAF Transport Command use (Powell 1992, 19). In 1966, the newly created British Airports Authority (BAA) took control, and in 1967, a Government White Paper proposed that London's third airport should be at Stansted. This saw the opening of the airport's first Terminal building in 1969. Further development of Stansted as London's third airport was superseded by the growth of Gatwick and Heathrow (Powell 1992, 21). However, another Government White Paper, published in 1978, restated that a third London airport was quickly becoming necessary and by 1980 the BAA submitted an application to Uttlesford District Council for the redevelopment and expansion of Stansted (Burpoe 2016, 6 & LSA 2016).

It was decided that Stansted Airport's Terminal building would be constructed in a two phased approach (Donne 1991, 62). Initially, development would permit an annual capacity of eight million passengers per annum (mppa). Further work, as part of Phase 2, extended the Terminal building to facilitate a level of 15mppa. Originally, it was hypothesised that any further development to allow anything beyond 15mppa, and up to 25mppa, would require the construction of a second major Terminal building (Donne 1991, 62). In 1981, Foster Associates, established by Norman Foster, was commissioned to design the new Terminal building, with plans approved in 1985 and planning permission granted in 1986-87. Ove Arup & Partners had been the principal engineers. The Terminal building was subsequently constructed between 1988-91 and opened to the public in 1991.

The main aim of the design was to improve travellers' experiences of passing through the airport. Phase 1 of the Terminal building operated in relation with two satellites linked by an automated Track Transit System (TTS) which transferred passengers to them. The Terminal building itself originated as a square structure, of 11 bays by 11 bays. Following expansion, the building is now rectangular in plan formation, 17 bays in length and 11 bays in width. Landside and airside are marked by open canopies across the elevations that continue the domed roof form. The roof itself has been designed to optimise the use of light in the building and is an important component of the spatial design.

In 1990, the Stansted Airport Terminal building was awarded the European Union Prize for Contemporary Architecture/Mies Van der Rohe Award. The Terminal building was granted this award for its 'spirit of an enlightened modernity expressed in terms of rational and elegant architecture' (Frampton 1990). The rationale for the award recognises the Terminal's prime virtues of simplicity, clarity, and openness, which sees a return to the 'early romance and excitement of flight' (Frampton 1990). The transcript makes reference to two further attributes of the design that are considered important, including the control of the interior spaces to preclude visual clutter, and the 'capacity of the Terminal for expansion, while keeping the air and landside approaches as they are and maintaining the unitary image of the building' (Frampton 1990). The landside approach includes the grand portico-like entrance to the building, which exemplifies the understanding of the building as a modern expression of a classical temple to create a sense of arrival. Similarities in architectural language are drawn here with the contemporaneously Foster-designed C'Arre d'Art at Nimes. The airside approach is represented by three satellites in a perpendicular form to the rear aspect of the Terminal building. Architectural features that are specifically referenced as part of the decision to award the design include primarily the form of the building, but also the structural 'trees', accommodation of services in the undercroft, and the top-lit vaulting. The TTS and canopies are not mentioned, and perhaps cannot be considered as key attributes that resulted in the award (Frampton 1990).

Norman Foster is considered to be one of the founders and leaders of High-Tech architecture, having created seminal designs including the Hong Kong Bank Headquarters, 30 St Mary Axe 'The Gherkin', Hearst Tower and Wembley Stadium. High-Tech emerged in the 1960-70s as a type of late modernist architecture, influenced by engineering and new technology. Its defining philosophy was concern over adaptability, flexibility and openness, with building plans balancing design and engineering with the functionality. In keeping with the balance between functionality and aesthetics, High-Tech architecture emphasises that when the needs of a space changes, the configuration of the exterior can respond. This retains a sense of openness internally whilst allowing for adaptation and flexibility, resulting in open-ended, modular buildings where other elements can be added or taken away without altering internal composition (Davies 1988).

Foster's design of Stansted's Terminal building was the first time that High-Tech had been used in the design of aviation buildings, and its key principles were applied. The design originally comprised a clearly planned square building, extended to rectangular formation as part of Phase 2, granted in 1999. The complexity of services is concealed in an undercroft, whilst simple services reflecting the use of the building are incorporated into the design (Powell 1992, 39). The 'omniplatz' concept of High-Tech architecture is reflected in the Stansted Terminal building, as an open level concourse allows for direct and straightforward movement through the building. Early sketches of the building by Foster Associates demonstrate this intention, with a clear view through the building from the landside to the planes (**Figure 2**). However, this view was never fully realised. Furthermore, honest construction is represented through structural steel 'trees' that support a tall and lightweight concourse roof, showcasing the method of construction of the building, and retaining the sense of openness associated with High-Tech architecture. Beyond the principles of High-Tech, the core philosophy behind the design of the Terminal building is the desire to return to simplicity of earlier air travel. A core principle of the building was its flow, where passengers could progress through the building from landside to airside, across one public concourse level with constant visibility towards the airfield. This concept would recapture the clarity and simple design of early airfields, with a direct route through the Terminal to the aircraft. The original circulation through the building is illustrated in the original architectural designs of the building (**Figure 3**).

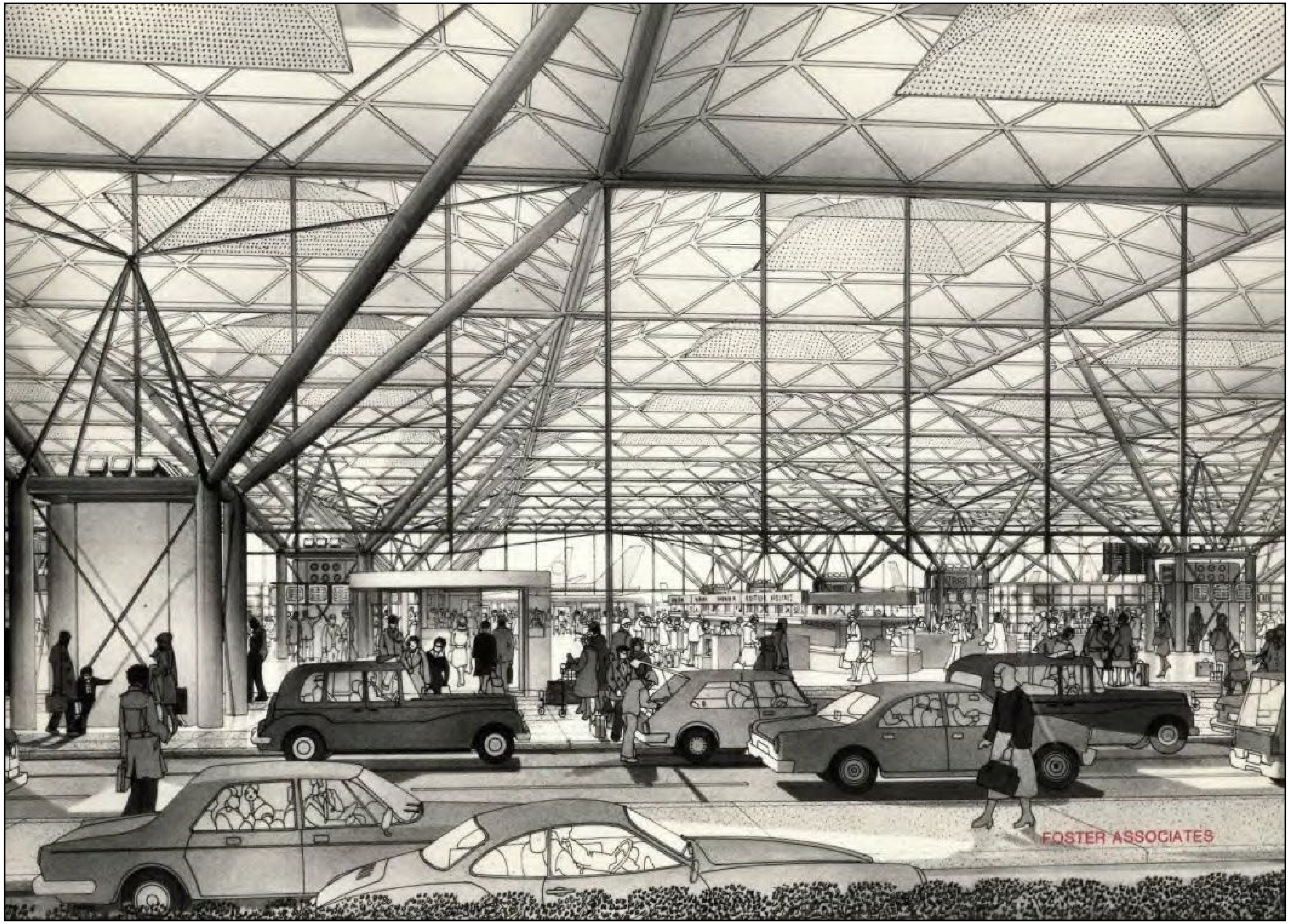


Figure 2: Early sketch of the design of the Stansted Airport Terminal building. Foster & Partners 1985 - Stanstead Airport Terminal – London. Reproduced with permission from MAG

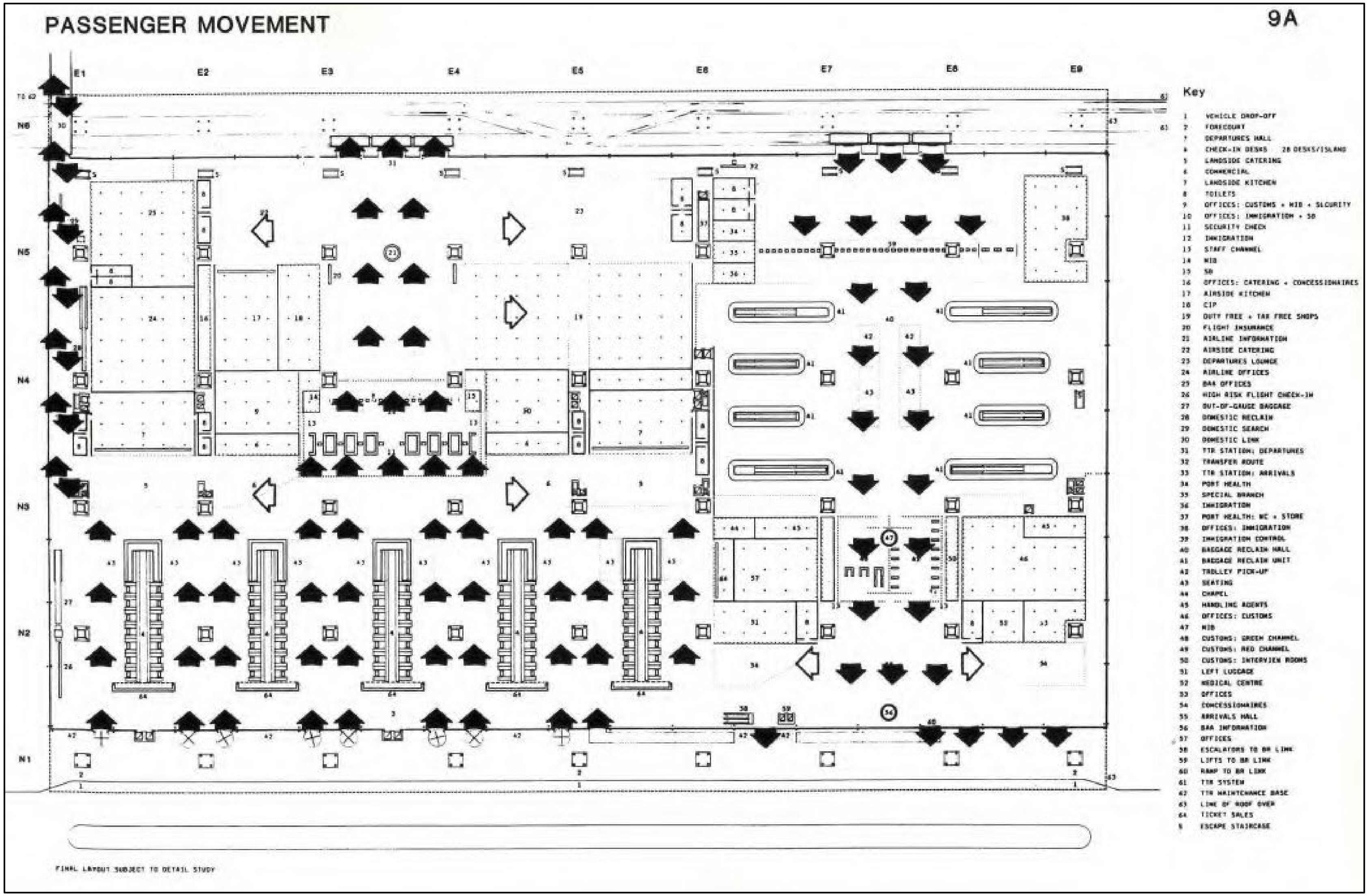


Figure 3: Early plan illustrating intended passenger movement through the Stansted Airport Terminal building. Foster & Partners 1985 - Stanstead Airport Terminal – London. Reproduced with permission from MAG.

The Terminal building is recognised as a pivotal work of High-Tech architecture. The concepts pioneered on Stansted Airport Terminal have influenced the design of other contemporary airports, including the Hong Kong Chek Lap Kok International Airport (1997) and Beijing Capital International Airport (2008)—two of the world's largest and most advanced airports. While stylistic influences include the concealment of services in an undercroft, and the airy continuous domed roof, it is the underpinning philosophy of the Stansted Airport Terminal that has been the most influential. Hong Kong Chek Lap Kok International Airport and Beijing Capital International Airport can both be seen to represent the same simplicity that was woven into the original design of the Stansted Airport Terminal, with the core principle of each building being the movement of passengers through from landside to airside.

3.1.2 Planning History

Full details of the planning history of Stansted Airport are provided in the Planning Statement and will only be summarised here. This section will focus on the planning history of the site with regard to the development of the Stansted Airport Terminal building.

Outline planning permission was granted for a major development of Stansted in 1985 to accommodate around 15 mppa (Planning ref. UTT/1150/80/SA). The development was designed to take place in two phases. Phase 1 allowed for the growth of Stansted Airport to accommodate 8 million passengers per annum (mppa), and Phase 2 for growth from 8 to 15mppa. This development comprised the provision of a new passenger Terminal complex and new supporting facilities, as well as the expansion of the airfield. The new Terminal building referenced here is the subject of this Heritage Statement. Phase 1 was approved in 1986 and 1987 (Planning ref. UTT/1150/80), and construction work on the new Terminal building took place in 1988-91. Phase 2 was approved in 1999 and comprised side extensions to the northeast and southwest to the new Terminal building, as well as the addition of the third satellite building.

In 2003, planning permission was granted for an extension to the passenger Terminal, as well as the provision of additional aircraft stands and taxiways (Planning ref. UTT/1000/01/OP). The permission covered a wide range of airport infrastructure and associated development including an extension to the southwest elevation of the existing Terminal building to provide additional capacity to accommodate an uplift in passengers from 15 to 25mppa. However, the development of the extension was not undertaken.

Permission for this extension was granted again in 2008 (Planning ref. UTT/0717/06/FUL), but again was not implemented. However, the form of this extension would only improve the outbound security area, and not address capacity for the arrivals or check-in area without a major internal reconfiguration, which would possibly go against original design principles outlined by Sir Norman Foster. Furthermore, as part of this 2008 application, permission was granted to increase the annual passenger cap from 25 to 35mppa.

To accommodate future increases in passenger numbers and improve operational effectiveness, an application for a new Arrivals Building was granted permission in 2017 (Planning ref. UTT/16/3566/FUL). The Arrivals Building was proposed to be located on land immediately adjacent to the northeast elevation of the current Terminal building, between it and the Radisson Blu hotel. This application provided an alternative to the extension to the southwest of the main Terminal previously approved in 2003 and 2008. It proposed a new arrivals facility with the current Terminal reconfigured to handle only departures. The development phasing required the arrivals facility to be developed first, and ahead of any improvements in the existing Terminal. This would result in a longer construction period, which was not problematic at the time of proposal but with the pressures brought about following traffic recovery following the Covid-19 pandemic, and the development time lost during this period, there is need for a new optimised approach to deliver improvements.

Furthermore, in 2021, the Planning Inspectorate granted planning permission for the annual passenger cap to be increased from 35 to 43mppa (Planning ref. UTT/18/0460/FUL). Permission was also granted for new airfield infrastructure to support this, including two new taxiway links to the runway, six additional remote aircraft stands adjacent to the Yankee taxiway and three additional aircraft stands extending the Echo Apron.

Stansted's planning history is defined by phases of planned growth that have been proposed, considered and consented through the planning system at a national and local level. Previous planning permissions have allowed for the steady increase in the annual cap of passengers to Stanstead Airport to meet forecasted aviation demands. However, despite the steady increase to the cap, the Terminal building has not been extended to accommodate the increased number of passengers since planning permission was granted in 1999 for the Phase 2 development for 15mppa. Despite the annual passenger cap now being set at 43mppa, the current Terminal was only designed to support 15mppa. This planning application does not propose to alter the passenger and aircraft movement limits established by the 2021 permission: it is solely for physical infrastructure to help accommodate the permitted levels of passenger growth.

3.2 Site Inspection

A building appraisal of the Stansted Airport Terminal was carried out in September 2023, in order to assess the significance of the structure and the impact of the proposed development. The fieldwork was undertaken by Joseph Empsall MA MRes ACIfA. While a comprehensive tour of the Terminal and its exterior was conducted, the photographic record of its interior features within this public document is limited due to the need to maintain security.

A systematic text description of the buildings is provided with an evaluation of the historical and architectural significance based on the existence or non-existence of statutory and non-statutory designations and also on the author's professional judgement formulated by substantial experience of historic building analysis.

A series of digital photographs were taken of the buildings' general situation and particular features of note in reference to this report. A 2m scale was included in the photography where possible.

All aspects of the building appraisal were conducted according to the guidelines in *Understanding Historic Buildings – A Guide to Good Recording Practice* by Historic England (2016) and the *Standards and Guidance for Archaeological Investigational Recording of Standing structures* by the Chartered Institute for Archaeologists (2020).

3.2.1 Site Location

The proposed development area is located at Stansted International Airport, Bassingbourn Road, Stansted London. The airport is situated *c.*7km to the north-east of Bishop's Stortford, with the town of Great Dunmow situated *c.*7.5km to the south-east. The airport is bounded by agricultural fields on all side, with the M11 located to the west and the A120 located to the south. The building in question, the main Terminal building, represents the core of the site (**Photograph 1**). The southern side of the Terminal is bounded by Terminal Road, with a large car park situated to the south down a slope (**Photograph 2**). The Stansted Airport Train Station is accessed from within the building itself, with the railway line orientated southwest to northeast and running through the southeastern extent of the building (**Photograph 3**). The airport Terminal is flanked by a car park, Enterprise House, and a hotel to the south-west, with a hotel and multi-storey car park to the north-east (**Photograph 5**). The large airfield and runway are located to the north-west of the Terminal building. There are three satellite structures to the north-west, which form the departures gates to board aircraft (**Photograph 6**). Two of these (SAT1 & SAT2) are accessed via the TTS, located within the northwestern rear side of the airport building, with the SAT3 accessed via a sky link structure. The TTS links with an arched maintenance building of rectangular plan formation to the northeast (**Photograph 7**).

Photograph 1: View of the Stansted Airport Terminal building, taken facing north

Photograph 2: View of the large car park to the south of the Terminal building, taken facing east

Photograph 3: View of the train lines running under the Stansted Terminal building, taken facing east

Photograph 4: View towards Enterprise House and a hotel building to the southwest of the Terminal building, taken facing west

Photograph 5: View of the hotel and multi-storey car park to the northeast of the Terminal building, taken facing northeast

Photograph 6: View to the east from Satellite 1, towards Satellite 2

Photograph 7: View of the maintenance building to the north-east of the Terminal, associated with the TTS system

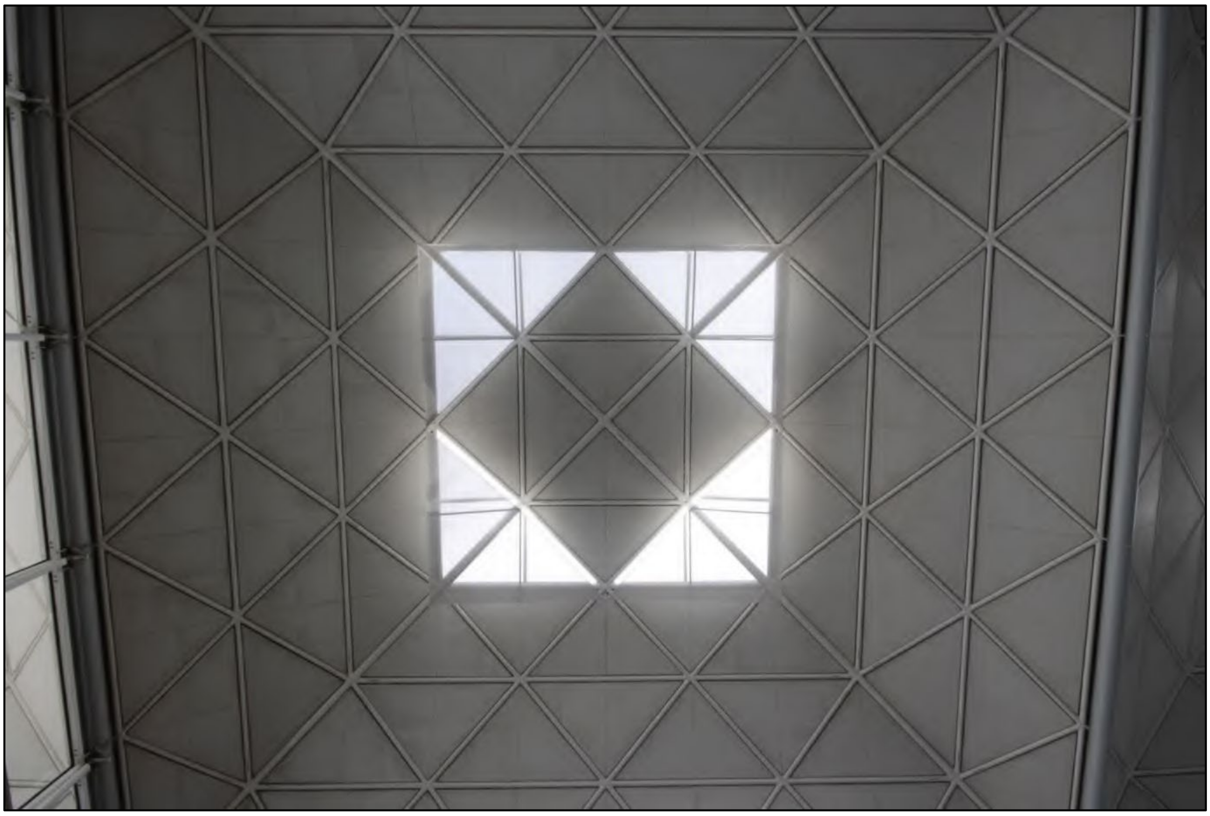
3.2.2 Building Description – Overview

The Stansted Airport Terminal building dates to 1991, comprising a large-scale structure of rectangular plan formation (**Photographs 8 & 9**). It had taken influence from the High-Tech style of architecture, popular in the late 20th century, and was designed by Foster & Partners. In 1990, it was awarded the European Union Prize for Contemporary Architecture/Mies Van der Rohe Award. The rationale for the award recognises Terminal's prime virtues of simplicity, clarity, and openness (Frampton 1990). The building is 17 bays in length and 11 bays in width. It had originated as 11 bays in length and been extended by four bays to the southwest and two bays to the northeast as part of Phase 2 of the development, granted in 1999. The building consists of two main levels with a mezzanine between. These form a services undercroft and the main open-plan concourse level. The building is modular in design, with the roofing formed of 18m x 18m structural grids (**Photograph 10**). Each grid comprises a lattice shell roof dome, with four triangular roof lights and daylight protectors (**Photograph 11**). This roofing is supported by structural steel 'trees', which feature four substantial circular columns with arms connecting to the roofing (**Photograph 12**). These are braced with steel tension members by a single bolt (**Photograph 13**). The 'trees' provide the structural support for the lightweight and service-free roofing, connecting below with the services undercroft. These 'trees' are fixed with service pods which deliver mechanical and electrical services to the concourse level from below. The exterior walls are built from aluminum panels with a plastic frame at the undercroft level, with the concourse level formed of glazed curtain walling, with 3.6m x 2m double glazed panels (**Photograph 14**). These had originated as clear glazing, but now have opaque glazing on the side elevations for all but the lowest two sets of panels of the concourse level. The southeastern and northwestern side of the building each have overhanging canopies formed within the structural grid, with a domed lattice roof and steel 'trees'. The southeastern side provides a vital cover for the public forecourt whilst entering the building, with the rear airfield side providing a cover for the TTS (**Photographs 15 & 16**).

Photograph 8: View of the Terminal building, taken facing north

Photograph 9: View of the Terminal building, taken facing west

Photograph 10: View of the modular roofing within the building, taken facing west



Photograph 11: View of the domed roofing of the Terminal building

Photograph 12: View of one of the structural steel 'trees' within the Terminal building, taken facing west

Photograph 13: View of the steel tension members and single bolt for the structural 'trees', taken facing south-west

Photograph 14: View of the glazed curtain walling on the north-eastern side of the building, taken facing west

Photograph 15: View of the overhanging canopy roof on the south-eastern side of the building, taken facing south-west

Photograph 16: View of the overhanging canopy to the north-western side of the building, taken facing northeast

3.2.3 Building Description – Exterior

The principal south-eastern elevation of the building is 17 bays in length, over a single tall storey for the concourse level, with the undercroft level not visible (**Photographs 17 & 18**). The elevation features the overhanging canopy of the structural grid, formed of a single bay in width. Behind this is the transparent glazed curtain walling, with doors interspersed along the walling providing access to the main Terminal building. Within the western extent of the elevation, there is a single-storey structure of grey paneling with a flat roof, which is attached to the curtain walling and beneath the canopy (**Photograph 19**). This is a temporary structure added to the building recently. A low glazed structure, which forms a sloped walkway connecting with the train station below, is situated within the centre of the elevation beneath the canopy, (**Photograph 20**).

The north-eastern elevation is over 11 bays, forming a side of the building (**Photograph 21 & 22**). The northwestern and southeastern ends of the building feature the overhanging canopies. At undercroft level there is a central large vehicular entrance point, with a tall projecting structure to the south (**Photograph 23**). At the southern end of the elevation, there is a large aperture associated with the trainlines, which links with the train station. Towards the north-western end of the elevation there is an additional projecting structure. Directly adjacent to this elevation is a service road, not accessible by the public.

The north-western elevation of the building is over 17 bays in length, formed over two storeys (**Photographs 24 & 25**). The lower undercroft level features large circular concrete columns supporting the TTS above, which runs immediately adjacent to this elevation. The undercroft level features a range of service access points interspersed along the elevation, associated with the movement of baggage to and from the building. The steel structural 'trees' can be seen at their full height along this elevation, featuring concrete plinths at their base. The concourse level features the overhanging canopy, with glazed curtain walling behind (**Photograph 26**). An original sky link for domestic flights is attached to the western end of this elevation, with a 'Z' shaped sky link associated with the later Satellite 3 attached to the eastern end. The elevation is visible from the three satellite structures to the north-west of the building, as well as from the sky links, though public visibility is more limited for this part of the building due to the presence of structures and aircraft. The satellite structures provide access to the airside of Stansted Airport and are perpendicular in form with the rear the Terminal building.

The south-western elevation of the building is over 11 bays, with aluminum panels to the undercroft level and glazed curtain walling to the concourse level (**Photograph 27**). Like the other side, this elevation features a large vehicular access point in the centre at undercroft level, with train access to the east. There are two full-height projecting structures along this elevation, built with aluminum panels. The south-eastern and north-western ends of the building feature the roofing canopies. There is a car park immediately adjacent to this elevation, with Enterprise House and a hotel further to the south-west.

Photograph 17: Oblique view of the south-east elevation of the Terminal, taken facing north

Photograph 18: Oblique view of the south-eastern elevation of the Terminal building, taken facing west

Photograph 19: View towards the single-storey temporary building attached to the western extent of the south-eastern elevation. Taken facing north

Photograph 20: View beneath the canopy of the Terminal building's south-eastern elevation, with the glazed structure sloping down to the train station

Photograph 21: Oblique view of the Terminal building's northeastern elevation, taken facing south

Photograph 22: Oblique view of the Terminal building's northeastern elevation, taken facing west

Photograph 23: View of the southern extent of the Terminal building's northeastern elevation, taken facing south

Photograph 24: Oblique view of the Terminal's northwestern elevation, taken facing south from the sky link to Satellite 3

Photograph 25: View towards the Terminal's northwestern elevation from Satellite 2, taken facing east

Photograph 26: View of the Track Transit System along the northwestern elevation of the Terminal building. Taken facing northeast

Photograph 27: View of the southwestern elevation of the Terminal building, taken facing northeast

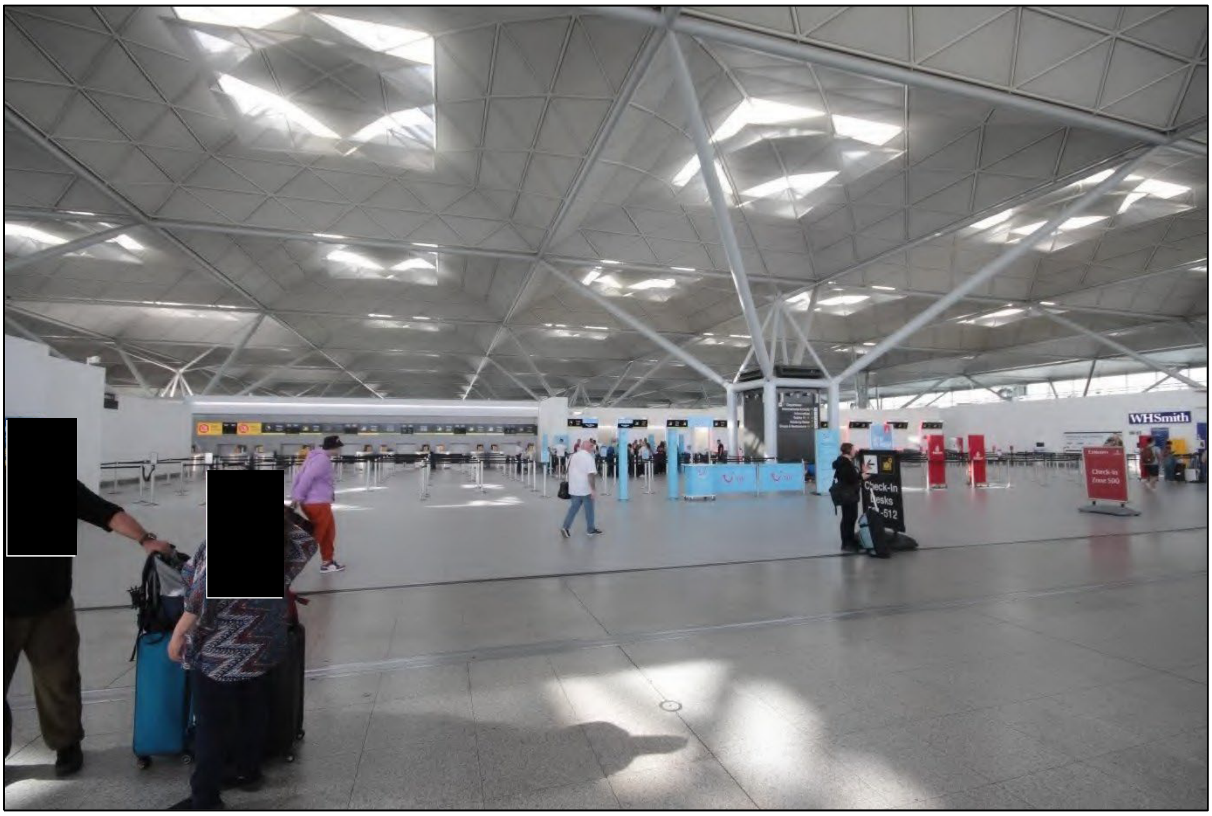
3.2.4 Building Description – Interior

The interior of the building is primarily over two storeys, formed of the services undercroft and the passenger concourse level, with a mezzanine level in between. The concourse level is formed of a large and open space of an 'heroic but intimate scale' (Frampton 1990), with a tall ceiling of *c.*11m in height, comprised of the domed structural grid supported by the steel structural 'trees' that reflect material honesty and tectonics that have guided the design (**Photographs 28 & 29**). The tall lightweight ceiling contributes to an open, airy and flexible space, with the complex services hidden below in the undercroft. This open and simplistic level had been a key part of the design philosophy, with the intention for the public to progress in a straight line through the building upon their arrival. This philosophy centred on calm, clarity and convenience for the passenger experience.

From the original circulation, the departure zone has been kept to the southwest, with the arrivals zone to the northeast, and segregation between these areas. The level features a range of single-storey concourse cabins, formed of check-in desks, security lanes, immigration desk, shops, restaurants and offices. These are single-storey standalone cabins with their own distinct services, which are low in height, in order to provide the free air movement from the service pods and to allow greater visibility of the tall and open space (**Photograph 30**). The original design intended that these would not raise above 3.375 meters in height; the current concourse cabins are now taller than this. Several of these cabins in the departure lounge now feature mezzanine level seating, which blocks a degree of visibility within and out from the building (**Photograph 31**). The original intention within Foster's design was for the passengers to be able to see out towards the airfield, providing a clear vision for their destination and simplicity for flow through the airport. With the taller height cabins, it is not possible to see towards opposite ends of the building, though the ceiling structure retains strong visibility throughout (**Photograph 32**). Davey, Best, and Davies (1991) have argued that Foster's intention for visibility towards the aircraft had never been realised from the outset.

The formation of the concourse cabins has been significantly altered since the building's original construction, which has changed circulation and passenger flow for the building. These changes had been necessary due to modern airport requirements, including greater security areas as well as more retail, food and beverage provision. **Figure 3** demonstrated the original simplistic flow of passengers for the building, with the intention to move in a straight line for both departures and arrivals. For departures, passengers check-in to the south, and must progress through security to the southeast, before moving towards the departures lounge to the north (**Photographs 33 & 34**). These areas are comprised of walkways bounded by the concourse cabins, which for the departures lounge is formed of duty-free, bars and restaurants. From the departures lounge, the passengers utilise the TTS to the rear of the building (**Photograph 35**). This train continues to the southwest, descending underground, before circling to the north and east providing access to Satellites 1 & 2, as gates for the Terminal (**Photographs 36 & 37**). Satellite 1 has seen a more recent substantial modern refurbishment. Satellite 3 had been added to the site as part of Phase 2 from 1999, with the structure accessed via a 'Z' shaped sky link (**Photograph 38**). Satellite 3 is not, and has never been, accessed by the TTS. The passenger journey for arrivals has remained more direct, though the circulation has not remained straight with the need to filter through the current immigration, baggage reclaim and customs areas. This reconfiguration is a result of the modern immigration and border control requirements, which have changed since the building's inception.

Domestic arrivals are positioned along the southwestern end of the building, with passengers accessing the building via a sky link structure built as part of the original scheme in 1991.



Photograph 28: View to the north at concourse level

Photograph 29: View to the south at concourse level

Photograph 30: View towards one of the concourse cabins, taken facing south-west

Photograph 31: View of one of the mezzanine bar areas within the Terminal's departure lounge, taken facing northeast

Photograph 32: View to the northwest at concourse level, showing the lack of visibility to the other side of the building

Photograph 33: View of the looping circulation for departure passengers, flanked by concourse cabins on either side, taken facing northwest

Photograph 34: View of the circulation within the departure lounge, taken facing west

Photograph 35: View towards the track transit system within the departure lounge, taken facing northwest

Photograph 36: View onboard the TTS to the northwest of the Terminal building, taken facing southeast

Photograph 37: View of the TTS access point within Satellite 1, taken facing northwest

Photograph 38: View towards Satellite 3, accessed via a 'Z' shaped sky link, taken facing north

3.2.5 Discussion

The Stansted Airport Terminal building was constructed in 1991 and designed by Foster and Partners for the British Airports Authority (BAA). The design of the building takes influence from the High-Tech style of architecture, popular in the later 20th century, representing a later development of Modernist architecture. The Terminal building represents a seminal building of airport architecture, which has influenced the way modern airports have continued to be designed up to present day. In 1990, it was awarded the European Union Prize for Contemporary Architecture/Mies Van der Rohe Award. The rationale for the award recognises Terminal's prime virtues of simplicity, clarity, and openness (Frampton 1990). The current building comprises a rectangular structure, representing a structural grid. It is formed over two main levels: the main concourse and services undercroft. The concourse level is open, spacious and simply designed, while the complex services of the building are neatly concealed with the undercroft. The Terminal was constructed with large structural steel 'trees', which extend to the lower level and feature service pods. The 'trees' support a tall modular roofing formed of lattice steel roof domes with triangular roof lights and daylight protectors. These provide extensive and varied light into the open passenger level. The landside approach comprises a canopy associated with a grand portico-like entrance to the building, exemplifying the understanding of the building as a modern expression of a classical temple to create a sense of arrival. Similarities in architectural language are drawn here with the contemporaneously Foster-designed C'Arre d'Art at Nimes.

The passenger concourse is an open, spacious, and flexible space, with segregated departures and arrivals zones. The original intention was for the departures and arrivals areas to be divided into two parallel strips, with passengers moving in a direct straight line through the building, creating a simple circulation and flow of movement to their destination. This design also intended passengers to see where they are going, over low-height concourse cabins and through the extensive glazed curtain walling. However, such visibility is purported never to have been fully realised, and is not visible today. The building also features a Track Transit System, which transports passengers to and from the Satellites to the northwest of the Terminal building, which form the airport gates.

The building originated as a square structure of 11 bays in length and 11 bays in width, with a single satellite building. Phase 2, granted in 1999, had seen the extension of the building to the southwest and northeast, with the building now 17 bays in length and 11 bays in width. The Terminal building has seen a range of alterations from the original design. The concourse cabins have been heavily reconfigured, changing the flow of the building. This circulation is no longer direct—a shift from the original intention of the designers. However, the departures and arrivals remain segregated, and the passengers predominantly remain within a single level, apart from the mezzanine structures within the departure lounge. Satellites 2 & 3 were added to the site as part of Phase 2 from 1999, with the third satellite featuring a 'Z' shaped sky link walkway. Obscure glazing had also been added to the upper panels of the glazed curtain walling for security purposes, reducing visibility into the building from the exterior sides.

3.3 Assessment of Significance

3.3.1 Archaeological Interest

The Stansted Airport Terminal has a very limited degree of *archaeological interest,* since it dates to 1991. The present building does however help to demonstrate the structural development of aviation buildings in the 20th century, with its design drawing influence from early and simpler airport structures. It has also heavily influenced other contemporary airport buildings, through its formation, materials, and design. In this way, the building has played a key role in physically shaping conventions of modern human travel and transport services. The airport site also has origins as a Second World War RAF airfield. RAF Stansted Mountfitchet opened in 1943, and the site used as a bomber airfield and maintenance depot by the US Air Force's 344 Medium Bombardment Group during the war.

3.3.2 Architectural and Artistic Interest

The Stansted Airport Terminal building has a strong degree of *architectural interest,* representing a key significant and influential building in the typology of airport design. The building was influenced by the High-Tech style of architecture, which sees an important balance between aesthetics and functionality, central to the design of this structure. The rectangular Terminal building has been innovatively designed, comprising two main levels. These form the open, spacious, and flexible passenger concourse level, supported by the undercroft level below, which allows the complex services of the building to be concealed from public visibility. The simplicity and openness of the concourse level makes a strong contribution to its *architectural interest and* represents a key component of High-Tech architecture. This reflects the 'omniplatz' concept as it is an open space that serves multiple functions.

A key principle within the design of the building was its circulation and flow, which intended that the departures and arrivals areas would be divided into two parallel and opposing strips. This aimed to see passengers moving in a straight and direct line towards their destination, for clarity and simplicity. This circulation has been heavily impacted by reconfiguration of the concourse cabins, causing both departures and arrivals to weave through various areas in order to exit the building at either end. The principle of ensuring passengers remain over a single level has been retained, but the simplistic progression for the circulation concept has been compromised. Furthermore, the TTS represents the original intended solution to enable passenger flow and circulation through the airport. However, due to the increased capacity of Stansted Airport, the TTS no longer has this effect. In actuality, the TTS currently interrupts the flow of passengers through the airport, as it forms a pinch point susceptible to queues and disruption.

The structure has been designed with structural steel 'trees', which house service pods associated with the undercroft below. These 'trees' support a tall and modular, lightweight, and 'floating' domed roof—open and airy roofing which provides extensive and varied light into the open passenger level. The building was designed with a structural grid creating a modular building. This design specification has allowed for the expansion of the building, whilst largely maintaining its original architectural ethos of clarity, openness, and flexibility. As an airport building, it has been designed to meet a clear function, with the repeated and effective components allowing for continued adaptation in order to meet future aviation needs. This reveals the tectonic and modernist principles that have guided the design of the building, where function imbues form.

The landside and airside areas of the building are marked by open canopies formed of the structural 'trees' and the modular domed roofing. The canopies are primarily functional: the landside canopy provides an important shelter for the forecourt, and the airside canopy is a cover for the Track Transit System. The landside approach includes the grand portico-like entrance to the building, which exemplifies the understanding of the building as a modern expression of a classical temple to create a sense of arrival. The landside canopy, therefore, represents an iconic view, which unlike the rear, is fully visible, and represents a view for which the Terminal building is known. Similarities in architectural language are drawn here with the contemporaneously designed C'Arre d'Art at Nimes, and can, therefore, be considered as a 'sibling' of the C'Arre d'Art at Nimes, sharing a similar architectural language that reflected the design priorities of Foster in the 1980s/90s.The airside canopy cannot, and has never, been appreciated for the same sense of arrival, as arrival passengers travel through the satellite buildings in the first instance. It is far less visible with interrupted views from associated infrastructure. If the original design of Stansted Airport had not featured the TTS, then it is possible that the rear airside approach to the Terminal building would be enclosed. The concrete TTS structure, track and carriages as independent elements are not of *architectural interest.*

The curtain walling also represents an area of *architectural interest.* This component retains a visual connection with the outside world and is a material choice synonymous with High-Tech architecture. Foster's initial hope was for passengers to see the entire direction of their journey from entrance to an aircraft, as can be seen from the early sketches of the building. However, this intention was never truly realised. The reconfiguration of the concourse cabins and their increase in height has diminished this concept further, with no visibility remaining between the front and rear of the building. However, the tall height of the modular roofing despite the height of the concourse cabins has meant that visibility of the vast roof structure has been maintained, providing a continued sense of the openness, air, and light for visitors, which had been key principle within the design of the building.

3.3.3 Historic Interest

The Stansted Airport Terminal building has a strong degree of *historic interest,* representing a seminal piece of architecture. The design of the building has heavily influenced later buildings of High-Tech architecture, as well as the development of contemporary aviation architecture, including Hong Kong Check Lap Kok International Airport (1997), Madrid Airport Terminal 4 (2006), and Beijing Capital International Airport (2008). The building provided a template for these open and spacious airport Terminal buildings, with its design for a single passenger concourse level and complex services concealed within a lower-level undercroft. This design also introduced important ideas around circulation and flow for airport buildings, harking back to the simplistic early airport buildings of the 20th century. In 1990, the Terminal building was awarded the European Union Prize for Contemporary Architecture, also known as the Mies van der Rohe Award, which is to '*acknowledge and reward quality architectural production in Europe*'. The Stansted Airport Terminal was the second building to win this award, solidifying its status as a landmark building of High-Tech architecture.

The building also has a strong degree of *historic interest* through its association with Norman Foster. Foster represents a celebrated architect and pioneer of contemporary architecture, who was central to the influence and development for buildings of High-Tech architecture. Foster has an extensive body of architectural works from all over the world. This includes other airport buildings, such as Beijing International Airport (2008), but also a range of other building types, such as the Sainsbury Centre for Visual Arts at the University of East Anglia (1978), no. 30 St Mary Axe 'The Gherkin', London (2003), the Millau Viaduct, France (2004), and Wembley Stadium (2007). The Stansted Airport Terminal building also has *associative historic interest* through its connection with the British Airports Authority (BAA) and with Peter Rice of Ove Arup & Partners, engineers to the project.

3.4 Assessment of Importance

In this assessment, *importance* is measured according to hierarchical gradation as follows:

- Highest. An asset important at national to international levels, including scheduled ancient monuments, Grade I and II* Listed Buildings and World Heritage Sites. The *NPPF* advises that substantial harm should be wholly exceptional.

- High. A designated asset important at a regional level and also at a national level, including Grade II Listed Buildings and conservation areas. The NPPF advises that substantial harm should be exceptional.
- Medium. An undesignated asset important at local to regional level, including local (non-statutory) Listed Buildings or those that make a positive contribution to the setting of a Listed Building or to a conservation area. May include less significant parts of Listed Buildings. Buildings and parts of structures in this category should be retained where possible, although there is usually scope for adaptation.
- Low. Structure or feature of very limited heritage or other cultural value and not defined as a heritage asset. May include insignificant interventions to Listed Buildings, and buildings that do not contribute positively to a conservation area. The removal or adaptation of structures in this category is usually acceptable where the work will enhance a related heritage asset.
- Neutral. Without strong positive or negative significance.
- Negative. Structure or feature that harms the value of a heritage asset. Wherever practicable, removal of negative features should be considered, taking account of setting and opportunities for enhancement.

Overall, the Stansted Terminal Building is deemed to possess a *high degree of importance,* using the criteria defined above. The Terminal represents a seminal piece of aviation architecture, designed by Norman Foster, a pioneer of the High-Tech style of architecture. The building has an innovative design, with a single level passenger concourse and complex services concealed below within the undercroft. There is a crucial balance between aesthetics and functionality, as seen with the structural 'trees' and lightweight domed roofing. A number of the early design concepts have been lost, or were never realised, including the direct circulation of the building, and the ability to view your destination from each side of the building with the low concourse cabins and the tall domed roof. However, the core principles of the building's design—its modular nature and the repeatable effective components—have allowed for the flexibility and adaptability of this important building, whilst retaining its crucial philosophy of simplicity and openness.

The significant elements of the Stansted Airport Terminal building are summarised as follows.

- Modular plan formation clearly expressed through the structural system and uniform grid.
- The philosophy of direct circulation for the passenger journey, which has been compromised by reconfiguration. The separation of departures and arrivals has been maintained.
- The simplistic passenger journey over a single level.
- Structural steel 'trees' with service pods, with the complex serviced neatly concealed in the undercroft.
- Visually lightweight 'floating' domed roofing, providing extensive and varied light into the passenger level.
- Single concourse space with tall roofing, creating an open, clear, airy ambience, as well as a flexible space.
- Landside and airside open canopies. The landside canopy comprises a key iconic view for the building.

- Seamless transfer of passengers to the satellite structures, with which the TTS originally provided. The TTS no is no longer a suitable solution to this as it forms a pinch point susceptible to queues and disruption.

4 IMPACT ON SIGNIFICANCE

4.1 Development Proposals

The proposed development seeks to extend the Terminal building to facilitate the increased annual passenger cap of 43mppa. The full design proposals for the site have been included within **Appendix 1**. The proposed development can be summarised as follows, with those that have the potential to impact the significance of the building discussed below. The graduated scale for the degree of potential impacts comprises *positive – negligible – minor – moderate – major impacts.*

- Construction of a 3-bay deep, full width extension of the existing passenger Terminal. The extension will be over three levels (concourse, mezzanine and undercroft) that replicate the existing Terminal's levels. The height of the Terminal extension will be the same height as the existing Terminal.
- Partial demolition of the track of the existing passenger TTS to the rear of the existing passenger Terminal.
- Full demolition of the existing standalone bus-gate building situated to the rear of the existing passenger Terminal.
- Full demolition of two existing passenger 'Skylink' walkways to two existing aircraft satellite piers (SAT2 and SAT3).
- Construction of a new baggage handling building and associated vertical circulation core on the south-western side elevation of the existing passenger Terminal, on an area of existing hardstanding.
- Construction of two replacement passenger 'Sky link' walkways to existing aircraft satellite piers (SAT2 and SAT3) and construction of one new 'Sky link' walkway to an existing aircraft satellite pier (SAT1).
- Construction of a plant enclosure on hardstanding to the north-east of the existing Terminal.
- Re-alignment of 'airside' internal access roads.
- A site for the provision of Biodiversity Net Gain within the airport's boundary.

Construction of 3-bay deep, full width extension of the existing passenger Terminal

The construction of a 3-bay deep, full width extension is to be undertaken on the northwestern airside elevation of the existing Terminal building (**Figures 4-6**). The extension will be over three levels (concourse, mezzanine and undercroft) that replicate the existing Terminal's levels. The height of the Terminal extension will be the same height as the existing Terminal. The design sees the incorporation of the existing airside canopy into the extension. This would see the canopy enclosed and retention of the structural 'trees'. The external material finishes and panel/module sizes for the Terminal extension external envelope are to match and align with the existing building to maintain visual continuity. This comprises transparent glazed panel curtain walling system, a glazed insulated panel curtain walling system, solid metal cladding panel wall system and aluminum aerofoil-shaped roof eaves profile.

Despite the current annual passenger cap being set at 43mppa, the current infrastructure had been originally designed to only support 15mppa and has not been expanded beyond the planning permission granted for Phase 2 of the development in 1999. Air travel has changed since Foster originally designed the building in the 1980s, with the large-scale growth of low-cost air travel. This has brought a different passenger and airline expectation of the Terminal, and the ability to handle more passengers than originally thought in the 1980s. In addition, more stringent security requirements now exist. The extension would allow for physical infrastructure to help accommodate the recently permitted levels of passenger growth. An alternative direct side extension to the northeast or southwest would require major internal reconfiguration. This would need to be conducted whilst the airport remains operational, resulting in an extended construction period and disruption to the passenger experience. An extension to the Terminal building on the northwest elevation is the only viable option to respond to the growth in airport capacity, whilst limiting as far as possible substantial and disruptive internal reconfiguration.

Incorporating the existing airside canopy into the extension would see the 'trees' enclosed and concealed in the new extension. This would result in the loss of a canopy as an external feature. Like the landside canopy, this airside canopy currently primarily provides a functional use by providing a cover for the TTS. As is demonstrated below, this system can no longer support the growing yearly passenger numbers, and any potential improvements have been deemed unfeasible. In decommissioning the TTS, it can be argued that the rear canopy would no longer serve any function. Therefore, the retention of the rear canopy that primarily serves to provide cover for the TTS would not follow the principle of form following function. Other potential new functions had been considered to allow the retention of the canopy, such as providing an exterior space for passengers to the airside. However, this would contravene with the *Aviation Security in Development* (ASIAD), which provides advice on anti-terrorism for airport Terminals, and would add risk of foreign object debris reaching the airfield. With this space no longer functional, and guidance determining that it could not be used as an exterior space, extending the building but enclosing the canopy has been deemed the best use of this space.

The concealment of the canopy could be seen to impact the significance of the building, as there is a balance within its current appearance, through the mirroring of the landside and airside canopies. This would be most evident from within the southwestern and northeastern sides of the building, although there is considerably limited public visibility of the opposing canopies together. Whilst the concealment of the airside canopy would result in a change in balance, it is unlikely that this could be appreciated due to limited access to areas where both canopies would be visible. Furthermore, the symmetry afforded by the design does not reflect modernist principles (this is a design feature more associated with classicism) and is instead more likely a by-product of the function that guided the design, rather than an overarching core principle. Importantly, the landside canopy will be retained, preserving the key iconic view of Stansted Airport and its sense of arrival.

The structural 'trees' will remain extant and visible, and can be read as the former limits of the Terminal building. The expansion will allow for the internal celebration of the structure in one of the only locations (the departures lounge) where passengers are able to experience the design in a non-process area of the airport. Furthermore, extending the Terminal building can be seen to follow the original philosophy of the Terminal building as modular, and designed to be extended. Whilst the original phased plan of the building represented extensions to its sides, the modular design of the building and the use of effective and repeatable building components means that the building could in principle be extended in any direction. Furthermore, enclosing the canopy would provide a greater sense of openness in the departure lounge than at present, by opening up further space to facilitate the increased permitted passenger numbers in the coming years. This should be deemed to represent the original philosophy of the Terminal building, where function guides form. This would help to mitigate against the concealment of the canopy by enhancing the internal spaces, while following the principles of the original design. Therefore, the enclosure of the canopy to facilitate the Terminal extension should be deemed to have a *minor harm upon the significance* of the Terminal building.

The extension will be over three levels, extending the concourse, mezzanine and undercroft that replicate the existing Terminal's buildings. The height will be the same as the existing Terminal building. The massing and proportions of the extension are in keeping and aligned with the original design, exemplifying the modular nature of the building. Furthermore, materials will match and align with the existing building to maintain visual continuity, resulting in an extension that fully demonstrates the modular nature of the original design and aligns with the philosophies behind its original construction. This would allow for the continued understanding and appreciation of the building as modular in form and built to extend from its core. Therefore, the form and materials used in the construction of the extension should be deemed to have a *negligible impact to significance.*

The construction of the extension would see the overall improvement of the passenger experience by opening up the departures lounge, providing a more accessible environment and accommodating space for modern aviation technologies, better reflecting the original intentions of the architect, and complying with the 10-point plan of *Flightpath to the Future* (DfT 2022, 11), and paragraphs 10 & 26 of the APF. The public benefit will thus considerably outweigh any harm caused by concealing the canopy. The proposed changes would not impact the current circulation and flow of the building. The original straight and direct flow intended by Foster has already been heavily impacted from interior reconfigurations to the concourse cabins. This original flow would have contributed to the significance of the building, but this has never been fully realised and subsequently heavily altered, with the proposals deemed to have a *negligible impact to this significance.*

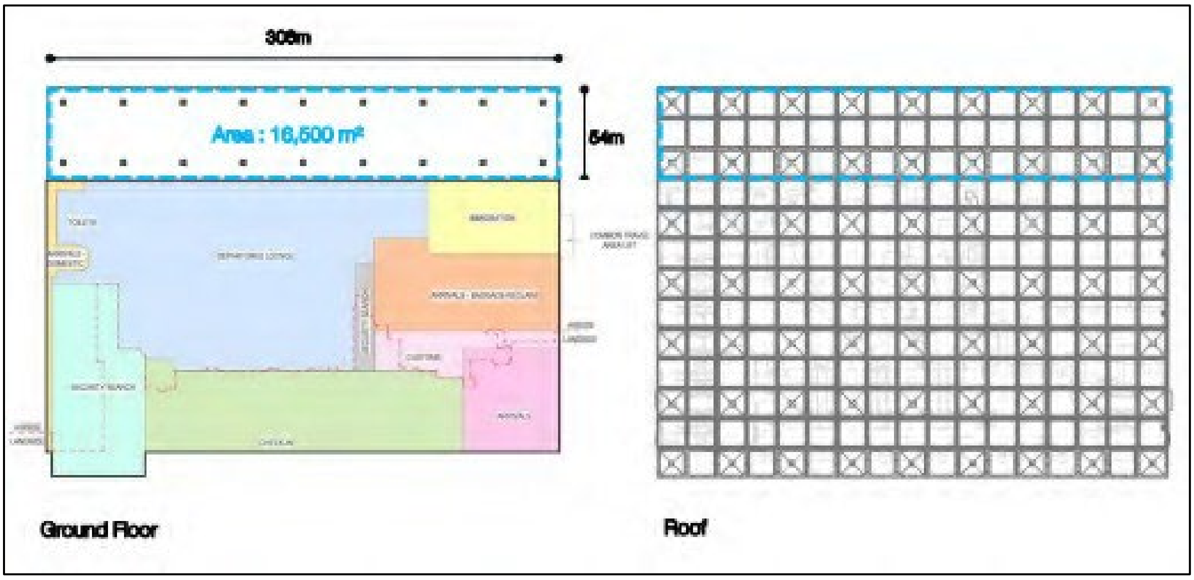


Figure 4: Proposed three-bay extension of the Terminal building (MAG 2023)

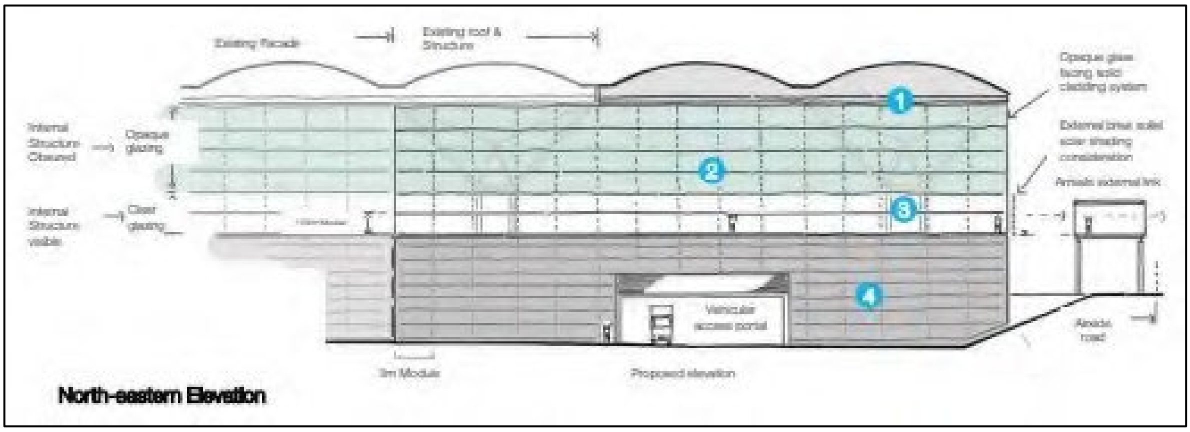


Figure 5: Proposed north-eastern elevation showing three-bay extension (MAG 2023)

Figure 6: Visual design concept of the Terminal building’s proposed three-bay extension (MAG 2023)

Partial demolition of existing passenger TTS

The extension of the Terminal building would require the partial demolition of the existing passenger TTS (**Figure 7**). The proposals would see the removal of the track currently running parallel along the north-western elevation, covered over by the rear airfield canopy. The track projecting from the south-western and north-eastern sides of the building would be retained, as would the barrel-vaulted TTS maintenance building, which is situated to the north-east of the Terminal. The TTS had been constructed to facilitate access to four satellite buildings. However, only three were ever constructed, with Satellite 3 accessed via a ‘Z’ shaped sky link structure, rather than being served by the TTS. The TTS therefore only serves Satellites 1 and 2. With these four proposed satellites, the airport Terminal was designed to be able to accommodate a total of 15mppa. The current passenger total is at 27mppa, with the projected total expected to be 43mppa. With these numbers, during peak hours for the airport the TTS deposits arriving passengers to the Terminal in large numbers (i.e., a train full of passengers), which creates extensive immigration queues and impacts the flow of the airport. In contrast, sky link walkways from aircraft stands to immigration have the effect of elongating passenger movements across a wider distance, resulting in a more gradual flow of passengers into immigration that can be managed more easily. This improvement in flow and circulation could be seen to align with Foster's original design philosophy with a simplistic and gradual flow for the building.

The ability to retain the current TTS had been considered. However, a range of issues have been identified which have made the long-term use of this system unfeasible. The modern environment for Stansted Airport is far different to the era in which Foster had been designing, which centered upon the luxury of air travel, with few security restrictions. However, the current infrastructure needs to facilitate the more recent low-cost air travel market, where customers value reliable and efficient infrastructure, supporting high frequency aircraft operations. This is coupled with the modern need for greater security requirements from terrorist incidents and threats, which make the role of the airport a very different environment to be designed from Foster's designs in the 1980s.

It should also be noted that the replacement of the TTS with new sky link structures would improve the accessibility for the airport. The airport has a good Special Assistant Facilities Service, which operates independently of the current TTS, and there has been no reduction in service or experience. The removal of the TTS would be seen to improve the services for people with special assistance needs, as this would significantly reduce the need for vertical circulation in the satellites.

The TTS is now 32 years old, with its design and technology dating from the 1980s. It had been designed to have a 20-25 year lifespan and has done well to remain operational to the present day. The majority of the component parts for the TTS require renewal or replacement, including the carriages, track, power systems, software, communication systems, fire system, door sets within the stations, extract fans and CCTV. The rolling stock/carriages will require a full renewal in the near future, at a cost of tens of millions of pounds. Hardware and software for the extant structure are no longer supported by the manufacturer, Bombardier, meaning no replacement parts are available 'off the shelf'. It has been deemed that the wholesale design, manufacture and operation of a replacement TTS system is not economic when compared to the alternative cost of building, operating and maintaining walkways in their place.

Furthermore, it is the seamless transfer of passengers to the satellite structures that has been identified as making a contribution to the significance of the building, with which the TTS originally provided. However, the effective use of this system has been compromised by its age and physical deterioration, and the need to accommodate the rising passenger numbers resulting in a pinch point susceptible to queues, with potential improvements to the system not deemed to be feasible. The TTS no longer provides a seamless and effective mode of transferring passengers to satellite structures. The demolition of this structure would only be partial, and enough would be retained to elicit an understanding of its historical usage as part of the original design. There is the potential for the current TTS maintenance building to the northeast of the Terminal to be retained and re-purposed for alternative uses. Overall, the decommissioning and partial demolition of the existing passenger TTS would be deemed to have a *minor harm to significance,* but this represents a proposed change that should be deemed wholly justifiable.

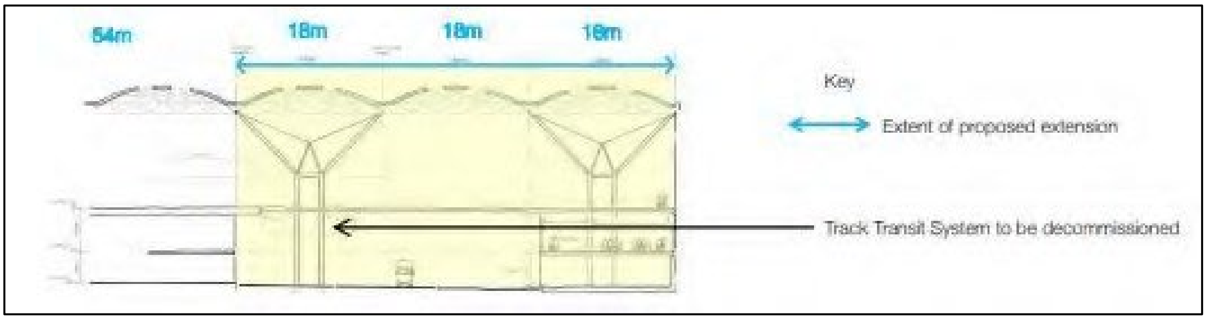


Figure 7: Proposed cross section of the eastern elevation, showing the decommissioned TTS and new three-bay extension (MAG 2023)

Construction of three 'Sky link' walkways

To connect the Terminal extension to the existing satellites, three new 'Sky link' walkways are proposed (**Figure 8**). The external envelope panel/module sizes for the sky links have been designed to work harmoniously with the main Terminal, following the same module widths. Two of the proposed sky links would replace the existing walkways to Satellites 2 & 3. The materials used in the construction of the sky link walkways comprise insulated metal panel envelope system and transparent glazed panel curtain walling system. The massing and proportions of the sky link walkways are in keeping with the original design, and exemplify the modular nature of the building. Furthermore, the materials will match and align with the existing building to maintain visual continuity. This would result in an extension that fully demonstrates the modular nature of the original design and aligns with the philosophies behind its original construction, allowing for the continued understanding and appreciation of the building as modular in form, built to extend from its core.

The construction of the new sky links can be seen to improve the current circulation and flow of the building by replacing the current Track Transit System. As stated above, the TTS can no longer be seen as feasible for access in the long term. This system currently sees large numbers of passengers deposited in arrivals during peak hours, which has a *negative impact to significance*, affecting the simple intended flow in Foster's original design. Whilst sky links had only been used for domestic arrivals originally to Satellite 2, Satellite 3 has operated with a 'Z' shaped sky link since the pier's construction, with the use of this satellite fully utilised. Therefore, the use of sky links is already an integral part of the Terminal's circulation. Replacing the current TTS with new sky links will allow movement to and from the building to be staggered, resulting in less waiting time for passengers at immigration. This would improve the passenger experience.

The construction of the three new sky links could be seen to have a visual impact upon the building. These would block some of the visibility towards the rear of the building from the airfield. However, this view is already heavily interrupted by various structures at present.

Overall, the construction of the three new sky links should be deemed to have a *minor harm to significance.* However, elements of the sky links would have a *positive impact to significance* through the modular design and by improving the current flow of the building and the experience of the passengers. This had been a core philosophy within the building's design, and should therefore balance against the *minor harm.*

Figure 8: Plans showing the position of the proposed new three sky links to the Stansted Airport Terminal (MAG 2023)

Full demolition of existing standalone bus-gate building and two existing passenger 'Sky link' walkways

To facilitate the extension of the Terminal building, full demolition of the existing passenger standalone bus-gate building would be required, as well as the full demolition of the two existing sky link walkways. These have not been identified as contributing to the significance of the building, with the proposed changes deemed to have a *negligible impact to significance.*

Other elements of the scheme

The proposal seeks the construction of a new baggage handling building and a new plant enclosure. The scheme also seeks to re-align the 'airside' internal access roads, and provide a site for Biodiversity Net Gain within the Stansted Airport boundary. These proposals are deemed to have a *negligible impact to significance,* as they would cause no change to the existing Terminal building.

4.2 Summary of Impacts

A summary of the significant aspects of the Stansted Airport Terminal are summarised below, with the degree of impact and potential harm or loss from the development proposals measured against each aspect.

- Modular plan formation clearly expressed through the structural system and uniform grid. – *negligible impact*
- Structural steel 'trees' with service pods, with the complex serviced neatly concealed in the undercroft – *negligible impact*
- Visually lightweight 'floating' domed roofing, providing extensive and varied light into the passenger level – *negligible impact*

- Single concourse space with tall roofing, creating an open, clear, airy ambience, as well as a flexible space – *negligible impact*
- Landside and airside open canopies. The landside canopy comprises the key iconic view for the building, and is being retained – *minor harm*
- Track Transit System allowing transfer of passengers between Terminal and two out of three satellites – *minor harm*
- The simplistic passenger journey over a single level – *negligible impact*
- The philosophy of direct circulation for the passenger journey, which has been compromised by reconfiguration. The separation of departures and arrivals has been maintained – *negligible impact*

Of the eight aspects of significance that have been identified for the Stansted Airport Terminal building, six have been deemed to have a *negligible impact,* with two deemed to have *minor harm.* Overall, the proposals should be deemed to have a *minor harm to significance* for the Stansted Airport Terminal building.

5 CONCLUSIONS

The Stansted Airport Terminal building was constructed in 1991 and designed by Foster and Partners for the British Airports Authority (BAA). The design of the building takes its influence from the High-Tech style of architecture, and comprises a rectangular structure, representing a structural grid. It is formed over two main levels: the main concourse and services' undercroft. The concourse level is open, spacious and simply designed, with the complex services of the building neatly concealed with the undercroft. The Terminal was constructed with large structural steel 'trees', which extend to the lower level and feature service pods. The 'trees' support a tall, lightweight, modular roofing formed of lattice steel roof domes with triangular roof lights and daylight protectors. The passenger concourse is an open, spacious, and flexible space, with segregated departures and arrivals zones. The original intention was for departures and arrivals passengers to move in a direct straight line through the building, creating a simple circulation and flow to their destination. Phase 2 in 1998 had seen the extension of the building to the southwest and northeast. The Terminal building has seen a range of alterations from the original design. The concourse cabins have been heavily altered, changing the flow of the building. This circulation is no longer direct—a shift from the original intention of the designers. However, the departures and arrivals remain segregated, and the single level for the passenger concourse has been retained.

The Terminal is not a statutorily listed building. In planning policy terms, therefore, it should be treated as a non-designated heritage asset. The NPPF states that for such assets, '*The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset*' (MHCLG 2021, 57 & 58).

Overall, the Stansted Terminal Building is deemed to possess a *high degree of importance*. The Terminal represents a seminal piece of aviation architecture, designed by Norman Foster, a pioneer of the High-Tech style of architecture. The building has an innovative design, with a single level passenger concourse and complex services concealed below in the undercroft. There is a crucial balance between aesthetics and functionality, as seen with the structural 'trees' and lightweight domed roofing. Although a number of the early design concepts have been lost or had never been realised, the core principle of the building's design—its modular nature and the repeatable effective components—have allowed for the flexibility and adaptability of this important building, whilst retaining its crucial philosophy of simplicity and openness.

The proposed changes would see the construction of a new thee-bay full-width extension to the north-western airside of the building, as well as the decommissioning and partial demolition of the existing Track Transit System, construction of three new sky link walkways, and other associated changes to the building. These would directly impact the rear overhanging canopy and the existing Track Transit System. The changes would not impact the original design approach for the building, with the retention of its modular formation with domed roofing and structural steel 'trees'. The proposed changes would retain the clear expression of the structural system and its uniform grid, with its modular design allowing for expansion as needed to suit future requirements. The lightweight domed roofing provides an opportunity for flexible internal extension, with the complex services hidden neatly in the undercroft. The changes would also see an unobstructed visual connection between the inside and outside.

The proposed development works would result in a range of benefits, that should be taken into account when balancing the scale of any harm or loss and the significance of the heritage asset. The proposed changes would significantly improve the passenger experience for the Terminal, which would deliver expanded facilities to provide the best possible customer experience and customer service standards for both passengers and airlines. The designs have centred upon providing efficient operations and processing, improved service, and greater space, ensuring the development provides additional capability to accommodate the existing and future permitted passenger numbers at peak times, and provide an improved passenger experience. These changes will maximise the best use of the existing airport capacity, and would see more spacious check-in facilities, additional security lanes equipped with the latest technology, and enlarged immigration and baggage halls for inbound passengers. Most urgently, it would provide an extended departure lounge for outbound customers, which has been identified as a key area currently under strain. The works would address the strain to the passenger journey caused by the current level of passenger numbers coupled with the inability of the TTS to meet these issues. The addition of the sky links would provide an increased reliability and flexibility to all passengers, as well as allow the flow of both inbound and outbound passengers to be regulated much better.

The proposals would help to provide a wider range of services and facilities, more able to meet the needs of a broader range of airlines from long haul to full service, as well as low-cost carriers. This would enable more sustainable patterns of travel for local people, preventing the need to travel to an airport further away. Stansted Airport represents a key catalyst for economic growth and productivity in the East of England. The increase in network air services from the development would enable the airport to strengthen its role as a key part of the infrastructure promoting growth in the East of England. The Terminal extension will result in direct employment relating to the construction of the building, with the airport's growth to 43mppa, estimated to provide 16,300 direct total jobs across all sectors.

Overall, while the proposals should be deemed to have a *minor harm to significance,* the changes, which have balanced the significance of the building with the importance of meeting the airport's current and future needs, should be seen as acceptable.

6 Statements and Acknowledgements

6.1 Publicity, Confidentiality and Copyright

Any publicity will be handled by the client. Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

6.2 Statement of Indemnity

All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

6.3 Acknowledgements

Archaeological Research Services Ltd would like to thank Stansted Airport Limited commissioning the report and for providing access to the site.

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APPENDIX I DESIGN & ACCESS STATEMENT

LONDON STANSTED AIRPORT

Stansted Transformation Programme (STN-TP)

Terminal Extension

Design and Access Statement (July 2023)

MAG London Stansted Airport

BUILDING FOR THE FUTURE

PASCALL +WATSON

MOTT MACDONALD

Issue and Revision Record

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Document Reference:

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STN.TL.XX.XX-PAW-A-EL-BLDSTR-2502
STN.TL.XX.XX-PAW-A-EL-BLDSTR-2511
STN.TL.XX.XX-PAW-A-EL-BLDSTR-2512
STN.TL.XX.XX-PAW-A-GA-BLDSTR-2004
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STN.TL.XX.XX-PAW-A-GA-BLDSTR-2010
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STN.TL.XX.XX-PAW-A-SE-BLDSTR-2513
STN.TL.XX.XX-PAW-A-XX-BLDSTR-2514
STN.TL.XX.XX-PAW-A-SK-BLDSTR-2002
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STN.TL.XX.XX-PAW-A-EL-BLDSTR-2514
STN.TL.XX.XX-PAW-A-XX-BLDSTR-2014

Information Class: Standard

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Contents

A. Design Statement

1. Introduction

1.1 Purpose of the Report

Overview

This design and access statement is submitted in support of an application for planning permission on behalf of Stansted Airport Limited (STAL) for the development of a north-western extension to the main terminal building at Stansted Airport. The planning application is part of the wider Stansted Transformation Programme (STN-TP).

The development consist of the following:
- Partial demolition of the existing Track Transit System
- Full demolition of 2 no. Skylink walkways and the bus-gate building
- Construction of a 3-bay extension to the existing passenger terminal, baggage handling building, plant enclosure and 3 no. Skylink walkways and associated hardstanding

The Town and Country Planning (Development Management Procedure) (England) Order 2015 defines the requirements of a Design and Access Statement and states that it must:

(a) explain the design principles and concepts that have been applied to the development;

(b) demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;

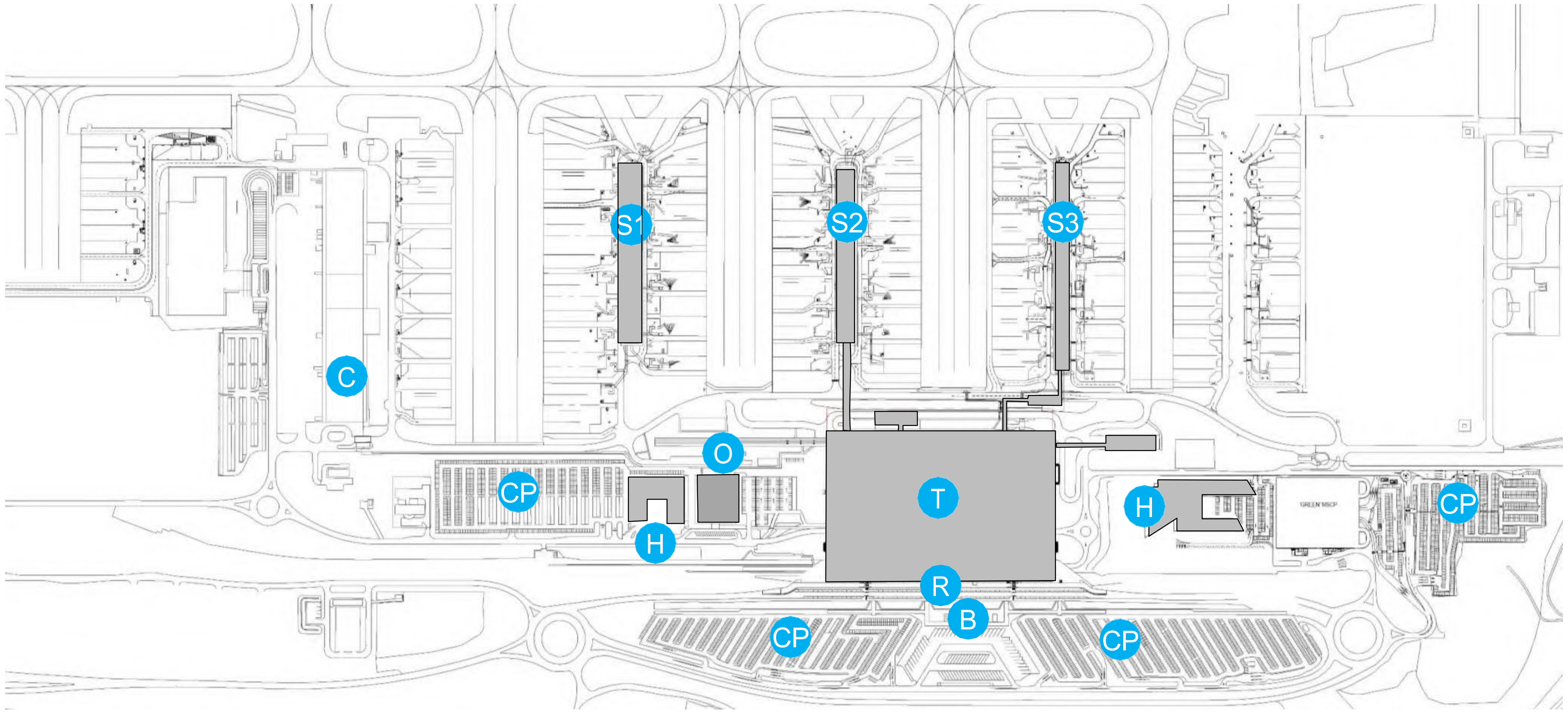
(c) explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;

(d) state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation;

(e) explain how any specific issues which might affect access to the development have been addressed.

This Design and Access Statement should be read and considered in conjunction with the full set of plans, drawings and reports submitted as part of the application.

1.2 Introduction to Stansted Airport



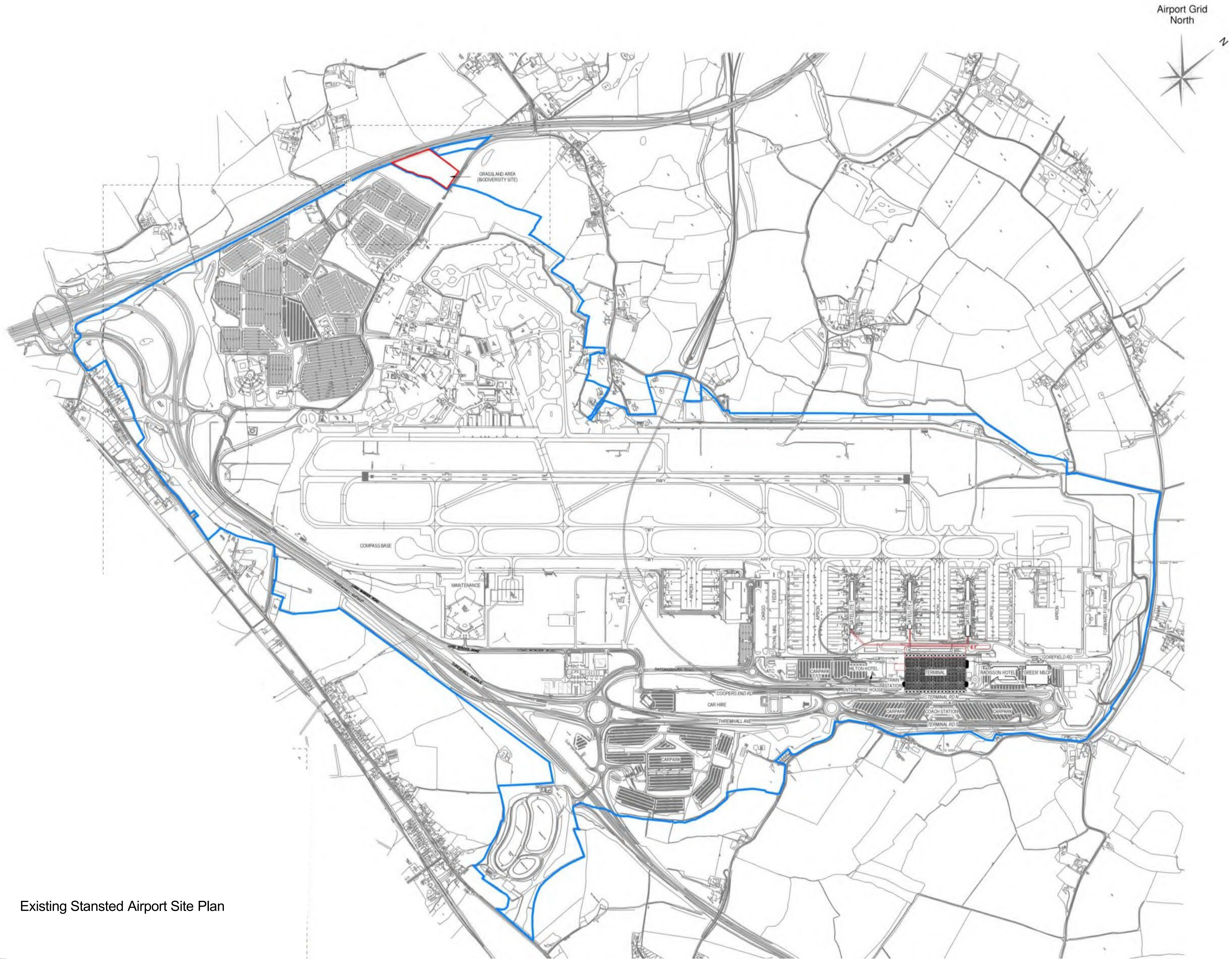
Introduction

Located in the county of Essex, 48km north-east of central London, Stansted is a major international airport providing a global gateway for London and the east of England.

The airport has one main passenger terminal with three satellite piers providing access and egress from aircraft. The airport also consists of a railway station, bus facilities, cargo facilities, short and long term surface car parking and support buildings such as offices and hotels.

- T Existing Terminal Building
- S1 Satellite 1
- S2 Satellite 2
- S3 Satellite 3
- R Railway Station
- B Bus and Coach Station
- C Cargo Facilities
- CP Short/Long stay car park
- H Hotels
- O Offices

1.3 Existing Site Plan



Existing Stansted Airport Site Plan

1.3 Existing Aerial Site Photo

Existing Stansted Airport Aerial photo

1.5 Existing Site Photos

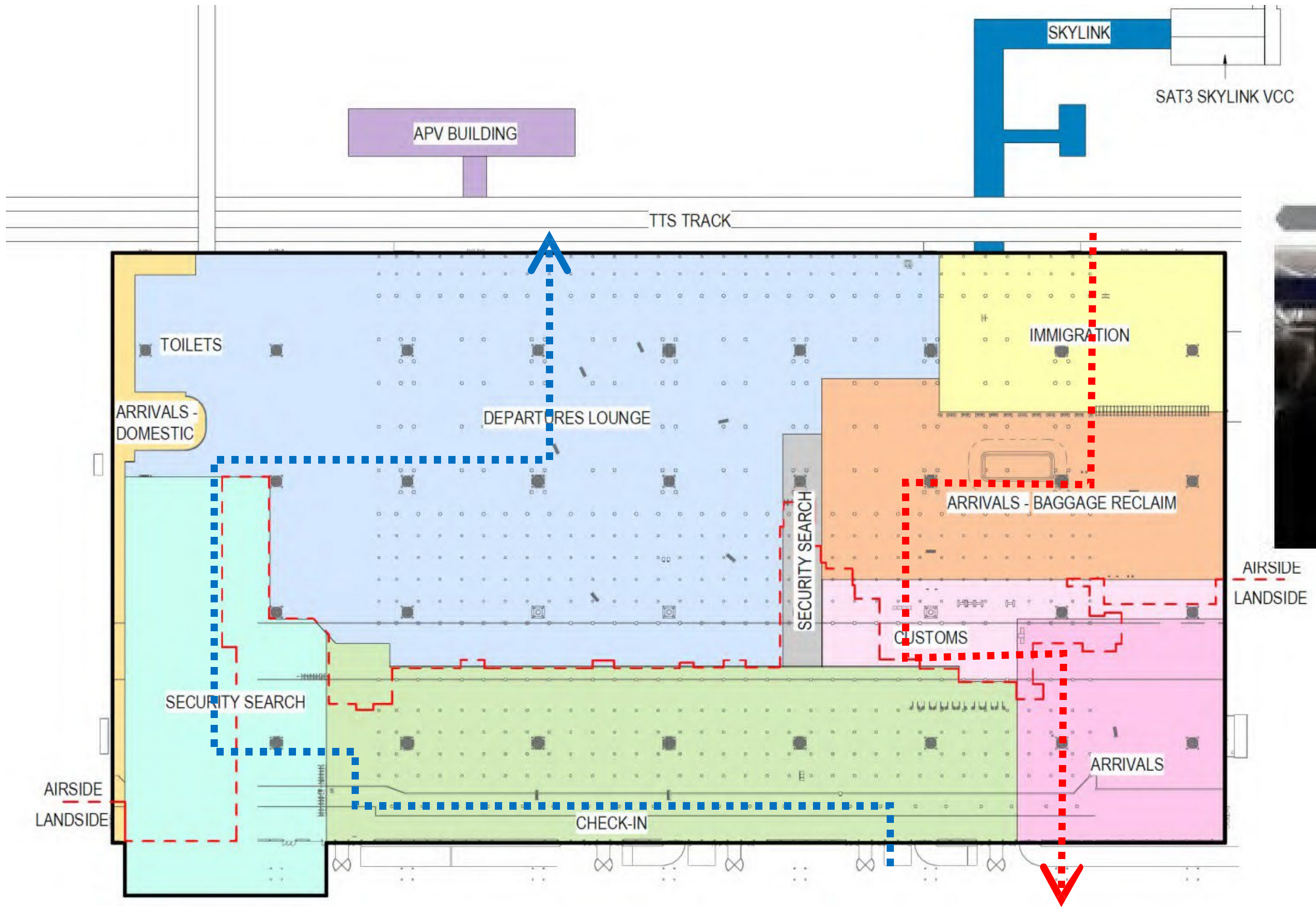
Existing Terminal and SAT 3 Connection

Existing Terminal and Bus-gate Building

Existing south-western Elevation

Existing Track Transit System Maintenance Building

1.6 Need for Terminal Expansion




Immigration


Security


Check - In

Existing Terminal Space Layout

Existing Condition

A strategic review of the existing terminal infrastructure has confirmed that the current facilities cannot support growing passenger demand.

The existing terminal was completed in 1991 and subsequently expanded in 2000. Although it has been periodically remodelled internally its external appearance has remained substantially unchanged. Now approaching 30 years of age it is not suited to modern aviation and security requirements nor passenger expectations.

An expansion and development of current terminal facilities is required to meet modern operational requirements, accommodate existing and a forecast increase in passenger numbers and improve service standards to airlines and passengers.

In 2021 planning permission was granted to raise the cap on passenger numbers to 43 mppa.

2.1 Aims & Objectives

2.2 Transform Passenger Experience

Key Design Strategies

High quality passenger experience

Inclusive and accessible environment for all

High level of safety and security

2.3 Improve Terminal Processing Capability

Key Design Strategies

Efficient processing and operation

Accommodation of modern aviation requirements including security

Improved customer experience

Delivery of a range of service standards

Minimal disruption to terminal operations during construction

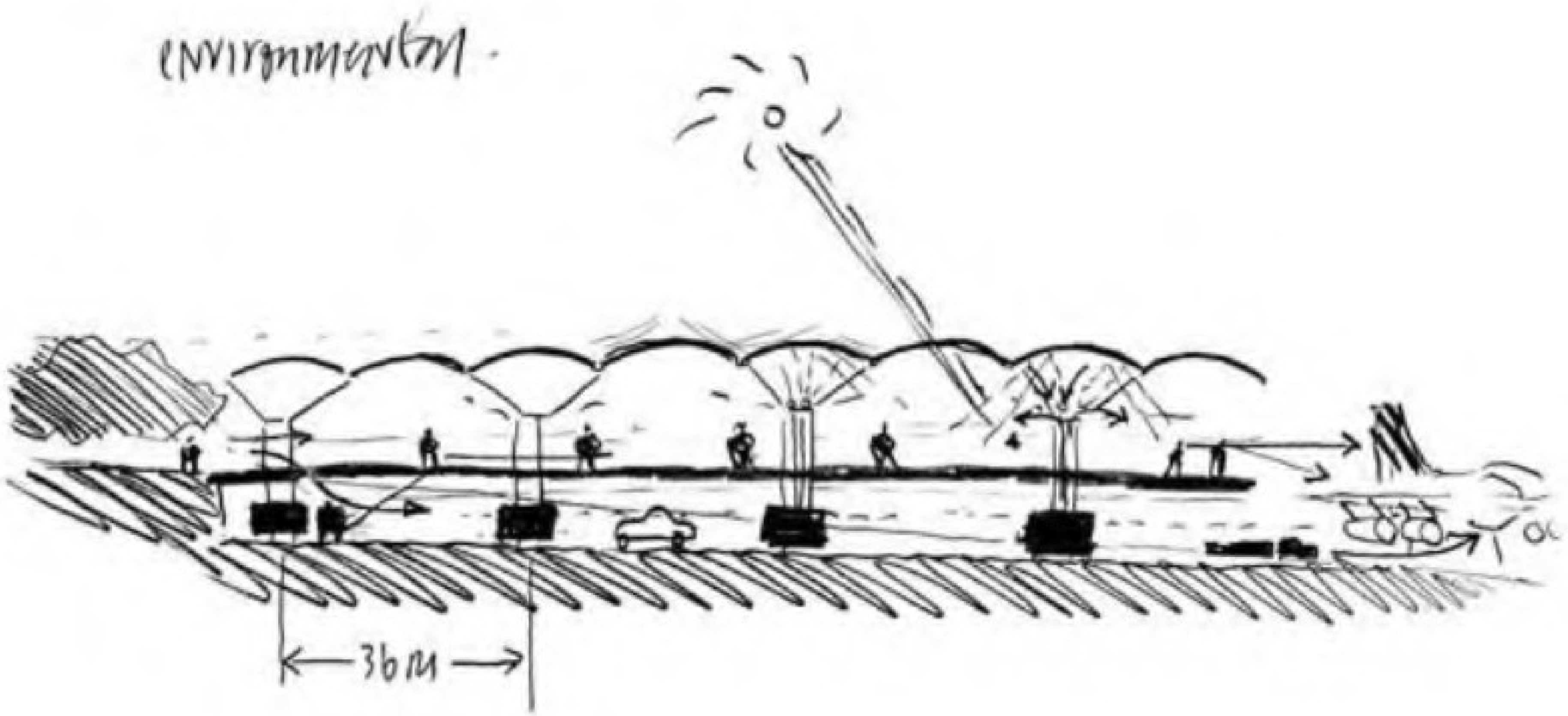
2.4 Deliver a Sustainable Design Solution

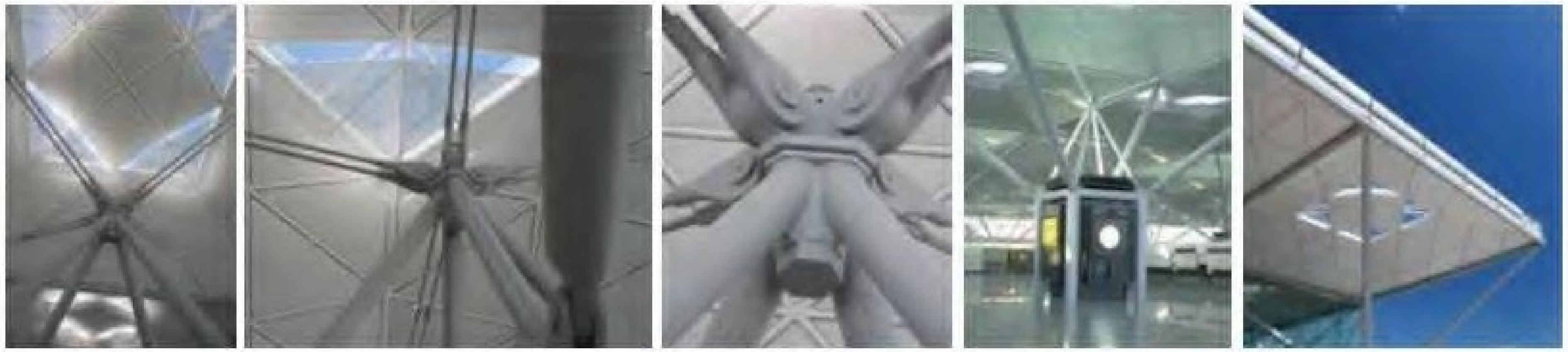
Key Design Strategies

Significant improvement in environmental performance

Maximised use of natural daylight

2.5 Complement & Enhance the Existing Terminal Building





Key Design Strategies

Hierarchy of massing and scale

Relationship of architectural expression and language

Enhancing existing architectural and functional concepts

3.1 Planning Considerations

National Aviation Policy

The Government's Aviation Policy Framework ("APF") was published in March 2013 and sets out the Government's strategic objectives for aviation. Paragraph 1.14 of the APF is particularly relevant to the Terminal extension building proposals and states as follows:
"Some of the main benefits to consumers and businesses from greater investment and effective use of airport infrastructure include:
1. Reductions in delays and disruption as a result of airport congestion, which affect airlines, passengers and the wider community;
2. Increased frequency and range of flights to faster-growing communities."

National Planning Policy

The National Planning Policy first published in 2012 and last updated in 2021, sets out the Government's planning policy. The NPPF states that "the purpose of the planning system is to contribute to the achievement of sustainable development".

Chapter 7 states that planning decisions should help create the conditions which businesses can invest, expand and adapt and that significant weight should be placed on the need to support economic growth and productivity.

The NPPF states that good design is a key aspect of sustainable development (chapter 7) and highlights that planning policies and decisions should:

- avoid unnecessary prescription or detail and should concentrate on guiding the overall scale, density, massing, height, landscape, layout, materials and access of new development in relation to neighbouring buildings and the local area more generally; and
- not attempt to impose architectural styles or particular tastes and they should not stifle innovation, originality or initiative through unsubstantiated requirements to conform to certain development forms or styles. It is, however, proper to seek to promote or reinforce local distinctiveness.

The NPPF goes on to state "to achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system" (chapter 8) and highlights that "pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life" (chapter 9). Examples of such changes listed in the NPPF include the following:

- Making it easier for jobs to be created in cities, towns and villages;
- Replacing poor design with better design;
  - Improving the conditions in which people live, work, travel and take leisure.

At the heart of the NPPF is "a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking" (chapter 14).

Social Context

The main social driver for the development is to improve passenger and staff experiences both in the short and long term by improving the terminal infrastructure, meeting security and operational requirements. A key social driver is to improve and encourage access to public transport facilities through improved connections and wayfinding.

Economic Context

Stansted Airport is a key catalyst for economic growth and productivity in the east of England and is the biggest single site employer in the region with some 12,900 employees across 180 on-airport companies in 2019. An increase in the network of air services serving the airport, as would be enabled by the development, will enable the airport to strengthen its role as key part of the infrastructure promoting growth in the East of England.

Uttlesford Local Plan

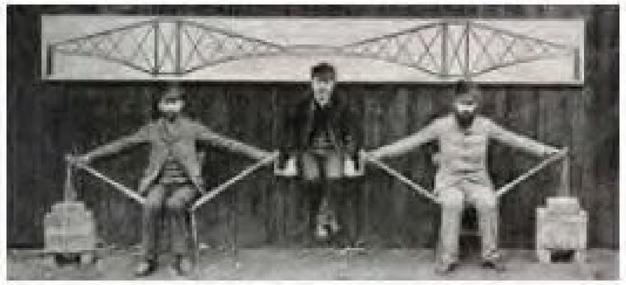
The Uttlesford Local Plan was adopted in 2005. It sets out a boundary for the airport within which development directly related to or associated with the aiport should be located. It also identifies a Terminal Support Area and states that any development in this area must respect the integrity of the design of the terminal building. Policy GEN2 sets out a number of criteria on design which include providing an environment which meets the reasonable needs of all potential users, as well as being compatible with the scale, form, layout, appearance and materials of surrounding buildings.

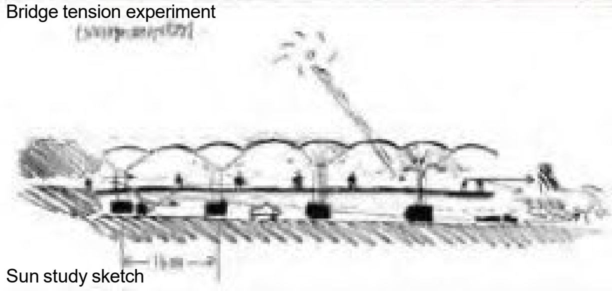
3.2 Historical Terminal Design Context

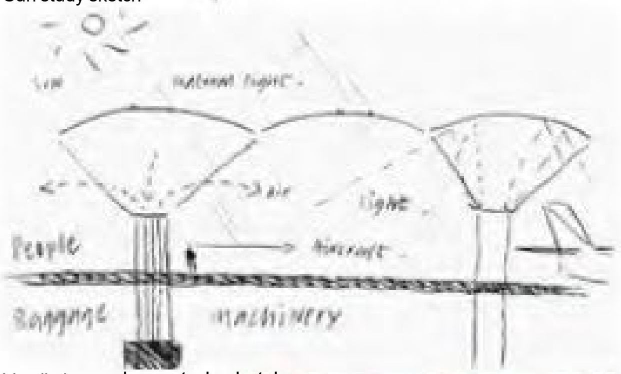

Neue Nationalgalerie / Berlin


Dulles International Airport / Washington


Illinois Institute of Technology / Illinois


Bridge tension experiment


Sun study sketch



Ventilation and sun study sketch



Exploded axo of structural supports


Chek Lap Kok Airport / Hong Kong


Dublin Airport / Dublin


Oslo Airport

CLASSICAL / MODERN 1950-60
Expression of building structure
Functional open planning

HIGH TECH 1990
Refinement of structural aesthetic
Innovative systems and materials

CONTEMPORARY 2000+
Simplification of structure
Sustainable materials palette

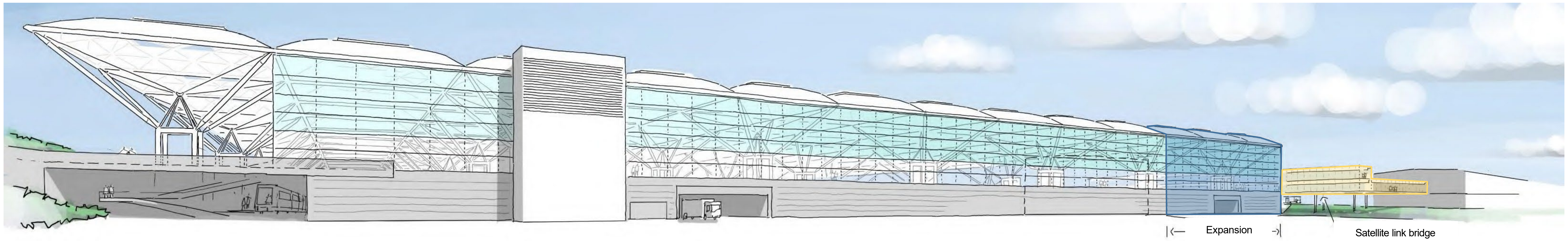
4.2 Key Design Concept Visual

Three Bay Extension

Existing Terminal Relationship

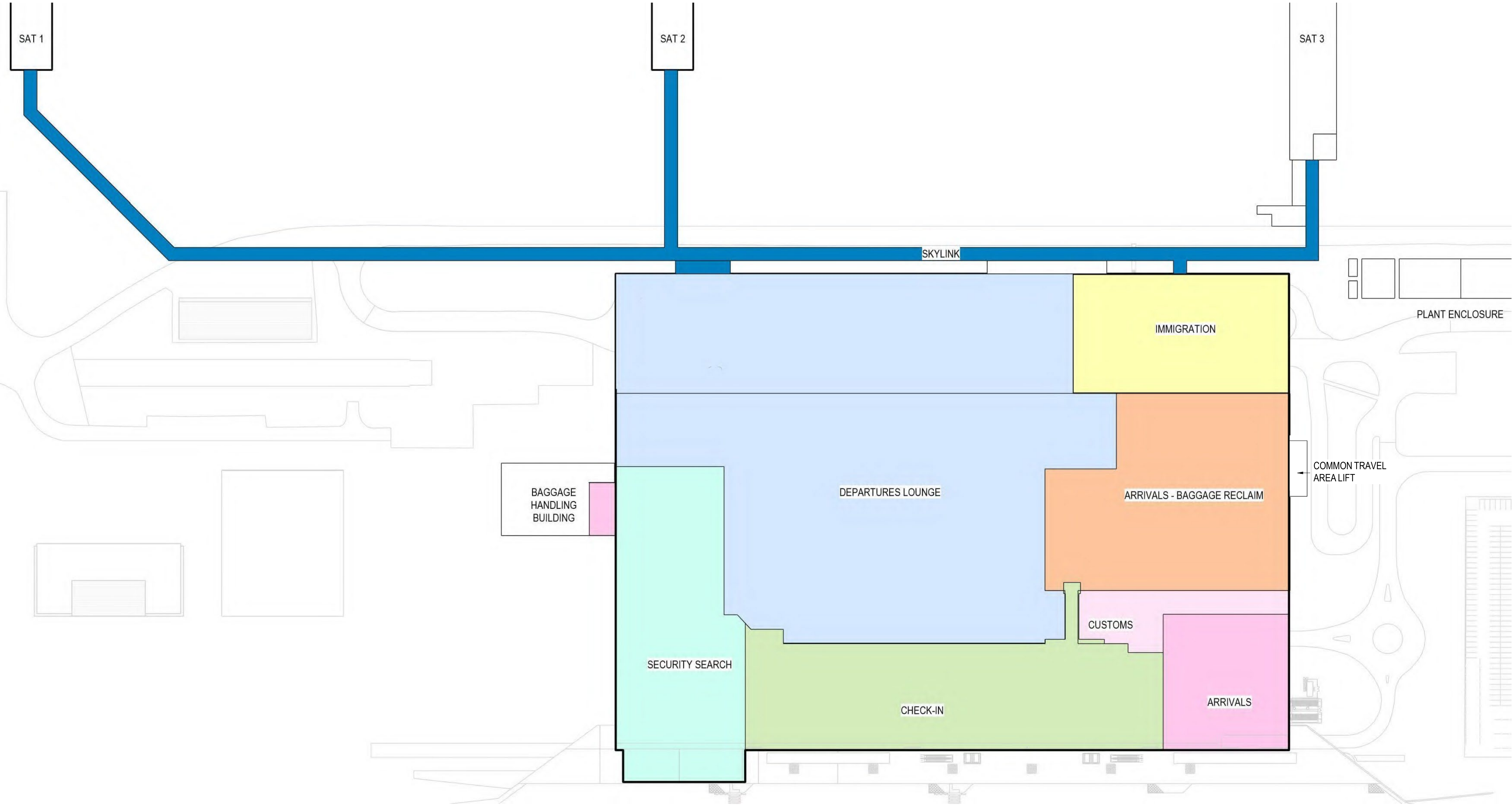
The north-western terminal extension design follows the language of the iconic twentieth century terminal whilst delivering twenty-first century performance

- Terminal extension
- New sky links provide passenger walking routes to satellites 1-3

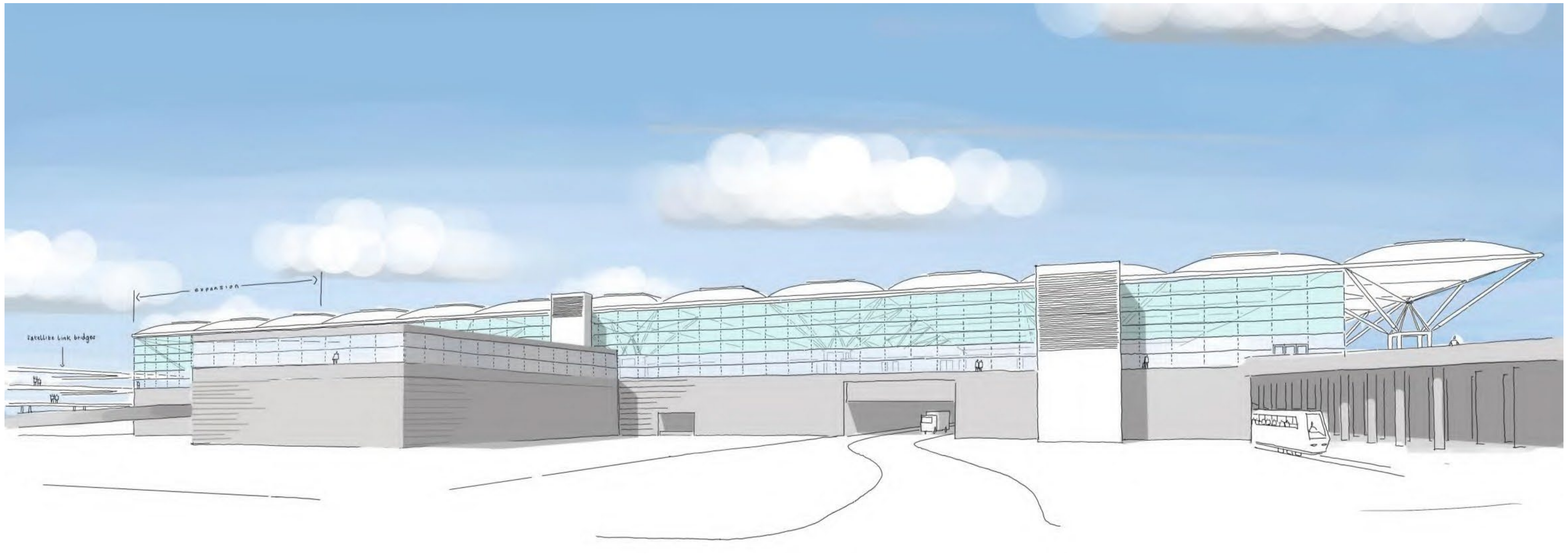


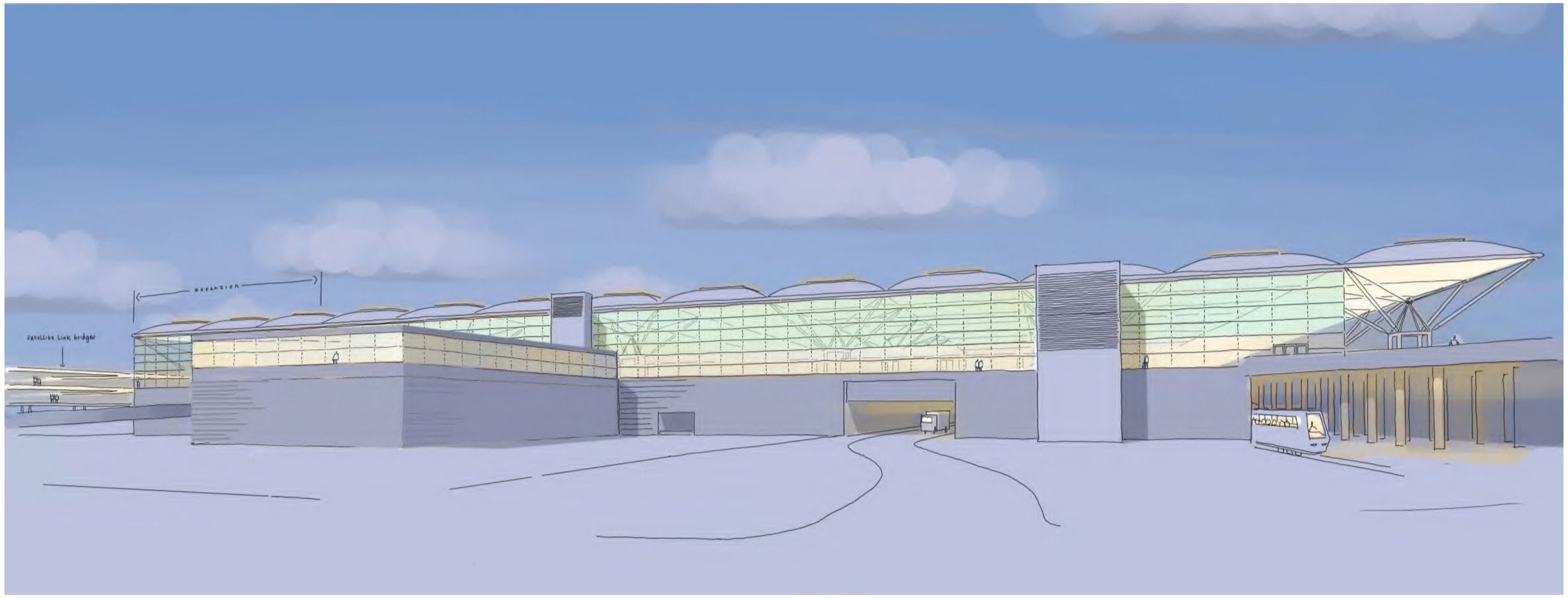
Extension North-east Elevation

5.4 L10 Proposed Layout



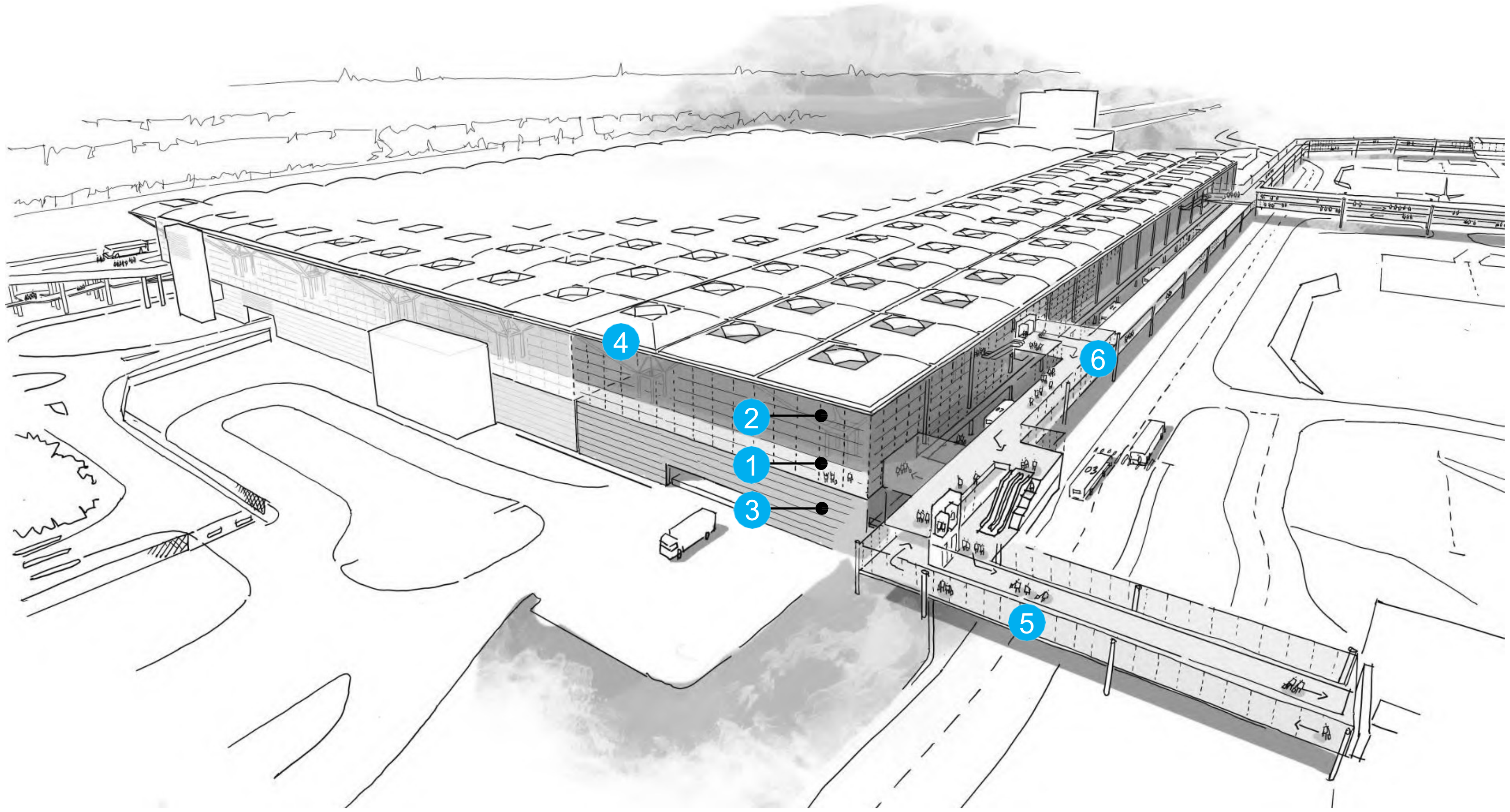
5.11 Elevation Views Day & Night – South-West Elevation





South-West Elevation Day & Night Extension

5.12 Envelope External Materials



Material Palette

Terminal Extension

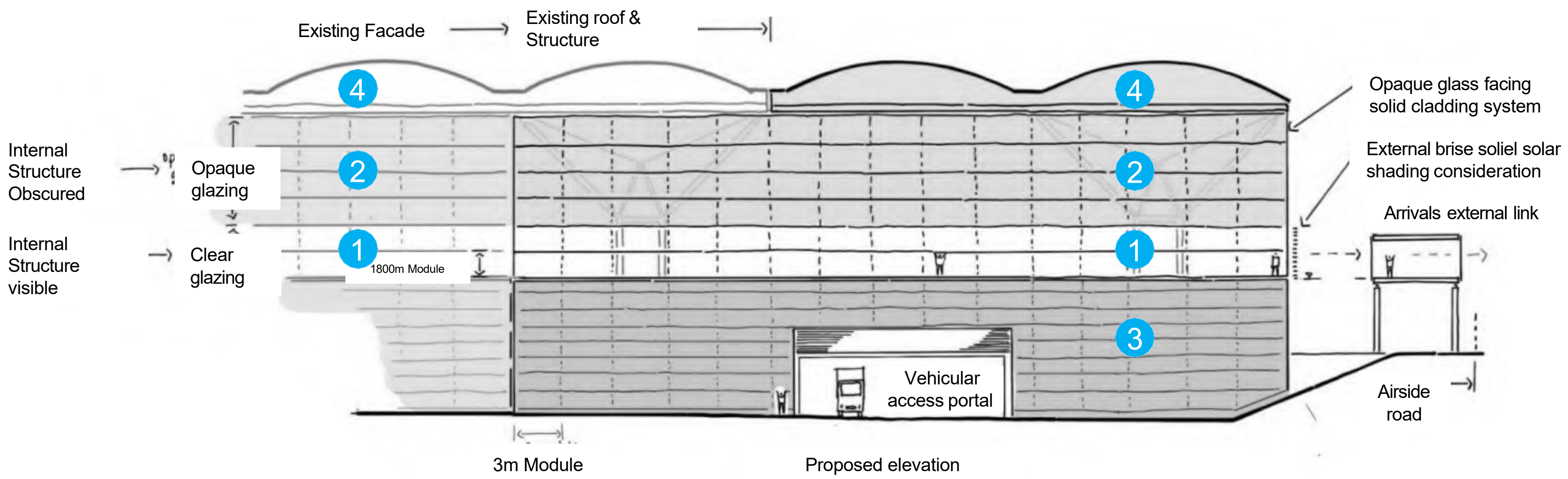
The external envelope material finishes and panel/ module sizes for the terminal extension external envelope are to match and align with the existing building to maintain visual continuity.

1. Transparent glazed panel curtain walling system
2. Glazed insulated panel curtain walling system
3. Solid metal cladding panel wall system
4. Aluminium aerofoil-shaped roof eaves profile

Skylinks

External envelope panel/ module sizes for the skylinks are to harmonise with the main terminal, for example following the same module widths.

5. Insulated metal panel envelope system
6. Transparent glazed panel curtain walling system



8.1 Landscape and Visual Assessment

Landscape and Visual Impact Assessment

Policy GEN2- Design of the adopted Uttlesford Local Plan 2005 requires development to be designed so that they are compatible with the scale, form, layout and appearance and materials of the surrounding landscape and to minimise the environmental impact on neighbouring properties.

Policy AIR6 of the Local Plan specifically relates to Stansted Airport and restricts developments within the Strategic Landscape Areas (SLA) surrounding the airport, which are designed to shield the airport's operations from public viewpoints. Dense landscaping was created following the grant of the original planning permission in 1985 and remain to this day, preventing long distance views of the application site. The location of the SLA's are shown (in green) on the accompanying plan and it can be seen from the aerial photo base plan that this landscaping remains today.

The SLA's prevent views into the airport site from public roads (Tye Green Road, Hall Road, Claypit Hill and Belmer Road). Notwithstanding the presence of the SLA's, these roads are 500-1,000 metres away from the terminal extension site.

8.1 Landscape and Visual Assessment


Existing North-western Elevation


Existing North Western Elevation
showing Domestic/Departure Skylink


Existing North-western Elevation
showing Skylink to Satellite 3


Existing North-western Elevation
showing bridge to Bus-Gates


Existing Terminal and SAT 3 Connection


Existing Terminal and Bus-gate Building


Existing South-western Elevation


Existing Track Transit System
Maintenance Building

Given the location of the proposed extension and related structures on the opposite side of the runway from public roads and with the SLA's creating a visual barrier, there will only be very localised views of the proposed terminal development area. The side elevation of the terminal extension will be visible only from passengers arriving at the front of the terminal via the east, from the Radisson Blu hotel or green multi-storey car park. Similarly, only the side of the new extension and the new Baggage Handling Building will be visible from passengers arriving from the west (from the Hampton by Hilton hotel). The full width of the new extension will only be visible from passengers on arriving/departing aircraft or from within satellites 1, 2 and 3. The accompanying photographs demonstrate this.

8.1 Landscape and Visual Assessment

North-East Elevation Day & Night

South-West Elevation Day & Night Extension

North-West Elevation Day & Night Extension

The design of each element of the proposed development has been considered in the context of the wider airport buildings and principally the existing terminal's architectural language.

The extension will follow the existing style of the iconic Norman Foster-designed building, both by its dimensions (height and width) and by its materials at its different levels.

The Skylinks will mirror the design of the current ones and of the materials in the existing satellite piers. They will be built to a newer more efficient design specification and will include a transparent glazed walling system allowing natural daylight to maintain visual continuity.

The baggage handling building will similarly follow the same architectural language and materials as the existing terminal and of the proposed extension.

The plant enclosure will be a smaller structure, sited at a lower level than the apron, the skylinks and the terminal's departure lounge meaning it will only be seen in glimpsed views.

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