



Gatwick Airport Northern Runway Project

Design and Access Statement – Volume 5

Book 7

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SCHEDULE OF CHANGES

Version 2.0 Changes

Change No.	Page No.	Figure/Text Ref.	Description
5.1	30	6.12.5.1	Text referring to the Biomass flue removed.
5.2	30	6.12.5.2	Text referring to the Biomass flue removed.
5.3	31	6.12.5.4	Repeated text has been removed.
5.4	31	6.12.5.5	Repeated text has been removed.
5.5	36	Figure 52	Updated to show the revised Water Treatment Works on the Parameter Location Plan.
5.6	42	Figure 57	New compound for Reed Bed Compound (Water Treatment Works).
5.7	43	8.1.4	Additional text added to describe the requirement for an additional compound to support the Water Treatment Works.
5.8	44	8.3.3.2	Edit to make bullet point caps.
5.9	45	8.3.5.1	Edit to make bullet point caps.
5.10	46	8.3.6.2	Edit to make bullet point caps.
5.11	48	8.3.8.2	Edit to make bullet point caps.
5.12	49	8.3.9.2	Edit to make bullet point caps.
5.13	49	8.3.11	Additional text added to describe the requirement for an additional compound to support the Water Treatment Works.
5.14	55	Figure 73	Phasing plan updated to include the revised Water Treatment Works.
5.15	57	Figure 75	Phasing plan updated to include the revised Water Treatment Works.
5.16	59	Figure 77	Phasing plan updated to include the revised Water Treatment Works.
5.17	60-71	A1	Design Principles omitted, these are now contained in stand alone document ref - '7.3 Design and Access Statement appendix 1 - Design Principles'.
5.18	74-77	Figure 71,73,75,77	Construction phasing plans updated to include the revised Water Treatment Works.
5.19	64-73	A1 & A2	Land Use and Construction Phasing Plans (Appendix A1 and A2) updated to include the revised Water Treatment Works.

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An aerial photograph of an airport terminal and tarmac, overlaid with a semi-transparent red filter. The terminal building is a long, multi-story structure with numerous gates. The tarmac is filled with many commercial aircraft parked at gates. In the background, there are more airport buildings and a large green field. The text "6.0 SITE WIDE DESIGN GUIDELINES" is centered in white, bold, sans-serif font.

6.0 SITE WIDE DESIGN GUIDELINES

6.1 INTRODUCTION

- 6.1.1 The design of the projects set out in Section 5 of this DAS is at an early feasibility stage. This means they have been designed to test the viability of the masterplan but they are not a fixed design of the future developments.
- 6.1.2 When further design work takes places, GAL wants to ensure that both the highest design standards are adhered to whilst ensuring there is a proportionate degree of flexibility to enable creativity and innovation.
- 6.1.3 Due to the nature of the design process and the timing of the consenting process, GAL requires a degree of flexibility as to where certain elements of the Project, particularly the highway works can be constructed. The **draft DCO** (Doc Ref 2.1) is accompanied by a set of plans which provide details of the proposals. Each of the main components of the authorised development is attributed a work number ('Work No.'). The work numbers should be read alongside the Work Plans which are set out at Schedule 1 of the **draft DCO** and define the location of the authorised development as well as any limits of deviation as set out in **Article 6** and on the **Parameter Plans** (Doc Ref 4.7).
- 6.1.4 The maximum extent and area of each Work No. are shown on the Work Plans and Parameter Plans; with the approximate level of the finished works, the height of the structure (m) and/or maximum parameter height within which this Work would be undertaken described within this DAS and **ES Chapter 5: Project Description** (Doc Ref. 5.1). The Parameter Plans are discussed further in Section 7 of this DAS with Figure 2 showing the scope of the project, with works with a specific parameters height drawing shown in blue and those without in yellow.

6.2 DESIGN GUIDE

6.2.1 DESIGN GUIDE INTRODUCTION

- 6.2.1.1 This section sets out the 'Framework for Good Design' which categorises the development and provides aims for each that any design as part of the Project should achieve. The works under the DCO cover a wide range of development including airfield infrastructure to more commercial led developments such as hotels and passenger focused areas.
- 6.2.1.2 Whilst the technical and operational requirements for the development of any component of the masterplan will have its own specific design requirements, GAL want to ensure each is governed by key overarching principles set in a framework as represented in the diagram at Figure 2.
- 6.2.1.3 To make the Design Guide as robust as possible GAL have taken into consideration national and local guidance in the development of these aims.

6.2.2 NATIONAL AND LOCAL GOVERNMENT DESIGN GUIDANCE

- 6.2.2.1 The government's National Planning Policy Framework (NPPF) makes clear that creating high quality buildings and places is fundamental to what the planning and development process should achieve.
- 6.2.2.2 Design guidance within this report is based upon the government's planning practice guidance documents, the National Design Guide (2021) which aims to foster the creation of sustainable communities.
- 6.2.2.3 The National Design Guide states that the long-standing, fundamental principles for good design are that it is: fit for purpose; durable; and brings delight. It explains that buildings are an important component of places and proposals for built development are a focus of the development management system. However, good design involves careful attention to other important components of places. These include place and building context and:
 - Hard and soft landscape;
 - Technical infrastructure - transport, utilities, services such as drainage; and
 - Social infrastructure - social, commercial, leisure uses and activities.

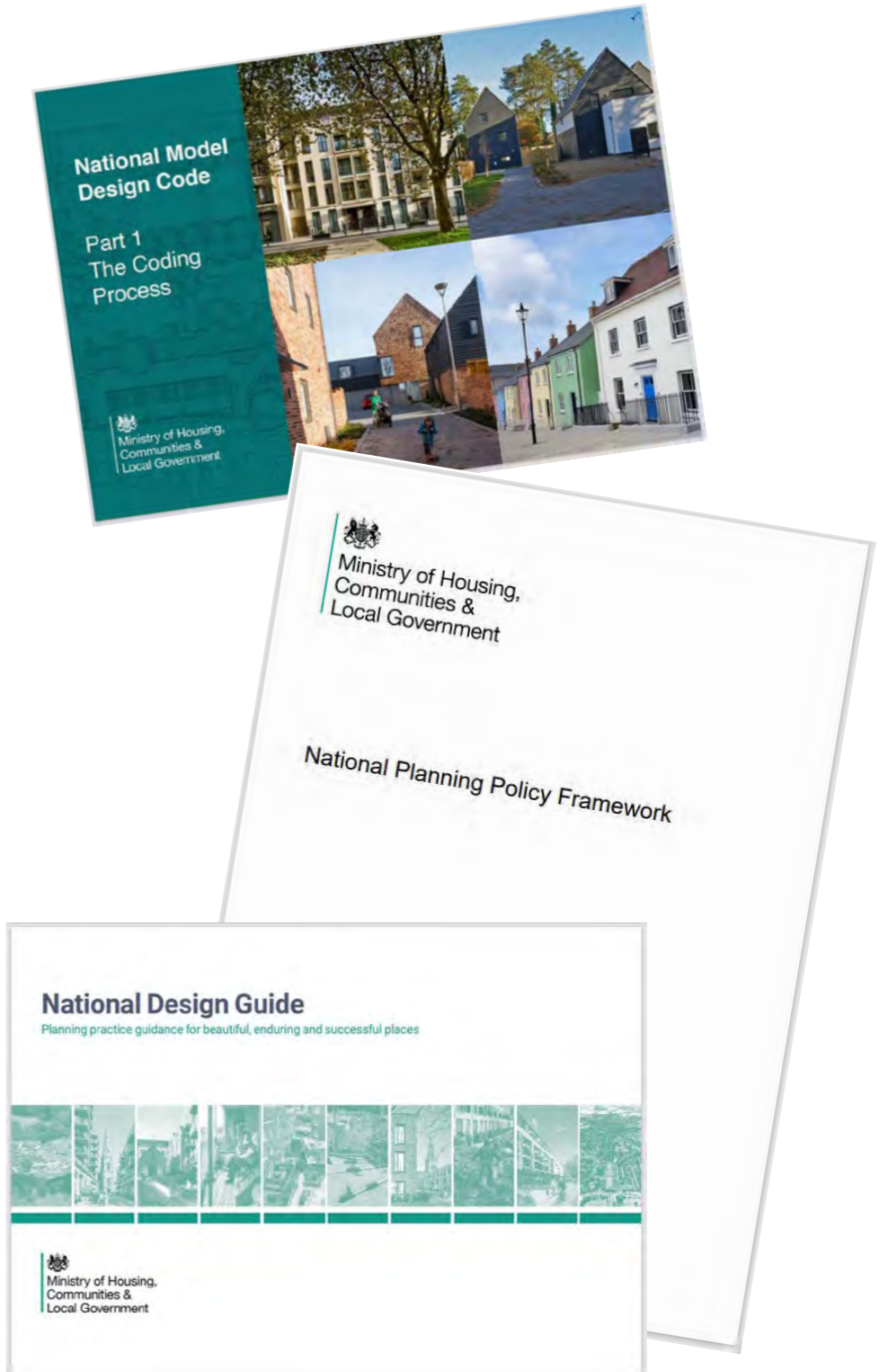


Figure 1. Government Design Guidance Documents

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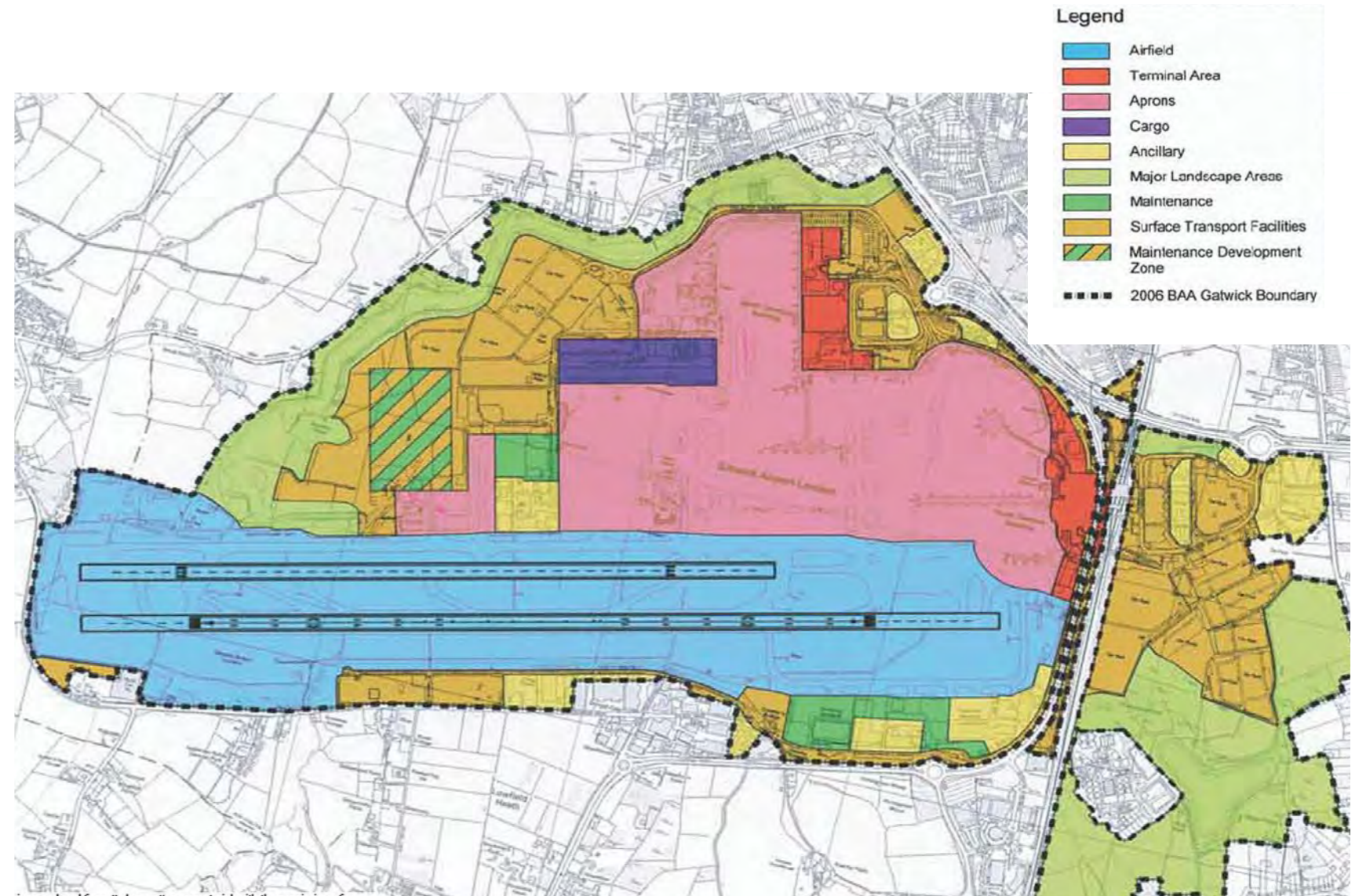


Figure 2. Image from Crawley Local Plan / Gatwick Airport SPD

- Social infrastructure – social, commercial, leisure uses and activities.
- 6.2.4.4 The guide also stresses that a well-designed place is unlikely to be achieved by focusing only on the appearance, materials and detailing of buildings. It comes about through making the right choices at all levels, including:
- The layout (or masterplan);
 - The form and scale of buildings;
 - Their appearance;
 - Landscape;
 - Materials; and
 - Their detailing.
- 6.2.4.5 This guidance has been taken into consideration through the development of the masterplan proposed as part of this DCO application and will continue to be a core consideration throughout the succeeding design of its components.

6.2.5 LOCAL GOVERNMENT DESIGN GUIDANCE

- 6.2.5.1 Guidance contained within Crawley’s Local Plan and adopted **Supplementary Planning Document (SPD)**, extent shown in Figure 3, has been used in the design development process to guide how the proposed development has been formed and will be a key consideration in the detailed design of the various components.
- 6.2.5.2 The specific policies of Crawley’s Local Plan that apply to the design of the Project are:

Crawley Local Plan 2015

- 6.2.5.3 **Policy CH2 Principles of Good Urban Design** requires developments to be of a high-quality design. The policy sets out the ways in which successful places can be designed, including responding to local character, creating continuous frontages, creating attractive public spaces, making places connected, proving recognisable routes, consider flexible development forms and providing a mix of compatible uses.
- 6.2.5.4 **Policy CH3 Normal Requirements of All New**

Development states that all proposals will be required to be based on a thorough understanding of the distinctiveness of the site and its surroundings, be of high quality design and be supported by a future management and maintenance plan, contributions towards streetscene improvements will be sought, provide or retain a good standard of amenity for existing and future occupiers, retain existing trees that positively contribute to the area, demonstrate how “Secured by Design” principles have been incorporated into the proposals, and meet the requirements necessary for access, circulation, manoeuvring, parking, (un)loading, and storage of waste/recycling. Proposals should comply with relevant SPDs produced by the Council and advice on signs and advertisements.

- 6.2.5.5 **CH4 Comprehensive Development and Efficient Use of Land** states that development proposals must use land efficiently and not unduly restrict the development potential of adjoining land, not prejudice the proper planning and phasing of development over a wider area.
- 6.2.5.6 **CH6 Tree Planting and Replacement Standards** requires proposals that result in a loss of trees to identify the trees to be removed and replaced in order to mitigate for the visual impact from the loss of tree canopies. Where the LPA agrees that additional or replacement tree planting is not feasible or desirable, commuted sums will be sought on a per tree basis.
- 6.2.5.7 **CH8 Important Views** requires that important views should be protected and/or enhanced and proposals should not result in a direct adverse impact or lead to the erosion of these views. For linear contained views, the robust tree planting that contains the views must be protected and/or enhanced, new developments should be well-screened, and proposals at the end of the corridor must demonstrate that the view would be protected and/or enhanced. For long distance views, the points from which the view can be enjoyed must remain unobstructed and where the view is to an identified feature, development is required to protect and/or enhance this feature. The visual impact of proposals affecting Important Views must be clearly and accurately demonstrated as part of the planning application submission, for example through the use of verified view montages and cross sections.
- 6.2.5.8 **CH9 Development Outside the Built-Up Area** requires

Crawley’s compact nature and attractive setting to be maintained. It requires development to be grouped where possible with existing buildings, be located to avoid the loss of important views, reflect local character in terms of design, minimise the impact of lighting, ensure structures are not visually prominent in the landscape, does not generate unacceptable level and/or frequency of noise in areas relatively undisturbed by noise, does not generate inappropriate traffic, and does not introduce a use which is not compatible with the countryside. Where harm to the landscape character cannot be avoided, appropriate mitigation and compensation will be required. Applicants are advised to consider the enhancement opportunities identified in the Crawley Borough Council Landscape Character Assessment. In addition, all proposals must recognise the individual character and distinctiveness, and the role of the landscape character area or edge in which it is proposed.

Crawley Local Plan Submission Draft January 2021

- 6.2.5.9 **Strategic Policy CL2 Making Successful Places – Principles of Good Urban Design** requires that new forms of development proposals have addressed principles of the existing character, effective use of land, and built form, layout and movement. Major applications must also ensure the proposed urban structure results in movement paths and corridors which take desire lines into account, provide recognisable spaces and routes that are attractive, create continuous frontages, and ensure movement corridors and new development take account of long distant views.
- 6.2.5.10 **Policy CL3 Movement Patterns, Layout and Sustainable Urban Design** states that all development should seek to use land more efficiently and sustainably, put people before traffic and encourage walking and cycling. Larger schemes will also be required to establish a development form based on sustainable compact layout and scale which must be planned and located adjacent to stations, stops or interchanges and be designed to ensure future users are within eight minute walking distance of such stations or stops.
- 6.2.5.11 **Policy CL6 Structural Landscaping** states that developments are required to respect and plan for the conservation of the landscape character of the town, and proposals that affect this should demonstrate the visual impact of the proposals and should protect and/or

enhance structural landscaping. Where limited or weak structural landscaping can be identified as a negative factor in the attractiveness of an area, opportunities will be sought to deliver enhancements as part of development proposals.

- 6.2.5.12 **Policy CL7 Important and Valued Views** states that important views should be protected and/or enhanced and development proposals should not result in a direct adverse impact or lead to the erosion of these views, including the Linear Contained Views, the Long Distance Views, and the Valued Views. The visual impact of proposals affecting Important and Valued Views must be clearly and accurately demonstrated as part of the planning application submission.
- 6.2.5.13 **Policy CL8 Development Outside the Built-Up Area** requires Crawley’s compact nature and attractive setting to be maintained. It requires development to be grouped where possible with existing buildings, identify existing character to guide new development, identify strategic context of such settings and respond intelligently to the landscape, maintain a loose-knit, low density rural character, be located to avoid the loss of important views, reflect local character in terms of design, minimise the impact of lighting, ensure structures are not visually prominent in the landscape, avoid generating unacceptable level and/or frequency of noise in areas relatively undisturbed by noise, avoid generating inappropriate traffic, ensure access to the countryside is maintained and enhanced, and does not introduce a use which is not compatible with the countryside. Proposals which alter the overall character of the area must demonstrate that the need for the development clearly outweighs the impact on landscape character, and mitigation and compensation will be sought in these cases. Applicants are advised to consider the enhancement opportunities identified in the Crawley Borough Council Landscape Character Assessment.
- 6.2.5.14 **Policy DD2 Inclusive Design** requires proposals to achieve the highest standards of accessible and inclusive design possible. The Design and Access Statement should include an inclusive design statement.
- 6.2.5.15 **Strategic Policy DD1 Normal Requirements of All New Development** states the development proposals must use

land efficiently and not unduly restrict the development potential of adjoining land, nor prejudice the proper planning and phasing of development over a wider area. The policy details how all proposals will be required to provide or retain a good standard of amenity for existing and future occupiers, design the orientation and aspect, retain and reuse existing buildings or demonstrate why this is not feasible, include well-located public spaces that support a variety of activities, include development form which compliments existing character of the area, consider flexible development forms for larger applications, retain existing trees that positively contribute to the area, demonstrate how “Secured by Design” principles have been incorporated, and meet the requirements necessary for access, circulation, manoeuvring, parking, (un)loading, and storage of waste/recycling. Major applications must be supported by an indicative future management and maintenance plan and all proposals will seek streetscene improvements. Development must be guided by the council’s waste and recycling guidance document when designing new developments or changing the use of existing buildings.

- 6.2.5.16 **Strategic Policy DD4 Trees Replacement Standards** requires tree retention and provision needs to be accounted for at an early stage. Following the completion of surveys and analysis of the site, consideration must be given to which trees are the most suitable for retention, including trees of the highest quality should be retained, and trees of moderate and low value should not automatically be considered for removal. Where development proposals would result in the loss of trees, applicants must identify which trees are to be removed and replaced in order to mitigate for the visual impact resulting from the loss of the tree canopies. Where the LPA agrees that additional or replacement tree planting is not feasible or desirable, commuted sums will be sought on a per tree basis.
- 6.2.5.17 **Policy DD5 Aerodrome Safeguarding** states development will only be supported if it is consistent with the continued safe operation of Gatwick Airport. Proposals that cannot be mitigated to the satisfaction of the statutory consultees are considered to be a hazard to aircraft safety and will be refused.

Crawley Urban Design SPD October 2016

- 6.2.5.18 The purpose of the document is to provide clear guidance on urban design so that proposals for development can be

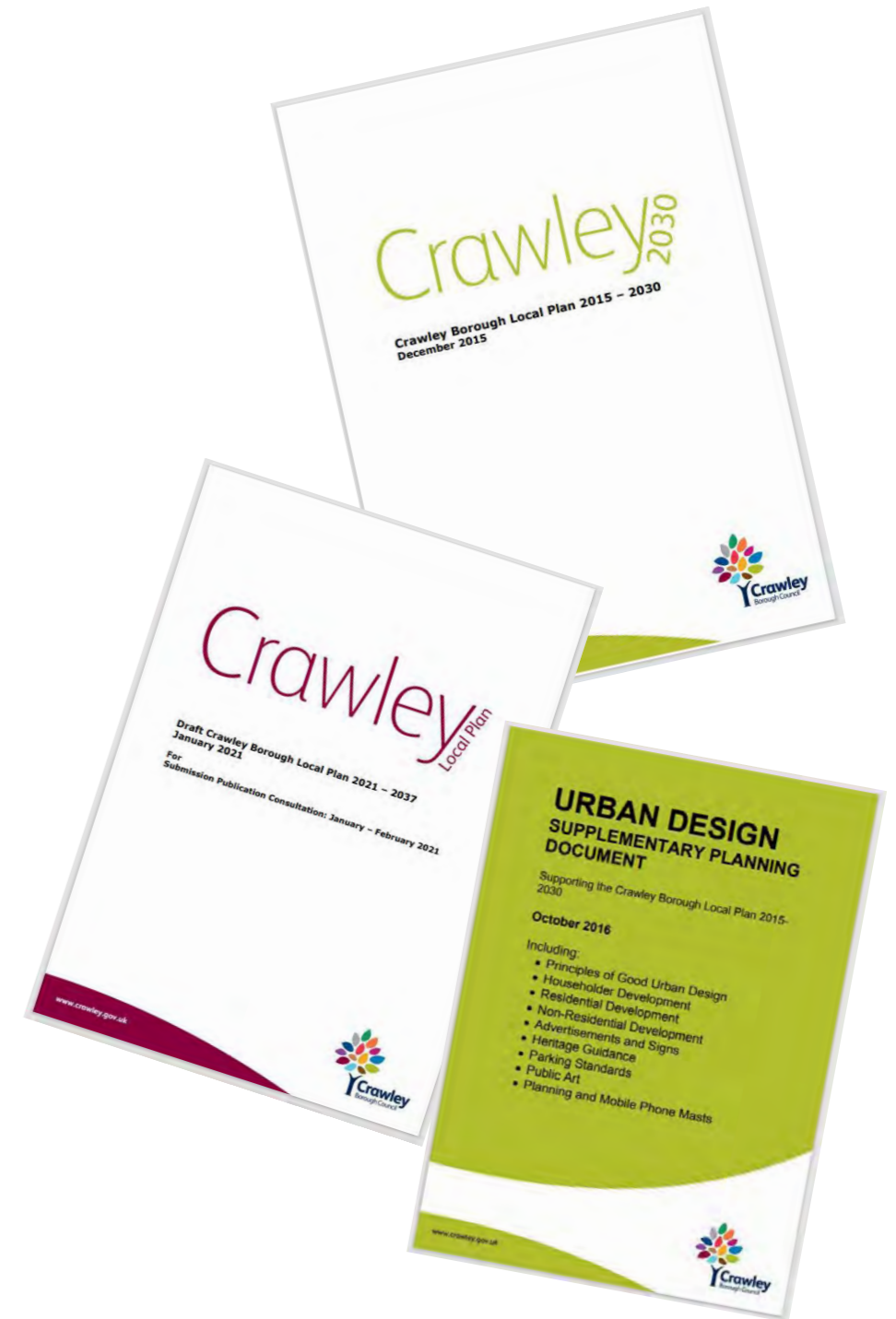


Figure 3. Local Government Design Guidance

6.2.6 THE 10 CHARACTERISTICS OF A WELL-DESIGNED PLACE

6.2.6.1 The National Design Guide identifies 10 characteristics of a successful place based upon the objectives for good design as set out in the NPPF (Figure 4). These (along with supporting guidance) have been adopted by this DAS, with the aim of informing choices in the design process, and all of which will contribute towards shaping the character of new development at Gatwick Airport.

6.2.6.2 The 10 characteristics are summarised below:

Context - enhances the surroundings

6.2.6.3 Well-designed places are:

- Based on a sound understanding of the features of the site and the surrounding context, using baseline studies as a starting point for design;
- Integrated into their surroundings so they relate well to them;
- Influenced by and influence their context positively; and
- Responsive to local history, culture and heritage.

6.2.6.4 Design choices will be informed by character studies and the historic assets of the place.

6.2.6.5 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following:

- Understanding Place, Historic Area Assessments, Historic England, 2017.

Identity - attractive and distinctive

6.2.6.6 Well-designed places, buildings and spaces:

- Have a positive and coherent identity that everyone can identify with, including residents and local communities, so contributing towards health and well-being, inclusion and cohesion;
- Have a character that suits the context, its history, how we live today and how we are likely to live in the future; and
- Are visually attractive, to delight their occupants and other users. Design choices will be informed by the sense of place and identity of existing buildings.



Figure 4. National Design guidance : The Ten Characteristics of A Well-Designed Place : Ministry of Housing, Communities and Local Government

3) Built form - a coherent pattern of development

6.2.6.7 Well-designed places have:

- Compact forms of development that are walkable, contributing positively to well-being and placemaking;
- Accessible local public transport, services and facilities, to ensure sustainable development;
- Recognisable streets and other spaces with their edges defined by buildings, making it easy for anyone to find their way around, and promoting safety and accessibility; and
- Memorable features or groupings of buildings, spaces, uses or activities that create a sense of place, promoting inclusion and cohesion.

6.2.6.8 Design choices will be informed by the nature of the space; private or public.

6.2.6.9 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following; and

6.2.6.10 The Urban Design Compendium, English Partnerships, August 2000, third edition, published by the Homes and Communities Agency in 2013s

4) Movement - accessible and easy to move around

6.2.6.11 A well-designed movement network defines a clear pattern of streets that:

- Is safe and accessible for all;
- Functions efficiently to get everyone around, takes account of the diverse needs of all its potential users and provides a genuine choice of sustainable transport modes;
- Limits the impacts of car use by prioritising and encouraging walking, cycling and public transport, mitigating impacts and identifying opportunities to improve air quality;
- Promotes activity and social interaction, contributing to health, well-being, accessibility and inclusion; and

- Incorporates green infrastructure, including street trees to soften the impact of car parking, help improve air quality and contribute to biodiversity.

6.2.6.12 Design choices have been and will be informed by the objective of creating connected places and provision of active travel, car and cycle parking and servicing.

6.2.6.13 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following:

- Manual for Streets, Department for Transport and Department for Communities and Local Government, 2007;
- Manual for Streets 2, Department of Transport, 2010;
- Cycle infrastructure design (Local Transport Note 1/20), Department for Transport, 2020;
- Highway Tree Management Operations Note 51, Forestry Commission, 2019 ; and
- Inclusive Mobility, Making transport accessible for passengers and pedestrians, Department for Transport, 2005.



Figure 5. Built Form: Gatwick South Terminal Forecourt
Consider Gatwick’s existing fabric to create a coherent development



Figure 6. Movement: Gatwick Inter Terminal Transit System
Enhance accessibility by connecting into existing transport links

5) Nature - enhanced and optimised

6.2.6.14 Well-designed places:

- Integrate existing, and incorporate new natural features into a multifunctional network that supports quality of place, biodiversity and water management, and addresses climate change mitigation and resilience;
- Prioritise nature so that diverse ecosystems can flourish to ensure a healthy natural environment that supports and enhances biodiversity; and
- Provide attractive open spaces in locations that are easy to access, with activities for all to enjoy, such as play, food production, recreation and sport, so as to encourage physical activity and promote health, well-being and social inclusion.

6.2.6.15 Design choices will be informed by the objective of creating green infrastructure, provision of water and drainage and the an enhancement of biodiversity.

6.2.6.16 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following:

- Environment Act 2021, Department for Environment, Food & Rural Affairs, Environment Act 2021 (legislation.gov.uk);
- National Framework of Green Infrastructure Standards (forthcoming guidance to be announced) ;
- A Green Future: Our 25 Year Plan to Improve the Environment, Department for Environment, Food and Rural Affairs, 2018;
- Nature Nearby - Accessible Natural Greenspace Guidance (NE265), Natural England, 2010;
- Sustainable drainage systems: non-statutory technical standards, Department for Environment, Food and Rural Affairs, 2015, <https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards>; and
- The Biodiversity Metric 2.0 (JP029), Natural England

- The Mosaic Approach: Managing Habitats for Species (B2020-009), Natural England, 2013.

6) Uses - mixed and integrated

6.2.6.17 Well-designed places have:

- A mix of uses including local services and facilities to support daily life.;
- Design choices will be informed by the objectives of intensification, variety of activity and mix, as well as provision of community and local services;

6.2.6.18 Guidance includes the following;

- Effective Use of Land (2019) Effective use of land;
- National Design Guide (2021) Section 11. 'Making Effective Use of Land' and Section 12. Achieving Well-designed Places National design guide; and
- Making The Most of England's Land (2022) Making the most out of England's land (parliament.uk).

7) Public space - safe, social and inclusive

6.2.6.19 Well-designed places:

- Include well-located public spaces that support a wide variety of activities and encourage social interaction, to promote health, well-being, social and civic inclusion;
- Have a hierarchy of spaces that range from large and strategic to small and local spaces, including parks, squares, greens and pocket parks;
- Have public spaces that feel safe, secure and attractive for all to use; and
- Have trees and other planting within public spaces for people to enjoy, whilst also providing shading, and air quality and climate change mitigation.

6.2.6.20 Design choices will be informed by the hierarchy of streets aimed at accommodating a range of travel modes, optimised social interaction and 'secured by design' considerations.



Figure 7. Nature: Development in context
Consideration of ecosystems in areas of natural habitat



Figure 8. Public Space: People focused public spaces
Create safe, secure and attractive for all to use

6.2.6.21 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following:

- Integrated Security, A Public Realm Design Guide for Hostile Vehicle Mitigation - Second Edition, Centre for the Protection of National Infrastructure, 2014; and
- Secured By Design, Police Crime Prevention Initiatives Limited, 2020, www.securedbydesign.com.

8) Buildings - functional, healthy and sustainable

6.2.6.22 Well-designed buildings:

- Provide good quality internal and external environments for their users, promoting health and well-being.
- Relate positively to the private, shared and public spaces around them, contributing to social interaction and inclusion; and
- Resolve the details of operation and servicing so that they are unobtrusive and well-integrated into their neighbourhoods.

6.2.6.23 Design choices will be informed by space standards, best-practice and guidance notes (including space standards), accessibility, lighting, aspect and privacy and 'secured by design' considerations.

6.2.6.24 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following:

- Living with Beauty: report of the Building Better, Building Beautiful Commission, 2020, Ministry of Housing, Communities and Local Government Living with beauty: report of the Building Better, Building Beautiful Commission.

9) Resources - efficient and resilient

6.2.6.25 Well-designed places:

- Have a layout, form and mix of uses that reduces their resource requirement, including for land, energy and water;
- Are fit for purpose and adaptable over time, reducing

the need for redevelopment and unnecessary waste; and

- Use materials and adopt technologies to minimise their environmental impact.

6.2.6.26 Design choices will be informed by energy efficiency standards, passive energy design, local low-energy networks and environmental standards.

6.2.6.27 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following:

- BREEAM Technical Standards, BRE, www.breeam.com; and
- UK Government's 'UK and the Sustainable Development Goals'.

10) Lifespan - made to last

6.2.6.28 Well-designed places, buildings and spaces are:

- Designed and planned for long-term stewardship by landowners, communities and local authorities from the earliest stages;
- Robust, easy to use and look after, and enable their users to establish a sense of ownership and belonging, ensuring places and buildings age gracefully;
- Adaptable to their users' changing needs and evolving technologies; and
- Well-managed and maintained by their users, owners, landlords and public agencies.

6.2.6.29 Design choices will be informed by management plans and community participation.

6.2.6.30 In addition to the National Planning Policy Framework, National Design Guide and National Model Design Code, guidance includes the following:

- Community engagement: guidance for local authorities, Ministry of Housing, Communities and Local Government, 2019.



Figure 9. Buildings: Typical roof light arrangement

Building designs that make use of Natural light promoting health and well being



Figure 10. Resources: Typical off-site construction delivery

Use of efficient building methods to reduce waste

6.3 LANDSCAPE, TOWNSCAPE AND VISUAL AMENITY

6.3.1 The design principles relating to Landscape, Townscape and Visual are set out within the **ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan** (Doc Ref. 5.3). It details the overarching ecological strategy for the site and how the habitat creation that forms part of the landscape zones will ensure the Project delivers an overall enhancement for ecology. The broad objectives of the landscape proposals as set out in the oLEMP are:

- Landscape integration,
- Landscape amenity
- Visual amenity
- Public access
- Biodiversity

Landscape Integration

6.3.2 Further design proposals should be developed in a manner that is appropriate for the setting within Gatwick Airport, responding to the adjacent urban and rural land uses and the existing character of Gatwick Airport.

6.3.3 Green infrastructure should be retained wherever possible. Where development is required within or adjacent to green infrastructure, it should be well integrated and opportunities for further expansion of the green infrastructure network within and around Gatwick Airport should be considered.

6.3.4 Development should seek to enhance, restore and reintroduce characteristic landscape elements which have been lost or degraded.

Landscape Amenity

6.3.5 Landscape amenity should be preserved through proposals that respond to the existing scale and character of Gatwick Airport. They should seek to enhance the experience of people working within and visiting Gatwick Airport, the local communities that live near Gatwick Airport and people travelling through the area.

Visual Amenity

6.3.6 Visual amenity should be protected through ensuring that visually significant vegetation is retained where practicable. Where possible, landscape elements are introduced to provide a positive contribution to Gatwick Airport and the surrounding landscape/townscape while seeking to minimise adverse effects on visual receptors and protect important views.

Public Access

6.3.7 Footpath and cycleway routes within and surrounding Gatwick Airport should be maintained and enhanced. Links should be provided to the strategic network to benefit people living and working within the area.

6.3.8 Where public open space is impacted, replacement open space should be provided with linkages to the existing public rights of way network.

Biodiversity

6.3.9 The design should protect, manage and enhance the nature conservation value at Gatwick Airport.

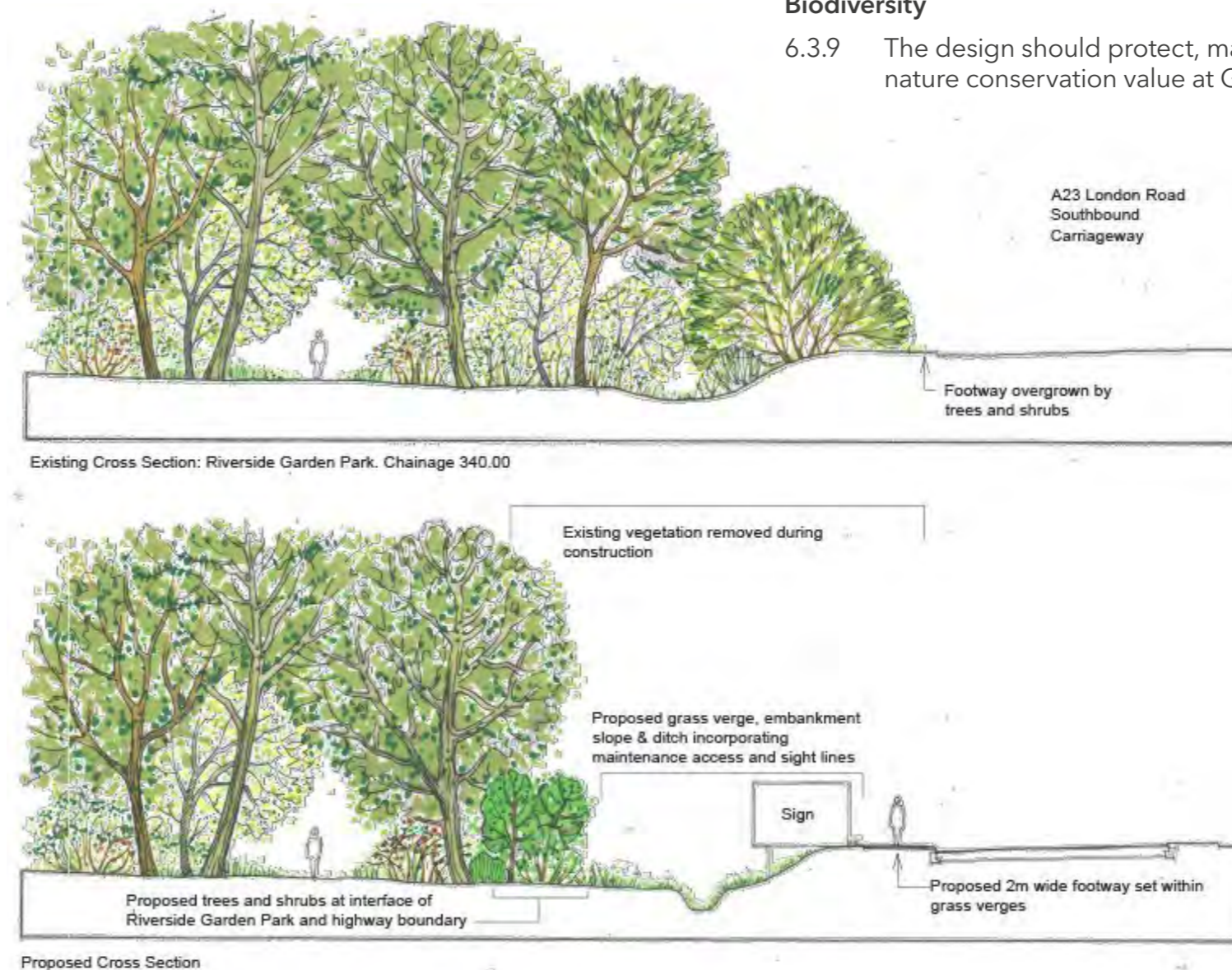


Figure 11. Surface Access Principles of design cross section ES Figure 8.8.1

6.4 HISTORIC ENVIRONMENT

- 6.4.1 There are opportunities to minimise the impact of the Project on the historic environment as part of the detailed design of lighting, vegetation clearance and planting, and the design of environmental mitigation measures which could impact buried archaeological remains.
- 6.4.2 Lighting should be designed with consideration of heritage assets and conservation areas to minimise obtrusive light in so far it is reasonable. This includes consideration of lighting impacts at the Church Meadows replacement open space site, which is the work nearest to a conservation area.
- 6.4.3 Vegetation clearance and planting should consider the impact on views of heritage assets. Opportunities to improve or enhance public access to land within and adjacent to conservation areas should also be a consideration as part of the design of open space and public rights of way.
- 6.4.4 The design of environmental mitigation measures (including access arrangements) should consider the potential presence of buried archaeological remains. In the case of the land required for environmental mitigation at Museum Field and Brook Farm there is the potential during detailed design of the flood compensation area to reduce impacts on buried archaeology.

6.5 BIODIVERSITY

- 6.5.1 Improving the quality and quantity of green space can offer biodiversity benefits as well as benefits to the local community. GAL aspires to have an industry leading 'net-gain' approach to protecting and enhancing biodiversity at Gatwick Airport. There are opportunities to integrate and enhance the existing biodiversity areas within the Gatwick Airport site boundary such as the River Mole corridor .
- 6.5.2 The Design Principles relating to biodiversity are set out within the **ES Appendix 8.8.1: Outline Landscape and Ecology Management Plan** (Doc Ref. 5.3) It details the overarching ecology strategy for the site, including how the habitat creation that forms part of the landscape zones will ensure the Project delivers an overall enhancement for ecology.
- 6.5.3 Opportunities should be identified to integrate designs with existing features of ecological value to enhance their biodiversity value whilst continuing to avoid adverse impacts on ecologically sensitive habitats. Nature conservation values should also be appropriately protected, managed and enhanced.
- 6.5.4 Examples of opportunities that should be pursued include the provision of mosaic of habitats comprising scrub, grassland and bare or poorly vegetated ground at the proposed Museum Field earth bund to provide a matrix of habitats suitable for a variety of invertebrates.
- 6.5.5 The design of the proposed Museum Fields Environmental Mitigation Area should consider the creation of new habitats in the western part of the site, comprising woodland, wet woodland, scrub and tree planting and species-rich grassland. The design of this area will enhance habitat used by foraging bats, helping to encourage bats away from both the new and existing runways.



Figure 13. Biodiversity including habitat creation



Figure 12. Work at Gatwick Airport as part of the biodiversity strategy

6.6 GREENHOUSE GASES AND CLIMATE CHANGE

Greenhouse Gases

- 6.6.1 GAL recognises the role that must be played by airports in supporting the transition to a global low carbon future for the aviation industry, whilst also maintaining the critical role that aviation plays in boosting international connectivity, trade, tourism and travel. GAL signed the Airport Council Europe pledge in 2019, to reach Net Zero for direct emissions before 2050.
- 6.6.2 This includes the commitment to achieve Net Zero for GAL Scope 1 and 2 emissions by 2030 as set out in GAL's sustainability policy Second Decade of Change to 2030 (Figure 14) and secured as part of the application in the **ES Appendix 5.4.2: Carbon Action Plan** (Doc Ref. 5.3). This target would be achieved through a range of carbon reduction measures that are identified within the Carbon Action Plan. All new buildings constructed as part of the Project will be designed and constructed for Net Zero emissions during operation. Where possible the design of new infrastructure should also consider the use of cutting-edge approaches to energy efficiency. GAL will actively support the reduction of Scope 3 emissions arising from airport buildings and ground operations.
- 6.6.3 The CAP provides outcomes that GAL will commit to as part of further design work. With regards to airport buildings and ground operations, consideration should be given to measures to reduce emissions arising from energy use for buildings, infrastructure and operations to provide heating, cooling, lighting and power needs; fuels for airside and landside vehicles; electricity transmission and distribution emissions; refrigerant losses; fuels for fire training; water consumption and treatment; and operational waste disposal and treatment.
- 6.6.4 Tables 3-1, 3-2 and 3-3 of the **ES Appendix 5.4.2: Carbon Action Plan** (Doc Ref. 5.3) set out potential measures that the detailed design of buildings could consider to reduce their carbon emissions. As the CAP is a control document, the measures presented within that table are not reproduced within this DAS or the Design Principles.

Climate Change

- 6.6.5 As a responsible operator, GAL has a commitment and procedures to ensure that climate risks are not increased and therefore it is integral that climate resilience is considered throughout detailed design. The design should consider the resilience design process and principles. These are:
- i. Understand the risks - The exposure and vulnerability of a site to climate hazards is highly dependent upon location conditions (e.g., proximity to water bodies, the surrounding built environment, etc.), design considerations, and operation of assets. Climate resilience measures should hence be underpinned by a robust understanding of the specific levels of risk at the site in question, taking into consideration the local and regional context.
 - ii. Prioritise a system level approach - The choice to focus on the risks associated with a single asset may obscure wider systemic factors that contribute to risk. An alternative system-wide approach that identifies interdependencies and feedbacks has the potential to improve resilience more effectively, from both an economic and embodied carbon perspective.
 - iii. Integrate nature-based solutions - Nature-based resilience measures can be attractive alternatives or accompaniments to traditional grey infrastructure options. Such measures have the ability to generate multiple co-benefits, including the ability to sequester carbon and enhance biodiversity, whilst also being more flexible to changing resilience requirements moving forward. Often these measures require far less embodied carbon to implement as opposed to grey infrastructure solutions. The multitude of possible co-benefits means that green infrastructure measures can be adjusted to support the specific local ambitions for resilience and sustainability.
- iv. Consider carbon implications and seek co-benefits - It is important to consider the impact of resilience measures on the operational and embodied carbon of developments. In the choice of which resilience approach to take, adaptation measures should be prioritised that do not have a negative impact on whole-life greenhouse gas emissions where possible.
- v. Design for future adaptability - Considering the uncertainty associated with the nature of climate change over the longer term, assets need to be designed for adaptability in order to be sufficiently resilient. Designing for adaptability (e.g., providing extra space for future drainage system expansion) can extend the design life of assets, limiting the need for deconstruction and reconstruction to account for future change and thereby reducing embodied carbon.
- vi. Establish operational and maintenance to enhance resilience - Effective maintenance regimes can help to mitigate residual risk, reducing damage and disruption associated with extreme weather events. These regimes include robust early warning systems and appropriate emergency response measures, such as investment in temporary additional flood barriers. Such measures should be accounted for within early design phases, despite the fact that their development and implementation will occur later.
- 6.6.6 An array of potential adaptation options exist that could be adopted to mitigate the varying climate change risks facing the Project. Specific measures are set out in the Design Principles that should be considered when designing with resilience with respect to the following events:
- Overheating risk in buildings;
 - Flooding;
 - Storms;
 - Snow, ice and cold; and
 - Heatwave related drought.

Net zero

Continue Gatwick’s net zero transition and further improve local air quality by:



Airport emissions:

- Achieve Net Zero for GAL Scope 1 and 2 GHG emissions by 2030.
- Sourcing 50% of airport network electricity and 50% of heat network from UK renewable sources via onsite generation and direct purchase agreements (PPAs) by 2030;
- Requiring all GAL and airport duty vehicles, ground support equipment and mobile construction equipment to meet zero or ultra-low emission standards by 2030;



Aircraft and surface access emissions:

- Playing our part in UK aviation and ground transport transition to net zero carbon.
- Working with airlines and fuel providers to implement the Sustainable Aviation decarbonisation roadmap and interim goals.
- Working with transport partners to increase airport passenger and staff usage of public transport and zero and ultra-low emission journey modes to 60% by 2030.

Local Environment



Water:

Reduce the airport’s potable water consumption by 50% on a per passenger basis by 2030 compared to 2019, continue to improve the quality of water leaving the airport and work with partners to promote local water stewardship.



Waste:

Ensure that by 2030 all materials used at Gatwick in operations, commercial activity and construction, are repurposed for beneficial use i.e. repaired, reused, donated, recycled, composted or converted to fuel for heating or transport.



Biodiversity:

Have a sector-leading ‘net gain’ approach to protecting and enhancing biodiversity and habitats on the airport estate, including zero use of herbicides by 2030; and support biodiversity partnerships in our region.

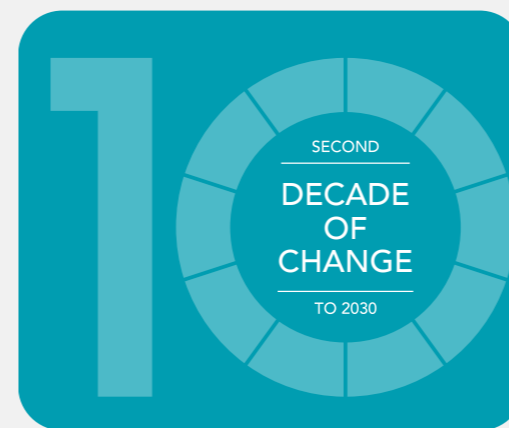


Figure 14. Gatwick Airport Second Decade of Change Aims and Goals



Figure 15. Electric Vehicle Charging



Figure 16. Photovoltaic Panels

6.7 NOISE

- 6.7.1 The design of buildings and structures can play an integral role in the reduction of noise arising from activities at Gatwick Airport including aircraft, traffic and plant.
- 6.7.2 Noise mitigation bunds, walls and barriers should be designed in a manner that is consistent the heights and lengths outlined in Section 5 of this DAS. Where possible, opportunities should be identified and implemented to incorporate ecological and landscape features to soften the design of these features and provide habitat.
- 6.7.3 Generally, detailed design should ensure that noise emissions from noise sources are minimised where practicable. Plant associated with new facilities should be designed with noise attenuation where necessary to avoid noise disturbance to noise-sensitive uses on and off-site.
- 6.7.4 When designing noise-sensitive facilities such as offices and hotels, insulation should be provided to ensure that internal noise standards are met.



Figure 17. Noise Barrier Wall

6.8 RESOURCES AND WASTE

- 6.8.1 GAL aspires for all materials used at Gatwick Airport to be re-purposed for beneficial use i.e. repaired, reused, donated, recycled, composted or converted to fuel for heating or transport. The **Appendix 5.3.2 Code of Construction Practice - Annex 5 Construction Resources and Waste Management Plan** (Doc Ref. 5.3). sets targets out the detailed measures for the diversion of waste from landfill during construction (excluding spoil) of the Project.
- 6.8.2 The waste hierarchy ranks waste management options according to what is best for the environment. It gives priority to waste prevention. When waste has been generated, priority is given to preparing it for re-use, then recycling, then recovery, and last of all disposal (for example, landfill). The waste hierarchy is a key element of sustainable waste management and following the hierarchy is a legal requirement of the Waste (England and Wales) Regulations 2011 (as amended).
- 6.8.3 The design of the Project should identify opportunities for the reuse of assets, components, products and materials from existing buildings, structures and features at the site that are to be removed or relocated to aid achieving these targets.
- 6.8.4 Buildings and structures will be designed to standard dimensions of blocks or frames to minimise off-cuts and wasted material. The use of mMaterials with recycled content should be considered during detailed design.

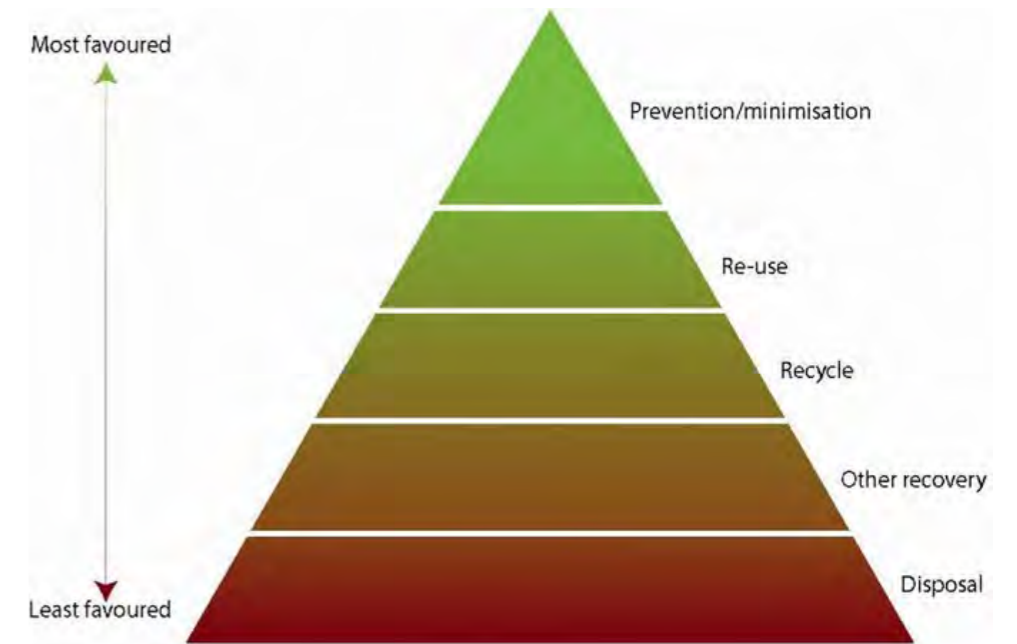


Figure 18. Resource and Waste Hierarchy



Figure 19. Re-Use of Materials in Construction

6.9 WATER ENVIRONMENT

- 6.9.1 As part of its Second Decade of Change to 2030, GAL is aiming to reduce potable water consumption at Gatwick Airport by 50% on a per passenger basis, continue to improve the quality of water leaving Gatwick Airport and to work with partners to promote water stewardship.
- 6.9.2 Sustainable Drainage Systems (SuDS) will be at the core of the detailed drainage designs. SuDS are water management practices that seek to mimic the natural environment and replicate the natural drainage prior to development. This should prioritise the infiltration of runoff to ground where practicable over the restriction of runoff rates (i.e. attenuation). Based on preliminary ground investigation, the majority of Gatwick Airport is located within an area of clay geology so infiltration may not be feasible.
- 6.9.3 Infiltration basins and retention ponds (Figure 20) should not appear utilitarian or urban and should be designed to appear as naturalistic elements within the wider setting, that take account of existing topography, gradients and field boundaries. Planting should be provided to soften edges where this is appropriate to the context.
- 6.9.4 The design of surface water drainage should ensure that storage attenuation features are appropriately sized to cater for the 1 in 100 Annual Exceedance Probability (AEP) storm event. Engagement with the Environment Agency shall continue with additional attenuation allowances to account for climate change being designed as required by Environment Agency guidance. The design of drainage and water mitigation measures should consider the exceedance of the networks/measures capacity and ensure that this would occur safely.
- 6.9.5 Where development is proposed within a fluvial floodplain, the design shall ensure that there is no increase in flood risk to other parties.

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- 6.9.10 Where development is proposed within a fluvial floodplain, the design shall ensure that there is no increase in flood risk to other parties.
- 6.9.11 Design principles relating to the design of surface access drainage is secured within the Surface Access Drainage Strategy (Annex B of the Flood Risk Assessment).



Figure 20. Typical Drainage Attenuation Pond



Figure 21. Natural Environment Watercourse

6.10 LIGHTING

- 6.10.1 The exterior lighting vision for the Project at Gatwick Airport will define the experience and environment through which the staff and passengers will move, whether they are at the start or the end of their journey or going to work.
- 6.10.2 The underlying strategy for the use of light in the Project and the wider Gatwick Airport has six elements:
- To create an inclusive, comfortable environment and passenger experience that is positively memorable.
 - To aid wayfinding and help passengers on their journey to, through and from the airport.
 - To create continuity and coherence between spaces.
 - The conservation of energy.
 - Minimising obtrusive light and its impact on neighbouring receptors.
 - Safety and security for all Gatwick Airport users.

Amenity

- 6.10.3 A primary function of the lighting will be to provide appropriate levels of illumination to enable people to see in spaces where there is an absence of natural light. The extent to which people need to see after dark will vary from area to area, with some requiring high levels of visual acuity whilst others should enable just a basic understanding of scale and the ability to identify a safe passage through a space.
- 6.10.4 The lighting design for each project will consider the manner in which the space that is being designed will be used after dark as well as its relationship to spaces adjoining it.

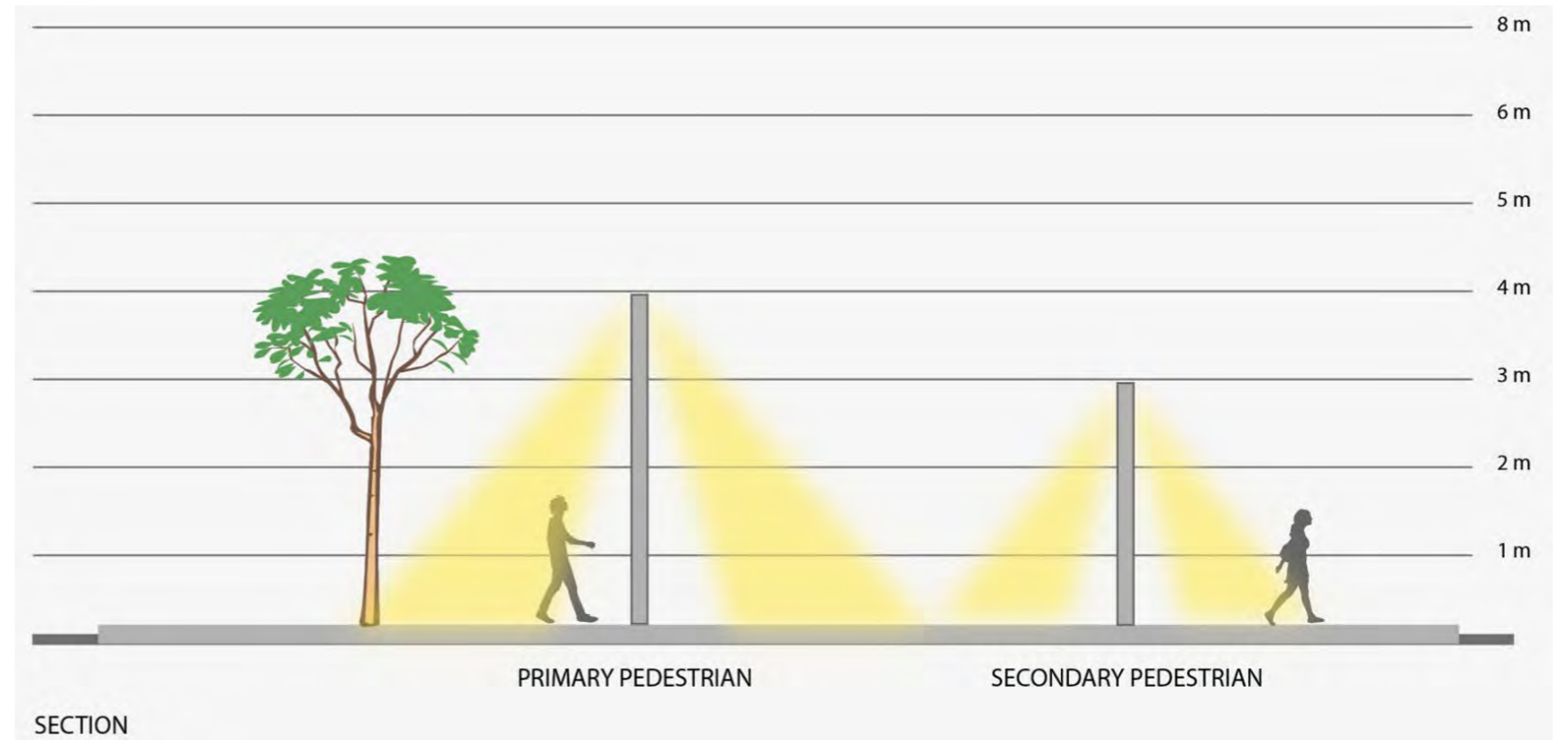


Figure 22. Lighting Diagram Principles of lighting pedestrian walkways



Figure 23. Typical Lighting Arrangement for Primary and Secondary Pedestrian Paths

Legibility and Wayfinding

- 6.10.5 During daylight hours people use elements of the manmade and natural environments to build a 'mental map' of an area. This helps them to orientate themselves, navigate from place to place and gain an understanding of the scale and nature of a space and its relationship to the wider context.
- 6.10.6 After dark many of these 'visual cues' disappear and it is largely left to artificial light and natural darkness to inform the interpretation of a space and its relationship to those around it.
- 6.10.7 The most visible elements in a nocturnal landscape can tend to take on a more dominant role in a person's 'mental map'. The most visually prominent elements are generally those that are perceived as being the brightest, although other factors such as colour, scale, animation and personal association also play important roles.
- 6.10.8 By developing a considered and consistent lighting approach to the key navigational tools such as roads and pedestrian paths (See Figures 22 & 24), light will play a crucial role in supporting legibility and accessibility and in reinforcing specific visual and physical connections across Gatwick Airport.

Accessibility

- 6.10.9 The design of artificial light must support the various needs of the passengers and staff of the airport after dark. This includes those with special needs and the elderly.
- 6.10.10 Supporting a highly accessible after-dark environment will include avoiding excessive contrasts, avoiding direct and reflected sources of glare, avoiding shiny, mirrorlike surfaces at pedestrian level, controlling shadow and limiting potentially confusing upward lighting.

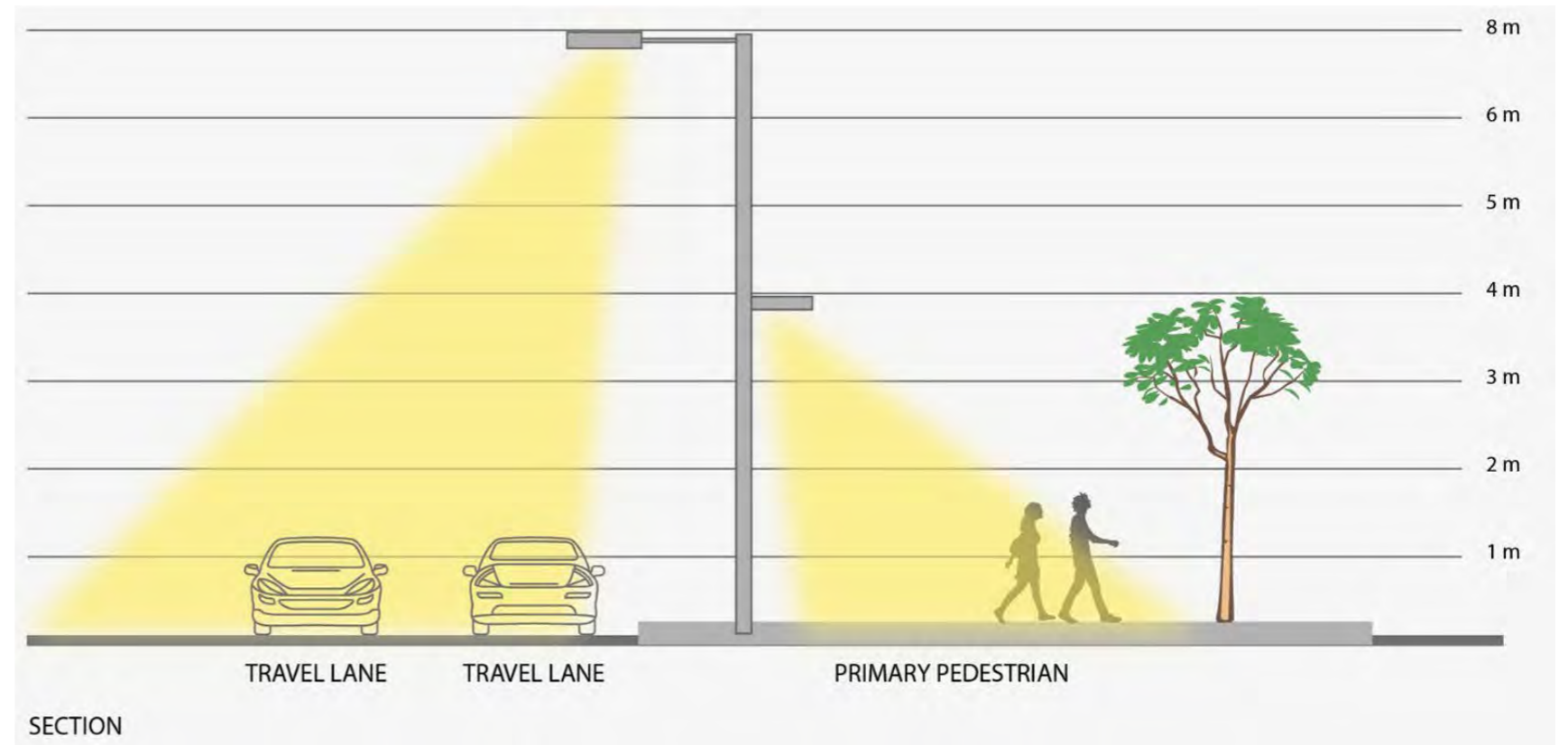


Figure 24. Lighting Diagram Principles of lighting roadways adjacent to pedestrian walkways



Figure 25. Typical lighting arrangement for Pedestrian paths combined with vehicular

Energy and Costs

- 6.10.11 The lighting design should give due consideration to the following:
- Energy efficiency in design, construction and operation (e.g. LED lighting, circularity), Efficiency of energy supply (e.g. smart lighting controls), renewable energy integrated into the design of integrated of the new facilities. (e.g. coordination of lighting with the car park canopy PV arrays).
 - Energy is a very important element in the operation and maintenance of any building. Gatwick Airport operates 24-hour 365 day a year. As a consequence, the choice of lighting, equipment and the control of lighting levels and thus the energy consumption is of vital importance. Lighting will respond to the presence or absence of staff and passengers, reducing the light output when a space is empty.

Safety and Security

- 6.10.12 Artificial light must be designed to assist in maintaining a safe environment at all times. This includes positively defining potential hazards such as steps and ramps and areas where pedestrians encounter moving vehicles, at for example, pedestrian crossings. Such areas may be defined after dark through passive techniques, such as landscape materials with appropriately contrasting reflectance, as well as through active illumination; such as through the use of focused light and increased intensity (See Figure 26).
- 6.10.13 Light should be designed to provide an overall sense of security throughout the airport, including supporting both active surveillance (e.g. CCTV) if/when required and modelling of people and surfaces should be provided where required. Where the CCTV surveillance is supported by infra-red technology, the requirement for additional light in the visible spectrum may not always be necessary. Consultation with the security consultants

is recommended throughout the design development. It should be noted that perceptions of safety and security are not necessarily dependant on providing high intensities of light and indeed, in some cases, low levels of light can be important in maintaining a sense of security and privacy. Creating an environment that feels secure will largely be dependent on ensuring that spaces are legible, appear well maintained, give due consideration to inclusivity and do not inhibit adaptation. In general, lighting will be controlled to remain contained within the site boundary.

- 6.10.14 Any lighting provided in the vicinity of these areas will require specific consideration to ensure that potential adverse effects are identified, controlled and mitigated.
- 6.10.15 Mitigation is typically in the form of lighting equipment utilising precise optics and lenses, baffles and light shields, in conjunction with a suitable lighting control regime. Individual habitat requirements may necessitate the specification of a particular lighting spectrum.

- 6.10.16 Surveys to date have identified populations of the following fauna of conservation interest:
- Great crested newts breeding in ponds in woodland adjacent to Horleyland Wood and to the north of the River Mole near to the Bear & Bunny Nursery;
 - Bat assemblage including Bechstein’s bat *Myotis bechsteinii* roosting in low numbers in several woodlands; Terrestrial invertebrate assemblage;
 - Range of breeding birds of varying status;
 - Small badger setts to the north and south of the runways; and
 - Grass snake *Natrix* in grasslands along the River Mole corridor.
- 6.10.17 When designing the lighting at locations where there may be fauna of interest, an experienced ecologist should be consulted and the necessary baseline assessments are conducted to understand the relevant local concerns to ensure that the scheme will not impact on the requisite dark environments necessary for undisturbed habitation.

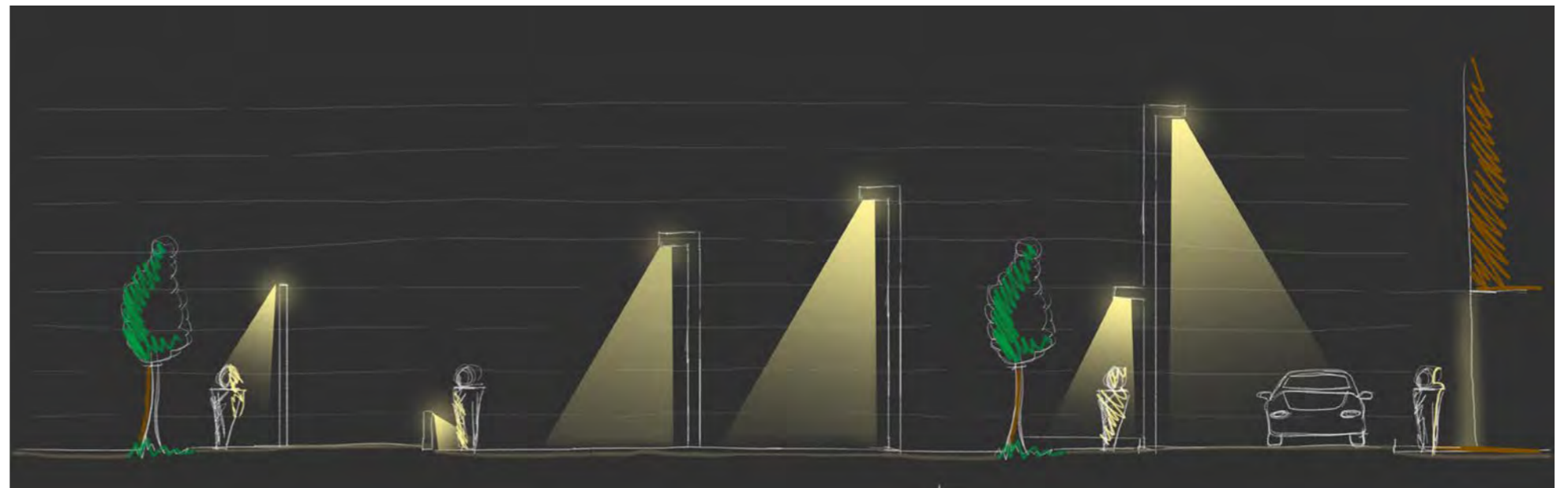


Figure 26. Family Hierarchy of Luminaires

Obtrusive Light

- 6.10.18 It is essential for the operation of Gatwick Airport that lighting is provided across the external areas after sunset. The Environmental Protection Act 1990 defines the following as a statutory nuisance in Section 79 : artificial light emitted from (i) premises; (ii) any stationary object, so as to be prejudicial to health or a nuisance. Figure 27 shows the existing obtrusive light readings around Gatwick Airport.
- 6.10.19 Consequences often associated with light obtrusion ('light pollution') are the loss of dark night skies and views of the stars, perception of an unsatisfactory nocturnal environment and the harming of wildlife habitats and ecosystems. Light obtrusion has also been shown to have detrimental effects on human health and can present serious physiological and ecological problems. Of key concern to this project, light obtrusion manifests itself as unnecessary energy waste and therefore a contributor to climate change (See Figure 28).
- 6.10.20 Many obtrusive light effects can normally be mitigated against through sound design principles and adherence to current best practice design guidance from national and international professional lighting institutions. Examples of best practice recommendations can be found in the publications referenced in the ILP Guidance Note 1 GN01: The Reduction of Obtrusive Light.

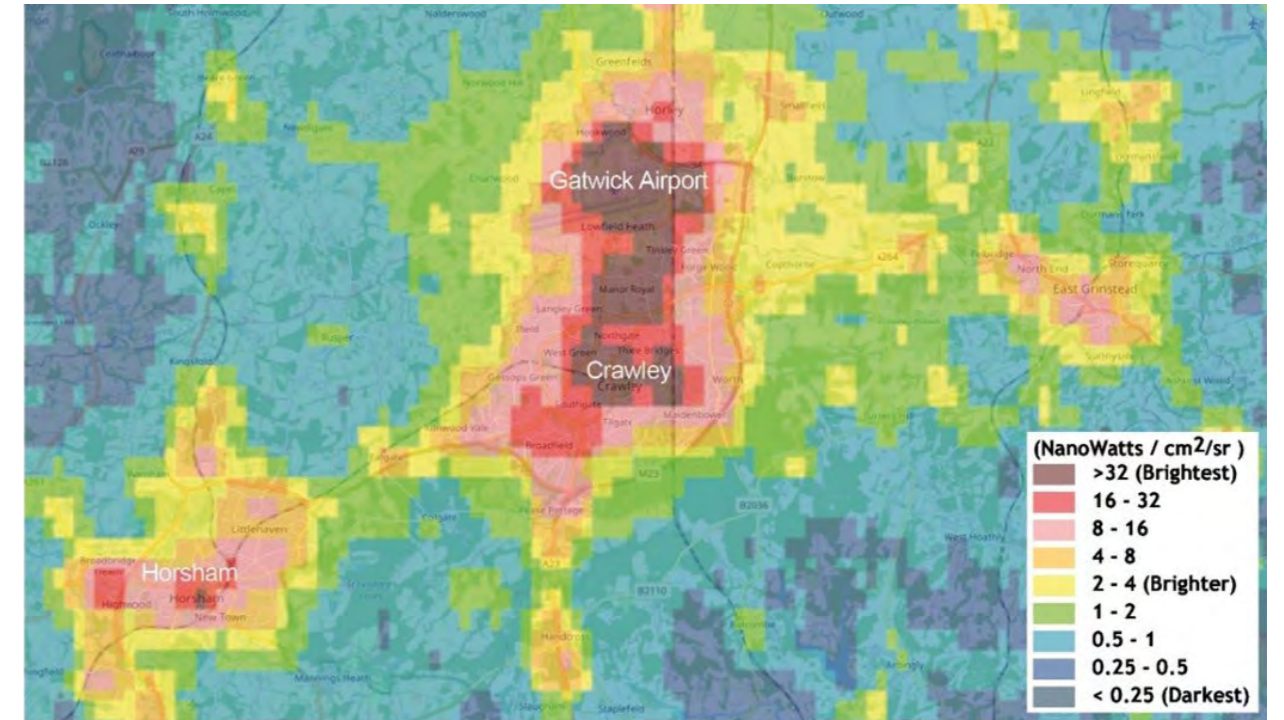


Figure 27. Obtrusive light mapping in the Gatwick area

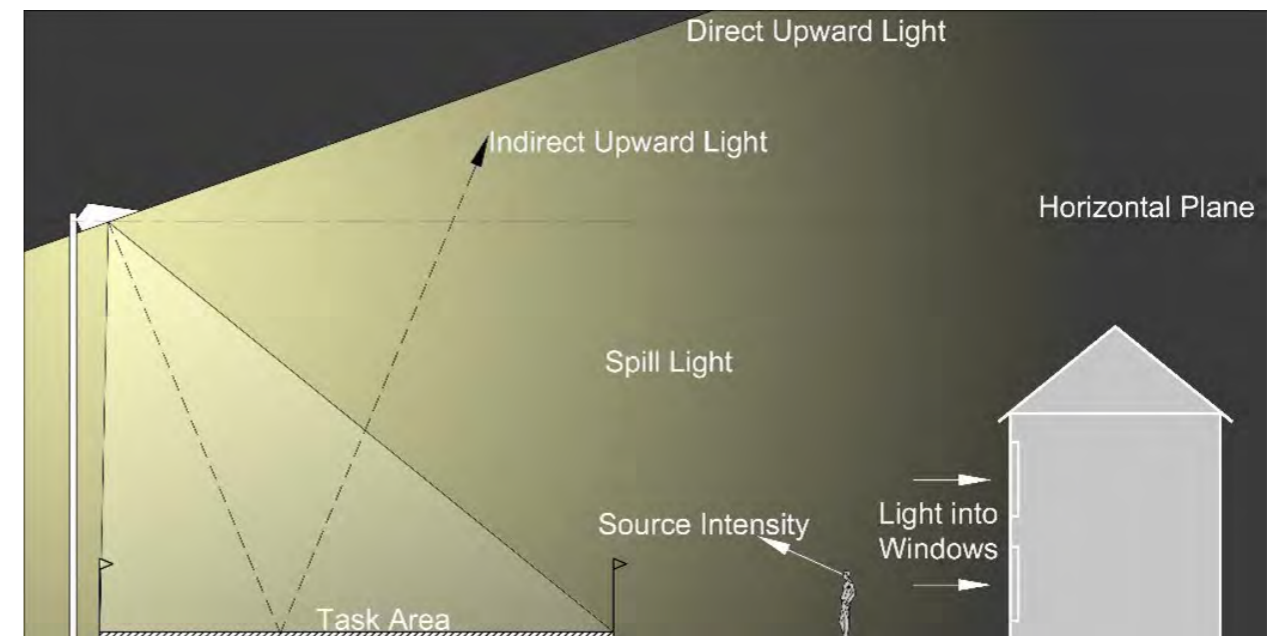


Figure 28. Obtrusive Light

6.11 SURFACE ACCESS, ROADS AND BRIDGES

6.11.1 Building on the scheme’s framework for good design, the preliminary design proposals for the surface access works have given due consideration to a range of relevant design standards and guidance as summarised below as well as the National Policy Statement for National Networks. The detailed design of the surface access works will continue to be developed in accordance with these principles.

Highways

6.11.2 National Highway’s strategic road network elements have been designed in accordance with the Design Manual for Roads and Bridges (DMRB). Consideration has also been given to National Highways’ The Road to Good Design, which sets out that good design:

- makes roads safe and useful;
- is inclusive;
- makes roads understandable;
- fits in context;
- is restrained;
- is environmentally sustainable;
- is thorough;
- is innovative;
- is collaborative; and
- is long-lasting.

6.11.3 Proposed highway structures such as those shown in Figure 29, have been designed in accordance with the principles set out in DMRB CD 351 ‘The design and appearance of highway structures’. The design is to continue to be developed in accordance with the values set out in this document which include:

- commitment to aesthetics;
- community/stakeholder engagement;
- understanding of sensitivity of context;
- balancing cost and aesthetics;
- sustainability of outcomes;
- rigour within the design process; and
- collaboration between all relevant disciplines.



Figure 29. Indicative precedent images showing typical ‘Highways’ design

- 6.11.4 Local highway authority roads have been designed in accordance with relevant design standards including Manual for Streets. The detailed design of these works will continue to be developed in accordance with these standards.
- 6.11.5 The design proposals included as part of this DCO application have been subject to a Stage 1 Road Safety Audit in accordance with DMRB GG 119 Road Safety Audit, which includes an independent review of the road safety implications of the proposed engineering interventions for all road users. Detailed design of surface access works should continue to comply with the requirements set out within that standard.

Active Travel

- 6.11.6 The principal objective of GAL’s Surface Access Strategy is to promote and support an increase in sustainable travel by passengers and staff accessing the airport. The provision of new and enhanced active travel routes, as shown in Figure 30, for pedestrians and cyclists forms an important part of this strategy.
- 6.11.7 Active travel infrastructure proposals have been designed with due consideration of relevant design guidance including the Department for Transport’s Local Transport Note (LTN) 1/20 ‘Cycle Infrastructure Design’. The scheme has taken account of the five core design principles set out in LTN 1/20 in developing proposals that build on existing infrastructure provision to provide routes that are coherent, direct, safe, comfortable and attractive. The design proposals were also informed by DMRB CD 143 ‘Designing for walking, cycling and horse-riding’ with further due regard to the principles of inclusive design.
- 6.11.8 In accordance with DMRB GG142 ‘Walking, cycling and horse-riding assessment and review, a walking, cycling and horse-riding assessment and review was undertaken for the scheme assessing existing infrastructure provision, reviewing existing local plans and strategies for active travel infrastructure and identifying opportunities for improvement. To feed into this assessment a survey count of walking, cycling and horse-riding users was undertaken in the vicinity of the scheme to assess usage of existing routes.

- 6.11.9 The **ES Appendix 18.8.2: Public Rights of Way Management Strategy** (Doc Ref 5.3) sets out the approach to managing the construction and operational impacts of the Project on PRow to reduce disruption to users as far as possible. The PRow that would be temporarily and permanently impacted by the Project are set out within that document.
- 6.11.10 Taking account of these standards and guidance documents, the proposed active travel infrastructure will provide enhanced connectivity for users on a range of routes including between Longbridge Roundabout and the North and South Terminals, between Longbridge Roundabout and Riverside Garden Park, between southern Horley and the North Terminal, and between Balcombe Road and the South Terminal.



Figure 30. Indicative precedent images showing typical ‘Active Travel’ design

6.12 BUILDING DESIGN

6.12.1 This section provides the following guidance for each of the building typologies:

- A brief summary of the key building typologies as shown in illustrative Figure 31.
- Overview of function and how this informs the building form
- Appearance and materiality;
- Design considerations and standards;
- Precedent and benchmarking/best-practice examples; and
- Typical design arrangements including elements, heights and materiality.



Figure 31. Typical Building Typology Images

6.12.2 TERMINAL BUILDINGS

TERMINAL EXTENSIONS

Function

6.12.2.1 The new terminal extensions will provide the following enhanced facilities:

- Retail, catering, CIP Lounges, seating and general circulation; and
- Passenger processing areas including check-in, security and baggage reclaim.

Appearance and Materials

6.12.2.2 The extensions will incorporate the following design and constructional features:

- A site-wide consistent, contemporary aesthetic to ensure that the extensions complement the existing buildings, complement each other and reflect modern design techniques, high quality design materials, and a suitable terminal building aesthetic;
- External appearance will be permeable and inviting with lightweight cladding and large areas of glazing will offer excellent views across the airfield; and
- Materials could include metal rainscreen cladding, composite cladding and curtain walling.

Design Considerations and Standards

6.12.2.3 The design of these buildings should have regard to the following:

- Floorplate configuration to promote natural daylight, and ventilation;
- Core and floorplate design to permit future flexibility;
- 'Intelligent' building management systems.

- Climate change impact and energy performance;
- Health and wellbeing (including DDA compliant access etc.);
- Renewable energy generation (including photo-voltaic cells);
- Rainwater harvesting (grey) water storage for toilets;
- Security, safety and low energy lighting;
- Efficient servicing and recycling;
- Integrated information and wayfinding;
- Modern methods of construction;
- 'Green' materials; and
- Lifecycle costs, demolition and future recycling of building fabric.

6.12.2.4 Design guidance/standards to consider includes the following:

- International Civil Aviation Organization (ICAO): ICAO Annex 14: Aerodromes & ICAO Doc 9157: Aerodrome Design Manual;
- International Air Transport Association (IATA): IATA Airport Development Reference Manual (ADRM);
- European Civil Aviation Conference (ECAC): ECAC Doc 30: Airport Planning Manual;
- ECAC Doc 30: Airport Planning Manual: CAP 168: Licensing of Aerodromes; and
- ASIAD, Aviation Security in Airports guidance.

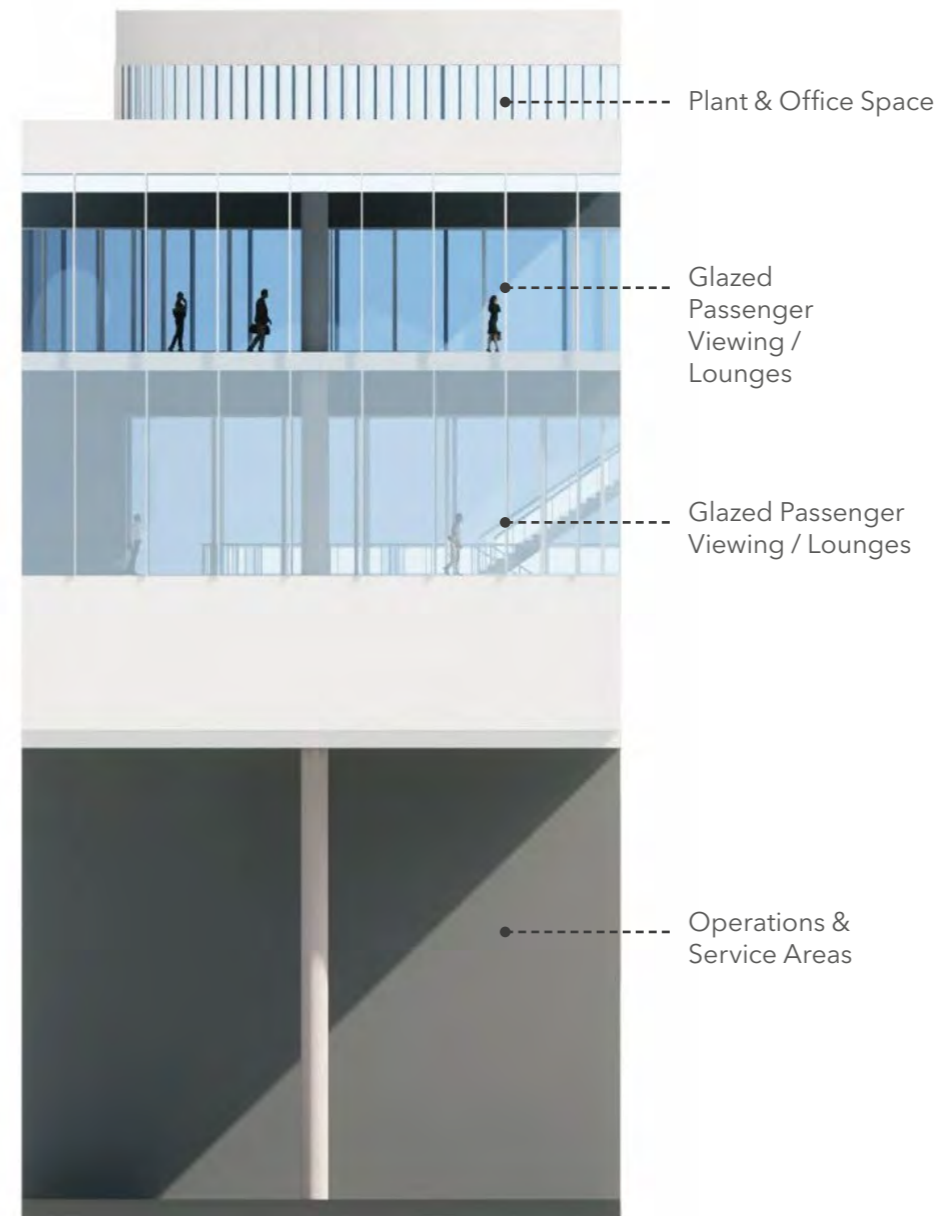


Figure 32. Indicative Elevation showing Typical 'Terminal Extension Building' Design



Figure 33. Typical 'Terminal Building' Design

PIERS

Function

6.12.2.5 The pier 7 building will provide the following facilities:

- Review of functions by Bronwen (aircraft are only parked on one side). It is not narrow and not connected. Passenger common lounges, retail areas, gaterooms;
- Passenger circulation, processing and waiting areas for passengers to embark and disembark the aircraft;
- Access structures to allow boarding of the planes either with direct 'contact' gates or access to the apron level to board at ground level; and
- Passenger service areas including Retail, catering and toilet facilities.

Appearance and Materials

6.12.2.6 The buildings will incorporate the following design and construction features:

- A site-wide consistent, contemporary aesthetic to ensure that the extensions complement the existing buildings, complement each other and reflect modern design techniques, high quality design materials, and a suitable terminal building aesthetic.
- The external appearance will comprise lightweight cladding and large areas of glazing, providing excellent views across the airport and runways.

Design Considerations and Standards

6.12.2.7 The design of these buildings should have regard to the following:

- Health and wellbeing (including DDA compliant access etc.);

- Floorplate configuration to promote natural daylight, ventilation;
- Core and floorplate design to permit flexibility of seating and passenger waiting areas;
- 'Intelligent' building management systems;
- Climate change and energy performance;
- Renewable energy generation (including photo-voltaic cells);
- Rainwater harvesting (grey) water storage for toilets;
- Security, safety and low energy lighting;
- Efficient servicing and recycling;
- Technology and construction techniques and 'green' materials;
- Lifecycle costs, demolition and future recycling of building fabric;
- Design guidance/standards includes the following; and
- BREEAM Technical Standards, BREEAM Technical Standards | BRE Group.

6.12.2.8 Design guidance/standards to consider includes the following:

- International Civil Aviation Organization (ICAO): ICAO Annex 14: Aerodromes & ICAO Doc 9157: Aerodrome Design Manual;
- International Air Transport Association (IATA): IATA Airport Development Reference Manual (ADRM);
- European Civil Aviation Conference (ECAC): ECAC Doc 30: Airport Planning Manual.

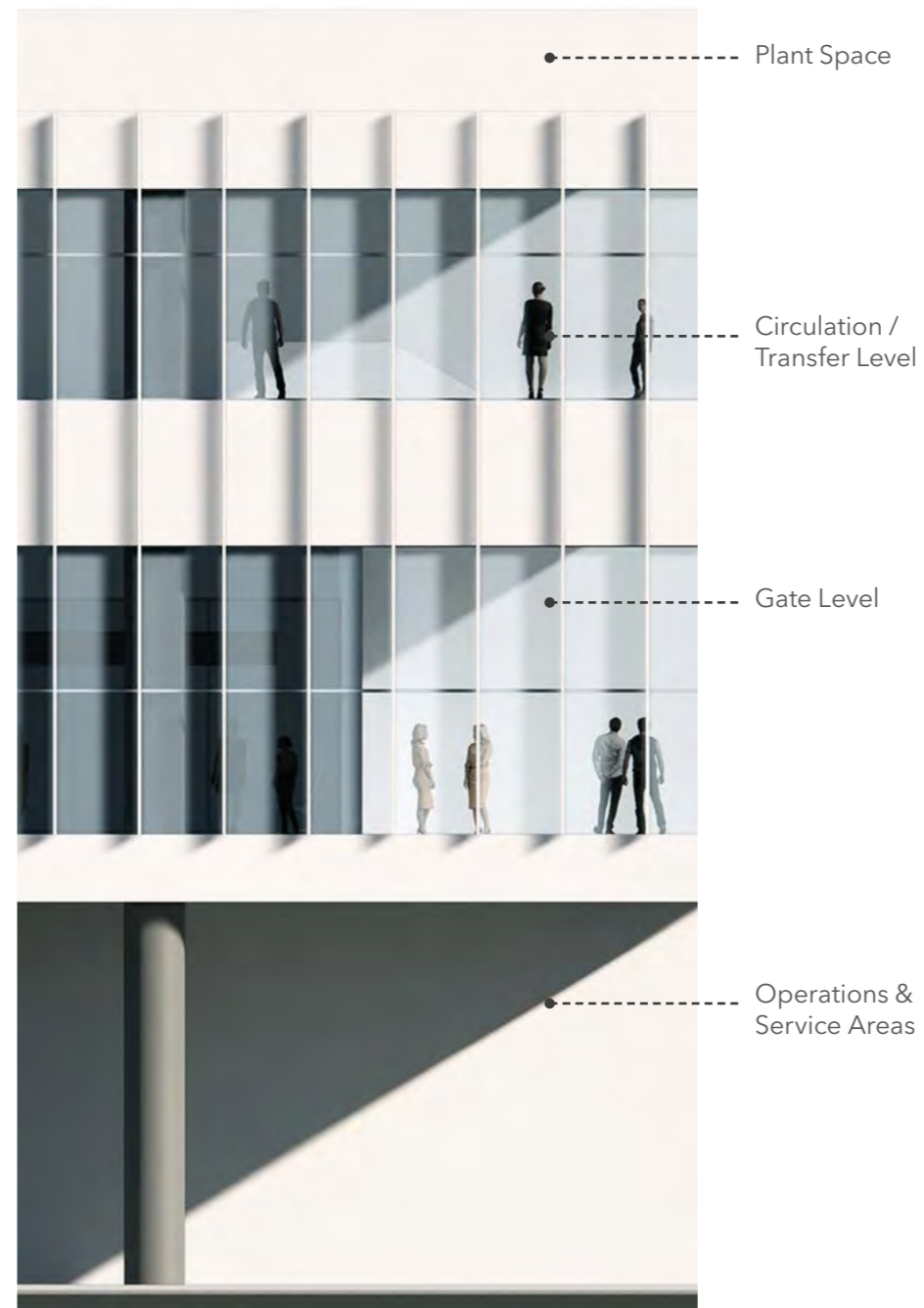


Figure 34. Indicative Elevation showing Typical 'Pier' Design



Figure 35. Typical 'Pier' Design

6.12.3 COMMERCIAL BUILDINGS

HOTELS

Function

6.12.3.1 The four hotel buildings will provide the following facilities:

- Hotel accommodation to cater for airline passengers, flight crews and staff, including; bedroom suites, reception, bar and dining, lift, stair and toilet facilities as well as back-of-house including, kitchens, staff facilities, plant, servicing and taxi drop-off.
- The public realm around the commercial buildings should be of good quality and provide visual and active amenity for the use of the staff and visitors to the buildings.

Appearance and Materials

6.12.3.2 The buildings will incorporate the following design and constructional features:

- A contemporary design and to ensure that the building complements its surroundings, reflect modern design techniques, high quality design and materials, and an aesthetic to suit hotel building typology;
- The external appearance will comprise lightweight cladding and large areas of glazing to the welcoming foyer, reception, bar and dining areas (providing views across the airport), with more limited window areas to bedroom suites to control aircraft sound.

Design Considerations and Standards

6.12.3.3 The design of these buildings should have regard to the following:

- Sound insulation and fenestration;
- Building height due to flightpaths;
- Health and wellbeing (including DDA compliant access etc);
- Floorplate configuration to promote natural daylight and ventilation
- Core and floorplate design to permit flexibility in provision of seating within the dining areas;
- ‘Intelligent’ building systems and information;
- Climate change and energy performance;
- Renewable energy generation (including photo-voltaic cells, ground-source heat pumps etc.);
- Bio-diversity, green walls, and external landscape/ecology areas and sustainable urban drainage (SUDs);
- Rainwater harvesting (grey) water storage for toilets;
- Technology and construction techniques and ‘green’ materials; and
- Lifecycle costs, demolition and future recycling of building fabric.

6.12.3.4 Design guidance/standards to consider includes the following:

- Visit England National Quality Assessment Criteria;
- BSI Standards, 2008, New guidance from BSI British Standards ensures everyone gets a good night’s sleep: BSI (bsigroup.com);
- BS 8300: Design of Buildings and their Approaches to Meet the Needs of Disabled People, BSI; and
- Secured by Design, Commercial Developments Verison 2, 2015.

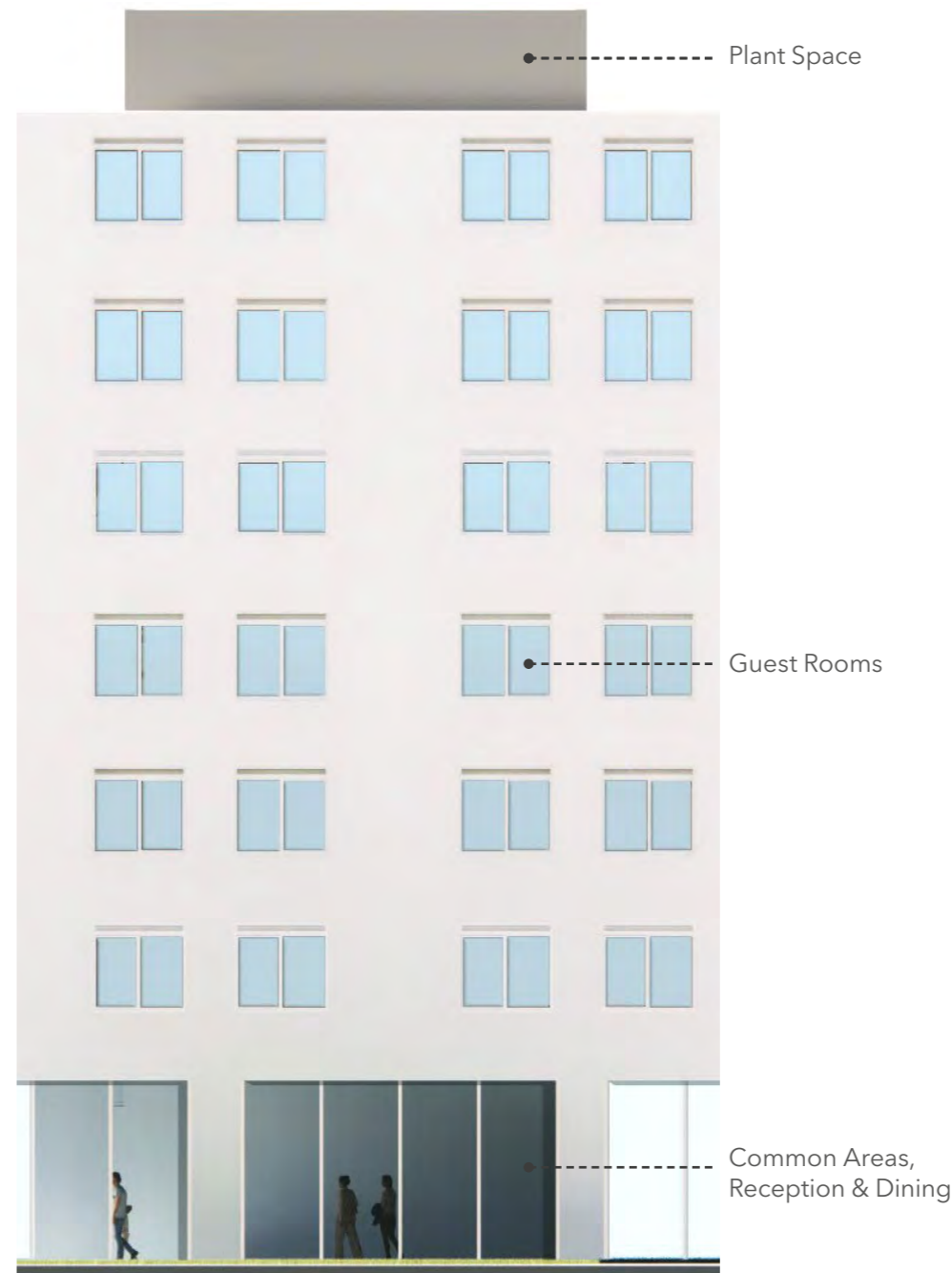


Figure 36. Indicative Elevation showing Typical 'Commercial Building' Design



Figure 37. Typical 'Hotel' Design

OFFICE BUILDINGS

Function

6.12.3.5 The office building will provide the following facilities:

- Accommodation in a single stand-alone building;
- Internally; workspace, foyer, common parts and toilets, as well as plant and service/refuse space; and
- External public realm, service access, a vehicular 'drop-off' zone, soft landscape and break-out area.

Appearance and Materials

6.12.3.6 The building will incorporate the following design and constructional features:

- A contemporary design and to ensure that the building complements its surroundings, reflect modern design techniques, high quality design and materials, and an aesthetic to suit office building typology;
- The external appearance will comprise lightweight cladding and large areas of glazing, providing excellent views, natural light and attractive work place;
- The occupant entrance will be clearly visible and enhanced with landscape and public realm; and
- The façade will comprise lightweight cladding, large areas of glazing, solar shading and passive cooling and energy.

Design Considerations and Standards

6.12.3.7 The design of these buildings should have regard to the following:

- Evolving patterns of work;
- Health and wellbeing (including DDA compliant access etc);

- Floorplate configuration to promote natural daylight, and ventilation;
- Core and floorplate design to permit flexibility in provision of tenant workspace;
- 'Intelligent' building management systems;
- Climate change and energy performance (especially the gap between design intention and operational performance);
- Renewable energy generation (including phot-voltaic cells, ground-source heat pumps etc.);
- Bio-diversity, green walls, and external landscape/ecology areas and sustainable urban drainage (SUDs);
- Rainwater harvesting (grey) water storage for toilets;
- Security, safety and low energy lighting;
- Efficient servicing and recycling;
- Technology and construction techniques and 'green' materials; and
- Lifecycle costs, demolition and future recycling of building fabric.

6.12.3.8 Design guidance/standards to consider includes the following:

- BCO Guide To Specification BCO: BCO Guide To Specification 2019 Digital;
- BREEAM for Offices BREEAM | BRE Group;
- Government Workspace Design Guide Accessible Draft v1.0 (parliament.uk); and
- Secured by Design, Commercial Developments Version 2, 2015

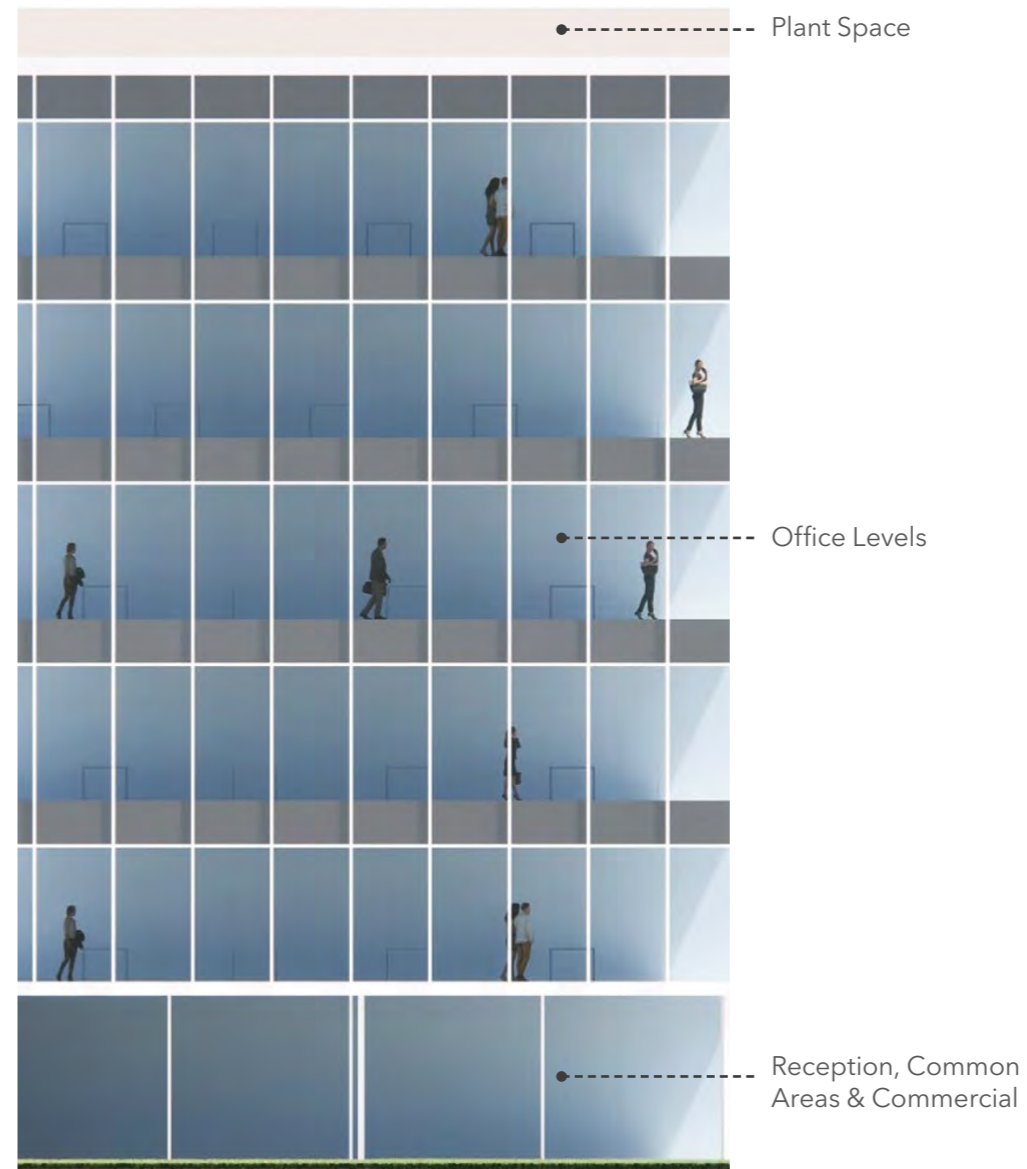


Figure 38. Indicative Elevation showing Typical 'Office Building' Design



Figure 39. Typical 'Office Building' Design

6.12.4 CAR PARKS

MULTI-STOREY CAR PARKS

Function

6.12.4.1 The MSCP buildings will provide the following facilities:

- Stacked multi-storey car park designed for car, motorcycle, and bicycle storage; and
- Incorporating parking decks, ramps, stair cores and lifts, as well as ticketing areas.

Appearance and materials

6.12.4.2 The buildings will incorporate the following design and constructional features:

- MSCP buildings can be constructed from an open, galvanised or painted, metal frame or constructed in pre-cast or in-situ concrete;
- The façades will maintain open area for natural ventilation. In most locations there isn't a need for additional cladding but in the case of MSCP in Car Park H this may be considered where it faces newly created public realm (See Section 5.10); and
- The entrance and circulation cores will be clearly visible to aid in intuitive wayfinding.

Design Considerations and Standards

6.12.4.3 The design of these buildings should have regard to the following:

- Comparison of level floor/ramp and ramped floor options;
- Security, safety, CCTV, slip resistance and low energy lighting;

- Disability parking;
- Renewable energy;
- Ventilation and smoke extraction;
- Drainage petrol/oil interceptors;
- Charging points for electric vehicles;
- Technology and construction techniques and 'green' materials; and
- Lifecycle costs, demolition and future recycling of building fabric.

6.12.4.4 Design guidance/standards to consider includes the following:

- Car Park Design, 2023, ESI, Car park design - The Institution of Structural Engineers;
- BS 8206-2: Code of Practice for the Design of Operational and Management Considerations for Car Parks;
- New build car park guidelines for car park designers, operators and owners (British Parking Association, 2016);
- Design Recommendations for Multi-Storey and Underground Car Parks, 2014, NBS;
- Secured by Design, Commercial Developments Version 2, 2015; and
- BS 8300-1,-2 : 2018, Design of buildings and their approaches to meet the needs of disabled people BSI.

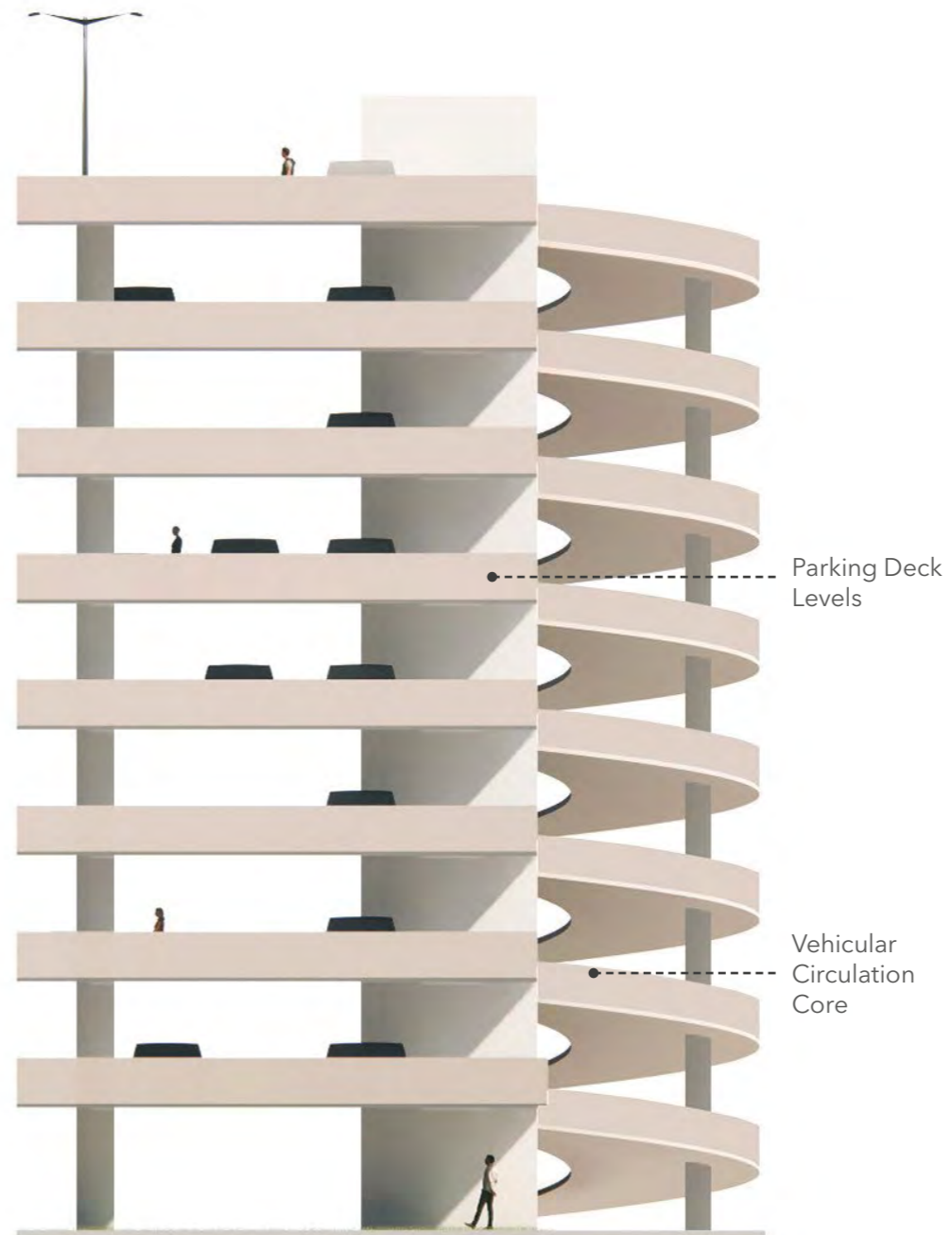


Figure 40. Indicative Elevation showing Typical 'MSCP Car Park' Design

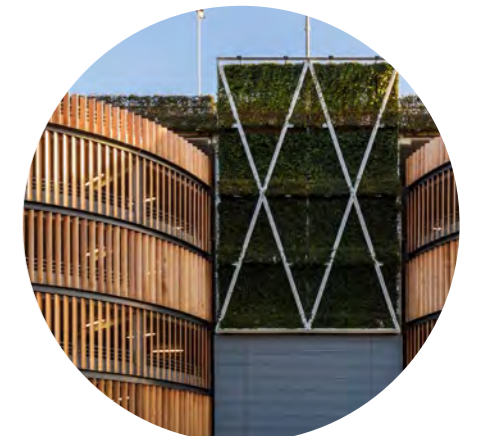


Figure 41. Typical 'MSCP Car Park' Design

DECK PARKING

Function

6.12.4.5 The deck parking building will provide the following facilities:

- One or two raised decks for car and motorcycle; and
- Incorporating vehicular and access ramps, stairs and ticketing areas.

Appearance and materials

6.12.4.6 The building will incorporate the following design and constructional features:

- MSCP buildings can be constructed from an open, galvanised or painted, metal frame, timber frame or constructed in pre-cast or in-situ concrete;
- The entrance will be clearly visible;
- The building form will be unobtrusive;
- Generally, the MSCP buildings will be constructed from an open, galvanised, painted, metal frame with no external cladding; and
- It will have mast lighting and where appropriate solar PV to upper deck canopies.

Design Considerations and Standards

6.12.4.7 The design of these buildings should have regard to the following:

- Security, safety, CCTV, slip resistance and low energy lighting;
- Disability parking;
- Ventilation and smoke extraction;
- Drainage petrol/oil interceptors

- Charging points for electric vehicles;
- Technology and construction techniques and 'green' materials;
- Renewable energy; and
- Lifecycle costs, demolition and future recycling of building fabric.

6.12.4.8 Design guidance/standards to consider includes the following:

- Car Park Design, 2023, ESI, Car park design - The Institution of Structural Engineers;
- BS 8206-2: Code of Practice for the Design of Operational and Management Considerations for Car Parks;

- New build car park guidelines for car park designers, operators and owners (British Parking Association, 2016);
- Design Recommendations for Multi-Storey and Underground Car Parks, 2014, NBS;
- Park Mark Safer Parking, 2010, Ass of Chief Police Officers SPS New Build Guidelines; and
- BS 8300-1:2018, Design of Accessible and Inclusive Environment, BSI.



Figure 42. Indicative Elevation showing Typical 'Deck Parking' Design



Figure 43. Typical 'Deck Parking' Design

SURFACE PARKING

Function

6.12.4.9 Surface parking will provide the following:

- Dedicated paved areas used for vehicle parking.

Appearance and Materials

6.12.4.10 The surface parking will incorporate the following design and constructional features:

- Layout of spaces will potentially be arranged in parallel, perpendicular and angle formations; and
- Parking to have solid surface or where appropriate to be surfaced with a permeable material (such as 'Grasscrete' paving), to facilitate sustainable drainage.

Design Considerations and Standards

6.12.4.11 The design of these buildings should have regard to the following:

- It will have mast lighting and CCTV
- Security, safety, CCTV, slip resistance and low energy lighting;
- Disability parking;
- Drainage and petrol/oil interceptors;
- Charging points for electric vehicles;
- Technology and construction techniques and 'green' materials;
- Renewable energy and PV panels; and
- Lifecycle costs, demolition and future recycling of building fabric.

6.12.4.12 Design guidance/standards to consider includes the following:

- BS 8300-1:2018, Design of Accessible and Inclusive Environment, BSI; and
- New build car park guidelines for car park designers, operators and owners (British Parking Association, 2016).



Figure 44. Indicative Elevation showing Typical 'Surface Parking' Design



Figure 45. Typical 'Surface Parking' Design

6.12.5 OPERATIONAL BUILDINGS

OPERATIONAL & RECYCLING

Appearance and Materials

6.12.5.1 The building will incorporate the following design and construction features:

- A contemporary design and to ensure that the building complements its surroundings, reflect modern design techniques, efficient methods of construction and materials;
- Profiled metal or composite sheet cladding and roofing with translucent panels for natural daylighting;
- Steel or timber portal frame, with profiled metal cladding and translucent panels for natural daylighting; and

Design Considerations and Standards

6.12.5.2 The design of these buildings should have regard to the following:

- Health and wellbeing (including DDA compliant access etc);
- Renewable energy sources (including photo-voltaic cells, ground-source heat pumps etc.);
- Bio-diversity, green walls, and external landscape/ecology areas and sustainable urban drainage (SUDs);
- Rainwater harvesting (grey) water storage for toilets;
- Security, safety and low energy lighting;
- Efficient servicing and recycling; and
- Modern methods of construction;
- Lifecycle costs, demolition and future recycling of building fabric;

- Existing sewers, service cables and substation (to be retained);
- Surface parking with disability provision.

6.12.5.3 Design guidance/standards to consider includes the following:

- Environmental Permitting Guidance. 2015, Dept for environment Food and Rural Affairs, Environmental permitting guidance: waste incineration.



Figure 46. Indicative Elevation showing Typical 'Operational Building' Design



Figure 47. Typical 'Operational Building' Design

FIRE STATION

Function

6.12.5.4 The satellite fire station will provide the following facilities:

- Fire tender parking, storage and maintenance;
- Staff welfare facilities;
- Office accommodation;
- Command centre.

Appearance and Materials

6.12.5.5 The building will incorporate the following design and constructional features:

- A contemporary design and to ensure that the building complements its surroundings, reflect modern design techniques, efficient methods of construction and materials and an aesthetic to suit its use.
- Steel or timber frame with profiled metal or composite sheet cladding and roofing with translucent panels for natural daylighting.

Design Considerations and Standards

6.12.5.6 The design of these buildings should have regard to the following:

- Health and wellbeing;
- 'Intelligent' building management systems;
- Climate change and energy performance;
- Potential localised flooding;
- Permeable paving (SuDS) to parking areas, with soft landscape;

- Renewable energy sources (including photovoltaic cells, ground-source heat pumps etc.) and natural ventilation;
- Rainwater harvesting (grey) water storage for toilets;
- Security, safety (including CCTV) and low energy lighting;
- Protection of existing below ground data/communication cable;
- Efficient servicing and recycling;
- Modern methods of construction; and
- w costs, demolition and future recycling of building fabric.

6.12.6 Design guidance/standards to consider includes the following:

- New Build Design Standards, NFCC, New Build Design Standards (nationalfirechiefs.org.uk);
- Fire Station Design and Siting, 2012, International, RFF station design and siting - International Airport Review.

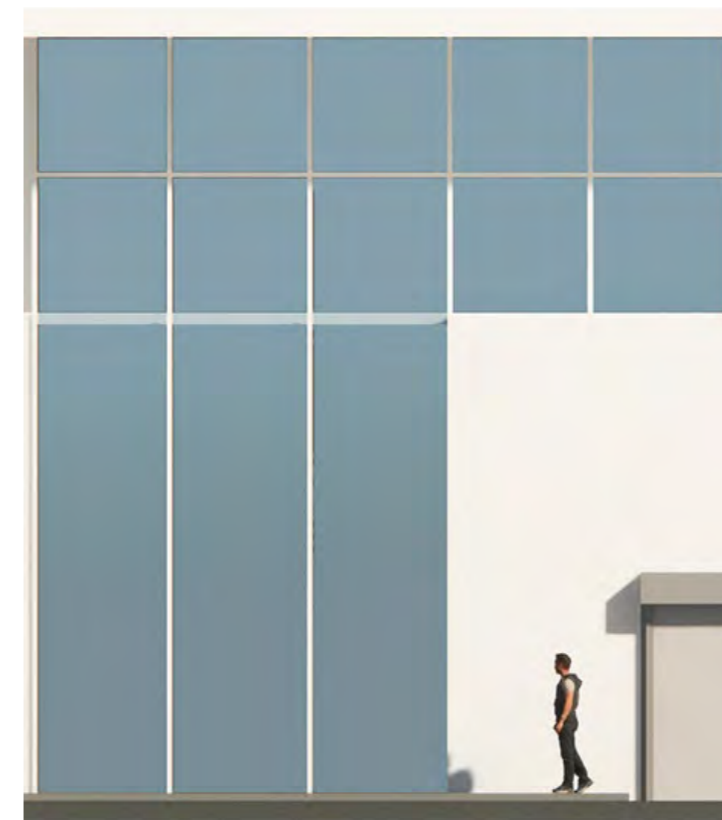


Figure 48. Indicative Elevation showing Typical 'Fire Station' Design



Figure 49. Typical 'Fire Station' Design

HANGARS

Function

6.12.5.9 The hangar will provide the following facilities:

- Hangar space to support maintenance needs of aircraft up to Code E; size of the airport growth to face future traffic increase;
- Workspace and stores;
- Associated office, staff welfare, service and plant space;
- Apron to accommodate aircraft; and
- Staff parking.

Appearance and Materials

6.12.5.10 The building will incorporate the following design and constructional features:

- A contemporary design and to ensure that the building complements its surroundings, reflect modern design techniques, efficient methods of construction and materials; and
- Steel portal frame with profiled metal or composite sheet cladding and roofing with translucent panels for natural daylighting.

Design Considerations and Standards

6.12.5.11 The design of these buildings should have regard to the following:

- Climate change and energy performance;

- Renewable energy sources (including photo-voltaic cells, ground-source heat pumps etc.);
- Rainwater harvesting (grey) water storage for toilets;
- Security, safety and low energy lighting;
- Efficient servicing and recycling;
- Diversions of existing below ground services;
- Modern methods of construction; and
- Lifecycle costs, demolition and future recycling of building fabric.

6.12.5.12 Design guidance/standards to consider includes the following:

- International Civil Aviation Organization (ICAO): ICAO Annex 14: Aerodromes & ICAO Doc 9157: Aerodrome Design Manual;
- International Air Transport Association (IATA): IATA Airport Development Reference Manual (ADRM);
- European Civil Aviation Conference (ECAC): ECAC Doc 30: Airport Planning Manual; and
- ECAC Doc 30: Airport Planning Manual: CAP 168: Licensing of Aerodromes.



Figure 50. Indicative Elevation showing Typical 'Hangar' Design

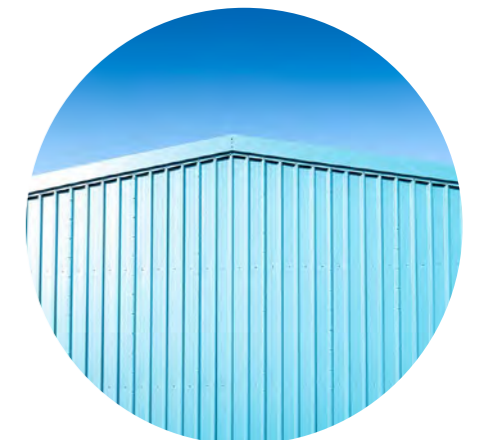


Figure 51. Typical 'Hangar' Design

6.13 USEFUL LINKS

6.13.1 Below are the web links to information referenced in Section 6.

Context and Community

- Community engagement: guidance for local authorities, Ministry of Housing, Communities and Local Government, 2019, <https://www.gov.uk/guidance/community-engagement-and-eu-exit-guidance-for-local-authorities>
- Understanding Place, Historic Area Assessments, Historic England, 2017, <https://historicengland.org.uk/images-books/publications/understanding-place-historic-area-assessments/>
- Understanding Place, Historic Area Assessments, Historic England, 2017, <https://historicengland.org.uk/images-books/publications/understanding-place-historic-area-assessments/>
- Streets for All, Advice for Highway and Public Realm Works in Historic Places, Historic England, 2018, <https://historicengland.org.uk/images-books/publications/streets-for-all/>
- Manual for Streets, Department for Transport and Department for Communities and Local Government, 2007, www.gov.uk/government/publications/manual-for-streets
- Manual for Streets 2, Department of Transport, 2010, www.gov.uk/government/publications/manual-for-streets-2
- Cycle infrastructure design (Local Transport Note 1/20), Department for Transport, 2020, <https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120>
- Highway Tree Management Operations Note 51, Forestry Commission, 2019 <https://www.gov.uk/government/publications/highway-tree-management-operations-note-51>

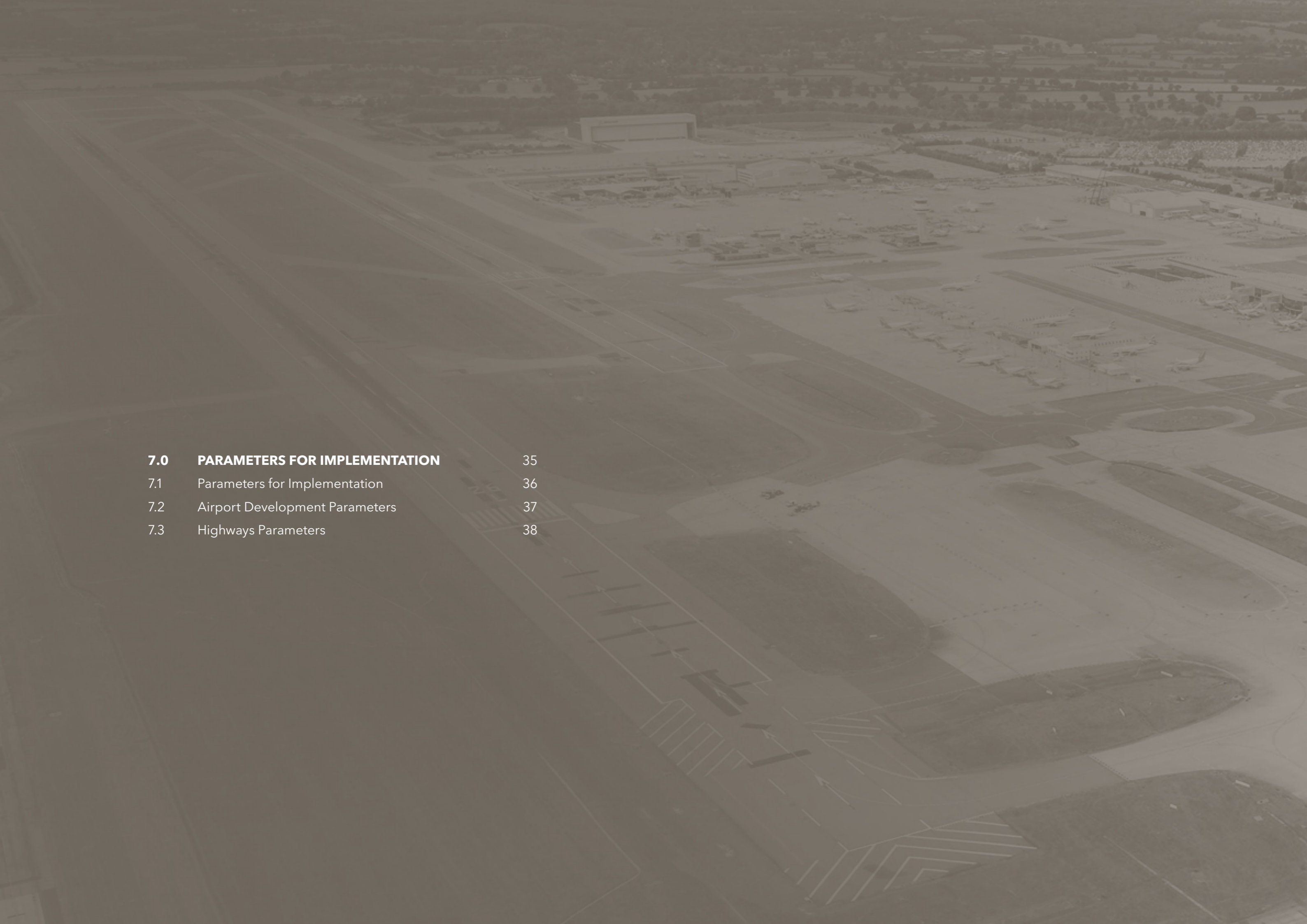
- Inclusive Mobility, Making transport accessible for passengers and pedestrians, Department for Transport, 2005, <https://www.gov.uk/government/publications/inclusive-mobility>
- A Green Future: Our 25 Year Plan to Improve the Environment, Department for Environment, Food and Rural Affairs, 2018, www.gov.uk/government/publications/25-year-environment-plan
- Nature Nearby - Accessible Natural Greenspace Guidance (NE265), Natural England, 2010, <https://webarchive.nationalarchives.gov.uk/20140605145320/http://publications.naturalengland.org.uk/publication/40004?category=47004>

Design

- National Design Guide: <https://www.gov.uk/government/publications/national-design-guide>
- New Build Design Standards, NFCC, New Build Design Standards <https://www.nationalfirechiefs.org.uk/>
- Park Mark Safer Parking, 2010, New Build Guidelines (www.britishparking.co.uk/write/Documents/SPS/GuidelinesResources/SPS_New_Build_Guidelines_-_web_version.pdf)
- National Design Guide (2021) Section 11. 'Making Effective Use of Land' and Section 12. Achieving Well-designed Places National design guide - GOV.UK (www.gov.uk)
- Integrated Security, A Public Realm Design Guide for Hostile Vehicle Mitigation - Second Edition, Centre for the Protection of National Infrastructure, 2014, <https://www.cpni.gov.uk/system/files/documents/40/20/Integrated%20Security%20Guide.pdf>

Sustainability and the Environment

- Gatwick Second Decade of Change Sustainability statement and goals <https://www.gatwickairport.com/business-community/sustainability/>
- The Biodiversity Metric 2.0 (JP029), Natural England, <http://publications.naturalengland.org.uk/publication/5850908674228224>
- The Mosaic Approach: Managing Habitats for Species (B2020-009), Natural England, 2013, <http://publications.naturalengland.org.uk/publication/6415972705501184>
- Effective Use of Land (2019) Effective use of land - GOV.UK (www.gov.uk)
- UK Government's 'UK and the Sustainable Development Goals' <https://www.gov.uk/government/topical-events/uk-voluntary-national-review-of-progress-towards-the-sustainable-development-goals>



7.0	PARAMETERS FOR IMPLEMENTATION	35
7.1	Parameters for Implementation	36
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7.3	Highways Parameters	38

An aerial, monochromatic photograph of a large airport terminal and its surrounding tarmac. The terminal is a long, multi-story building with numerous gates. The tarmac is filled with many commercial aircraft, some parked at gates and others on the ground. The background shows a mix of greenery and other airport infrastructure. The overall tone is muted and professional.

7.0 PARAMETERS FOR IMPLEMENTATION

7.1 PARAMETERS FOR IMPLEMENTATION

7.1.1 The design of the projects set out in Section 5 of this DAS is at an early feasibility stage. Each of the main components of the authorised development is attributed a work number ('Work No.'). The work numbers should be read alongside the **Work Plans** (Doc Ref 4.5) which are set out at Schedule 1 of the draft DCO (Doc Ref 2.1) and define the location of the authorised development as well as any limits of deviation as set out in Article 6 and on the **Parameter Plans** (Doc Ref 4.7).

7.1.2 The maximum extent and area of each Work No. are shown on the Work Plans and Parameter Plans; with the approximate level of the finished works, the height of the structure (m) and/or maximum parameter height within which this Work would be undertaken described within this DAS and **ES Chapter 5: Project Description** (Doc Ref. 5.1).

7.1.3 A number of things can influence the parameters for development beyond the current design area. These can be an allowance for design development at later stages of design and also extra space needed for construction of the works.

7.1.4 The approach to how the parameters were developed is different for the surface access works due to the level of design detail available at the point of developing this masterplan.

7.1.5 There are also elements which haven't been fixed in their location and don't have a defined parameter area yet but are expected to happen within the Order Limits. This includes works like:

- Earthworks;
- Sewers and drainage;
- Landscaping;
- Foot, cycle paths and bridleways;
- Utilities; and
- Street and urban realm alterations.

7.1.6 The parameters have defined for the 'Airport Development Parameters' includes projects for the terminal, commercial and operational buildings, as well as car parking and the airfield works.

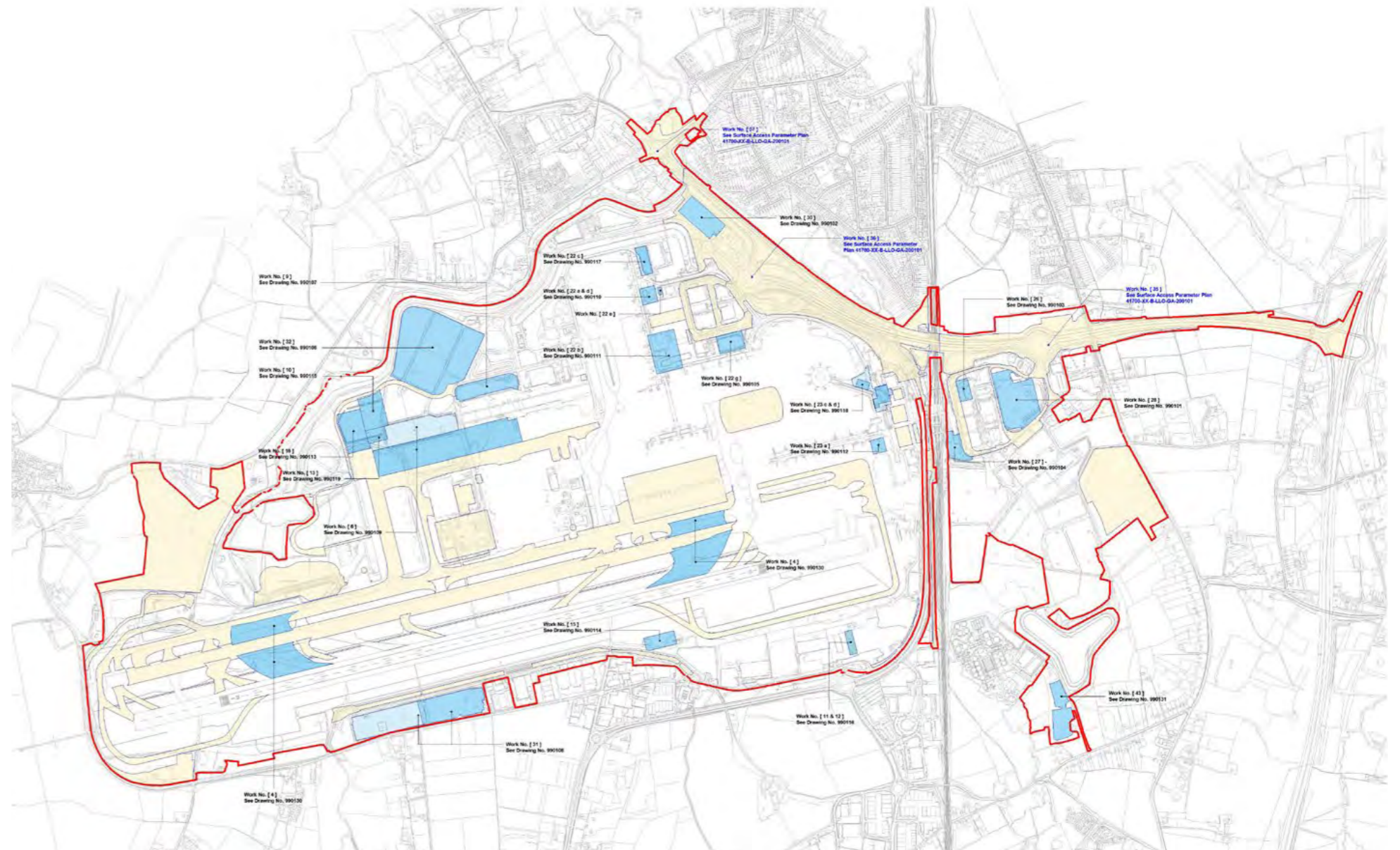
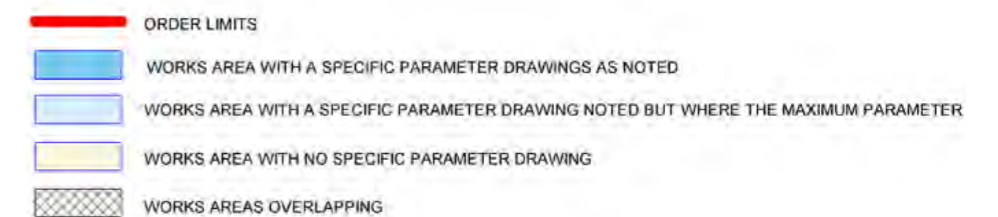


Figure 52. None Highways Parameters Location Plan



7.2 AIRPORT DEVELOPMENT PARAMETERS

- 7.2.1 For the projects where a specific site is known, a parameter plan has been produced. This plan then shows the extent of the 'maximum development envelope' for each. The extent of these was developed giving consideration to adjacent plots which have existing uses or other proposed developments under the Draft DCO.
- 7.2.2 In general the parameter areas follow existing lines of ownership or defined plots such as existing sites. Within these plots GAL has considered constraints that would limit development of the proposed use. Where these are present, the parameter for development excludes these, for example mature trees, ecological habitats and existing road infrastructure that is not being impacted by the Project.
- 7.2.3 The 'indicative proposal' outline is then shown inside of this line to give an idea of likely scale of such a development at that site.
- 7.2.4 The height for each plot has also been defined and this has taken into consideration a number of limiting factors such as the visual impact on adjacent or neighbouring areas.
- 7.2.5 As noted in Section 3, Gatwick Airport is required to adhere to safeguarding aerodrome regulations and therefore those height restrictions influence the parameter plan heights. The permitted height of any building or structure is governed by a series of 3-Dimensional planes that extend outwards from the runway. They are collectively named as Protected Surfaces and are made up of the Obstacle Limitation Surfaces (OLS) and Instrument Flight Procedure Surfaces (IFPS).
- 7.2.6 The Parameter Plans for each site are defined in the set of Airport Development Parameters plans submitted as part of the Draft DCO. An example of this is shown on figures 52 and 54 which show the maximum height in section (Figure 53) and the maximum site parameter area in plan view (Figure 54).

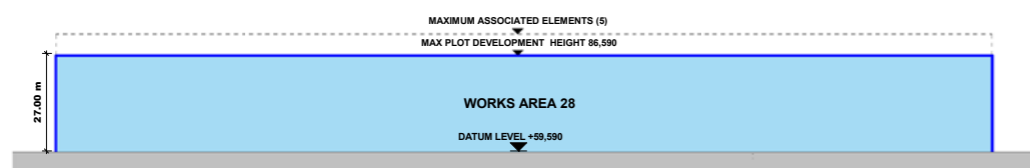


Figure 53. Example Parameters Section (Car Park H Site)

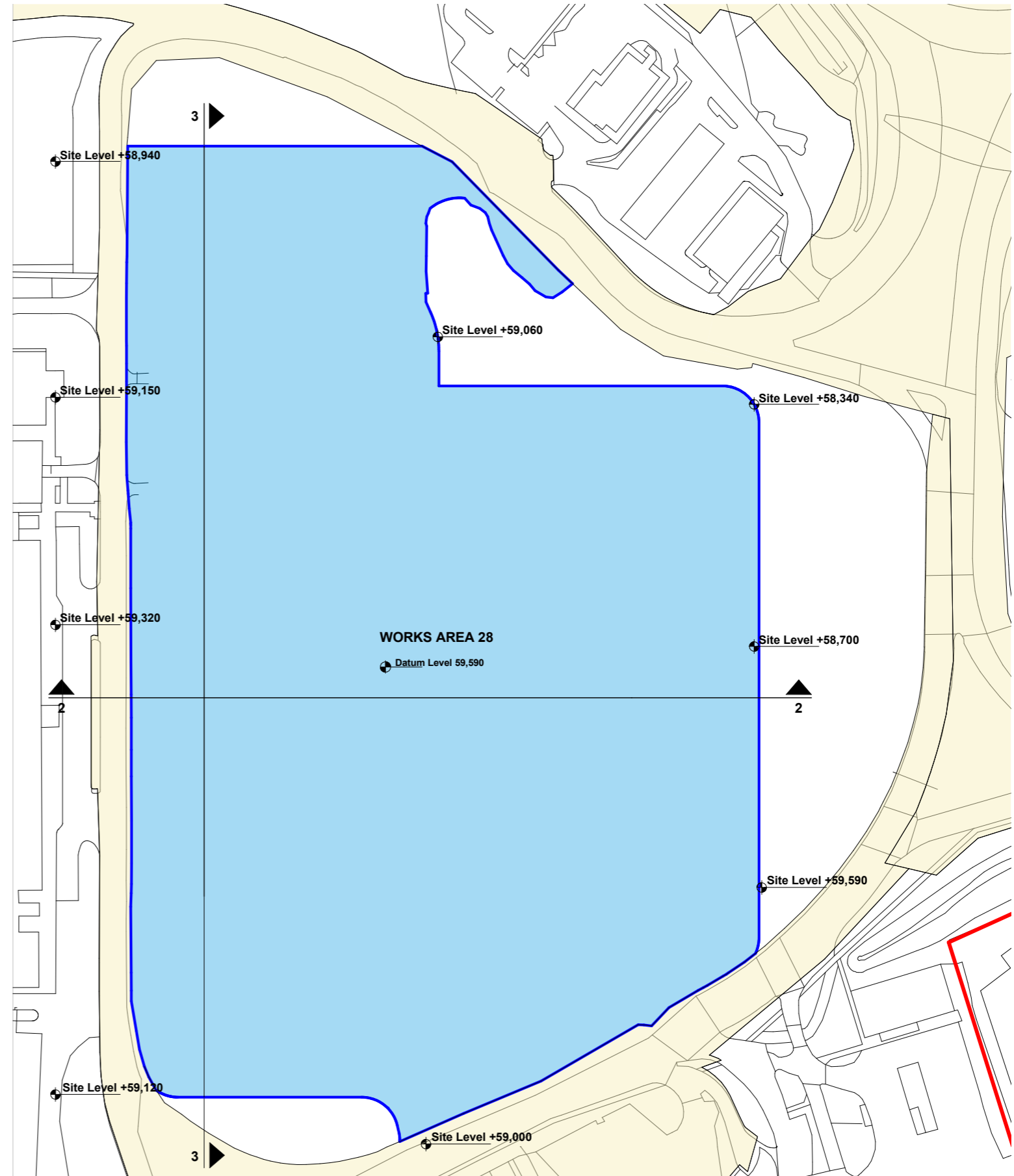


Figure 54. Example Parameters Plan (Car Park H Site)

7.3 HIGHWAYS PARAMETERS

- 7.3.1 The designs for surface access highway works described in this document are preliminary and will be developed further in the future at the detailed design stage.
- 7.3.2 A set of Parameter Plans have been produced for the surface access works such as those shown in Figures 55 and 56. These plans show the lateral limits of deviation for the surface access works which define the maximum engineering footprint of the surface access works, excluding utilities and planting. The extent of lateral limits of deviation is influenced by environmental considerations including existing vegetation and flood plains; adjacent land plots and their usage; the degree of uncertainty in relation to existing site features such as existing ground conditions and condition of existing assets; design standard requirements for the proposed works; and sufficient flexibility to allow for refinement of the design proposals at the detailed design stage.
- 7.3.3 The preliminary design is shown inside the lateral limits of deviation to illustrate the scale and layout of the surface access works.
- 7.3.4 The preliminary design of the vertical alignments of the proposed highway works are illustrated in the **Engineering Section Drawings**. These illustrate the heights of each highway relative to existing ground levels. The vertical limits of deviation set out in the Draft DCO define the maximum extent to which the proposed vertical alignments can move up or down, typically defined as up to 1m upwards and up to 1.5 metre downwards.

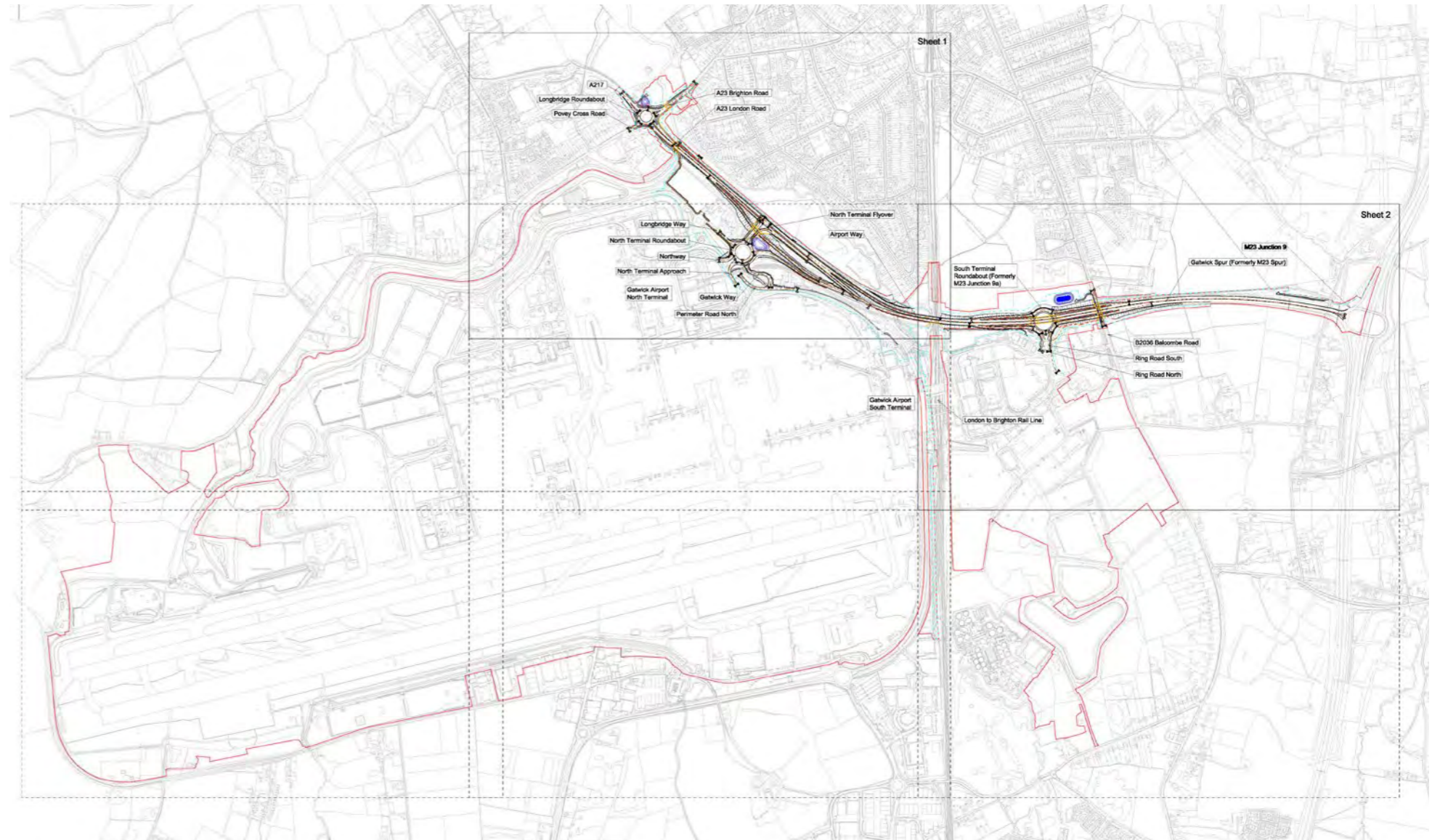


Figure 55. Highways Parameters Location Plan

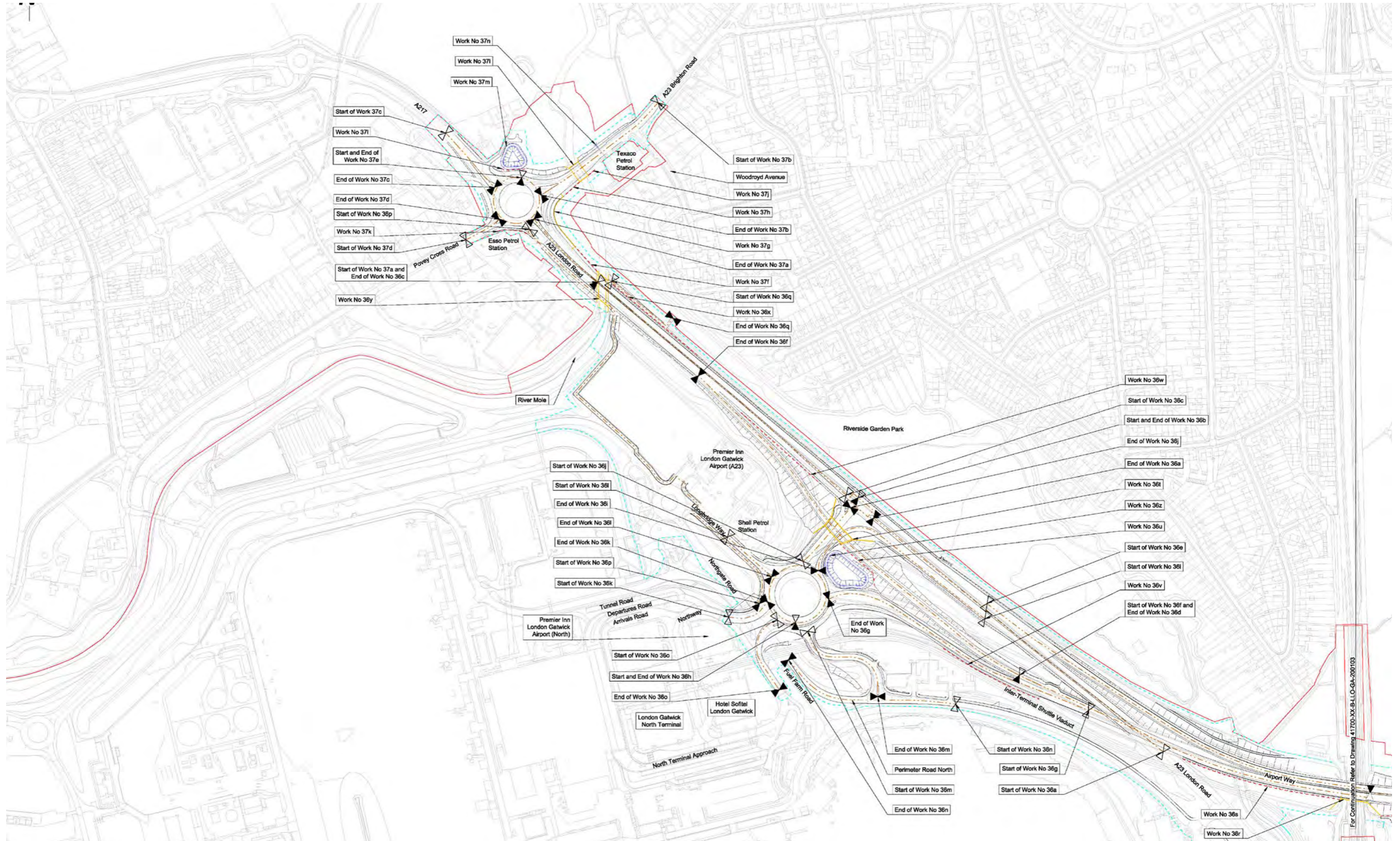
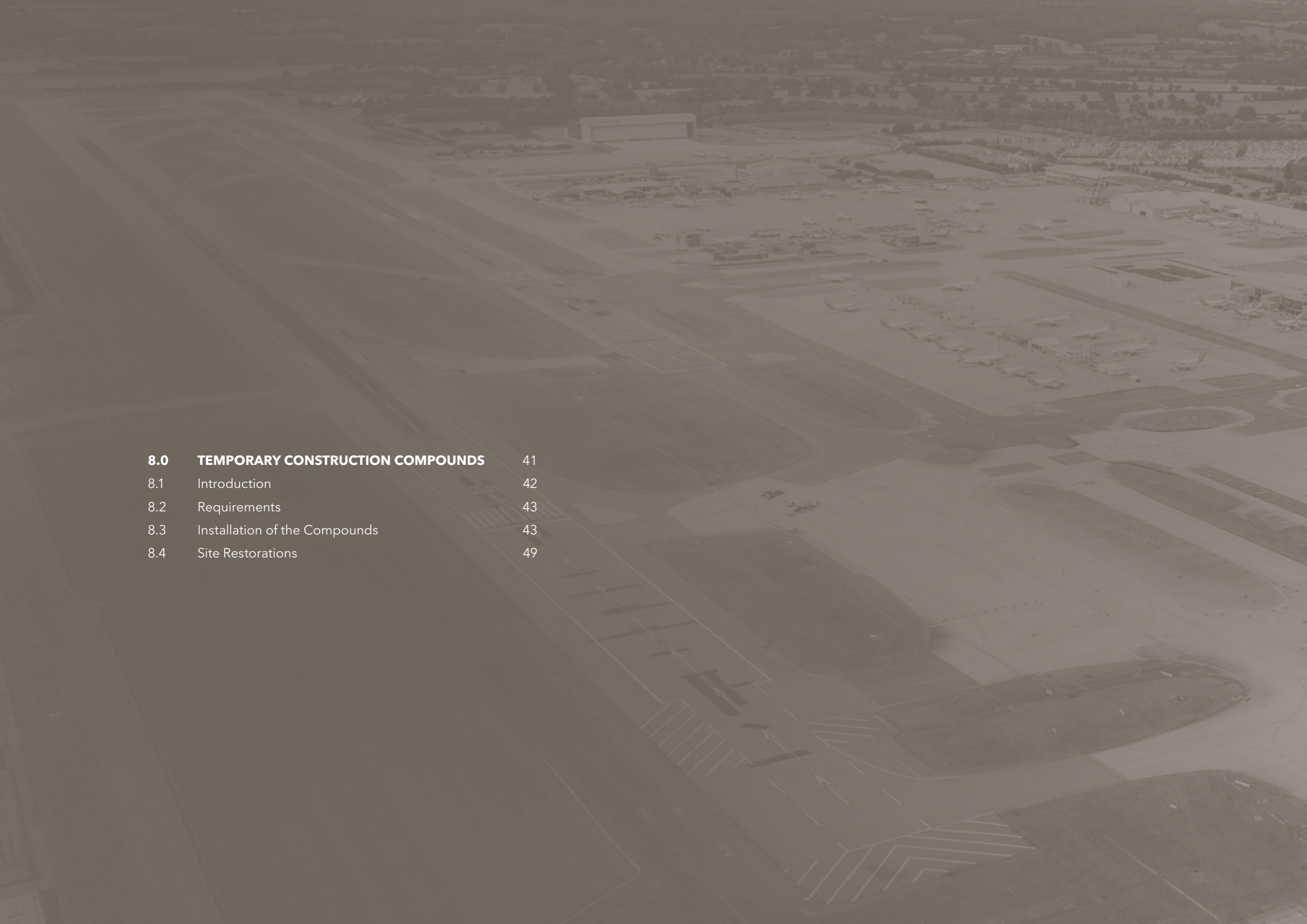


Figure 56. Example of Typical Highways Parameters Plan



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An aerial, monochromatic photograph of an airport terminal and tarmac. The terminal building is a long, multi-story structure with several gates. Numerous commercial aircraft are parked at the gates, and many more are scattered across the tarmac. The surrounding area includes parking lots, roads, and some greenery. The overall scene is busy and organized.

8.0 TEMPORARY CONSTRUCTION COMPOUNDS

8.1 INTRODUCTION

8.1.1 Construction of the Project would be undertaken in accordance with a **ES Appendix 5.3.2: Code of Construction Practice** (Doc Ref. 5.3). This legally secures the implementation of environmental mitigation measures for the construction of the Project. The mitigation measures identified in the Code of Construction Practice have been identified through the EIA process and are reported in the Environmental Statement. They describe how GAL will manage and minimise disturbance and other environmental impacts from demolition and construction activities (as identified in the Environmental Statement). The Code of Construction Practice also ensures that best practice standards will be applied and that there is a system in place for managing complaints.

8.1.2 GAL and its contractors will be required to implement the environmental management measures set out in the version of the Code of Construction Practice as approved by the Secretary of State, for all construction activities authorised by the Draft DCO to deliver the Project.

8.1.3 This section sets out the process for the siting, design and layout of the temporary construction compounds required for the construction of the Project.

8.1.4 GAL anticipates that eight construction compounds will be required to support the construction of the Project. The locations of these compounds are shown on Figure 57 and described below:

- MA1 - Main Contractor Compound - the main compound that will be used to support the Project office and most of the key services including the main welfare facility, car parking, airside screening and batch plants.
- Airside Satellite- this compound will support the core airfield works located within the north-western area of the airfield.
- Car Park Z - this compound will be used as a staging and laydown area for the core airside works.
- Car Park Y - this compound will be used for reprocessing the hard-excavated material from the core airside runway works. Following the completion of the airside works, the compound will be used to support the North Terminal Roundabout surface access works.
- South Terminal Roundabout- this compound will



Figure 57. Locations of Temporary Construction Compounds

support the surface access works to the South Terminal Roundabout.

- Longbridge Roundabout - this compound will support the Longbridge Roundabout surface access works. The compound will include storage for site containers, short-term material laydown and a pick-up point for workforce vans.
- Car Park B - this compound will support the widening works of the Airport Way bridge over the London to Brighton railway. The compound will include storage for site containers, short-term material laydown and a pick-up point for workforce vans.
- Reed Bed Compound - this compound would be used for works associated with the water treatment works.

8.1.5 The following sections set out the indicative locations, activities, sizing, maximum heights and access for each of the proposed compounds.

8.2 REQUIREMENTS

8.2.1 When determining the location of the construction compounds, the following objectives were considered:

- Minimise disruption to local communities as far as practicable.
- Ensure there is no impact on operations at Gatwick Airport.
- Meet construction and logistics requirements while retaining a degree of flexibility to locate the most appropriate construction activities at each compound location.
- Build facilities only once to avoid relocation during construction.
- Minimise workforce commute times .
- Minimise internal movement of people and materials between the construction sites.

8.2.2 It is anticipated that the Project would be constructed over a period of approximately 14 years. The proposed compounds would be required for various durations throughout this period. Table opposite illustrates the indicative duration of each compound.

8.3 INSTALLATION OF THE COMPOUNDS

8.3.1 The general process to establish the construction compounds comprises the following:

- Installation of secure fencing around the site.
- Clearance of the site to remove existing items/structures that are not required as part of the construction compound.
- Marking out roadways and safe walking routes and parking areas.
- Installation of temporary welfare and office facilities.
- Installation of temporary batching plants and bulk material handling.
- Installation of bus terminus and airside process facility (where appropriate).

8.3.2 The contractor facilities are expected to comprise of temporary modular accommodation units. Examples of these units are shown in Figure 58. The accommodation units will be delivered to the site via road vehicle and installed using a mobile crane. The same method will be performed in reverse for the removal of these buildings.

8.3.3 On completion of the Project (or the relevant works that the compound is required for), all temporary compounds would be restored to their previous land use following completion of the works except for the Car Park B Compound that would become replacement open space.



Figure 58. Examples of Temporary Construction Compounds

COMPOUND	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
MA1 - MAIN CONTRACTOR COMPOUND																		
AIRFIELD SATELLITE COMPOUND																		
CAR PARK Z - (STAGING AND LAY DOWN)																		
CAR PARK Y - MATERIAL PROCESSING AND LAY DOWN AREA																		
SOUTH TERMINAL ROUNDABOUT CONTRACTOR COMPOUND																		
LONGBRIDGE ROUNDABOUT - SITE WELFARE FACILITIES*																		
CAR PARK B - A WAY RAIL BRIDGE WIDENING																		

Temporary Compounds Timeline

8.3.4 MA1 - MAIN CONTRACTOR COMPOUND

8.3.3.1 The Main Contractor Compound (MA1) would be located in the south eastern part of Gatwick airport, to the west of Perimeter Road (Figure 55). The site is currently hard stand used for long-stay car parking with access gained from Perimeter Road South as shown on Figure 59.

8.3.3.2 The compound would be securely fenced and is anticipated to accommodate the following:

- Main office and welfare facility (including meeting room space, canteen, locker rooms and waste processing area);
- Two batching plants, with associated bulk material storage and handling bays;
- Airside processing facility for people, vehicles and materials;
- Short term material laydown;
- Parking (approximately 500 cars, 10 vans and 5 bus spaces) for contractor, project manager and supply chain vehicles restricted parking spaces based on the assumption that three people would use two vehicles and the provision of car pooling and public transport options, safe walking routes; and
- Staff bus stops.

8.3.3.3 The main compound is anticipated to occupy an area of approximately 4 hectares. The tallest elements within the main compound are expected to be components of the batching plants at a maximum of 25 metres above ground level. .

8.3.3.4 The location is anticipated to serve the majority of the daily construction workforce and the project management team. The main compound would support approximately 700 construction workers.



Figure 59. Overall Site Location - MA1 - Main Contractor Compound

8.3.3.5 It is likely that a new temporary access from the existing Perimeter Road East would be required to enable separation of construction traffic from the existing operational traffic. A separate control point will be provided for access to the compound.

8.3.3.6 Two new accesses will be required at Perimeter Road East. The southernmost access will serve as the HGV access point to the batch plant and material laydown areas of the compound. A vehicle access will also be provided to the north along Perimeter Road East for staff to ensure that access is separate to HGV traffic. It is expected that approximately 530 car parking spaces would be provided at the site.

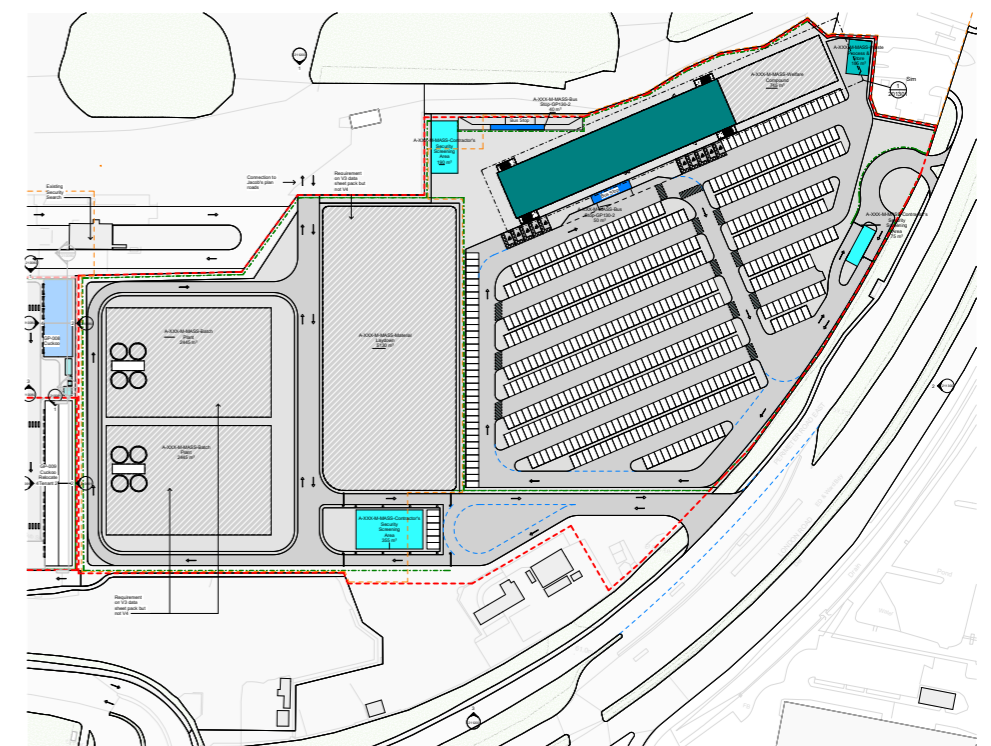


Figure 60. Proposed Ground Floor Plan - MA1 - Main Contractor Compound

8.3.5 AIRFIELD SATELLITE COMPOUND

8.3.5.1 The Airfield Satellite Compound will be to the west of Taxiway Uniform and south of the Boeing hangar (Figure 62). The site is currently a mix of hard stand with an existing batching plant from a previous contractor site area and greenfield as shown on Figure 61. This compound would be securely fenced and is anticipated to accommodate the following:

- Satellite office and welfare facility (including meeting room space, small canteen, locker rooms, waste processing area);
- Two concrete batching plants, with associated bulk material storage and handling bays;
- Short term material laydown;
- Security screening area;
- Parking (approximately 250 car, 10 van, 5 bus spaces);
- Safe walking routes;
- Staff bus stops; and
- Two warehouses.

8.3.5.2 The compound is anticipated to occupy an area of approximately 3.5 hectares. The tallest elements within the compound are expected to be components of the batching plant at a maximum of 25 metres above ground level. The location is anticipated to serve airfield works, including the provision of a stockpile location and crusher operation.

8.3.5.3 The compound would support approximately 370 construction workers.

8.3.5.4 The access road to the Airfield Satellite Compound would be via part of Larkins Road. Approximately 750 metres would be strengthened and widened from the current single lane (5 metres wide) to a two way carriageway (7.5 metres wide) up to 10 metres in width to allow for wagon overhang, plus an additional 2 metres for construction.



Figure 61. Overall Site Location - Airfield Satellite Compound

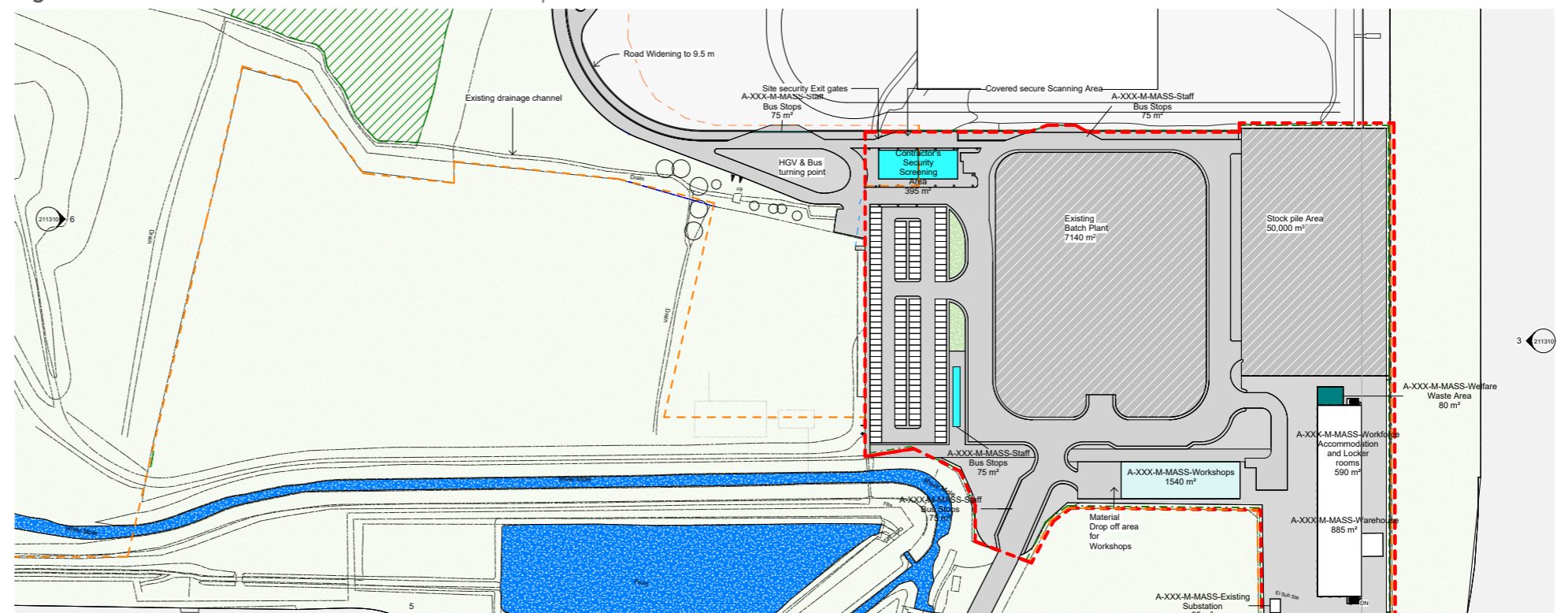


Figure 62. Airfield Compound Proposed Site Plan - Airfield Satellite Compound

8.3.6 CAR PARK Z (STAGING AND LAYDOWN)

8.3.6.1 The Car Park Z compound would be located to the southeast of the airfield (Figure 63). This area is currently used for as a car park with Airfield and Landside

8.3.6.2 The compound would be fenced and is anticipated to accommodate the following:

- A staging and laydown area;
- Site offices and welfare facilities;
- Parking (approximately 20 car, 2 van and 4 HGV spaces);
- Mobile crusher;
- Security screening area; and
- Warehouse.

8.3.6.3 It would occupy an area of approximately 1.8 hectares. The tallest elements within the compound are expected to be two storey containers at a maximum of 6 metres above ground level.

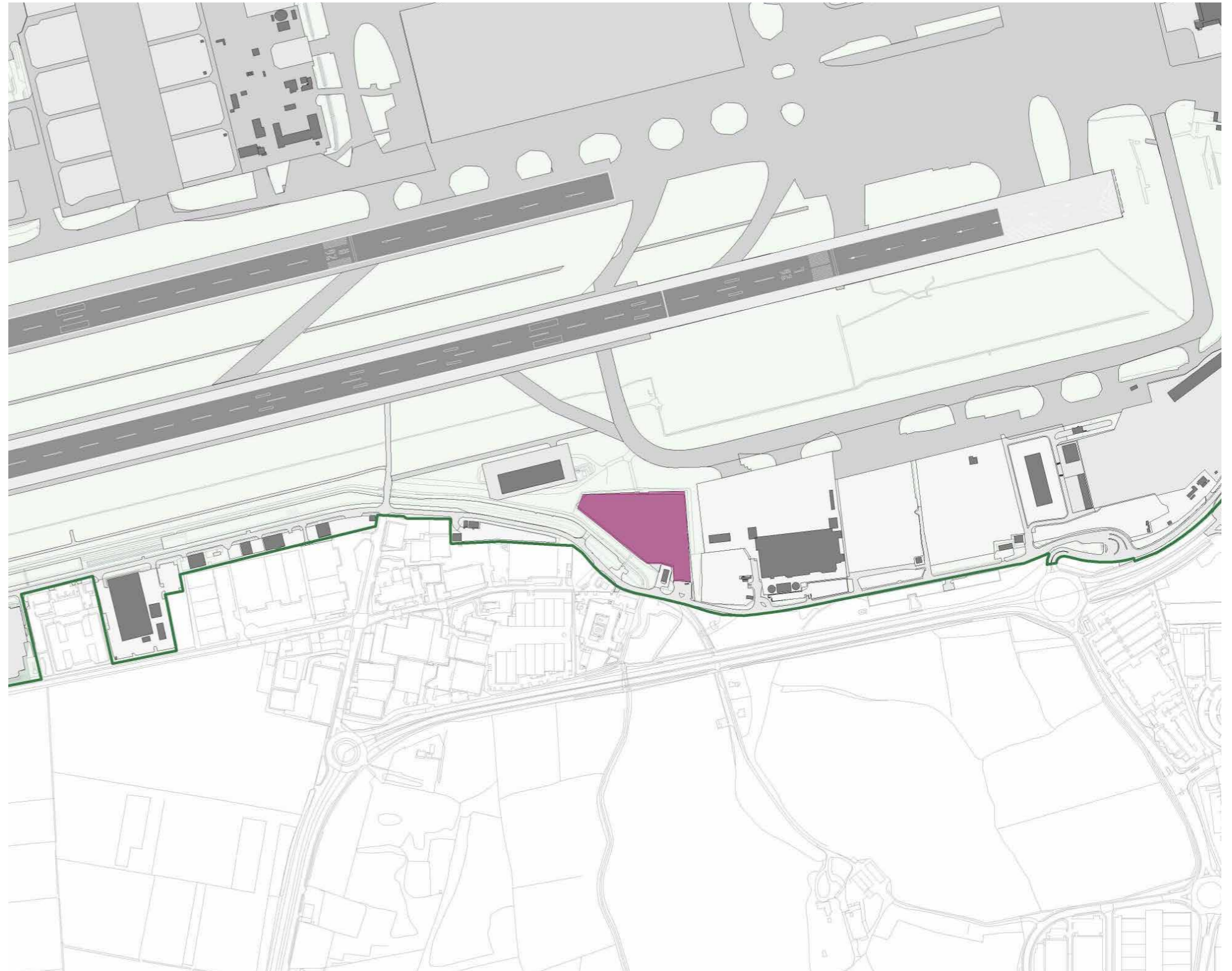


Figure 63. Overall Site Location - Car Park Z

8.3.7 CAR PARK Y COMPOUND

8.3.7.1 The Car Park Y compound would be located off the Northgate Roundabout to the north of Gatwick Airport (Figure 64). The site is currently used as a surface level car parking with access gained from Perimeter Road North as shown on Figure 64.

8.3.7.2 For the compound's initial use as the airside materials processing area, the area would be fenced and is anticipated to comprise:

- Material processing plant area;
- Material storage and laydown areas;
- Wheel wash areas for HGVs;
- Site offices and welfare facilities;
- Mobile crusher and loader;
- Warehouse;
- Parking (approximately 10 car, 2 van and 5 HGV spaces);
- Security screening area.

8.3.7.3 For the compound's later use for the surface access works (North Terminal Roundabout) the area would be fenced and is anticipated to comprise:

- Site offices and welfare facilities;
- Security screening area;
- Stockpiling;
- Wheel wash area; and
- Parking (approximately 50 car, 10 van, 5 bus, 15 HGV and 10 articulated vehicle spaces).

8.3.7.4 It would occupy an area of approximately 1.8 hectares. The tallest elements within the compound are expected to be two storey containers at a maximum of 6 metres above ground level.

8.3.7.5 Access to the site is currently provided from the roundabout on Perimeter Road North/Longbridge Way/Northgate Road which also provides access to the Premier Inn Hotel. It is proposed that all vehicles enter the compound using the existing access. The configuration of the access will be optimised to reduce vehicle conflicts and prevent vehicles from turning right.

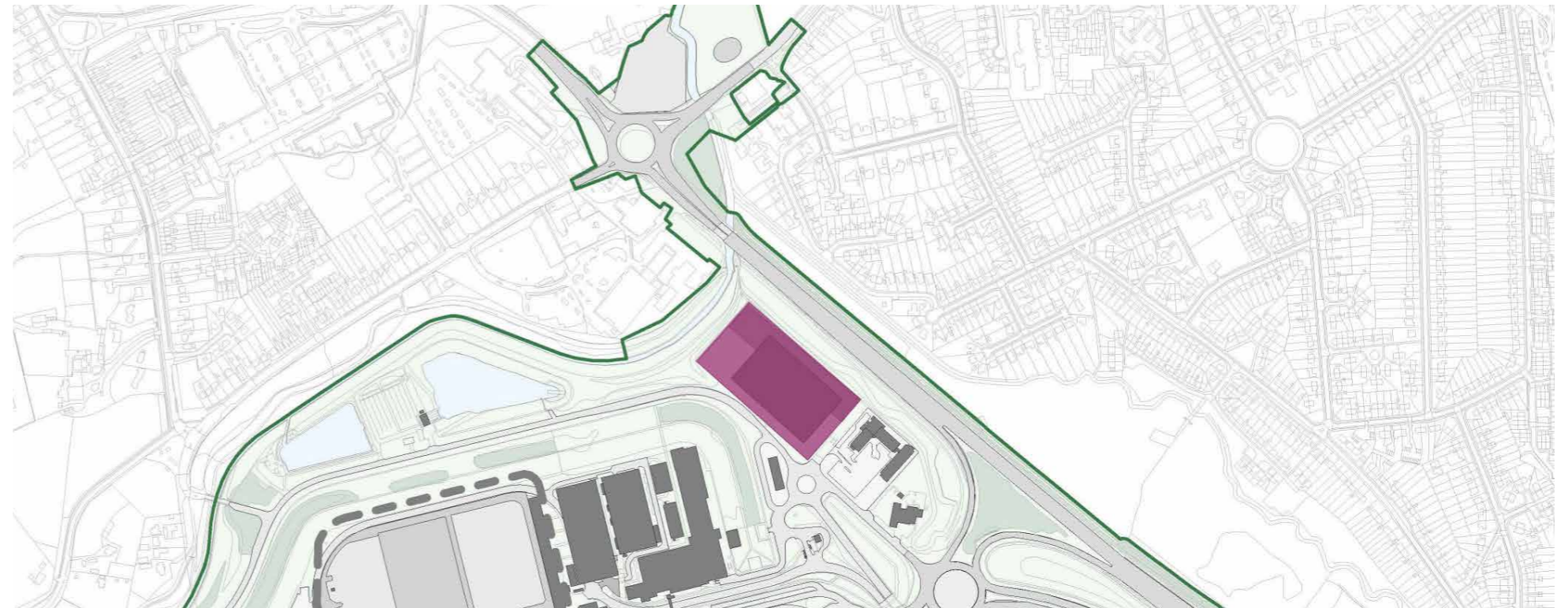


Figure 64. Overall Site Location - Car Park Y Compound



Figure 65. Indicative Car Park Y Compound Site Layout

8.3.8 SOUTH TERMINAL ROUNDABOUT CONTRACTOR COMPOUND

8.3.8.1 The South Terminal Roundabout Contractor Compound would be located to the north of the South Terminal Roundabout (Figure 66). The site is currently a field (Reigate Field) with areas of woodland located to the east of Gatwick Airport shown on Figure 66.

8.3.8.2 The compound would be fenced and is anticipated to accommodate the following:

- Access controlled access from the South Terminal Roundabout;
- Office and welfare facilities (including meeting room, canteen, locker rooms);
- Material laydown area;
- Security screening area;
- Batching plant;
- Two warehouses and a workshop;
- Stock piling;
- Traffic break down recovery centre;
- Wheel wash area; and
- Parking for contractor, project manager and supply chain vehicles (approximately 169 car, 10 van, 5 bus spaces).

8.3.8.3 It would occupy an area of approximately 3 hectares. The tallest elements within the compound are expected to be components of the batching plant at a maximum of 25 metres above ground level.

8.3.8.4 There would be a bund for noise and visual screening. Materials storage would be located to the west of the compound to distance it from residential properties on Balcombe Road and there would be potential to locate other facilities in this area.

8.3.8.5 The compound would support approximately 250 construction workers.

8.3.8.6 Access to the compound would be afforded by a temporary access off the South Terminal Roundabout as shown on Figure 67.



Figure 66. Overall Site Location - South Terminal Roundabout

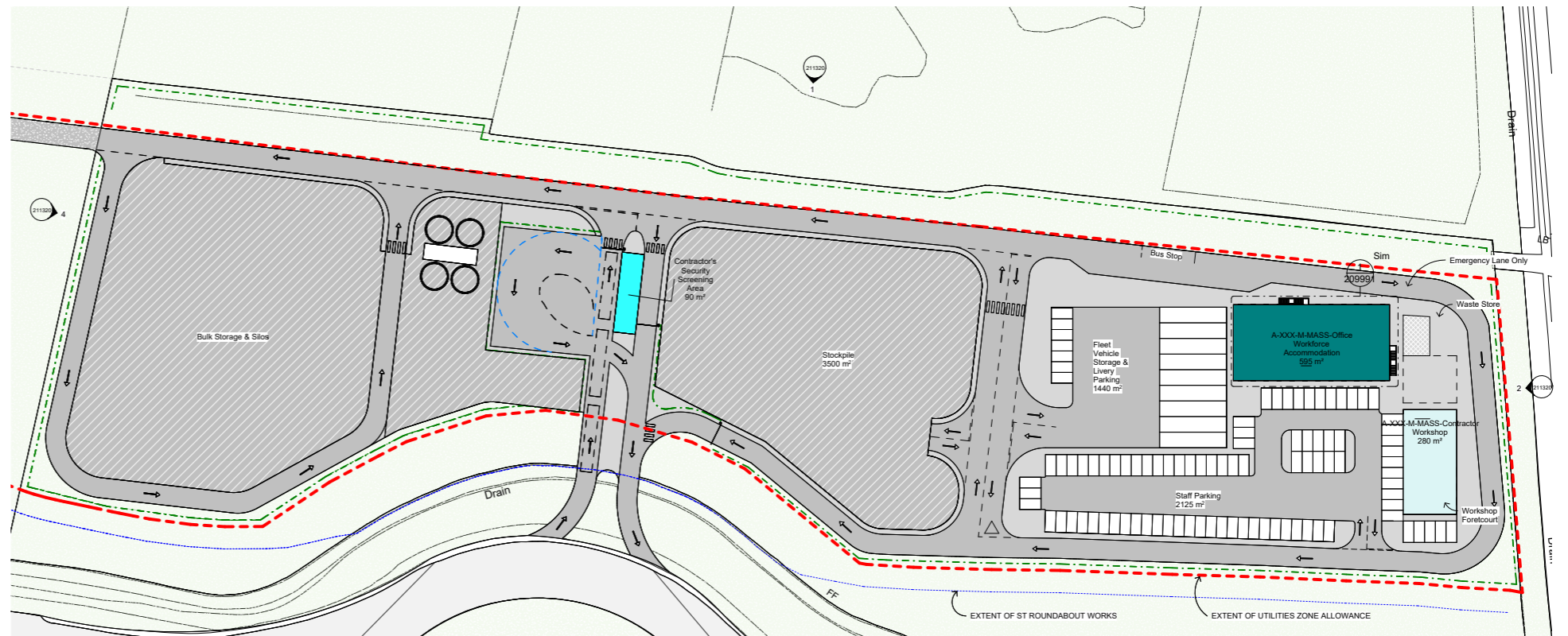


Figure 67. Overall Site Plan - South Terminal Roundabout

8.3.9 LONGBRIDGE ROUNDABOUT SITE WELFARE FACILITY

- 8.3.9.1 The Longbridge Roundabout Contractor Compound will serve the works to the Longbridge Roundabout. It is located to the north of Gatwick Airport at the northern extent of the Longbridge Roundabout (Figure 68). The site is currently a field which is surrounded by trees and woodland with the River Mole separating the site from Church Meadows.
- 8.3.9.2 The compound would be securely fenced and is anticipated to accommodate the following:
 - Office and welfare facility (including meeting room space, small canteen/locker rooms, waste processing area);
 - Material laydown; and
 - Parking for contractor, project manager and supply chain vehicles (approximately 27 car, 4 van spaces).
- 8.3.9.3 The Longbridge roundabout satellite compound is anticipated to occupy an area of approximately 0.3 hectares. The tallest elements within the compound are expected to be two storey containers at a maximum of 6 metres above ground level. The welfare containers would be either two storey or on steel legs due to the flood risk at the site.
- 8.3.9.4 The compound would accommodate approximately 40 construction workers.

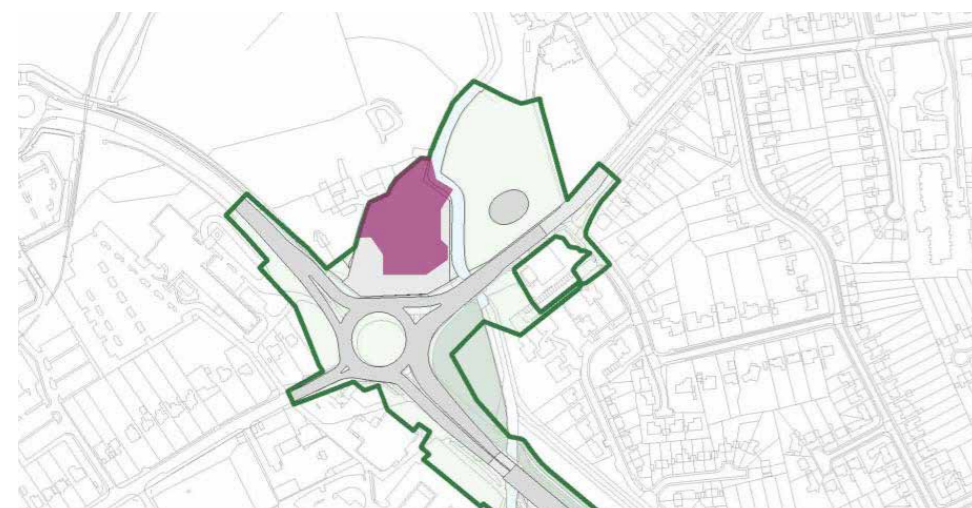


Figure 68. Site Location - Longbridge Roundabout Site Welfare Facility

8.3.10 CAR PARK B COMPOUND - A WAY RAIL BRIDGE WIDENING

- 8.3.10.1 The Car Park B compound would be used for the works to widen the Airport Way bridge over the railway line. Part (approximately 0.3 hectares) would be to the north of the bridge (as shown on Figure 68) and part (approximately 0.17 hectares) to the south of the bridge. The northern part of the site is currently a field with the southern part being used as surface car parking.
 - 8.3.10.2 The compound would be securely fenced and is anticipated to accommodate the following:
 - Office and welfare facility (including welfare waste area);
 - Material lay down;
 - Wheel wash area; and
 - Parking (approximately 30 car, 4 van spaces).
 - 8.3.10.3 The tallest elements within the compound are expected to be two storey containers at a maximum of 6 metres above ground level.
 - 8.3.10.4 The compound would accommodate approximately 40 construction workers.
- 8.3.11 REED BED COMPOUND**
- 8.3.11.1 The reed bed compound would be used for works associated with the constructed wetland (reed bed) systems. It would be located to the north east of the proposed reed beds (Figure 70).



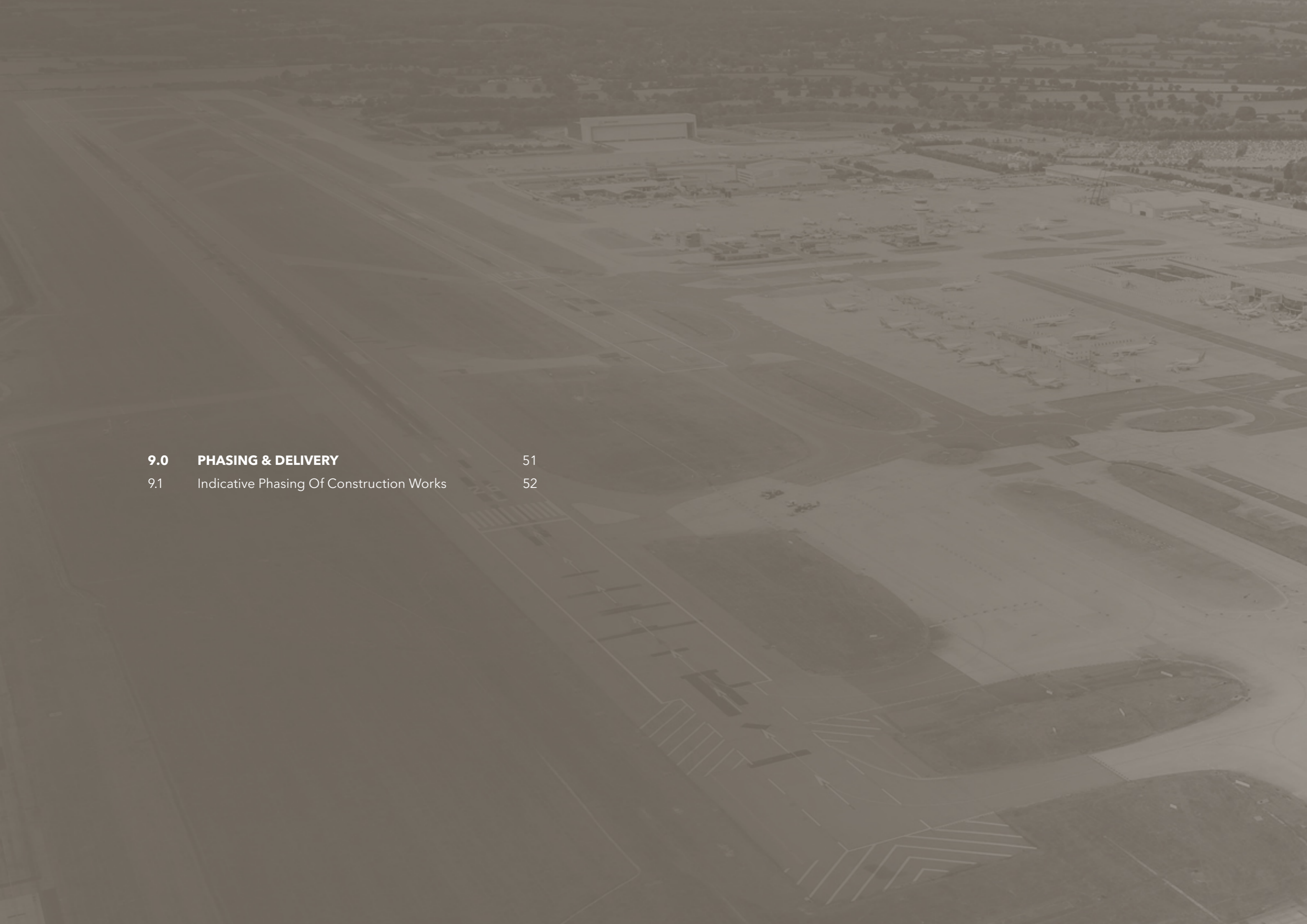
Figure 69. Site Location - Car Park B Compound

8.4 SITE RESTORATIONS

- 8.4.1 MA1, Airside Satellite, Car Park Z and Car Park Y compounds will be reinstated to their original condition after the completion of the construction works. The rest of the compounds will be stripped and the sites use for landscaping, ecological planting and environmental mitigation areas within the Project scope.
- 8.4.2 The land used for the construction compound will be restored to their original condition before the construction activities took place. This will involve removing temporary structures, excess material removal, grading and levelling of the area to its original topography.
- 8.4.3 All service connections, such as water, gas and electricity will be reinstated to their original condition.
- 8.4.4 Any damage caused to the environment, such as vegetation or landscaping, will be repaired or replaced. These works may involve planting new trees or shrubs, repairing damaged sidewalks and curbs, or installing new landscaping features.
- 8.4.5 The reinstatement works will comply with all the regulatory requirements and guidelines, including the necessary permits and approval from the relevant authorities.



Figure 70. Site Location - Reed Bed Compound



9.0	PHASING & DELIVERY	51
9.1	Indicative Phasing Of Construction Works	52

An aerial, monochromatic photograph of an airport terminal and tarmac. The terminal building is a long, multi-story structure with a curved section. Numerous aircraft are parked at gates along the terminal. The tarmac is a large, flat area with various markings and taxiways. In the background, there are trees and other airport buildings. The overall scene is a detailed view of an airport's ground operations.

9.0 PHASING & DELIVERY

9.1 INDICATIVE PHASING OF CONSTRUCTION WORKS

9.1.1 This section sets out the indicative construction programme for the Project. It has been based on an assumption that construction would commence in 2024, however this timing is indicative and the actual commencement year of the Project will be dependent on the securing of development consent and the associated discharge of requirements.

9.1.2 The below sets out the key construction activities and phasing at various intervals during the construction period to provide an understanding of the types of works that are likely to be constructed concurrently and their duration.

9.1.3 An indicative construction programme has been based on construction commencing in 2024, however the actual timing of the Project will be dependent on the timing of securing development consent and the discharge of the associated requirements.

9.1.4 The programme for the main airfield construction works will be approximately five years in duration to enable the altered northern runway and taxiways to be complete and fully operational in combination with the main runway in 2029.

9.1.5 During the construction period the northern runway would not be available as a standby runway for a period of several months.

9.1.6 The construction of other works that form part of the Project would continue past 2029.

9.1.7 The indicative phases of the Project are described in the following tables (Figures 70, 72, 74 & 76).

9.1.8 Figure 70 indicatively shows the construction activities that would occurring in 2026. The activities likely to be in construction in 2026 are predominantly those that are within the Gatwick Airport site. These include the alterations to the northern runway and associated airfield, extensions to the North Terminal and South Terminal, and construction of the hotel and commercial facilities, car parking and flood compensation areas.

9.1.9 Figure 71 shows the location of these activities.

9.1.10 PHASING 2026

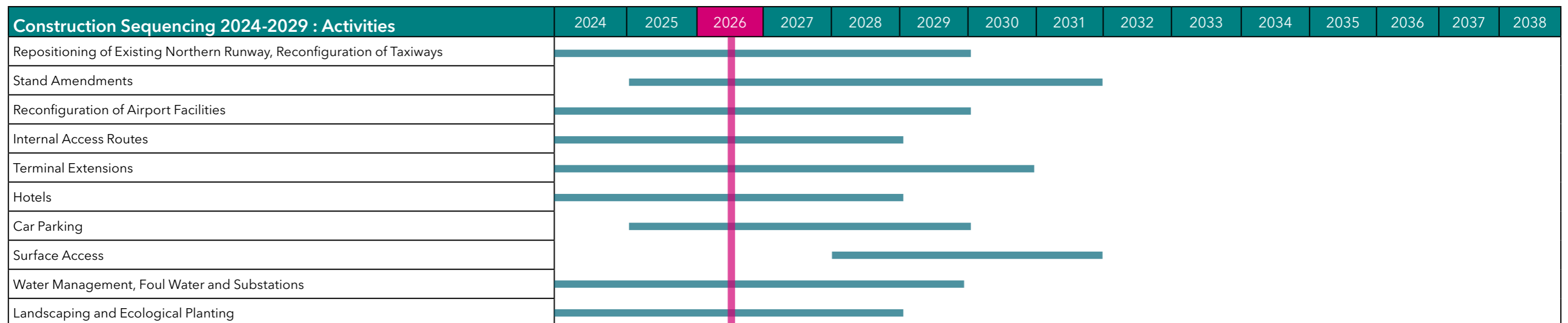


Figure 71. Indicative Construction Phasing Schedule (2026)

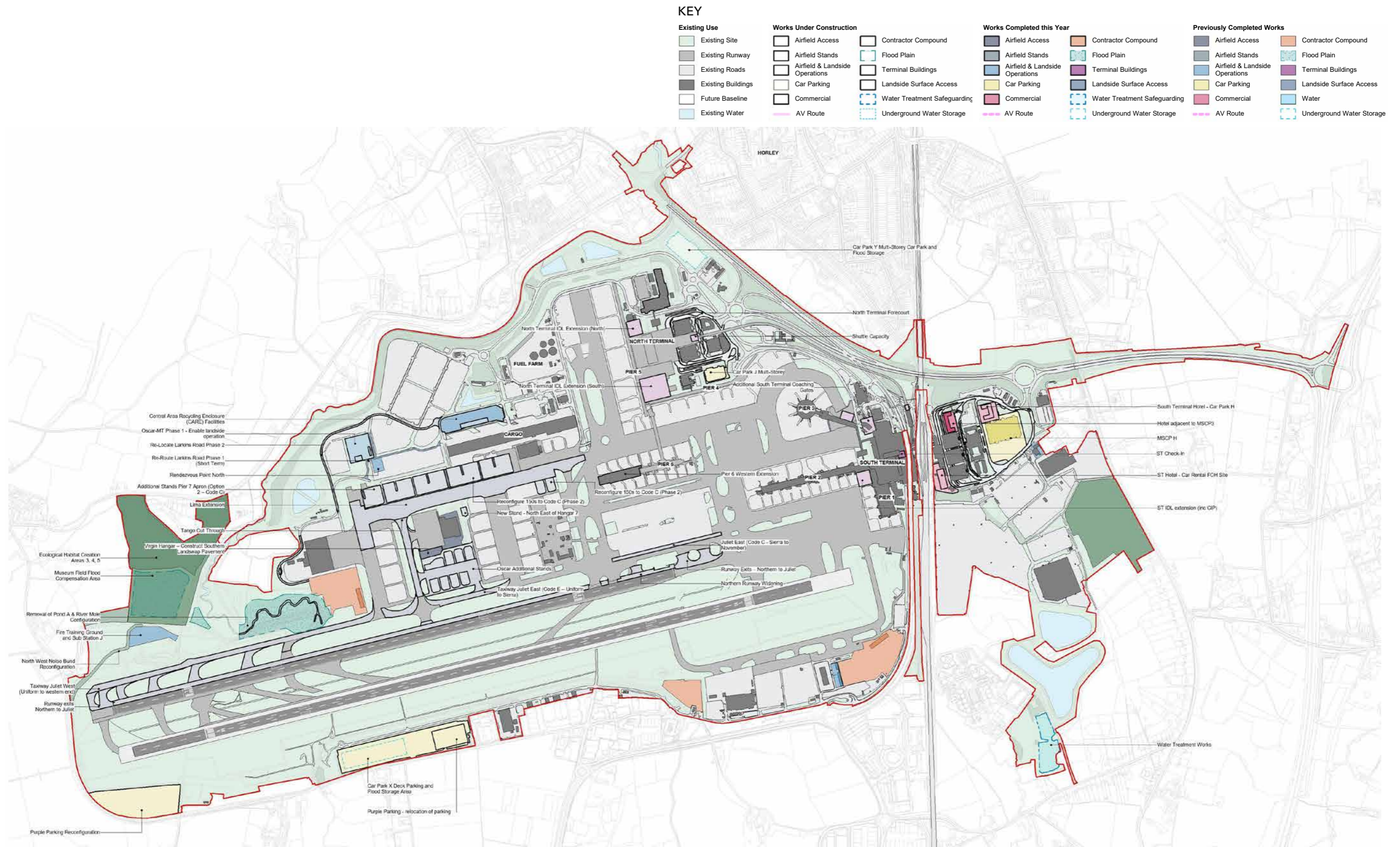


Figure 72. Phasing Plan (2026)

9.1.11 PHASING 2029

9.1.12 Figure 72 indicatively shows the construction activities that would occurring in 2029. Most of the Project would be in the construction phase at this point in time, including the construction of the surface access improvements, with the exception being the construction of Pier 7.

9.1.13 Figure 73 shows the location of these activities.

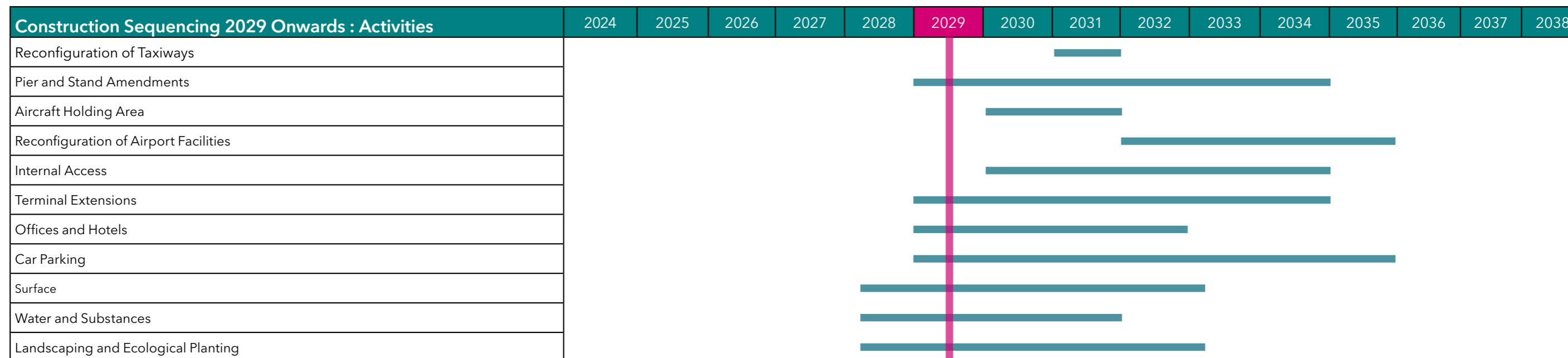


Figure 73. Indicative Construction Phasing Schedule (2029)

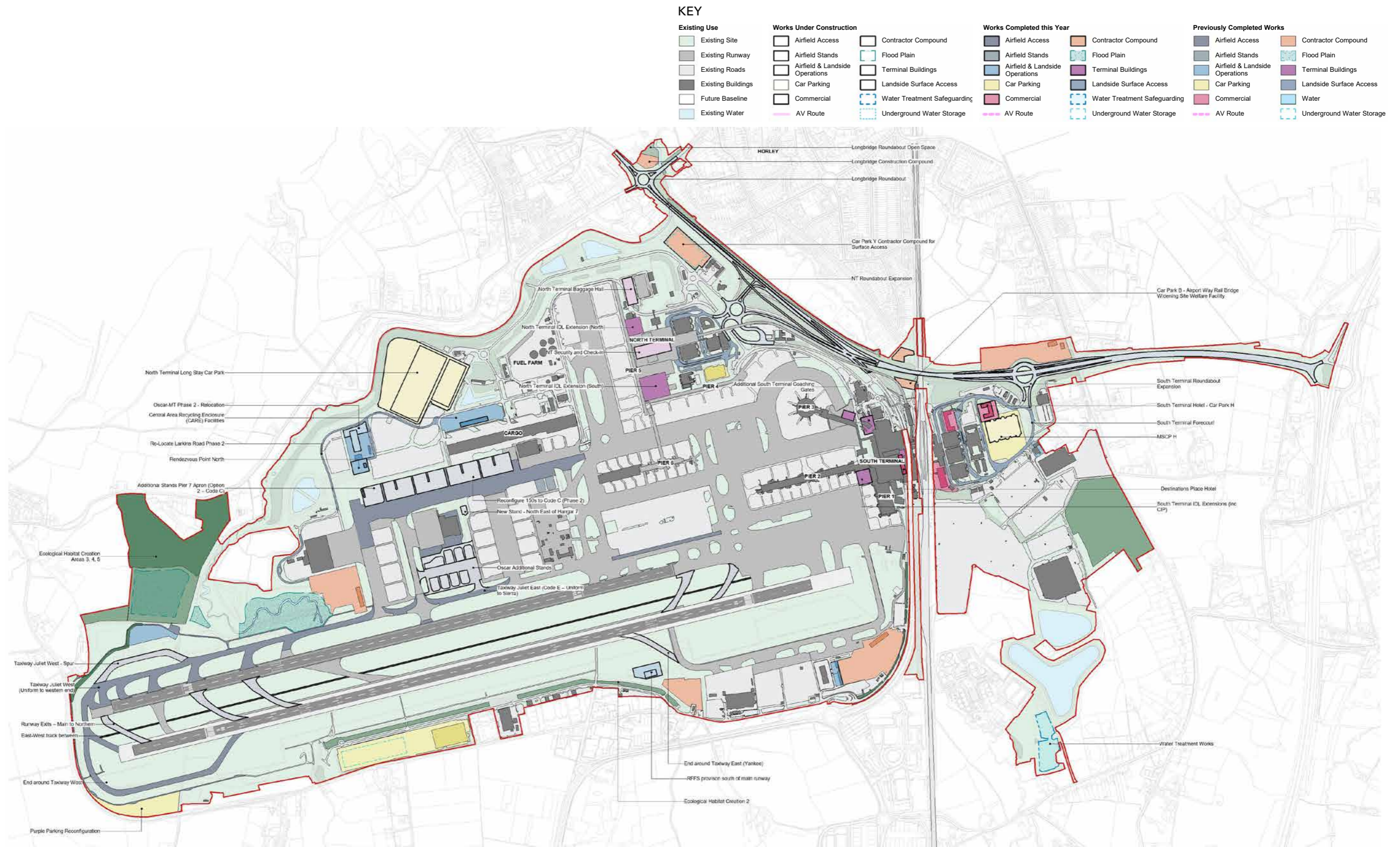


Figure 74. Phasing Plan 2029

9.1.14 PHASING 2032

9.1.15 Figure 74 indicatively shows the construction activities that would occurring in 2032. These activities are likely to be the extensions to the North Terminal and South Terminal, hotel and commercial facilities, car parking, flood compensation areas, surface access improvements, reconfiguration of airfield facilities, Pier 7, and the reinstatement of construction compounds no longer in use.

9.1.16 Figure 75 shows the location of these activities.

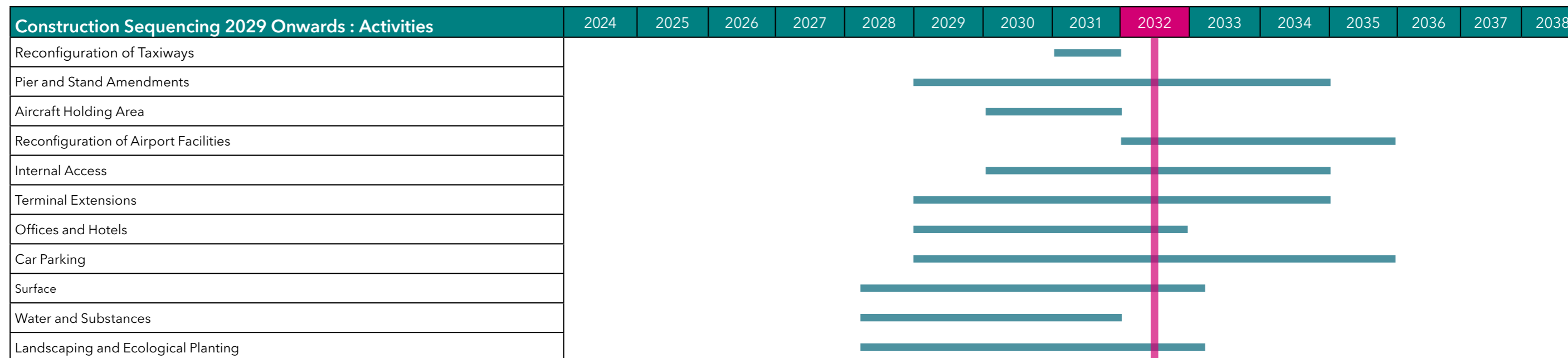


Figure 75. Indicative Construction Phasing Schedule (2032)

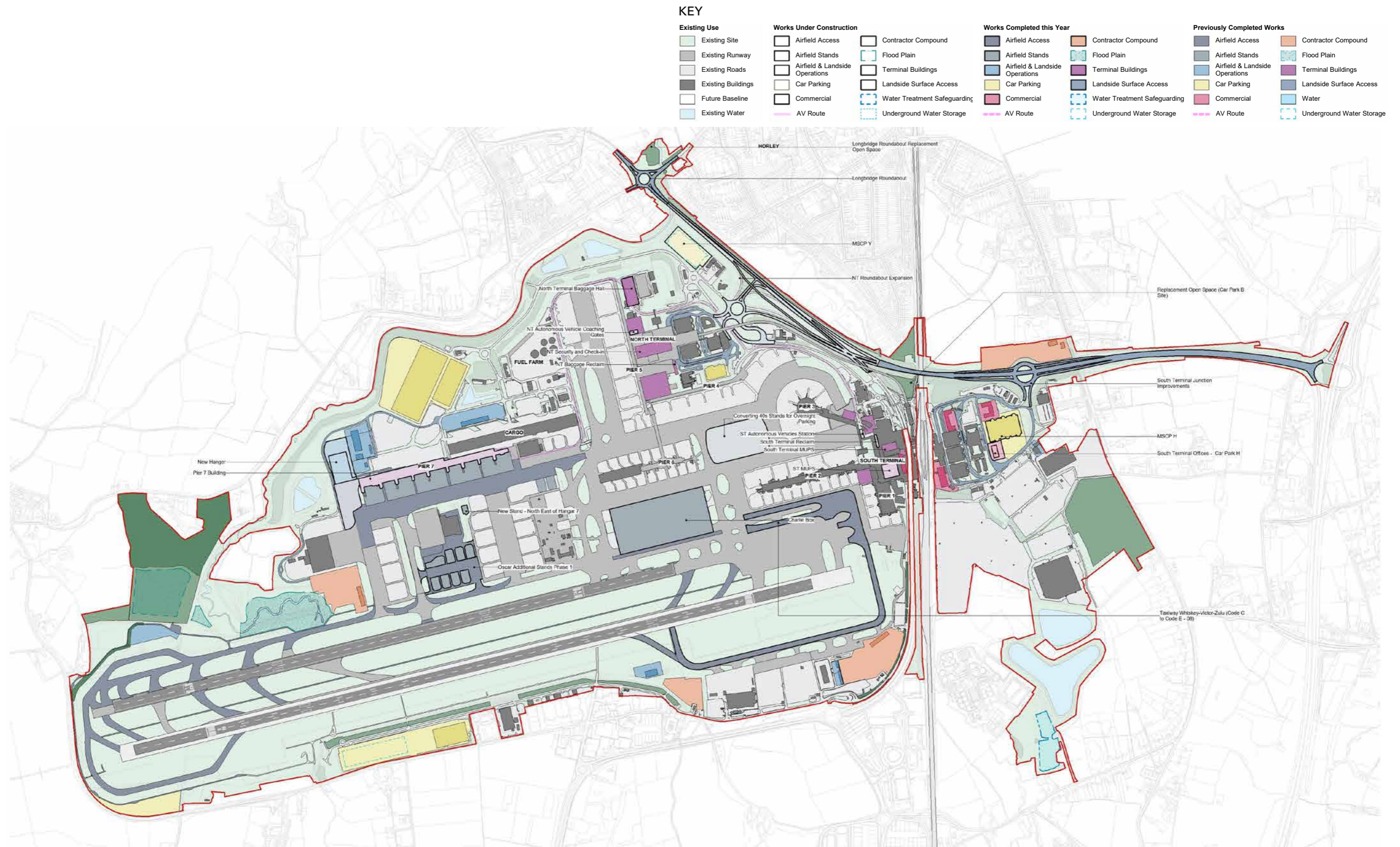


Figure 76. Phasing Plan 2032

9.1.17 PHASING 2038

9.1.18 Figure 76 indicatively shows the construction activities that would be occurring in 2038. Figure 77 shows the general locations of these activities once completed.

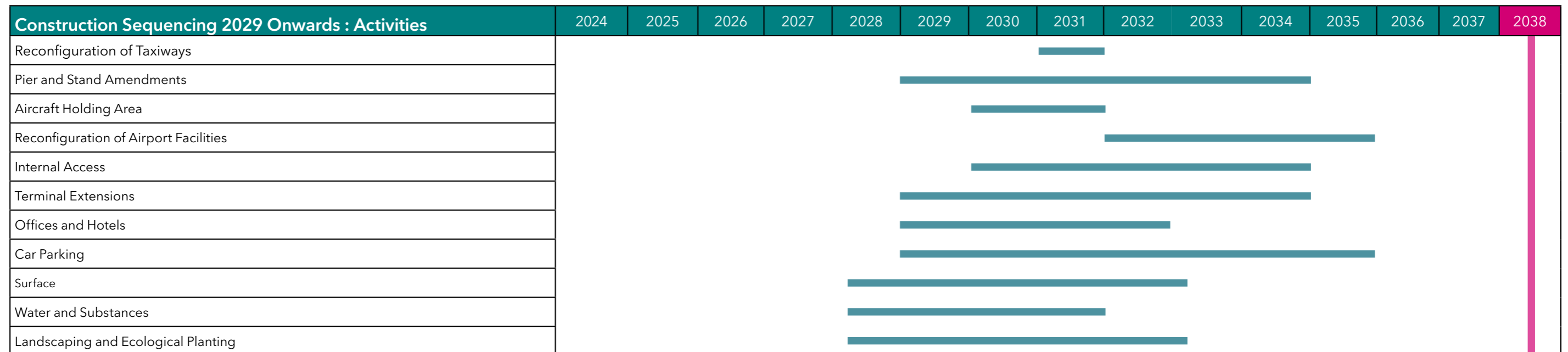


Figure 77. Indicative Construction Phasing Schedule (2038)

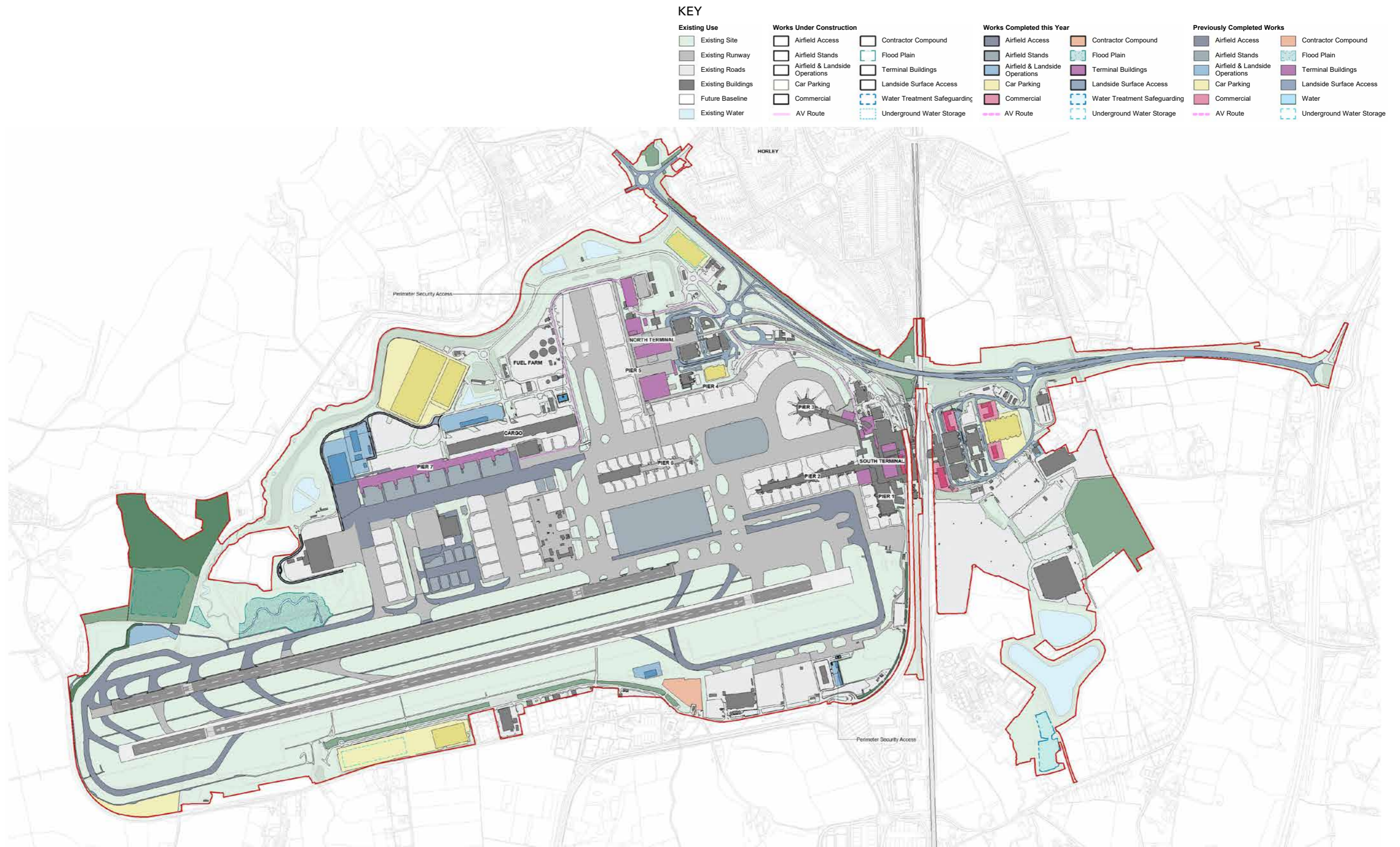


Figure 78. Phasing Plan 2038



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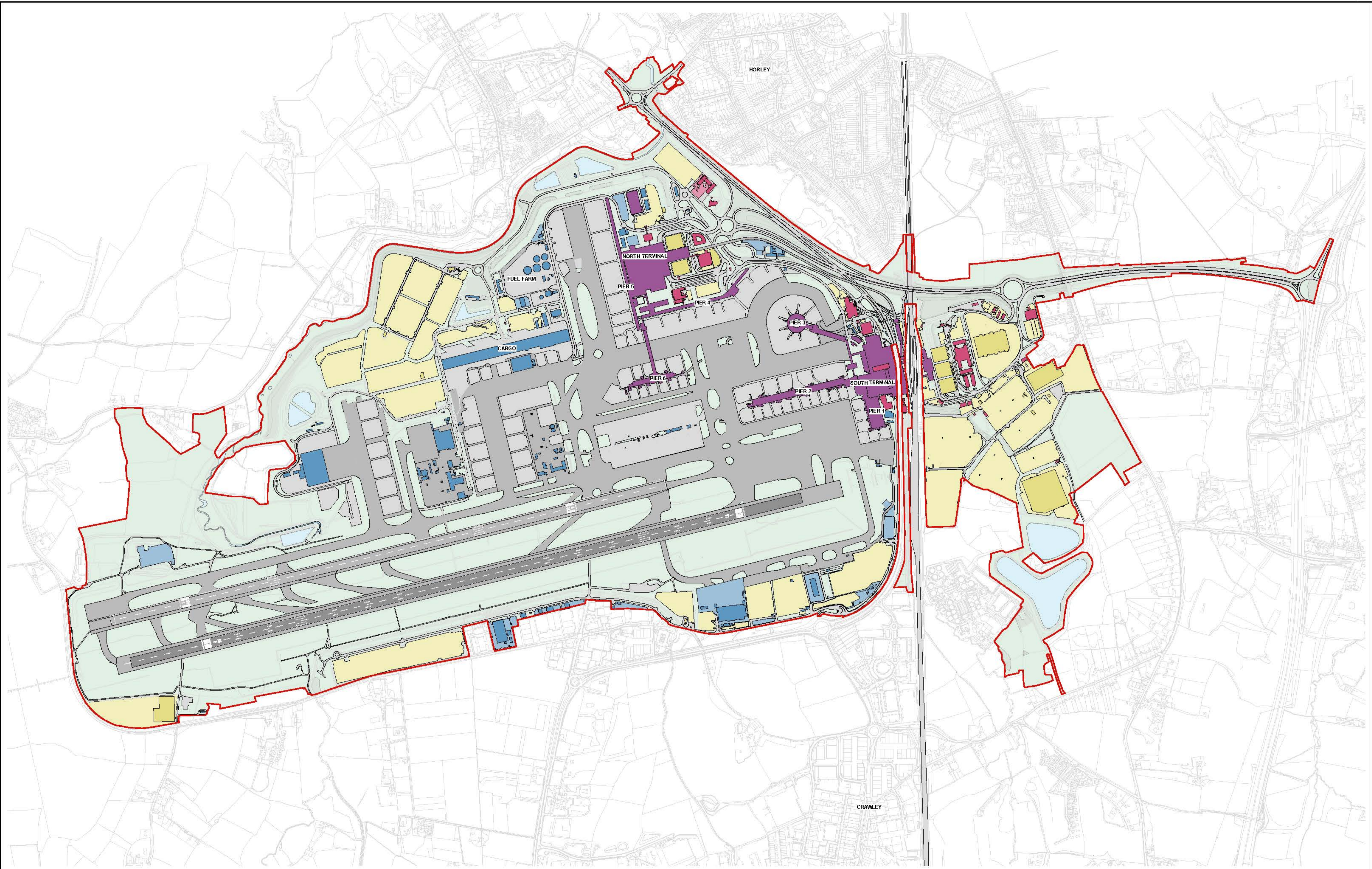


APPENDIX

An aerial photograph of Gatwick Airport, showing the main terminal building, multiple runways, taxiways, and a large tarmac area filled with numerous aircraft. The entire image is overlaid with a semi-transparent blue filter. The text is centered over the terminal and tarmac area.

A1 LAND USE MASTERPLANS

The Indicative Masterplans in this appendix show Gatwick Airport by land-use categories for a given year of development. This charts the change in land use for both existing land and works proposed in the Project. The final drawing shows just the proposed works as part of the Project.



Land Use Key	
Existing Runway	Airfield Access
Existing Roads	Airfield Stands
Existing Water	Airfield & Landside Operations
Existing Woodland	Car Parking
Order of Limits Boundary	Commercial
AV Route	Landside Surface Access
Environmental Mitigation	Water
Water Treatment Safeguarding	Underground Water Storage
Contractor Compound	Flood Plain
Terminal Buildings	

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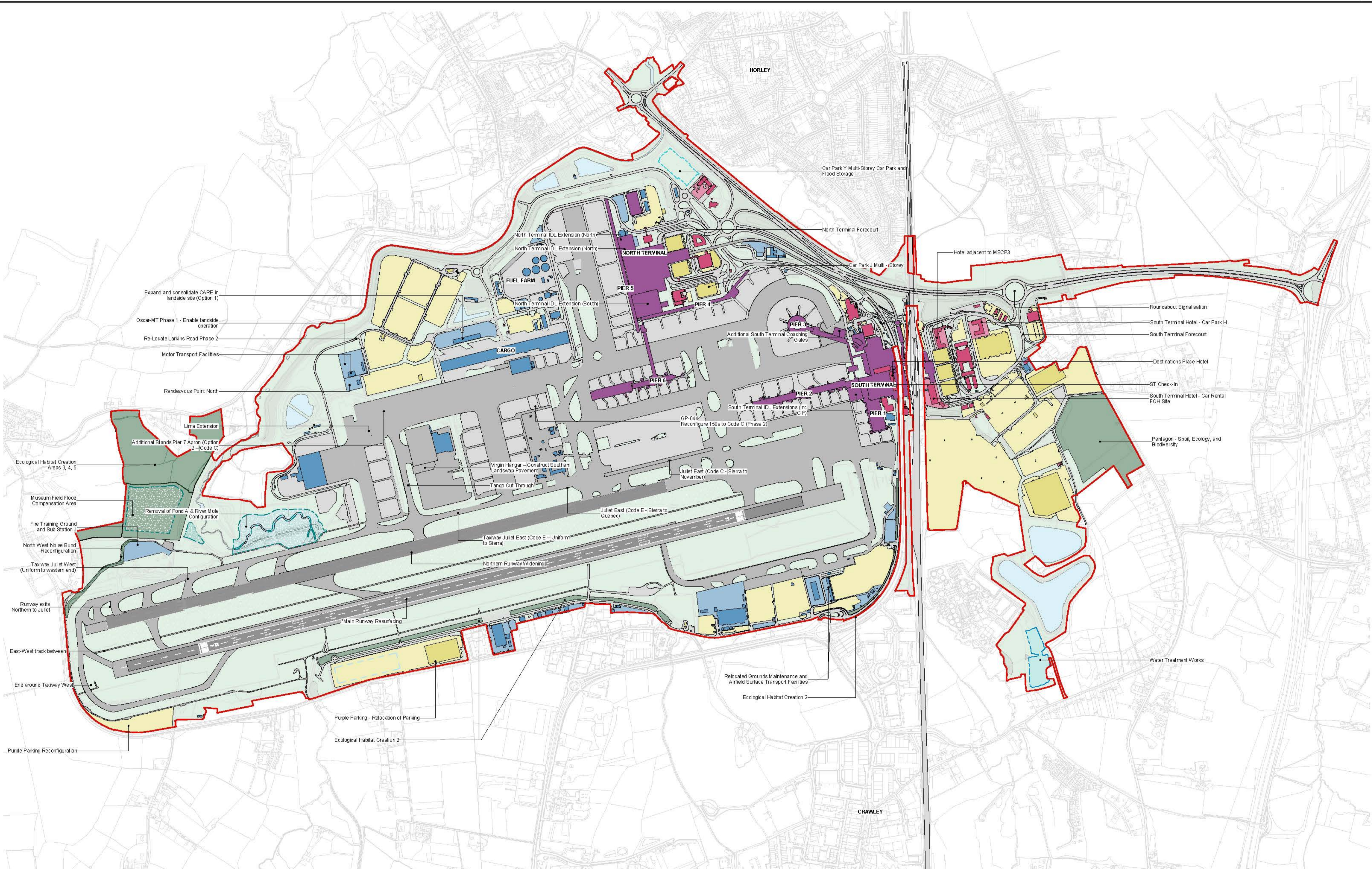
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P02	15 03 24	Issue For Information
P01	01 07 23	Issue For Information
Rev	Date	Description

CHAPMAN TAYLOR
 GLOBAL ARCHITECTS & MASTERPLANNERS

LONDON GATWICK

Project name Gatwick Airport Northern Runway	Process Function Code (PFC) XXX	OSAL Project No. 41601
Process Function Code Description XXX	Originator's Job No. B754 NRP	Drawn Date 01.07.2023
Checked by VZ	Checked Date 01.07.2023	Drawn by YS
Approved by LK	Approval Date 01.07.2023	Scale 1:7500
Location-Level Discipline-PFC-Doctype-UniqueNumber 20000 - XX - A - XXX - GA - 17100	Revision P02	

Checked by VZ	Checked Date 01.07.2023	Drawn by YS
Approved by LK	Approval Date 01.07.2023	Scale 1:7500
Location-Level Discipline-PFC-Doctype-UniqueNumber 20000 - XX - A - XXX - GA - 17100	Revision P02	



Land Use Key	
Existing Site	Land Use
Existing Runway	Airfield Access
Existing Roads	Airfield Stands
Existing Water	Airfield & Landside Operations
Existing Woodland	Car Parking
Order of Limits Boundary	Commercial
	AV Route
	Contractor Compound
	Flood Plain
	Terminal Buildings
	Landside Surface Access
	Water
	Underground Water Storage
	Environmental Mitigation
	Water Treatment Safeguarding

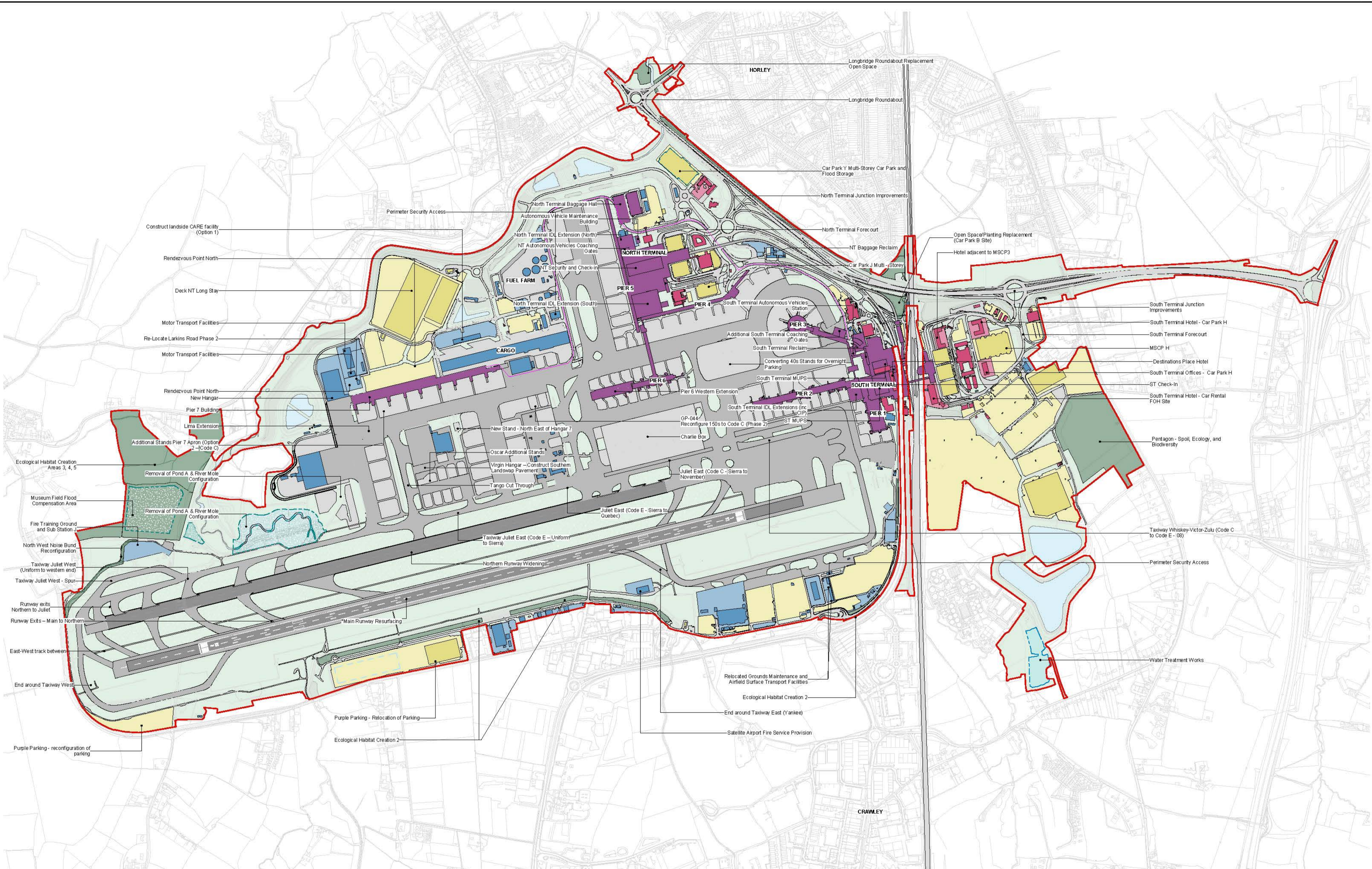
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P02	15.03.24	Issue For Information
P01	01.07.23	Issue For Information
Rev	Date	Description

CHAPMAN TAYLOR
 GLOBAL ARCHITECTS & MASTERPLANNERS

Project name Gatwick Airport Northern Runway		Process Function Code (PFC) XXXX		GAL Project No. 41601	
The General Arrangement APFP Regulation 5(2)(o) Land Use Plan 2029		Process Function Code Description XXXX		Originator's Job No. B754 NRP	
Checked by YZ		Checked Date 01.07.2023		Drawn Date 01.07.2023	
Approved by LK		Approval Date 01.07.2023		Drawn by YS	
Location-Level Discipline-PFC-Doctype-UniqueNumber 20000-XX-A-XXX-GA-17111		Scale 1:7500		Status Information	
				Revised for Issue IFR	
				Revision P02	

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Land Use Key	
Existing Site	Land Use
	Existing Runway
	Existing Roads
	Existing Water
	Existing Woodland
	Order of Limits Boundary
	AV Route
	Airfield Access
	Airfield Stands
	Airfield & Landside Operations
	Commercial
	Contractor Compound
	Flood Plain
	Environmental Mitigation
	Water Treatment Safeguarding
	Terminal Buildings
	Landside Surface Access
	Water
	Underground Water Storage

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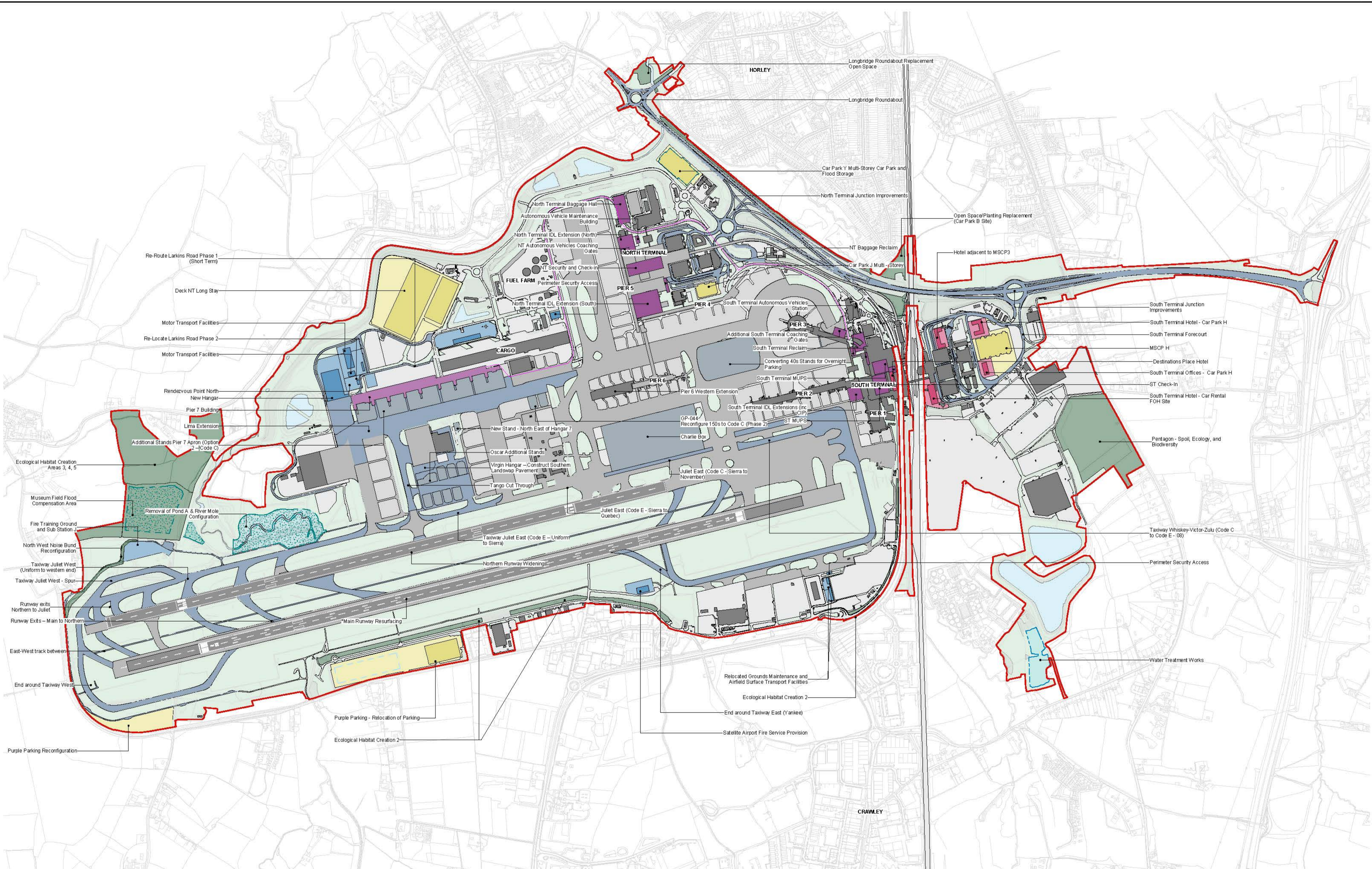
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PO1	01.07.23	Issue For Information
Rev	Date	Description

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 GLOBAL ARCHITECTS & MASTERPLANNERS

LONDON GATWICK

Project name Gatwick Airport Northern Runway	Process Function Code (PFC) XXXX	OSAL Project No. 41601
Process Function Code Description XXXX	Originator's Job No. B754 NRP	Originator's Job No. B754 NRP
Checked by VZ	Checked Date 01.07.2023	Drawn by YS
Approved by LK	Approval Date 01.07.2023	Scale 1:7500
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Project name Gatwick Airport Northern Runway	Process Function Code (PFC) XXXX	OSAL Project No. 41601
Process Function Code Description XXXX	Originator's Job No. B754 NRP	Originator's Job No. B754 NRP
Checked by VZ	Checked Date 01.07.2023	Drawn by YS
Approved by LK	Approval Date 01.07.2023	Scale 1:7500
Location-Level Discipline-PFC-DocType-UniqueNumber 20000-XX-A-XXX-GA-17114		Revision P02



Land Use Key	
Existing Site	Land Use
	Existing Runway
	Existing Roads
	Existing Water
	Existing Woodland
	Order of Limits Boundary
	Airfield Access
	Airfield Stands
	Airfield & Landside Operations
	Commercial
	AV Route
	Contractor Compound
	Flood Plain
	Terminal Buildings
	Landside Surface Access
	Water
	Underground Water Storage
	Environmental Mitigation
	Water Treatment Safeguarding

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CHAPMAN TAYLOR
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LONDON GATWICK

Project name Gatwick Airport Northern Runway	Process Function Code (PFC) XXXX	OSAL Project No. 41601
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Checked by VZ	Checked Date 01.07.2023	Drawn by YS
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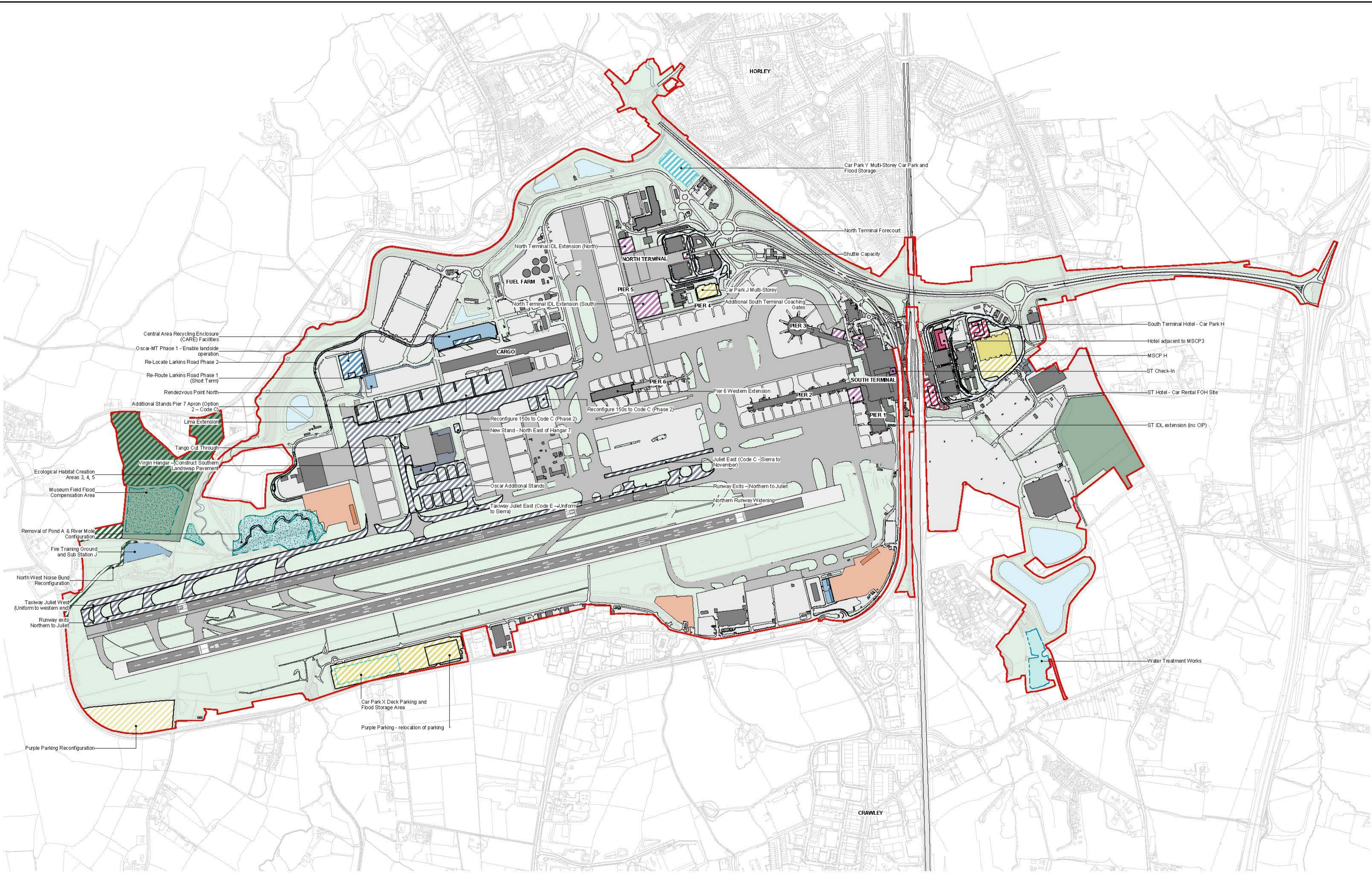
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Approved by LK	Approval Date 01.07.2023	Scale 1:7500
Location-Level Discipline-PFC-DocType-UniqueNumber 20000 - XX - A - XXX - GA - 17121		Revision P02

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An aerial photograph of an airport terminal and tarmac, overlaid with a semi-transparent blue filter. The terminal building is a long, multi-story structure with a central section. Numerous aircraft are parked at gates along the tarmac. The background shows a cityscape and a road network.

A2 CONSTRUCTION PHASING PLANS

The construction phasing plans in this appendix show the indicative works (categorised by land-use) and if they are 'under construction' or the works have been completed by the given year.



Existing Use		Works Under Construction		Works Completed this Year		Previously Completed Works	
	Existing Site		Airfield Access		Airfield Access		Airfield Access
	Existing Runway		Airfield Stands		Airfield Stands		Airfield Stands
	Existing Roads		Airfield & Landside Operations		Airfield & Landside Operations		Airfield & Landside Operations
	Existing Buildings		Car Parking		Car Parking		Car Parking
	Future Baseline		Commercial		Commercial		Commercial
	Existing Water		AV Route		AV Route		AV Route
	Contractor Compound		Flood Plain		Contractor Compound		Contractor Compound
	Terminal Buildings		Terminal Buildings		Terminal Buildings		Terminal Buildings
	Landside Surface Access		Landside Surface Access		Landside Surface Access		Landside Surface Access
	Water Treatment Safeguarding		Water Treatment Safeguarding		Water Treatment Safeguarding		Water Treatment Safeguarding
	Underground Water Storage		Underground Water Storage		Underground Water Storage		Underground Water Storage

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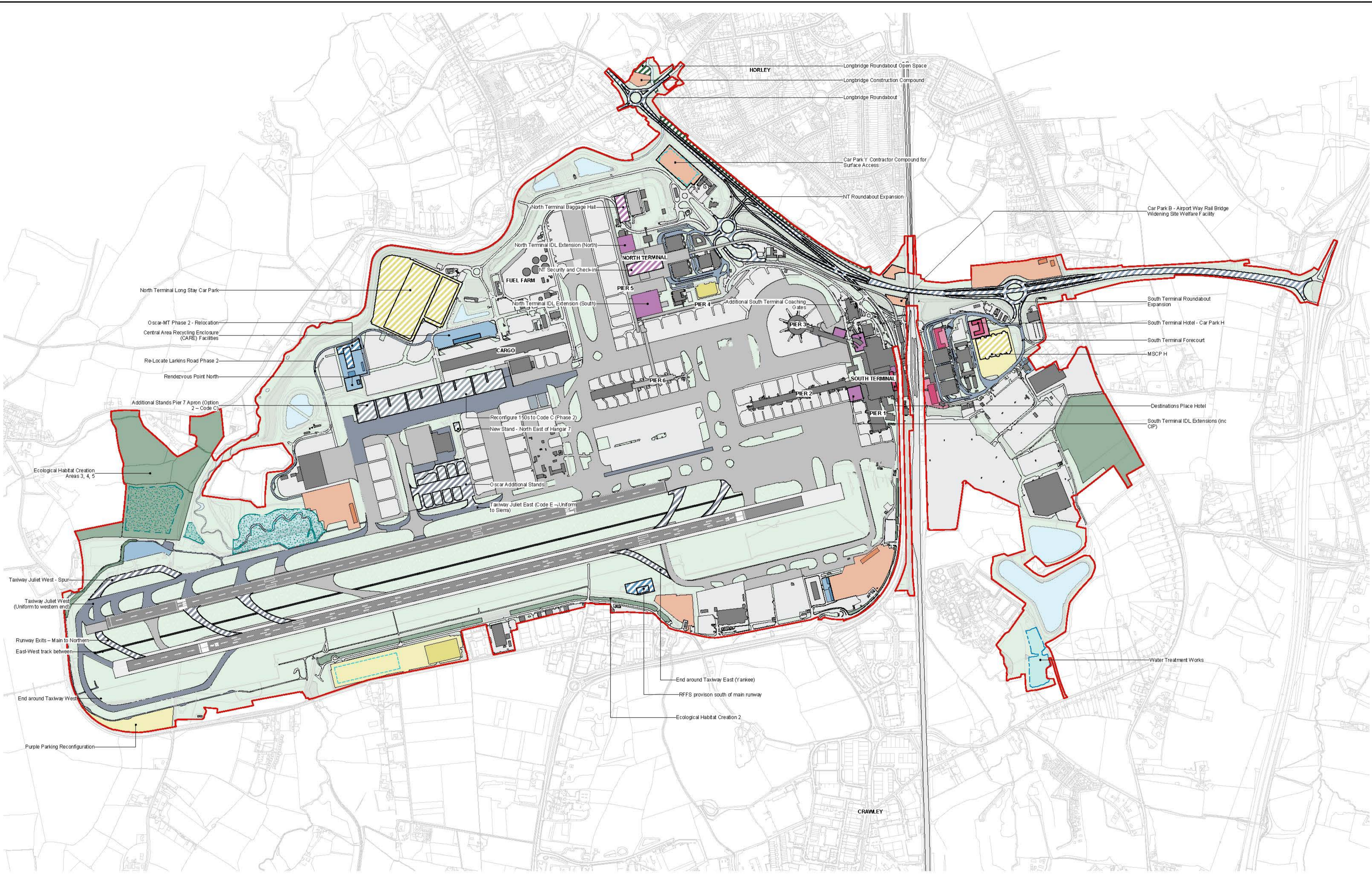
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PO1	01.07.23	Issue For Information	
Rev	Date	Description	

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LONDON GATWICK

Project name Gatwick Airport Northern Runway		Process Function Code (PFC) XXXX		GAL Project No. 41601	
The General Arrangement APFP Regulation 5(2)(o) Phased Construction Plan 2026		Process Function Code Description XXXX		Originator's Job No. B754 NRP	
Checked by VZ		Checked Date 01.07.2023		Drawn by YS	
Approved by LK		Approval Date 01.07.2023		Scale 1:7500	
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Drawing Originator Chapman Taylor		Drawn Date 01.07.2023		Status Information	
Revised for Issue IFR		Revision P02		Revision P02	



Phased Construction Key		Works Under Construction		Works Completed this Year		Previously Completed Works	
	Existing Site		Airfield Access		Airfield Access		Airfield Access
	Existing Runway		Airfield Stands		Airfield Stands		Airfield Stands
	Existing Roads		Airfield & Landside Operations		Airfield & Landside Operations		Airfield & Landside Operations
	Existing Buildings		Car Parking		Car Parking		Car Parking
	Future Baseline		Commercial		Commercial		Commercial
	Existing Water		AV Route		AV Route		AV Route
			Contractor Compound		Contractor Compound		Contractor Compound
			Flood Plain		Flood Plain		Flood Plain
			Terminal Buildings		Terminal Buildings		Terminal Buildings
			Landside Surface Access		Landside Surface Access		Landside Surface Access
			Water Treatment Safeguarding		Water Treatment Safeguarding		Water Treatment Safeguarding
			Underground Water Storage		Underground Water Storage		Underground Water Storage

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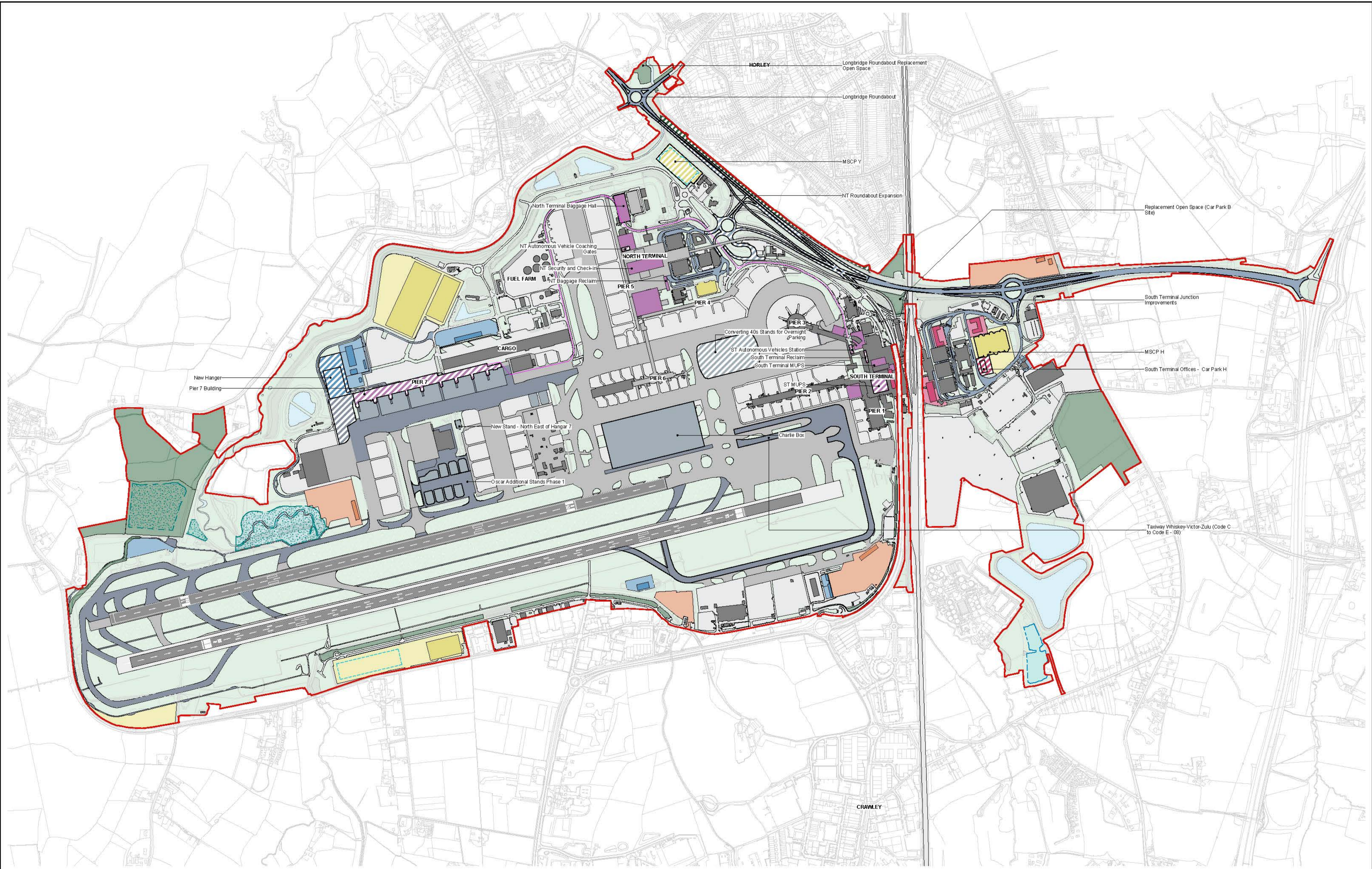
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PO1	01.07.23	Issue For Information	
Rev	Date	Description	

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LONDON GATWICK

Project name Gatwick Airport Northern Runway		Process Function Code (PFC) XXXX		GAL Project No. 41601	
The General Arrangement APFP Regulation 5(2)(o) Phased Construction Plan 2029		Process Function Code Description XXXX		Originator's Job No. B754 NRP	
Checked by VZ		Checked Date 01.07.2023		Drawn by YS	
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Originator's Job No. B754 NRP	Drawn Date 01.07.2023	Status Information
Revision P02	Scale 1:7500	Location-Level Discipline-PFC-Doctype-UniqueNumber 20000 - XX - A - XXX - GA - 17205



Existing Use		Works Under Construction		Works Completed this Year		Previously Completed Works	
[Symbol]	Existing Site	[Symbol]	Airfield Access	[Symbol]	Airfield Access	[Symbol]	Airfield Access
[Symbol]	Existing Runway	[Symbol]	Airfield Stands	[Symbol]	Airfield Stands	[Symbol]	Airfield Stands
[Symbol]	Existing Roads	[Symbol]	Airfield & Landside Operations	[Symbol]	Airfield & Landside Operations	[Symbol]	Airfield & Landside Operations
[Symbol]	Existing Buildings	[Symbol]	Car Parking	[Symbol]	Car Parking	[Symbol]	Car Parking
[Symbol]	Future Baseline	[Symbol]	Commercial	[Symbol]	Commercial	[Symbol]	Commercial
[Symbol]	Existing Water	[Symbol]	AV Route	[Symbol]	AV Route	[Symbol]	AV Route
[Symbol]		[Symbol]	Contractor Compound	[Symbol]	Contractor Compound	[Symbol]	Contractor Compound
[Symbol]		[Symbol]	Flood Plain	[Symbol]	Flood Plain	[Symbol]	Flood Plain
[Symbol]		[Symbol]	Terminal Buildings	[Symbol]	Terminal Buildings	[Symbol]	Terminal Buildings
[Symbol]		[Symbol]	Landside Surface Access	[Symbol]	Landside Surface Access	[Symbol]	Landside Surface Access
[Symbol]		[Symbol]	Water Treatment Safeguarding	[Symbol]	Water Treatment Safeguarding	[Symbol]	Water Treatment Safeguarding
[Symbol]		[Symbol]	Underground Water Storage	[Symbol]	Underground Water Storage	[Symbol]	Underground Water Storage

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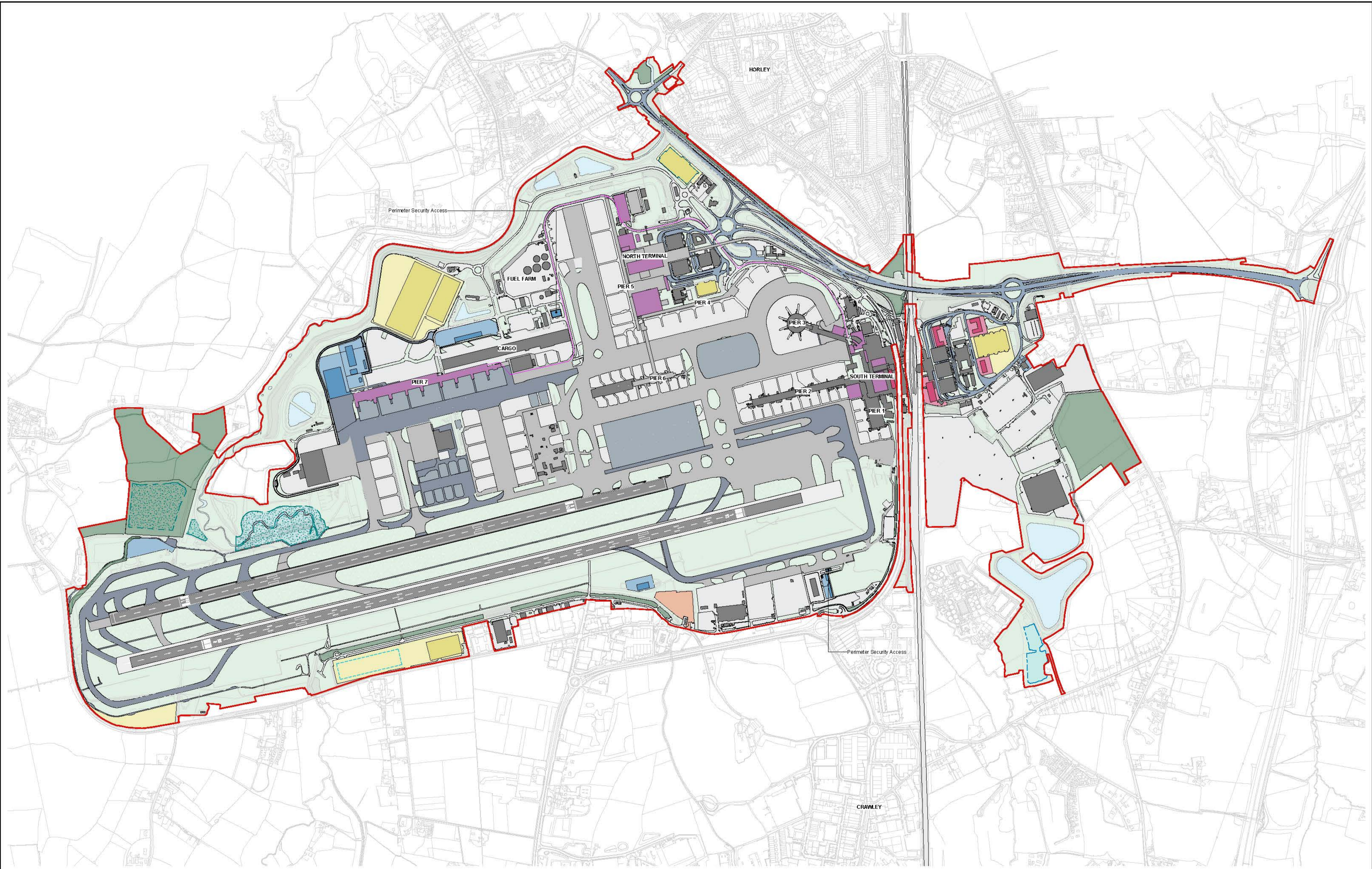
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CHAPMAN TAYLOR
 GLOBAL ARCHITECTS & MASTERPLANNERS

LONDON GATWICK

Project name	Gatwick Airport Northern Runway		
Process Function Code (PFC)	XXXX	Originator's Job No.	41601
Process Function Code Description	XXXX	Originator's Job No.	B754 NRP
Drawing Originator	Chapman Taylor	Drawn Date	01.07.2023
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Project name	Gatwick Airport Northern Runway		
Process Function Code (PFC)	XXXX	Originator's Job No.	41601
Process Function Code Description	XXXX	Originator's Job No.	B754 NRP
Drawing Originator	Chapman Taylor	Drawn Date	01.07.2023
Checked by	VZ	Checked Date	01.07.2023
Approved by	LK	Approval Date	01.07.2023
Location-Level Discipline-PFC-Doctype-UniqueNumber	20000 - XX - A - XXX - GA - 17208	Scale	1:7500
Revision	P02	Drawn by	YS
		Status	Information
		Revised for Issue	IFR



Existing Use		Works Under Construction		Works Completed this Year		Previously Completed Works	
	Existing Site		Airfield Access		Airfield Access		Airfield Access
	Existing Runway		Airfield Stands		Airfield Stands		Airfield Stands
	Existing Roads		Airfield & Landside Operations		Airfield & Landside Operations		Airfield & Landside Operations
	Existing Buildings		Terminal Buildings		Terminal Buildings		Terminal Buildings
	Future Baseline		Landside Surface Access		Landside Surface Access		Landside Surface Access
	Existing Water		Commercial		Commercial		Commercial
			AV Route		AV Route		AV Route
			Contractor Compound		Contractor Compound		Contractor Compound
			Flood Plain		Flood Plain		Flood Plain
			Underground Water Storage		Underground Water Storage		Underground Water Storage

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Rev	Date	Description	

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LONDON GATWICK

Project name	Gatwick Airport Northern Runway		
Process Function Code (PFC)	XXXX	Originator's Job No.	41601
Process Function Code Description	XXXX	Originator's Job No.	B754 NRP
Drawing Originator	Chapman Taylor	Drawn Date	01.07.2023
Checked by	VZ	Checked Date	01.07.2023
Approved by	LK	Approval Date	01.07.2023
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		Status	Information
		Revised for Issue	IFR

Project name	Gatwick Airport Northern Runway		
Process Function Code (PFC)	XXXX	Originator's Job No.	41601
Process Function Code Description	XXXX	Originator's Job No.	B754 NRP
Drawing Originator	Chapman Taylor	Drawn Date	01.07.2023
Checked by	VZ	Checked Date	01.07.2023
Approved by	LK	Approval Date	01.07.2023
Location-Level Discipline-PFC-Doctype-UniqueNumber	20000 - XX - A - XXX - GA - 17214	Scale	1:7500
Revision	P02	Drawn by	YS
		Status	Information
		Revised for Issue	IFR

An aerial, monochromatic photograph of an airport terminal and tarmac. The terminal building is a long, multi-story structure with several gates. Numerous commercial aircraft are parked at the gates, and many more are scattered across the tarmac. The surrounding area includes parking lots, roads, and some greenery. The word "GLOSSARY" is overlaid in the center of the image in a bold, white, sans-serif font.

GLOSSARY

Glossary

Introduction

1.1.1 This document contains a list of definitions and abbreviations, collectively called the Project Glossary, that are commonly used across the DCO Application. Individual application documents contain separate glossaries with additional terms that are specific to the content of the document.

Definitions

Airport Boundary - the boundary of Gatwick Airport is defined on the Airport Boundary Plan (Figure 78). The airport is divided in two landside and airside areas, described below.

Airside - the area within the Airport Boundary that relates to the aircraft movement area of an airport, adjacent terrain and buildings or portions thereof, and to which access for the general public is restricted. For example, this includes the airfield, runways, taxiways and hangars. The Airside area is shown on the Landside and Airside Boundary Plan (Figure 79).

Air Transport Movement ("ATM") - a landing or take-off of an aircraft.

Application Site - (also referred to as the 'Project Boundary' and 'Site Boundary') - the application site is defined by the Order Limits shown on the Location Plan (Doc Ref. 4.1).

Autumn 2021 Consultation - the statutory consultation which ran for 12 weeks from 9 September to 1 December 2021. The consultation set out the key elements required to enable dual runway operations and support increased passenger numbers, along with a Preliminary Environmental Information Report which presented the preliminary findings of the environmental impact assessment of the Project's proposals as at that point in time.

Associated Development - development within the Order Limits that is associated to the Northern Runway Project in line with Section 115 of the Planning Act 2008.

Development Consent Order ("DCO") - the Development Consent Order will secure the extent of the consent and what development can be carried out and grants the undertaker the powers which are necessary to deliver the Project. A draft Development Consent Order is submitted as part of the DCO Application.

DCO Requirements - a requirement under the Development Consent Order which is proposed to control the construction, operation and maintenance of the development (if consented).

Environmental Statement - presents the findings of the Environmental Impact Assessment for the Project and forms Book 5 of the Application. EIA is the process of identifying and assessing the significant effects likely to arise from the Project. This requires consideration of the likely changes to the environment, where these arise as a consequence of the Project, through comparison with the existing and future baseline conditions and describing any mitigation measures which are required.

Gatwick Airport - an international airport located in the county of West Sussex between the towns of Crawley and Horley. Gatwick Airport is majority owned by VINCI Airports, with the remainder owned by a consortium of investors managed by Global Infrastructure Partners.

Gatwick Airport Limited - the company licensed to operate Gatwick Airport (i.e. the 'airport operator') by the Civil Aviation Authority and the Applicant for the Application for development consent for the Project under the Planning Act 2008.

Gatwick Diamond - business led private/public sector partnership promoting economic growth in a defined area between Croydon and Brighton. Part of the Coast to Capital Local Enterprise Partnership.

Landside - the area within the Airport Boundary (and outside the Airside) to which the general public has unrestricted access. For example, this includes access roads, car parking areas, public transport interchanges, hotels, offices and terminal check-in areas. The Landside area is shown on the Landside and Airside Boundary Plan (Figure 79).

Nationally Significant Infrastructure Projects ("NSIPs") - major infrastructure projects relating to energy, transport, water, waste water or waste and which are defined under the Planning Act 2008. The 2008 Act sets out thresholds above which certain types of infrastructure development is considered to be nationally significant and requires permission through a Development Consent Order. The Northern Runway Project is classed as a NSIP due to the passenger increase and the road improvements needed to support it.

National Highways - a government-owned company charged with planning, building, operating, maintaining and improving motorways and major A roads in England (collectively called the strategic road network). National Highways was formerly titled the Highways Agency and Highways England.

Northern Runway Project - (also referred to as the 'Project' or the 'Proposed Development') - comprising the proposals for which development consent is being sought under the Planning Act 2008. The Northern Runway Project proposes alterations to the existing northern runway at Gatwick Airport which, together with the lifting of the current planning restrictions on its use, would enable dual runway operations. The Project includes a range of infrastructure and facilities which, with the alterations to the northern runway, would enable an increase in the airport's passenger throughput capacity.

Off-Airport Land - land falling within the Order Limits of the Northern Runway Project outside the Airport Boundary. This principally relates to the surface access improvement works, including improvements to highways and active travel routes, that are part of the Northern Runway Project.

Order Land - land over which the application is seeking compulsory acquisition or temporary possession powers.

Order Limits - the limits shown on the Location Plan (Doc Ref. 4.1) comprising the extent of the proposed Project boundary.

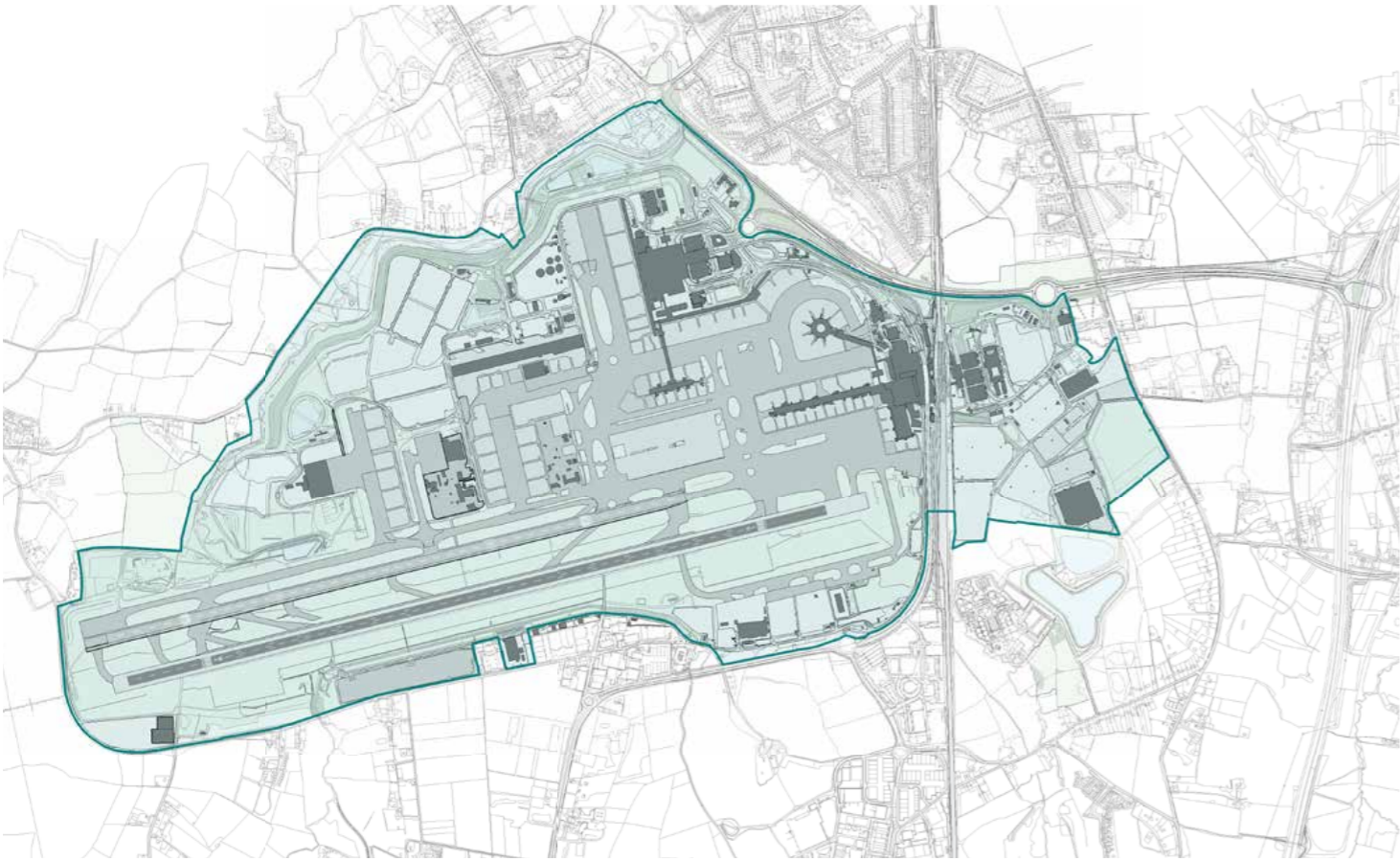
Passenger Throughput - the number of air passengers that use the airport, including arrivals and departures. The throughput is usually referred to on an annual basis, i.e. the annual passenger throughput.

Preliminary Environmental Information Report ("PEIR") - presents the preliminary findings of the environmental impact assessment. The Autumn 2021 Consultation presented the preliminary environmental information to enable consultees to understand the likely significant environmental effects of the scheme proposals based on the environmental information available at the time and measures proposed to avoid, prevent, reduce or mitigate any residual environmental effects.

Section 106 Agreement - a legal agreement between the Applicant and specific Local Authorities that will set out the planning obligations that are not considered appropriate to be secured as requirements to the DCO.

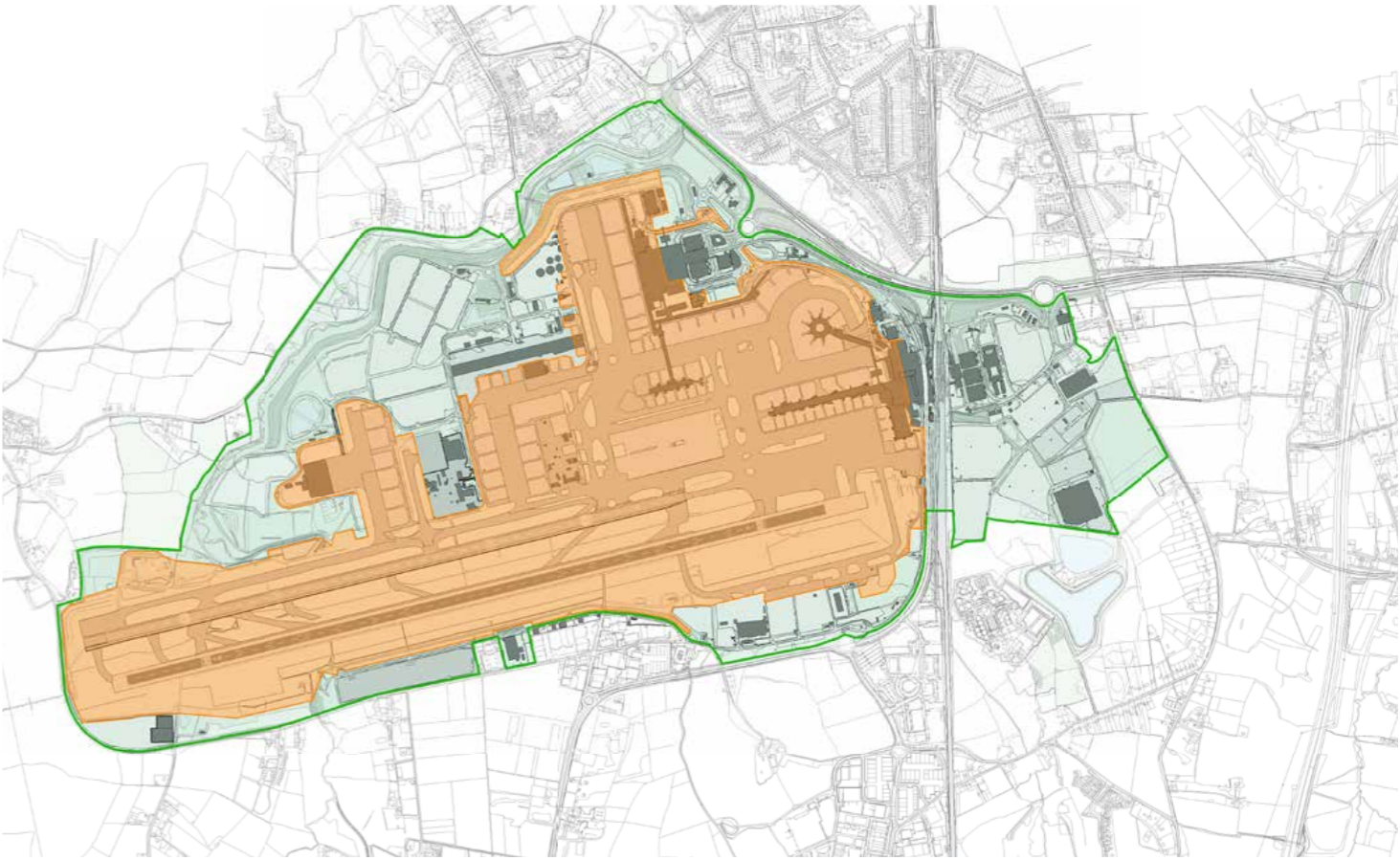
Summer 2022 Consultation - a hybrid statutory/non-statutory consultation which ran for six weeks from 14 June to 27 July 2022. The targeted, statutory consultation element considered changes to the proposed highway improvement works; and the non-statutory Project update element included an update on other proposed changes to other aspects of the proposals which were not considered to lead to any new or materially different significant environmental effects from those reported in the Autumn 2021 Consultation.

Inter-terminal transit system ("ITTS") - the automatic shuttle service at Gatwick Airport that runs between the North and South Terminals for airport passengers, visitors or staff travelling by foot.



KEY
 [Light Green Box] Extent of the 'Airport'

Figure 79. Gatwick Airport - Airport Extent



KEY
 [Dark Green Box] Airport 'Landside' Areas
 [Orange Box] Airport 'Airside' Areas

Figure 80. Gatwick Airport - Landside/Airside

Abbreviations

ANPS	Airport National Policy Statement	MRM	Mitigation Route Map
APF	Aviation Policy Framework	MSCP	Multi-storey Car Park
ATC	Air Traffic Control	NATS	National Air Traffic Services
ATM	Air Transport Movement	NRP	Northern Runway Project
BAA	British Airports Authority - the former owners of Gatwick Airport	NSIP	Nationally Significant Infrastructure Project
BOH	Back of House - None Public Areas	NT	North Terminal
CAA	Civil Aviation Authority	oLEMP	Outline Landscape and Ecology Management Plan
CAP	Carbon Action Plan	PEIR	Preliminary Environmental Information Report
CMMP	Construction Materials Management Plan	RET	Rapid Exit Taxiway
CoCP	Code of Construction Practice	SAC	Surface Access Commitments
CTMP	Construction Traffic Management Plan	ST	South Terminal
CWTP	Construction Workforce Travel Plan	STW	Sewage Treatment Works
DCO	Development Consent Order - the form of planning consent for Nationally Significant Infrastructure Projects	TA	Transport Assessment
DfT	Department for Transport	WMP	Water Management Plan
EIA	Environmental Impact Assessment		
ES	Environmental Statement		
FRA	Flood Risk Assessment		
FOH	Front of House - Public Areas		
GAL	Gatwick Airport Limited		
GATCOM	Gatwick Airport Consultative Committee		
ICAO	International Civil Aviation Administration		
IDL	International Departures Lounge		
ITTS	Inter-terminal transit system (or 'shuttle')		
LEP	Local Enterprise Partnership		
LGW	London Gatwick Airport		
LTO	Landing and Take-off cycle		
mppa	Million passengers per annum		

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DESIGN AND ACCESS STATEMENT

VOLUME 5

