

# LONDON STANSTED AIRPORT

Stansted Transformation Programme (STN-TP)

## Terminal Extension

Design and Access Statement (July 2023)

# Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
P01	21/07/2023	JW	EB	SE	Planning Application

Document Number:

STN.XX-XX-MML-A-RP-XX-0003

Document Reference:

STN.TL.XX.XX-PAW-A-DM-BLDSTR-2902  
 STN.TL.XX.XX-PAW-A-EL-BLDSTR-2501  
 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  
 STN.TL.XX.XX-PAW-A-GA-BLDSTR-2005  
 STN.TL.XX.XX-PAW-A-GA-BLDSTR-2010  
 STN.TL.XX.XX-PAW-A-GA-BLDSTR-2013  
 STN.TL.XX.XX-PAW-A-GA-BLDSTR-2014  
 STN.TL.XX.XX-PAW-A-GA-BLDSTR-2015

STN.TL.XX.XX-PAW-A-XX-BLDSTR-2016  
 STN.TL.XX.XX-PAW-A-GA-BLDSTR-2901  
 STN.TL.XX.XX-PAW-A-GA-BLDSTR-2910  
 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  
 STN.TL.XX.XX-PAW-A-SK-BLDSTR-2003  
 STN.TL.XX.XX-PAW-A-XX-BLDSTR-2911  
 STN.TL.XX.XX-PAW-A-EL-BLDSTR-2514  
 STN.TL.XX.XX-PAW-A-XX-BLDSTR-2014

## Information Class: Standard

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

---

# Contents

---

## A. Design Statement

1. Introduction
2. Aims & Objectives
3. Context
4. Summary of Design Concepts
5. The Proposal

## B. Access Statement

6. Introduction
7. Access Review

## C Landscape and Visual Assessment

8. Landscape and Visual Assessment





- 
- 1.1 Purpose of the Report
  - 1.2 Introduction to Stansted Airport
  - 1.3 Existing Site Plan
  - 1.4 Planning Application Site Boundary
  - 1.5 Existing Site Photos
  - 1.6 Need for Terminal Expansion
  - 1.7 Terminal Expansion Phase Plan
  - 1.8 Opportunity for Terminal Expansion

---

# 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.

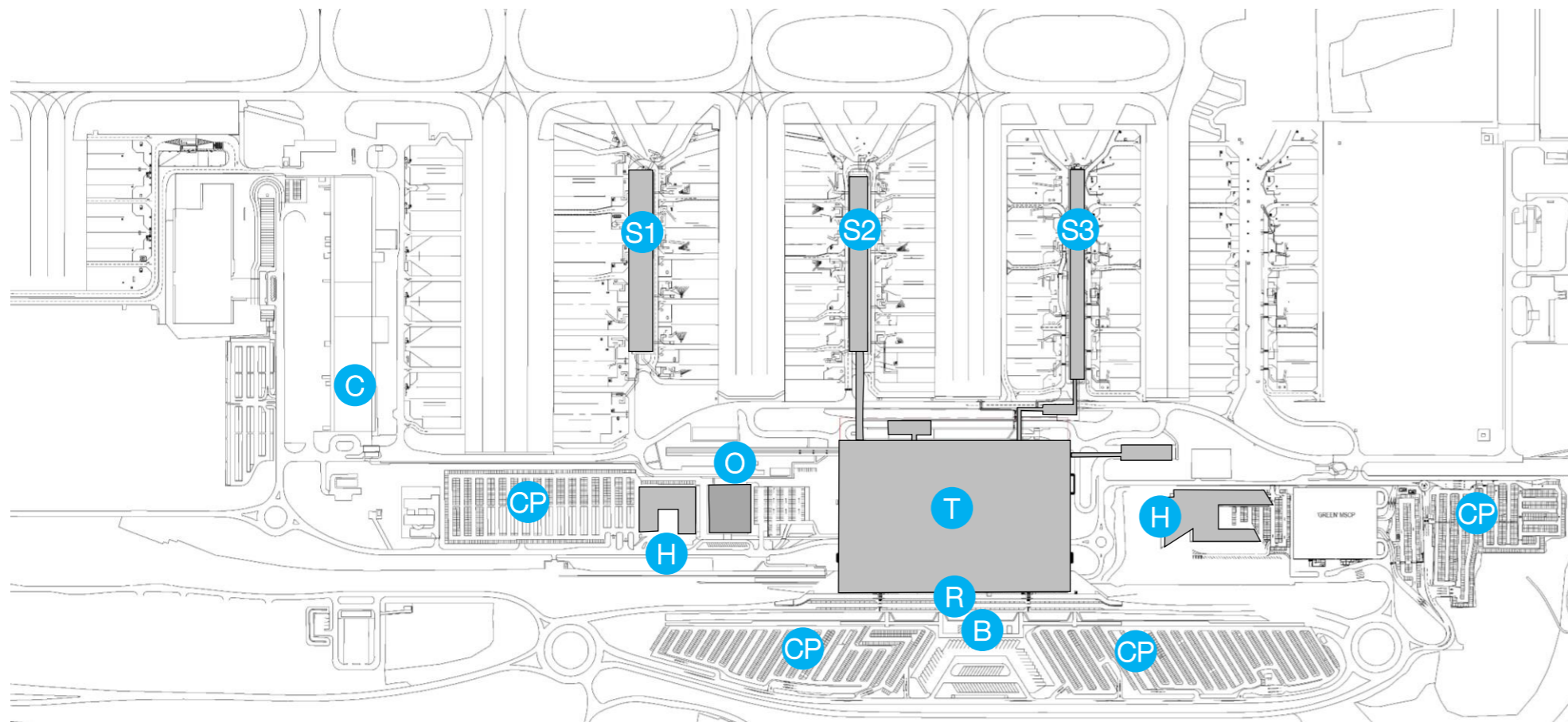
This Design and Access Statement should be read and considered in conjunction with the full set of plans, drawings and reports submitted as part of the application.

## 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.

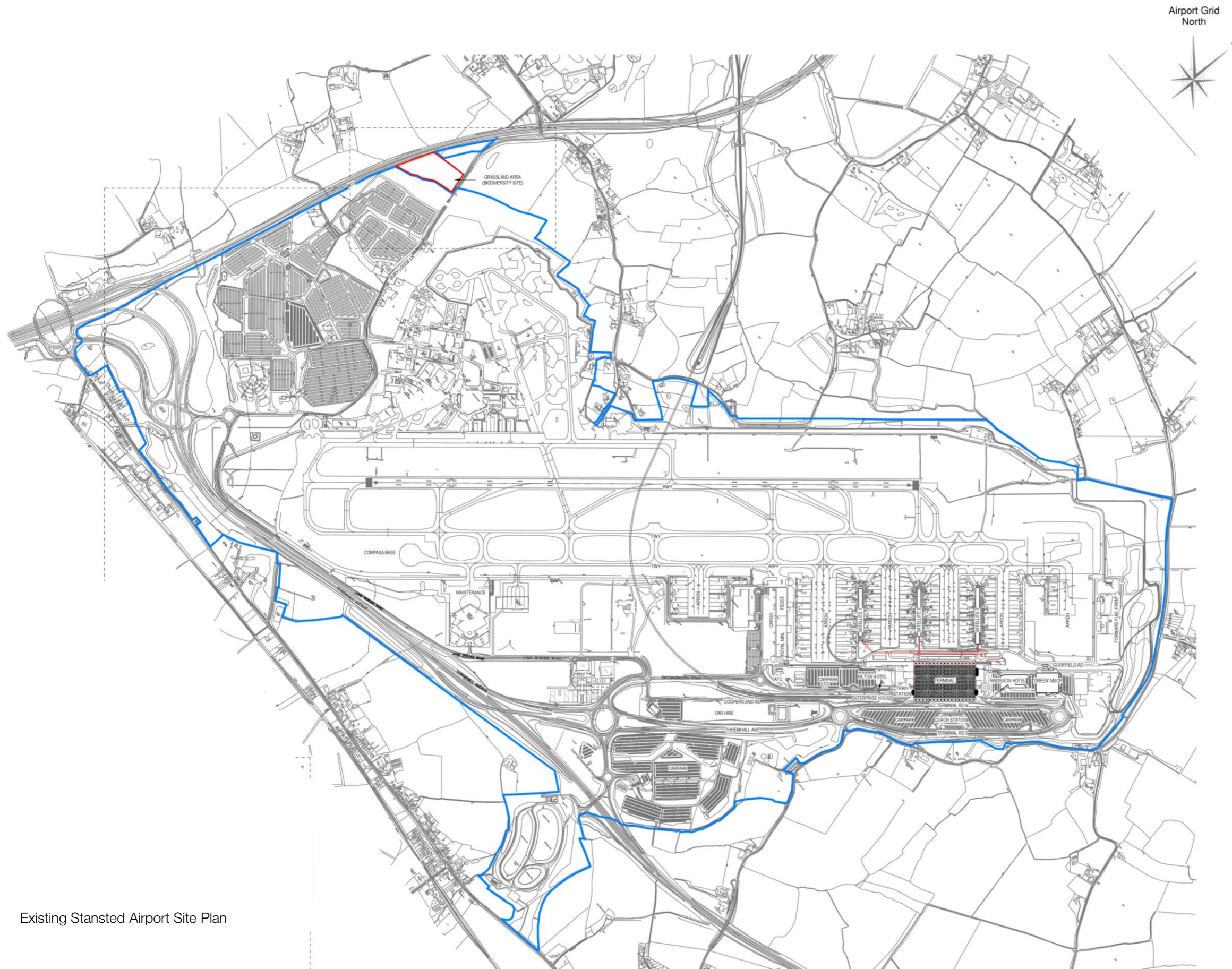
The airport has one main passenger terminal with three satellite piers providing access and egress from aircraft. The airport also consists of a railway station, bus facilities, cargo facilities, short and long term surface car parking and support buildings such as offices and hotels.



- 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



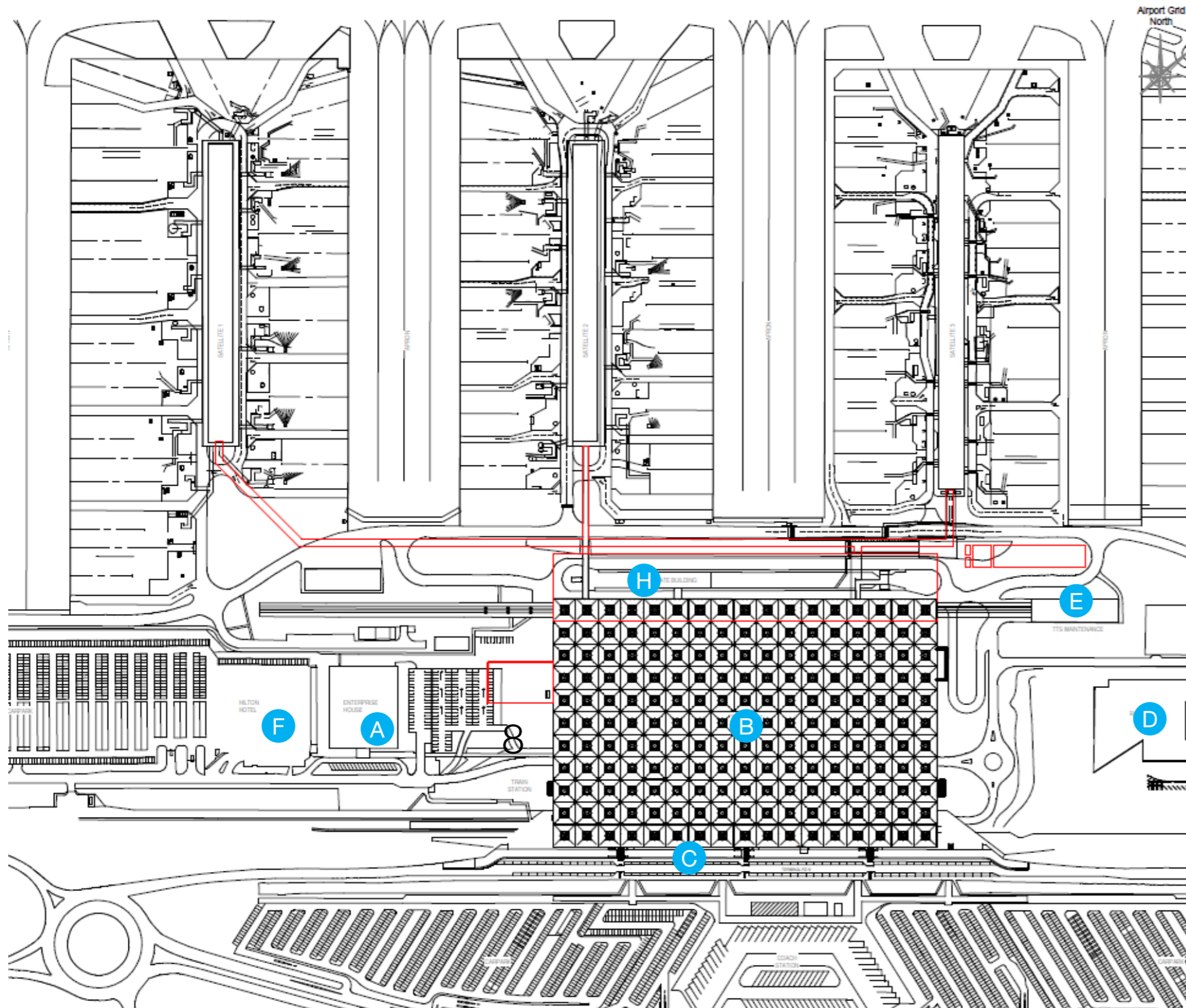
## 1.3 Existing Aerial Site Photo



Existing Stansted Airport Aerial photo



## 1.4 Planning Application Site Boundary



### Site Plan

The airport occupies a relatively elevated site on a ridge between the valleys of the Stansted Brook and River Roding. The land within the airport's boundaries is approximately 957 hectares in extent.

- A** Enterprise House
- B** Existing Terminal
- C** Train Station
- D** Radisson Hotel
- E** Track Transit System (TTS) Maintenance Building
- F** Hampton by Hilton Hotel
- H** Bus-Gate Building

The extent of the planning application boundary around the existing terminal is shown in red. The application site area also includes a remote area under STAL's ownership off Bury Lodge Lane where Biodiversity Net Gain will be delivered.



## 1.5 Existing Site Photos



Existing north-western elevation



Existing north-western elevation showing Domestic/Departure Skylink



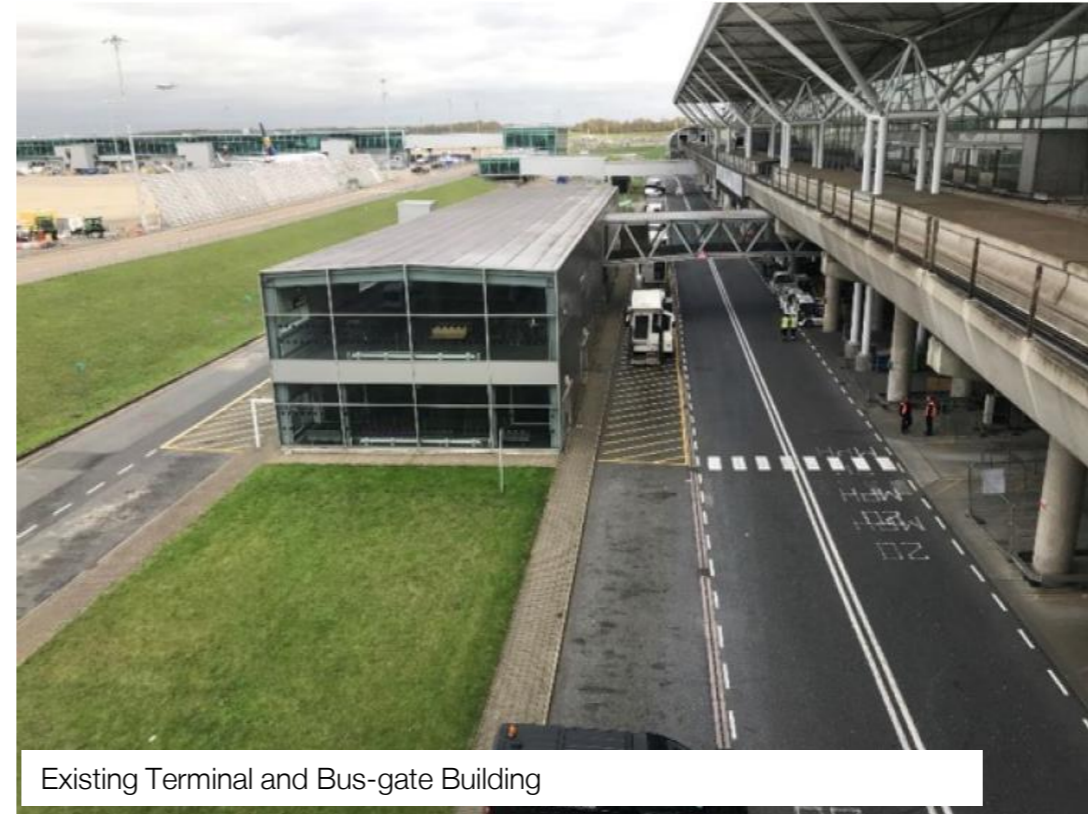
Existing north-western elevation showing Skylink to Satellite 3



Existing north-western elevation showing bridge to Bus-Gates

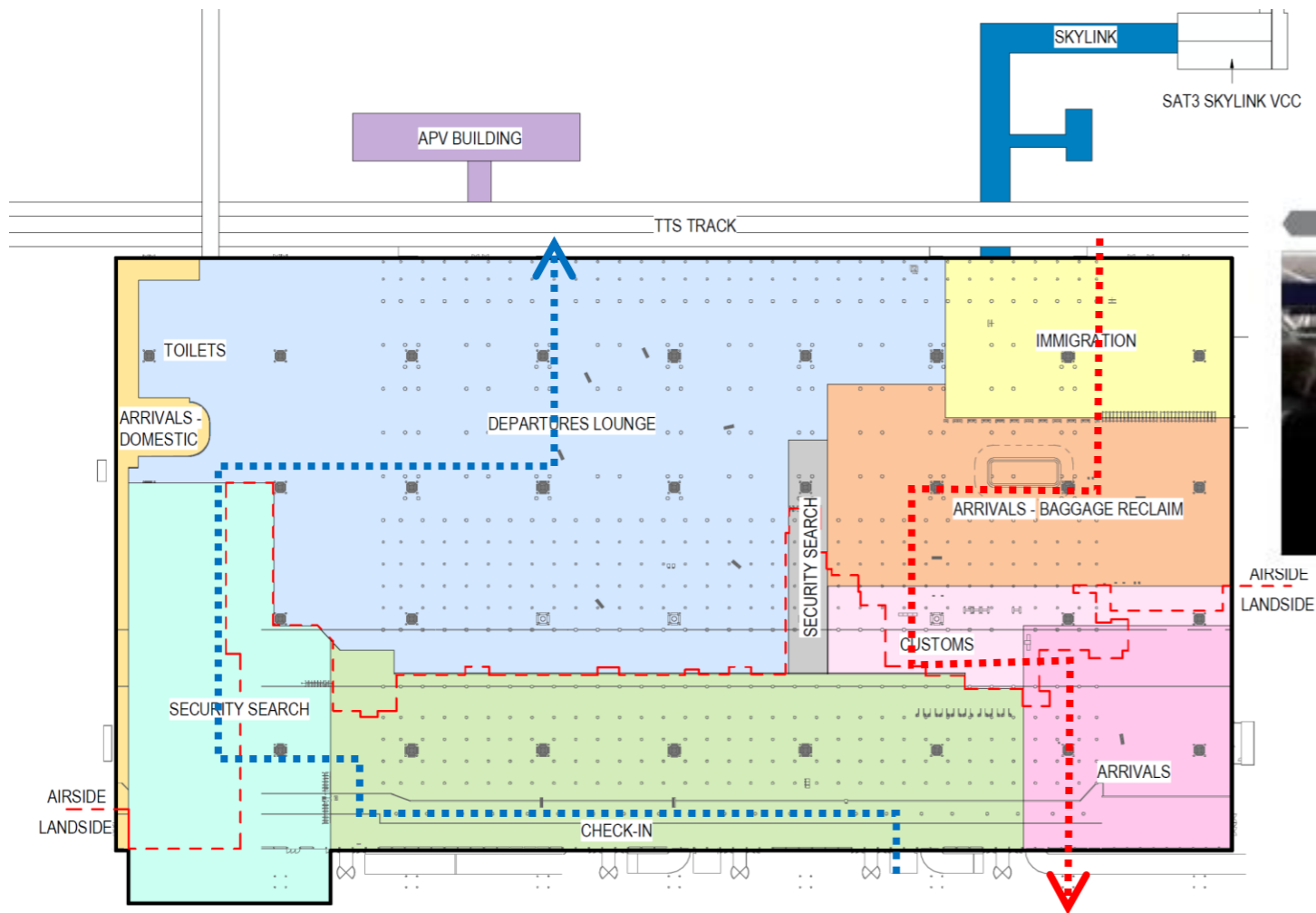


## 1.5 Existing Site Photos





# 1.6 Need for Terminal Expansion



## 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.



Security



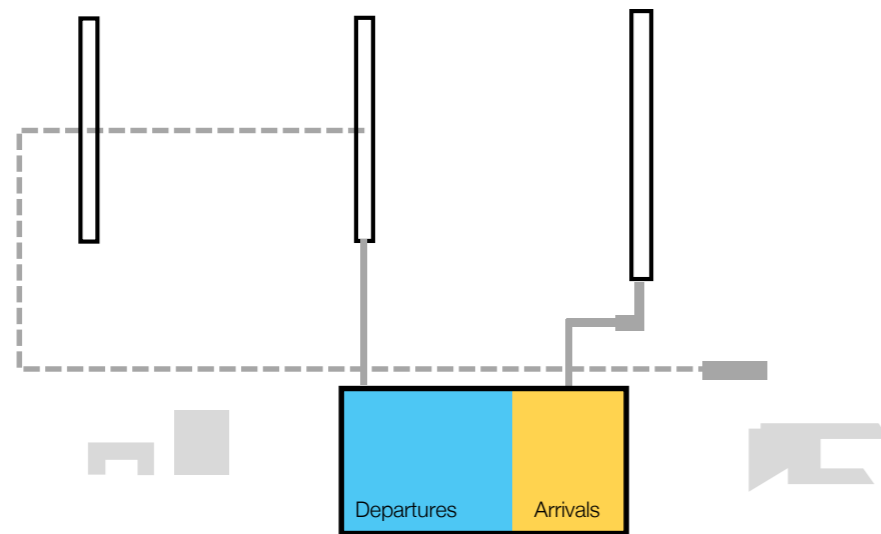
Check - In

Existing Terminal Space Layout

# 1.7 Terminal Expansion Phase Plan

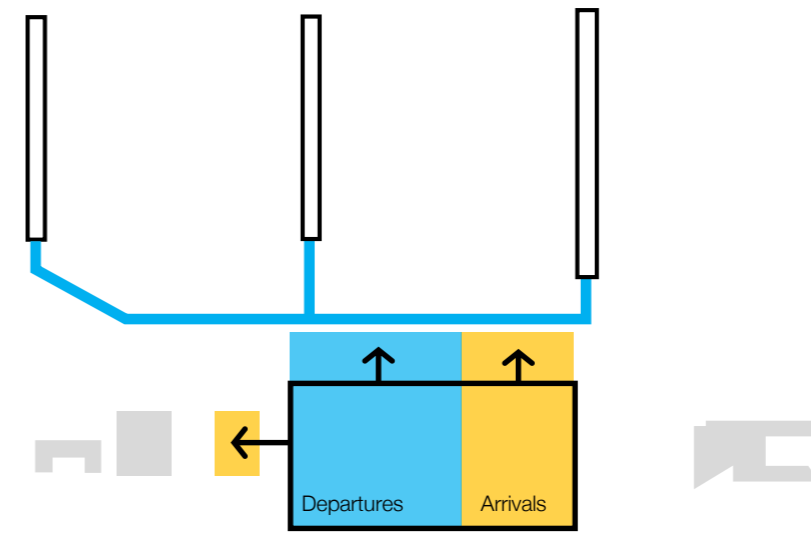
## STN-TP Key Terminal Scope

STN-TP provides incremental growth through the expansion of the existing terminal building and facilities.



Existing terminal

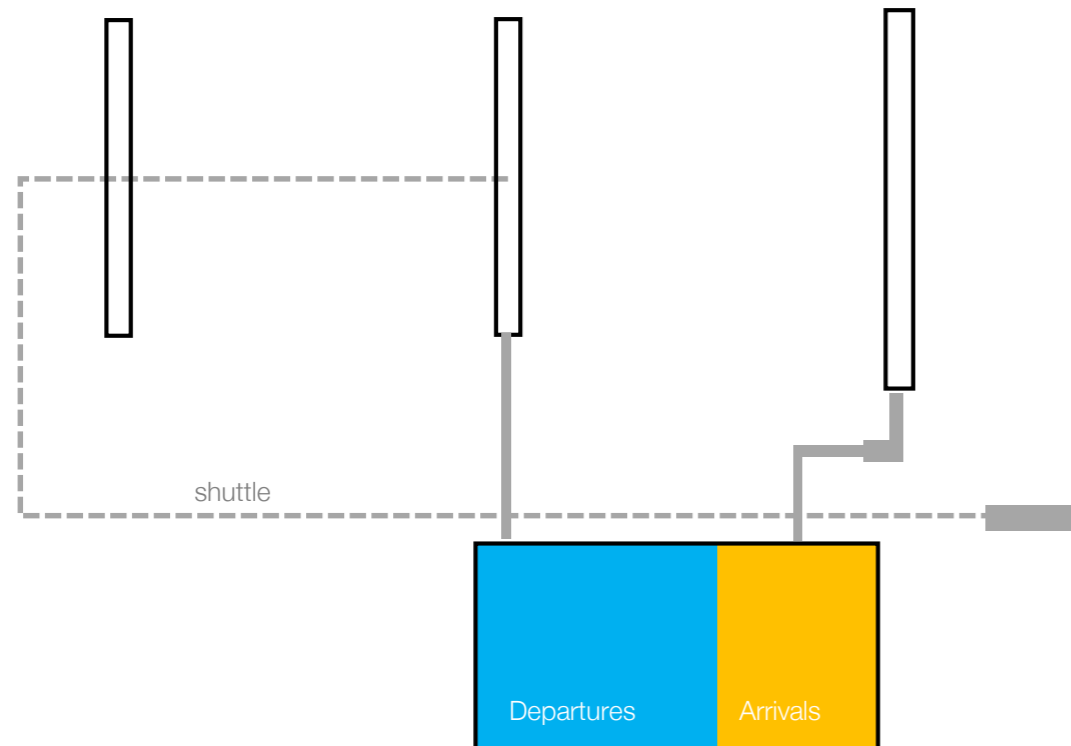
- TTS to SAT 1 & 2
- Constrained passenger processing
- Constrained retail provision



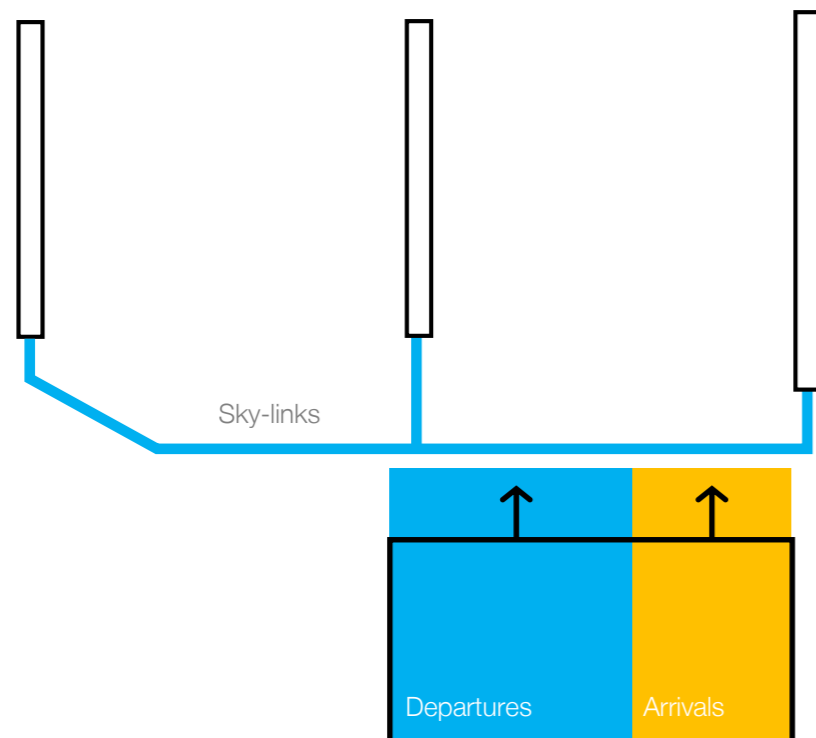
STN-TP

- Replace TTS with skylinks
- Increase passenger processing
- Expand retail provision
- Increase terminal capacity (up to 43mppa)

## 1.8 Opportunity for Terminal Expansion



Existing passenger access and egress to satellites



Proposed passenger access and egress to satellites

### Future Options

A strategic review evaluated the options for developing the current terminal facilities.

The existing terminal operates with departures and arrivals on the same level. Although the terminal is a modular structure a direct extension to the east or west would require major internal reconfiguration of existing facilities while the airport remains operational, resulting in an extended construction period and disruption to the passenger experience over a considerable period of time and complicating operational movement.

The proposed solution is to provide an extension to the north side towards the airfield. Building on land currently occupied by the Track Transit System (TTS) and as soft landscaping, this allows the existing passenger facilities to be maintained and extended in situ, with less reconfiguration required of the existing building and negligible disruption to passengers.

The extension will allow STAL to construct a purpose built facility that complements the existing terminal functionally and architecturally. The development will be a contemporary and innovative facility, which will transform the travelling experience of millions of passengers passing through Stansted every year.

The TTS would be decommissioned as part of the works and travel from the terminal to the satellites would be replaced by the re-construction of the two existing skylinks and by the construction of a new, third skylink.

---

2.1 Aims & Objectives

2.2 Transform Passenger Experience

2.3 Improve Terminal Processing Capability

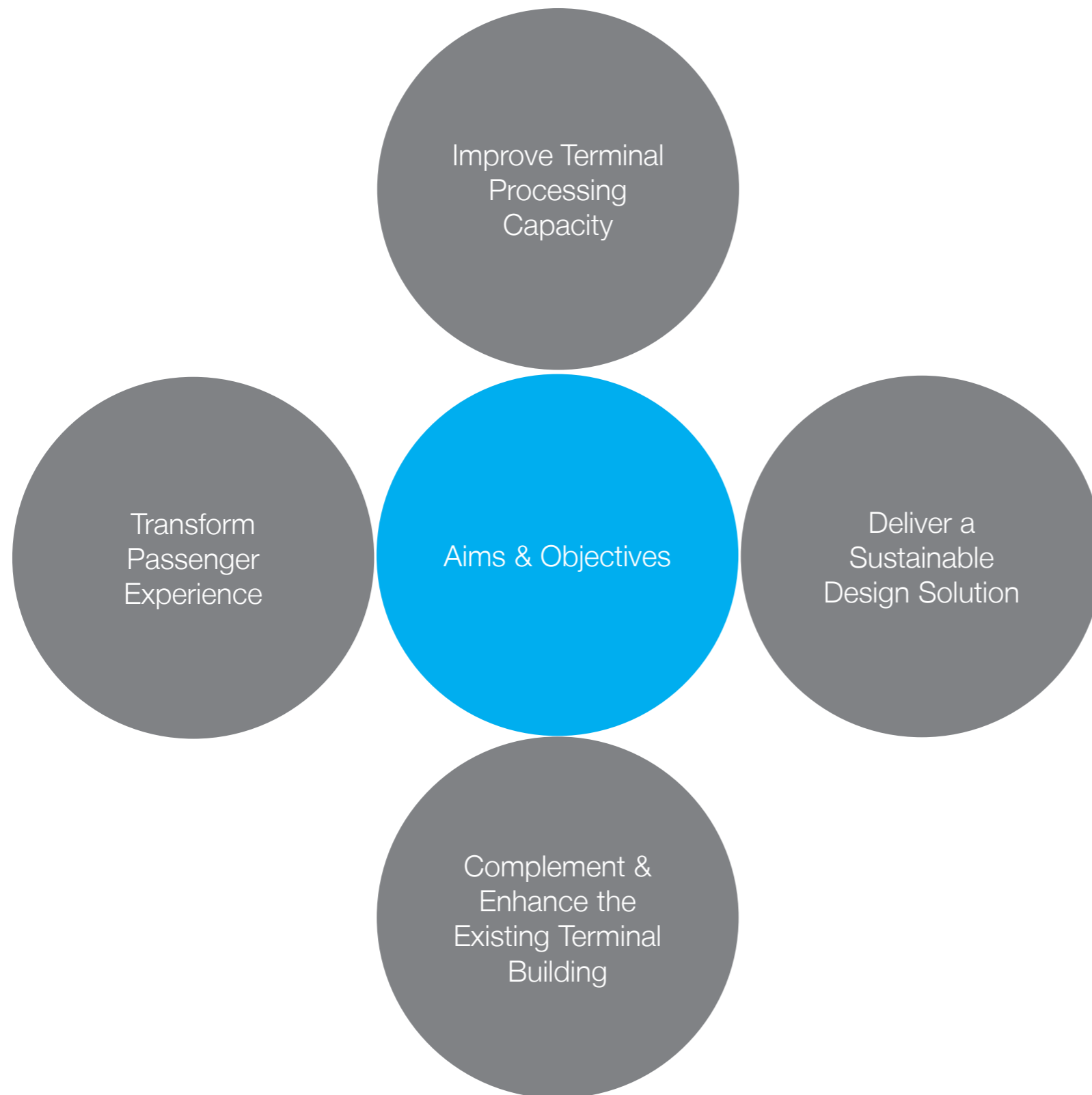
2.4 Deliver a Sustainable Design Solution

2.5 Complement & Enhance the Existing Terminal Building

---

## 2.1 Aims & Objectives

---



## 2.2 Transform Passenger Experience



### Key Design Strategies

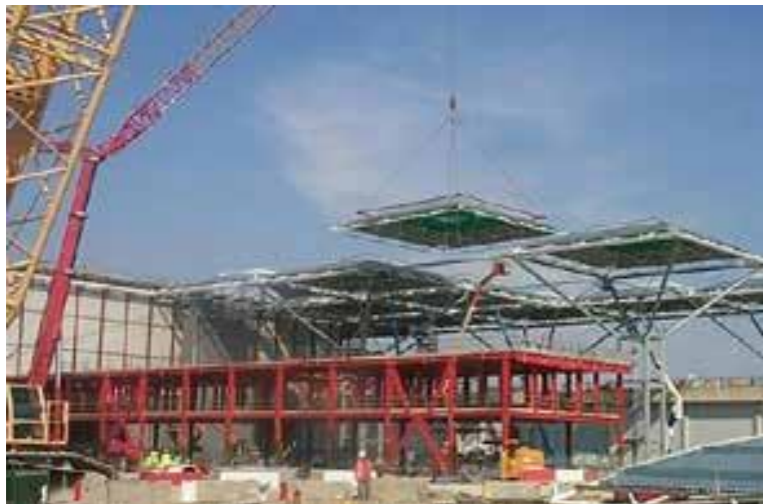
High quality passenger experience

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





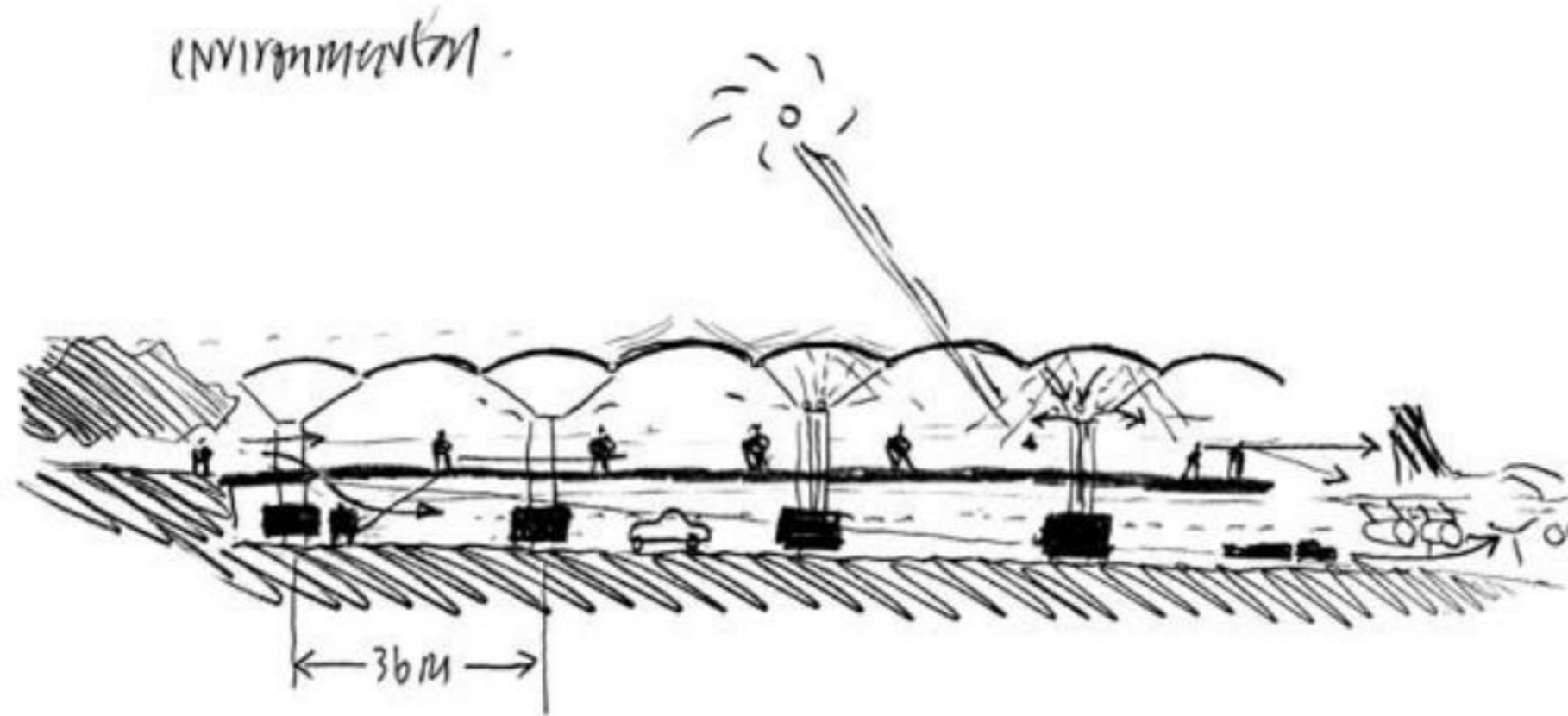
## 2.5 Complement & Enhance the Existing Terminal Building

### Key Design Strategies

Hierarchy of massing and scale

Relationship of architectural expression and language

Enhancing existing architectural and functional concepts



---

3.1 Planning Considerations

3.2 Historical Terminal Design Context

3.3 Existing Airport Materials Palette

3.4 Existing Terminal External Lighting

3.5 Existing Terminal Design

---

## 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 airport 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

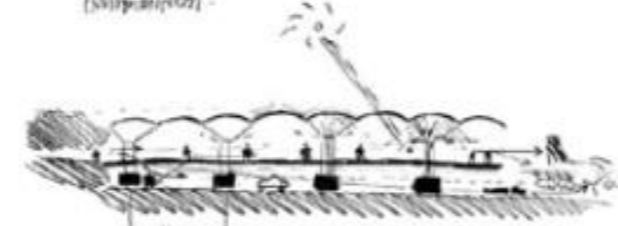


Illinois Institute of Technology / Illinois

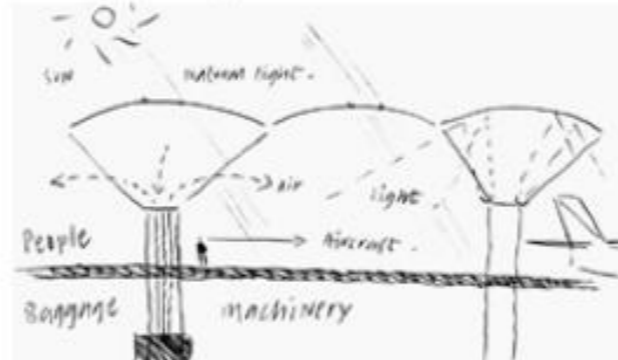
CLASSICAL / MODERN 1950-60  
Expression of building structure  
Functional open planning



Bridge tension experiment  
(Strippstein 1922)



Sun study sketch



Ventilation and sun study sketch



Exploded axo of structural supports

HIGH TECH 1990  
Refinement of structural aesthetic  
Innovative systems and materials



Chek Lap Kok Airport / Hong Kong



Dublin Airport / Dublin



Oslo Airport

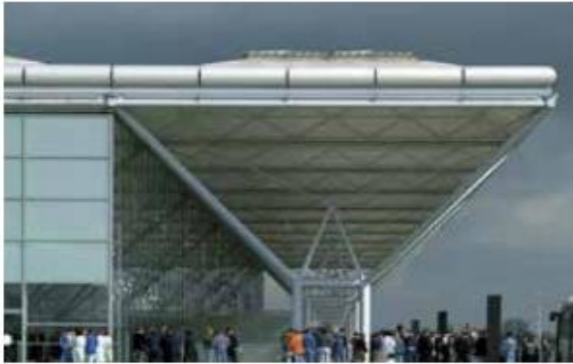
CONTEMPORARY 2000+  
Simplification of structure  
Sustainable materials palette



# 3.3 Existing Airport Materials Palette

## GLASS

### Clear glass



#### Main Terminal

The facades of the concourse are all glass: 3.6m wide x 1.8m high, sealed double glazed units.

Clear glass is used in the Main Terminal as well as Enterprise House, the Radisson Blu Hotel and the windows of the Hampton by Hilton Hotel. In the Main Terminal it allows passengers clear sighting to the airfield and aircraft.

### Translucent glass



White backpainted glass is used in the Blu Radisson Hotel to provide more privacy inside rooms. Combined with the glass this gives a pale green aesthetic.

Translucent glass is used in the Main Terminal in the flank walls. Where there is no protecting canopy to provide shade the glass is interleaved with two layers of translucent PVC.

### Back painted glass



Opaque glass spandrel panels are used in Enterprise House. Combined with the glass gives a dark green aesthetic.

### Spandrel panels

## METAL

### Exposed steelwork



White painted structural steelwork.

### Metal cladding



Silver grey metal cladding is used in different sections in Enterprise House, the Main Terminal the Radisson Blu Hotels and the TTS Maintenance Building.

### Soffit panels



The Main Terminal ceiling is composed of soffit panels containing micro-perforated triangular steel trays filed with a white, light reflective, sound absorbing quilt.

## CONCRETE

### Exposed concrete



The Railway station interior is composed of in-situ concrete. The ceiling is the coffered concrete floor of the Main Terminal building and the external wall is a concrete retaining wall.

## COLOUR PALETTE



### Enterprise House

### Terminal & Satellites

### Train Station

### Radisson Blu Hotel

### TTS Maintenance

### Hampton by Hilton Hotel



Materials:  
Clear glass  
Opaque spandrel panels  
Silver grey cladding panels



Materials:  
Clear glass  
Green tint glass  
Silver grey cladding panels  
White exposed steelwork  
White soffit panels



Materials:  
Exposed concrete waffle soffit



Materials:  
Silver grey cladding  
Clear glass  
Opaque cladding



Materials:  
Silver grey cladding



Materials:  
Clear glass  
Off white rain-screen cladding



## 3.4 Existing Terminal External Lighting

**Main Terminal** Brilliant white light



### Existing Design Strategies

Illumination of campus buildings and external appearance at night

- Terminal lighting is white colour up-lighting
- Commercial buildings are warm white with accent lighting



**Hampton by Hilton Hotel** Warm white light



**Radisson Blu Hotel** Warm white light with blue accent lighting

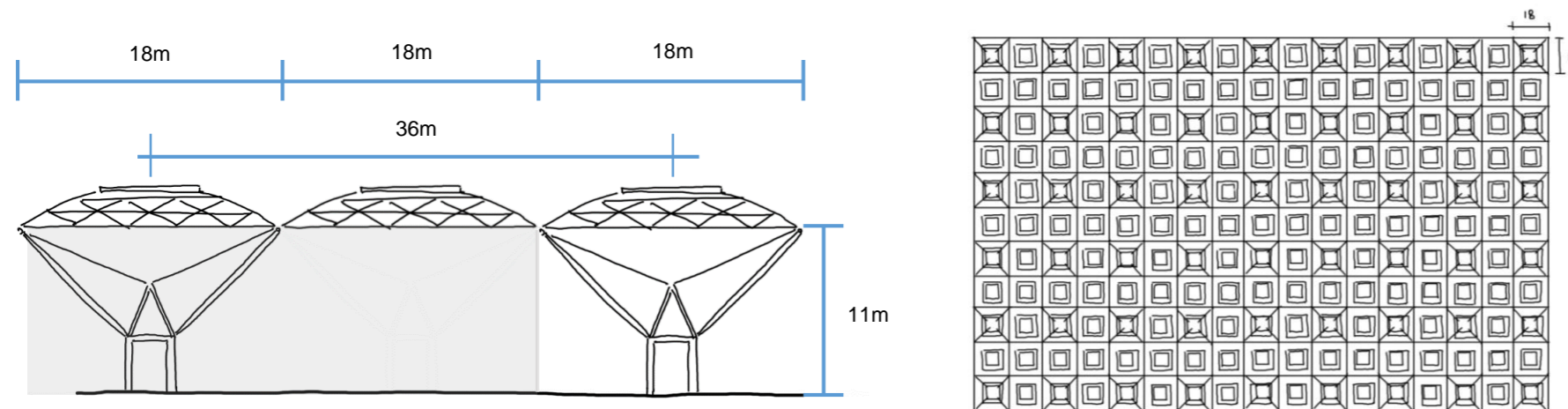


## 3.5 Existing Terminal Design



### Existing Design Strategies

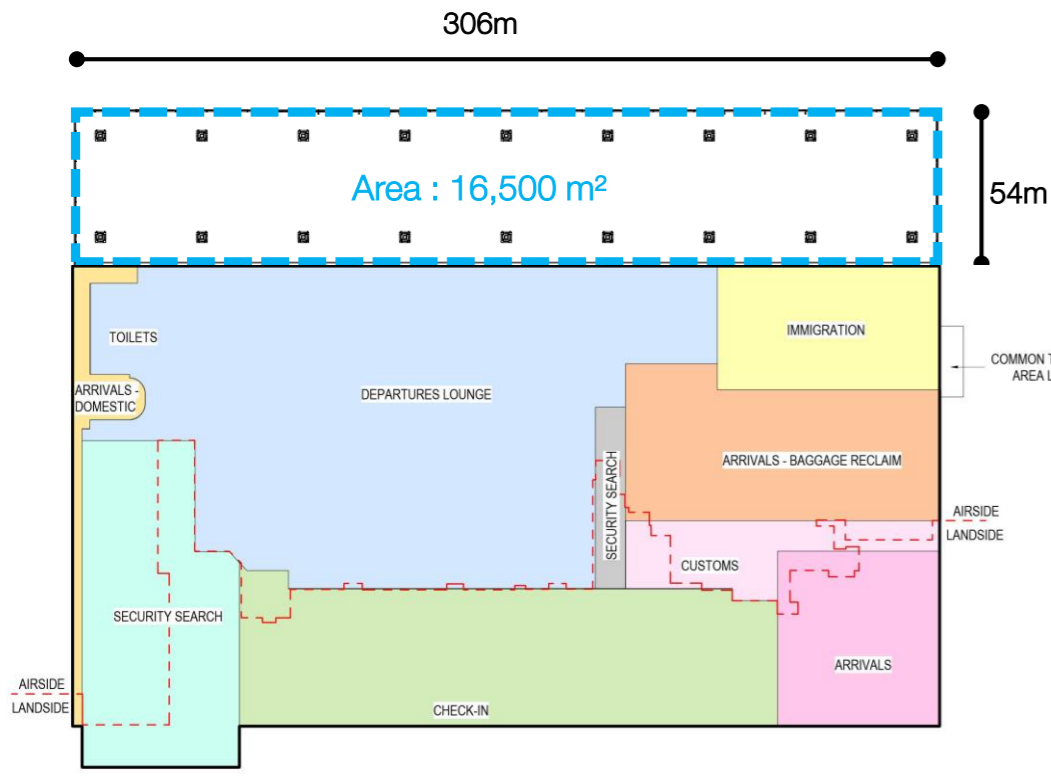
- Clear expression of structural system
- Façade system has clear and opaque panels to suit design requirements
- Modular design to allow expansion as required to deliver increased capacity
- Flexible internal layout (large structural spans, double-height volume and mechanical electrical and plumbing services level below)
- Unobstructed passenger flows and clear sightlines throughout
- Minimal level changes throughout the passenger journey



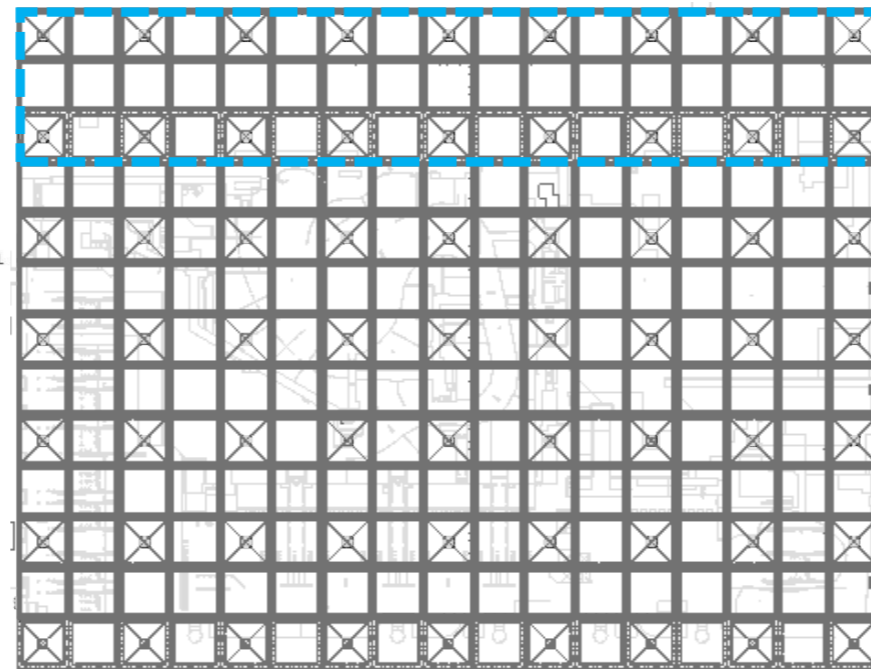
- 4.1 Key Design Concepts
- 4.2 Key Design Concept Visual
- 4.3 Key Design Concepts
- 4.4 Key Functional Concept
- 4.5 Sustainability Concepts



# 4.1 Key Design Concepts



Ground Floor

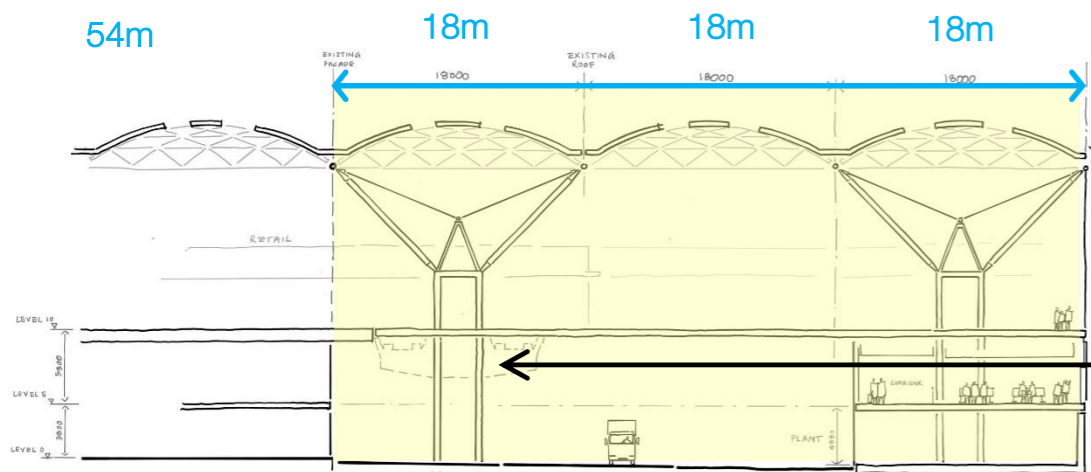


Roof

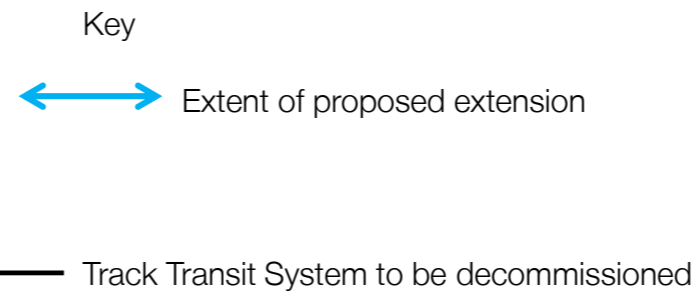
## Existing Terminal Relationship

In order to follow the existing terminal building, the size of extension is based on the structural planning grid used in the existing building.

The number of bays of the extension is determined by a combination of factors including passenger demand figures, service standards, processing facilities and retail outlets and catering facilities.



East Elevation Partial Section




## 4.2 Key Design Concept Visual

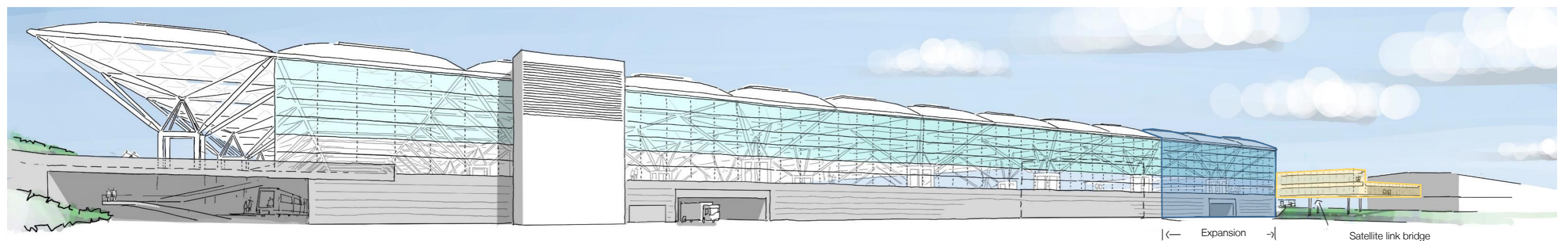


### Existing Terminal Relationship

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

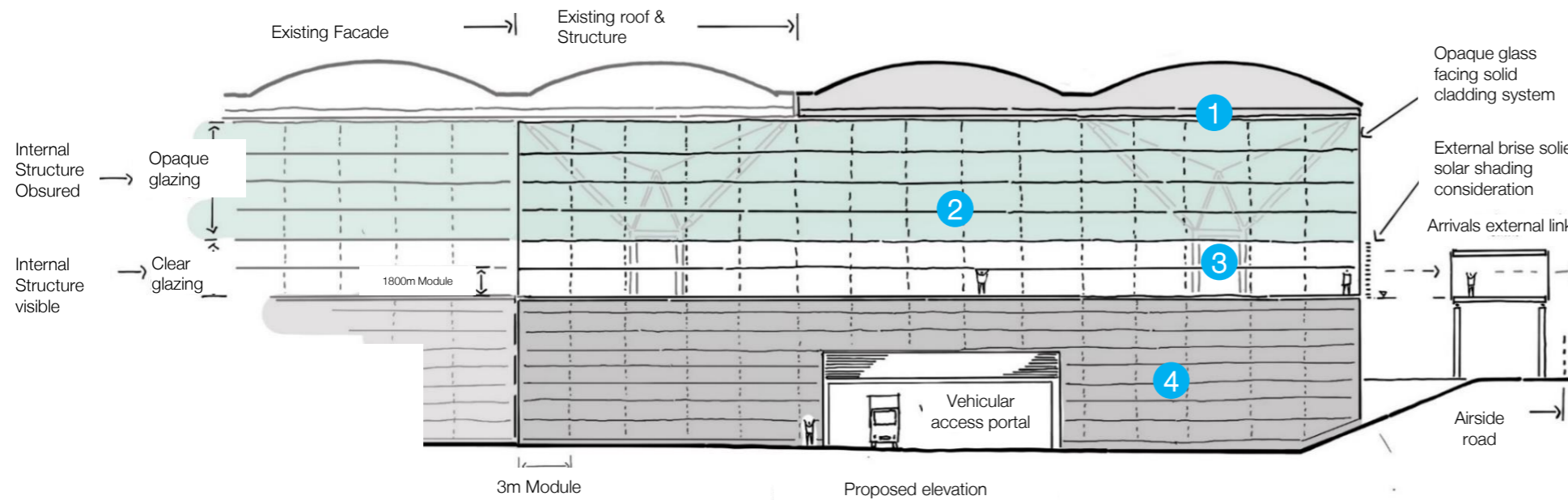
Three Bay Extension



Extension North-east Elevation



## 4.3 Key Design Concepts

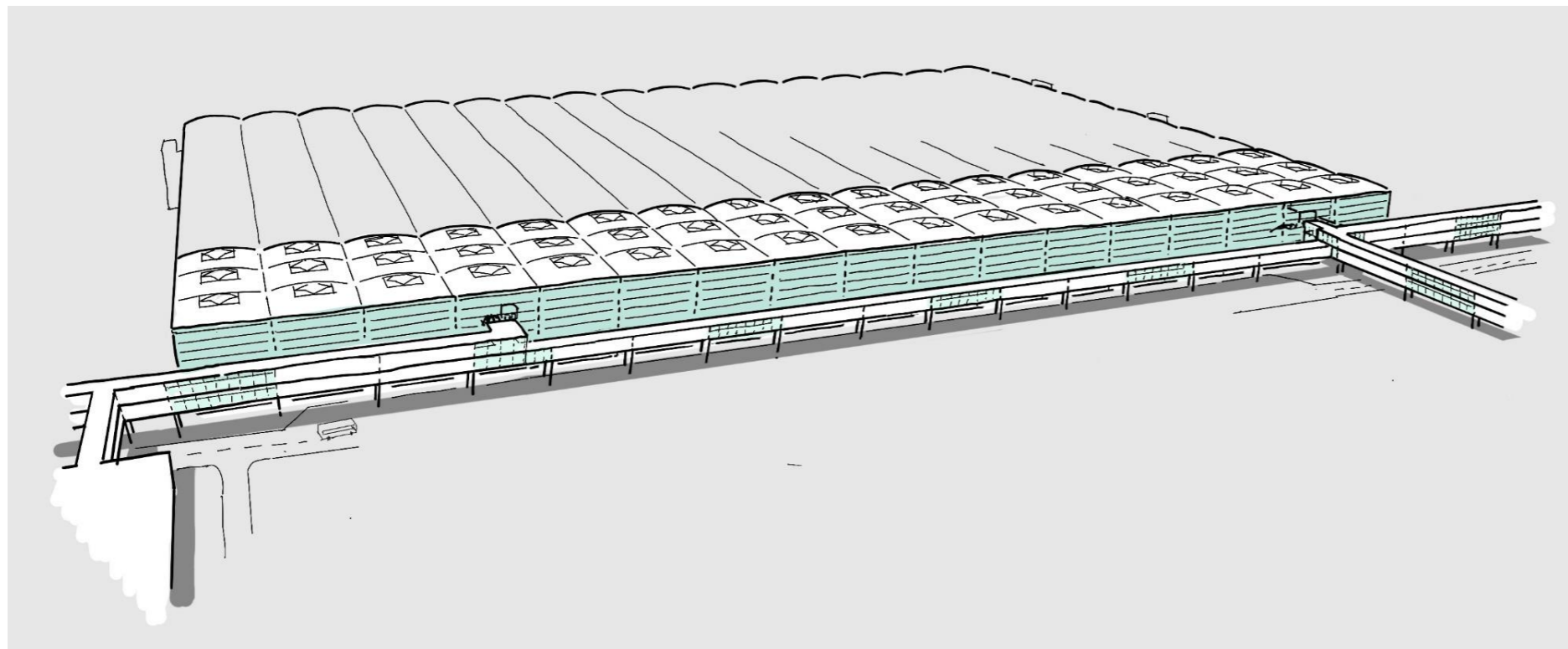


North-eastern Elevation

### Existing Terminal Relationship

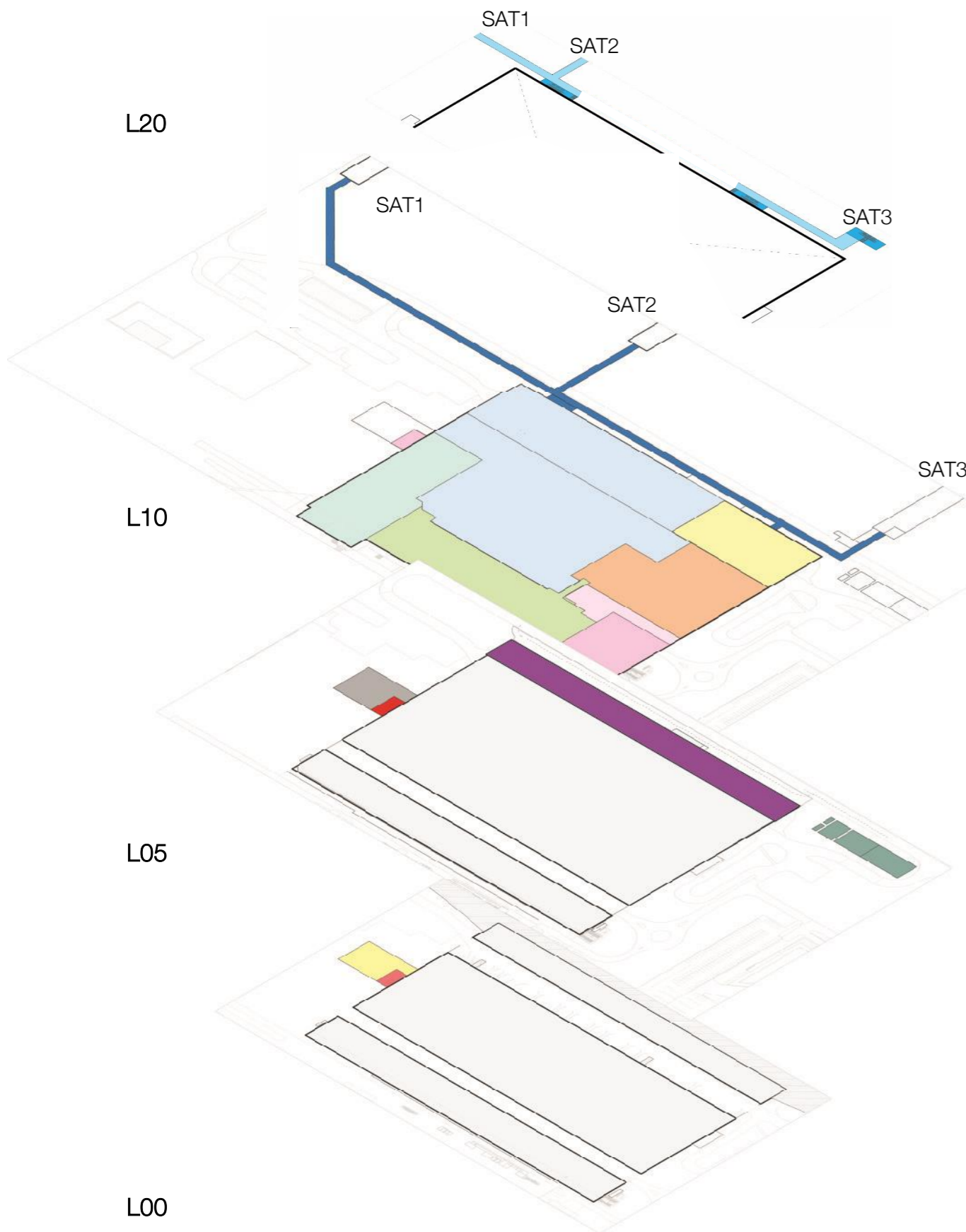
The façade module is continuous with the existing building.

- 1 Roof eaves height and profile to be aligned and continued along the full extent of the north extension
- 2 External façade module and finish (glass) to be continued.
- 3 Structural 'trees' to be used for the support of the third bay of the extension
- 4 Solid cladding required at low level to continue 'plinth' of the existing building.



North-western Elevation

# 4.4 Functional Concept



### Legend

- Check-in
- Security Search
- Departures Lounge
- Airside Passenger Vehicle bus-gates
- Immigration
- International Baggage Reclaim
- Customs
- Arrivals
- Staff Security
- Early Bag Store
- Plant Enclosure

### Existing Terminal Relationship

The northern terminal extension spatial planning is developed to create seamless movement between the existing and new spaces

The building scope consists of:

- North-western extension which contains the Departures Lounge and immigration facilities at upper floor (level 10). Below this are located bus gates (level 05) and plant and retail stockrooms (level 00)
- Sky-links from the terminal provide connections to the existing satellite piers
- Partial demolition of Track Transit System

The partial demolition of Track Transit System provides 39,320m<sup>2</sup> of Gross External Area split over three levels for the extension:

- Level 00 Undercroft - 6,320m<sup>2</sup>
- Level 05 Mezzanine - 16,500m<sup>2</sup>
- Level 10 Concourse - 16,500m<sup>2</sup>

## 4.4 Sustainability Concepts

### Sustainability Strategy

The Sustainability Strategy proposed for the Stansted Transformation Programme (STN-TP) ensures sustainability is considered in all design and delivery decisions, setting challenging yet achievable targets to drive the right behaviours and deliver world leading infrastructure for Stansted Airport. The delivery of sustainable infrastructure is associated with additional benefits including reduced capital and operational costs, reduced time on the construction programme, improved thermal comfort and passenger experience, and energy security. The strategy aligns with STAL's parent company - Manchester Airport Group's (MAG) commitment to decarbonisation, to ensure the business is recognised as a responsible operator by investors and other stakeholders.

Whilst the underlying pillar of the strategy is targeting BREEAM Excellent, the strategy aligns to MAG's aspiration to enhance or even go beyond BREEAM requirements where possible. Firstly, to ensure BREEAM is not used as a 'tick-box exercise' or strategic approach to attaining the certification in the easiest and lowest cost manner. Instead, credits will be targeted based on those considered most relevant to MAG's Corporate Social Responsibility (CSR) objectives and which offer best value to the programme. Secondly, it is acknowledged that the requirements of BREEAM Excellent are not industry leading or sufficient in some areas to achieve MAG's CSR objectives. These areas include embodied and whole life carbon, net zero carbon and social value. Therefore, the strategy goes beyond BREEAM where required.

The strategy has been developed collaboratively with STAL, the design team, and the sustainability team. Therefore, it is with confidence that we believe the strategy will deliver a truly sustainable extension.

The full sustainability strategy can be found in the Sustainability Statement submitted with the planning application.

BREEAM Aligned	BREEAM Enhanced	Beyond BREEAM
Business as usual BREEAM Excellent	Exceeds BREEAM requirements	Not included in BREEAM but part of MAG strategy

BREEAM Approach

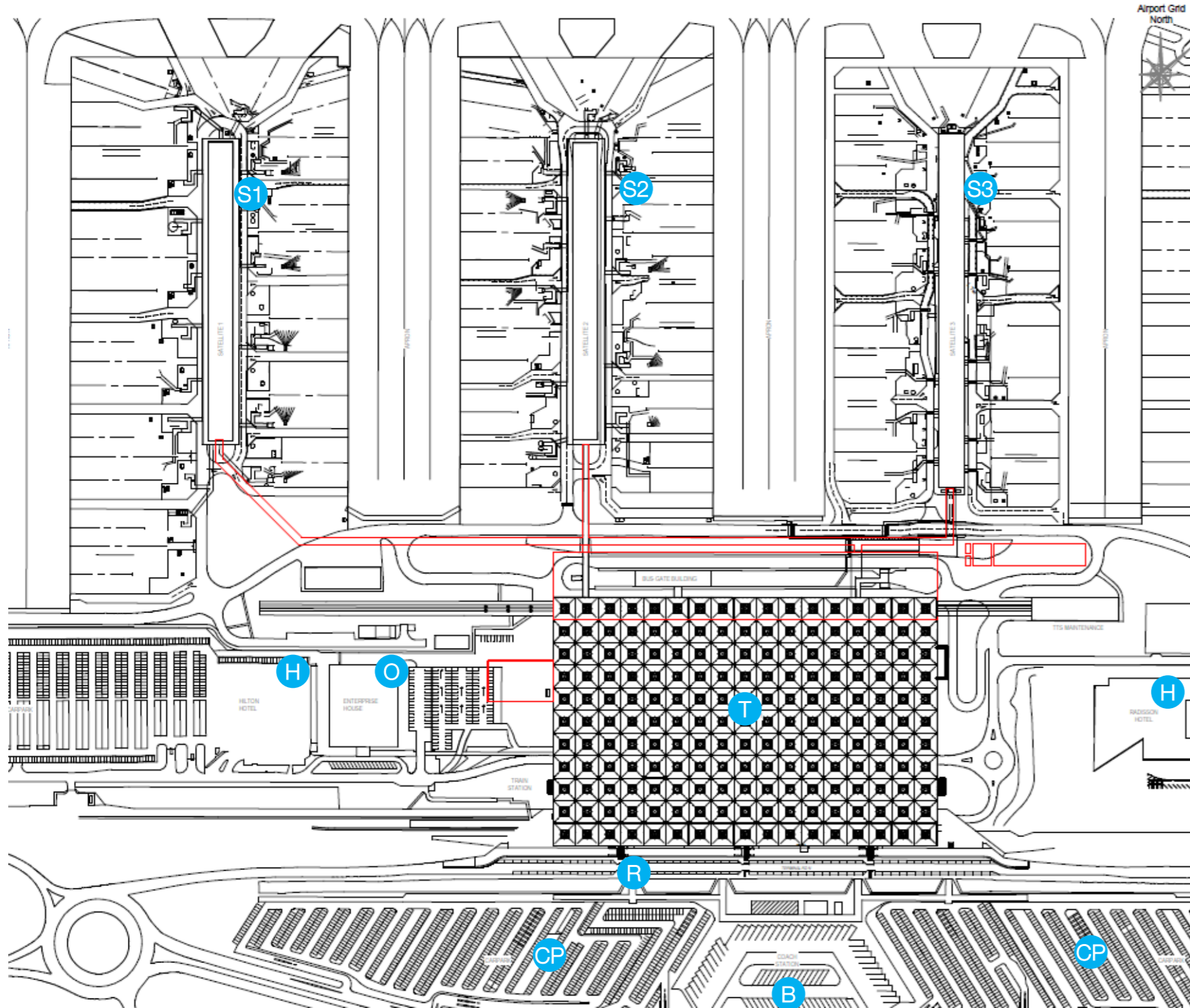


Project Sustainability Areas of Focus

- 
- 5.1 Existing Site Plan
  - 5.2 L00 Proposed Layout
  - 5.3 L05 Proposed Layout
  - 5.4 L10 Proposed Layout
  - 5.5 Proposed Roof Plan
  - 5.6 External View
  - 5.7 Existing and Proposed East Elevations
  - 5.8 Existing and Proposed North Elevations
  - 5.9 Existing and Proposed West Elevations
  - 5.10 Elevation Views Day & Night – East Elevation
  - 5.11 Elevation Views Day & Night – West Elevation
  - 5.12 Envelope External Materials
-



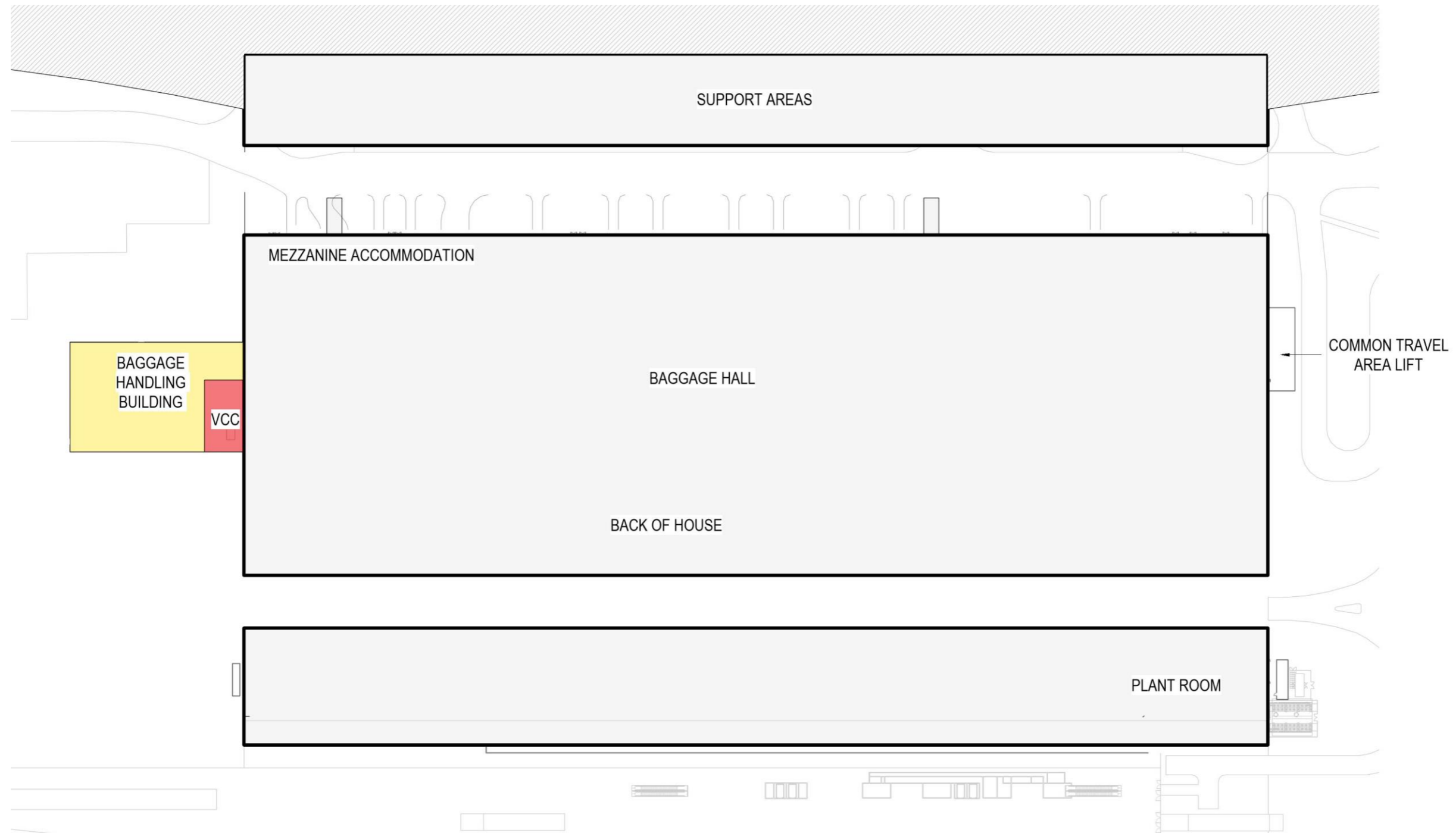
# 5.1 Existing Site Plan



Key:

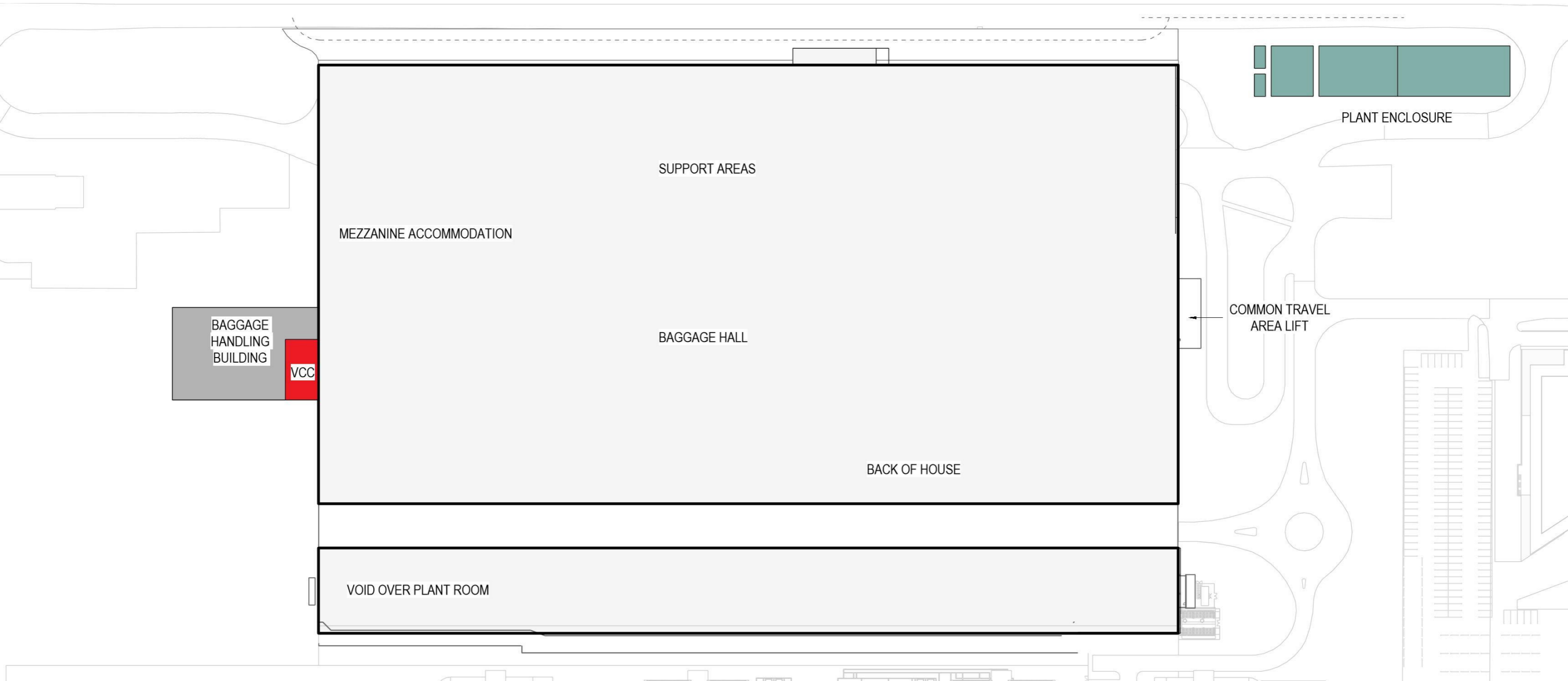
- T Main Terminal Building
- S1 Satellite 1
- S2 Satellite 2
- S3 Satellite 3
- R Railway Station
- B Bus and Coach Facilities
- CP Short/Long stay car park
- H Hotels
- O Offices
- Planning Application Boundary

## 5.2 L00 Proposed Layout

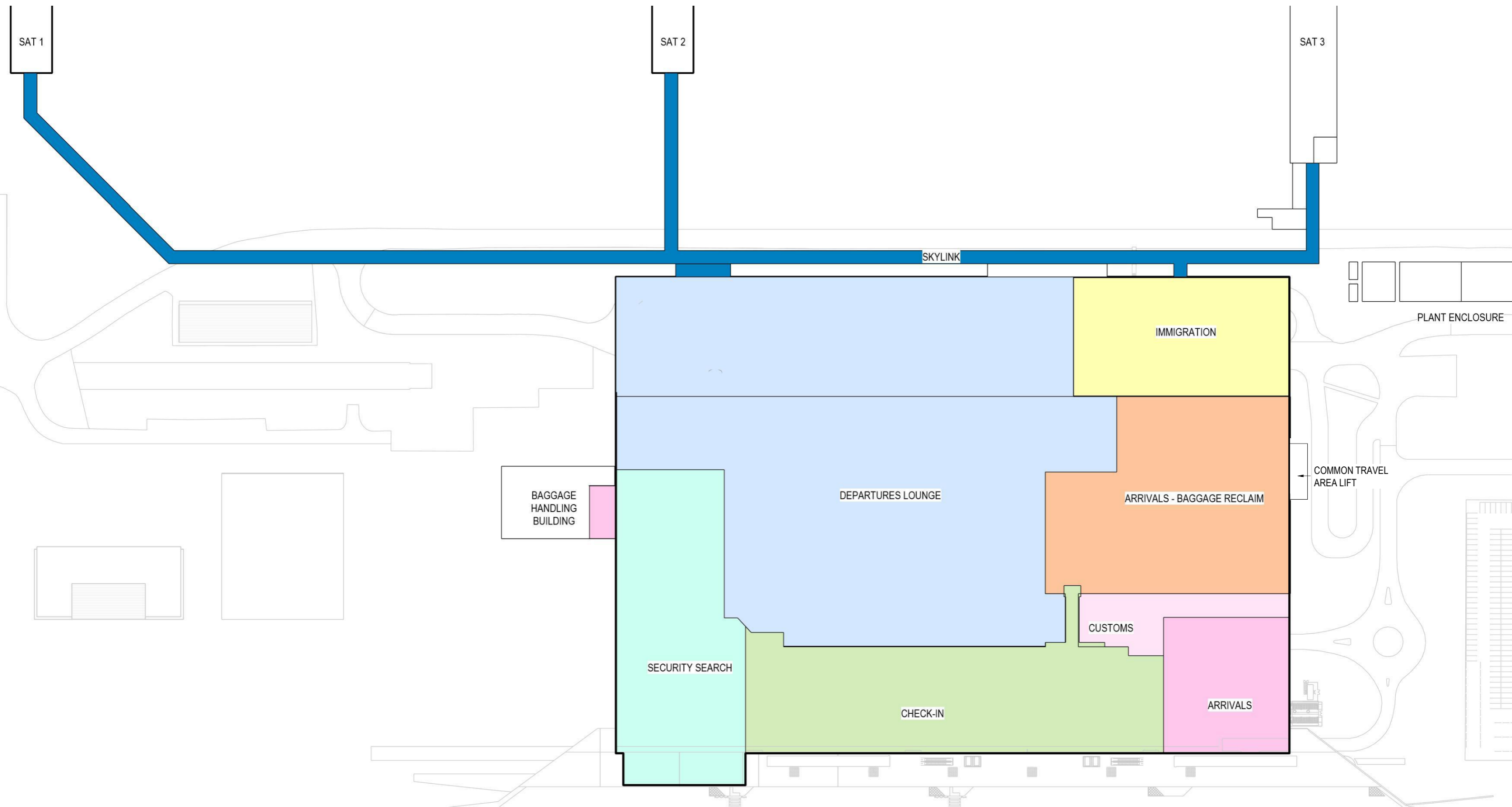




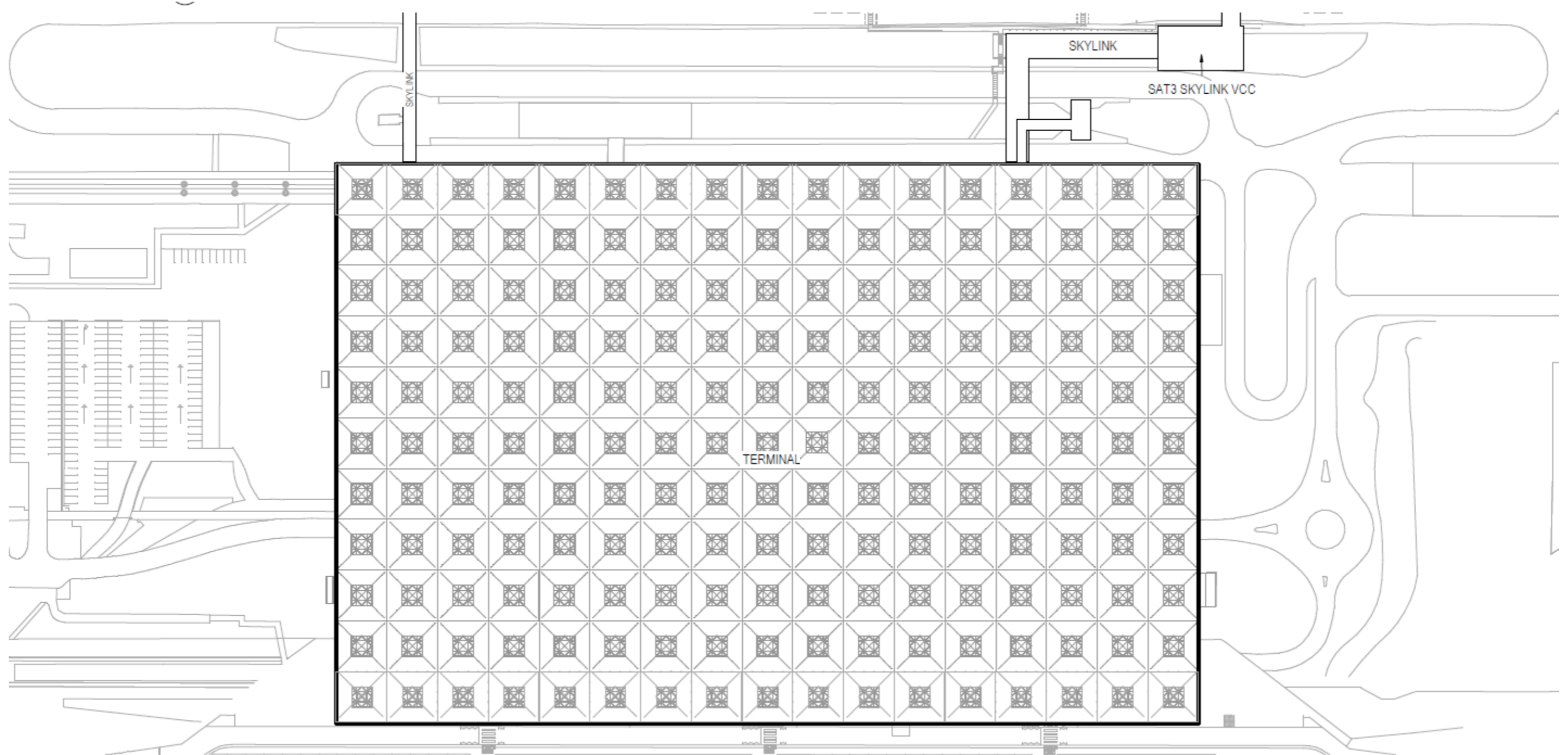
## 5.3 L05 Proposed Layout



## 5.4 L10 Proposed Layout

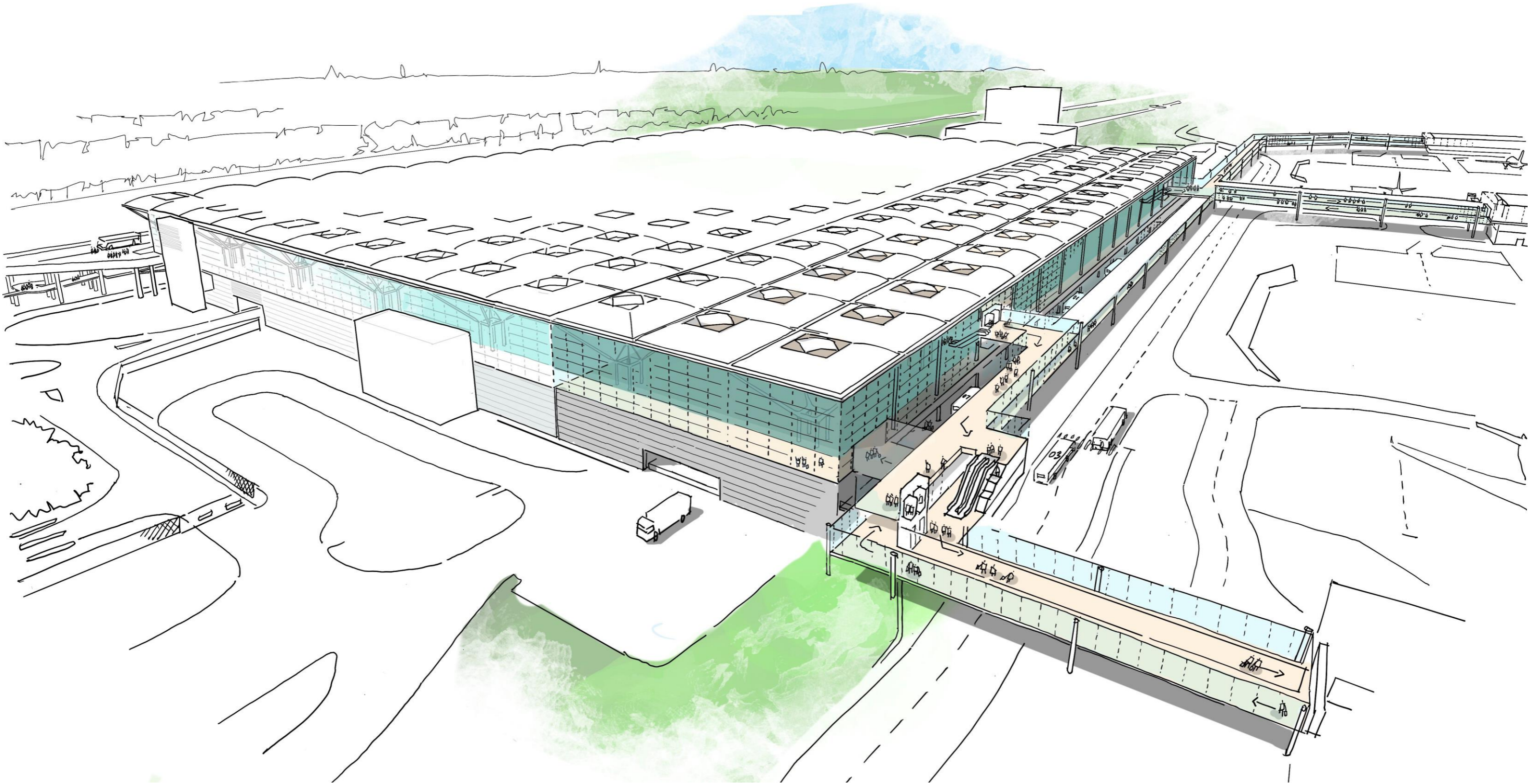


## 5.5 Proposed Roof Plan





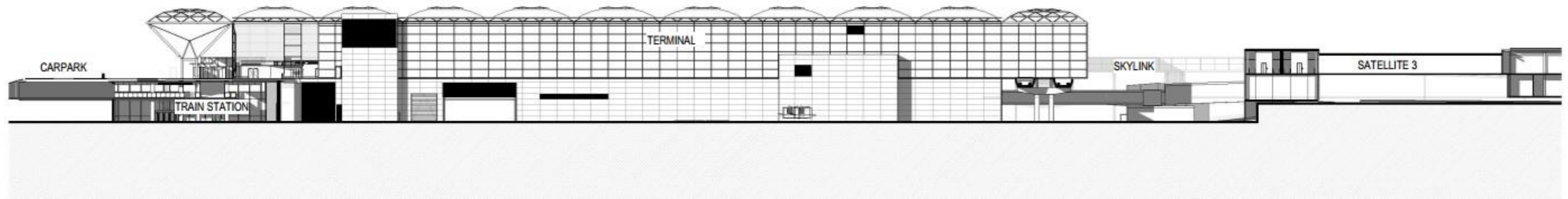
## 5.6 External View



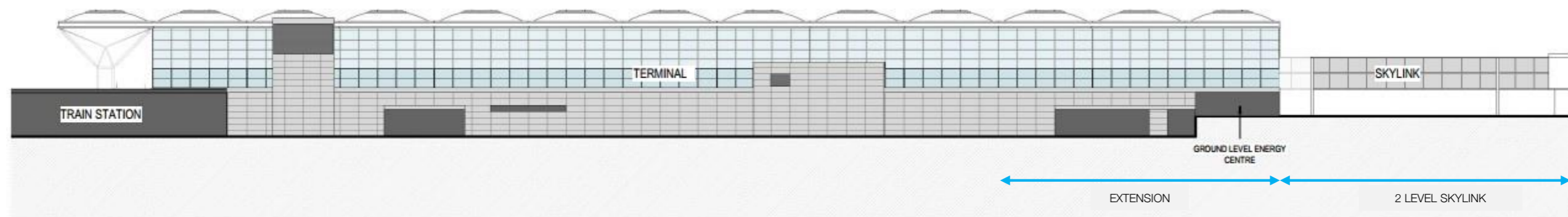
View from the North-East



## 5.7 Existing and Proposed North-East Elevations



Existing North-East Elevation



Proposed North-East Elevation

## 5.8 Existing and Proposed North-West Elevations



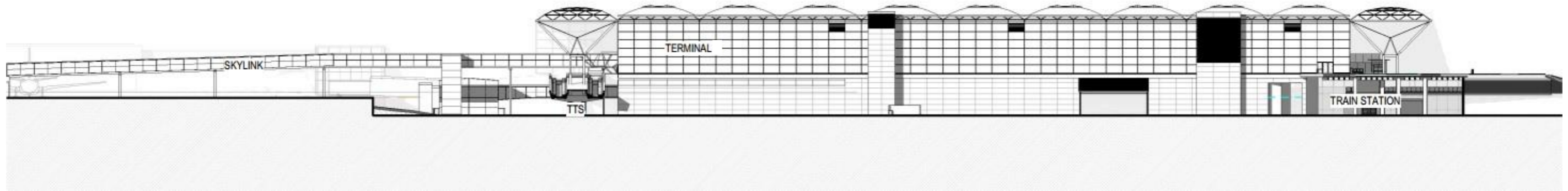
Existing North-West Elevation



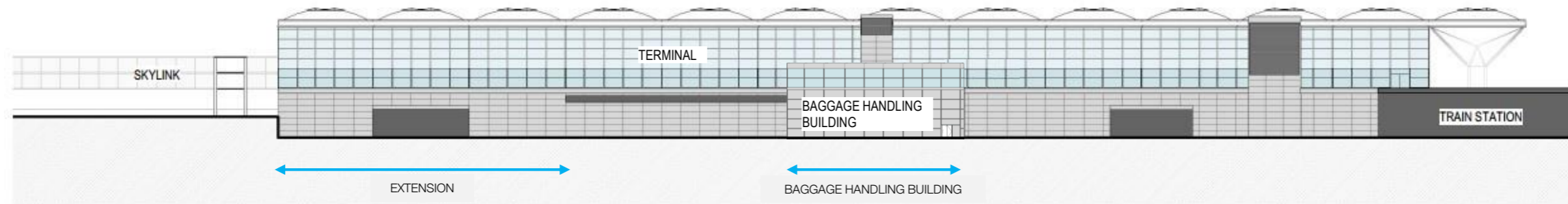
Proposed North-West Elevation



## 5.9 Existing and Proposed South-West Elevations

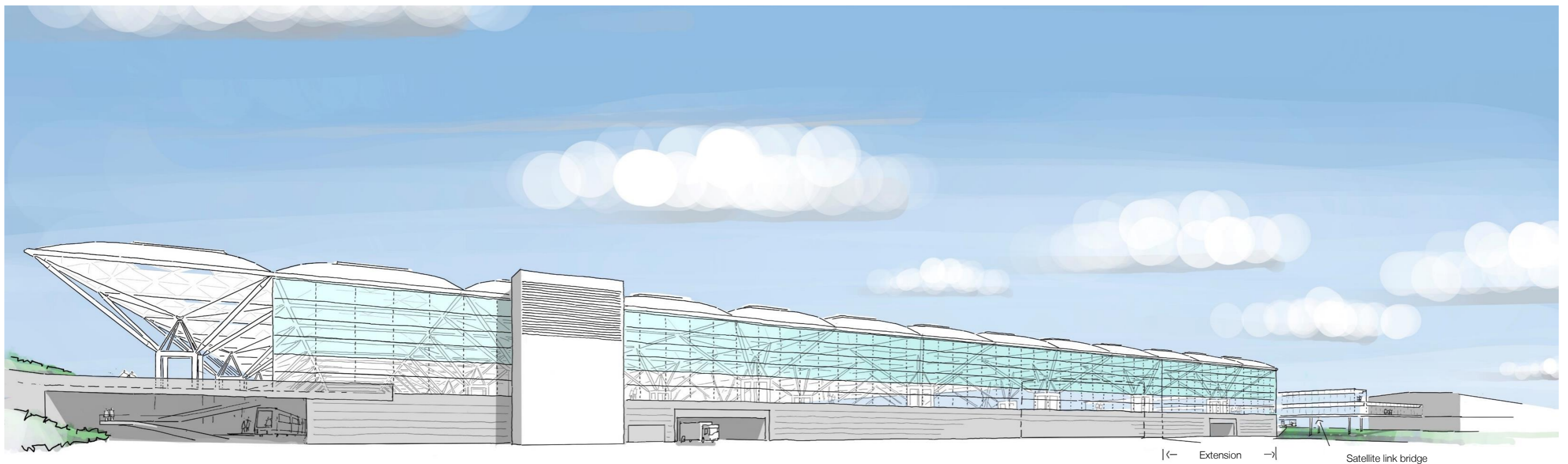
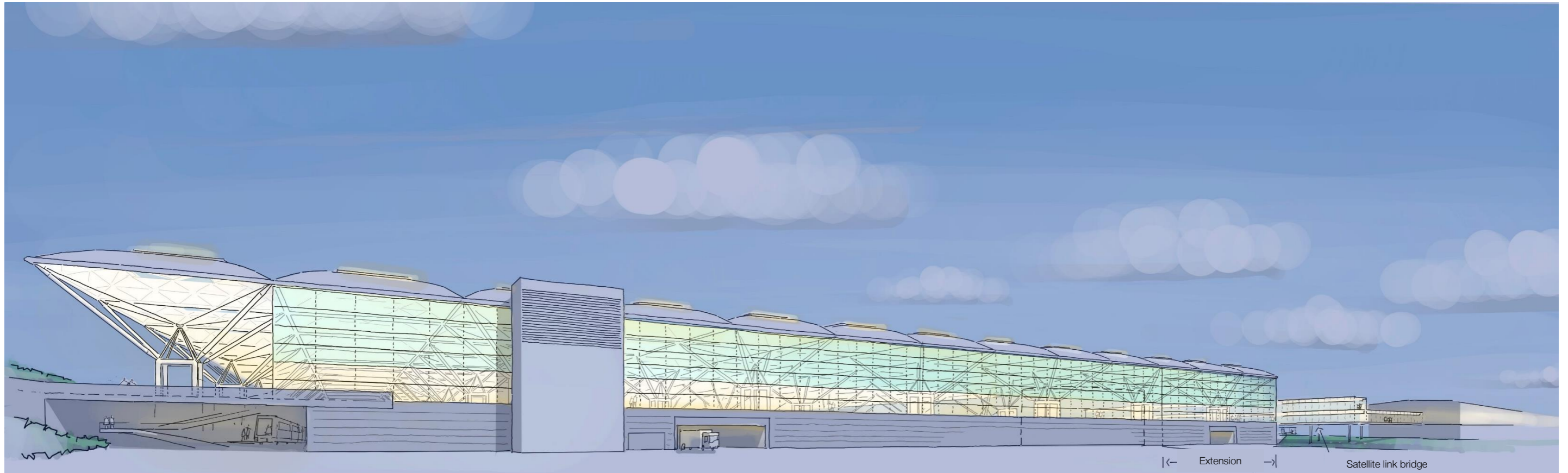


Existing South-West Elevation



Proposed South-West Elevation

## 5.10 Elevation Views Day & Night – North-East Elevation



North-East Elevation Day & Night



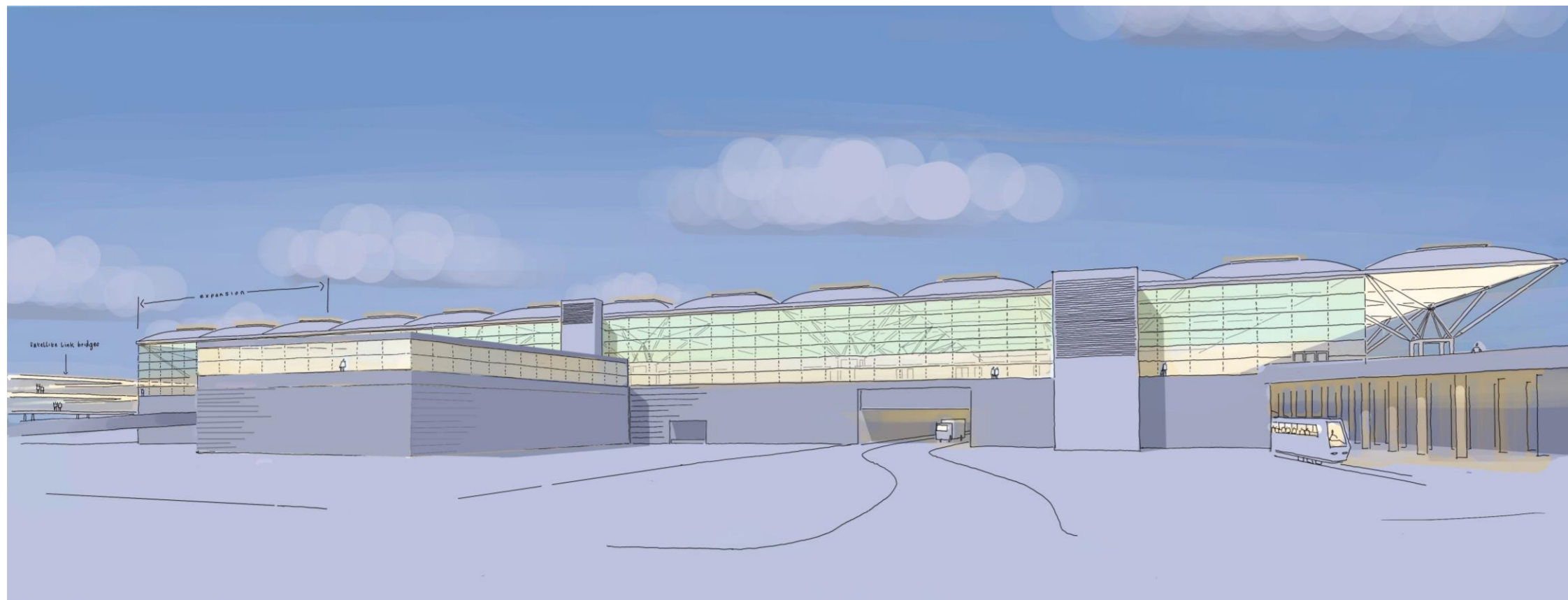
## 5.11 Elevation Views Day & Night – North-West Elevation



North-West Elevation Day & Night Extension

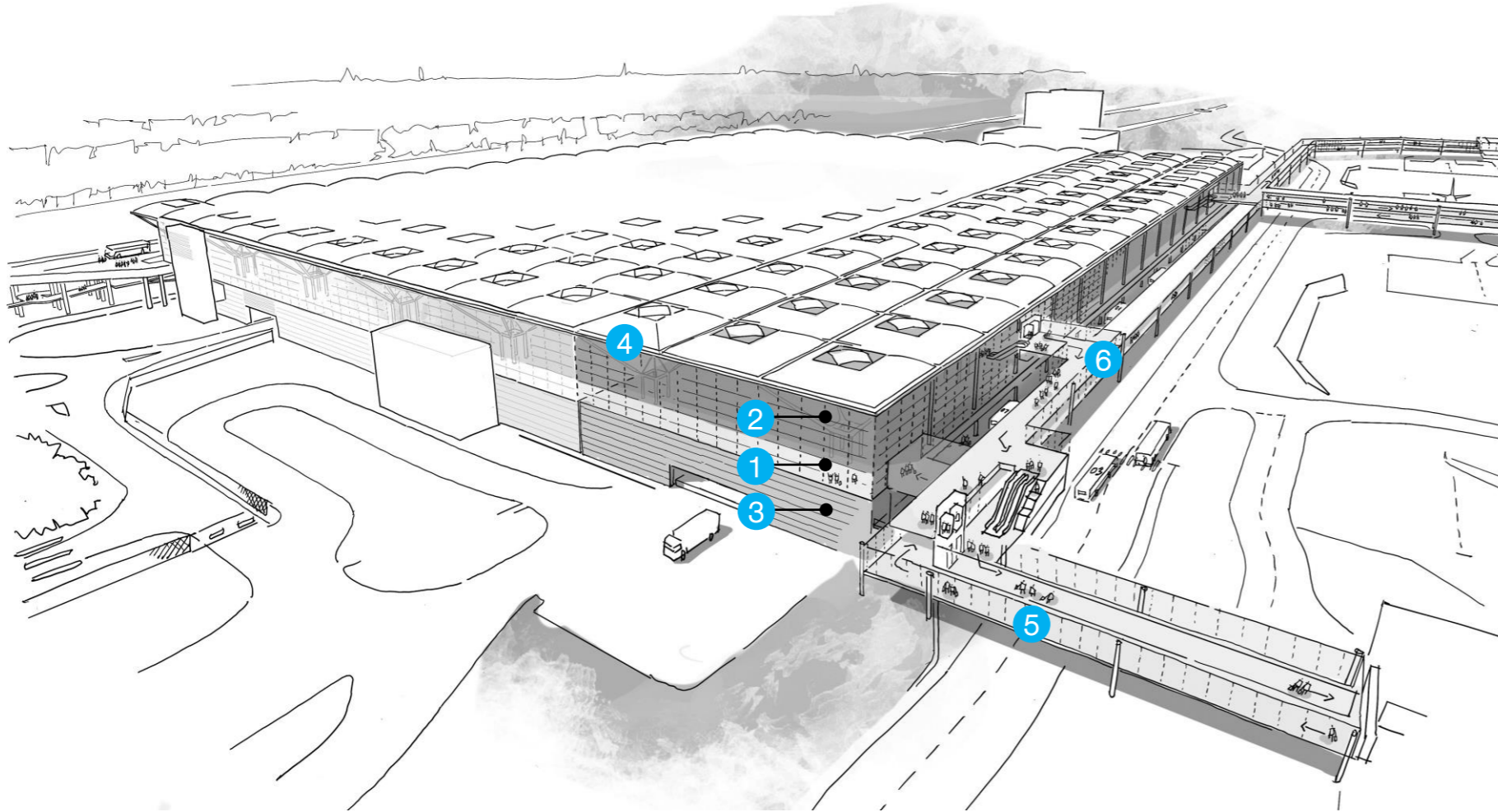


## 5.11 Elevation Views Day & Night – South-West Elevation



South-West Elevation Day & Night Extension

## 5.12 Envelope External Materials



### Material Palette

#### Terminal Extension

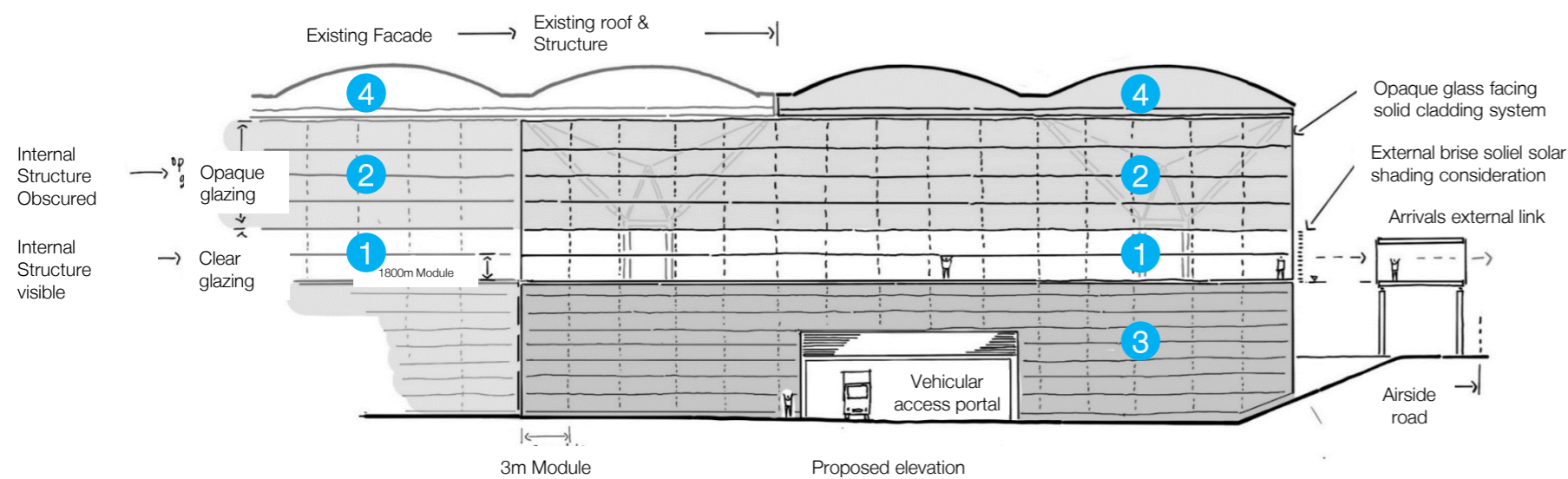
The external envelope material finishes and panel/ module sizes for the terminal extension external envelope are to match and align with the existing building to maintain visual continuity.

- 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







## 6.1 Access Aims

---

## 6.1 Access Aims

---

### Inclusive Design

Inclusive design means designing beyond the minimum requirements of Approved Document Part M, to ensure that all people, regardless of age, sex or ability can use and enjoy the built environment. The design team has aimed to achieve the following throughout the design process:

- to maximise access to all parts of the extension and skylinks, it's facilities and services for people who are passengers, visitors and members of staff regardless of disability.
- to ensure that wherever possible appropriate standards of accessibility can be met at the outset as part of mainstream inclusive design.
- to meet the requirements of The Building Regulations Approved Document M - Access to and Use of Buildings, 2015
- to meet the requirements of The Building Regulations Approved Document B - Fire Safety (2006 incl. 2010 & 2013 Amendments)
- to follow design guidance given in relevant British Standards and the Planning & Access for Disabled People: A Good Practice Guide where possible.
- to meet Local Authority access policies where necessary.
- to meet the aims of the Disability Discrimination Act 1995 and Equality Act (2010).

This Access Statement describes how the proposals for the new terminal extension have been developed with consideration and understanding of the principles of inclusive design. The scheme has been designed with regard to various users:

- Passengers
- Visitors to the airport
- Employees in the commercial and retail areas
- Families with buggies and prams

The design team has followed best practice, all current applicable legislation, regulations, standards and guidance for accessibility and has drawn on STAL's own extensive knowledge.

All areas are covered by this report with the exception of areas of restricted access, plant and spaces that are not accessed except for maintenance by servicing engineers or similar personnel.

The addition of a new extension to complement the existing terminal will improve passenger flow, allowing the airport to better manage increased passenger numbers overall and particularly at peak times.

Overall access and egress principles for the terminal through train, car, taxi, bus and coach facilities will retain the principles of it's existing operation. The existing terminal forecourt and entrance will operate as at present. New routes through the terminal and onto the satellite piers will offer increased overall circulation space and enhanced signage and wayfinding, improving the passenger experience for people of all abilities

---

7.1 General Circulation

7.2 Proposed Internal Passenger Routes

7.3 External Vehicle Access

7.4 Wayfinding & Signage

7.5 Lighting

7.6 Summary



# 7.1 General Circulation

## Circulation and Access

### Key drivers

Within the building the passenger routes have been designed for all users. Passengers with reduced mobility (PRM) can follow the same route as other passengers. Lifts are provided on all passenger routes as an alternative to stairs, ramps and escalators. Vertical circulation cores will be treated differently to the general interiors so they stand out. Cores are positioned in obvious locations with good sight lines.

### Horizontal Circulation

Basic principles have been established to determine the width of the passenger circulation routes, including where PRM buggies have to pass each other.

### Vertical Circulation

There are no level changes along the departures route throughout the terminal. There is then a single level change upon accessing the sky-links, in order to access the departures level of the satellite piers. This passenger vertical circulation core will include one escalator, two lifts and a staircase.

A further level change is required to access the aircraft stand from the satellite.

There are no level changes along the arrivals route.

All lifts will have an internal car size that matches or exceeds the minimum 1100mm x 1400mm (8 persons) in Part M.

All common stairs will be designed to meet Part M, having dimensions that suit ambulant disabled people and tonal contrast with impaired sight. Handrails will be 900mm above nosing and will extend 300mm beyond the top and bottom step.

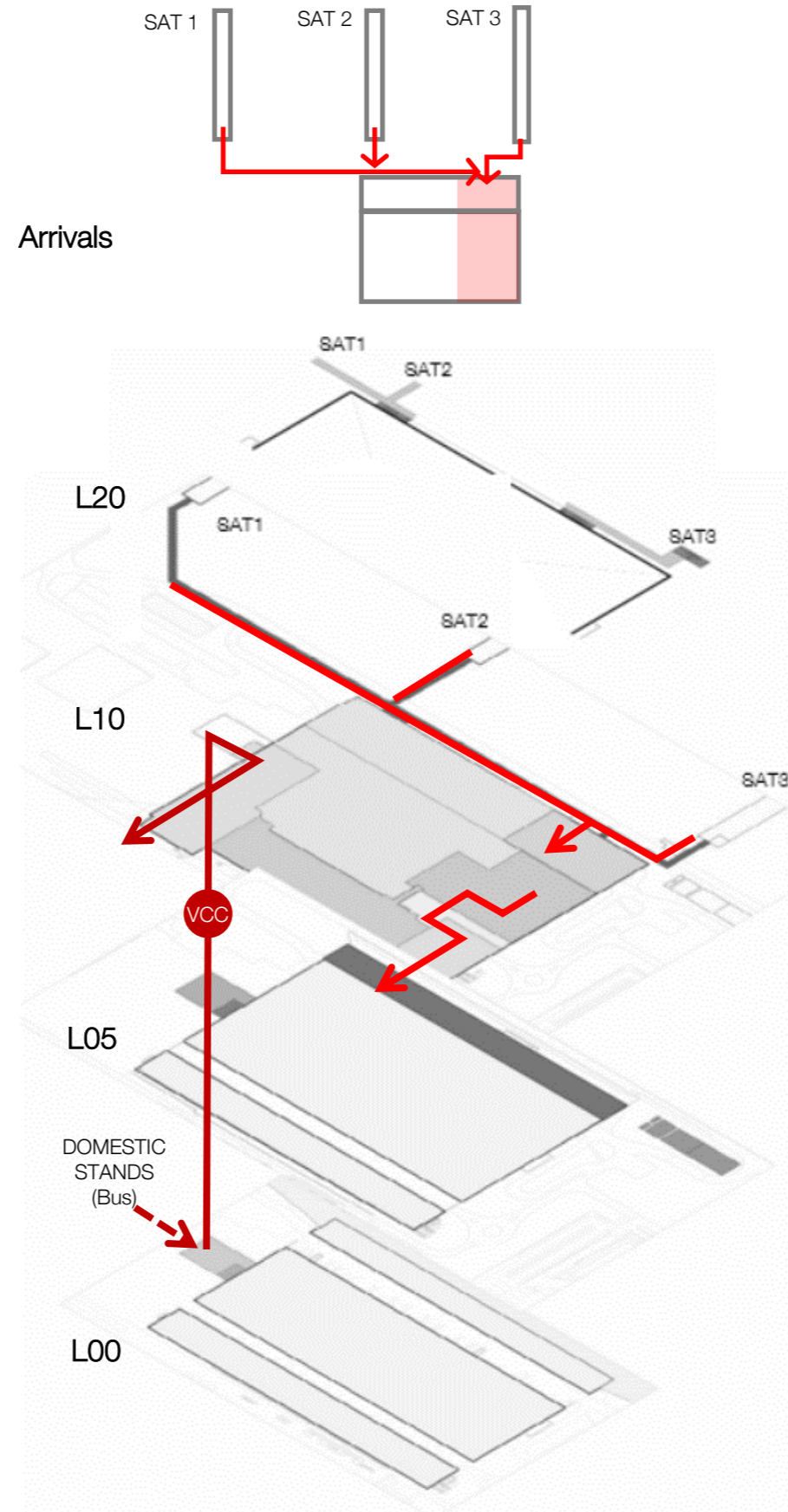
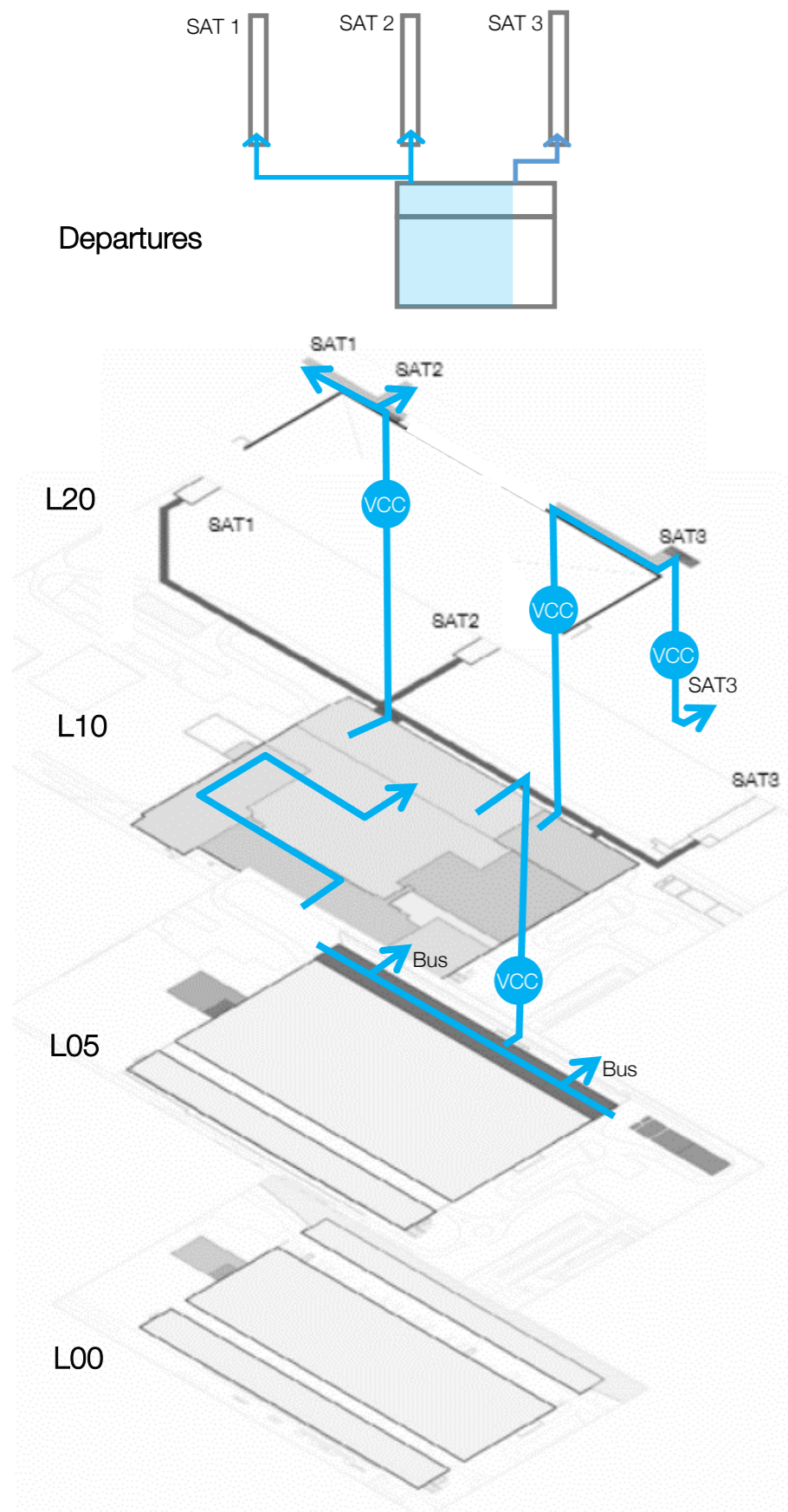
Lifts, stairs, ramps and escalators will meet Approved Document Part M, BS 8300:2009 and BS EN 81-70 in all respects subject to detail design development

### General Passengers Areas (Public Facing zones):

All passenger departure spaces will meet or exceed the minimum Part M standards. The following items will be considered as the design develops in order to ensure Approved Document Part M 2015 and other relevant current standards will be met:

- Interior surfaces will clearly distinguish walls, floors and doors in all circulation spaces and corridors.
- Acoustics within these spaces to be such that disabled people are not hindered.
- Staff routes to be accessible.
- Doors and corridors will be designed to standards for easy movement by wheelchair users.
- Doors on all circulation routes will be designed with minimum opening pressures of less than 30 Newtons or where this is not possible will be either power assisted or on hold open devices.
- All doors on routes to be used by wheelchair users will have 300mm offsets or doors held open on hold open devices.
- Large areas of glazing to include appropriate manifestation
- Details of surfaces, materials, lighting decor etc to be reviewed at the next stage of design detail.

## 7.2 Proposed Internal Passenger Routes



### Passenger Flows

#### Departures Circulation

The main passenger routes for departing passengers will be similar to the existing: passengers enter the terminal from the kerbside drop-off or from the train station undercroft. Upon entry to check-in they have clear sightlines to the row of new 'shoreline' check-in and bag-drop facilities. Following check-in passenger move to the west of the building to the security search area. After the search process is complete, passengers enter the Departures Lounge. Clear sightlines and generous circulation width between the existing departures lounge and the proposed extension create seamless movement between the two spaces. Passengers exit the departures lounge via two clearly defined exit routes (skylink), and then proceed to the satellite piers via new circulation links, or a vertical circulation route directly down to the bus gates.

#### Arrivals Circulation

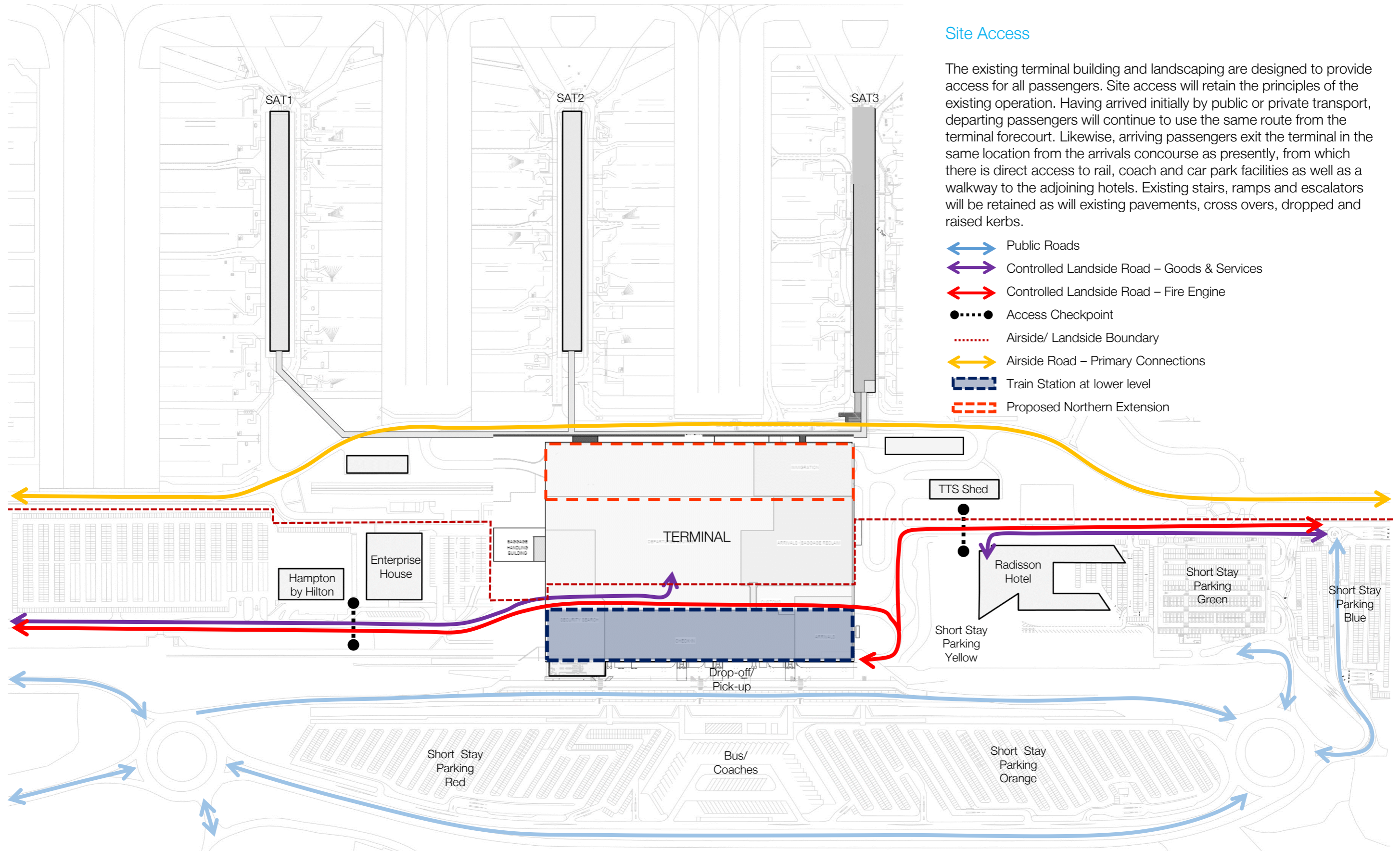
The main passenger routes for arriving passengers will be similar to the existing: passengers enter the terminal from the new circulation (skylinks) directly into the new immigration facility. They will then proceed through baggage reclaim and customs and into the arrivals concourse, from where passengers can access all onward travel options.

#### Legend

- International Departures
- VCC Departures Core
- International Arrivals
- Domestic Arrivals
- VCC Arrivals Core



## 7.3 External Vehicle Access



### Site Access

The existing terminal building and landscaping are designed to provide access for all passengers. Site access will retain the principles of the existing operation. Having arrived initially by public or private transport, departing passengers will continue to use the same route from the terminal forecourt. Likewise, arriving passengers exit the terminal in the same location from the arrivals concourse as presently, from which there is direct access to rail, coach and car park facilities as well as a walkway to the adjoining hotels. Existing stairs, ramps and escalators will be retained as will existing pavements, cross overs, dropped and raised kerbs.

- Public Roads
- Controlled Landside Road – Goods & Services
- Controlled Landside Road – Fire Engine
- Access Checkpoint
- Airside/ Landside Boundary
- Airside Road – Primary Connections
- Train Station at lower level
- Proposed Northern Extension



## 7.4 Wayfinding & Signage



### Wayfinding & Signage Strategies

Passenger information, wayfinding and signage will be provided in the main concourse areas, at key decision making points to provide information in assisting route finding and to help locate facilities and where passengers will dwell.

A wayfinding strategy will be developed more closely in the next design stage and will take into consideration the use of:

- Natural cues
- Daylight
- Self illuminated signage
- Information screens
- Location, accessibility, layout and height of signs
- Size of lettering, symbols and their reading distances
- The use of tactile letters and symbols
- Visual contrast and lighting
- Finished surfaces of materials used for signs and symbols
- Simultaneous use of audible cues
- Integration with other communication systems

A public address function will be provided for flight and passenger information announcements.

---

## 7.5 Lighting

---

### Lighting Strategies

The design of the new terminal extension will pay particular attention to achieving good lighting between indoor and outdoor spaces and at transitions. All lighting will be designed to meet BS8300:2009 +A1:2010 criteria.

General purpose lighting will consist of flicker free light sources to provide an average lighting level of 300 Lux at floor level in general circulation areas. Lamp types will be selected to ensure a good standard of colour rendering within the space. Up-lighting sources will be located where they cannot produce nuisance glare. Down lighting types, locations and targeting will be selected to address glare and to minimise hot spots.

A generous north-western facing facade and roof lights are provided to maximise daylight within the building and enable views into and out of the building, improving the internal environment and assisting in orientation. Daylight will improve the colour rendering.

The careful consideration of lighting will enhance visual clarity between different spaces improving passenger experience. Measures will be considered to control penetration of direct sunlight into the building and reduce the impact of glare. Surface finishes, such as flooring, will be selected to ensure that they are not highly reflective thereby avoiding disturbance glare.

There will be no demonstrable external appearance change and the light spill on to the airfield (and beyond) will be managed by STAL.

---

## 7.6 Summary

---

### Conclusion

The general arrangement plans of the proposal at this stage demonstrate that the key requirements for accessibility can be met.

Furthermore they indicate that a high level of inclusive design will be achieved by the completed scheme.

In summary this will include:

- Level, step free approaches to the terminal extension, rail, coach and parking facilities.
- Commercial and retail facilities to meet Part M requirements.
- Access to lifts for all disabled passengers or passengers with reduced mobility (PRM).
- to meet the aims of the Disability Discrimination Act 1995 and Equality Act (2010).





## 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.



# PASCALL +WATSON

## London

The Warehouses  
10 Black Friars Lane  
London, EC4V 6ER  
+44 (0)20 3837 2500

## Abu Dhabi

International Tower  
Floor 20 – Suite 2004  
Capital Centre, ADNEC  
Po Box 93834  
Abu Dhabi  
UAE  
+971 2 443 7727

## Qatar

Level 22  
Tornado Tower  
Doha  
Qatar  
+974 4429 2533

## Dublin

149 Francis Street  
Dublin 8  
Ireland  
+353 (0)1 473 4625

## Limerick

11 Mallow Street  
Limerick  
Ireland  
T +353 (0)61 310 890

[www.pascalls.co.uk](http://www.pascalls.co.uk)  
[info@pascalls.co.uk](mailto:info@pascalls.co.uk)

## Our Services

Architecture  
Design  
Delivery  
Design Management  
Masterplanning  
Interior Design  
Wayfinding  
Passenger Flow Modelling  
Building Information Modelling (BIM)

## Sectors

Aviation  
Rail  
Education  
Leisure  
Hospitality  
Commercial  
Workspace