Gatwick Airport Northern Runway Project

The Historical Development of Gatwick Airport Including a Review of the Extent of Past Ground Disturbance

Book 10

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1 INTRODUCTION AND SCOPE OF STUDY

1.1 Gatwick Airport Limited (GAL) has submitted an application for a Development Consent Order (DCO) for the Northern Runway Project (the Project). The Project site boundary is indicated on **Figure 1** and includes land within and outside the current operational boundary of the airport.

1.2 Gatwick Airport lies within the administrative area of Crawley Borough Council (in the county of West Sussex) and immediately adjacent to the boundaries of Mole Valley District Council (Surrey) to the north west, Reigate and Banstead Borough Council (Surrey) to the north east, Tandridge District Council (Surrey) to the east, and Horsham District Council (West Sussex) to the south west.

1.3 This report provides an assessment of the historical development of Gatwick Airport. A key aim is the identification of the extent of any previous major ground disturbance which is likely to have affected the potential for buried archaeological remains to be present within the Project site boundary.

1.4 This report comprises an examination of a number of available sources including, but not limited to, the following:

- Records of the historical development of Gatwick Airport held at the National Archive (Kew), the British Library and the East Sussex and West Sussex record offices;
- Historic aerial photographs held in Historic England's national collection (Swindon) and by GAL;
- EnviroCheck reports acquired for the Project, including historic Ordnance Survey (OS) maps;
- A review of any ground height data available for pre-existing ground levels prior to the development of the airport (with the aim of establishing degree of ground levelling required for runway construction);
- Unexploded ordnance (UXO) and geotechnical Ground Investigation (GI) reports held be GAL;
- Records of construction held by GAL, including information available on ground levelling and standard forms of ground stabilisation next to the runways and taxiways; and
- Records of existing buried services held on the Gatwick SAFE system.

1.5 This report should be read in conjunction with the following documents submitted in support of the DCO application for the Project:

- **Environmental Statement (ES) Chapter 5: Project Description** [REP1-016];
- **ES Chapter 7: Historic Environment** [APP-032];
- **ES Appendix 7.6.1: Historic Environment Baseline Report** [APP-101]; and
- **ES Appendix 7.6.4: Geotechnical Data Review** [APP-104].

2 GEOLOGY AND TOPOGRAPHY

Geology

2.1 The British Geological Survey (BGS Sheet 302, 1972; BGS online 2024) shows the dominant basal geology to be mudstone Weald Clay Formation (mudstone), laid down in the Cretaceous period (see Figure 3.1.2 in ES Appendix 7.6.1: Historic Environment Baseline Report (Doc Ref 5.3)). It contains bands of ironstone and clay, including a seam to the west of Gatwick and another that runs south from Gatwick in the region of Crawter's Bridge (Framework Archaeology 2001a, page 5).

2.2 The Weald Clay Formation is overlain in places by much later superficial deposits, initially River Terrace Deposits of Quaternary date associated with the precursor(s) of the River Thames and its tributaries. The two recorded terraces reflect different depositional events (subsequently eroded) with the earlier furthest from the present course of the rivers.

2.3 A narrow north/south aligned band of Head Deposits is present within the central part of the airport. These deposits are formed through periglacial frost action and/or post-glacial outwash.

2.4 The location and extent of the more recent natural drainage system is shown by the linear bands of Holocene alluvium. In the western part of the Project site, the generally east/west aligned Man's Brook feeds into the River Mole which flows to the north east. This watercourse is then joined by the north/south aligned Crawter's Brook and the similarly aligned Gatwick Stream. East of the airport is the Burstow Stream, also aligned north/south.

2.5 A wider area of alluvium is recorded within the western area of Gatwick at the confluences of Man's Brook and the River Mole, and it has been suggested that this deposit may have formed as a large lagoon or area of marshland (Framework Archaeology 2001a, pages 5-6). A significant thickness of up 2.6 metres of alluvium (presumably deepest within palaeochannels) was recorded in the North West Zone car parking zone development. Peat deposits (with high potential to contain preserved wood and ecofacts) were found in 1998 within two geotechnical test pits associated with the Gatwick North West Zone (ibid, page 6). The two locations corresponded approximately with the former route of the River Mole and indicated thin accumulations (0.1 to 0.2 metres thick) at depths of between 2.6 metres to 2.9 metres below ground level (TPS Consult, 1998, cited by Framework Archaeology, 2001a). The peat has similarly been interpreted as either part of the channel or the marsh/lagoon.

2.6 A thin depth of topsoil and an absence of subsoil may be common to much of the pastoral land within the Project site. A topsoil depth of 250-300 mm was recorded by the extensive archaeological fieldwork projects in the Gatwick North West Zone and also by small-scale archaeological work in the south western area of Gatwick (Framework Archaeology 2001b; 2002a; 2007a). For the North West Zone, it was noted that *'the fact that it [the topsoil] was fairly thin and that there was no subsoil below it tends to suggest that the area had not been ploughed continuously over a long period of time*' (Framework Archaeology 2001a, page 6).

Site Conditions and Existing Topography

2.7 The Project site is currently predominantly occupied by Gatwick Airport, which includes runways, taxiways, aprons, terminals, control towers, fire station, maintenance areas, internal road networks, car parks and hotel complexes (**Figure 1**). Land outside the airport but included within the Project site boundary comprises small areas to the north west, north and east.

2.8 The current Gatwick Airport site is low-lying and generally flat at approximately 57 to 61 m above Ordnance Datum (aOD). The wider topographical situation of the Gatwick area can be considered as both part of the north western Low Weald (to the north west of the High Weald) between the South and North Downs, and also as the southern extent of the Thames Valley, since its watercourses drain north to the River Thames rather than south to the coast.

3 HISTORICAL BACKGROUND AND DEVELOPMENT OF THE AIRPORT

Introduction

3.1 This section provides an historical background of the various phases of development at Gatwick Airport, primarily through the use of visual material.

3.2 Information on earlier periods of history and prehistory are discussed in other documentation that accompanies the DCO application, principally **ES Appendix 7.6.1: Historic Environment Baseline Report** [APP-101].

Before the airport (1800s – 1919)

3.3 Prior to the development of the modern airport, the land within the Project site boundary was predominantly occupied by small to medium sized fields along with areas of woodland, isolated farmsteads and two larger estates surrounding grander houses.

3.4 **Figure 2** shows the situation in the early 1870s. A north/south aligned road passed through the centre of the Project site, with the small hamlet of Lowfield Heath to the south – this was the main route from London to Brighton. A small number of properties, including farmsteads were located adjacent to this road. Towards the northern part of the road were two larger estates; Charlwood Park on the west side of the road and Gatwick House on the east side. In the western part of the Project site, two roads connected within Westfield Common, whilst in the eastern part was the route of the London and Brighton Railway (which opened in 1841). A station was provided at Horley and this led to the development of the present town here, relocating from the historic settlements of Horley and Horley Street which were further to the west.

3.5 In 1890, some of the land in the north eastern part of the Project site was purchased by the Gatwick Race Course Company. Gatwick Racecourse opened in 1891, with a grandstand located at the south-eastern end of the circuit (**Figure 3**: 1914-1919). Gatwick Station was constructed by September 1891 along the London, Brighton and South Coast Railway (formerly known as the London and Brighton Railway) in order to serve the racecourse. Gatwick Station was initially only opened on race days, and included sidings for horseboxes. A golf course was situated either side of the racecourse, crossing it in several places, though this was not in use during race days.

3.6 During the First World War, the Aintree Grand National was relocated to Gatwick Racecourse and was run here in 1916, 1917 and 1918. Racing at Gatwick continued until 1940.

The initial phase of airport development (1920s and 1930s)

3.7 An area of around 90 acres between Gatwick Racecourse and Lowfield Heath was put up for sale in the 1920s, which was purchased by a Mr Ronald Waters who owned a business named Home Counties Aircraft Services Limited, based at Penhurst). Home Counties Aircraft Services Limited subsequently applied for an airfield licence in June 1930, although a company called Dominion Aircraft Limited had based a plane at Gatwick from November 1928, and there had been a few emergency landings adjacent to the racecourse during the First World War.

3.8 An aerodrome licence effective from 1930 was issued, which only allowed private flying from the purchased land. A small, corrugated iron hangar was built for three-four small aircraft and the Surrey Aero Club was formed which had its clubhouse at the former Hunts Green Farm. Wealthier racegoers could now travel by air to attend race meetings, and the grass runway adjacent to the racecourse was also used by the planes of Imperial Airways when their main airfield at Croydon was fogbound, with passengers transferring to the railway at the racecourse station.

3.9 Airfield improvements were carried out during 1932-33, and it was subsequently purchased in 1933 by Morris Jackaman. In 1934 Jackaman was granted a license for its use as a public airport, to provide regular air services to Paris and act as a relief airport for London Croydon Airport. Jackaman set up a company called 'The Horley Syndicate Limited', later changed to 'Airports Limited'.

3.10 Later in 1934 Airports Limited negotiated an agreement with the Air Ministry for an annual subsidy to be paid to Airports Limited over 15 years and an option for the Air Ministry to purchase the airport after those years. The contract detailed how a terminal was to be built at the airport by the end of October 1935.

3.11 The low-lying land on which the airport and racecourse had developed meant that there were always problems with waterlogged ground – the racecourse actually spanned over the River Mole in two locations around the circuit. A growing number of airlines avoided Gatwick for this reason, preferring Croydon or other airports close to London.

3.12 Development work at the airport in 1935 included installation of drainage and straightening of the River Mole. A photograph from *c*. 1935 shows the completed diversion of the 'River Mole' which included the digging of a large channel for it (**Figure 4**). However, it appears likely that the river in question shown here was the then un-named Gatwick Stream, which was at that time diverted from its meandering course to the west of the railway to its present straight course directly alongside the railway. Discussions were held with Southern Railway to build another station at Gatwick specifically for the airport, as part of an initiative by the railway company to expand into air transport. Tinsley Green Station, located *c*. 800m to the south of the Gatwick Racecourse station, was opened in September 1935 and was renamed Gatwick Airport Station in June 1936. A contribution towards the cost of the new station was made by Airports Limited.

3.13 The new airport terminal was completed in 1936 and was the world's first circular air passenger terminal building, leading to comparisons with the coastal defensive structures known as Martello Towers (**Figure 5**). The terminal building had a central portion of reinforced concrete, with floors supported by reinforced concrete ring beams, and a steel frame with brick-infilling, that would allow for future expansion. The terminal had covered walkways that could be extended out on small tracks to the parked aircraft in wet weather for enhanced passenger comfort. Associated developments included two concrete taxiways, grass landing strips and a 426 ft long subway which connected the terminal building to the airport railway station. In order to reduce the risk of flooding within the subway, the Gatwick Stream was diverted to a new straight alignment close to the railway embankment, as discussed above.

3.14 The circular terminal building remains present to the south of the modern airport and is known as the 'Beehive'; it is a Grade II* listed building. Much of the subway is also present, although nothing remains of Gatwick Airport Station or any of the other buildings associated with this phase of airport development.

3.15 British Airways established routes from Gatwick in 1936, flying to Paris, Malmo (via Amsterdam), Hamburg and Copenhagen, however they moved back to Croydon in 1937 following problems with drainage in the landing area and flooding of the passenger subway linking the terminal building to the railway station. In 1937 a flight training school for the Royal Air Force (RAF) was opened at Gatwick, run by a civilian company rather than by the RAF or the Air Ministry.

The Second World War and RAF Gatwick (1939-50)

3.16 Following the outbreak of the Second World War in 1939, Gatwick was requisitioned by the Air Ministry. The landing area, the terminal and other buildings were occupied by the Elementary and Reserve Flight Training School used by RAF Kenley, and Gatwick became sited within the Kenley Sector of No. 11 Group, Fighter Command. Gatwick was then transferred to the Air Ministry's Civil Aviation Branch, so that airline services could continue to operate, though it was agreed that any

planes would have to vacate within 24 hours should RAF Kenley require it. Various obstruction lights and supporting pylons were removed, despite having only recently been installed.

3.17 Further alterations were made to the terminal buildings, and the obstruction lights were reinstalled. Airfield defences included the perimeter track and anti-blast pens; in 1941 a number of gun emplacements were installed and new steel wire-mesh runways were established.

3.18 **Figure 6** is an aerial photograph taken in November 1941; it shows the development of the wartime airfield. The circular terminal building is seen at the lower edge of the image, south of the Project site boundary, along with Gatwick Airport Station and the other buildings associated with the 1930s airport. The new runways for the wartime airfield were 4200 ft and 3600 ft long, set out in the typical V-alignment to allow use at all times regardless of the wind direction. A 3600 ft long grass-only runway was also used. The runways were located north of the 1930s airport, extending west towards the houses north of Lowfield Heath (and facing onto the London to Brighton road) and encircled by the new perimeter track. The north east/south west aligned runway extended across the south eastern part of the racecourse, and anti-glider ditches can be seen within the racecourse itself.

3.19 A later wartime image is presented as **Figure 7**; this again shows the 1930s airport to the south of the military airfield but suggests that the two were physically linked and that perhaps the aprons of the earlier airport were used for storage of aircraft.

3.20 During the Second World War, the military airfield became a target for bombing. Details of unexploded ordnance are discussed in Section 4 of this report.

3.21 After the war, the military airfield at Gatwick was decommissioned. It was then requisitioned by the government who licensed it for six months for charter operations from 1946, and so it continued running as a civil airport for charter airlines and cargo flight.

3.22 Various schemes were proposed for the post-war redevelopment of Gatwick. In 1943, Norman and Dawbarn, airport architects, suggested four potential uses for it, which included:

(1) small-scale changes with limited disturbance to the existing buildings and surrounding features;

(2) a scheme to divert the London to Brighton Road, remove the racecourse, divert or culvert the River Mole, build two parallel runways and two subsidiary runways;

(3) a scheme to divert the London to Brighton Road, remove the racecourse, divert or culvert the River Mole, build a new terminal building connected to the railway station, one main surfaced runway, and three other smaller surfaced runways; and

(4) partial development of the second scheme, consuming part of the racecourse with relatively limited runway extent.

3.23 A planning policy file dating toward the end of the 1940s concerned with the development of a ‘London Airport’ identified Gatwick as a potential candidate, and detailed the following key points about its current state with details about safeguarding it ‘*in view of its potential value*’ (National Archives: AVIA 62/43):

- Grass runways at 1400 yards and 1200 yards in length; ‘*Drainage is not good. The provision of concrete runways would be absolutely essential for operation by transport aircraft*’;
- Radio stations at Heath House Farm which were to be derequisitioned, along with standard RAF equipment which was being maintained;
- Buildings comprising one Bellman type hangar and six Blister type hangars. A hutted camp situated to the north-east, but within land of different ownership to the airport and racecourse;
- A total of 574 acres had been requisitioned, with 196 acres of this total comprising the original (1930s) airport;

- For any proposed development, westward extension would affect the London to Brighton road, which would need diverting. '*Extensive works would be involved, including heavy expenditure on drainage and river conservancy, in addition to which the soil conditions are such as to make surfacing work more than usually expensive'.*

3.24 The final point highlights the need for extensive groundworks to consolidate and manage the soil conditions, as well as the need for further resolution in tackling the drainage/flood issue posed by the River Mole and its tributaries.

3.25 The last meeting at the racecourse was held in 1948 using a shortened course, as the perimeter track and north east/south west runway of the wartime airfield had removed the southern eastern end of the full course.

3.26 The government de-requisitioned the airfield in 1949 so that Gatwick could become London's diversionary airport.

Post War Redevelopment (1950s)

3.27 In 1952, the Ministry of Civil Aviation announced that Gatwick was to undergo further development works over two stages to become London's second airport. **Figure 8** and **Figure 9** present aerial views of the military airfield as it was prior to the development that was to come throughout this period. The airfield was contained between the London-Brighton road to the west and the route of the railway line to the east. Outside of this area, the rest of the land within the Project site boundary is shown to have remained unchanged, primarily as open land used for agricultural purposes. These images also show the construction of the first phase of what is now the Crawley Sewage Treatment Works east of the railway at Tinsley Green, and the southward expansion of Horley.

3.28 **Figure 10** shows a plan of the proposed redevelopment required for the airport and is dated January 1954. An initial stage consisted of the establishment of a new major runway on a west south west/east north east alignment. This required the diversion of the London to Brighton road eastwards onto a new alignment west of and adjacent to the railway before turning to run west south west and rejoin the previous alignment south of Lowfield Heath – this would become the A23. This phase was to be completed by 1956. A new passenger terminal was to be established west of Gatwick Racecourse Station and this would become the new airport station, whilst the 1930s Gatwick Airport Station further south was to be closed. A maintenance area would be established south of the terminal. The plan also indicates a proposed smaller secondary runway that would run from the western end of the main runway on a south west/north east alignment up towards Charlwood Park. This plan highlights the buildings that would have to be demolished and the field boundaries that would need to be removed.

3.29 A second stage of proposed development works were due to start after 1958. **Figure 11** comprises a plan dated March 1954 showing this next phase. It was to include construction of a second runway, parallel with and north of the first one. The two main runways would be linked at their western ends by the shorter south west/north east aligned runway. A subsequent modified plan proposed that the southern runway was built first, with the northern runway following if justifiable depending on the amount of usage.

3.30 Between 1956 and 1958, the airport was closed for major redevelopment. The runway construction was awarded to Sir Alfred McAlpine & Sons Ltd. **Figure 12** shows the full extent of the works undertaken here. The runway was *c*. 7,000 ft long and *c*. 150 ft wide, with turn-offs to taxiways that allowed aircraft to enter and exit the runway. It was of concrete construction, comprising two layers that were separated by a layer of polythene membrane (**Figure 13**). Below the runway was the foundation layer of the natural clay. The levelling required for the runway meant infilling of areas of lower ground and ground reduction of the more elevated areas. Kerr (*c*. 1959) records that '*half a million cubic yards of clay once known as Gorse Hill were used as filling underneath the runway'*. The runway's concrete 'shoulders' were of half-strength construction, *c*. 75 ft wide, and coloured

pink for identification (**Figure 14**). Between the edges of the shoulder and the soft ground were *c*. 25 ft wide strips of compacted clay, which acted as a means of limiting accidents from aircraft swerving off the runway and getting bogged-down. **Figure 15** shows the runway and taxiways nearing completion, and together with the previous aerial image (**Figure 12**) demonstrates the substantial extent of groundworks that occurred on and adjacent to the runway from a result of its construction**. Figure 15** also shows the new air traffic control tower to the north of the runway. It was brick built, with a concrete frame.

3.31 One of the major issues remained the River Mole, which was found to flood some of the airport buildings, and so one of the key features of development involved diverting or cultivating the river and some smaller streams. Five balancing ponds were also excavated with weirs to control water flow into the River Mole. The development of the runway included the diverting of the River Mole underneath the runway through a *c*. 1,400 ft long, heavily reinforced culvert. A photograph of this culvert under construction is reproduced as **Figure 16**, and shows the extensive groundworks required for this aspect of the work.

3.32 Turiff Construction Corporation Ltd. were awarded the contract for the new terminal building, with Frederick S. Snow and Partners acting as consulting engineers. The construction of this building can be seen on a photograph taken from the railway to the east (**Figure 17**). To the immediate west of the main terminal building was the operations block, with the central finger extending westwards toward the runway, and south finger stub extending to the south west. To the west of the terminal was a large concrete apron.

3.33 The contract for the rebuilding of the old Gatwick Racecourse Station to become the new Airport Station was awarded to J. Longley & Co. Ltd. Connecting the station to the terminal building was a covered footway, which crossed over the diverted A23 road; a flyover and approach ramps were also constructed either site of this road (**Figure 18**). A separate tunnel was constructed underneath the A23 road for pedestrians and cyclists to use.

3.34 A hangar at Gatwick was proposed in 1956, which was completed by 1958. This was referred to as Hangar 1 and was built of pre-stressed concrete in the south eastern part of the airport, within the maintenance area as established on the redevelopment plans of 1954 (**Figure 10** and **Figure 11**). It included a hydraulically operated system of retracting pits.

3.35 In 1958, the new Gatwick Airport Railway Station opened, which was followed by the official opening of Gatwick Airport. It was the world's first airport with a direct train link. Gatwick gained a variety of global airlines, with more joining as airports such as London Croydon began to close. An aerial photograph from 1959 shows the state of the airport after it was officially opened, with the diverted roads, terminal and associated buildings present as well as the concreted runway and apron area (**Figure 19**).

3.36 A plan of Gatwick Airport from the late-1950s to early 1960s provides further detail of the completed airport (**Figure 20**). In relation to the runway, this plan also provides an aOD height of the runway at 194.67 ft (59.34 m), which appears to be a universal level along the runway as would be expected.

1960s Developments

3.37 Hangar 2 and Hangar 4 were built in 1960, and work began in 1962 for the next stage of development at Gatwick Airport. This included the extension and redevelopment of the north apron area, which would allow for a planned increase in size of the terminal building (**Figure 21**). By 1966, the British Airports Authority (BAA) was created and assumed the management of Gatwick Airport, along with the airports at Stansted and Heathrow, and by 1967 BAA had built a new office complex on top of the main terminal at Gatwick.

3.38 Plans to extend the runway were also drawn up, with an extension proposed at the eastern end of the runway shown on a plan dating to 1963 (**Figure 22**). A year later, the existing runway at Gatwick Airport was extended to a length of 8200 ft (2500 m). The concourse building was enlarged, with the

airport having three piers nearly 300 m long, including the North Pier, and a terminal floor area of 9,300m^2 by 1965.

3.39 The increased size in apron area, additional piers, car parking areas to the north of the terminal, and extended runway can be seen on an aerial photograph of October 1965 (**Figure 23**). This aerial photograph also demonstrates the expansion of the maintenance area in the south eastern part of the airport, with Hangar 3 being constructed from 1964-65. This hangar was a steel-framed building deemed the largest of its type in the UK; it was doubled in width around 1967. The next year, work began on constructing Hangar 6, which was completed by 1969 (**Figure 24**).

1970s Developments

3.40 The Wingspan Club, a building for the British United Airways Sports and Social Club, was constructed at Gatwick in 1970. BAA published their plan for the future of Gatwick in the same year, which included proposals for constructing a second runway to the north of the existing one. The plan included an extension to the existing aircraft parking area, and a new parking area between the runways at the site of the current control tower and fire station; the control tower was also extended in 1975.

3.41 The second runway was not built, but the existing runway instead saw several increases in length: to 2766 m in 1970 which allowed non-stop jet operations to the US, and then to 3098 m in 1973. The 1970 increase in length to the runway was at its eastern end, however the 1973 expansion occurred at the far western end of the runway. These two increases are shown on an aerial photograph from June 1973, with the area of disturbed land from groundworks associated with the 1973 expansion clearly visible (**Figure 25**). To the north of the runway, cargo and maintenance areas and a new taxiway were developed. The extensive groundworks for these can be seen on aerial photographs from July 1971 (**Figure 26**).

3.42 A revised masterplan was published by the BAA in 1974, which included proposals for replacing the existing central pier by 1977 and installing a new road to connect the airport with the M23 motorway which was constructed between 1972-75 to ease congestion along the A23. An image showing the construction of the M23 motorway to the east of Gatwick Airport is presented as **Figure 27**. The spur road which links the airport to the M23 motorway was constructed by 1975 and involved significant groundworks. **Figure 28** shows the construction of the South Terminal Roundabout at the western end of the M23 Spur, with preparation being made to extend this across the railway line. The construction of the road bridge over the railway can also be seen at the lower edge of **Figure 25** and again on the left side of **Figure 29** which shows the extent of road building west of the railway.

3.43 **Figure 28** also shows the airport-related development east of the railway including the construction of the multistorey car parks. The Gatwick Promotion Group was formed in 1975 to help market the airport, and they persuaded British Railways to further develop the railway station. The redevelopment of the station included the construction of a raft across the platforms, which eventually opened in 1980 and linked the car park to the main terminals. Development of this bridge and groundworks to the east of the railway line can be seen on an oblique aerial photograph from the early 1970s (**Figure 30**). This photograph also shows the completed development of a maintenance and cargo area to the north of the runway. At the South Terminal on the western side of the railway, further developments included the BLOC Hotel, built in 1976 and Ashdown House which was built in 1977.

3.44 A map showing the airport following the construction of the M23 motorway and the spur road is reproduced as **Figure 31**. It shows the encroachment of new structures and car parks into land north of the runway, and both Gatwick House and Charlwood Park House seem to have been demolished by this time. The spur road had been extended to reach the car parks on the north side of the airport via a large roundabout now known as the North Terminal Roundabout. The groundworks associated with this, and on land surrounding the roundabout, is highlighted on **Figure 32**.

3.45 In 1977, Pier 2 was opened at Gatwick (**Figure 31**) and Hangar 6 was extended; a new hangar was also proposed, to cover an area of *c*. 3500m^2, for completion in 1979. In 1978 improved and enlarged terminal facilities opened.

3.46 BAA signed a legally binding agreement with West Sussex County Council in 1979 not to build another runway for 40 years, and it was instead agreed the taxiway running parallel to and north of the existing runway would receive an upgrade so that it could be used an emergency runway. Further proposed developments for Gatwick included the construction of a second terminal and replacing the north pier with a satellite terminal.

1980s Developments

3.47 In 1980, work began on the 5000m^2 Hangar 5, sited next to Hangar 3 at the airport. To the east of the railway line, a hotel was built as part of the airport complex in the early 1980s (**Figure 33**). This was located just to the east of the multistorey car park, with various other open-air car parks present in the surrounding land.

3.48 A circular satellite pier was added to the terminal building, which replaced the North Pier, the construction of this can be seen on an aerial photograph from October 1980 (**Figure 34**). A new air traffic control tower, the tallest in the UK at the time, was opened in 1984.

3.49 Plans for a second terminal building were proposed in the northern part of the Project site to the north of the existing airport. Construction work on the North Terminal began in *c*. 1983, with it eventually being opened in 1988 by Queen Elizabeth II. Construction images from the mid-1980s are reproduced as **Figure 35** and **Figure 36**, and show the extensive groundworks undertaken for the building of the terminal, as well as the shuttle transit system that connected the North and South terminals, which also opened in 1988. The former fuel farm adjacent to the North Terminal can also be seen on **Figure 35**.

3.50 The cargo centre is present to the west of the North Terminal Building on the 1987-91 Ordnance Survey Map (**Figure 37**), along with the relocated fuel farm. The extensive ground level car parks to the north-west of the cargo centre, and to the east of the railway line are also present.

1990s to current day

3.51 A plan of the airport produced by BAA in 1995 shows the key areas and buildings, as well as the main apron and runway (**Figure 38**). Piers 1, 2 and 3 extend from the South Terminal, whilst Piers 4 and 5 extend from the North Terminal.

3.52 Other changes throughout the 1990s included the extension of the main runway for a fourth time to 3316 m in length (10,879 ft). From 2000, both terminals were extended, and in 2005 Pier 6 was built to the south of Pier 4 and connected by the Pier 6 Bridge. Redevelopment works from 2013-16 saw the new Pier 5 opened at Gatwick's North Terminal, and construction of a new 2500 m^2 Pier 1 at the South Terminal (**Figure 39**).

3.53 Development throughout this period was largely focused on the expansion of the airport in the northern and western part of the Project site, referred to as the Gatwick North West Zone. Work here included the establishment of additional surface car parks along with the diversion of the River Mole into a wider naturalised channel around the inside of the perimeter of the airport, also the establishment of Pond M.

3.54 Six A380 sized airplane stands opened in 2013 to the west of the 1950s air traffic control tower, and included associated taxiways. Works for these also included installation of a Contractor's Compound, and raising the height of an existing landscaped earth bund. The EasyJet Hangar was constructed in 2016 just to the south of the cargo centre, whilst the Boeing Hangar south of Pond M opened in 2019 with 15,000 m^2 of floor space within the hangar.

3.55 The station concourse at Gatwick was upgraded in 2012. To the east of the railway line, just outside the Project site boundary, another hotel (the Marriott Courtyard) was constructed. The Immigration Removal Centre was opened in March 2009 as a newly built facility on the south perimeter of Gatwick Airport. It was constructed with a capacity for 448 detainees; this was increased to 508 in 2017.

3.56 In the far south-east of the Project site, a Flood Storage (Control) Reservoir and a Pollution Control Lagoon were developed in 2012-13 as part of a flood attenuation scheme to help manage the River Mole.

3.57 The 2021 aerial photograph of the site shows the current extent of development works at Gatwick Airport within the Project boundary (**Figure 40**).

4 PREVIOUS ARCHAEOLOGICAL WORK

4.1 A more detailed account of the previous archaeological work undertaken at Gatwick Airport is set out in Section 6.3 of **ES Appendix 7.6.1: Historic Environment Baseline Report** (Doc Ref 5.3); the following represents a summary of that account.

4.2 There are two locations within or directly adjacent to the Project site boundary where artefacts were found in the 19th century. One of these is in the area of the London to Brighton railway at the northern edge of the Project site. The late 19th century OS maps record '*British Sepulchral Urns, Flint Arrow Heads & Bronze Roman Coins found here*'. The reference suggests the discovery of a later prehistoric cremation cemetery and also Roman activity, and the location indicates that these findings may well have been linked to the construction of the railway which opened in 1841. A considerable amount of development has taken place in this area from the mid-1950s onwards, including the construction of the A23 Airport Way over the railway, but no archaeological features or finds have been recorded that could be associated with the antiquarian discoveries. An area of land west of the railway, currently part of the airport's Car Park B, is designated as an Area of High Archaeological Potential (AHAP).

4.3 The second location is within the eastern part of the Project site, west of Pentagon Field and north of the Flood Storage (Control) Reservoir. The late 19th century OS maps record '*Fragments of Roman Pottery found here*'. This area has subsequently been developed as a surface car park; no archaeological features or finds have been recorded that could be associated with the antiquarian discoveries. An area of land around the recorded discovery site is designated as an Archaeological Notification Area (ANA).

4.4 No archaeological features or finds have been recorded arising from the development of the 1930s airfield or the Second World War military airfield, or indeed from any part of the modern airfield developed in the 20th century. The first major programme of archaeological investigation was undertaken at the beginning of the 21st century in connection with the development of the Gatwick North West Zone.

4.5 Excavation here identified the remains of a prehistoric settlement, located to the north east of Brockley Wood and on the first gravel terrace at the edge of the River Mole floodplain. The site included Late Bronze Age to Early Iron Age date activity, mostly *c*. 1,000 to 700 BC, and comprised an enclosure ditch around a gully-enclosed roundhouse, with associated pits and post-holes. The settlement was located on slightly elevated land at *c*. 58 metres aOD adjacent to the river floodplain and it is suggested that it may have been only occupied for a short period, perhaps due to climatic factors (Framework Archaeology, 2002a). Nearby, a large north/south aligned ditch, also containing Late Bronze Age pottery, was identified (Wells *et al*., 2005). The full extent of the 136 metre long ditch was uncovered with both terminals excavated. This substantial ditch probably relates to some form of territorial or estate boundary, hence its scale. There is a correspondence between the alignment of the Bronze Age enclosure and the boundary ditch and later phases of enclosure, including a possible droveway and perpendicular medieval ditch (Framework Archaeology, 2002a, Figure 2). This suggests that the Bronze Age features remained as earthworks and affected later field layouts.

4.6 With the exception of these sites, the extensive archaeological investigations for the Gatwick North West Zone by Framework Archaeology found very little else of archaeological interest. Framework Archaeology concluded that the landscape to the south of the Late Bronze Age settlement and below *c*. 58 metres aOD was probably too damp at that time for occupation.

4.7 At around the same time as the archaeological investigation of the Gatwick North West Zone was undertaken, a smaller evaluation was carried out on land to the west of Car Park X (then known as Car Park Z), adjacent to the southern perimeter of the airport. This work comprised five trial trenches within the open grassed area east of the River Mole and west of the surface car park (Framework Archaeology, 2001b). Two ditches were identified, both of which matched with the alignment of field

boundaries shown on the 1839 Charlwood Tithe Map. The recorded deposit sequence comprised topsoil over alluvium (varying from 0.53 m to 0.95 m in thickness); two pieces of prehistoric worked flint were found within the upper part of the alluvium in one of the trenches.

4.8 In 2007 an evaluation and watching brief was undertaken at the site of the Immigration Removal Centre (now Brook House) east of Car Park X and adjacent to the Project site. This found evidence relating to the former Oaktree House, a property dating back to at least the 18th century which was demolished as part of the airport expansion. No material of any earlier period was recovered during this evaluation (Framework Archaeology 2007a; 2007b).

4.9 Also in 2007, an evaluation was undertaken in land to the east of the railway ahead of the construction of the Marriot Hotel, just west of the Grade II listed 16th century buildings known as Edgeworth House and Wing House. This location is about 450 m north of the recorded findspot of Roman pottery noted on the early OP mapping (see paragraph 4.3 above). The evaluation identified pits and ditches of Post-medieval date, and the excavators suggested that '*within the lawn area in the north-east of the site the consistent topsoil depth ….. may infer previous truncation and levelling*' (Framework Archaeology 2007c). No features or finds of Roman date were identified.

4.10 In 2008 an additional phase of trial trench evaluation was undertaken within the Gatwick North West Zone ahead of the construction of the airplane stands east of the current Boeing Hangar. This area had not been fully evaluated during the 2001 programme of archaeological work due to the presence of hardstanding. The evaluation comprised a total of 38 trenches, with the only identified features being five undated shallow ditches (Framework Archaeology 2008).

4.11 A programme of archaeological work was undertaken in 2012-2013 in connection with the construction of the Flood Control (Storage) Reservoir to the south of the Crawley Sewage Treatment Works (STW) and along the western side of the Gatwick Stream. This work identified palaeochannels and alluvium associated with the stream course, also a considerable amount of worked flint predominantly of Mesolithic date and an area of Iron Age settlement and funerary activity (Network Archaeology, 2012a; 2012b; 2013; 2014).

4.12 An archaeological watching brief was undertaken during construction of the Boeing Hangar. No archaeological features were identified; the report considered the results of boreholes and trial pits and concluded that the deep alluvial deposits in the northern part of the site (up to 2.4 m thick) indicated that the area may have been too wet for human inhabitation (Oxford Archaeology 2020).

5 UXO (UNEXPLODED ORDNANCE) REPORTING

5.1 There are several UXO reports which have been undertaken at Gatwick Airport over recent years. The results of these assessments in are discussed to determine the potential levels of disturbance across the Project site as a result of bomb damage.

5.2 As set out above, Gatwick was used during the Second World War as an operational RAF airfield, and so became a target for enemy bombing. There are records for RAF Gatwick being attacked by a single German aircraft on six occasions, as detailed in BACTEC's 2011 Explosive Ordnance Threat Assessment report. The attacks within the area of RAF Gatwick, which historically formed a relatively small part of the wider Project site, included a single bomb load of light high explosive bombs, six heavy high explosive bombs, parachute flares and an incendiary bomb shower. In the land outside of the wartime airfield perimeter, attacks included an incendiary bomb shower and an instance involving high explosive bombs.

5.3 These bombs were recorded on or in the immediate vicinity to the RAF airfield (the extent of which in relation to the Project site can be seen at **Figure 7**), and so it is likely that any impacts associated with enemy bombing are limited to the area occupied by the military airfield or immediately adjacent to this area.

5.4 There have been various instances of post-Second World War explosive ordnance clearance tasks across the Project site. Those instances where a formal record was made are detailed in the Zetica (2015) assessment:

21st March 1973 – 1 No. 3" Mortar Shell was found on the eastern side of the airport.

26th April 1973 – 8 No. Anti-Tank Mines, 4 No. Schermuly Flare Rockets, 3 No. 6" Rockets, 3 No. 3.5" Rockets, 2 No. PIAT Anti-Tank Missiles, 2 No. 36 Grenades and 1 No. Pyrotechnic were found on the eastern side of the airport. These were removed or destroyed in situ.

15th April to 2nd May 1975 – 53 No. 36 Grenades HE, 2 No. 3" Mortar Shells, 1 No. 68 Grenade and 1 No. 80 Grenade were found on the eastern part of the airport TQ 289410. These were removed or destroyed in situ.

30th June to 20th November 1975 – 800m^3 of Ordnance Scrap was removed from an area near the airport TQ 289410.

19th to 22nd March 1977 – 22 No. PIAT Shells, 21 No. 2" Mortar Shells, 9 No. Spigot Mortars, 2 No. Anti-Tank Missiles, 1 No. Mk VII Anti-Tank Mine, 3 No. 303 Cases and an unknown quantity of Small Arms Ammunition were found in a field to the south east of the Airport (exact location not given). These were removed or destroyed in situ.

7th and 8th September 1978 – A 9 hectare site (part of the Gatwick Airport Car Park Extension) was shown to be heavily contaminated with scrap and ordnance. 13 No. 2" Smoke Mortars, 8 No. 36 Mills Grenades, 3 No. 3" Spigot Mortar Shells, 3 No. 2" Mortar Shells, 2 No. 69 Grenades, 2 No. Mk4 Anti-Tank Mine, 1 No. Pencil, 1 No. PIAT shell and 4 No. Unidentified Objects were found in the area of the Gatwick Airport Car Park Extension (exact location not given) to the south of the main terminal buildings. These were removed or destroyed in situ.

12th to 29th September 1978 – 1 No. Number 2 Jumping Mine and 22 bags of UXO Scrap were removed from the site of the 'New Car Park' at Gatwick Airport, Horley TQ 289410.

13th to 8th December 1978 – 6 No. 36 Grenades, 2 No. 2" Smoke Mortars, 1 No. 3" Mortar Shell, 1 No. Spigot Mortar and 1 No. PIAT were found on the site of the 'New Car Park' at Gatwick Airport, Horley TQ 288410, outside the eastern boundary of the airport.

1980s – 5 No. mortar shells were found during construction work at the North Terminal. These were removed and dealt with by the military.

30th January 2008 – 3 No. WWII Smoke Shells were found at Gatwick airport during excavation work (precise location unknown) and dealt with by the military.

2012-2013 – Zetica Ltd disposed of several hand grenades, mortars and a quantity of small arms ammunition uncovered during excavation work for the upgrading of the railway station.

6 EVIDENCE OF GROUND DISTUBANCE

Introduction

6.1 This section of the report discusses the evidence for ground disturbance within the Project site boundary. It includes a discussion of the results of ground investigation (GI) works and all available reporting on the presence and removal of unexploded ordnance (UXO); the results are discussed within the context of the assessment of historic photographs, aerial photographs, maps and plans set out in Section 3 above.

6.2 Details of the construction dates for some of the existing main built structures at Gatwick is reproduced at Appendix A. This plan highlights some of the main sequence of building works from the 1950s onwards. A detailed plan of the pavemented apron and taxiway developments around these buildings, and dates of their construction, is reproduced at Appendix B. This plan shows the numerous changes that have occurred to the areas of hardstanding primarily to the north of the runway, including the details of the construction and date of installation. The construction of the pavemented areas will have likely included ground reduction and levelling. This section also details the standard methodology for grading of greenfield either side of the runways for stabilisation and removal of obstructions for safety purposes.

6.3 Sources of truncation are shown on **Figure 41**. This combines the known zones of construction with the direct evidence of significant ground disturbance derived from aerial photographs. The areas subject to grading and other sources of greenfield truncation are also depicted based on a detailed review of the data sources.

Ground Investigation (GI) Results and the Impact of Ground Levelling, Grading and Other Sources of Truncation

6.4 An account of the likely ground disturbance within the Project site was set out **Appendix 7.6.1: Historic Environment Baseline Report** of the ES [APP-101], supported by information presented in **Appendix 7.6.4: Geotechnical Data Review** of the ES [APP-104]. The latter comprised a spreadsheet providing information regarding the recorded depths of deposits within the Project site along with Figures (1a – 1d) showing the locations of these GI works.

6.5 The following areas of proposed development as part of the Project are discussed in relation to the GI database and other source information with reference to the archaeological potential of these area:

- Replacement Fire Training Ground;
- Main and northern runways zone;
- Car Park X;
- Car Park Y;
- Relocated Central Area Recycling Enclosure (CARE) facility;
- Relocated Motor Transport facility;
- Area of new hotel, offices and multi-storey Car Park H;
- New hotel at South Terminal Car Rental facility;
- Relocated Satellite Airport Fire Service facility;
- Relocated infrastructure north of Hangar 7;

- North Terminal long stay decked car park;
- Noise attenuation measures at the western end of the runways; and
- Foul water pipeline east of the railway.

Replacement Fire Training Ground

6.6 Investigations FTG-2, FTG-3, FTG-5 and FTG-11 are within the area of the proposed replacement Fire Training Ground to the immediate north of the western end of the northern runway (Figure 1a in **Appendix 7.6.4: Geotechnical Data Review** of the ES (Doc Ref. 5.3)), with FTG-07 on the boundary between the proposed replacement Fire Training Ground and the existing Fire Training Ground immediately to the south. These investigations were undertaken in 1999 from relatively consistent ground levels of between 58.08 m and 58.7 m AOD.

6.7 The investigations within the area of the proposed replacement Fire Training Ground found thicknesses of Made Ground between 1.0 m and 2.2 m above the natural Weald Clay. At FTG-7 the recorded thickness of Made Ground was 0.6 m but this investigation appears to have been abandoned without reaching the base of the deposit. This area appears to be very heavily disturbed by land-raising operations; consequently, there is a very low level of archaeological potential at this location.

Main and Northern Runways Zone

6.8 Runway-related truncation is shown on **Figure 41**. This includes a dashed lines showing the extent of major groundworks shown by the 1957 and 1973 aerial photographs (Figure 12) and the extent of grading for safety purposes either side of the runways and taxiways (see below).

6.9 Two sets of GI data resulting from works undertaken for the 'Main and North Runway Rehabilitation' in 2016 and 2017 are considered in relation to the runways.

6.10 Cable percussion, window samples and concrete cores associated with the northern runway comprise MNRR-NA21 to MNRR-39 (Figure 1a in **Appendix 7.6.4: Geotechnical Data Review** of the ES (Doc Ref. 5.3)). These shows depths of asphalt surfacing and concrete above 'Clay' which range in thickness from 0.56 m to 0.97 m, with an average thickness of 0.82 m.

6.11 A second set of GI data for the Main Runway comprised similar investigations recorded as MNRR-MA29 to MNRR-MA47 (Figure 1a in **Appendix 7.6.4: Geotechnical Data Review** of the ES (Doc Ref. 5.3)). These show asphalt over concrete at thicknesses of between 0.65 m and 1.03 m over 'Clay', with an average thickness of 0.81 m.

6.12 Given that the soft landscape either side of the runways and taxiways is at the same level as these hardstandings, the indication is that the large-scale topsoil removal and landscape levelling works undertaken to construct the runways will have truncated former ground levels to a similar level as the base of the concrete. This is confirmed in the contemporary aerial photographs showing the runway construction (**Figures 12** – **15**). The ground levelling would have required removal of areas of relatively higher former ground increasing truncation of the underlaying geology locally. The trial trenching for the North West Zone by Framework Archaeology (2008) and the trial trenching undertaken for the Project to the west, east and north of the airport indicate normal combined depths of topsoil and subsoil of around 0.4 m to 0.5 m. Therefore, the groundworks to level in the runways have cut well into the Weald Clay geology.

6.13 It should also be understood that the airport was operational in accordance with the standards of the CAA's CAP168 Licensing of Aerodromes[1] for several decades (from 1974 to at least 2016). This

[1] CAP168; https://www.caa.co.uk/publication/download/14796

document originates from the ICAO Standards and Recommended Practices / Annex 14 to the Chicago Convention. The requirements are that the areas to the sides of the runways and taxiways are graded to specified distances. The purpose of the grading is to provide a safe surface which will provide some support to an aircraft in the event it leaves the taxiway surface and enters the softer ground. Within the graded area, below ground structures such as access pits, which could present a hazardous vertical face to an approaching aircraft, are also "delethalised" by providing them with a below ground ramp by which the aircraft may run up and over them without damage. Everything else within the strips is buried to 0.45 m. The following is envisaged:

- Grading within most of the area between runways: 105 m and 75 m;
- Grading 105 m to the south of the main runway and 75 m north of the Northern runway;
- Grading to around 22 m either side of taxiway centrelines and slope requirements;
- Grading in ILS Glidepath plinths (rectangular areas visible on the AP to the south of the runway and indicated on **Figure 41**) and most likely levelling in Runway End Safety Areas at the ends of the runway;
- Plus all the drainage and communications and construction truncation to create the above.

6.14 CAP168 requires the following in respect of preparation of the ground to the sides of runways and taxiways:

"*3.37 Drainage channels, catchpits and other essential design features at aerodromes should not constitute hazards to aeroplanes. Whenever possible, items which are not required to be at ground level should be buried to a depth of not less than 0.45 m.*

3.38 Within the graded area of the runway strip, constructions such as plinths, runway ends, paved taxiway edges, etc. should be delethalised, that is, so constructed as to avoid presenting a buried vertical face to aircraft wheels in soft ground conditions in any direction from which an aircraft is likely to approach. To eliminate a buried vertical surface, a slope should be provided which extends from the top of the construction to not less than 0.3 m below ground level. The slope should be no greater than 1:10. Newly constructed features complying with paragraph 3.37 are not required to be delethalised.

3.49 The runway strip which encloses a precision instrument runway where the code number is 3 or 4 should be cleared of obstacles and graded for a distance of at least 75 m each side of the centre line of the runway and its extended centre line to provide a graded area for aeroplanes which the runway is intended to serve in the event of an aeroplane running off the runway. Subject to a satisfactory safety assessment, this distance may be increased to 105 m each side of the centreline and extended centreline at each strip end, starting at a width of 75 m at the start of operational direction and continuing at this width for the first 150 m of runway available, then increasing uniformly to 105 m from centreline by 300 m."

6.15 GAL have confirmed that Gatwick has been subject to this process; the statutory main runway Cleared and Graded Area (CGA) goes out to 105 m over most of its length, and the northern runway as a visual runway the CGA will be 75 m. In practice, based on the historic photographs any remaining area outside of the graded areas is also likely to have been levelled to remove any discontinuity in level and meet the runway strip requirements (discussed below).

6.16 CAP168 continues to describe "runway strip: as follows:

"*3.53 The runway strip should be flush with the runway, runway shoulder and stopway along their common edges. That part which is required to be graded should be so prepared as to be capable of supporting any aeroplane at maximum certificated weight that the runway is intended to serve, without the aeroplane suffering significant damage. The area before the runway threshold should be prepared against blast erosion to at least 30 m, in order to protect a landing aircraft from the exposed edge, and to eliminate the effects of jet blast and inlet forces. Where such areas have paved*

surfaces, they should be able to withstand the occasional passage of the critical aeroplane for runway pavement design.

3.55 The longitudinal slope along any portion of a runway strip which is required to be graded should not exceed: 1. 1.5% (1:66) where the code number is 4; 2. 1.75% (1:57) where the code number is 3; 3. 2.0% (1:50) where the code number is 1 or 2.

3.56 Longitudinal slope changes on that portion of a strip to be graded should be gradual. Abrupt changes of slope should be removed."

6.17 With regard to transverse slopes it states:

"*3.57 The transverse slopes on that portion of the runway strip to be graded should avoid the accumulation of water but should not exceed: 1. 2.5% (1:40) where the code number is 3 or 4; 2. 3.0% (1:33) where the code number is 1 or 2;*

3.58 Except that to facilitate drainage, the transverse slope for the first 3 m outwards from the edge of the runway, runway shoulder or stopway should be negative as measured in the direction away from the runway but should not exceed 5% (1:20).

3.59 The transverse slopes on those portions of the runway strip outside the area to be graded should not exceed an upward slope of 5% (1:20) measured in the direction away from the runway...

3.93 The centre portion of a taxiway strip should provide a graded area to a distance from the centre line of the taxiway of not less than that given by the following tabulation:

1. *22 m where the OMGWS is 9 m up to but not including 15 m, where the code letter is F.*
2. *19 m where the OMGWS is 9 m up to but not including 15 m, where the code letter is E;*
3. *18.50 m where the OMGWS is 9 m up to but not including 15 m, where the code letter is D;*
4. *12.50 m where the OMGWS is 6 m up to but not including 9 m;*
5. *11 m where the OMGWS is 4.5 m up to but not including 6 m;*
6. *10.25 m where the OMGWS is up to but not including 4.5 m*."

6.18 The areas subject to grading based in the above are shown on the **Figure 41** truncation plan.

6.19 In addition, a further stage of truncation and compression will have been caused by heavy construction plant operating at that exposed level. Furthermore, soft spots associated with the former courses of the River Mole will most likely have been identified as such during the site strip and removed prior to runway construction, with replacement of more solid material. Taking these truncations into account, in combination with an appreciation to the largely negative result of archaeological trenching of the North West Zone to the north of the runways, the remaining archaeological potential in this area is very low or negligible.

Car Park X

6.20 Two window sample boreholes were undertaken in this area in 2015 (CBBN-BH1 and CBBN-BH2 - see Figure 1a in **Appendix 7.6.4: Geotechnical Data Review** of the ES (Doc Ref. 5.3)). Both of these indicate 0.3 m of Made Ground over drift geology. The report identifies this drift geology for CBBN-BH2 (within the eastern part of Car Park X) as 'Silt Clay' (3.5 m thick) above 'Iron Stone and Clay', which could allude to alluvium but is not conclusive and would perhaps be too deep to represent a palaeo-channel associated with the River Mole. These results may indicate relatively low levels of truncation from car park surfacing and other groundworks but are too small a sample to be conclusive.

6.21 As discussed above, a number of archaeological trial trenches were excavated in 2001 within the land just to the west of Car Park X (and east of the realigned channel of the River Mole). These found topsoil (average depth 0.2 – 0.4 m) over alluvium which varied from to 0.28 m to 1.05 m

(Framework Archaeology 2001b). The only archaeological feature identified during this trial trenching was a recut ditch that matches a field boundary recorded on the 1839 Charlwood Tithe Map.

6.22 Overall, this area is considered to have low or negligible archaeological potential, although there is the possibility of palaeochannels remaining present within or below the alluvial material here.

Car Park Y

6.23 There are no GI data for this car park, which is a surface car park for airport staff adjacent to the Premier Inn. Prior to its realignment the River Mole ran through the centre of the car park area on a north west/south east alignment, whilst the finishing straight of the Gatwick Racecourse ran along the south-western side of the car park area.

6.24 Previous disturbance within Car Park Y would therefore have included works associated with the racecourse development, the infilling of the River Mole channel following its diversion and the construction of the car park including the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low or negligible archaeological potential.

Relocated Central Area Recycling Enclosure (CARE) facility

6.25 There are no GI data for this location, which is currently a disused surface car park north of the cargo centre and which was established in around 2001. Previous disturbance here would therefore have included the construction of the car park including the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low archaeological potential.

Relocated Motor Transport facility

6.26 There are no GI data for this location, which is currently surface car parking and associated access routes. However, almost all of this area falls within the land previously subject to archaeological investigation as part of the work undertaken at the Gatwick North West Zone (Framework Archaeology, 2002a; Wells *et al*, 2005). Subsequent to that investigation, disturbance here would therefore have included the construction of the car parks and access routes including the installation of drainage and other services. Whilst the survival of archaeological features here outside of the area of previous investigation cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have negligible archaeological potential.

Area for new hotel, offices and multi-storey Car Park H

6.27 There are no GI data for this location, which is currently surface car parking and associated access routes established in the late 20th century. Previous disturbance here would therefore have included the construction of the car park and associated access routes including the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low archaeological potential.

New hotel at South Terminal car rental facility

6.28 There are no GI data for this location, which is currently surface car parking and associated access routes along with a number of buildings used by car rental companies. These buildings were constructed over the period 2000 – 2021, whilst area has been used for surface parking since at least the early 1980s. Previous disturbance here would therefore have included the construction of the car park, the associated access routes and the car rental buildings including the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low archaeological potential.

Relocated Satellite Airport Fire Service facility

6.29 There are no GI data for this location, which is currently an area of mixed hardstanding and grass used for the storage of soil and other materials as part of the airport maintenance facility, with associated access routes and a number of small buildings. The parts of this location currently set to grass have previously been stripped of topsoil and used for material storage. Previous disturbance here would therefore have included the construction of the hardstanding, associated access routes and small buildings including the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low archaeological potential.

Relocated infrastructure north of Hangar 7

6.30 Some ancillary infrastructure on the northern side of Hangar 7 would move slightly southwards in order to accommodate the extension of Lima Taxiway. The new location for this infrastructure would be within the external hardstanding immediately to the north of this hangar. The hardstanding was established at the same time as the hangar and this area is likely to have been utilised during the construction of the hangar. Previous disturbance here would therefore have included the construction of the hardstanding including the installation of drainage and other services, along with use of the land during construction of the hangar. A window sample within the access road just to the north of the current location of this infrastructure found 0.7 m of Made Ground over alluvium (Lima-WS11). Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low archaeological potential.

North Terminal long-stay decked car park

6.31 The proposed works at this location comprise the construction of a deck over the existing surface car park. The impact of the proposed development here would be limited to the construction of the support pillars for the new deck. There are no GI data for this location, which is currently surface car parking and associated access routes established in the late 20th century. Previous disturbance here would therefore have included the construction of the car park and associated access routes including the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low archaeological potential.

Noise attenuation measures at the western end of the runways

6.32 The Project would include the removal of an existing bund in the western end of the airfield which attenuates noise to external areas from taxiing aircraft, with the functionality of the bund re-provided as a new bund and wall. The south-western part of the new bund would be within the footprint of the existing bund, so work here would largely comprise the re-profiling and realigning of existing material. The noise attenuation then extends to the north-east as a wall rather than a bund, passing just to the west of the current Fire training Ground.

6.33 GI locations FTG6, FTG8 and FTG10 at the western end of the Fire Training Ground indicate the presence of Made Ground to a depth of at least 1.6 m below ground level. This is almost certainly associated with the works undertaken in the 1990s to extend the runway to its current length. Previous disturbance here would therefore have included the levelling and filling required for the runway extension and the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have very low archaeological potential.

Instrument Landing System (ILS) at Glider Path Critical (GPC) locations

6.34 There are several areas where land has been graded to create level zones at ISL GPC zones (see **Figure 41**) for which ground reduction has taken place.

Services

6.35 The airport service locations are confidential for security reasons. For disturbance areas shown on Figure 41 they coincide with other sources of truncation. Several small grassed zones for which other sources of truncation are implicit but which cannot be demonstrated by our research, but which contain multiple services, are shown on **Figure 41**.

Foul water pipeline east of the railway

6.36 The proposed Project includes a foul water pipeline connecting a new pumping station east of the railway to the Crawley STW. The indicative corridor of the pipeline route has been designed to avoid the ancient woodland and make use of existing tracks; it is shown on **ES Figure 5.2.1e** (Doc Ref. 5.2).

6.37 The indicative route of the pipeline south of the new pumping station is initially directly adjacent to the railway embankment and then crosses existing surface car parks. Previous disturbance here would therefore have included the construction of the car park and associated access routes including the installation of drainage and other services. Whilst the survival of archaeological features here cannot be ruled out, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage. Overall, this area is considered to have low archaeological potential. The indicative route is more than 250 m west of the location where late 19th century OS maps record '*Fragments of Roman Pottery found here*'.

6.38 The indicative route then crosses into the land adjacent to the 'New Lagoon' established for the Crawley STW in around 2013. This land was subject to archaeological investigation before being heavily disturbed during construction.

Ponds and Attenuation

6.39 A number of large ponds and water attenuation features are located beyond the airside zones of the airport. These sources of truncation are evident on the Google Earth mapping (see also **Figure 41**).

7 CONCLUSIONS

7.1 This report has examined the historical development of Gatwick Airport, reviewing the pre-airport landscape as well as the 1930s commercial airfield and its replacement during the Second Word War by a military one.

7.2 The results of previous archaeological work at the airport have been discussed. Such work has been limited to specific areas, and all work has been carried out in the 21st century; no programmes of archaeological work were undertaken in relation to the major phase of airport development in the 1950s nor in relation to any of the subsequent episodes of expansion and redevelopment through to the end of the 20th century. There are two locations within the airport where antiquarian records indicate the recovery of material dating to the later prehistoric and Roman periods; no subsequent records of similar discoveries exist for either of these two locations despite the considerable amount of airport-related development that has taken place at each site.

7.3 Practically, the history of development at Gatwick is of gradual clearance to create the uniform planform associated with a major modern international airport. A considerable amount of construction activity has occurred in terms of ground levelling (through cut and fill processes), and also the grading and, if necessary, strengthening of ground adjacent to the runways to allow for planes over-running the hard surfaces. This can be seen in the historic photographs of the construction work at Gatwick, and also in the GI records.

7.4 The land upon which the airport has been developed was historically poorly drained and prone to flooding. Extensive drainage has been installed, including balancing ponds and with the River Mole twice being diverted onto a more manageable route away from its natural channel. Other tributary watercourses to the Mole, such as Man's Brook, the Westfield Stream, Crawter's Brook and the Gatwick Stream have also been diverted.

7.5 This report presents a detailed review of the direct evidence of disturbances within existing airport areas. Information does not exist for all areas, however, the level planform and proximity to areas where large-scale known development has occurred provides strong circumstantial evidence that these will also have been subject to disturbance at one point or another which will have resulted in truncation and fragmentation of archaeological remains. This conclusion is based on examination of available information provided through numerous programmes of Ground Investigation, along with assessment of historic photographic and cartographic sources.

7.6 In addition to the runways and taxiways, large areas of land within the Project site are covered in hardstanding (including surface car parks and access roads) or built development. Whilst the survival of archaeological features here cannot be entirely ruled out within many parts of the Project site, they are likely to be truncated in terms of the removal of the upper parts of the features and fragmentary in terms of disruption from deeper disturbances such as drainage and other services.

Sources Consulted

Internet

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Cartographic Material

1870 Ordnance Survey Map (1:10,560)

1895-98 Ordnance Survey Map (1:10,560)

1914-19 Ordnance Survey Map (1:10,560)

1946 Ordnance Survey Map (1:10,560)

1961-63 Ordnance Survey Map (1:10,560)

1973-77 Ordnance Survey Map (1:10,560)

1989 Ordnance Survey Map (1:10,000)

2001 aerial photograph (Google Earth)

2002 Ordnance Survey Map (1:10,000)

2021 aerial photograph (Google Earth)

National Archives

Ref	Date	Description
AT 154/364	1995 Jan 1 - 1995 Dec 31	London Gatwick Plan
AVIA 2/996	1936	AERODROMES: Government, Municipal and Private (by name) (Code 4/3): Opening of Gatwick airport: R.A.F. co-operation
AVIA 62/20	1946-1963	Gatwick: site plan; lands
AVIA 62/43	1946-1950	Planning and policy file concerned with the development of a "London Airport". Includes descriptions and maps of the following aerodromes:- Blackbushe f9-f18 Bovingdon f19-f27 Croydon f28-f31 Fairlop f32-f39 Gatwick f40-f44 Heston f45-f50 Heathrow f51-f87 Lympne f88-f92 Northolt f93-f99
AVIA 105/33	1962-1963	Gatwick Airport: stage II development; terminal apron and associated works; approval and oversight of works – with plans
AVIA 105/34	1965-1966	Gatwick Airport: stage II development; terminal apron and associated works; approval and oversight of works - With plans
AVIA 105/36	1962-1963	Gatwick Airport: runway 27 clearway construction; justification of runway extension – with plans
BT 247/55	1955-1957	Demolition arrangements

BT 247/158	1957	Gatwick building drawings: terminal concourse floor; terminal restaurant floor; post office at concourse level; bank at concourse level;,central finger ground floor operations; block ground floor; terminal shopfitting; railway office (Parts 1 and 2); south finger stub ground floor
BT 249/113	1962	Second stage: terminal apron development – with plans
BT 252/373	1957-1958	Development of Gatwick Airport
CUST 49/4417	01/01/1955-31/12/1956	Development of Gatwick Airport
DR 36/24	1977 May-1978 Aug	Gatwick Airport: extension to control tower; includes combined brief and specification draft (dated Mar-May 1973) – with plans
DR 81/1	1959 Jan	Gatwick Airport: photographs of the airport including the control tower
DR 81/28	(c1965)	Gatwick Airport: photograph of the control tower
HLG 91/387	1949-1951	
HLG 165/16	1954 Jan 1 - 1954 Dec 31	Public Local Inquiry into the proposed development of Gatwick Airport: plans and documents submitted by Crawley Development Corporation. With plans
MAF 167/14	1954-1964	Gatwick Airport With Maps and Plans
MT 124/849	1963-1969	Crawley: Gatwick Airport; extension of runway
T 228/519	1950-1952	Development as major airport
T 228/520	1952-1954	Development as major airport
T 228/521	1955-1956	Development as major airport Includes 1 photograph depicting: Gatwick Airport (aerial view). Dated 1948

West Sussex Record Office

Catalogue No.	Date	Title
Add Mss 20774	c.1959	The Development of Gatwick Airport

Add Mss 35870	1950-1953	Gatwick Airport Plans - Plans of areas affected by proposed aerodrome development revised between June 1950 and November 1953 by Directorate General of Works, Air Ministry. Plans show proposed terminal, runways, taxiways, etc., limit of existing airport, proposed new boundary and areas outside boundary where trees would need to be felled or lopped
AM 967/8/1	Early 1950s	Aerial view of Gatwick Airport - High altitude view before work on Crawley New Town had commenced.
AM 1176/2	1959-1980	Plans and maps - 1). Drg No. 302418c, Gatwick Airport station reconstruction domestic sub-station. Layout plan. 20 December 1976.
CC123	1954	Gatwick Airport development plans
Slides 7788-7789	1970	Gatwick Airport: From the air
WDC/PL16/110	24 February 1975	Gatwick Airport Map
WDC/SU16/4/75	1956-1957	Plans of Gatwick Airport subway
Lib 8886	1980	Golden Gatwick: 50 Years of Aviation
Lib 9930	1986	Gatwick: The Evolution of an Airport
Lib 17904	1958?	The Development of Gatwick Airport

Historic England Archives

Details of the aerial photographs viewed via Historic England's online aerial photograph viewing systems and in-person at the Historic England Archives have been included at Appendices C and D.

FIGURES

LONDON GATWICK

Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Site Location

DATE

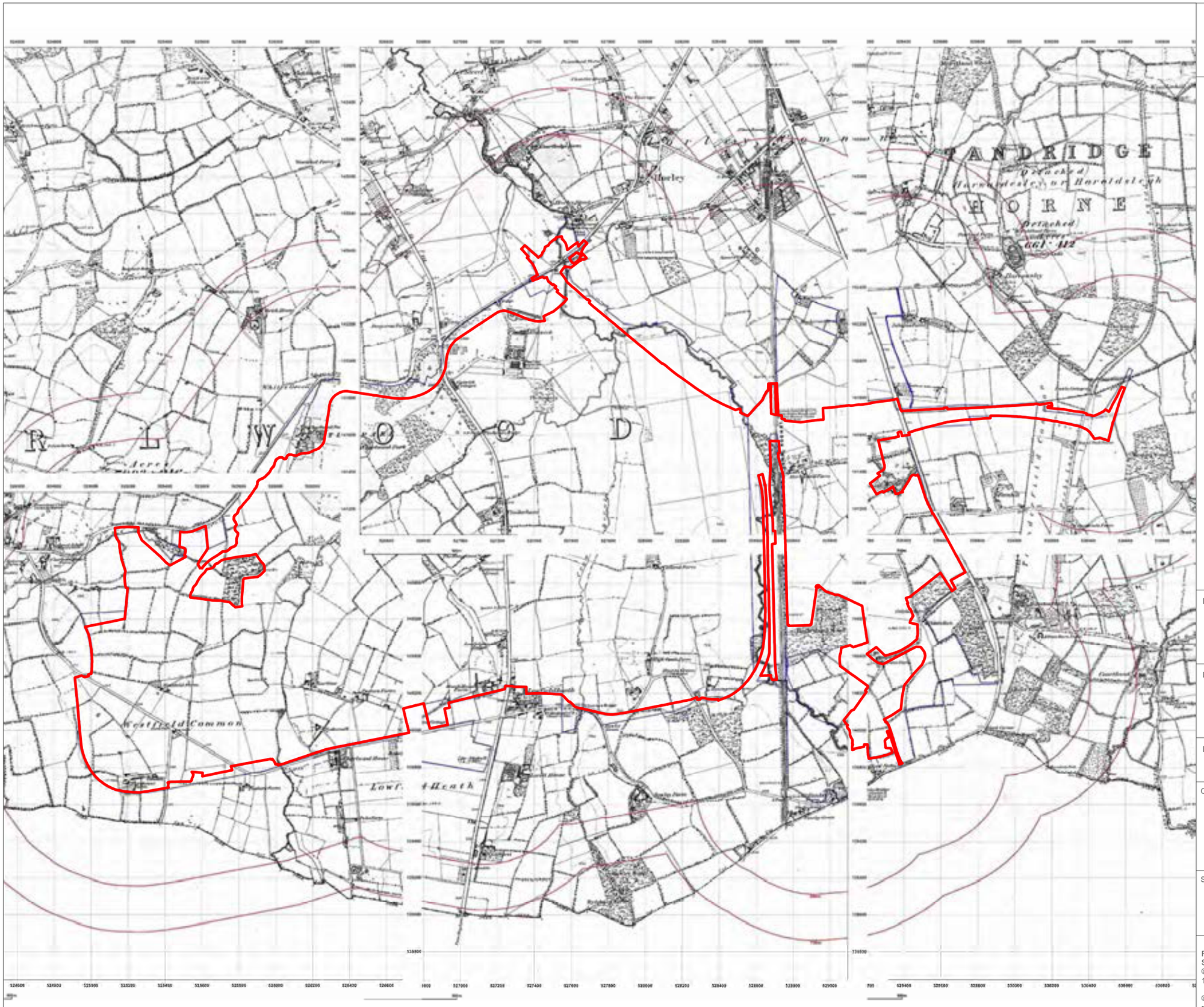
February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 1	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

\\lon-wal-02.eur.rpsgroup.com\files\Archaeology\Archaeology Jobs\Internal Jobs\794-PLN-ESH-00016\Graphics\GIS\Figure 1.mxd



LONDON GATWICK

Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1870-1871 Ordnance Survey Map

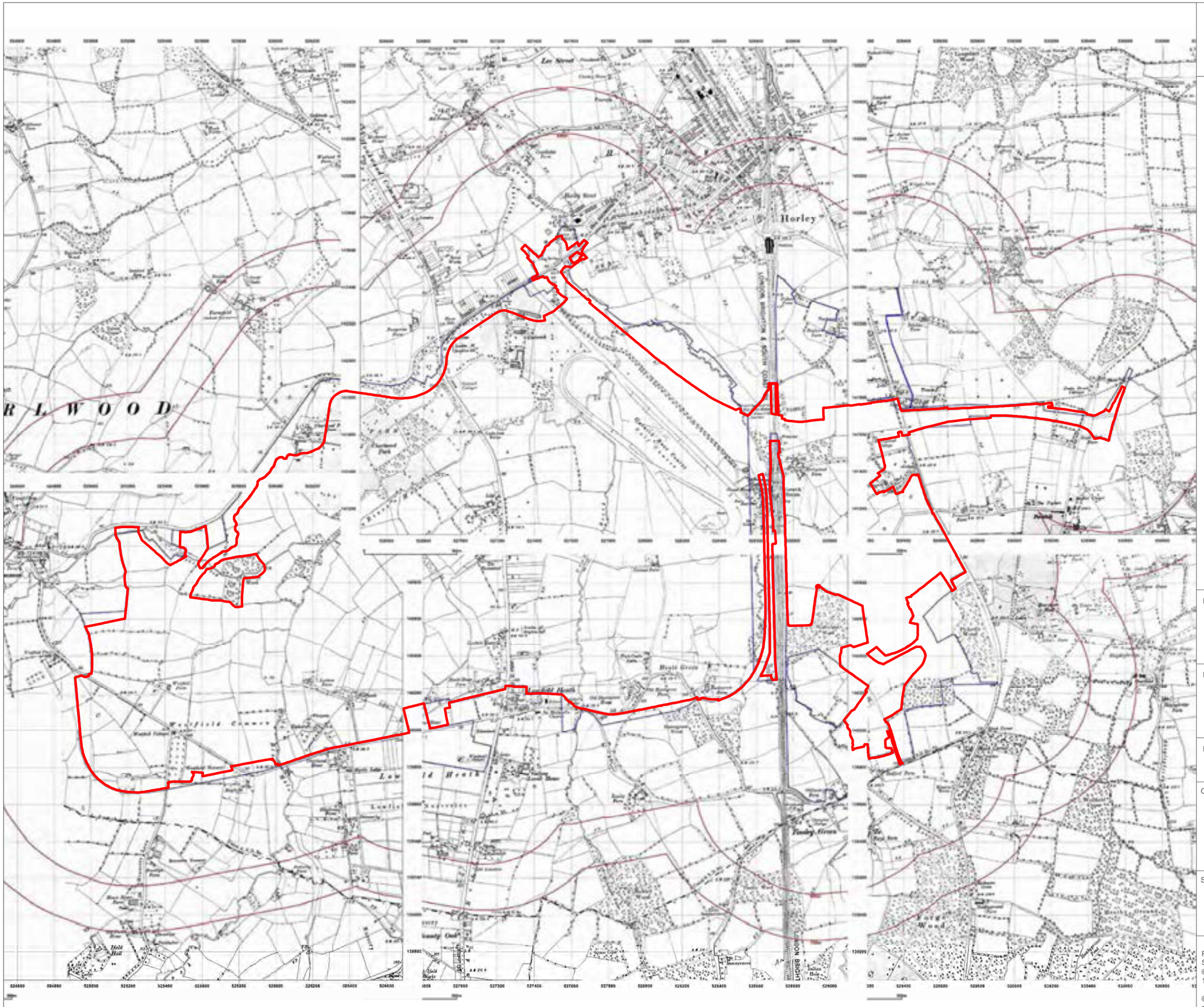
DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 2	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:20,000

0 250 500 1,000 m



LONDON GATWICK

Legend

▭ Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1914-1919 Ordnance Survey Map

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 3	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

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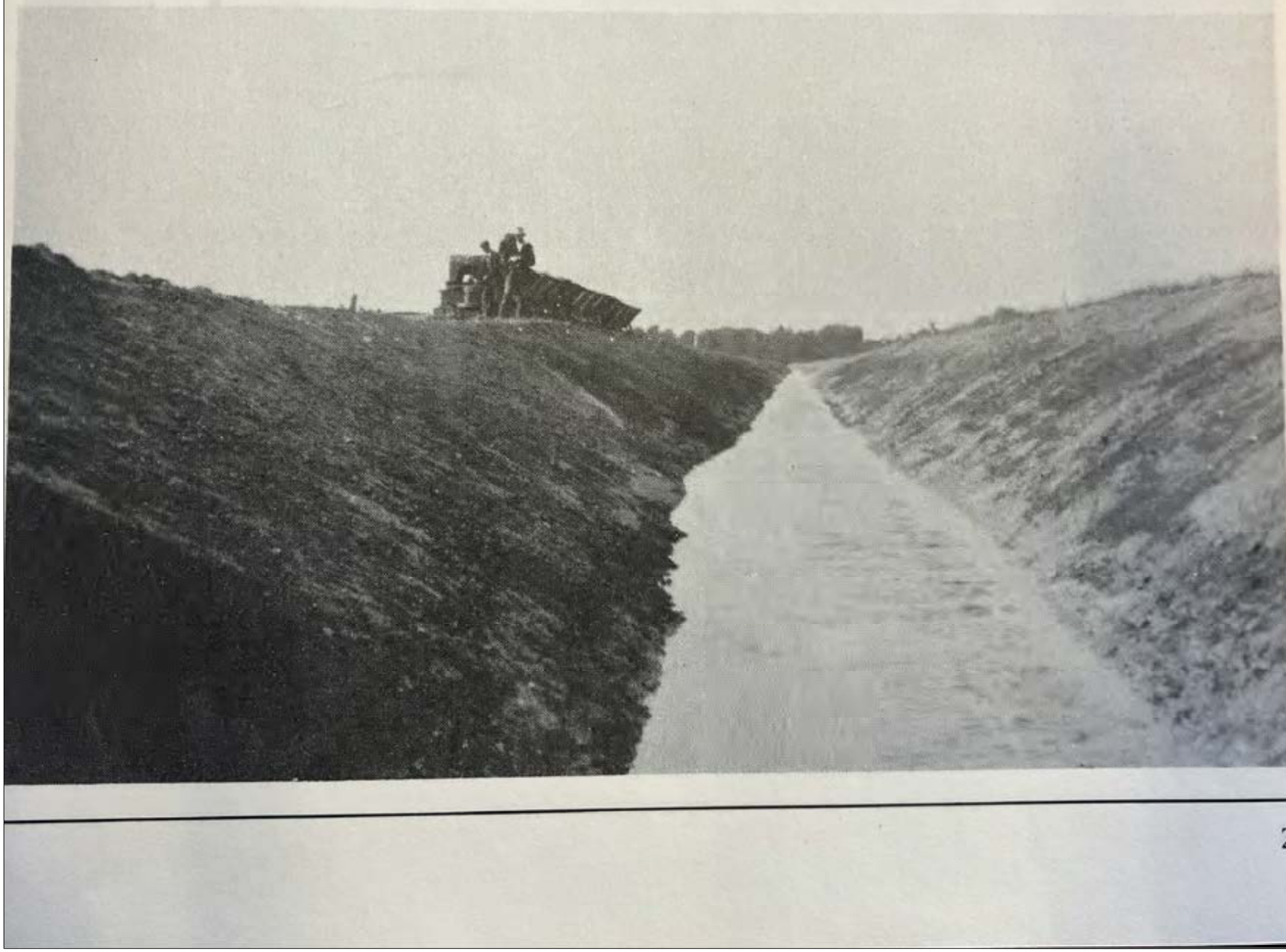
provide included a fire tender, hangarage for four large modern aircraft, a wind indicator, signal mortars, a land telephone line and teleprinter link to Croydon; and accommodation for Customs staff and facilities. The contract also specified that the surface had to be kept in good order —

1935 from Heston.

The River Mole after its diversion



LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

c.1935 view of the River Mole after its diversion (King 1986)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 4	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

NOT TO SCALE
ILLUSTRATIVE ONLY

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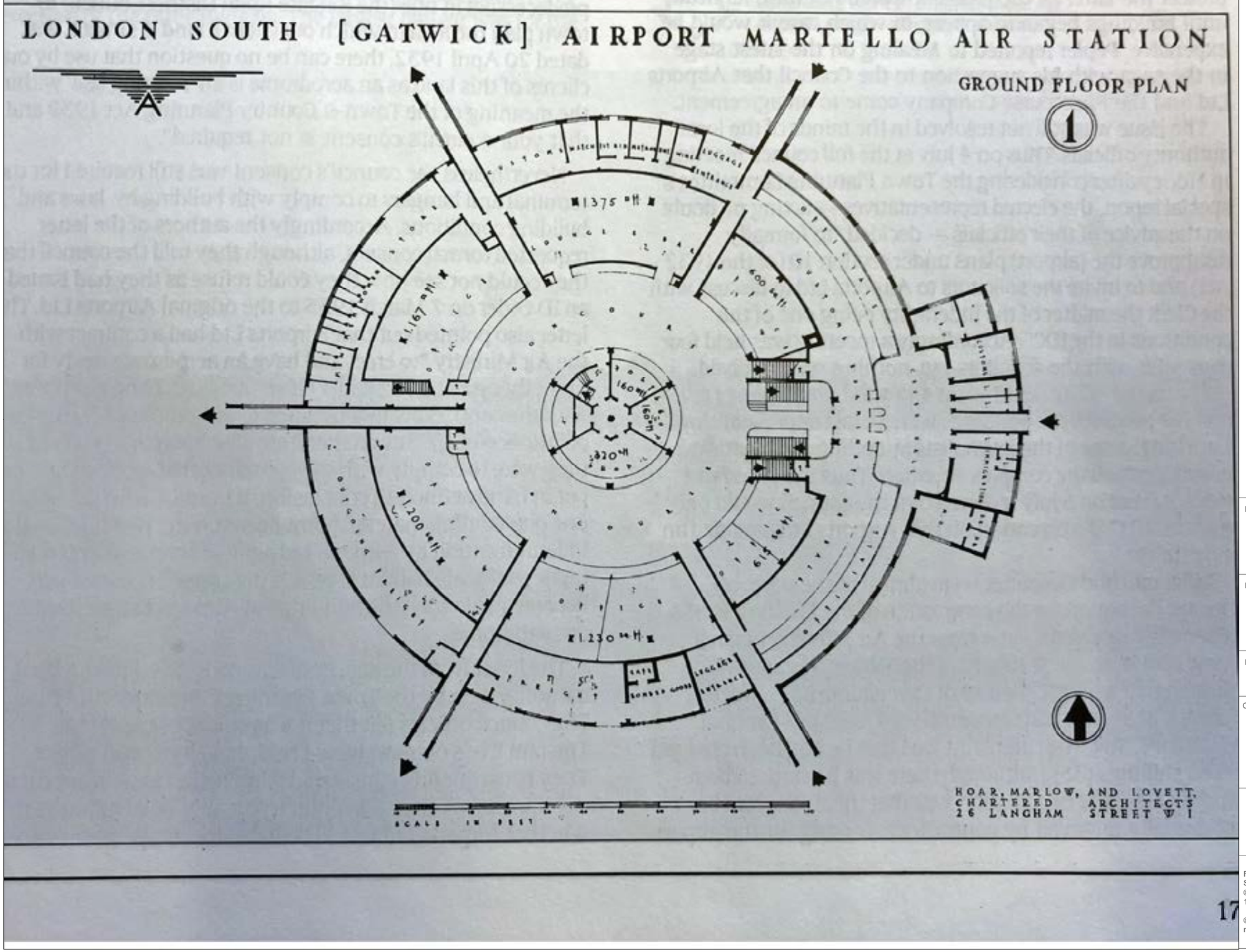
employed. Moreover, from their experience of transport and their knowledge of pending developments in aviation, the directors anticipate substantial annual increases in revenue".

institutional shareholder, a large assurance company.

The final drawing of the ground floor by Hoar, Marlow and Lovett



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Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1930s ground floor plan of the London South [Gatwick] Airport Martello Tower (King 1986)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 5	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

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LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

7 Nov 1941 aerial photograph (RAF/S653/30-32)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 6	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:9,000

0 112.5 225 450 m

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LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1944 aerial photograph (Historic England Archive: Us/7ph/gp/loc290/v/5021)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 7	Draft
	DRAWN BY	PM / CHECKED BY
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SCALE @ A3 1:20,000

0 250 500 1,000 m

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Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Early 1950s aerial photograph (West Sussex Record Office: AM 967/8/1)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 8	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1955 aerial photograph (Historic England Archive: RAF/82/1111/07-08)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 9	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:10,000

0 125 250 500 m

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Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

January 1954 Ministry of Transport and Civil Aviation plan of the proposed development of Gatwick Airport, Stage 1 (West Sussex Record Office: CC123)

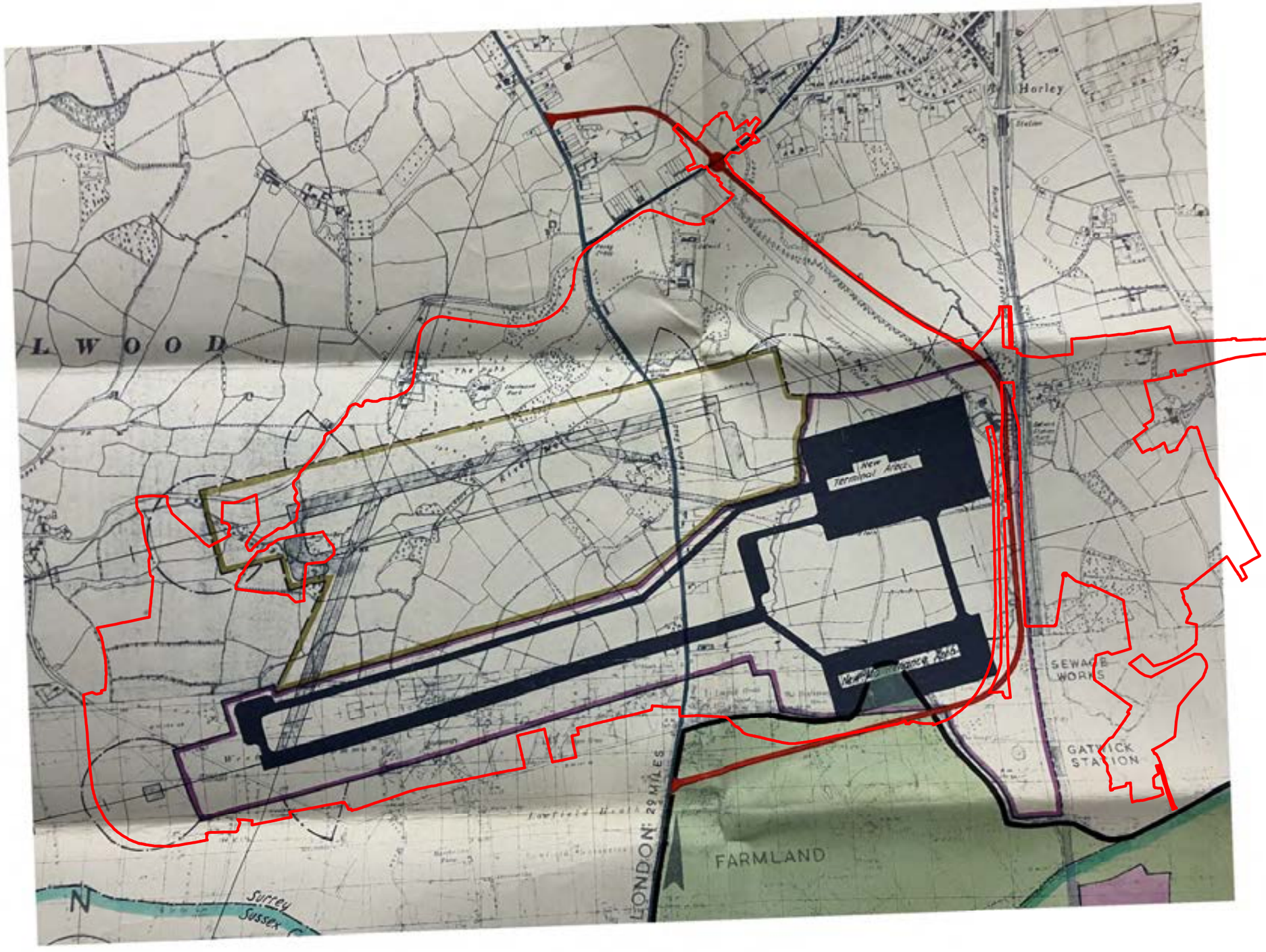
DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 10	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

SCALE @ A3 1:18,000

0 225 450 900 m



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Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

March 1954 plan of the proposed Stage 1 and Stage II development of Gatwick Airport (National Archives: HLG 165/16)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 11	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:17,000

0 210 420 840 m

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1957 aerial photograph looking east, showing the construction of the runway (EAW067540)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 12	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

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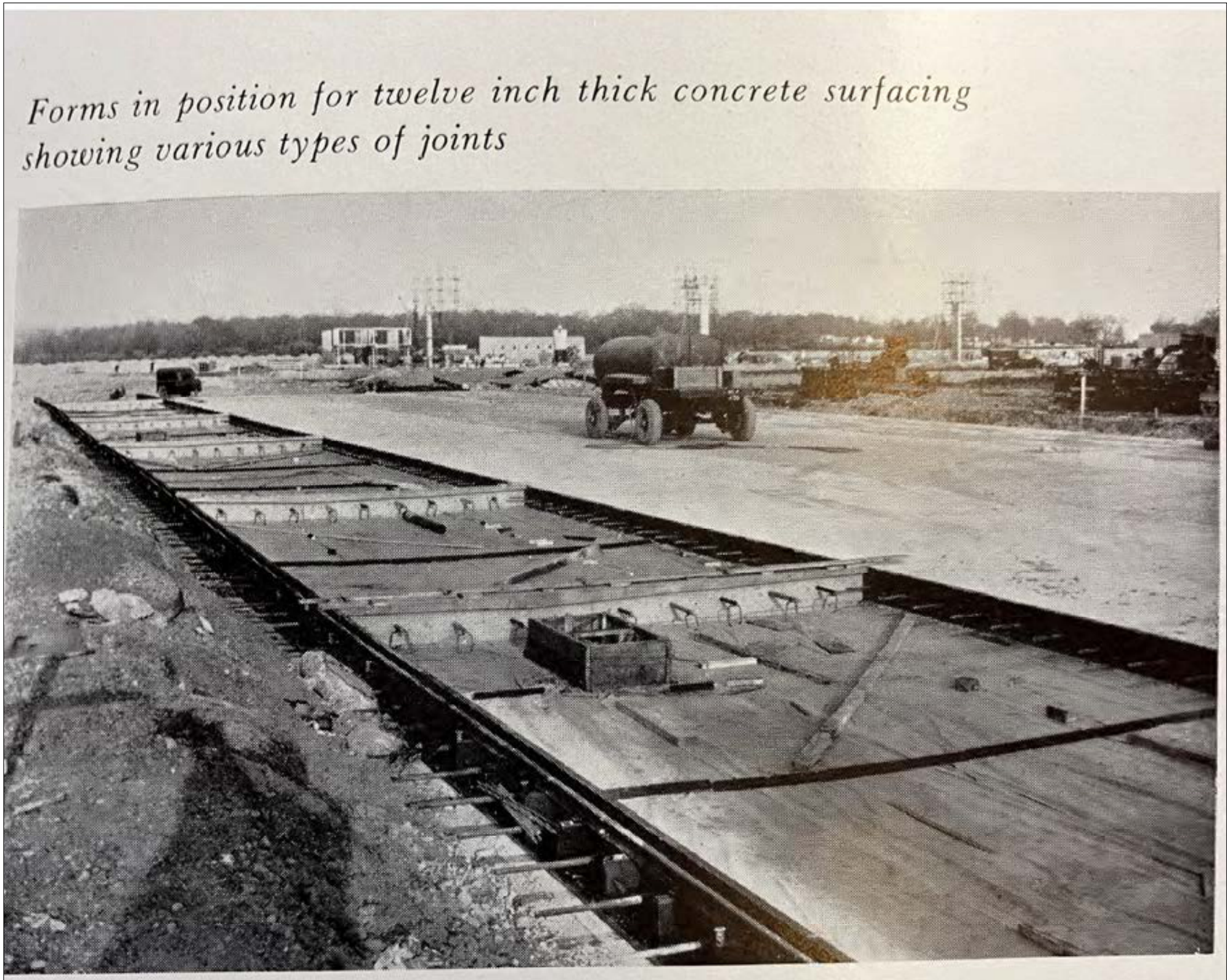
Forms in position for twelve inch thick concrete surfacing showing various types of joints



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DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1957-58 detail of the construction of the concrete runway surfacing (Kerr c.1959)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 13	Draft
	DRAWN BY	PM / CHECKED BY
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ILLUSTRATIVE ONLY

Main runway with shoulder construction proceeding

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1957-58 detail of the shoulder construction of the main runway (Kerr c.1959)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 14	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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be done to make it rougher so that it should give extra gripping power. So the men we
over it with ordinary garden brooms before it dried.

Aerial view of runway and taxiways nearing completion

22

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1957-58 aerial view looking west, showing the nearly complete runway and taxiways (Kerr c.1959)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 15	Draft
	DRAWN BY	PM / CHECKED BY
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LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Mid 1950s view of the construction of the culvert carrying the River Mole underneath the runway (Kerr c.1959)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 16	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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ILLUSTRATIVE ONLY

Main terminal building–start of work above concourse level, September 1957

it will be even more so when Stage Two of the plan has been completed. It is built of rein-
forced and pre-stressed concrete, and is clad with glass and steel. Its surroundings have been
landscaped to blend with the countryside. Its plan was determined by the close integration

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

September 1957 construction of the main terminal building, start of work above concourse level (Kerr c.1959)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 17	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Mid 1950s view of the flyover and approach ramps under construction (Kerr c.1959)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 18	Draft
	DRAWN BY	PM / CHECKED BY
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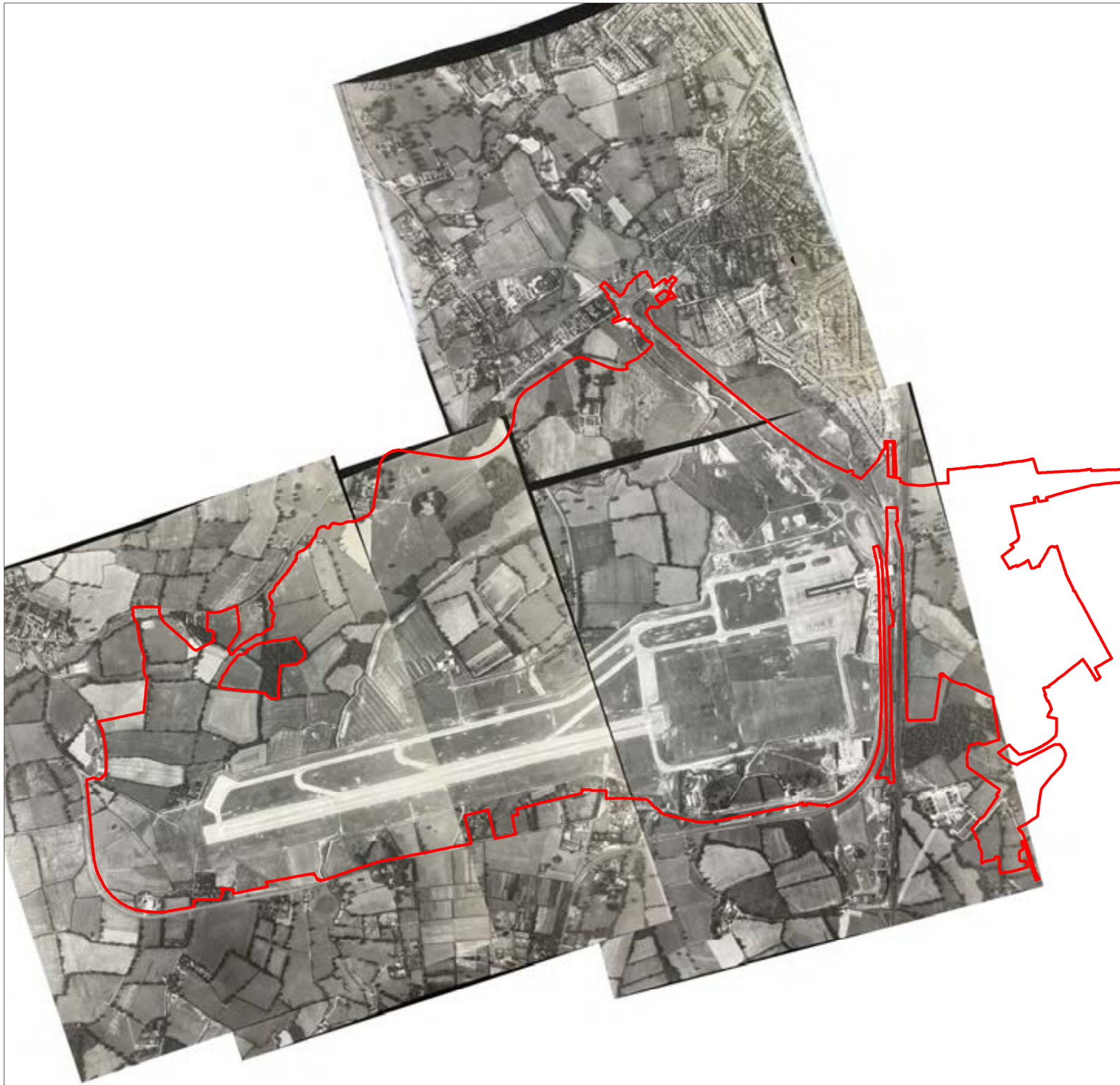

LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

8 July 1959 aerial photograph (RAF/543/626/279, 280, 283, 284)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 19	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

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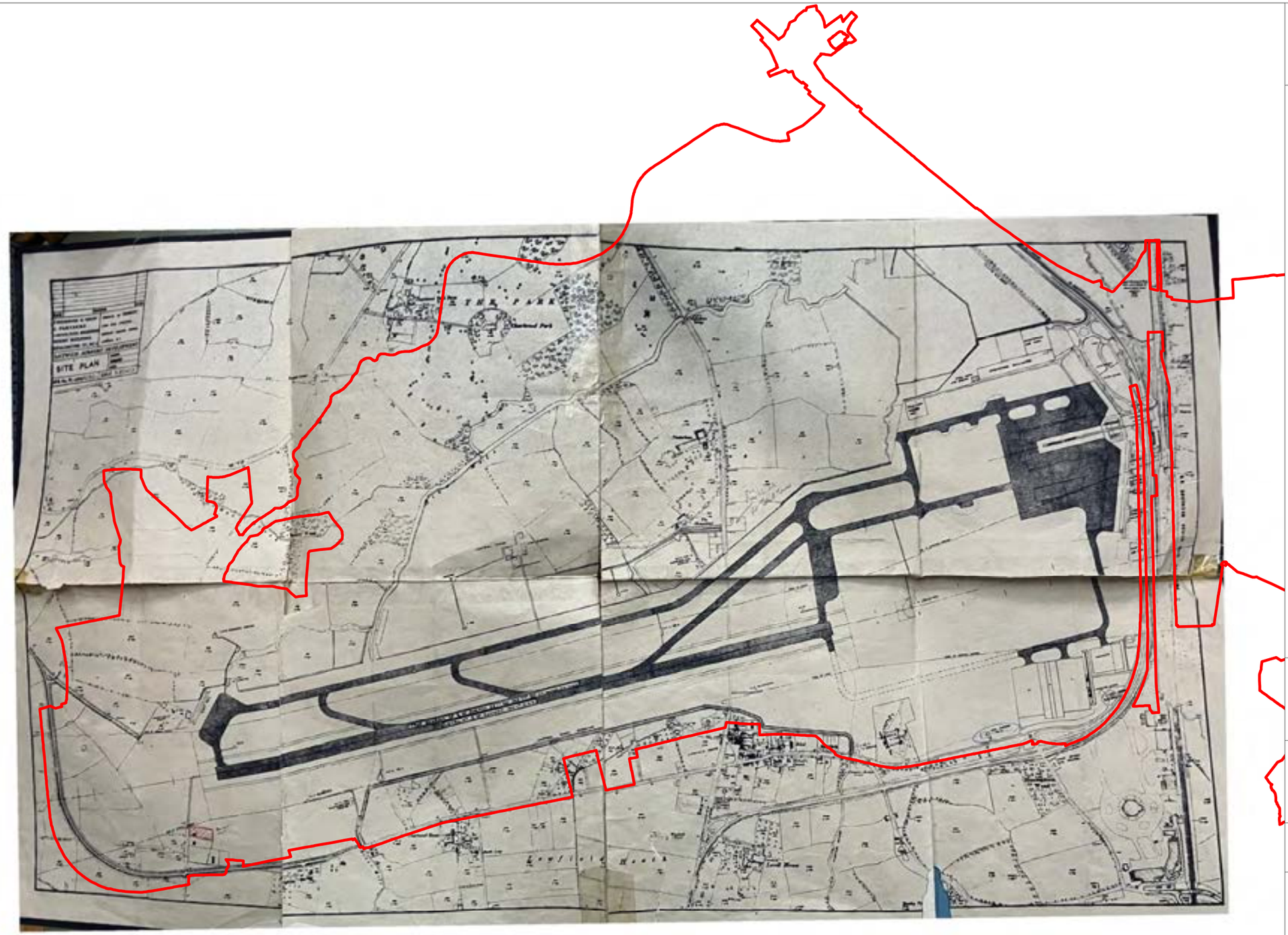

LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Late 1950s/early 1960s plan of Gatwick Airport (National Archives: DR 36/24)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 20	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

SCALE @ A3 1:14,000

0 175 350 700 m

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1962 stage II development: terminal apron development programme up to May 1963 (National Archives: AVIA 105/33)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 21	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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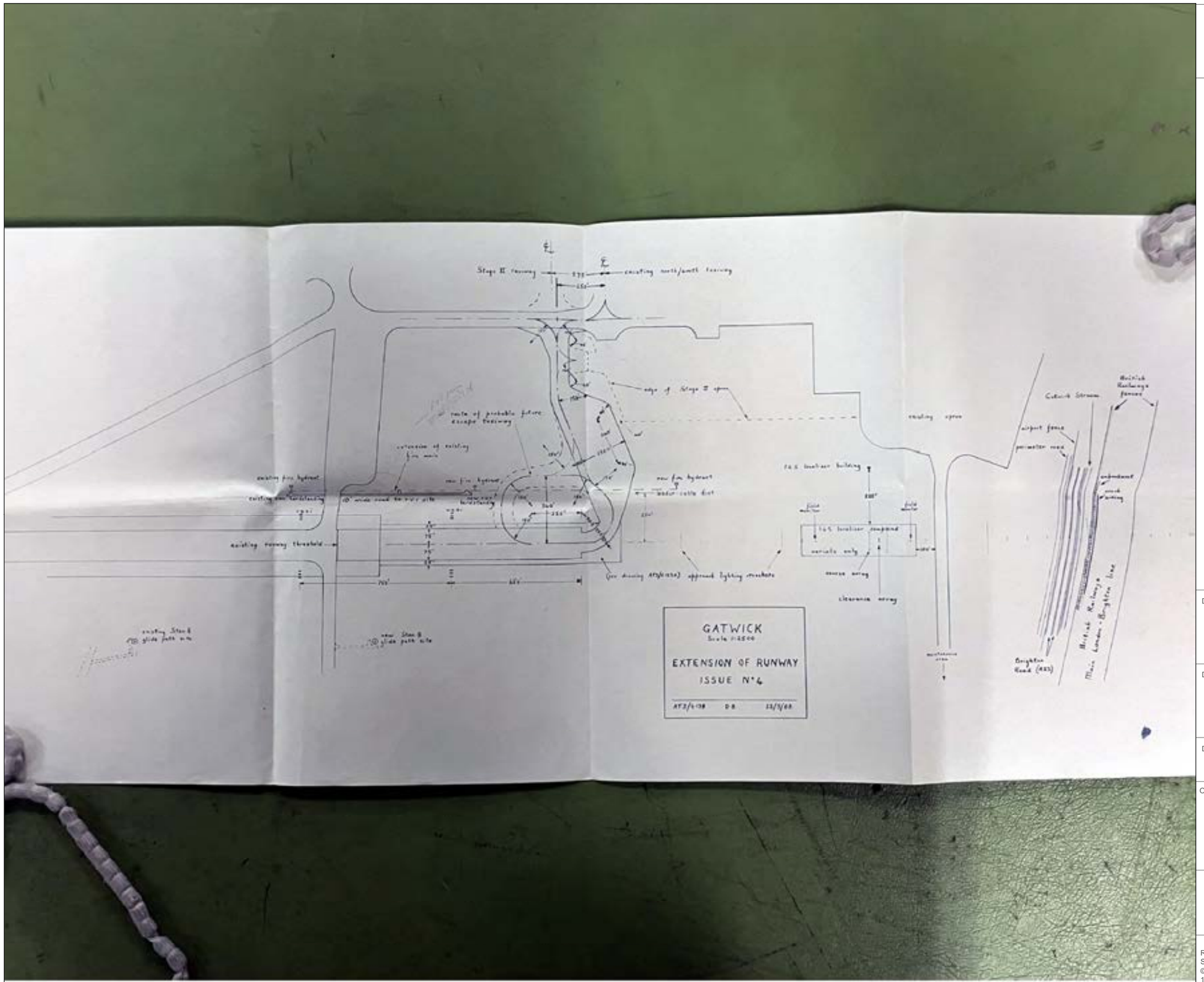

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

May 1963 proposed extension of runway (issue no. 4) (National Archives: AVIA 105/36

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 22	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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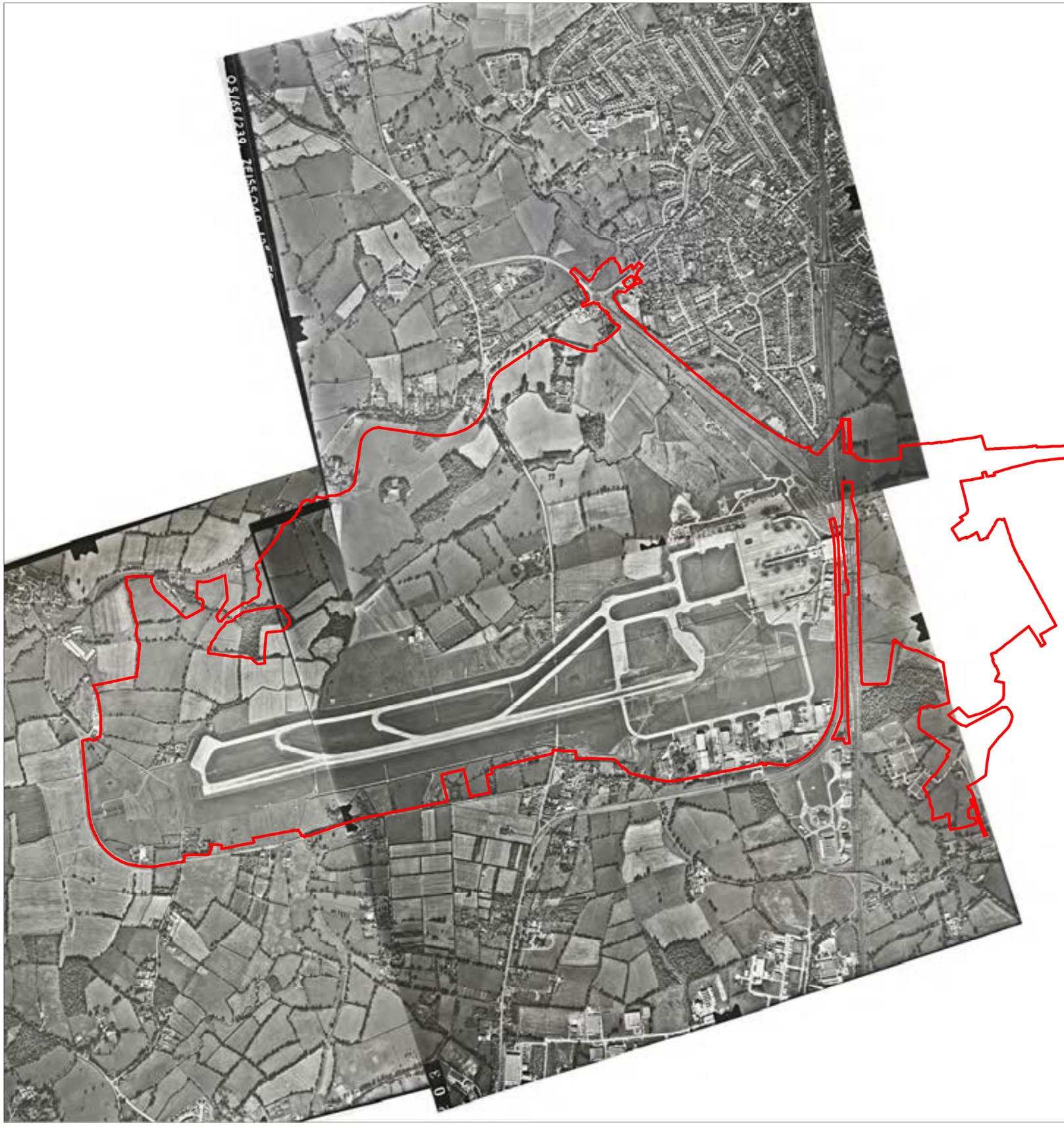

LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

4 October 1965 aerial photograph (Historic England Archive: OS/65239/189, 201, 203)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 23	Draft
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SCALE @ A3 1:20,000

0 250 500 1,000 m

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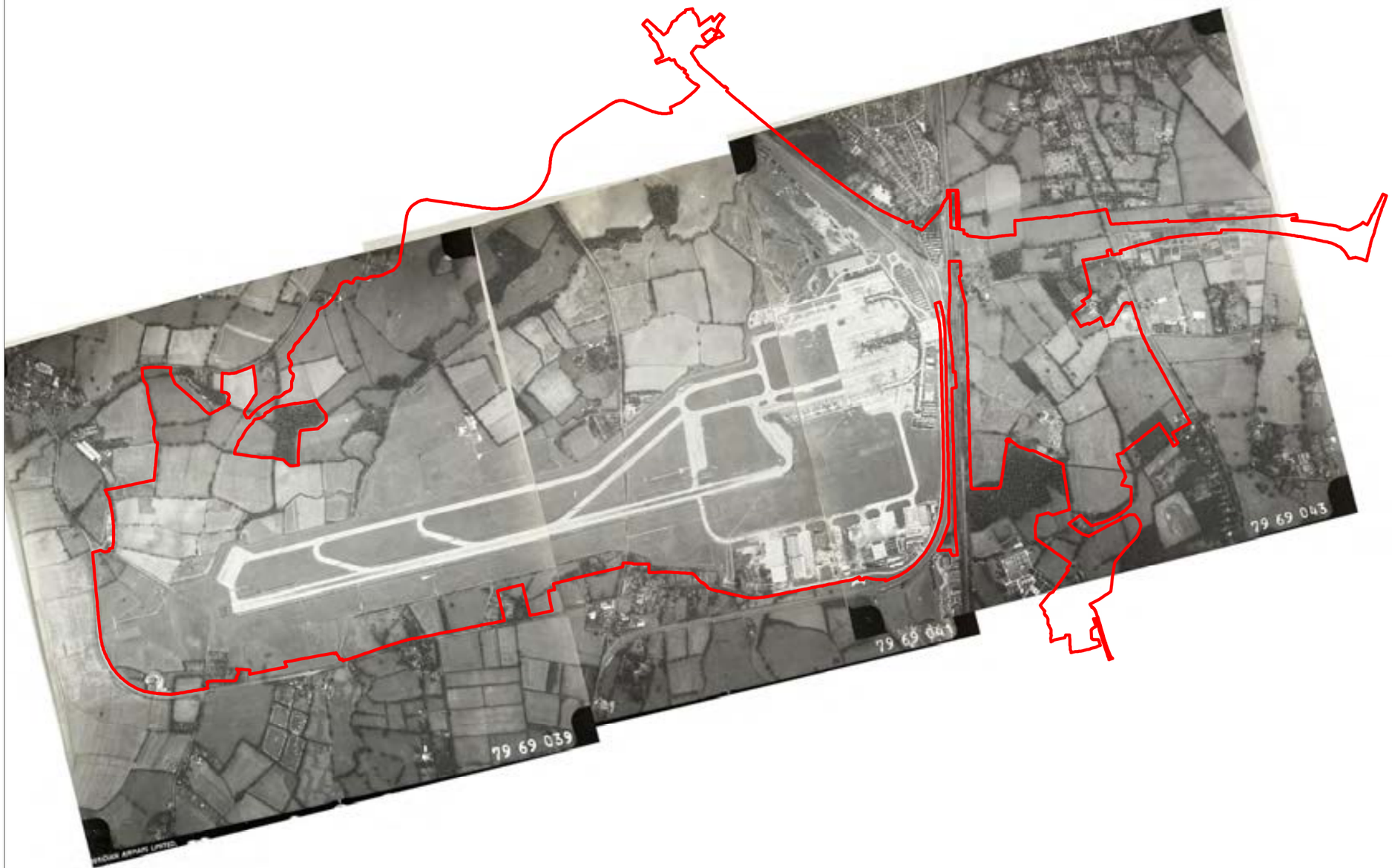

LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

29 September 1969 aerial photograph (Historic England Archive: MAL/69079/39, 41, 43)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 24	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

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LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

June 1973 aerial photograph looking south-west, showing the extension of the runway

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 25	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

NOT TO SCALE
ILLUSTRATIVE ONLY

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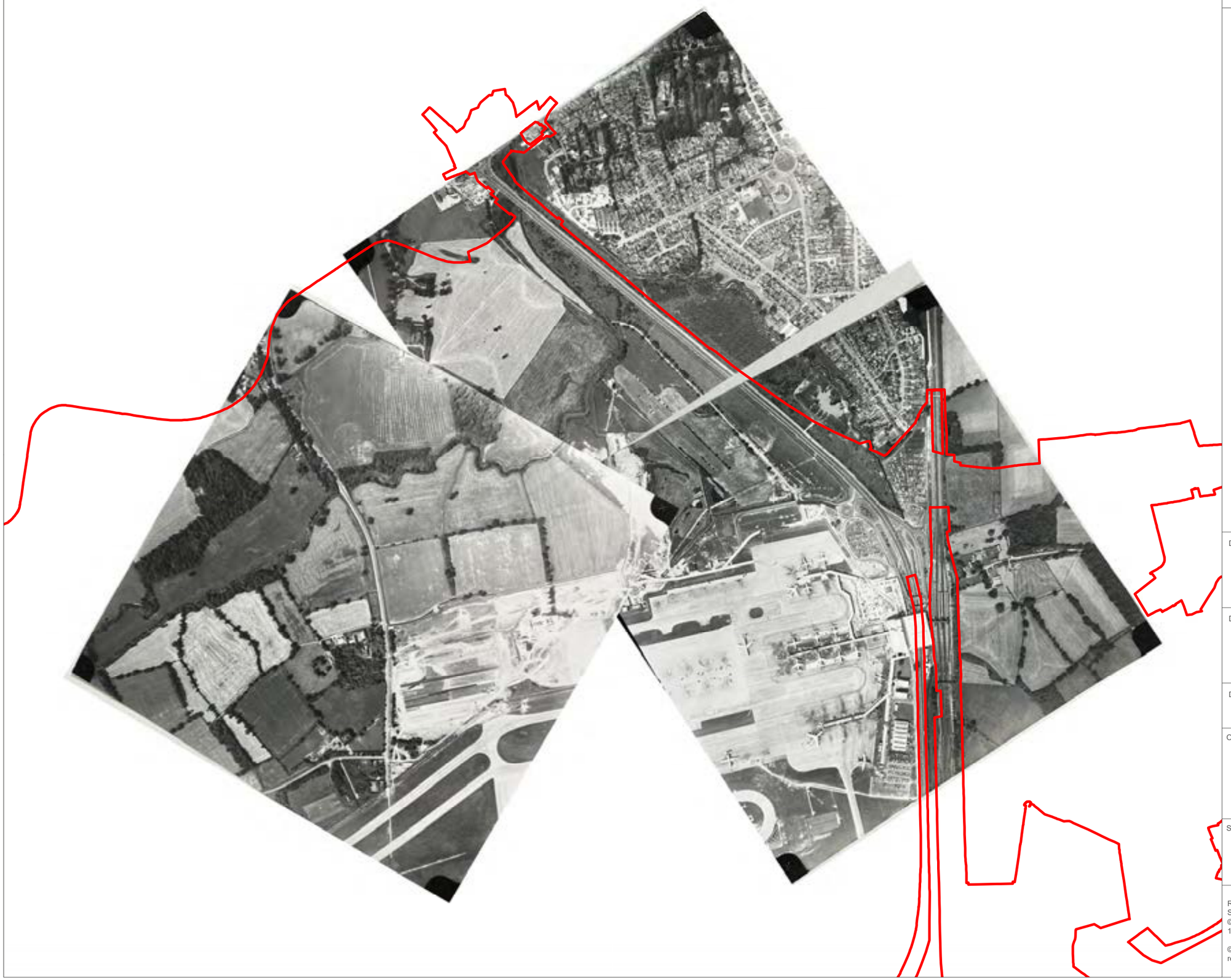

LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

11 July 1971 aerial photograph (Historic England Archive: MAL/71113 - 131, 133 and 182)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 26	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

SCALE @ A3 1:10,000

0 125 250 500 m

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LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1973 aerial photograph looking west, showing the M23 construction

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 27	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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ILLUSTRATIVE ONLY

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LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1974-75 aerial photograph looking west, showing the M23 spur road under construction

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 28	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

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Assessment of Historical Development

DRAWING TITLE

1977 aerial photograph looking south-west, showing the M23 construction up to the North Terminal

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 29	Draft
	DRAWN BY	PM / CHECKED BY
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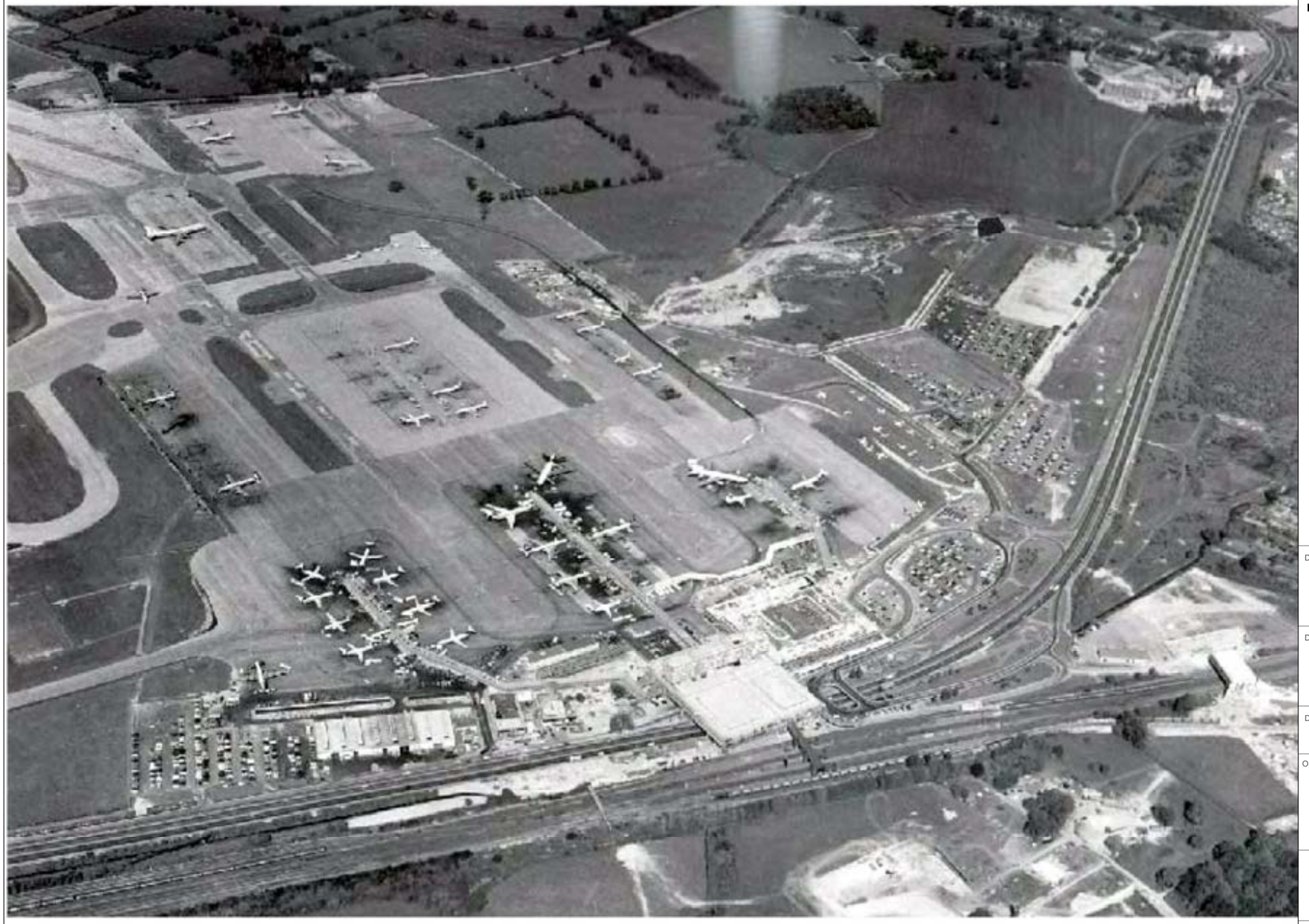

LONDON GATWICK

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DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Early 1970's aerial photograph looking north-west across the airport

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 30	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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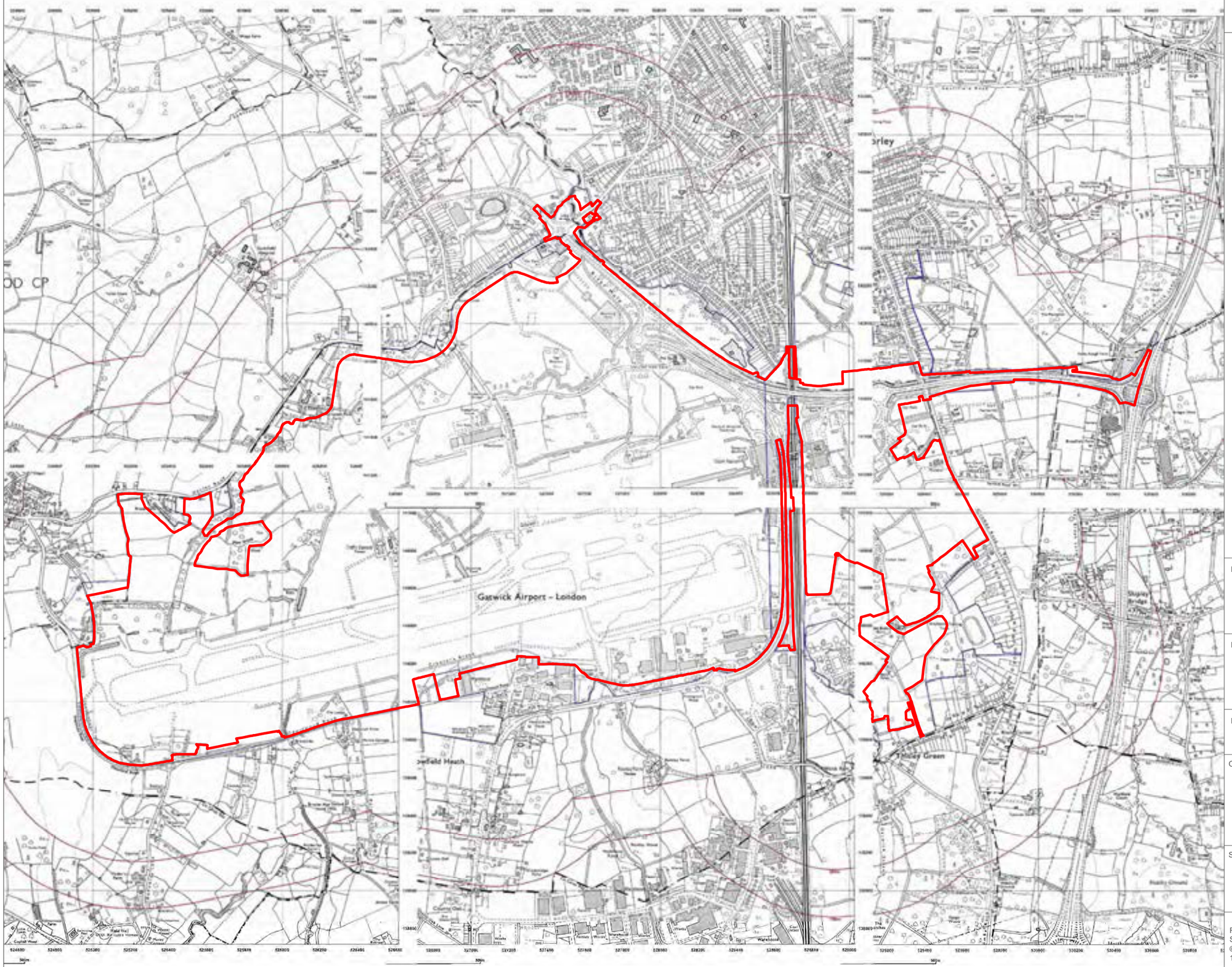

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Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1973-77 Ordnance Survey Map

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 31	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

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DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1979 aerial photograph looking south, showing the construction of the North Terminal Roundabout

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 32	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

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DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1981 aerial photograph looking west, showing the construction of the Hilton Hotel

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 33	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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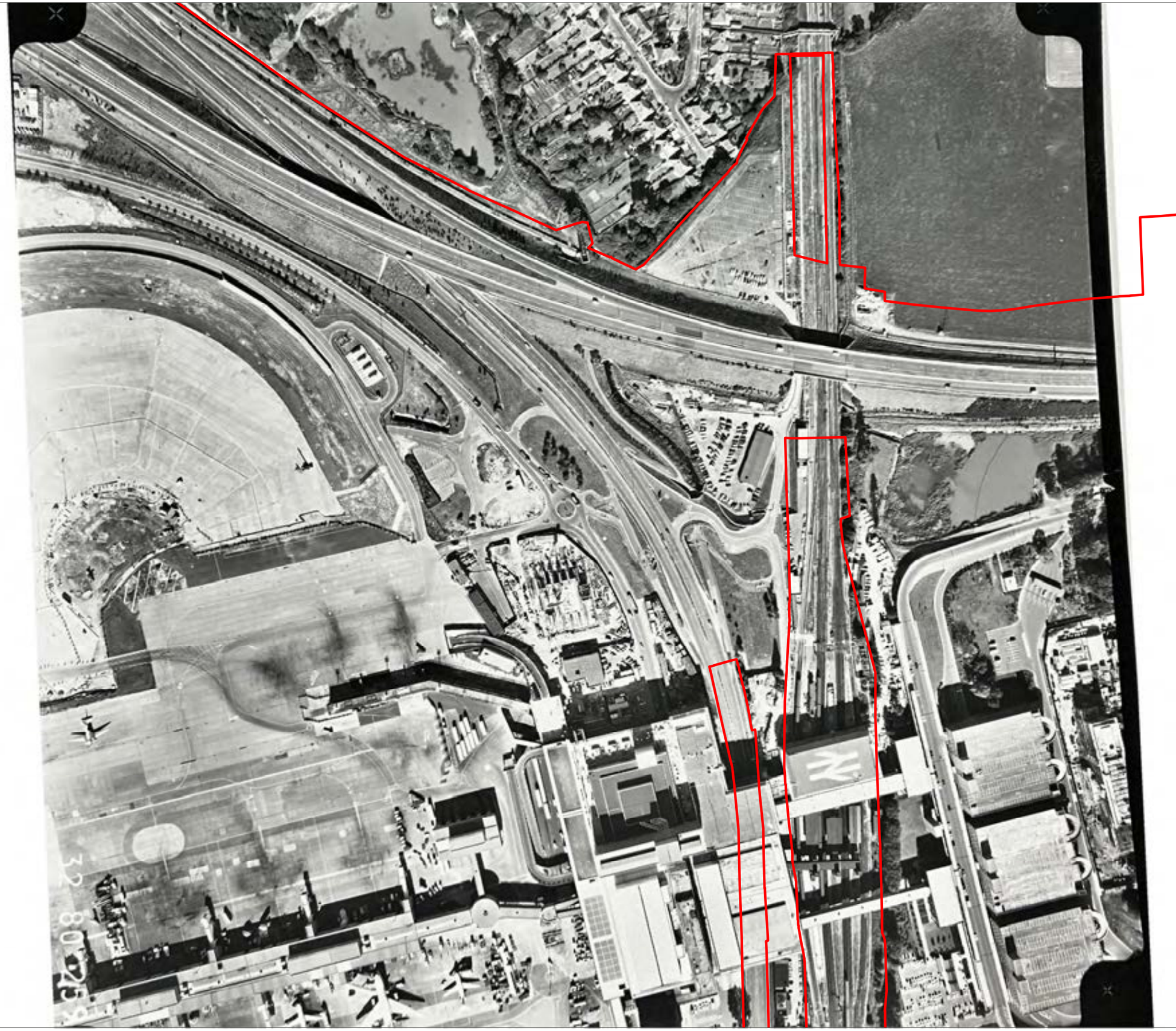
ILLUSTRATIVE ONLY



LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

9 October 1980 aerial photograph, showing construction of the satellite pier (Historic England Archive: MAL/80032/259)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 34	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:3,000

0 35 70 140 m

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Mid 1980s aerial photograph, showing the foundations in the construction of the North Terminal

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 35	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

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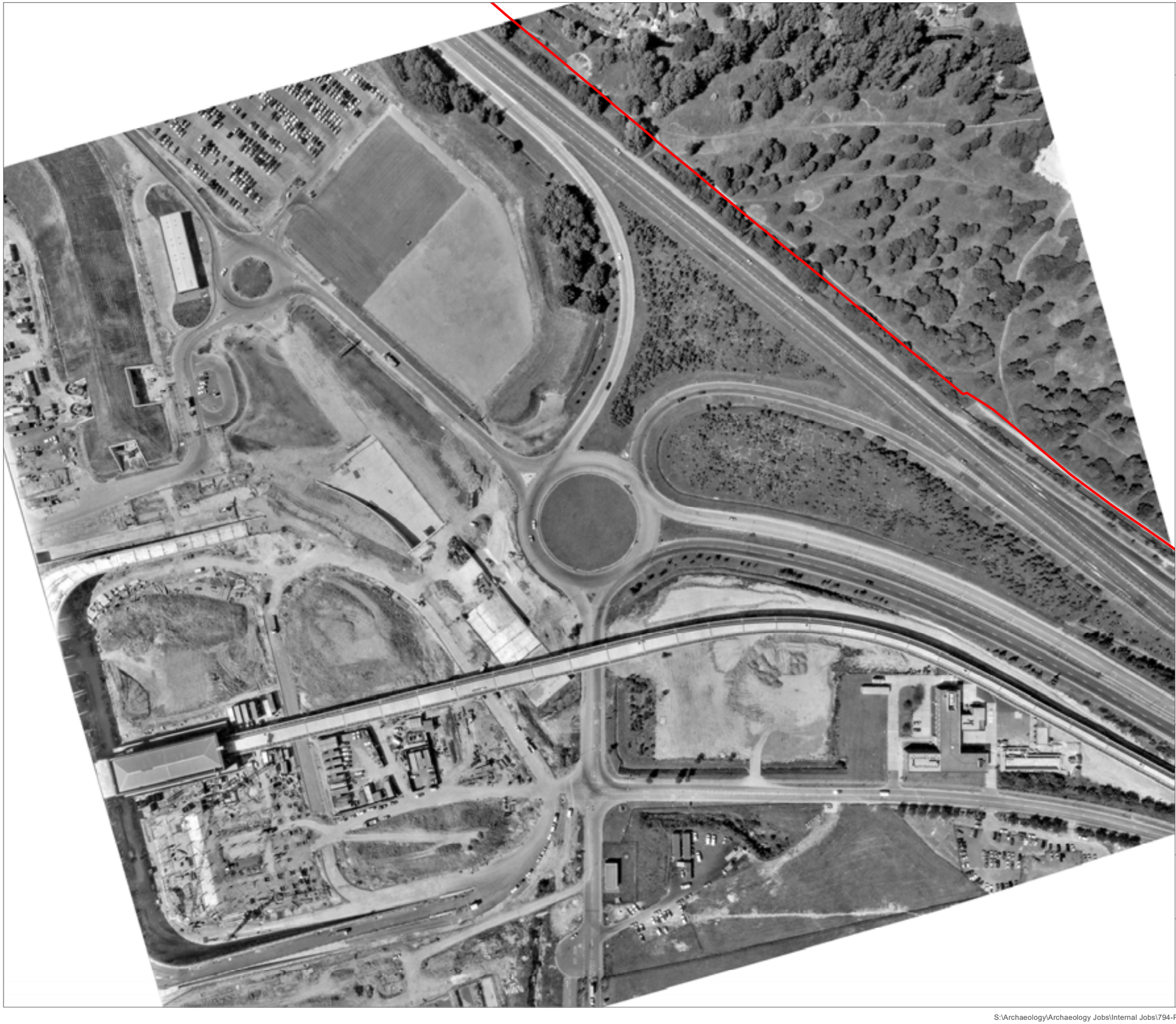

LONDON GATWICK

Legend

Project Site Boundary (approximate)

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1986 aerial photograph, showing the construction of the shuttle and surroundings at the North Terminal

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 36	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:2,000

0 20 40 80 m

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Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

1987-1991 Ordnance Survey Map

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 37	Draft
	DRAWN BY	PM / CHECKED BY
	NB	MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

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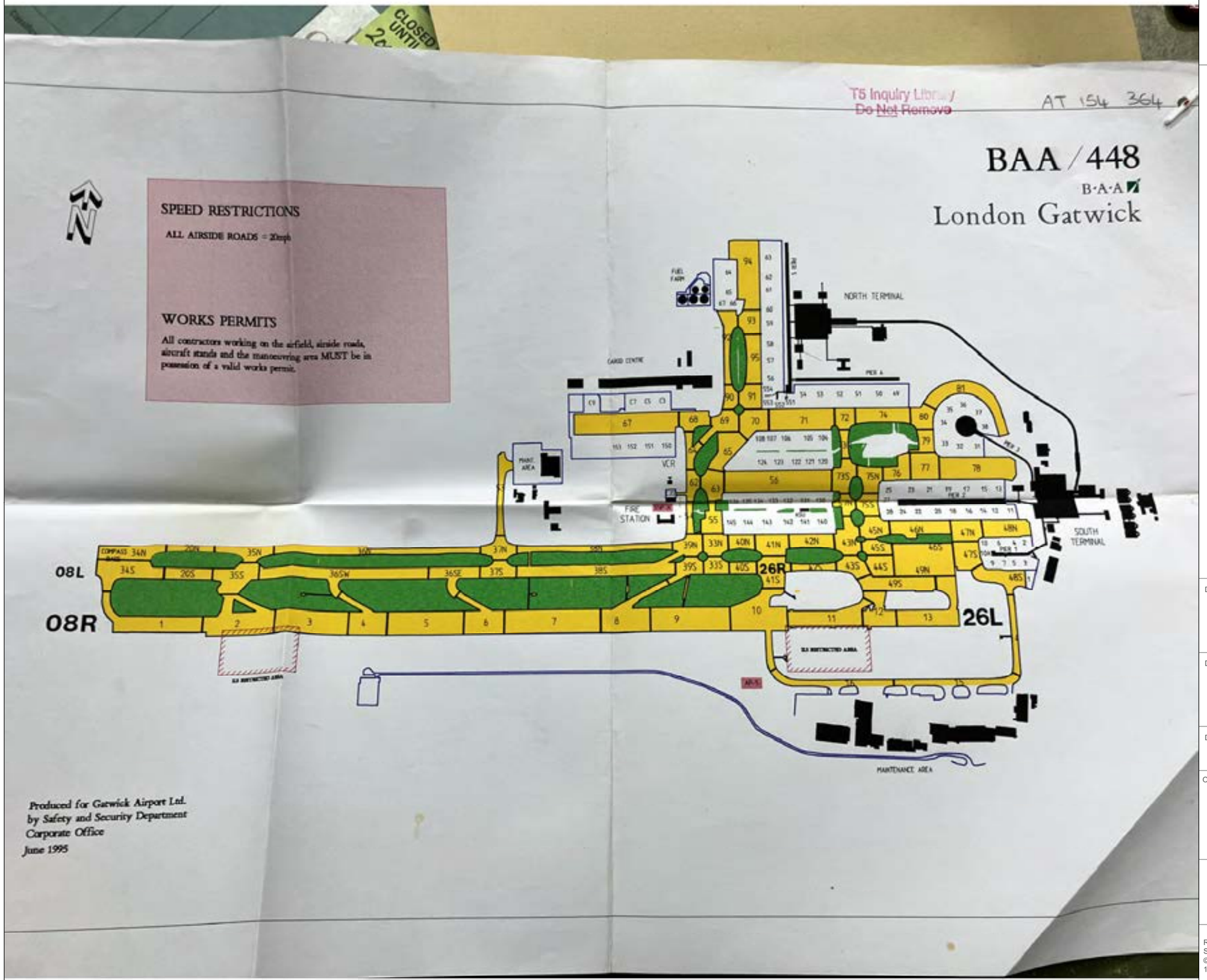

LONDON GATWICK

Legend

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

June 1995 Plan of London Gatwick (National Archives: AT 154/364)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
	FIGURE 38	Draft
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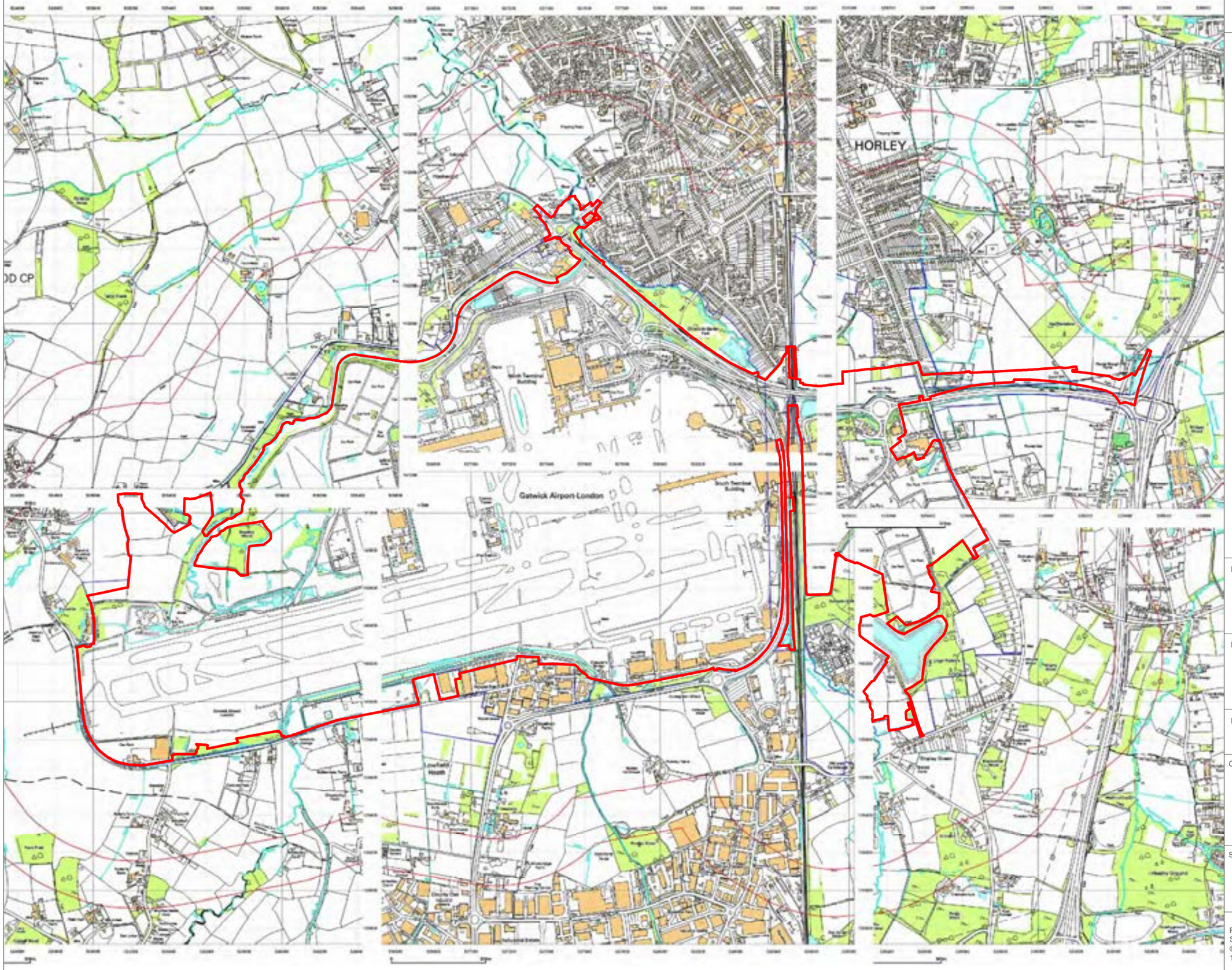

LONDON GATWICK

Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

2002 Ordnance Survey Map

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 39	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

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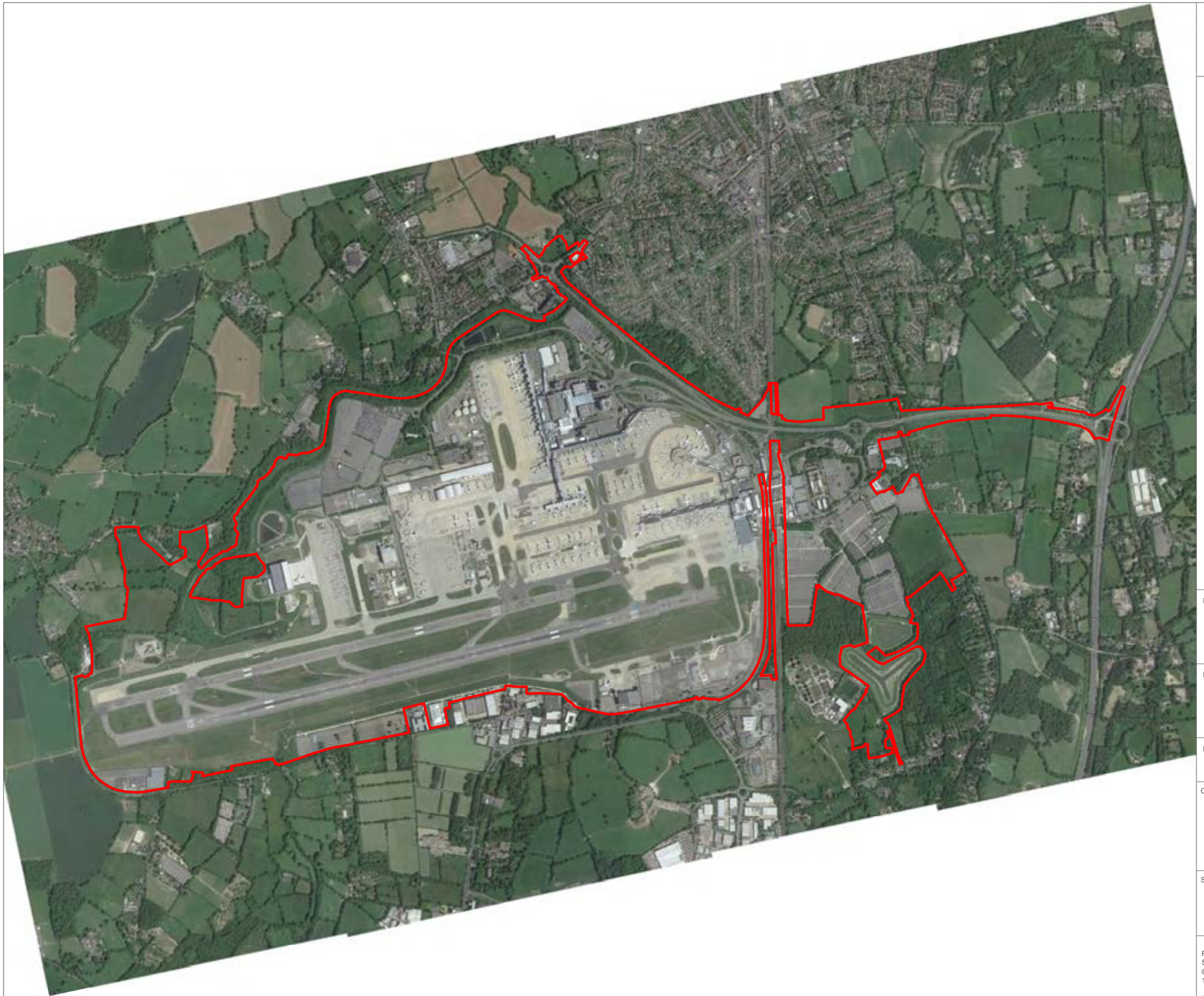

LONDON GATWICK

Legend

Project Site Boundary

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

2021 aerial photograph (Google Earth)

DATE

February 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 40	Draft
	DRAWN BY: NB	PM / CHECKED BY: MR

SCALE @ A3 1:20,000

0 250 500 1,000 m

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LONDON GATWICK

Legend

- Project Site Boundary
- Areas of Grading
- ILS Glide Path Critical grading zones
- Hard Landscaping
- Soft Landscaping
- Grass areas heavily disturbed by services
- Areas of likely construction disturbance. e.g. as shown on 1964 AP
- Dog Kennel Pond
- Extent of disturbance visible on 1957 aerial photograph (EAW067540)
- 1964 Disturbance
- 1973 Site strip at the runway end

DOCUMENT

Assessment of Historical Development

DRAWING TITLE

Truncation & Areas of Grading

DATE

April 2024

ORIENTATION	DRAWING NO.	REVISION
N	FIGURE 41	Draft
	DRAWN BY	PM / CHECKED BY
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SCALE @ A3 1:12,000

0 150 300 600 m

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APPENDICES

Appendix A

Plan showing Gatwick Airport construction dates (Gatwick Airport Ltd.)

1996
TBF
1987*
2011
MSCP 6
1984
1997
1988
1988
1988
MSCP 5
Pier 5
1988
2000
2011
Police Station
1976
Stokers House
1978
Timberham House
1978
1996
1993
Jubilee House
1999
1991
Pier 4
2016
Easyjet Hangar
2005
Pier 6 Bridge
2005
Pier 6
1980
Pier 3
1980
Atlantic House
Ashdown House
1977
2019
Boeing Hangar
1988
Hangar 7
New Control Tower
1984
2005
2004
1988
BLOC Hotel Structure
1975
Destinations Place
1958
1976
C.A.R.E
1995
MT Base
1975
Old Control
Tower
1960
Pier 2
1975
1977
1977
1976
MSCP 3
2012
1958
1976
1962
1976
MSCP 2
1995
1976
1970
1995
1975
MSCP 1
Fire Station
1981
AOSU
1985
AOB (Airfield Operations)
2014
Snowbase
1973
Concorde House
Concorde 2000
2000
2016
Services Control Centre
1965
Boiler House
1974
Pier 1
Building 583b
1990
Building 583c
1990
Building 583a
1990
Unit 1d
1974
Unit 1a
1974

YOUR LONDON AIRPORT
Gatwick

This drawing may contain some Ordnance Survey Landline and Raster data.

Document Uncontrolled when printed

Key

- 1950/60s
- 1970s
- 1980s
- 1990s
- 2000s
- 2010s

GRAPHICAL DATA TEAM

email: gdtrequests@gatwickairport.com
www.gatwickairport.com

Title

GATWICK AIRPORT CONSTRUCTION DATES

Drawing Originator
GATWICK AIRPORT LTD

Drawn By
GRAPHICAL DATA TEAM (GDT)

GDT Request No.	Drawn Date	Scale
		NTS

GDT Drawing No	Revision
GALGDTMM-000040Z00001RD	RD

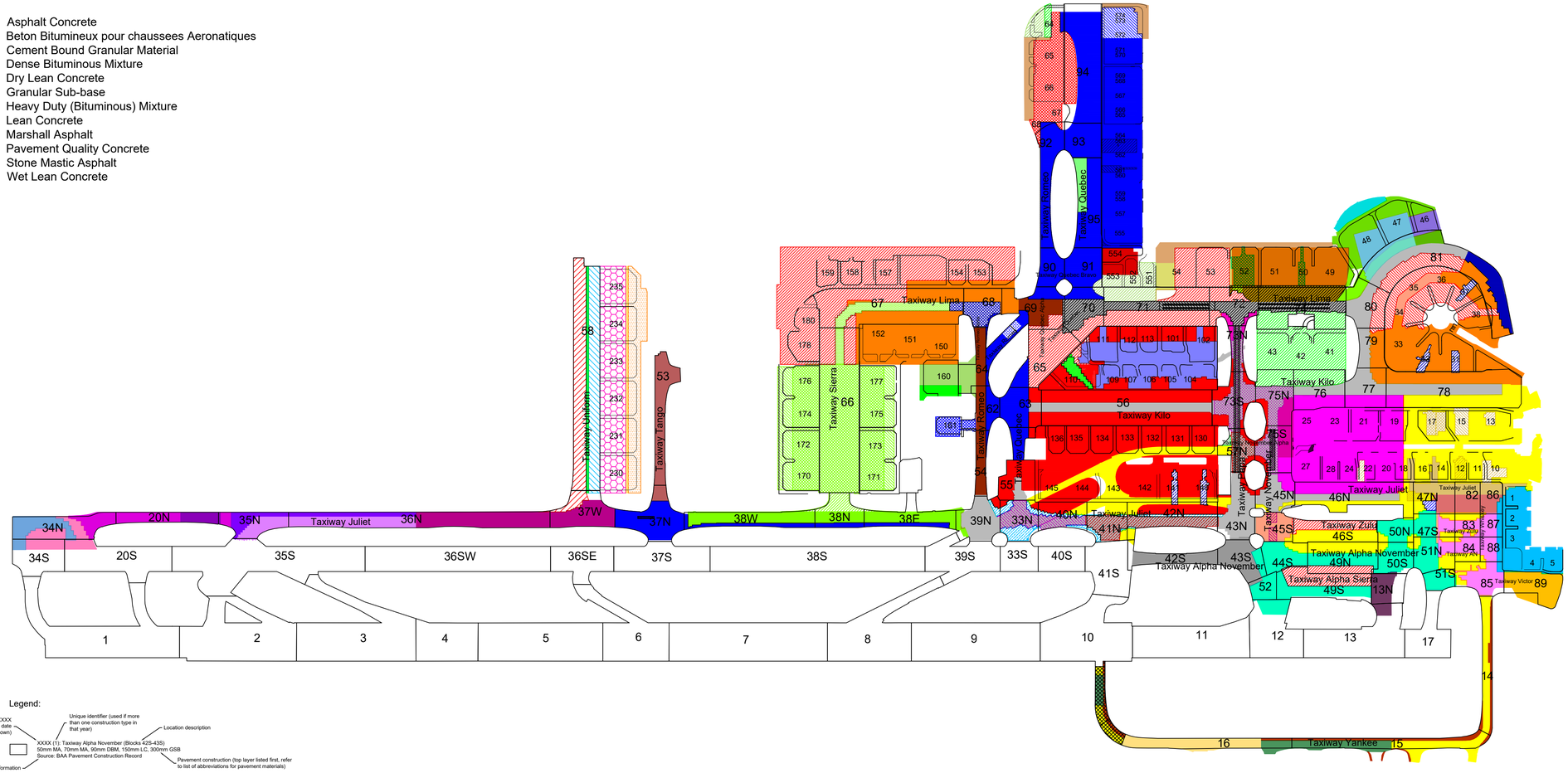
ISO A1 Landscape

Appendix B

Plan showing the pavement construction record taxiways and stands (Gatwick Airport Ltd. 2018)

Key to Abbreviations:

AC	Asphalt Concrete
BBA	Beton Bitumineux pour chaussees Aeronatiques
CBGM	Cement Bound Granular Material
DBM	Dense Bituminous Mixture
DLC	Dry Lean Concrete
GSB	Granular Sub-base
HDM	Heavy Duty (Bituminous) Mixture
LC	Lean Concrete
MA	Marshall Asphalt
PQC	Pavement Quality Concrete
SMA	Stone Mastic Asphalt
WLC	Wet Lean Concrete



Legend:

1959-66: Taxiways Alpha N, Juliet, Kilo, Yankee & Zulu, Stands 10-17, 130-133 & 143-145
305mm (12") PQC, 100mm (4") DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1970 (1): Taxiway November (Blocks 75N & 75S)
350mm PQC, 152mm DLC, 152mm DLC
Source: BAA Pavement Construction Record

1970 (2): Taxiways Juliet & Kilo (Blocks 46N, 76 & 77), Stands 18-28
250mm PQC, 150mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1971-74: Taxiways Juliet, Kilo & Quebec (Blocks 42N, 55-56 & 73S), Stands 101-113, Stands 130-136, 140-145
350mm PQC, 150mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1972-75: Taxiway Yankee (Blocks 14-16)
40mm MA, 60mm MA, 350mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1975: Taxiway Yankee (Blocks 15-16)
35mm Surface Course, 65mm Base Course on existing pavement
Source: MicroPaver Database & BAA Pavement Construction Record

1977: Taxiway Romeo (Blocks 54, 62 & 64)
500mm PQC, 150mm LC, 100mm Free Draining Material, 200mm GSB, Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

1977-81 (1): Taxiways Alpha N, Alpha S, Lima, Quebec & Zulu, Stands 53-54, 153-159, 178 & 180
350mm PQC, 150mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1977-81 (2): Taxiway Lima (Blocks 67-68), Stands 31-33, 37-38 & 150-152
350mm PQC, 150mm DLC, 150mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1980: Stands 34-36
350mm PQC, 150mm DLC, 100mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1980-84: Stands 34-38
350mm PQC, 150mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1981-84: Taxiways Juliet, Quebec & Romeo (Blocks 36N-38E, 55, 62-64 & 90-95), Stands 555-571
400mm PQC, 300mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1983 (1): Stands 553-554
400mm PQC, 150mm DLC, 150mm DLC, 300mm GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1983 (2): Stand 13
PQC
Source: MicroPaver Database

1983 (3): Taxiway Juliet (Block 47N)
400mm PQC, 300mm DLC
Source: Record Drawing 2TJ01-00-C-193-GA-000025

1984: Taxiway Tango
300mm PQC, 150mm DLC, 150mm DLC, 300mm GSB
Source: BAA Pavement Construction Record

1988: Taxiway Yankee (Block 10)
Asphalt surface
Source: MicroPaver Database

1989 (1): Stands 572-574
400mm PQC, 300mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1989 (2): Head of Stands 65-67 & 572-574
80mm Concrete Blocks, 40mm Sand, 300mm LC, 300mm GSB, Polyfelt TS600 Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

1989 (3): Stands 64-68
350mm PQC, 150mm DLC
Source: MicroPaver Database & BAA Pavement Construction Record

1990-91: Stands 49-52
80mm Concrete Blocks, 40mm Sand, 25mm Sand Asphalt Carpet, HRA Regulating Course, 225mm LC
Source: MicroPaver Database & BAA Pavement Construction Record

1990-92: Taxiways Juliet, Kilo, Lima, November & Papa
50mm MA, 70mm MA, 90mm DBM, 150mm LC, 300mm GSB, Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

1992 (1): Block 69
500mm PQC, 150mm LC, 100mm Free Draining Material, 200mm GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1992 (2): Stand 17
PQC
Source: MicroPaver Database

1993: Taxiway Juliet (Blocks 47N, 82, 86), Stands 14, 18
500mm PQC, 150mm LC, 100mm Bound Granular Material, 200mm Type 1 GSB
Source: Record Drawing 2TJ01-00-C-193-GA-000025

1994 (1): Stand 160
350mm PQC, 150mm DLC, 300mm GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1994 (2): Stand 160
450mm PQC, 150mm DLC, 300mm GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1994 (3): Stand 15 (centre line)
PQC
Source: MicroPaver Database

1995 (1): Taxiway Juliet (Blocks 35N & 36N)
500mm PQC, Separation Membrane, 200mm LC on existing GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1995 (2): Taxiway Juliet (Block 35N & 36N)
500mm PQC, Separation Membrane, 200mm LC, 300mm GSB, Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

1995 (3): Taxiway Juliet (Blocks 20N, 34N & 35N)
500mm PQC, Separation Membrane, 150mm LC, 300mm GSB, Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

1995 (4): Taxiway Juliet (Block 20N)
500mm PQC, 150mm LC, 500mm GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1995-97: 'Alpha Box'
500mm PQC (F5.3), 150mm LC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

1996 (1): Stands 41-43 & Stand 64
450mm PQC, 150mm DLC, 300mm GSB, Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

1996 (2): Stands 551-553 & Stand 64
350mm PQC, 150mm DLC, 300mm GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1997 (1): Head of Stands 46-48
300mm PQC, 150mm LC, 300mm Crushed Concrete
Source: MicroPaver Database & BAA Pavement Construction Record

1997 (2): Stands 47-48
500mm PQC, 150mm LC, 300mm GSB
Source: MicroPaver Database & BAA Pavement Construction Record

1997 (3): Stand 46
400mm PQC, 150mm LC, 150mm GSB, 250mm Stabilised Foundation
Source: MicroPaver Database & BAA Pavement Construction Record

1997 (4): Taxiway Lima (behind Stands 47-48)
500mm PQC, 150mm LC, 150mm GSB, 250mm Stabilised Foundation
Source: MicroPaver Database & BAA Pavement Construction Record

1997 (5): Taxiway Lima (behind Stand 46)
400mm PQC, 150mm LC, 300mm Crushed Concrete
Source: MicroPaver Database & BAA Pavement Construction Record

1997 (6): Taxiway Lima (Block 80)
PQC
Source: MicroPaver Database

1997 (7): Taxiway Juliet (Block 34N)
500mm PQC (F5.3), 150mm LC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

1998 (1): Taxiway Juliet (Blocks 38N, 38E & 38W)
500mm PQC (F5.3), 150-200mm LC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

1998 (2): Taxiway Sierra (connection to Taxiway Juliet)
450mm PQC (F5.3), 150mm LC, 300mm GSB, Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

1998-99 (1): Taxiway Sierra (South), Stands 170-177
450mm PQC (F6, sinusoidal joints), 150mm LC, 150mm GSB, 250mm lime/cement stabilisation
Source: MicroPaver Database & BAA Pavement Construction Record

1998-99 (2): Head of Stands 170-177
300mm PQC (F6, sinusoidal joints), 150mm LC, 150mm GSB, 250mm lime/cement stabilisation
Source: MicroPaver Database & BAA Pavement Construction Record

1998-99 (3): Taxiways Lima & Sierra (Blocks 66 & 67)
450mm PQC (F6), 150mm LC, 300mm Crushed Concrete, Geotextile
Source: BAA Pavement Construction Record

1999 (1): Stands 10-12 & 22
PQC
Source: MicroPaver Database

1999 (2): Stand 563
500mm PQC (F6), 200mm LC on Existing Sub-base
Source: MicroPaver Database & BAA Pavement Construction Record

2000 (1): Stand 161
400mm PQC (F6), 150mm LC, 300mm Crushed Concrete, Geotextile
Source: MicroPaver Database & BAA Pavement Construction Record

2000 (2): Block 45S
Asphalt surface
Source: MicroPaver Database

2000-2001: Pier 6 - Stands 101-113
400mm PQC (F6) (350mm at Head of Stands), 150mm LC, 200mm GSB, Geotextile
Source: BAA Pavement Construction Record & Aerial Photographs

2001 (1): Stand 561 (centre line)
PQC
Source: MicroPaver Database

2001 (2): Stand 37 (centre line)
500mm PQC (F6), 150mm LC, 300mm GSB
Source: BAA Pavement Construction Record

2001 (3): Stands 50 & 52
50mm Grouted Macadam, 80mm High Modulus Asphalt
Source: CIP Confalt

2002 (1): Taxiway Romeo (Block 64 'Diagonal')
520mm PQC, 250mm LC
Source: MicroPaver Database & Pavement Investigation Report 2TQ01-00-R-911-SUR-000003

2002 (2): Block 45S
Asphalt surface
Source: MicroPaver Database

2002 (3): Taxiway Juliet (Blocks 36N, 37W)
450mm PQC (F7, sinusoidal joints), 150mm LC, 300-400mm GSB
Source: BAA Pavement Construction Record

2002 (4): Taxiway Lima (Block 81)
450mm PQC (F6), 150mm LC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

2002 (5): Stands 140-141 (centre lines)
450mm PQC (F6), 150mm LC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

2003: Taxiway Quebec (Block 95)
500mm PQC (F6), 200mm WLC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

2005-2007: Taxiway Juliet (Blocks 47N, 82 & 86)
400mm PQC (F6), 150mm LC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

2006: Block 68
450mm PQC (F6), 150mm LC, 300mm GSB, Geotextile
Source: BAA Pavement Construction Record

2007: Stands 31-32 (centre lines)
450mm PQC (F6), 150mm LC, 300mm GSB, Geotextile
Source: Construction drawings L-PIT-23235-C-201, LGW-PIT-23495-C-201

2008: Alpha Holds (Block 13N)
500mm PQC (F6), 150mm LC, 150mm Crushed Concrete, 150mm Imported Type 1, Geotextile
Source: BAA Pavement Construction Record

2010: Block 72 (fillets)
PQC
Source: MicroPaver Database

2011 (1): Taxiway Lima (Blocks 70-74)
50mm planed out and replaced with Airfelx-P
Source: Construction drawings 24761-00-GA-193-000101 to 000104 & 24761-00-DE-193-000001

2011 (2): Taxiway Lima (Block 71 wheel tracks)
50mm Airflex-P, 75mm AC20 HDM50, 75mm AC20 HDM50, 250mm C40 concrete (high early strength) on existing DLC
Source: Construction drawings 24761-00-GA-193-000101 to 000104 & 24761-00-DE-193-000001

2011 (3): Taxiway Lima (Block 74 wheel tracks)
50mm Airflex-P, 50mm AC20 HDM50 on existing MA binder course
Source: Construction drawings 24761-00-GA-193-000101 to 000104 & 24761-00-DE-193-000001

2011 (4): Taxiway Lima (Block 71)
50mm Airflex-P, 75mm AC20 HDM50, 75mm AC20 HDM50 on existing DLC
Source: Construction drawings 24761-00-GA-193-000101 to 000104 & 24761-00-DE-193-000001

2011 (5): North West Zone - Taxiway Uniform
455mm PQC, 150mm LC, 150mm GSB, 275mm Capping
Source: As-built drawings 23423-00-DE-193-000216 to 000218

2011 (6): North West Zone - Taxiway Uniform
455-400mm PQC Transition Slab, 150mm LC, 150mm GSB, 275mm Capping
Source: As-built drawings 23423-00-DE-193-000216 to 000218

2011 (7): North West Zone - Taxiway Uniform
400mm PQC, 150mm LC, 150mm GSB, 275mm Capping
Source: As-built drawings 23423-00-DE-193-000216 to 000218

2011 (8): North West Zone - Stands 230-235
435mm PQC, 150mm LC, 150mm GSB, 275mm Capping
Source: As-built drawings 23423-00-DE-193-000216 to 000218

2011 (9): North West Zone - Head of Stands 230-235
435-300mm PQC Transition Slab, 150mm LC, 150mm GSB, 275mm Capping
Source: As-built drawings 23423-00-DE-193-000216 to 000218

2011 (10): North West Zone - Head of Stands 230-235
300mm PQC, 150mm LC, 150mm GSB, 275mm Capping
Source: As-built drawings 23423-00-DE-193-000216 to 000218

2012 (1): Taxiways November & Papa (Block 57N)
250mm planed out and replaced with 40mm SMA, 60mm SMA, 75mm DBM, 75mm DBM
Source: As-built drawings 2TN01-00-C-193-GA-000036 to 000042 & 2TN01-00-C-193-DE-000015

2012 (2): Taxiways November & Papa (Blocks 73N, 73S, 75N & 75S)
100mm planed out and replaced with 40mm SMA surface course, 80mm SMA binder course
Source: As-built drawings 2TN01-00-C-193-GA-000036 to 000042 & 2TN01-00-C-193-DE-000015

2012 (3): Taxiways November & Papa (Block 57N fillet)
50mm planed out and replaced with SMA
Source: As-built drawings 2TN01-00-C-193-GA-000036 to 000042 & 2TN01-00-C-193-DE-000015

2012 (4): Stand 110
390mm PQC, 150mm CBGM
Source: Construction Drawing 2S110-00-C-192-GA-000003

2012 (5): Stand 110
350mm PQC, 150mm CBGM
Source: Construction Drawing 2S110-00-C-192-GA-000003

2015: Taxiway Juliet (Block 47N)
50mm planed out and replaced with Airflex-P
Source: Construction drawings 20000-XX-C-193-GA-000002

2016 (1): Taxiway Juliet (Blocks 33N & 40N)
45mm planed out and replaced with BBA
Source: Construction drawings 20000-00-C-193-GA-000007 & 20000-00-C-193-DE-000005

2016 (2): Taxiway Juliet (Blocks 41N & 42N)
100mm planed out and replaced with 45mm BBA, 55mm SMA
Source: Construction drawings 20000-00-C-193-GA-000007 & 20000-00-C-193-DE-000005

2016 (3): Taxiway Juliet (Blocks 33N, 40N, 41N & 42N)
45mm BBA, 55mm SMA, 230mm DBM, 600mm DLC
Source: Construction drawings 20000-00-C-193-GA-000007 & 20000-00-C-193-DE-000005

2016 (4): Pier 1 - Blocks 83-85 & 87-88
370mm PQC, 150mm LC, 150mm GSB
Source: As-built drawing 20220-XX-C-192-GA-000034

2016 (5): Pier 1 - Block 47S
500mm PQC, 150mm LC, 300mm GSB
Source: As-built drawing 20220-XX-C-192-GA-000034

2016 (6): Pier 1 - Block 89
360mm PQC, 150mm LC, 150mm GSB
Source: As-built drawing 20220-XX-C-192-GA-000034

2016 (7): Pier 1 - Stands 1-5
350mm PQC, 150mm LC, 150mm GSB
Source: As-built drawing 20220-XX-C-192-GA-000034

2017: Taxiway Juliet (Block 37N centre line)
50mm planed out and replaced with asphalt surface course
Source: GAL maintenance records

2018: Taxiways Papa & November (wheel tracks)
60mm planed out and replaced with BBA
Source: Construction drawings 2TP01-XX-C-193-GA-000003, 000005 & 000006

XXXX (1): Taxiway Alpha N (Blocks 42S-43S)
50mm MA, 70mm MA, 90mm DBM, 150mm LC, 300mm GSB
Source: BAA Pavement Construction Record

XXXX (2): Block 45S
350mm PQC, 150mm DLC, 100mm DLC
Source: BAA Pavement Construction Record

XXXX (3): Stands 52 & 54
80mm Concrete Blocks, 40mm Sand, 525mm LC, 300mm GSB, Polyfelt TS600 Geotextile
Source: BAA Pavement Construction Record

XXXX (4): Head of Stands 49-54
80mm Concrete Blocks, 40mm Sand, 300mm LC, 300mm GSB, Polyfelt TS600 Geotextile
Source: BAA Pavement Construction Record

XXXX (5): Taxiway Lima (Blocks 71-74)
40mm MA, 60mm MA, 100mm DBM, 125mm Bound Sub-base Macadam, 300mm LC, 300mm GSB
Source: BAA Pavement Construction Record

XXXX (6): Taxiway Lima (Block 72)
40mm MA, MA Base Course on existing concrete surface
Source: BAA Pavement Construction Record

XXXX (7): Area North of Stands 47-48
150mm PQC, 150mm GSB, 300mm Crushed Concrete
Source: BAA Pavement Construction Record

XXXX (8): Taxiway Juliet (Block 34N)
305mm (12") PQC, 150-300mm (6-12") DLC, 150-300mm (6-12") Hoggin'
Source: BAA Pavement Construction Record

XXXX (9): Taxiway Yankee (Block 16)
PQC
Source: Aerial Photographs

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Document Uncontrolled when printed

Notes:

1. The information on this drawing is derived from various sources and its accuracy cannot be guaranteed.
2. Information from pavement cores is available on the Gatwick SAFE database.
4. When this drawing is viewed in AutoCAD format, the pavement type may be identified by interrogating the layer properties.
3. Where two hatch types overlap, the lower layers of the older pavement are believed to still be present beneath the newer pavement.
3. For Runway pavement construction information refer to Drawing No. 20000-XX-O-100-M2-000028.

Title
PAVEMENT CONSTRUCTION RECORD
TAXIWAYS AND STANDS

Drawing Originator
GATWICK AIRPORT LTD

Drawn By
PMcC

GDT Request No.	Drawn Date	Scale
N/A	31/12/2018	NTS

GDT Drawing No

Revision

ISO A1 Landscape

Appendix C

List of oblique aerial photographs consulted at the Historic England Archives

HISTORIC ENGLAND

Air Photographs

Photo reference (NGR and Index number)	Film and frame number		Original number	Date	Film type		Map Reference (6 figure grid ref)
TQ 2640 / 1	AFL 63453	/ EAW067540		14 JUN 1957	BW Cut Roll Film	5½ "	TQ 263403
TQ 2740 / 1	RHW 11521	/ ORACLE15	SEE PRINTS	1930s	Black & white	Unknown	TQ 275407
TQ 2740 / 2	NMR 1128	/ 32-35		20 APR 1977	Black & white	70mm,120,220	TQ 278409
TQ 2840 / 16	AFL 60932	/ EPW053262		27 MAY 1937	BW Glass Plate	5"x4"	TQ 281402
TQ 2840 / 17	AFL 60932	/ EPW053264		27 MAY 1937	BW Glass Plate	5"x4"	TQ 283403
TQ 2840 / 18	AFL 61833	/ EAW023693		12 JUN 1949	BW Cut Roll Film	5½ "	TQ 281404
TQ 2840 / 19	AFL 61833	/ EAW023694		12 JUN 1949	BW Cut Roll Film	5½ "	TQ 283402
TQ 2840 / 21	AFL 60932	/ EPW053261		27 MAY 1937	BW Glass Plate	5"x4"	TQ 284407
TQ 2841 / 2	AFL 60646	/ EPW028584		AUG 1929	BW Glass Plate	5"x4"	TQ 286413
TQ 2841 / 3	AFL 60646	/ EPW028582		AUG 1929	BW Glass Plate	5"x4"	TQ 286413
TQ 2841 / 4	AFL 60646	/ EPW028583		AUG 1929	BW Glass Plate	5"x4"	TQ 285413
TQ 2841 / 5	AFL 62963	/ EAW071037		27 MAY 1958	BW Cut Roll Film	5½ "	TQ 286412
TQ 2841 / 6	AFL 62963	/ EAW071036		27 MAY 1958	BW Cut Roll Film	5½ "	TQ 284412
TQ 2841 / 8	AFL 63038	/ EAC240170		30 AUG 1972	Colour neg	Unknown	TQ 284410

HISTORIC ENGLAND

Air Photographs

Library and frame number	Photo reference (NGR and Index number)	Original number	Date	Film type		Map Reference (6 figure grid ref)
MSO 31107 / PO-04624	TQ 2840 / 5	RAF/D26	27 JUN 1941	Black & white	5x5"	TQ 280401

Appendix D

List of vertical aerial photographs consulted at the Historic England Archives

HISTORIC ENGLAND
Air Photographs

Historic England

Sortie number	Library number	Camera position	Frame number	Held	Centre point	Run	Date	Sortie quality	Scale 1:	Focal length (in inches)	Film details (in inches)
RAF/106G/UK/1035	135	RP	3075	P	TQ 256 405	4	27 NOV 1945	AB	10250	20	Black and White 8.25 x 7.5
RAF/106G/UK/1062	136	RP	3097	P	TQ 268 417	5	05 DEC 1945	A	10250	20	Black and White 8.25 x 7.5
RAF/106G/UK/1062	136	RP	3142	P	TQ 286 404	7	05 DEC 1945	A	10250	20	Black and White 8.25 x 7.5
RAF/106G/UK/1377	288	FV	7125	P	TQ 261 410	6	04 APR 1946	A	10000	20	Black and White 8.2 x 7.0
RAF/106G/UK/1377	288	FV	7126	P	TQ 268 410	6	04 APR 1946	A	10000	20	Black and White 8.2 x 7.0
RAF/106G/UK/1377	288	FV	7127	P	TQ 274 410	6	04 APR 1946	A	10000	20	Black and White 8.2 x 7.0
RAF/106G/UK/1377	288	FV	7128	P	TQ 280 408	6	04 APR 1946	A	10000	20	Black and White 8.2 x 7.0
RAF/106G/UK/1377	288	FV	7129	P	TQ 286 407	6	04 APR 1946	A	10000	20	Black and White 8.2 x 7.0
RAF/106G/UK/1377	288	V	5124	P	TQ 294 407	1	04 APR 1946	A	10000	20	Black and White 8.2 x 7.0
RAF/CPE/UK/2007	604	RS	4088	P	TQ 298 415	10	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4089	P	TQ 293 415	10	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4133	P	TQ 276 421	11	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4134	P	TQ 270 421	11	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4170	P	TQ 291 404	12	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4171	P	TQ 285 404	12	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4172	P	TQ 280 404	12	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4173	P	TQ 274 403	12	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4174	P	TQ 269 402	12	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4175	P	TQ 264 401	12	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/CPE/UK/2007	604	RS	4176	P	TQ 258 402	12	16 APR 1947	AB	9800	20	Black and White 8.25 x 7.5
RAF/82/1111	1622	V	7	P	TQ 288 403	1	14 MAR 1955	A	10200	20	Black and White 8.25 x 7.5
RAF/82/1111	1622	V	8	P	TQ 283 403	1	14 MAR 1955	A	10200	20	Black and White 8.25 x 7.5
RAF/82/1111	1622	V	9	P	TQ 277 403	1	14 MAR 1955	A	10200	20	Black and White 8.25 x 7.5
RAF/82/1111	1622	V	10	P	TQ 271 403	1	14 MAR 1955	A	10200	20	Black and White 8.25 x 7.5
RAF/82/1111	1622	V	12	P	TQ 259 402	1	14 MAR 1955	A	10200	20	Black and White 8.25 x 7.5
RAF/82/1111	1622	V	13	P	TQ 253 402	1	14 MAR 1955	A	10200	20	Black and White 8.25 x 7.5

RAF/58/2938	1923	F44	163	P	TQ 301 411	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/58/2938	1923	F44	164	P	TQ 295 411	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/58/2938	1923	F44	165	P	TQ 288 410	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/58/2938	1923	F44	166	P	TQ 281 410	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/58/2938	1923	F44	167	P	TQ 275 409	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/58/2938	1923	F44	168	P	TQ 268 409	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/58/2938	1923	F44	169	P	TQ 262 409	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/58/2938	1923	F44	170	P	TQ 255 408	10	15 JUN 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	277	P	TQ 301 409	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	278	P	TQ 295 408	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	279	P	TQ 288 408	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	280	P	TQ 281 407	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	281	P	TQ 275 406	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	282	P	TQ 268 405	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	283	P	TQ 261 404	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F41	284	P	TQ 254 403	5	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F42	279	P	TQ 275 427	10	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/626	1929	F42	280	P	TQ 268 427	10	08 JUL 1959	A	10666	36	Black and White 8.25 x 7.5
RAF/543/1629	2051	F21	52	P	TQ 281 425	8	05 FEB 1962	AC	12000	20	Black and White 8.25 x 7.5
RAF/543/1629	2051	F22	52	P	TQ 277 406	12	05 FEB 1962	AC	12000	20	Black and White 8.25 x 7.5
RAF/543/1629	2051	F22	53	P	TQ 269 409	13	05 FEB 1962	AC	12000	20	Black and White 8.25 x 7.5
RAF/543/1426	2213	2F44	98	P	TQ 260 418	35	28 AUG 1961	A	10500	20	Black and White 8.25 x 7.5
RAF/543/1426	2213	2F44	99	P	TQ 267 418	35	28 AUG 1961	A	10500	20	Black and White 8.25 x 7.5
RAF/543/1426	2213	2F44	100	P	TQ 274 418	35	28 AUG 1961	A	10500	20	Black and White 8.25 x 7.5
RAF/543/1426	2213	2F44	101	P	TQ 281 418	35	28 AUG 1961	A	10500	20	Black and White 8.25 x 7.5
RAF/543/1426	2213	2F44	102	P	TQ 288 418	35	28 AUG 1961	A	10500	20	Black and White 8.25 x 7.5
RAF/543/1426	2213	2F44	103	P	TQ 295 418	35	28 AUG 1961	A	10500	20	Black and White 8.25 x 7.5
RAF/82/1089	3939	V	32	P	TQ 258 411	20	17 FEB 1955	A	10000	20	Black and White 8.25 x 7.5
RAF/82/1089	3939	V	33	P	TQ 272 412	21	17 FEB 1955	A	10000	20	Black and White 8.25 x 7.5

RAF/82/1089	3939	V	34	P	TQ 292 410	9	17 FEB 1955	A	10000	20	Black and White 8.25 x 7.5
RAF/82/1089	3939	V	35	P	TQ 308 410	10	17 FEB 1955	A	10000	20	Black and White 8.25 x 7.5
RAF/82/1089	3939	V	38	P	TQ 265 405	13	17 FEB 1955	A	10000	20	Black and White 8.25 x 7.5
RAF/82/1089	3939	V	39	P	TQ 277 407	13	17 FEB 1955	A	10000	20	Black and White 8.25 x 7.5
MAL/65078	4040	V	27	P	TQ 274 407	3	30 AUG 1965	A	11000	6	Black and White 9 x 9
MAL/66011	4359	V	122	P	TQ 270 425	5	26 APR 1966	A	10000	6	Black and White 9 x 9
MAL/66011	4359	V	123	P	TQ 278 425	5	26 APR 1966	A	10000	6	Black and White 9 x 9
MAL/66011	4359	V	136	P	TQ 295 410	6	26 APR 1966	A	10000	6	Black and White 9 x 9
MAL/66011	4359	V	137	P	TQ 286 410	6	26 APR 1966	A	10000	6	Black and White 9 x 9
MAL/66011	4359	V	138	P	TQ 278 410	6	26 APR 1966	A	10000	6	Black and White 9 x 9
MAL/66011	4359	V	139	P	TQ 269 410	6	26 APR 1966	A	10000	6	Black and White 9 x 9
MAL/66011	4359	V	140	P	TQ 260 410	6	26 APR 1966	A	10000	6	Black and White 9 x 9
MAL/68013	5204	V	7	P	TQ 280 418	1	24 MAR 1968	A	8000	6	Black and White 9 x 9
MAL/68013	5204	V	8	P	TQ 279 412	1	24 MAR 1968	A	8000	6	Black and White 9 x 9
MAL/68013	5204	V	9	P	TQ 278 407	1	24 MAR 1968	A	8000	6	Black and White 9 x 9
MAL/69079	5450	V	5	P	TQ 253 402	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	6	P	TQ 259 403	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	7	P	TQ 265 405	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	8	P	TQ 270 406	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	9	P	TQ 276 408	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	10	P	TQ 282 409	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	11	P	TQ 288 411	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	12	P	TQ 294 412	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	13	P	TQ 299 414	1	29 SEP 1969	A	6800	6	Black and White 9 x 9
MAL/69079	5450	V	39	P	TQ 257 404	3	29 SEP 1969	A	10000	6	Black and White 9 x 9
MAL/69079	5450	V	40	P	TQ 265 406	3	29 SEP 1969	A	10000	6	Black and White 9 x 9
MAL/69079	5450	V	41	P	TQ 273 408	3	29 SEP 1969	A	10000	6	Black and White 9 x 9
MAL/69079	5450	V	43	P	TQ 290 412	3	29 SEP 1969	A	10000	6	Black and White 9 x 9
MAL/69079	5450	V	44	P	TQ 298 414	3	29 SEP 1969	A	10000	6	Black and White 9 x 9

MAL/69040	5474	V	6	P	TQ 290 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	7	P	TQ 286 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	8	P	TQ 282 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	9	P	TQ 278 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	10	P	TQ 274 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	11	P	TQ 270 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	12	P	TQ 266 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	13	P	TQ 262 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	14	P	TQ 258 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/69040	5474	V	15	P	TQ 253 400	1	13 APR 1969	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	131	P	TQ 278 421	1	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	133	P	TQ 283 413	1	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	141	P	TQ 262 414	2	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	143	P	TQ 258 405	2	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	180	P	TQ 267 405	4	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	182	P	TQ 271 413	4	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	184	P	TQ 275 420	4	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	196	P	TQ 259 408	5	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/71113	5802	V	198	P	TQ 254 400	5	11 JUL 1971	A	5000	6	Black and White 9 x 9
MAL/80032	7689	V	259	P	TQ 284 415	1	09 OCT 1980	A	4000	6	Black and White 9 x 9
MAL/80032	7689	V	261	P	TQ 284 408	1	09 OCT 1980	A	4000	6	Black and White 9 x 9
RAF/HLA/435	8455	RV	6024	P	TQ 282 402	7	28 MAR 1942	AB	14000	14	Black and White 5 x 5
RAF/HLA/435	8455	RV	6030	P	TQ 267 415	8	28 MAR 1942	AB	14000	14	Black and White 5 x 5
RAF/HLA/435	8455	RV	6038	P	TQ 279 414	1	28 MAR 1942	AB	14000	14	Black and White 5 x 5
RAF/HLA/435	8455	RV	6039	P	TQ 275 405	1	28 MAR 1942	AB	14000	14	Black and White 5 x 5
RAF/HLA/435	8455	RV	6031	P	TQ 275 420	8	28 MAR 1942	AB	14000	14	Black and White 5 x 5
RAF/S653	8756	V	30	P	TQ 285 405	6	07 NOV 1941	A	11000	5	Black and White 5 x 5
RAF/S653	8756	V	31	P	TQ 283 407	6	07 NOV 1941	A	11000	5	Black and White 5 x 5
RAF/S653	8756	V	32	P	TQ 279 409	6	07 NOV 1941	A	11000	5	Black and White 5 x 5

OS/65236	11171	V	147	P	TQ 251 403	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65236	11171	V	148	P	TQ 260 400	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65236	11171	V	149	P	TQ 262 407	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65236	11171	V	150	P	TQ 264 408	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65236	11171	V	151	P	TQ 266 409	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65236	11171	V	152	P	TQ 268 410	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65236	11171	V	153	P	TQ 269 411	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65236	11171	V	154	P	TQ 271 412	5	04 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65239	11186	V	189	P	TQ 274 425	3	04 OCT 1965	A	13000	12	Black and White 9 x 9
OS/65239	11186	V	190	P	TQ 265 423	3	04 OCT 1965	A	13000	12	Black and White 9 x 9
OS/65239	11186	V	201	P	TQ 253 400	4	04 OCT 1965	A	13000	12	Black and White 9 x 9
OS/65239	11186	V	202	P	TQ 265 402	4	04 OCT 1965	A	13000	12	Black and White 9 x 9
OS/65239	11186	V	203	P	TQ 277 403	4	04 OCT 1965	A	13000	12	Black and White 9 x 9
OS/65239	11186	V	204	P	TQ 288 405	4	04 OCT 1965	A	13000	12	Black and White 9 x 9
OS/65239	11186	V	205	P	TQ 300 407	4	04 OCT 1965	A	13000	12	Black and White 9 x 9
OS/70343	11454	V	35	P	TQ 288 405	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	36	P	TQ 284 405	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	37	P	TQ 279 405	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	38	P	TQ 274 406	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	39	P	TQ 269 405	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	40	P	TQ 263 405	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	41	P	TQ 258 405	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	42	P	TQ 253 405	2	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	103	P	TQ 263 418	3	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	104	P	TQ 269 418	3	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	105	P	TQ 274 417	3	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/70343	11454	V	108	P	TQ 277 426	4	18 SEP 1970	A	7000	12	Black and White 9 x 9
OS/65252	11455	V	12	P	TQ 274 423	2	25 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65252	11455	V	13	P	TQ 272 422	2	25 OCT 1965	A	8000	12	Black and White 9 x 9

OS/65252	11455	V	14	P	TQ 270 422	2	25 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65252	11455	V	15	P	TQ 268 421	2	25 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65252	11455	V	16	P	TQ 267 421	2	25 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65252	11455	V	37	P	TQ 255 407	3	25 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65252	11455	V	38	P	TQ 262 410	3	25 OCT 1965	A	8000	12	Black and White 9 x 9
OS/65252	11455	V	39	P	TQ 270 412	3	25 OCT 1965	A	8000	12	Black and White 9 x 9
OS/67270	11456	V	14	P	TQ 287 407	2	11 JUL 1967	AC	10000	6	Black and White 9 x 9
OS/67270	11456	V	15	P	TQ 277 404	2	11 JUL 1967	AC	10000	6	Black and White 9 x 9
OS/67270	11456	V	52	P	TQ 252 398	7	11 JUL 1967	AC	5000	6	Black and White 9 x 9
OS/67270	11456	V	57	P	TQ 272 405	7	11 JUL 1967	AC	5000	6	Black and White 9 x 9
OS/67270	11456	V	70	P	TQ 285 415	9	11 JUL 1967	AC	5000	6	Black and White 9 x 9
OS/67270	11456	V	74	P	TQ 269 411	9	11 JUL 1967	AC	5000	6	Black and White 9 x 9
OS/67270	11456	V	76	P	TQ 261 409	9	11 JUL 1967	AC	5000	6	Black and White 9 x 9
OS/61013	11458	V	21	P	TQ 250 410	3	13 MAY 1961	A	4200	12	Black and White 9 x 9
OS/61013	11458	V	29	P	TQ 262 409	4	13 MAY 1961	A	4200	12	Black and White 9 x 9
OS/61013	11458	V	45	P	TQ 270 420	5	13 MAY 1961	A	4200	12	Black and White 9 x 9
OS/61013	11458	V	59	P	TQ 283 409	6	13 MAY 1961	A	4200	12	Black and White 9 x 9
OS/61013	11458	V	61	P	TQ 280 419	6	13 MAY 1961	A	4200	12	Black and White 9 x 9
OS/61013	11458	V	75	P	TQ 293 409	7	13 MAY 1961	A	4200	12	Black and White 9 x 9
OS/61013	11458	V	77	P	TQ 290 419	7	13 MAY 1961	A	4200	12	Black and White 9 x 9
OS/71162	11827	V	2	P	TQ 287 398	1	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/71162	11827	V	28	P	TQ 292 406	2	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/71162	11827	V	29	P	TQ 285 406	2	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/71162	11827	V	30	P	TQ 279 406	2	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/71162	11827	V	31	P	TQ 281 419	3	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/71162	11827	V	32	P	TQ 288 419	3	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/71162	11827	V	33	P	TQ 294 419	3	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/71162	11827	V	34	P	TQ 301 419	3	03 MAY 1971	A	7300	12	Black and White 9 x 9
OS/82031	12924	V	1	P	TQ 304 418	1	15 APR 1982	A	4800	12	Black and White 9 x 9

OS/82031	12924	V	2	P	TQ 303 414	1	15 APR 1982	A	4800	12	Black and White 9 x 9
OS/88287	13374	V	174	P	TQ 305 416	8	31 OCT 1988	A	8000	12	Black and White 9 x 9
OS/88288	13375	V	194	P	TQ 301 416	1	31 OCT 1988	A	6000	12	Black and White 9 x 9
RAF/106G/UK/1062	136	RP	3095	P	TQ 268 407	5	05 DEC 1945	A	10250	20	Black and White 8.25 x 7.5
RAF/106G/UK/1062	136	RS	4095	P	TQ 286 410	12	05 DEC 1945	A	10250	20	Black and White 8.25 x 7.5
RAF/82/1111	1622	V	11	P	TQ 265 403	1	14 MAR 1955	A	10200	20	Black and White 8.25 x 7.5
RAF/82/1089	3939	V	40	P	TQ 292 406	13	17 FEB 1955	A	10000	20	Black and White 8.25 x 7.5
US/7PH/GP/LOC290	6930	V	5020	P	TQ 278 419	13	20 APR 1944	AB	15000	24	Black and White 18 x 9
US/7PH/GP/LOC290	6930	V	5021	P	TQ 273 411	13	20 APR 1944	AB	15000	24	Black and White 18 x 9
US/7PH/GP/LOC290	6930	V	5022	P	TQ 267 402	13	20 APR 1944	AB	15000	24	Black and White 18 x 9
MAL/78005	14086	V	165	P	TQ 282 418	1	30 MAR 1978	A	4000	6	Black and White 9 x 9
MAL/78005	14086	V	166	P	TQ 281 414	1	30 MAR 1978	A	4000	6	Black and White 9 x 9
MAL/78005	14086	V	167	P	TQ 280 411	1	30 MAR 1978	A	4000	6	Black and White 9 x 9
MAL/78005	14086	V	168	P	TQ 280 407	1	30 MAR 1978	A	4000	6	Black and White 9 x 9
MAL/78005	14086	V	169	P	TQ 280 403	1	30 MAR 1978	A	4000	6	Black and White 9 x 9
MAL/70089	14285	V	94	P	TQ 278 405	1	24 NOV 1970	A	10000	6	Black and White 9 x 9
MAL/70089	14285	V	97	P	TQ 276 410	1	24 NOV 1970	A	10000	6	Black and White 9 x 9
OS/93329A	14456	V	194	P	TQ 290 415	3	23 MAY 1993	A	8150	12	Black and White 9 x 9
OS/93329A	14456	V	226	P	TQ 257 405	4	23 MAY 1993	A	8150	12	Black and White 9 x 9
OS/93329A	14456	V	231	P	TQ 285 404	4	23 MAY 1993	A	8150	12	Black and White 9 x 9
OS/93329A	14456	V	232	P	TQ 291 404	4	23 MAY 1993	A	8150	12	Black and White 9 x 9
RAF/58/8182	15241	F22	173	P	TQ 262 401	10	17 JUL 1967	A	10600	36	Black and White 8.25 x 7.5
RAF/58/2857	15375	F41	1	P	TQ 270 412	1	14 MAY 1959	A	12000	36	Black and White 8.25 x 7.5
RAF/58/2857	15375	F41	2	P	TQ 278 412	1	14 MAY 1959	A	12000	36	Black and White 8.25 x 7.5
RAF/58/2857	15375	F41	3	P	TQ 286 413	1	14 MAY 1959	A	12000	36	Black and White 8.25 x 7.5
RAF/58/2857	15375	F41	4	P	TQ 294 414	1	14 MAY 1959	A	12000	36	Black and White 8.25 x 7.5
RAF/58/2857	15375	F41	34	P	TQ 274 408	3	14 MAY 1959	A	12000	36	Black and White 8.25 x 7.5
RAF/58/2857	15375	F41	35	P	TQ 282 407	3	14 MAY 1959	A	12000	36	Black and White 8.25 x 7.5
RAF/58/2857	15375	F41	36	P	TQ 290 407	3	14 MAY 1959	A	12000	36	Black and White 8.25 x 7.5

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