

Chapter Five ♦ Site and project description

INTRODUCTION

- 5.1 This chapter provides a description of the Project Site and the Proposed Development. It begins with an account of the site context.

SITE CONTEXT

Location

- 5.2 The Project Site lies approximately 30 km east-south-east of central London on the south and north banks of the River Thames, in the counties of Kent and Essex. On the south side of the Thames the Project Site occupies much of the Swanscombe Peninsula, formed by a meander in the river, and includes a corridor for transport connections extending generally southwards to the A2(T) trunk road. On the northern side of the river the Project Site includes areas of land east of the A1089 Ferry Road and the Tilbury Ferry Terminal, which currently provides passenger services across the river to Gravesend and incorporates the London International Cruise Terminal.
- 5.3 For clarity the section of the Project Site to the south of the Thames is referred to in this report as the 'Kent Project Site' and that to the north of the river is identified as the 'Essex Project Site'. The sites are identified in Figures 5.1 and 5.2. They are not contiguous.

The local context: Kent

- 5.4 The Kent Project Site is bisected by the municipal boundary between the boroughs of Dartford to the west and Gravesham to the east. It lies mostly in the designated area of the Ebbsfleet Garden City, established in March 2015. The urban areas of Stone, Greenhithe, Ingress Park and Swanscombe lie to the west and south of the site. These are largely residential in character, with commercial uses concentrated on Stone's river frontage. To the east of the Kent Project Site lies Northfleet, a neighbourhood of mixed residential and commercial uses. Across the southern and south-eastern parts of the Peninsula is an extensive industrial area on Manor Way.
- 5.5 Each of these settlements has a district centre providing community, retail and commercial services. The locality is also served by the principal town centres in the two boroughs, at Dartford and Gravesend (in Gravesham). Beyond Greenhithe to the south-west of the Kent Project Site lies Bluewater Shopping Centre. This is a significant retail development that provides 154,000 m² of retail floorspace and 13,000 car parking spaces on a 97 ha site. In April 2017, Dartford BC resolved to grant planning permission for an expansion in total retail and catering floorspace of up to 30,000 m². Car parking at the

centre would be maintained at current levels. Construction work on the extension has yet to commence.

- 5.6 To the south of the A2(T) the land is more open and rural in character, with small settlements amid farmland and woodland blocks. Most of this area lies in the metropolitan green belt.
- 5.7 The principal rail links in the locality include the High Speed One (HS1) railway, which provides high-speed connections between London and various destinations in Kent and Eurostar train connections between London, Paris, Brussels and other European cities. Ebbsfleet International Station is located to the south of Swanscombe Peninsula. The railway passes partly in cutting and partly in a tunnel beneath Swanscombe Peninsula *en route* to and from London St Pancras International Station.
- 5.8 The North Kent Line, which crosses the southern edge of the Swanscombe Peninsula in an east-west direction, provides local services between London and North Kent and onwards to the Kent coastal towns by way of the Kent Coast Line, with nearby stations at Greenhithe, Swanscombe and Northfleet. All three stations are located outside of the Kent Project Site.
- 5.9 Strategic highway routes in the locality include the A2(T), which provides a connection between Junction 2 of the M25 motorway to the west and Junction 1 of the M2 motorway beyond Gravesend to the east. The Dartford Tunnels and Queen Elizabeth II Bridge crossings of the River Thames lie approximately 3km to the west of the Project Site. Highways England recently secured consent for upgrade works to the A2(T) Bean and Ebbsfleet junctions and has consulted on options for a new road between Kent and Essex, known as the Lower Thames Crossing. On 12 April 2017 the Secretary of State for Transport announced that the preferred route for the Lower Thames Crossing is a bored tunnel passing under the River Thames east of Gravesend and Tilbury. A Development Consent Order (DCO) application for the Lower Thames Crossing is due to be submitted later in 2020.
- 5.10 The principal local roads adjacent to the Kent Project Site include the A226 London Road / Galley Hill Road that runs east-west across the southern side of the Swanscombe Peninsula, with the B255, B259 Southfleet Road and the B262 / A2260 Springhead Road providing north-south links between the A226 and the A2(T).
- 5.11 The locality has a distinctive landform, modified by human activity. From the low-lying southern bank of the Thames the terrain generally rises southwards to a ridge that is typically 25m above ordnance datum (AOD). However, the natural topography has been altered considerably by extensive mineral workings – principally the quarrying of chalk for the manufacture of cement and other building products. The extensive voids created by mineral extraction include Eastern Quarry to the south-west of the Kent Project Site, which is being developed as a new residential neighbourhood as part of the Ebbsfleet Garden City initiative established by the Ministry of Housing, Communities and Local Government (MHCLG). Some of these former chalk pits have also been used for waste landfill, including

an areas to the west and north of Ebbsfleet International Station within the Project Site. Areas of the peninsula have been tipped with substantial quantities of cement kiln dust (CKD), a by-product of the cement industry. In places this this material has been over-tipped with dredgings from the River Thames.

The local context: Essex

- 5.12 The north bank of the River Thames opposite Swanscombe Peninsula is also extensively developed. Local settlements include West Thurrock, South Stifford, Grays and, to the north-east, the major port and town of Tilbury.
- 5.13 The Essex Project Site lies immediately to the east of the port of Tilbury in the unitary borough of Thurrock. Tilbury is London's primary operational port and offers over 10 km of quayside providing 56 operational births, supported by 465,000 m² of warehouse floorspace. The port handles a range of cargoes including ro-ro, container, wood and paper products, grain and liquid and dry bulk materials. Where not developed for warehousing, the port is mostly hard-surfaced to accommodate the storage and movement of vehicles, containers and bulk materials.
- 5.14 On the bank of the Thames along the southern edge of the port stand four wind turbines operated by Scottish Equity Partners. The turbines have a maximum height to blade tip of c. 135 metres and together have a generation capacity of 9.2 megawatts (MW).
- 5.15 At the south-east corner of the Port lies the Tilbury Ferry Terminal incorporating the London International Cruise Terminal. The cruise terminal comprises a restored grade II* listed two-storey building and a large floating landing stage extending out into the river, connected to the land by a series of bridge structures. The landing stage is included in the statutory listing. Passenger ferries to Gravesend operate from the eastern part of the terminal, which also accommodates an arts activity centre.
- 5.16 In February 2019 the Secretary of State for Transport made a DCO for a new port 2 km to the east of Tilbury port, known as Tilbury2, following an application by Port of Tilbury London Limited. This development occupies the site of the former Tilbury Power Station and will include a Roll-on/Roll-off (RoRo) terminal and a Construction Materials and Aggregates Terminal (CMAT), with associated infrastructure including rail and road facilities and modifications to the existing marine infrastructure. The CMAT will be used for the stockpiling of construction materials and some processing of aggregates for the production of asphalt and concrete products.
- 5.17 Construction of Tilbury2 is underway. The development will incorporate extensive hard-surfaced pavements, extensions to the existing river jetty including creation of a new RoRo berth; new conveyors and material handling, the erection of welfare and ancillary buildings, a new 10,200 m² warehouse, a new link road from Ferry Road to Fort Road and the formation of a rail spur and sidings. The effect of these proposals will be to provide a new deep-sea jetty and increase the size of the port of Tilbury from a land area of around 383 ha to 445 ha.

- 5.18 As will be explained in further detail, the Essex Project Site lies between the ports of Tilbury and Tilbury2. More generally the proximity of CMAT to the Kent Project Site should significantly facilitate the construction of the London Resort, amongst other things enabling construction materials to be delivered in bulk by barge and reducing construction road traffic.
- 5.19 On 24 June 2020 the Secretary of State for Business, Energy and Industrial Strategy accepted for examination a DCO application by Thurrock Power Limited to develop a flexible generation plant on land north of Tilbury sub-station in Thurrock. The proposed plant would provide up to 600 megawatts (MW) of electrical generation capacity on a fast response basis, together with up to 150 MW of battery storage capacity. The main site for the Thurrock Power project is c. 2 km to the north-east of the Tilbury Ferry Terminal.
- 5.20 Local settlements include the towns of Tilbury 1 km to the north of the ferry terminal, Chadwell St Mary a further 2 km to the north and the larger urban area of Grays 4 km to the north-west. Strategic road access is provided by the A1089 Dock Approach Road / Dock Road / Ferry Road, which connects to the main A13 east-west route to the M25 motorway and London beyond. The surrounding countryside is either flat or gently undulating and features prominent high voltage electricity transmission lines, generally running in parallel pairs.
- 5.21 Tilbury lies on the railway between Southend-on-Sea and London Fenchurch Street, which passes through West Ham station at which passengers can connect to the District and Hammersmith and City lines on the London Underground and the Docklands Light Railway network. Tilbury railway station is 1.5 km from the ferry terminal.
- 5.22 Between the Essex Project Site and Tilbury2 lies Tilbury Fort, a star-shaped fortification managed by English Heritage and a popular local visitor destination. The fort originated in Tudor times and features angular bastions, moats and lines of guns facing onto the Thames. The site is a Scheduled Monument and contains a grade II* listed barracks.

THE PROJECT SITES

The Kent Project Site

- 5.23 The Kent Project Site comprises approximately 504 hectares of land in a complex shape, shown in Figure 5.1. It includes land on and to the south of the Swanscombe Peninsula on which the Resort and its main public transport interchange would be focused, and a corridor of land required for road connections running in a broadly north-south direction between the Peninsula and the A2(T). The Kent Project Site also includes a section of the A2(T) corridor approximately 3.5 km in length between the established junctions at Bean in the west (A2(T) / B255) and Pepper Hill (A2(T) / B262) in the east.

- 5.24 The Ordnance Survey grid references for the approximate extremities of the Swanscombe Peninsula and the Access Corridor are as follows (expressed as eastings and northings):

Swanscombe Peninsula

- 559422, 175612
- 561348, 176278
- 559900, 174834
- 561333, 174940

Land between Swanscombe Station and the A2(T)

- 560619, 174862
- 561144, 174666
- 560981, 172762
- 561884, 172539

A2(T) corridor

- 558395, 173177
- 558222, 172566
- 562583, 172073
- 562510, 171970

- 5.25 The majority of the Kent Project Site on the Swanscombe Peninsula comprises open, low-lying land with extensive former CKD tips and other brownfield former industrial land. A number of drains, filtration systems, aeration lagoons and other features are also present. Much of the peninsula has re-vegetated naturally but areas of bare ground remain. Other parts of the Kent Project Site on the Swanscombe Peninsula include the existing Manor Way, Northfleet and Kent Kraft industrial estates.
- 5.26 The HS1 railway crosses the Peninsula on a south-east to north-westerly alignment. The southern section is in cutting and the remainder in a tunnel. A pumping station that serves to lower ground water adjacent to the tunnel is located to the north-east of the tunnel portal.

- 5.27 The Swanscombe Peninsula supports extensive areas of marshland including Black Duck Marsh, Botany Marsh and a marsh around the HS1 tunnel portal. Broadness Marsh at the northern tip of the Peninsula was historically a saltmarsh, but now has a raised terrain as a result of CKD tipping and the deposition of river dredgings. Broadness and Botany Marshes are bordered in part by industrial uses.
- 5.28 The Peninsula has an irregular topography because of historical CKD tipping activities and the deposition of dredgings from the River Thames. Two raised areas of tipped material rise to over 12-13 m above ordnance datum (AOD). A large part of the north of the Peninsula has been raised from an assumed original height of 2-3 m AOD to approximately 8.75 m AOD. Where it meets the River Thames, the Peninsula is surrounded by flood defence embankments and terraces that rise to approximately six metres AOD. Small areas of remnant salt marsh are located at the base of the flood defences.
- 5.29 In terms of its underlying geology, the Kent Project Site lies in the eastern part of the London Basin, which is underlain by chalk. This chalk is designated by the Environment Agency as a principal aquifer and is the main source of potable water in the area. The majority of the Kent Project Site thus lies within a groundwater Source Protection Zone (SPZ). The Peninsula itself is overlain by alluvium, comprising silts and clays.
- 5.30 The banks of the Peninsula feature occasional jetties and inlets, some of which are used for the mooring and landing of boats. An inlet at the northern end of the Peninsula, known as Broadness Creek, has associated boat sheds.
- 5.31 A small number of public footpaths cross the Kent Project Site including Saxon Way, which runs along the western flood embankment.
- 5.32 High voltage electricity transmission lines cross the Peninsula on a south-east to north-westerly alignment, and include a 190 m tall 'super pylon', constructed in 1965, that lifts the transmission lines over the Thames to a similar tower on the northern bank. These lattice towers are the UK's tallest electricity pylons and are prominent local landmarks.
- 5.33 North of the HS1 tunnel portal is a derelict wastewater treatment works. A Port of London Authority radar beacon is located near the northern tip of the Peninsula.
- 5.34 Natural habitats on the Kent Project Site include patches of woodland, scattered areas of scrub and improved and semi-improved grassland. Wetland habitats include wet grasslands at Black Duck Marsh and grazing marsh and reed beds in Black Duck and Botany Marshes, with ponds of standing open water and drainage ditches. There are also fragments of saltmarsh and mudflats within the flood defence embankments.
- 5.35 The Kent Project Site does not contain any international or national wildlife designations. Part of the Ebbsfleet Marshes Local Wildlife Site (LWS TQ 619738), which includes wet woodland and reed beds, is located in the Ebbsfleet Valley section of the Kent Project Site.
- 5.36 Areas of degraded post-industrial land, including disused pits and landfilled areas

supporting mostly grassland and scrub, are present across the section of the Kent Project Site that extends southward towards the A2(T). This area also contains a large surface level car park and associated roads serving Ebbsfleet International Station.

- 5.37 The A2(T) / A2260 junction (referred to here as Ebbsfleet Junction) allows eastbound and westbound traffic to leave and join the A2(T) at the southern end of the Kent Project Site. Springhead Nurseries and the HS1 railway are located to the immediate east of the A2(T) / A2260. A large electricity compound is located immediately to the west although part of this is no longer in use and the site is currently being developed for housing, a school and a hotel.
- 5.38 The Pepper Hill (A2(T) / B262) junction provides access to Northfleet to the north and Northfleet Green, Southfleet and Betsham to the south. The (A2(T) / B255) junction at Bean provides connections to Stone and Greenhithe via the B255 and the A296. Blocks of woodland border the A2(T) at the A2(T) / B255 junction. Bluewater Shopping Centre is located less than 1km from this junction and is reached directly from the B255. At Greenhithe the B255 connects to the A226, which provides access to the Swanscombe Peninsula from the west.

The Essex Project Site

- 5.39 The Essex Project Site comprises approximately 29.9 hectares of land in a complex shape, shown in Figure 5.2. It includes the following main elements.
- A trapezoidal area of level hard-surfaced land approximately 11.75 ha in area, used currently for vehicle storage. The Essex Project Site is bounded by railways on its northern and western sides, and a drainage channel to the east. Road access is gained from Fort Road at the south-eastern corner of the Essex Project Site. To the south lies Tilbury Railport, a large logistics shed with railway sidings operated by Maritime Transport Limited.
 - An irregular strip of land along the corridor of the A1089 Ferry Road, including areas of vegetation and hardstandings, and along the corridor of Fort Road to the east and far as the entrance into the main car storage site described in the previous bullet.
 - The Tilbury Ferry Terminal and the eastern half of the floating landing stage out in the river, including connecting bridges and a small triangular area of open space to the east.
 - The Asda Roundabout on the A1089 to the north. This roundabout forms the junction between the A1089 St Andrews Road / Dock Road, Windrush Road and Thurrock Park Way, the latter of which serves an Asda superstore. This junction has been included in the draft Order Limits for the London Resort DCO in the event that traffic assessment reveals a need for physical highway enhancements at this location.
- 5.40 As explained in more detail in the cultural heritage chapter of this PEIR, the London International Cruise Terminal, the passenger ferry terminal and the floating landing stage

that serves both are together listed grade II*. The landing stage was designed by the Port of London Authority's architect Sir Edwin Cooper and was officially opened in 1930 by Prime Minister J Ramsey MacDonald. In June 1948 the SS Empire Windrush docked at the landing stage with 500 migrants on its first voyage from the Caribbean.

5.41 The Ordnance Survey grid references for the approximate extremities of the Essex Project Site are as follows (expressed as eastings and northings):

- 564106, 175847
- 564797, 175937
- 564230, 174978
- 564751, 175016

Asda Roundabout

- 563193, 177107
- 563233, 177105
- 563182, 176902
- 563286, 176933

PROJECT DESCRIPTION

Overview of the Proposed Development

5.42 The 2008 Act provides that development consent may be granted for both a Nationally Significant Infrastructure Project (NSIP), referred to as the 'Principal Development' in this document, and for 'Associated Development', which is development associated with the Principal Development. The Housing and Planning Act 2016 enabled DCO development to be accompanied by 'Related Housing', defined by functional need or geographical proximity, with a guideline maximum of 500 homes to be consented by this means.

5.43 In the description of development below, a distinction is made between the Principal Development, which comprises all works proposed within what would be the Entertainment Resort, and Associated Development, comprising other development that has a direct relationship with the Principal Development and is required to support its

construction or operation ¹. Prior to the submission of the DCO application there might be some switching of elements of the Proposed Development between the Principal Development and Associated Development, as necessary.

5.44 Certain works to the A2(T), described in detail in chapter nine of this PEIR, might comprise a nationally significant infrastructure project in their own right under s.22 of the 2008 Act. Whilst these works are ‘associated’ with the Principal Development, they are referred to as the ‘A2 Highways Works’ for the sake of clarity in this PEIR.

5.45 In summary, the **Principal Development** is expected to include:

- land remediation works;
- the Leisure Core, comprising a range of events spaces, themed rides and attractions, entertainment venues including theatres and cinemas, developed in landscaped settings in two phases known as Gate One and Gate Two. The Gate areas will include visitor entrance plazas offering ticketing and ancillary retail, commercial, dining and entertainment facilities;
- terrain remodelling, hard and soft landscape works, amenity water features and planting;
- car parks with an overall volume of 10,750 spaces;
- pedestrian and cycle access routes and infrastructure;
- the A2 Highways Works comprising a signalised at-grade gyratory junction to replace two existing roundabouts at the A2(T) / B259 junction.

5.46 The **Associated Development** is expected to include:

- four hotels providing family, upmarket, luxury and themed accommodation totalling up to 3,550 suites or ‘keys’. One or more of these hotels might be located within the Leisure Core. One hotel will incorporate access to an enclosed water park;
- a ‘Conferention’ Centre (i.e. combined conference and convention) with a floor area of up to 11,000 m², capable of hosting a wide range of entertainment, sporting, exhibition and business events;
- a linked building hosting a range of e-Sports, video and computer gaming events, with a total floorspace of up to 16,500 m²;
- a ‘Back of House’ area accommodating many of the necessary supporting technical and

¹ Associated development is defined in Annex A of the Department for Communities and Local Government *Guidance on associated development applications for major infrastructure projects* (April 2013)

logistical operations to enable the Entertainment Resort to function, including security command and crisis centre, maintenance facilities, costuming facilities, employee administration and welfare, medical facilities, offices and storage facilities, internal roads, landscaping and employee car parking;

- a people mover and transport interchanges;
- a Resort access road of up to four lanes (i.e. up to two lanes in each direction);
- local transport links,
- river transport infrastructure on both sides of the Thames, including floating jetty and ferry terminals and the repair or replacement of White's Jetty;
- utility compounds, plant and service infrastructure including an energy centre;
- flood defence and drainage works;
- habitat creation and enhancement and public access;
- security and safety provisions;
- data centres to support the Resort requirements

5.47 ***Related Housing*** comprising up to 500 dwellings for Resort workers. The dwellings will typically have 4-6 bedrooms and shared kitchen and lounge facilities.

5.48 The Principal Development, Associated Development and Related Housing are described below. All floorspace areas cited below are Gross External Areas. An illustrative master plan of the Proposed Development is provided at Figure 5.3. A land-uses plan is included at Figure 5.4.

5.49 The DCO must be sufficiently flexible to enable changes to occur post-consent. The DCO application will therefore be based on parameter plans and work within 'Rochdale Envelope' parameters, as explained in chapter one of this document.

Principal Development

Land remediation

5.50 The DCO will provide for the remediation of contaminated areas of the Kent and Essex Project Sites, including the capping of CKD and contaminated river dredgings, the relocation or improved treatment and management of industrial waste tips and the profiling of land for the purposes of the Proposed Development.

The Leisure Core

- 5.51 At the heart of the Proposed Development on the Kent Project Site will be a range of entertainment experiences in a series of themed zones, incorporating events spaces, themed rides and attractions, entertainment venues, cinema and theatres. These will be developed on the Swanscombe Peninsula in two phases, comprising a 57 ha area known as Gate One and a 25 ha area known as Gate Two, with each phase subdivided into themed zones. These will reflect agreements with intellectual property (IP) providers and will include rides and attractions suitable for families, children and the more adventurous thrill-seeking visitor. As noted, the content of the zones will be changed or updated from time to time in line with evolving market demand and the draft DCO will incorporate the flexibility to do this.
- 5.52 Retail and amenity facilities, including a range of restaurants, cafes and outlets linked to the Resort experience, will be integrated into Gates One and Two for the enjoyment and convenience of visitors. The Gates might also incorporate some of the Resort's hotel accommodation.
- 5.53 Adjacent to the entrance plazas outside of Gates One and Two, up to 26,000 m² of ticketing and ancillary retail, commercial, dining and entertainment (RDE) floorspace and supporting attractions will be provided in a 8 ha area, excluding hotels. In conjunction with these RDE facilities the entrance plazas will establish a strong sense of arrival and serve the needs of visitors.
- 5.54 Resort visitors arriving by car, train, people mover, bus, coach, taxi, river ferry, bicycle or on foot will all be directed towards the entrance plazas from their respective points of arrival. From the main arrival hub adjacent to the multi-storey car parks, visitors will enter a main square 22,500 m² in area. From here they can proceed to the Conferention Centre and e-Sports Arena, or can pass through a covered street, The Market, towards the visitor entrance plazas outside the entrances to Gates One and Two. These will be up to 9,100 m² and 7,800 m² in area respectively. They will provide guest services and ancillary commercial uses.
- 5.55 A combination of theatres and indoor and outdoor venues in Gates One and Two and the RDE area will provide West End quality productions and shorter-format shows. These venues will showcase content from the intellectual property providers, as well as provide a stage for live comedy acts and concerts.
- 5.56 An area adjacent to the RDE area will include a Conferention Centre with a floor area of up to 11,000 m² and providing for up to 3,000 seated visitors, which will be used flexibly for concerts, live television productions, exhibitions and conventions. Additionally there will be a facility capable of hosting a range of e-Sports video computer gaming events, with a total floorspace of up to 16,500 m².

Landscape

- 5.57 A hard and soft landscape strategy, including amenity water features such as ponds and watercourses, will provide the setting for rides, attractions and amenities within the Leisure Core. It will also contribute to the theme and branding of each attraction. In general the masterplan seeks to work with the grain of the existing terrain but where necessary, earth shaping will be used to create the particular landscape required for the Leisure Core and to provide a flood resilient design.
- 5.58 Comprehensive landscape works and planting are proposed on the periphery of the London Resort. A perimeter service road, pedestrian and cycle routes and security requirements around the leisure core will be integrated into the landscape treatment.

Car parks

- 5.59 A maximum provision of 10,000 car parking spaces for visitors and hotel guests are proposed, in up to four multi-storey car parks with up to ten decks and floorplates of 9,000 m², along with up to 250 VIP parking spaces under the main visitor plaza and 500 staff parking spaces in the Back-of-House area, giving a total of 10,750 car parking spaces. Also proposed are 150 coach parking spaces, 350 motor cycle parking spaces and 250 secure cycle spaces for visitors. Collectively these parking areas would occupy a gross land area of 12.6 ha. Parking for visitors and hotel guests will be split between the Kent and Essex Project Sites in a ratio of approximately 3:1, with c.7,500 spaces at the Resort and c.2,500 spaces at Tilbury.

A2 Highway Works

- 5.60 The purpose of the proposed A2(T) Highways Works is to provide dedicated access to the Resort and separate local and Resort traffic close to the point where it leaves the A2(T), with all Resort traffic directed onto the Resort access road described under the Associated Development heading below. The design of this junction is under review, taking into account the A2(T) Bean and Ebbsfleet junction upgrade that Highways England secured consent for in 2020. As envisaged currently, two existing roundabouts at the A2(T) / A2260 Ebbsfleet junction would be replaced by a signalised at-grade gyratory junction, from which the Resort access road would branch off towards the Resort. This proposed junction would likewise reintegrate departing visitor traffic with local traffic flows to ensure their smooth transfer on to the A2(T).

Associated Development***Hotel accommodation***

- 5.61 Four hotels with a total capacity of up to 3,550 'keys' and a combined total land-take of c.3.6 ha will provide overnight accommodation for visitors. The hotels will be located in the area between Gates One and Two and possibly inside one of the Gates. Visitors will

be offered a range family, up-market and luxury hotels to suit different tastes and budgets. Some of the hotels will be themed to provide a strong linkage with other Entertainment Resort attractions. One hotel will incorporate access to both the covered water park attraction and Conferention Centre. Up to 2,300 keys would be delivered with Gate One and up to 1,250 keys with Gate Two. They will be served by dedicated parking spaces as a part of the overall parking provision for the site.

Back of house areas

- 5.62 Back of house areas in the Kent Project Site will accommodate many of the necessary supporting technical and logistical operations to enable the Entertainment Resort to function. These include administrative office accommodation, staff car parking, landscaping, engineering workshops, costuming facilities and maintenance sheds, storage and food preparation facilities. A visitor centre and training building is proposed on the A226 London Road, immediately to the west of Pilgrims' Way. This will provide office space and an exhibition space for visitors interested in the construction and development of the Resort and a community resource centre for information once open. Furthermore, the building will evolve to include staff training.

People mover and transport interchange

- 5.63 A 3.1 km people mover route is proposed between a proposed Resort travel interchange located to the west of Ebbsfleet International Station and the ferry terminal on the Ebbsfleet Peninsula. The route will incorporate stops at the main transport interchange adjacent to the resort car parking area and visitor entrance plazas, with visitor orientation facilities at each. The route would be used exclusively by a dedicated fleet of articulated shuttle buses, each with a capacity of 100-150 passengers, as well as smaller vehicles for staff arriving by rail.
- 5.64 The Resort development will incorporate parking, maintenance and vehicle washing facilities for the shuttle buses. Provision will also be made in the Resort for local bus and taxi services and disabled access. Additionally a rest and welfare facility of up to 1,000 m² will be provided for coach drivers.
- 5.65 The proposed transport interchange beside Ebbsfleet International Station will be up to 2.4 ha in area and will include a 'pick up and drop off' area for the people mover system and bus stops for *Fastrack* - a Kent County Council rapid transit bus service. The transport interchange will include basic facilities for passengers including shelters, waiting rooms, ancillary retail and refreshment facilities, toilets and staff offices. Additionally there will be a cycle hire facility to allow visitors to cycle to the Resort. Similar facilities will be provided on a smaller scale at the ferry terminal.
- 5.66 Where necessary, the existing Network Rail (High Speed) Limited facilities at Ebbsfleet International Station, including taxi and coach pick up / drop off areas and parking, will be relocated to a convenient location nearby.

Resort access road

5.67 A new Resort access road up to four lanes in width and approximately 2.3 km in length will provide the sole means of visitor access by private car between the A2(T) / A2260 junction and the Entertainment Resort. The access road would run parallel to the existing HS1 railway and would provide direct access to the proposed parking facilities. Access for visitors in private vehicles will not be available from the local road network. Existing roads would continue to provide access to Swanscombe and Northfleet, unimpeded by visitor traffic to the Proposed Development.

5.68 The Resort access road will include:

- a) the construction of up to four bridges and associated wing walls and retaining walls and up to eight tunnels through the existing chalk spines supporting the North Kent Railway line and London Road;
- b) the construction of a private means of access to land adjacent to the highway works;
- c) diversion and protection works to existing public utility apparatus, as required to accommodate the proposed works;
- d) drainage works, drainage attenuation ponds, earthworks, pavement works, kerbing and paved area works, signing and road marking works, street lighting works, safety barrier works, traffic signals, fencing works, landscaping works, noise mitigation barriers and other works associated with the construction of the permanent highway;
- e) the construction of an unadopted access road up to four lanes in width;
- f) highway works comprising the construction of a signalised at-grade gyratory road system to replace the existing two roundabouts at the A2(T) / A2260 junction;
- g) the provision of ecological mitigation works including mitigation measures to the River Ebbsfleet corridor.

Local transport links

5.69 A network of pedestrian and cycle routes will be provided on the Swanscombe Peninsula and will connect to the adjacent residential areas of Greenhithe, Swanscombe and Northfleet. This will improve connectivity within existing neighbourhoods and create linkages with the network of green spaces.

5.70 Existing public transport services will be enhanced to encourage non-car modes of travel to the Proposed Development. This will include discussions with operators regarding improvements to bus routes and services (e.g. the extension of *Fastrack* to the Leisure Core) and additional rail capacity where required to meet visitor demands.

- 5.71 A staff travel plan will be implemented to promote car sharing and non-car based transport modes for staff. An event management plan will explain how the car parking spaces will be used throughout the year and in response to specific events at the Proposed Development. Both plans are likely to be secured pursuant to DCO Requirements.
- 5.72 The DCO will include provision for the alteration, diversion, stopping up and/or improvement of local roads, accesses and other rights of way where necessary, and for associated signage.

River transport infrastructure

- 5.73 Subject to further structural assessment, remedial works will be carried out to the existing Bell Wharf on the north-eastern side of the Swanscombe Peninsula to enable use for construction and service deliveries and the removal of waste. The wharf will include ro-ro access and, potentially, a crane. A new floating pontoon jetty is proposed between Bell Wharf and Ingress Park for use by Thames Clippers' passenger ferry services between the Resort and central London and passenger ferry services from Tilbury.
- 5.74 Dedicated facilities for passengers will also be provided at the ferry terminal at the Essex Project Site. These will include basic information, retail and catering amenities to serve passengers during their short waits between ferry services.

Service infrastructure

- 5.75 The Proposed Development will incorporate comprehensive provisions for service infrastructure provision, with an emphasis on resilience and sustainability. LRCH's objective is for the London Resort to be net carbon-neutral once in operation. The strategy will embrace electricity and heat supply, water supply and the sustainable management of waste and wastewater will potentially incorporate:
- a dedicated combined heat and power (CHP) energy centre with an electrical generation capacity of up to 30MW. The CHP plant will occupy a site up to 2,400 m² in area with a building footprint of up to 1,500 m². The CHP building will be up to 18 m high to ridge, with a stack up to 40 m in height;
 - an electricity sub-station with a capacity of up to 60 MVA. The substation will occupy a site up to 2,500 m² in area with a building footprint of up to 1,600 m². In case connections need to be made to the electricity distribution network through existing substations, the substations at Springhead off Talbot Lane close to the A2(T), and at Pepper Hill to the west of the A262 Hall Road, are included in the draft DCO Order Limits.
 - a dedicated waste management facility on a site up to 1 ha in area, containing a materials recovery facility (MRF), an anaerobic digestion plant and ancillary offices;
 - a sewer connection to an off-site wastewater treatment works operated by Southern

Water. For this reason the draft DCO Order Limits include Southern water's existing wastewater treatment works to the west of the A226 Thames Way, south-east of Ebbsfleet International Station;

- sustainable drainage systems across the Proposed Development to manage surface water flows and minimise the risk of pollution to the water environment. These systems might include systems to feed water to surrounding marshes in order to maintain hydrological regimes and sustain marshland wildlife habitats.

Flood defence works

- 5.76 The Kent Project Site will be defended from future flood events by building, improving and extending the existing earth berm around the Entertainment Resort. These works will accord with the Environment Agency's *Thames Estuary 2100* strategy for managing tidal flood risk in the Thames Estuary. This sets out how the Environment Agency and its partners can work together to manage tidal flood risk until the end of the century and beyond. The strategy aims to protect 1.3 million people and £275 billion worth of property and infrastructure from this increasing risk.

Habitat enhancement and public access

- 5.77 Retained habitats including Botany, Broadness and Black Duck Marsh in and beside the Kent Project Site are in variable condition and will be subject to landscape and habitat improvement works for wildlife including birds, reptiles, invertebrates and plants. Managed public access will be incorporated into these areas and it is proposed also to enhance a continuous pedestrian route along the edge of the peninsula so that visitors and members of the public can enjoy walks along the edge of the river. This will help to connect the Proposed Development and local communities with the river environment and to provide an attractive entrance for visitors arriving by the River Thames. The path will form a section of the Grain to Woolwich section of the England Coast Path, which is being developed by Natural England in accordance with the Marine and Coastal Access Act 2009.
- 5.78 Aside from the inherent visual and biodiversity benefits, the areas of retained habitat will serve as quiet zones for visitors, affording opportunities to relax in natural surroundings and to appreciate the local ecology and views over the river. These zones will form part of a network of green spaces that will link with other parts of the Kent Project Site and the wider area. Areas of the marshes will be protected to provide undisturbed use by wildlife.
- 5.79 Where the loss of habitats cannot be adequately mitigated within the Project Site, a range of compensatory habitats will be created at off-site locations. These will comprise a range of wetland habitats that might include a mix of reed beds, standing open water and grazing marsh, along with dry habitats, including bare ground, grassland and scrub mosaic. The creation of these compensatory habitats will, as far as possible, connect to, and be in close association with, similar habitat types that are already established in the Thames estuary corridor. LRCH will seek to work with national and local agencies and stakeholders to

achieve the best outcomes for nature conservation through the provision and long-term management of these compensatory habitats.

- 5.80 In keeping with the Ebbsfleet Development Corporation's vision the Proposed Development will be integrated with local public rights of way and green corridors. For example, Pilgrim's Way, a public footpath that runs across the Peninsula from London Road near Swanscombe Station, will be enhanced to provide a pedestrian route to the south bank of the Thames near the proposed ferry terminal.

Security and safety provisions

- 5.81 A security strategy will be implemented to promote a safe environment and minimise the potential for criminal or terrorist activity. The strategy will be developed in consultation with the emergency and security services and will include a mixture of built design measures including a secure fence set amongst vegetation, security technologies and security staffing measures. The Proposed Development will also include ancillary security, medical and fire response facilities to manage accidents and emergencies. A helipad will be provided for medical evacuation and occasional VIP use.

Related housing

- 5.82 In April 2017 new rules came into effect in England that allow up to 500 dwellings to be included in a DCO application. To qualify, the housing must either be functionally related to the construction or operation of the main development but not necessarily on the same site, or 'in geographical proximity' to the main project – on or close to the site where the main development will take place. The DCO application can include development associated with the housing, such as local infrastructure.
- 5.83 LRCH has decided to take advantage of this provision by including 500 dwellings in its proposals for the Kent Project Site. As Figure 5.4 shows, a site has been identified in an abandoned chalk pit, known as Craylands Lane Pit, between the A226 London Road to the north and the railway to the south, immediately to the south of the Leisure Core. The housing would be for staff working in the Entertainment Resort, including full-time and seasonal employees. This is intended to allow for smooth operation of the Resort, assist recruitment, reduce the need to commute and reduce pressure on local housing rental markets and local transport networks.

Other provisions

- 5.84 The DCO will also include provision for:
- demolition of existing buildings and structures within the DCO Order Limit;
 - removal or relocation of existing utility supplies and existing drainage / pipelines;
 - drainage works;
 - lighting;
 - public art;

- hard and soft landscape works, incorporating earth shaping and planting;
- works to protect features of archaeological and paleontological interest;
- ancillary emergency response facilities (i.e. medical and fire points).

Schedule of Proposed Development

5.85 Table 5.1 provides a land area and floorspace summary for the main built elements.

Table 5.1: Preliminary estimates of the main component land areas and building footprints

Element	Use Class *	Maximum gross site area (hectares)	Maximum gross floorspace (square metres)
Land areas			
Kent Project Site		465.0	
Essex Project Site		29.9	
Total Project Site		594.9	
Gate 1		57.0	
Gate 2		25.0	
RDE and circulation areas		5.8	
Related housing		5.9	
Transport and transport **		12.6	
Buildings (outside Gates 1 and 2)			
RDE outside Gates 1 and 2	A1 Shops A3 Restaurants and cafes A4 Drinking Establishments A5 Hot food takeaways D2 Assembly and leisure C1 Hotels + Sui generis		324,000
Back of House buildings	B1 Offices B8 Storage		31,400
Related housing	C3 Dwellinghouses		68,500
Bus and ferry interchanges	Sui generis		10,150
Multi-storey car parks	Sui generis		292,650
Total buildings (excl. Gates 1 and 2)			726,700

* as defined in the Town and Country Planning (Use Classes) Order 1987 (as amended)

** excluding roads

Construction activities

5.86 The construction of the Proposed Development will occur over two main phases and will include:

- security set up activities;
- ecological management including habitat protection and species relocation;
- project site clearance;
- ground treatment and CKD remediation activities;
- activities relating to management and control of licenced waste tips
- soil investigation work and treatment;
- archaeological investigations;
- construction of vehicle haulage routes;
- improvements to the existing Bell Wharf;
- construction of laydown, storage compounds and welfare areas;
- establishment of a materials stores and plants;
- on-site temporary facilities for construction workers (including parking, residential accommodation, staff rooms, changing rooms, toilets, medical facilities etc.);
- identification, relocation, and enhancement of utility infrastructure;
- diversion of some existing drainage features;
- Import of construction plant and materials;
- Export of construction waste;

5.87 The principal construction activities will include:

- bulk earthworks, excavation, filling and tunneling;
- temporary works to enable development;
- drainage works, pumping stations and pollution management systems;

- underground services and infrastructure services works;
- highways, cycleways, footways, hard landscaping;
- bridges, culverts, civil engineering structures;
- fencing, barriers, signage;
- foundation works and piling;
- substructure and superstructure works;
- roof structures and roof covering;
- cladding and envelope;
- internal and external walls
- mechanical and electrical services including plant, equipment and distribution;
- specialist services including PA, television, security systems, CCTV systems, data and communications systems;
- primary and secondary fit out;
- miscellaneous secondary and architectural metalwork;
- resort rides, equipment and facilities;
- off-site reinforcement of utilities and their connections;
- renewable energy systems;
- landscape works.

5.88 Detailed construction information will be provided in a Construction Method Statement (CMS) incorporating a Construction Environmental Management Plan (CEMP) and a Construction Transport Management Plan (CTMP), which would be submitted for approval and enforced by a DCO Requirement.

The Resort in operation

5.89 The London Resort is designed to cater for up to 6.5 million visitors per year with Gate One open only, and up to 12.5 million visitors per year with gates One and Two in operation.

It will be a destination with a global profile, with up to 35% of visitors projected to come from overseas.

- 5.90 Visitors will arrive at the London Resort by a range of transport modes including train, car, coach and ferry. The Resort layout will aim to lead them intuitively to their destination of choice, which might be the hotels, the RDE area outside the payline and Gates One and Two. LRCH is reviewing the means by which travel to the resort by non-car modes can be incentivised.
- 5.91 Visitors might come for one day or opt to stay in one of the Resort's hotels for a longer visit. With its transport terminals and the RDE area all outside the paylines for Gates One and Two, it is intended also that the RDE area will be attractive to afternoon or evening visitors from the local area and beyond. The proposals include connections to pedestrian routes to encourage local visits, including the comprehensive enhancement of Pilgrims' Way from Swanscombe.
- 5.92 Inside the Gates visitors will be offered rides, shows and attractions based around IP brands with a global profile. These will include film, television and computer gaming as well as attractions bespoke to the London Resort. From time to time, attractions will be updated or replaced to ensure that the Resort always has a fresh appeal to visitors, and flexibility will be sought in the DCO to this end.
- 5.93 Outside the Gates visitors will be attracted by the Water Park and events in the e-Sports and Conferention Centres, which will include business and exhibition events as well as concerts, shows and sports events.

Decommissioning

- 5.94 The Proposed Development has no specified end date and is a permanent attraction that will evolve over time. Where appropriate, planning permission will be sought from Dartford Borough Council, Ebbsfleet Development Corporation, Gravesham Borough Council and / or Thurrock Council for any future changes.
- 5.95 Subject to DCO Requirements, where rides in the Leisure Core are to be replaced during the lifetime of the Proposed Development, a decommissioning statement will be submitted to the relevant planning authority for approval prior to implementation.