# 2 Site and Surroundings

## 2.1 Introduction

2.1.1 This chapter describes the Dublin Airport Site and its surrounding environment, which together form the receiving environment for the environmental impact assessment. For the purposes of this EIAR, the Dublin Airport Site comprises all land within daa's ownership at Dublin Airport that is the subject of the Proposed Order, including the operational airport, associated lands and supporting infrastructure. Unless otherwise stated, references to individual parts of the operational airport use the relevant sector name. This chapter also describes the principal characteristics of the surrounding area that provide context for the assessments presented in Chapters 6 to 19.

2.1.2 The Proposed Order has the potential to influence the operation of Dublin Airport as a whole. Accordingly, this chapter describes the Dublin Airport Site and the surrounding receiving environment against which the likely significant environmental effects associated with the Proposed Order are assessed. More detailed descriptions of the existing environment relevant to each environmental factor are provided in Chapters 6 to 19.

## 2.2 Dublin Airport Site

2.2.1 The Dublin Airport Site, located to the north of Dublin City, comprises the existing operational areas of Dublin Airport that support passenger processing, aircraft operations and associated airport activities. These include the airfield and runway system, terminal buildings, aprons, aircraft stands, airport operational buildings, landside transport infrastructure, car parks and associated airport facilities. The extent of the Dublin Airport Site is shown in Figure 2-1. The airport is bounded by a strategic road network, including the M1 to the east, the M50 to the south and the N2 to the west. The principal airport access is from the R132 via the Airport Roundabout, which connects directly to Junction 2 of the M1. Secondary access points are provided from Corballis Road South and Castlemoate Road.

2.2.2 For operational purposes, Dublin Airport is commonly described as comprising an Eastern Campus and a Western Campus, with the Crosswind Runway (16/34) bisecting the two. The Eastern Campus hosts most of Dublin Airport's existing infrastructure: including the terminal buildings, aircraft stands and car parking; while the Western Campus, which includes the West Apron, is mainly used for cargo operations, as well as business aviation.

2.2.3 Dublin Airport functions as an integrated operational system comprising airfield infrastructure, passenger terminals, aircraft operational areas, landside transport infrastructure and supporting operational facilities. For the purposes of this EIAR, the Dublin Airport Site has been divided into a series of sectors based on their operational function and geographic location (Figure 2-2). This provides a logical framework for describing the Dublin Airport Site and supports the environmental assessment presented in subsequent chapters.

2.2.4 The sectors are as follows:

- Sector A: Runways and Taxiways;
- Sector B: North Apron and Hangars;
- Sector C: Terminal 1 and Old Central Terminal Building (OCTB);
- Sector D: Terminal 2;
- Sector E: South Apron and Cargo Terminals;
- Sector F: Ground Transportation Centre (GTC) / Integrated Transport Hub (ITH), Energy Centre, Car Parks and Accommodation;
- Sector G: Car Hire Compound and Long-Term Parking Red / Green;
- Sector H: Eastlands South, a largely undeveloped area of land within the Dublin Airport Site boundary;

- Sector I: West Apron;
- Sector J: a largely undeveloped area within the Dublin Airport Site boundary; and
- Sector K: an area of landside land within the Dublin Airport Site, which includes drainage infrastructure associated with Apron 5H.

2.2.5 The principal characteristics of each sector are described below.

## Sector A: Runways, Taxiways and Photovoltaic Installation

2.2.6 Runways provide the infrastructure for aircraft take-off and landing, while taxiways connect the runways with aircraft stands, terminal buildings, hangars and other operational facilities. Dublin Airport has three runways: the North Runway (10L/28R), the South Runway (10R/28L) and the Crosswind Runway (16/34). Since the opening of the North Runway in 2022, the Crosswind Runway has been retained primarily for aircraft taxiing and essential occasional runway use. The layout of the runway and taxiway system is shown on Figure 2-3.

2.2.7 Grassed areas between the runways and taxiways are actively managed to minimise bird activity and reduce the risk of bird strikes.

### *North Runway*

2.2.8 The North Runway (10L/28R) is 3,110 m long and entered operational service in August 2022. It forms part of the airport's primary runway system.

### *South Runway*

2.2.9 The South Runway (10R/28L) opened in 1989 and is 2,637 m long. Together with the North Runway, it forms the airport's principal operational runway system.

### *Crosswind Runway*

2.2.10 The Crosswind Runway (16/34) is 2,017 m long. Since the opening of the North Runway, it has been retained primarily for aircraft taxiing and is available only for essential occasional runway operations, including emergency landings.

### *Navigational Aids, Markings and Lighting*

2.2.11 The runway and taxiway system incorporates navigational aids, airfield lighting and operational markings necessary to support the safe operation of aircraft under a range of operating and visibility conditions.

### *Taxiways*

2.2.12 The runway system is supported by an extensive network of taxiways connecting the runways with aircraft stands, aprons, terminal buildings, hangars and other operational facilities across the airport.

### *Photovoltaic Installation*

2.2.13 Sector A also includes an existing solar photovoltaic (PV) installation, known as PV1, located near the eastern end of the southern runway. The installation forms part of the airport's existing energy infrastructure and contributes to the supply of renewable electricity for airport operations. The location of PV1 is identified on Figure 2-3.

## Sector B: North Apron and Hangars

### *North Apron*

2.2.14 An apron is an area of hardstanding used for aircraft parking and ground operations, including boarding, servicing, refuelling, loading and unloading. The North Apron (Figure 2-3) accommodates aircraft maintenance, repair and overhaul (MRO) activities, general aviation and passenger operations associated with Pier 1.

2.2.15 A grassed area bounded by mature trees is located at the eastern end of the North Apron between Hangar 5 and the M50 Garage.

### *Other Developments*

2.2.16 Several separately consented developments are located within the North Apron. These developments do not form part of the Proposed Order but are either present, under construction, or consented but awaiting commencement of construction within the Site.

- A separately consented airside operations building is under construction to provide operational accommodation, emergency response facilities and airfield maintenance functions.

- Construction of Ryanair Hangar 7 is underway, providing additional aircraft maintenance facilities adjacent to Hangar 6.
- A separately consented extension to the North Apron, which is consented awaiting commencement of construction, will provide access to Hangar 6 and the Hangar 7 development.

## Sector C: Terminal 1, Old Central Terminal Building and Central Apron

2.2.17 Terminal 1 is one of two passenger terminals at Dublin Airport and, together with the Old Central Terminal Building (OCTB), forms a principal component of the airport's passenger processing infrastructure. The terminal accommodates passenger check-in, security screening, baggage handling, immigration, customs, airline operations, retail and food and beverage facilities, together with operational and administrative accommodation.

2.2.18 Originally opened in 1972, Terminal 1 comprises five storeys. The arrivals hall is located at ground floor level, with the departures hall located at first floor level and accessed via an elevated forecourt. The upper floors are used primarily for airport administration and operational accommodation.

2.2.19 Terminal facilities accommodate a range of passenger and airport operational functions including passenger check-in, baggage handling, security screening, immigration and customs processing, transfer facilities, baggage reclaim, airline and airport operational accommodation, retail and food and beverage outlets, executive lounges and associated back-of-house facilities.

2.2.20 Terminal 1 is connected to Piers 1, 2 and 3 (Figure 2-3), which provide aircraft boarding and disembarkation facilities for arriving and departing passengers. The piers are designed to maintain segregation between arriving and departing passenger flows in accordance with airport operational and security requirements.

### *Skybridge*

2.2.21 Terminal 1 is connected to Pier 1 by the Skybridge, an elevated enclosed pedestrian link approximately 360 m in length. The structure provides segregated routes for arriving and departing passengers and passes around the northern side of the Old Central Terminal Building before connecting with Pier 1.

### *Old Central Terminal Building*

2.2.22 The Old Central Terminal Building (OCTB) is the original passenger terminal at Dublin Airport. Constructed in 1937 in the International Modern architectural style, it is a detached four-storey building with basement accommodation (Plate 2-1).

2.2.23 The OCTB is now used primarily for airport administration, operational functions and ancillary accommodation. The ground floor is also used periodically as a passenger gate lounge serving remote aircraft stands.

**Plate 2-1: Old Central Terminal Building (OCTB) (source: AECOM)**



2.2.24 The OCTB is identified as a Protected Structure in the Fingal County Development Plan 2023-2029 (RPS No. 612). Chapter 14: Cultural Heritage provides additional information on this sensitive receptor.

### *North Terminal Building*

2.2.25 The North Terminal Building is located between the OCTB and the Skybridge. It is no longer used for passenger operations and now accommodates airport administration, training and operational functions. The building is described further in Chapter 14: Cultural Heritage.

### *Hangars*

2.2.26 To the north of the Skybridge are the former Fire Station and three hangars used for aircraft maintenance, repair and overhaul (MRO) and general aviation activities.

### *Pier 1*

2.2.27 Pier 1 opened in 2007 and principally serves passenger operations on the northern side of the airport. It provides aircraft boarding facilities for both contact and remote aircraft stands accommodating a range of aircraft types.

### *Pier 2*

2.2.28 Pier 2 is connected to Terminal 1 via the Link Building, with onward access to the ground floor bus gates within the OCTB. It was the first passenger pier constructed at Dublin Airport and is located immediately south of Pier 1. The pier comprises two levels and serves passenger operations using ten aircraft stands accommodating narrowbody aircraft. The stands are not equipped with airbridges, with passengers accessing aircraft on foot owing to the close proximity of the stands to the pier.

### *Pier 3*

2.2.29 Pier 3 is located immediately south of Pier 2 and provides passenger boarding facilities for both narrowbody and widebody aircraft. Widebody aircraft comprise larger twin-aisle aircraft typically used on long-haul services, whilst narrowbody aircraft comprise smaller single-aisle aircraft typically used on short- and medium-haul services. The pier incorporates airbridges together with dedicated immigration facilities and includes a bus gate area with an associated passenger lounge at ground floor level.

2.2.30 An enclosed airside connectivity bridge links Pier 3 with Terminal 2, providing a secure connection between the two terminals for passengers and airport operations. Constructed in 2010, the bridge extends approximately 200 m along the eastern elevation of Pier 3 and Terminal 2.

### *Central Apron*

2.2.31 The Central Apron is located immediately west and south of Pier 1 and comprises remote aircraft stands used for passenger operations. These stands are served by bus from the OCTB and the terminal piers.

## Sector D: Terminal 2

2.2.32 Terminal 2 is the second passenger terminal at Dublin Airport and provides passenger processing and aircraft boarding facilities for both short-haul and long-haul services. The terminal includes United States (US) Customs and Border Protection (CBP) Preclearance facilities, enabling eligible passengers to complete US immigration, customs and agriculture inspections prior to departure.

2.2.33 Terminal 2 comprises seven levels, including basement accommodation. The terminal accommodates passenger check-in, baggage handling, security screening, immigration, customs, retail and food and beverage facilities together with associated airport operational functions. It is directly connected to Piers 3 and 4 and also provides access to Piers 1 and 2 via the airside connectivity bridge. Two ground floor bus gates provide access to remote aircraft stands.

## Sector E: South Apron and Cargo Terminals

### *South Apron*

2.2.34 The South Apron (Figure 2-3) is located immediately south of Terminal 2 and principally serves passenger operations associated with Aer Lingus. It comprises nine narrowbody aircraft stands together with aircraft parking areas and supports passenger operations via the South Gates Pre-Boarding Zone.

### *South Gates Pre Boarding Zone*

2.2.35 The South Gates Pre-Boarding Zone is a dedicated passenger facility serving the remote aircraft stands on the South Apron. The facility provides passenger waiting areas and boarding facilities, with passengers transferred between Terminal 2 and the aircraft stands by bus. The South Apron is served by the Bravo 1 and Zulu taxiways, which provide aircraft access between the apron and the wider airfield.

### *Pier 4*

2.2.36 Pier 4 provides passenger boarding facilities for both narrowbody and widebody aircraft and is equipped with airbridges serving contact aircraft stands. The pier also accommodates the United States Customs and Border Protection (CBP) Preclearance facilities, providing pre-departure immigration, customs and agriculture inspection for eligible US-bound passengers.

### *Cargo Terminals*

2.2.37 Cargo facilities located within the eastern campus principally support belly-hold freight carried on passenger aircraft together with associated cargo handling and logistics activities.

### *Other Features*

2.2.38 The remains of Corballis Castle, an undesignated heritage asset no longer visible above ground, are located within this sector. Further information is provided in Chapter 14: Cultural Heritage.

## Sector F: Ground Transportation Centre / Integrated Transport Hub, Energy Centre, Car Parks and Hotels

### *Ground Transportation Centre*

2.2.39 The Ground Transportation Centre (GTC) (Figure 2-3) is located centrally within the Eastern Campus and serves as the principal landside transport interchange at Dublin Airport. It accommodates public and private bus services, taxi and private vehicle pick-up and set-down areas, and surface car parking. Land within the GTC has been safeguarded for the proposed MetroLink Station[1].

2.2.40 The Church of Our Lady, Queen of Heaven (Figure 2-3 and Plate 2-2) is located within the GTC opposite the Terminal 1 Multi-Storey Car Park and is identified as a Protected Structure in the Fingal County Development Plan 2023-2029 (RPS No. 864). Further information is provided in Chapter 14: Cultural Heritage.

[1] ABP Case reference: NA29N.314724

**Plate 2-2: Church of our Lady Queen of Heaven (source: AECOM)**



### *Energy Centre*

2.2.41 The Terminal 2 Energy Centre is located immediately to the east of Terminal 2 (Figure 2-3), adjacent to Corballis Road South. The Energy Centre forms part of the airport's operational utilities infrastructure and accommodates plant used to provide heat and power to Terminal 2 and associated facilities. The facility includes a gas-fired 3 MW Combined Heat and Power (CHP) unit, together with associated boilers and ancillary plant. A thermal energy storage system is also located at the Energy Centre, enabling excess heat generated by the CHP unit to be stored for subsequent use. The Energy Centre is situated within an operational service area and is characteristic of the utilities and servicing infrastructure present within this part of the Dublin Airport Site.

### *Terminal 1 Multi-Storey Car Park*

2.2.42 The Terminal 1 Multi-Storey Car Park is located immediately west of the GTC (Figure 2-3). Constructed between 1993 and 1998, it comprises three interconnected blocks providing approximately 2,400 parking spaces.

### *Terminal 2 Multi-Storey Car Park*

2.2.43 The Terminal 2 Multi-Storey Car Park is located adjacent to Terminal 2 and provides approximately 2,600 parking spaces over seven levels.

### *Hotels*

2.2.44 The Maldron Hotel and Radisson Blu Hotel are located within this sector, providing on-airport hotel accommodation for passengers, visitors and airport users.

### *Other Buildings*

2.2.45 This sector also contains Dublin Airport Central, a multi-building office development located opposite Terminal 2, together with the Aer Lingus Social and Athletic Society (ALSAA) sports and leisure facilities and the Aer Lingus Training Academy. These buildings accommodate a range of airport-related commercial, administrative and training functions.

### *Public Transport*

2.2.46 The GTC and the terminal forecourts provide the principal public transport facilities at Dublin Airport. Bus services operate from dedicated stops outside Terminals 1 and 2 and from the GTC, accommodating airport shuttle services, regional coach services, scheduled public bus routes and charter coach operations.

### Sector G: Car Hire Compound and Long-Term Parking Red / Green

#### *Long-Term Parking Red / Green*

2.2.47 The majority of this sector is occupied by the airport's long-term surface car parks, providing approximately 10,300 parking spaces.

#### *Car Hire Compound*

2.2.48 A dedicated car hire compound is located within the southern part of this sector, providing vehicle storage, servicing and customer collection and return facilities for airport car hire operators.

### Sector H: Eastlands South

2.2.49 Eastlands South is a largely undeveloped area within the airport estate, located between the R132 to the west, the M1 to the east and Dardistown Cemetery to the south. Apart from the ALSAA Sports Centre at its northern end, the sector comprises predominantly agricultural grassland divided by hedgerows, with limited built development.

### Sector I: West Apron

2.2.50 The West Apron is located within the Western Campus and provides aircraft parking and operational support facilities separate from the passenger terminal complex. It accommodates aircraft staging, transit and overnight parking, together with general aviation and cargo operations. The apron includes stands capable of accommodating both narrowbody and widebody aircraft.

2.2.51 The West Apron is principally used for cargo operations, general aviation and aircraft parking. It is not routinely used for passenger boarding or disembarkation.

2.2.52 Associated operational infrastructure within this sector includes the Irish Aviation Authority (IAA) air traffic control towers and the Dublin Airport Fire Station, located to the north-west of the West Apron.

### Sector J

2.2.53 Sector J is located on the western side of the airport estate and comprises predominantly agricultural land within daa's ownership. The sector consists of five fields separated by hedgerows and is bounded by the R108 to the north and east.

### Sector K

2.2.54 Sector K is an area of landside land located adjacent to the Aer Lingus staff car park and the R132. It accommodates drainage infrastructure associated with the Apron 5H development, including underground pipework and storage tanks.

## 2.3 Surroundings

2.3.1 This section describes the principal characteristics of the receiving environment surrounding Dublin Airport. It provides an overview of the surrounding land uses, settlements, transport infrastructure and environmental receptors that provide context for the environmental assessments presented in Chapters 6 to 19.

### Immediate Surroundings

2.3.2 The immediate surroundings of Dublin Airport comprise a predominantly rural landscape characterised by agricultural land divided by hedgerows, drainage ditches and local roads. Land adjoining the Dublin Airport Site boundary includes both land within daa's ownership that is leased for agricultural use and land in third-party ownership. Recreational land uses are also present in the vicinity of the airport, including Corrstown Golf Club (approximately 2 km to the north-west), Forrest Little Golf Club (adjacent to the Dublin Airport Site boundary), St Margaret's Golf and Country Club (approximately 4 km to the west) and Silloge Golf Course (approximately 3 km to the south).

2.3.3 Residential development surrounding the airport includes the town of Swords to the north, the village of St Margaret's to the west and more dispersed rural dwellings along Dunbro Lane and the R108. The coastal settlements of Malahide and Portmarnock are located approximately 4 km to the east of the airport.

### Swords

2.3.4 Swords is the county town of Fingal and is located approximately 2 km north of Dublin Airport. With a population of 40,766 (2022 Census), it is one of the largest towns in Ireland.

### St Margaret's

2.3.5 The village of St Margaret's is located approximately 1 km west of the airport and lies close to the western ends of both the North and South Runways. The wider parish includes residential areas, two primary schools and a range of community and recreational facilities.

### Industrial Areas

2.3.6 Commercial and industrial development is concentrated to the south and south-west of the airport, including Dublin Airport Logistics Park, Williamsville Industrial Estate and Horizon Business Park.

### North Dublin

2.3.7 The northern suburbs of Dublin City extend to within approximately 2 km of the Dublin Airport Site boundary. Residential communities including Santry and Poppintree contain substantial residential populations together with schools, healthcare facilities and other community infrastructure that form important sensitive receptors within the receiving environment.

## 2.4 Sensitive Environmental Receptors

2.4.1 This section provides a high-level overview of the principal environmental receptors considered within this EIAR. It identifies the key features of the receiving environment that may be affected by the Proposed Order and provides context for the detailed baseline descriptions and assessments presented in Chapters 6 to 19.

### Biodiversity

2.4.2 The principal ecological receptors relevant to the Proposed Order comprise the network of watercourses draining the Dublin Airport Site and the downstream European sites to which they are hydrologically connected. The Cuckoo Stream rises within the Dublin Airport Site boundary and forms part of the airport drainage network before flowing eastwards into the Mayne River, which ultimately discharges to Baldoyle Bay Special Area of Conservation (SAC) and Special Protection Area (SPA). Although the Cuckoo Stream is heavily modified, it forms an important hydrological pathway linking airport operations with downstream designated sites.

2.4.3 Baldoyle Bay SAC and SPA are located approximately 7 km east of Dublin Airport and comprise estuarine habitats including intertidal mudflats, saltmarsh and eelgrass beds that support internationally important bird populations.

2.4.4 Malahide Estuary SAC and SPA are located approximately 5 km north of the airport and comprise a range of estuarine and coastal habitats supporting internationally important bird populations.

2.4.5 Other watercourses connected to the airport drainage catchments include the Forrest Little Stream, Kealy's Stream, Ward River and Santry River. These watercourses ultimately discharge to the European sites at Baldoyle Bay, Malahide Estuary and Dublin Bay, providing potential pathways for indirect environmental effects.

2.4.6 Chapter 12: Biodiversity describes the biodiversity baseline in more detail, including a description of surveys undertaken at the airport and their findings.

### Cultural Heritage

2.4.7 In addition to the Protected Structures located within the airport estate, a further Protected Structure comprising a thatched cottage on the Swords Road is located approximately 135 m south of the Dublin Airport Site boundary.

2.4.8 A further eighteen Protected Structures are located within 1 km of the Dublin Airport Site boundary, including Dunsoghly Castle, a late fifteenth-century tower house and National Monument located approximately 900 m west of the airport. Further information is provided in Chapter 14: Cultural Heritage.

### Sensitive Landscapes

2.4.9 No designated sensitive landscapes occur within Dublin Airport or immediately adjoining the Dublin Airport Site boundary. The nearest Highly Sensitive Landscapes identified in the Fingal Development Plan are located approximately 4 km from the airport.

2.4.10 The landscape north of the airport is characterised within the Fingal Landscape Character Assessment as Rolling Hills. This landscape comprises predominantly agricultural land associated with the Ward and Broadmeadow river valleys and is assessed as being of modest value and medium sensitivity.

2.4.11 The airport itself is located within the Low-Lying Landscape Character Type, which is characterised by open agricultural land with relatively limited tree cover and broad field patterns. The detailed landscape and visual baseline is described in Chapter 15: Landscape and Visual.

## 2.5 Summary

2.5.1 The Dublin Airport Site comprises the existing operational areas of Dublin Airport to which the Proposed Order relates, including the airfield and runway system, passenger terminals, piers, aircraft stands, aprons, landside transport infrastructure, car parks and associated airport operational facilities.

2.5.2 The surrounding receiving environment comprises a mixture of agricultural land, residential communities, commercial and industrial development, transport infrastructure and recreational land uses. The principal settlements surrounding the airport include Swords, St Margaret's and the northern suburbs of Dublin City, with a wider network of roads, watercourses and community facilities forming part of the receiving environment.

2.5.3 Key environmental receptors relevant to the Proposed Order include residential communities, designated ecological sites, watercourses, Protected Structures, archaeological and cultural heritage assets, and landscape receptors. The detailed baseline conditions and environmental assessments for these and other environmental factors are presented in Chapters 6 to 19 of this EIAR.