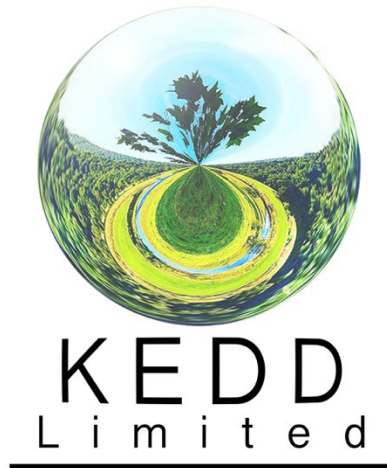




LANDSCAPE AND VISUAL IMPACT ASSESSMENT

In respect of a

Planning Application to allow for the installation of two additional bitumen tanks, load out gantry, the installation of a bitumen emulsion plant, and alternative car parking.

Imperial Wharf, Clifton Marine Parade,

Gravesend, Kent, DA11 0DY

April 2022

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1.0 INTRODUCTION

- 1.1 This document is a Landscape and Visual Impact Assessment report in respect of a proposed planning application to allow for the installation of two additional bitumen tanks, load out gantry, the installation of a bitumen emulsion plant, and alternative car parking, at Imperial Wharf, Clifton Marine Parade, Gravesend, Kent, DA11 0DY (the Site).
- 1.2 The report has been prepared by Kedd Limited Landscape Architects and Environmental Design Consultants. The practice specialises in landscape architecture, urban design, design, and assessment works.
- 1.3 This assessment report had been produced in liaison with the Applicant FM Conway Limited and the Applicant's project coordinators PDE Consulting Limited.
- 1.4 The aim of the report is to understand the baseline landscape and visual resources and receptors within the Site and the local area and to assess their value and sensitivity to change resulting from the proposed development type. From this baseline position, to then assess the specific magnitude of effect of the detailed development proposed on landscape and visual resources/receptors and to determine the Level of Significance of Effect on Landscape and Visual matters (which could be potentially adverse/ or beneficial). The report also considers the potential for cumulative effects which could arise from the proposed development in combination with either existing and / or potential other development / activities.
- 1.5 The application Site, as shown outlined red on the Location Plan (Drawing Number KD.IMP.D.001) within Appendix A, extends to approximately 0.7 hectares and is situated on the south bank of the River Thames, approximately 0.9 kilometres to the northwest of the centre of Gravesend. The Site's immediate surrounds consist of industrial, manufacturing, commercial and retail development, located to the south, east and west, with the existing FM Conway Imperial Wharf Terminal and Technology Centre adjacent to the River Thames to the north.
- 1.6 This report has been guided by Gravesham Borough Council's Screening Opinion, under Regulation 15 of the Town and Country Planning, England – The Town and Country (Environmental Impact Assessment) (England and Wales) Regulations 2011, dated December 2021. Landscape and Visual Assessment comments and requirements of the accompanying Gravesham Borough Council Delegated Report on Application Reference 20211383 have also been addressed in respect of the Screening and Scoping Request (submitted by PDE Consulting to Gravesham BC in November 2021). These include the urban design aspects of the Site's context, the revised location of the proposed development and associated landscape and visual orientated planning policies including Gravesham Local Plan Core Strategy Policy DES3: Tall and Bulky Buildings.

2.0 METHODOLOGY

- 2.1 This Landscape and Visual Impact Assessment (LVIA) has been carried out in accordance with the Landscape Institute and the Institute of Environmental Management and Assessment Guidelines for Landscape and Visual Impact Assessment (GLVA 3), Photography and Photomontage in Landscape and Visual Assessment and Natural England, An Approach to Landscape Character Assessment.

“LVIA is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource, in its own right, and on people’s views and visual amenity” GLVIA.

- 2.2 Data collation and assessment has been carried out utilising both desktop and Site survey works to identify the baseline landscape character and visual nature and condition of the Site and its local area. Initial desk top survey analysis helped to identify the potential areas the proposed development may influence / change in respect of character and viability. A 1:25,000 Ordnance Survey map was used to identify potential areas of visibility from roads, properties, public rights of way and open access land. Utilising Site and Site context topographical 3D data the Zone of Theoretical Visibility (ZTV) of the existing Site and the potential proposed development was undertaken. See Drawing Numbers KD.IMP.D.003 and 004 within Appendix C. These were then used to inform and help define a study area within which the proposed development could influence / change both Landscape Character and Visual Amenity. It is worth noting that the ZTV’s are a worst-case scenario in assessing the geographical land area from where the existing / proposed Site development could be observed / influence Landscape Character as this method of analysis does not account for existing built form or vegetation structure which would affect / could screen views towards the Site from landscape and visual receptors.
- 2.3 The desktop appraisal helped form the basis for Site survey works which were carried out in Summer 2021 and Spring 2022.
- 2.4 A description of the full Methodology and Assessment Process used is detailed within Appendix B of this report.
- 2.5 In summary and in highlighting the main assessment process the GLVIA states that when undertaking an LVIA, this should consider:
- i) Landscape effects i.e. the effects on the landscape as a resource; and
 - ii) Visual effects i.e. the effects on views and visual amenity.
- 2.6 It also states that; *“LVIA must deal with both and should be clear about the difference between them”*. GVL 3 para 2.2.2 para 21.
- 2.7 The Guidelines explain that both landscape and visual effects are dependent upon the sensitivity of the landscape resource or visual receptors and the magnitude of impact.

Sensitivity – is the term applied to specific receptors, combining judgements of the susceptibility of the receptor to the type of change or development proposed and the value related to that receptor.

Susceptibility – is the ability of a defined landscape or visual receptor to accommodate the specific proposed development without undue negative consequences.

Landscape Value – being the relative value that is attached to different landscape by society. A landscape may be valued by different stakeholders for a whole variety of reasons. Value attached to views – The recognition of the value attached to particular views e.g. in relation to heritage assets or through planning designations.

Magnitude (of effect) – the term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.

Assessed Overall Level of Significance of Effect – this term relates to the final judgement about whether each effect identified is significant or not. It is a measure of the importance or gravity of the environmental effect, defined by the significance criteria specified within Appendix B.

- 2.8 The assessment process and its findings are detailed within sections 4, 5, 6 and 7 of this report. [1] [2] [SEP]

3.0 DEVELOPMENT PROPOSALS

Existing Development

- 3.1 The Site and the wider bitumen storage facility and wharfage are under the control of the Applicant. The Site and associated land have a long history associated with industrial development.
- 3.2 Historically, the Site was home to the Imperial Paper Mills, which operated from the early 1900's until the mid-1980s to process paper pulp into newsprint. Imperial Wharf was used as an ancillary wharf in connection with the paper manufacture, although the extent of its use is not known.
- 3.3 The Imperial Paper Mills site, including the wharf/jetty, was acquired by TBF Thompson following closure of the paper mills, during the 1980's, and part of the site was temporarily used for the manufacture of asphalt pending its redevelopment.
- 3.4 Planning permission reference 20160800 was approved by GBC on 29 June 2018 to enable retrospective permission for the retention of four additional bitumen storage tanks and ancillary equipment including activated carbon filter unit, mixing plant and enclosed retaining bund wall.
- 3.5 The Current Situation is illustrated on Drawing No. KD.IMP.D.003, within Appendix C. Its location being set within a former chalk quarry, now within the industrial, manufacturing, commercial, and retail setting of the Imperial Business Estate. The Imperial Wharf site's northern boundary and part of the proposed development Site borders the River Thames.

Proposed Development

- 3.6 The Proposed Development is seeking permission for the installation of two additional bitumen tanks, load out gantry, the installation of a bitumen emulsion plant and alternative car parking on land at Imperial Wharf.
- 3.7 The Proposed Development, as shown on Drawing Number KD.IMP.D.004, within Appendix C, comprises of four main aspects: the two additional bitumen storage tanks; the load out gantry; the emulsion plant; and the provision of alternative car parking. Drawing No KD.IMP.D.005 illustrates Elevations of the Proposed Silos, Bund Wall & Oil Heater, with Drawing Number KD.IMP.D.010, illustrating the proposed Emulsion Plant Layout and Drawing Number KD.IMP.D.011 relating to the Truck Loading System.

- 3.8 The two additional bitumen storage tanks will be located on an area of land currently used for car parking, located to the south of Clifton Marine Parade. The emulsion plant will be located adjacent to the east of the Technology Centre, contained within the matrix of the already built development, with the load out gantry located to the west of The White House. Alternative car parking provision will be made on land to the west of the proposed bitumen storage tanks, on the opposite side of Clifton Marine Parade. New dedicated HGV parking is also proposed on land immediately west of the proposed bitumen storage tanks and on land to the west of the new load out gantry.
- 3.9 The purpose of the Proposed Development is, in essence, to increase the wider facility's resilience through the provision of additional bitumen storage capacity. This will safeguard against delays in bitumen shipments and ensure a consistent supply of bitumen for the region's needs.
- 3.10 The Proposed Development will operate in much the same way as the existing bitumen storage facility has done so to date, albeit, with the additional new infrastructure and some additional HGV movements. Highway grade bitumen will be imported to the Site via shipping tankers, using the existing deep-water jetty, from where the bitumen will be pumped ashore using the ship's own onboard pumps. At all times, the bitumen is either within the ship's hold, within the insulated and heated storage tanks and/or is being pumped to the lorry tanker loadout facility, before leaving site.
- 3.11 Bitumen leaves the facility in dedicated road tankers with an average payload of 26 tonnes. The bitumen is consumed both by the Applicant, at its existing asphalt operations and also offered to the wider market. This could be anywhere up to 50 radial miles from Imperial Wharf.
- 3.12 With respect to HGV movements, extant planning consent places no restriction on HGV movements to and from the Site. Based upon the existing levels of trading, there are approximately 15 to 20 loads out per day (i.e. 30 to 40 HGV movements in total). These movements are spread across the 24-hour operation of the Site. The Proposed Development is likely to generate a modest increase in the numbers of HGVs, averaging 5 additional loads out per day (i.e. 10 total movements). This increase stems from forecast growth in bitumen demand, with additional asphalt plants to supply.
- 3.13 It is not proposed to alter the existing access arrangements at the Site. HGVs associated with the Proposed Development will continue to access the Site in a similar manner in which they do so at present. It is considered that the small increase in daily HGV movements can be safely accommodated within the local highway network and will not result in any adverse impact.

4.0 LANDSCAPE ORIENTATED DESIGNATIONS AND PLANNING POLICIES

- 4.1 Drawing No. KD.IMP.D.008 illustrates the landscape orientated designations within the study area.

Landscape Designations

4.2 The Site is not listed within 2km of a nationally designated Site (i.e. A National Park or Area of Outstanding Natural Beauty). Other designations that lie within 2km of the Site which may be indirectly affected by the Site include:

- **Scheduled Ancient Monument (SAM)** – Located circa 1km to the west of the Site is the Gravesend Blockhouse. This is the Site of buried archaeology / a ruin associated with a former blockhouse to the banks of the River Thames. New Tavern Fort SAM is located circa 1.25km to the east of the Site, comprising a principally complete fortification, adjacent / within the eastern extents of Gravesend.
- **Registered Park and Garden** – Located circa. 1.1m to the south / south east of the Site, the Gravesend Cemetery is designated as a Registered Park and Garden (Grade II* Listed).
- **Conservation Areas** – A series of small conservation areas are present within the Gravesend urban area. The closest being adjacent to the Site's western boundary, with areas subsequently at distances of 175m to the south and 675m plus to the west. Further areas are at greater distances, dispersed within the urban fabric to the east, south east and south west. The following are considered to hold influence on the Site / Site setting with a degree of potential intervisibility:

- Lansdowne Square Conservation Area

The eastern half of Lansdowne Square is in residential use, with nos. 1-8 Lansdowne Square and nos. 42-52 Pier Road all providing accommodation. These buildings were constructed as single residential dwellings, but have subsequently been subdivided to form flats. There is limited activity during the working day because the residential properties are generally unoccupied.

The western half of the Conservation Area is occupied by commercial and industrial uses. Some of the industrial buildings are vacant, such as the Henley Works. The former public house, The Old Sun, is used as offices. However, the Conservation Area is a throughroute for large industrial vehicles which use The Shore as a route to connect the large industrial estates around Crete Hall Road in the west to Thames Way in the east. Vehicles also occasionally pass through Lansdowne Square and Burch Road to connect with London Road in the south. The immediate surroundings of the Conservation Area are the River Thames, urban townscape and the industrialised foreshore. The following features form the immediate setting to the Conservation Area:

- *To the south: Burch Road and Pier Road run southwards to connect with London Road; these streets include mainly early 20th century rows of terraced housing, with parades of shops and an occasional religious building.*
- *To the west: The large factory site of the former Henley Telegraph Works on the site of the former Rosherville Gardens; beyond are the print works and shipyards of Northfleet;*
- *To the north: The river Thames, with views across to the Essex riverside;*
- *To the east: On the edge of the Conservation Area, Warren Hastings Court is a Post-War residential development on the site of the former Rosherville Place. Further east stands more industrial buildings with some surface car parking, including the former lime works and Imperial Paper Mill.*

River-based activities have a considerable visual impact on the Conservation Area, including the many boats (of varying sizes) which pass along the Thames.

○ Overcliffe Conservation Area

The Overcliffe Conservation Area encompasses part of the early 19th century Rosherville New Town development in Northfleet and the mid-19th century houses along Overcliffe which were developed as part of this prestigious suburb, directly to the west of Gravesend Town Centre. The fine, large houses which line the roads are a mixture of villas and terraced residences, some sited to take advantage of the views northwards towards the River Thames.

The immediate surroundings of the Conservation Area are urban townscape, including a heavily industrialised foreshore. The following features form the immediate setting of the Conservation Area:

- *To the north of Overcliffe: A modern car showroom and beyond that large industrial works and warehouses by the river. This is all set on the low level terrain, at the foot of the inland cliff, created by the chalk excavation;*
- *To the north of London Road: Mainly 1930/40s residential development and two large, detached villas in Burch Road, which are reminders of the Rosherville New Town Development. Beyond that to the north the surviving riverside parts of the Rosherville New Town which form the Landsdowne Square Conservation Area, and beyond that the river Thames.*
- *To the east: 20th century flats, an office block and commercial/retail units leading into New Road and Gravesend town centre;*
- *To the south: Mainly 20th century rows of terraced housing with occasional churches and other community buildings;*
- *To the west: 20th century residential and commercial buildings lining the road towards the historic core of Northfleet with a few surviving detached 19th century villas in between;*
- *To the north-west: Industrial area on the former Rosherville Gardens leading to the Thames riverside.*

○ High Street Conservation Area

The High Street Gravesend Conservation Area lies in the historic centre of the town of Gravesend in Kent, connecting with the River Thames. The setting, close to London and at the mouth of the Thames estuary, defined the importance of Gravesend for many centuries. The town was the first port coming up the river toward London and a natural breaking point for ships on the tide. Traditionally, ships would land here on entering the river or complete victualling or embarking passengers before leaving. The connection with the river is still one of the key characteristics of the Conservation Area. The Conservation Area extends north and east from High Street to include the Town Pier and the abutting riverside areas, and recognises the important historic link between the commercial heart of Gravesend and the maritime activities along the Thames.

The immediate surroundings of the Conservation Area are urban townscape to the east, west and south and these are also largely designated as separate conservation areas. The wide River Thames flows to the north, defining this boundary. The following features form the immediate setting of the Conservation Area:

- To the south: commercial centre of the town along New Street & King Street with large national department stores bordering the Conservation Area and large shopping centre, i.e. St. Georges Centre, pedestrian link through St Georges Centre to Jury Street and St. Georges Church;*
- To the west: Borough Market and large areas of car parking;*
- Inner Ring Road (Crooked Lane) running through, isolating north-eastern part of the Conservation Area;*
- To the east: unsightly modern industrial (Blockbuster) building and roundabout;*
- To the north: The River Thames, Tilbury Fort and the Essex shore.*
- High Street forms part of the designated Heritage Quarter, which also includes adjacent areas, such as New Swan Yard that lie just outside the conservation area designation.*

- **Listed Buildings** – Due to the principally urban nature of the study area, there are numerous listed buildings within 2km of the Site. The closest listed buildings / assets are the Rosherville Quay Walls, Steps, Drawdock and WW11 Mine Watching Post, located circa 105m to the west of the Site, the Rosherville Gardens Bear Pit and Cliff Top Entrance, located circa 277 and 470m to the south west respectively, together with the Hazards House and Former Brewery Officers, located circa 515m to the east.

4.3 Within 5km, nine further SAMs are present, at distances of 2.2km plus, along with a number of Sites of Species Scientific Interest (SSSI), at distances of circa. 2.4km plus. These are principally associated with areas of marshland to the banks of the River Thames at Ebbsfleet and Botany Marshes to the west, and Westcourt, Filborough and Shorne Marshes to the east.

4.4 Also, within 5km, further listed buildings / assets are present, typical of the expansive urban environment, along with areas of Ancient Woodland. The closest being circa 4.1km to the south west.

Landscape Related Planning Policy

4.5 The applicant's Site is controlled by various planning policies and documents from National Government and Local Government. The documents which affect the Site are:

National Planning Policy Framework (July 2021)

Gravesham Local Plan Core Strategy (September 2014)

National Planning Policy Framework (2021)

4.6 In accordance with previous national planning guidance the NPPF maintains the primary importance of the development plan and confirms that planning decisions should be in accordance with policy outlined in the latest development plan documents unless material considerations suggest otherwise. The purpose of the planning system is to contribute to the achievement of sustainable development. The policies in the NPPF, constitute the

Government's view of what sustainable development in England means in practice for the planning system.

Gravesham Local Plan Core Strategy (September 2014)

- 4.7 The Core Strategy sets out the Council's spatial vision and strategic objectives for the Borough to 2028 and the policies which will deliver them. It identifies the main areas where major change is likely to take place and allocates sites which are key to achieving the strategy.
- 4.8 Policies from this plan relevant to the application are as follows:
- Policy CS04 – Northfleet Embankment and Swanscombe Peninsula East Opportunity Area – The Site is designated as an opportunity area under this Policy.
 - Policy DES3 – Tall and Bulky Buildings
 - Strategic Objective SO1 – promotes the following: *“make the most efficient use of land by concentrating development on underused, derelict and previously developed land in the urban area of Gravesend and Northfleet, in particular former industrial sites along the Thames Riverside in Gravesend town centre, and at Ebbsfleet”*.
 - Strategic Objective SO3 – seeks to *“ensure the right amount, size and type of employment sites are available in Gravesend and Northfleet to diversify and strengthen the local economy and reduce out commuting”*.

5.0 LANDSCAPE CHARACTER AND TOWNSCAPE ASSESSMENT

- 5.1 The assessment of an area's landscape character and its ability to accommodate change is initially based on the identification, understanding and categorisation of a landscape's features and elements that combine to create the distinctive character of an area. Landscape character comprises a description and assessment of the distinct and recognisable pattern of elements and features that occur consistently in a particular type of landscape and how this is perceived. The character of a landscape is a combination of geology, landform, soils, vegetation, land-use and human activities. In addition, character is identified through characterisation, which classifies, maps and describes areas of similar character.
- 5.2 In order to assess potential landscape effects resulting from the Proposed Development a baseline study of the landscape character of the Site and its surroundings was carried out. The study involved desk-based analysis and Site survey to determine landscape character of the area including an examination of aesthetic and perceptual aspects of the landscape that contribute to local distinctiveness.
- 5.3 The baseline study has taken account of, and describes, relevant national, regional, and local landscape character assessments, important individual landscape receptors including landscape and nature conservation designations and individual elements of the landscape fabric that are present and that contribute to local landscape character.
- 5.4 Information gathered as part of the study of national, regional and local character areas will inform an understanding of the quality and condition of the landscape which will be considered alongside on-site identified forces for change present in the local area. Based on a consideration of these aspects, an assessment of significance of effect will be made.

- 5.5 Landscape Character is described at three levels within this section. These being National Level, Regional Level and Local Level in order to fully appreciate its component elements, features, interactions and susceptibility to change.

Description of Landscape Character at a National Scale

- 5.6 At national level, the Site is located on the boundary of National Character Areas (NCA) 113 North Kent Plain and NCA 81 Greater Thames Estuary, being located on land to the southern boundary of the River Thames. To the northern bank of the River Thames, land then falls within the Northern Thames Basin NCA 111. Whilst the Site falls outside of this NCA, due to proximity it is considered relevant to its immediate landscape context, and as such, consideration must be given to the landscape features of this area.

NCA 81 Greater Thames Estuary

- 5.7 The character area forms the eastern edge of the London Basin, and its extensive underlying geology of London Clay provides links with the Northern Thames Basin NCA and, further west, the Inner London NCA. The NCA lies between the North Sea and the rising ground of the adjacent North Kent Plain and Northern Thames Basin NCAs which provide a backdrop to the extensive flat open spaces of the estuary. Uninterrupted, far-reaching views out across the Thames to the opposite banks are possible from this higher ground, and industrial and historic military landmarks are highly visible in this predominantly low-lying marshy coastal landscape.
- 5.8 Industry and its infrastructure – including waste disposal and mineral extraction sites, transport routes, ports and prominent power stations – and urban development, including housing and caravan sites, now occupy what are often highly visible sites within the low-lying marshes. The NCA encompasses the highly urbanised areas alongside the River Thames.
- 5.9 Key Characteristics of the area are:
- Predominantly flat, low-lying coastal landscape where extensive open spaces are dominated by the sky, and the pervasive presence of water and numerous coastal estuaries extend the maritime influence far inland.
 - Eastern edge of the London Basin with its underlying geology of the extensive London Clay, containing important sites for geodiversity including fossiliferous deposits, and overlain by productive loamy soils derived from intertidal alluvial muds.
 - Geological contrast and variety along the coastline provided by Sheppey, a long, low island rising from a stretch of very flat marsh along the Swale Estuary in Kent with low, steep clay cliffs facing towards Essex, and Mersea Island in the Blackwater Estuary in Essex.
 - Coastline of major geomorphological interest for its coastal processes. Accretion of material carried by the sea from the north recharges intertidal coastal habitats, which are subject to coastal squeeze from rising sea levels.
 - Open grazing pastures patterned by a network of ancient and modern reed-fringed drainage ditches and dykes, numerous creeks and few hedges or fences, with tree cover a rarity.
 - Traditional unimproved wet pasture grazed with sheep and cattle combined with extensive drained and ploughed arable land protected from floods by sea walls, with some areas of more mixed agriculture on higher ground.

- Strong feelings of remoteness and wilderness persist on extensive salt marshes, mudflats and reclaimed farmed marshland, which support internationally important plants, invertebrates and populations of breeding and overwintering birds, notably overwintering Brent geese.
- Open mosaic habitats on brownfield sites support nationally important invertebrate assemblages and key populations of rare invertebrate species.
- Distinctive landmarks of coastal military heritage including Napoleonic military defences, forts and 20th-century pillboxes.
- Some of the least settled parts of the English coast with numerous small villages and hamlets on higher ground and marsh edges reflecting medieval patterns and the coastal economy.
- Highly urbanised areas within London and on marsh edges subject to chaotic activity of various major developments including ports, waste disposal, marine dredging, housing regeneration, mineral extraction and prominent power stations plus numerous other industry-related activities.
- Increasing development pressures around major settlements and especially towards London, with urban, industrial and recreational sites often highly visible within the low-lying marshes.
- Major historical and current transport link to Inner London provided by the River Thames, with an extensive network of road and rail bridges spanning its reaches within the city.

5.10 Statements of Environmental Opportunities:

- SEO 1: Maintain and enhance the expansive, remote coastal landscape – with its drowned estuaries, low islands, mudflats, and broad tracts of tidal salt marsh and reclaimed grazing marsh – maintaining internationally important habitats and their wildlife, and underlying geodiversity, while addressing the impacts of coastal squeeze and climate change and considering dynamic coastal processes.
- SEO 2: Work with landowners and managers to incorporate measures to improve biodiversity, geodiversity, pollination, water quality, soil quality and climate adaptation and to prevent soil erosion in this important food-providing landscape, while maintaining its historic character.
- SEO 3: Ensure that the tranquil and remote character of the estuary is maintained by conserving and enhancing important coastal habitats and distinctive historic and geological features, while providing increased opportunities for recreation and enjoyment of the landscape.
- SEO 4: Encourage a strategic approach to development that is informed by and makes a positive contribution to local character, incorporates green infrastructure which provides ecosystem services where they are needed most, and promotes recreation and addresses climate change, while maintaining important open mosaic and coastal habitats, and historic and geological features.

NCA 113 North Kent Plain

- 5.11 The area is summarised the strip of land between the Thames Estuary to the north and the chalk of the Kent Downs to the south. The area is open, low and gently undulating. The area has a strong urban influence, with several built-up areas, including coastal towns and these occupy a substantial part of the area with significant development around London and the Medway towns, which has a strong influence in the west of the NCA.

5.12 Key characteristics for the area are:

- An open, low and gently undulating landscape, characterised by high quality, fertile, loamy soils dominated by agricultural land uses.
- The area's geology is dominated by Palaeogene clays and sands, underlain by the Chalk.
- Geologically a chalk outlier – and historically an island separated from the mainland by a sea channel – Thanet forms a discrete and distinct area that is characterised by its unity of land use, arising from the high quality fertile soils developed in thin drift deposits over chalk.
- A diverse coastline (both in nature and orientation), made up of cliffs, intertidal sand and mud, salt marshes, sand dunes and shingle beaches. Much of the coastal hinterland has been built on, and the coast itself has been modified through the construction of sea walls, harbours and piers.
- Large arable/horticultural fields with regular patterns and rectangular shapes predominating, and a sparse hedgerow pattern.
- Orchards and horticultural crops characterise central and eastern areas, and are often enclosed by poplar or alder shelterbelts and scattered small woodlands.
- Woodland occurs on the higher ground around Blean and in smaller blocks to the west, much of it ancient and of high nature conservation interest.
- The Stour and its tributaries are important features of the eastern part of the NCA, draining eastwards into the North Sea, with associated wetland habitats including areas of grazing marsh, reedbeds, lagoons and gravel pits. The River Medway cuts through the NCA as it flows into the Thames Estuary.
- Other semi-natural habitats include fragments of neutral, calcareous and acid grassland, and also heathland.
- The area has rich evidence of human activity from the Palaeolithic period. Key heritage assets include Roman sites at Canterbury, Reculver and Richborough; the Historic Dockyard at Chatham; military remains along the coast; and historic parks and buildings.
- Large settlements and urban infrastructure (including lines of pylons) are often visually dominant in the landscape, with significant development around Greater London and the Medway Towns, as well as around towns further east and along the coast. Major rail and road links connect the towns with London.

5.13 Statements of Environmental Opportunities:

- SEO 1: Maintain the historic character and long tradition of a farmed landscape, creating habitats to establish more resilient and coherent ecological networks within the farmed and peri-urban areas, benefitting biodiversity and geodiversity, and helping to regulate water and soil quality. Protect traditional practices including the longstanding associations of the fruit belt, maintaining a strong sense of place and reinforcing Kent's reputation as the Garden of England.
- SEO 2: Plan for and manage the effects of coastal change, by allowing the operation of natural coastal processes and improving the sustainability of current management practices, to maintain and enhance the local landscape character and the area's biodiversity assets. This can lead to habitat creation, flood-risk reduction to built-up areas, and opportunities for recreational activity.
- SEO 3: Protect the distinct wooded areas of the landscape, particularly through the management of nationally important, ancient semi-natural woodlands, increasing the area of broadleaved woodland where appropriate, while increasing the

connectivity of the mosaic of associated habitats; notably wooded heath and semi-improved grasslands and enhancing the recreational resource.

- SEO 4: Protect and enhance the strong character and heritage of the urban areas. Plan for the creation of significant new areas of green space and green corridors to provide a framework for new and existing development in urban areas and along major transport routes.

NCA 111: Northern Thames Basin

5.14 The character areas is described as a diverse area which extends from Hertfordshire in the west to the Essex coast in the east. It is separated from the North Sea and Thames Estuary by a narrow band of land that makes up the Greater Thames Estuary National Character Area (NCA).

5.15 Key characteristics for the area are:

- The landform is varied with a wide plateau divided by river valleys. The prominent hills and ridges of the 'Bagshot Hills' are notable to the northwest and extensive tracts of flat land are found in the south.
- Characteristic of the area is a layer of thick clay producing heavy, acidic soils, resulting in retention of considerable areas of ancient woodland.
- Areas capped by glacial sands and gravels have resulted in nutrient-poor, free-draining soils which support remnant lowland heathlands, although these are now small. Areas that have alluvial deposits present are well drained and fertile.
- The water bearing underlying Chalk beds are a main source of recharge for the principal London Basin Chalk aquifer.
- A diverse landscape with a series of broad valleys containing the major rivers Ver, Colne and Lea, and slightly steeper valleys of the rivers Stour, Colne and Roman. Numerous springs rise at the base of the Bagshot Beds and several reservoirs are dotted throughout the area
- The pattern of woodlands is varied across the area and includes considerable ancient semi-natural woodland. Hertfordshire is heavily wooded in some areas as are parts of Essex, while other areas within Essex are more open in character. Significant areas of wood pasture and pollarded veteran trees are also present.
- The field pattern is very varied across the basin reflecting historical activity. Informal patterns of 18th-century or earlier enclosure reflect medieval colonisation of the heaths. Regular planned enclosures dating from the Romano-British period are a subtle but nationally important feature on the flat land to the south-east of the area. In the Essex heathlands 18th- and 19th-century enclosure of heathlands and commons followed by extensive 20th-century field enlargement is dominant.
- Mixed farming, with arable land predominating in the Hertfordshire plateaux, parts of the London Clay lowlands and Essex heathlands. Grasslands are characteristic of the river valleys throughout. Horticulture and market gardening are found on the light, sandy soils of former heaths in Essex, particularly around Colchester, along with orchards, meadow pasture and leys following numerous narrow rivers and streams.
- The diverse range of semi-natural habitats include ancient woodland, lowland heath and floodplain grazing marsh and provide important habitats for a wide range of species including great crested newt, water vole, dormouse and otter.
- Rich archaeology including sites related to Roman occupation, with the Roman capital at Colchester and City of St Albans (Verulamium) and links to London.

Landscape parklands surrounding 16th- and 17th-century rural estates and country houses built for London merchants are a particular feature in Hertfordshire.

- The medieval pattern of small villages and dispersed farming settlement remains central to the character of parts of Hertfordshire and Essex. Market towns have expanded over time as have the London suburbs and commuter settlements, with the creation of new settlements such as the pioneering garden city at Welwyn and the planned town at Basildon.
- Brick-built dwellings are characteristic from the late 17th century onwards. Prior to this dwellings and farm buildings tended to be timber built with weatherboarding, now mainly painted white but traditionally black or tarred, and whitewashed plaster walls.

5.16 Statements of Environmental Opportunities:

- SEO 1: Manage rivers and river valleys to protect and improve water quality and help to alleviate flooding in the downstream urban areas, while also helping to improve aquifer recharge and provide a sufficient store of water to meet future need, especially with predicted climatic changes. Conserve the riparian landscapes and habitats, for their recreational and educational amenity for their internationally significant ecological value.
- SEO 2: Manage the agricultural landscape and diverse range of soils which allow the Northern Thames Basin to be a major food provider, using methods and crops that retain and improve soil quality, water availability and biodiversity.
- SEO 3: Protect and appropriately manage the historic environment for its contribution to local character and sense of identity and as a framework for habitat restoration and sustainable development, ensuring high design standards (particularly in the London Green Belt) which respect the open and built character of the Thames Basin. Enhance and increase access between rural and urban areas through good green infrastructure links to allow local communities recreational, health and wellbeing benefits.
- SEO 4: Manage and expand the significant areas of broadleaf woodland and wood pasture, and increase tree cover within urban areas, for the green infrastructure links and important habitats that they provide, for the sense of tranquillity they bring, their ability to screen urban influences and their role in reducing heat island effect and sequestering and storing carbon.

Description of Landscape Character at a Regional Scale

Kent Landscape Character Assessment

- 5.17 The Site falls within an area classified as Urban within the Kent Landscape Character Assessment, and is not located within proximity to, or with intervisibility, of the wider defined Kent Landscape Character Areas. Where Kent Landscape Character Areas have been identified within the Study Area, these are illustrated on Drawing No. KD.IMP.D.009 Landscape Character, where they are illustrated alongside areas defined as urban, along with character areas defined within the Gravesham Landscape Character Assessment and the Thurrock Landscape Character Assessment, covering land on the northern side of the River Thames.

Thurrock Landscape Character Assessment

- 5.18 Within the Thurrock Landscape Character Assessment, land to the north of the River Thames, within relative proximity and intervisible with the Site, is defined by Thurrock as E5 Tilbury and Docks Urban Area and C3 Tilbury Marshes. The location and extent of these character areas within the context of the Site is illustrated on Drawing No. KD.IMP.D.009 Landscape Character. The following information outlines their defined characteristics.

E5 Tilbury and Docks Urban Area

- 5.19 Key Characteristics of this character type are:

- Tilbury is a nucleated settlement, which, although located in close proximity to the docks, is separated from the main waterfront industry by a main railway line.
- The docks, part of the Port of London, were built in the 1880's and contain large commercial warehouses and distinctive vertical cranes. From within the docks, there are substantial cross-river views. Housing development within Tilbury is predominantly post-war and includes some tower blocks and flat-roofed housing blocks.
- Adjacent to the docks, a large industrial and commercial area serves Tilbury and contains large warehouses and ASDA supermarket.
- There are several areas of publicly accessible greenspace within Tilbury, distributed within housing areas and to the northeast of the settlement (Karting Stadium).
- The southern boundary is adjacent to Vange and Fobbing Marshes SSSI.

C5 Tilbury Marshes

- 5.20 Key Characteristics of this character type are:

- Low lying, level landscape.
- Horizontal landform.
- Large scale landscape.
- Network of linear ditches.
- Southern skyline of dock cranes, chimneys, pylons and power lines.
- Close proximity of residential areas.

Overall Character:

The character area is located in the south east of Thurrock adjacent to the River Thames. To the north the area is bounded by the Chadwell Escarpment Urban Fringe LCA which rises abruptly from the level marshland landscape. A broad wedge of the character area penetrates the Urban Landscape between the settlements of Chadwell St Mary and Tilbury. In general Tilbury Marshes LCA consists of level, low lying, drained alluvial marshland under predominantly arable farmland but with smaller concentrations of rough grazing land around Little Thurrock, Tilbury Fort and Goshems Farm. The enclosure pattern is defined by straight ditches and dykes creating predominantly rectilinear field shapes particularly in the west of the character area where the influence of the Chadwell Escarpment LCA is not as strong. Within the east fields are larger with irregular boundaries. In the south of the area adjacent to the River Thames there are two markedly different landmark buildings that visually articulate the long settlement period of this landscape and its changing function. The existing

building at Tilbury Fort originated as a British Castle Fortress type Fort with four diamond shaped buttresses forming an overall pentagon and was used as a defence throughout its history until the late 19th century. Tilbury Power Station is a 1400-Megawatt coal fired power station. Its concrete chimneys are visible from many locations within Thurrock and Kent Thames-side. A tight network of pylons and power lines emerges north from the power station across Tilbury Marshes LCA.

Evaluation:

*Sensitivity to very large-scale urban development – **High***

Very large-scale development would result in extensive degradation of the large-scale low-lying character of Tilbury Marshes LCA.

*Sensitivity to substantial-scale urban developments – **Moderate***

The character area is strongly influenced by urban areas and utilities infrastructure. The addition of development of this scale, if sited appropriately would not degrade the overall character of the LCA.

*Sensitivity to small-scale urban developments – **Low***

Small-scale development would result in only limited degradation of the elements that together combine to give the area's open, exposed character.

Description of Landscape Character at a Local Scale

Gravesham Landscape Character Assessment

- 5.21 The Gravesham Landscape Character Assessment provides local level assessment of landscape character, to a greater level of detail than that within the Kent Landscape Character Assessment and as such, provides supplementary guidance. As with the Kent Landscape Character Assessment, the Site is located within an area defined as Urban and as such is not provided specific descriptive characterisation. Nor is the site within proximity or intervisible with any defined Landscape Character Areas at the Gravesham local level.

Description of Townscape Character at a Site Level – including Immediate Context

- 5.22 At the Site level, townscape character is defined by a combination of the existing industrial use of the Site and its associated form, elements and features, together with those of the industrial commercial business and retail park which surrounds it, and the River Thames corridor which forms the Site's northern boundary. Beyond this, the wider urban fabric and active waterway extend to the northeast south and west, containing the Site. With respect to land use, this comprises a combination of further commercial and industrial development, mixed residential built form (houses and higher level flats), together with access infrastructure including both highways and commercial / industrial river movements. The Site extends to approximately 0.7 hectares and is principally occupied by existing operations.
- 5.23 The layout and morphology of the townscape can be considered as planned in a localised and roughly grid formation, with clearly defined transportation corridors including London Road, Overcliffe, Darnley Road, Pier Road, The Shore / Clifton Marine Parade, and West Street, containing and influencing built development around the site. The Site being located within

a clearly defined and established commercial and industrial employment and retail zone within the town, having its northern boundary about the River Thames to utilise the specific wharfage facilities available, including the existing pier.

- 5.24 Whilst no formal landscape and / or townscape character descriptions are provided for the Site or land surrounding it, the following description is provided by Gravesham Borough Council within their Delegated Report (dated 20th December 2021).

Imperial Wharf is located to the north of the adjoining Imperial Business Estate (IBE) an industrial and retail area lying west of Gravesend Town Centre that is set at a low level within a former quarry that was once occupied by the Imperial Paper Mills. The whole Imperial Wharf site is of an irregular shape with an area of 15,616 sq. m (1.5 hectares or 3.85 acres) and it measures a maximum 55.4 metres by 38.1 metres.

The wharf includes the jetty to the river Thames, a yard/compound adjacent to the river on the west side, the White House which is a three storey office building, a two storey brick building used for offices and storage adjacent to the jetty, a series of storage tanks adjacent to the river frontage, a car parking area on the site of the former Hit and Miss Public House, an unused partly surfaced and partly overgrown area adjacent to the car park which contains some trees, and a walkway that runs to the east of the wharf and a road (being the line of the former Clifton Marine Parade). The bell mouth of the road and the sight lines which are shown as being within the site are adopted highway while the service road (Clifton Marine Parade) is not highway land. The service road is part of the riverside walkway.

The Imperial Wharf is owned and operated by FM Conway as a bitumen terminal which was originally commissioned in 2014. A Polymer Modified Bitumen (PMB) plant was added at the terminal in 2017. It is indicated (on the FM Conway website) that the facility has a storage capacity of over 8,000 tonnes of bitumen and an average daily supply of 500 tonnes. The company manufactures a range of aggregates, asphalt and concrete products for use on the UK's highway network as well as for other construction and maintenance projects.

The F M Conway site also includes a vacant and overgrown plot on West Mill which has an area of approx.0.1 hectares. This was the site of business units F2, F3 and F4 in the original master planning for the business estate but the units were never built.

The wharf was originally operated as an ancillary wharf in connection with the use of a much larger site for the manufacture of paper products when it was operated by Imperial Paper Mills (part of the Reed Group) and used until the early 1980's for paper manufacture. This was redeveloped in the late 1980s following the closure of the Mill, when parts of the site were granted Enterprise Zone status. The original cranes on the jetty were removed in 2013.

IBE comprises the West Mill site which is a mixture of large and small Use Class E (Commercial, Business and Service) (formerly B1), some limited B2 (General Industry) and B8 (Storage and Distribution) business units while East Mill comprise large business units on the west side and a retail park on the east side.

There are some retail/trade uses within the business units of West Mill away from the retail park.

The Imperial Business Estate is overlooked by residential properties which sit above the chalk pit on a chalk spine in Pier Road to the west. Some of those properties are within the

Lansdowne Square conservation area. This is largely comprised of large C19th detached and semi-detached villa style properties some in use as flats or still single-family dwellings that benefit from views over the River Thames.

A riverside walkway along Clifton Marine Parade beyond the retail sheds in the Imperial Retail Park, leads to flats at Baltic Wharf. Further east lie residential properties set at a higher level in Stuart Road and Fairfield Square. There is also a resolution to permit further flatted development at West Street Pier.

The immediate surroundings of the site can therefore be characterised as one where the existing form of development largely comprises relatively low rise industrial and retail sheds set in the base of a former chalk quarry. This is overlooked from a higher level on three sides by a mixture of development that includes a significant residential component. Views to and from the River Thames are important as is the contribution of this setting to the significance of the adjoining Conservation Areas.

The wharf has more recently been refurbished (2013) including the tanks adjacent to the river and the wharf is currently being used for bringing in bitumen by river for distribution by road tanker. A new terminal and loading bay has been created at the eastern end of the wharf although the terminal and works including the refurbishment of the tanks was not as a result of any grant of planning permission, such works and additional plant having been claimed to be permitted development (Part 7 of the 'GPDO' Non-domestic extensions, alterations etc. Class I – development relating to an industrial process).

- 5.25 We generally concur with this description but add that there are both individual buildings and large shed type employment structures / buildings within the Imperial Business Park. These include the applicants 3 storey offices at The White House, the existing FM Conway silos of up to 15m in height, and Leading-Edge Labels and Packaging tall shed building off Thames Way. The nature, scale, and mass of the majority of business, manufacturing and retail unit is also large, as is the built footprint they occupy. It is noted that there are no civic buildings within proximity to the Site.
- 5.26 The wider visual setting / character of the site and Imperial Business and Retail Park also contains peripheral large and tall buildings and structures. These include new residential blocks, including Baltic Wharf, and land-based wind turbines. The Site and its lower-level setting is also contained by areas of the old, exposed chalk quarry faces and the ridge of residual properties to the east and mixed land use receptors to the south and west. Where the Imperial Business and Retail Park visual envelope allows very large and tall buildings, structures and ships are part of the urban riverside character. These aspects include Tilbury Docks, the London Cruise Terminal and riverside structures.
- 5.27 A number of Conservation Areas are within relative proximity to the Site, which help to define the Site's context. These areas afford descriptions of their individual characters, which together with the above urban design description, aids in building an understanding of the urban context of the Site. Please see section 4.0 Landscape Orientated Designations for a written description of characteristics and conservation area context.

Landscape & Townscape Sensitivity

- 5.28 Based upon the available published information desktop and field surveys undertake, we consider that the sensitivity of local landscape character and townscape to change resulting from the proposed development to be:

Character Areas

Table 1: Landscape Character – Sensitivity

Character Area	Sensitivity
Botany Marshes	Medium – High
Shorne and Higham Marshes	Medium – High
Urban	Low – Medium
Higham Arable Farmland	Medium – High
Gravesham Southern Fringe	Medium – High

Thurrock Landscape Character:

Character Area	Sensitivity
E5: Tilbury and Docks Urban Area	Very Low
C5: Tilbury Marshes	Medium
E3: West Thurrock and Purfleet Urban Area	Medium
E4: Grays / Chadwell St Mary Urban Area	Medium
D6: Chadwell Escarpment Urban Fringe	Medium – High
D7: West Tilbury Urban Fringe	Medium – High

At the Site local / townscape area:

Townscape Area	Sensitivity
Imperial Business Park, Retail, and Immediate Surroundings	Low – Medium

- 5.29 The main potential changes to landscape character associated with the proposed development are:
- The increase in built footprint and associated mass of the 2No. main silo structures and cumulatively, associated with the Site's and local built development.
 - Possible visual characteristics associated with proposed structures and use of colour.
 - The height of the main 2No. silo structures and possible effects on site and adjacent characteristic.
- 5.30 Landscape character and townscape mitigation measures proposed and integrated within the proposed scheme:
- The elements and features associated with the proposed scheme are the same / very similar to existing Site structures and land uses.
 - The size and height of the proposed scheme elements are the same / very similar to those existing.

- The location of the proposed new built elements are adjacent / in very close proximity / adjoining the existing structures associated with the applicants' operations. Both existing and proposed elements being connected in respect of operations.
- The colour of the proposed new structures will be the same as those used on the existing applicants' structures, which have associated permission.

Landscape and Townscape Assessment

- 5.31 We have assessed the potential effects of the proposed development on the elements and features which combine to help form local landscape character and setting.
- 5.32 The nature and scale of the proposed development and its associated visual influence is principally limited to its immediate urban area, and higher ground which looks down onto the Site, within a large panoramic visual setting. Its visual influence also extends to character areas located north of the Thames, in Thurrock. The Site's / proposed development within Gravesend is generally contained / limited by existing built and previously quarried structures, topography, and a limited amount of vegetation.
- 5.33 The nature of "effect" (magnitude) is determined by comparing the effect of the proposed development on the landscape character of the Site and the surrounding areas. Based upon the detailed application proposed, including mitigation measures, we assess the Magnitude of the proposed developments impact will be Low to Medium adverse.
- 5.34 Table 2 below, combines the Sensitivity of the individual character areas, together with the predicted Magnitude of Effect, to determine the potential level of Significance of Impact of the proposed development.

Table 2: Landscape Character – *Significance of Effect*

Gravesham Landscape Character:			
Character Area	Assessed Sensitivity to Change from the Proposed Development	Assessed Magnitude of Impact associated with the Proposed Development	Assessed Significance of Effect associated with the Proposed Development
Botany Marshes	Medium – High	None	Neutral
Shorne and Higham Marshes	Medium – High	None	Neutral
Urban	Low – Medium	Low	Very Slight to Slight Adverse
Higham Arable Farmland	Medium – High	None	Neutral
Gravesham Southern Fringe	Medium – High	None	Neutral
Thurrock Landscape Character			
E5: Tilbury and Docks Urban Area	Very Low	Low	Minimal Adverse

C5: Tilbury Marshes	Medium	Very Low	Very Slight Adverse
E3: West Thurrock and Purfleet Urban Area	Medium	None	Neutral
E4: Grays / Chadwell St Mary Urban Area	Medium	None	Neutral
D6: Chadwell Escarpment Urban Fringe	Medium – High	None	Neutral
D7: West Tilbury Urban Fringe	Medium – High	None	Neutral
Site Level Townscape Character, Elements and Features			
Imperial Business Park, Retail and Immediate Surroundings	Medium		

- 5.35 The overall level of Significance of Impact associated with the proposed development on the identified 12 character areas is assessed as between Neutral (no change) to Slight Adverse. Of the separate character areas, 8 will receive No Change (None) with a subsequent Neutral Effect.
- 5.36 The landscape character associated with the Gravesham urban area within which the Site is located is considered to be of Low to Medium Sensitivity to Change, to the type of development proposed. The townscape character associated with the Site and its immediate mixed urban context is also considered to be Low to Medium Sensitivity. The urban area surrounding the Site, being comprised of large scale industrial / commercial / retail shed structures, together with the existing FM Conway Imperial Wharf Bitumen Terminal. The built morphology of the Business Park comprising blocks of built footprint and also separate landscape scale urban structures. FM Conway's Imperial Wharf structures reflecting the individual River Thames corridor activities and built forms that are observed along both sides of the embankment, with both urban and urban fringe settings. The relatively small-scale proposed development elements would be located within brownfield sites adjacent to / in proximity to the same / similar FM Conway structures. The resulting Magnitude of impact is considered as Low for both the urban landscape character area and townscape area. The Low to Medium Sensitivity combined with the Low Magnitude, resulting in a potential Very Slight to Slight Adverse Significance of Effects. This is not a Significant Adverse effect on either landscape character or townscape.
- 5.37 Additional Landscape Value associated with two separate Conservation Areas, land in proximity to the Site. Lansdowne Square Conservation Area and Overcliffe Conservation Area are located on higher ground overlooking the Site from the south and west. The Conservation Areas were designated in 1995 and 1990 i.e. within the context of both existing and proposed / under construction large scale and mass components of Imperial Business and Retail Park,

and surrounding land, which were considered acceptable in respect of planning policies and Landscape Character aspects.

Table 3: Assessment of Proposed Development on Conservation Areas within the Gravesham Urban Landscape Character

	Assessed Sensitivity to Change from the Proposed Development	Assessed Magnitude of Impact associated with the Proposed Development	Assessed Significance of Effect associated with the Proposed Development
Urban Including Lansdowne Square Conservation Area	High	Low	Moderate Adverse
Urban Including Overcliffe Conservation Area	High	Low	Moderate Adverse
Urban Including High Street Conservation Area	High	None	Neutral

- 5.38 The effect of the proposed development is small in scale and mass compared to existing permitted developments. Its shape, height and colour being the same as the other adjacent FM Conway Bitumen structures. The Magnitude of effect is considered to be Low. Combining the High Sensitivity of the Conservation Area landscape character with the Low Magnitude of effect, results in a Moderate Adverse Significance of Effect. This level is Not Significant.
- 5.39 Across the river, the C5 Tilbury Marshes are considered of Medium Sensitivity to the type and scale of development proposed with the Magnitude of impact being Very Low. The resulting level of Significance of Effect being Very Slight Adverse.
- 5.40 The level of Sensitivity of the E5 Tilbury and Urban Docks Area is considered Very Low, with the magnitude of Impact Low, resulting in a Minimal Adverse Significance of Effect, associated with the proposed development.
- 5.41 We therefore assess that the development proposals will not result in any significant adverse impacts on either its local urban townscape environment or any of the surrounding Landscape Character Areas.

6.0 VISUAL MATTERS

- 6.1 Desktop and Site survey works have identified the areas of landscape and visual receptor locations from which the existing Site and the proposed development may be visible along with the different groups of people who may experience views of the development and its specific elements and features, along with the viewpoints where they will be affected and the nature of the views at these points.

- 6.2 This baseline and assessment work has been carried out by initially mapping the geographical extent of the study area where receptors have the potential to view the current Site and the proposed development. This was carried out digitally through the production of Zones of Visual Influence (ZTVI).
- 6.3 A current situation ZTVI was initially carried out based upon the Site's current ground level of approximately 5.5mAOD. A second ZTVI illustrating the proposed development including the new development elements was also carried out.
- 6.4 In respect of the Current Situation, as can be seen on Drawing Number KD.IMP.D.006 within Appendix A, the associated ZTVI has the greatest potential for a higher magnitude of impact within the Site boundary itself and its immediate surroundings, ranging from ~10m to ~100m from the Site boundary. This area covering Clifton Marine Parade and the northern areas of the Imperial Business and Retail Park, as well as properties on higher ground off Pier Road. The lower mid and lower magnitudes of potential visual impact are identified covering a slim margin westward over properties located off Pier Street and Burch Road, and The Shore to the south (east and west), principally located within the lower region of the previous chalk quarry (now the Imperial Business and Retail Park) up to and including higher ground covering parts of London Road and Overcliffe Road and adjoining properties. To the north, lower mid magnitudes cover the River Thames, spreading into Tilbury Docks to the north to ~1km from the Site. Lower magnitudes spreading along the River Thames corridor and northwards to Tilbury and Grays.
- 6.5 Drawing No KD.IMP.D.007, within Appendix A, illustrates the predicted ZTVI associated with the proposed development. As can be seen from this drawing, the new development has the potential (based upon its structural elevations of up to 17.08m (2No. silos) and including the 14.175m emulsion tanks, and landform only) to affect the visual nature of a larger geographical area of land than the Current Situation i.e. where built elevations are at ground level. The highest levels of potential impact being concentrated in an approximate 200 to 600m diameter from the Site boundaries. Again, the majority of this geographical area covering the relatively flat (previously quarried) chalk quarry, now the Imperial Business and Retail Park. The higher levels of potential magnitude of impact cover residential areas to the west of the Site. Higher mid levels of magnitude of impact vary on the western, southern and eastern boundaries of the Site, out to between ~0.2 to 1km and to the north to Tilbury Docks by ~1km. The area of lower mid potential ZTVI covers land within Gravesend up to 1.6km along the River Thames corridor to the west by ~3.5km, to the east by ~5km, and to the north over Tilbury and Grays by over 5km. Given the nature of the flat River Thames and its adjoining land corridor, higher ground to the south of the Site, and rising ground to the north, the ZTVI of the proposed development covers a potentially large geographical area.
- 6.6 The Site survey considered the viewpoint from which the current situation and the proposal will actually be seen by differing groups of people. These groups included:
- Residential visual receptors in private properties.
 - Public viewpoints e.g., public rights of way, inland waterways and public open space (POS);
 - Places where people work and;
 - Transport routes where there may be views from private vehicles and from different forms of public transport.

- 6.7 Based upon the above desktop research and assessment works a detailed visual Site survey took place being guided by both the current and proposed ZTVI's. Both ZTVI mapping and Site surveys assume that the observers eye height is some 1.6m above ground level, based upon the midpoint of average heights for men and women.
- 6.8 Drawing Number KD.IMP.D.013, within Appendix A, illustrates representative visual receptor locations from within the identified ZTVI of the proposed operational developments potential visual envelope. These receptor locations have been used to describe the types and levels of potential visual change and effect to local receptors. The visual receptor locations are illustrated looking towards the Site on Photographic Sheets 1 to 6. These illustrate representative visual receptor location points of existing and potential views of the Site and the development and site activities.
- Photosheet 1 – Views of the Site from the north bank of the River Thames
 - Photosheet 2 & 3 – Views of the Site from the east
 - Photosheet 4 & 5 – Views from within and adjacent to the Site
 - Photosheet 6 & 7 – Views from raised ground looking down onto the Imperial Business and Retail Park, including the Site
- 6.9 Table 6 summarises the representative visual receptors identified and the effects that have been considered with an assessment of their significance based upon the methodology described within Appendix B of this report.
- 6.10 This is first determined by assessing Sensitivity of Visual Receptors to change from this type of development proposal (Table 4) and then the magnitude of the visual effect, its size/scale, geographical extent, duration and reversibility (Table 5). A judgement on the sensitivity of visual receptors and magnitude of the effect are then combined to assess the overall significance of visual impact/effects. (Table 6)
- 6.11 The susceptibility of visual receptors to changes in view and visual amenity is mainly a function of *“the occupation or activity of people experiencing the view at particular locations and the extent to which their attention or interest may therefore be focused on the views and visual amenity they experience at particular locations”* (GLVIA page 113).

Table 4: Susceptibility of Visual Receptors to Change

Receptor No	Visual Receptors	Assessed Susceptibility to change of Visual Receptors	Assessed Value of View	Overall Assessment of Sensitivity of Visual Receptor
1	Users of the London International Cruise Terminal / Ferry to Gravesend - looking south east towards the Site at a distance of ~0.8km.	Medium	Medium	Medium
2	Receptors using northern Thames Embankment, south of The World's End Public House. Looking south east towards the Site at a distance of ~1.1km.	Medium	Medium	Medium
3	Receptors / visitors / setting of Tilbury Fort - looking south east	Medium	High	Medium/High

	towards the Site at a distance of ~1.3km.			
4	Users of Thames Embankment pathway - looking south east towards the Site at a distance of ~1.5km.	Medium	Medium	Medium
5	Views of southern Thames Embankment - looking west towards the Site at a distance of ~150m.	Medium	Medium	Medium
6	Residents of Baltic Wharf whose balconies and / or windows face west - looking towards the Site at a distance of ~150m.	Medium	High	Medium/High
7	Visitors to the Imperial Retail Park (shopping centre) - looking west immediately adjacent to the eastern part of the Site.	Medium	Medium	Medium
8	Users of Clifton Marine Parade adjacent to the eastern area of the Site.	Low	Low	Low
9	Users of West Street - looking west towards the Site (Site set behind existing buildings) at a distance of ~130m.	Low	Low	Low
10	Users of Clifton Marine Parade - located within the Site.	Low	Low	Low
11	Users of Site adjacent industrial units and associated car parking - looking north towards the Site at a distance of 0 to ~50m.	Medium	Medium	Medium
12	Users of Site adjacent industrial units and associated car parking - looking immediately north east towards the Site.	Medium	Medium	Medium
13	Users of road junction of The Shore and Clifton Marine Parade - looking east towards the Site.	Low	Low	Low
14	Pedestrian receptors using The Shore footpath (within a Conservation Area) adjacent to Rosherville Pier 1837 and Mine Watching Post WW11 (Grade II Listed) - looking east towards the Site at a distance of ~40m.	Medium	High	Medium/High
15	Receptors using raised Public Space (within a Conservation Area) - looking immediately east towards the Site at a distance of ~40m .	Medium	High	Medium/High
16	Receptor views from land around the W J King Vauxhall Gravesend car dealership, located off the A226 Overcliffe Road - staff and visitors have the opportunity to look north over the Business Park, down onto the Site at a distance of ~120m .	Medium	Medium	Medium
17	Potential receptors using the enclosed entrance / escalators off Overcliffe Road to a retail park (Asda) - receptors can look north	Medium	Medium	Medium

	east towards the Site at a distance of ~170m .			
18	Residents of 3 to 6 storey block properties accessed off Stuart Road nr. Iceland Foods / Gravesham Community Hospital. Receptors can look west and north towards the retail park, Imperial Business Estate and the Site, at a distance of ~170m.	Medium	High	Medium/High
19	Residential Receptors located around the periphery of the former chalk quarry on higher ground.	Medium	High	Medium/High
20	Office/ workers at The White House	Medium	Medium	Medium

6.12 Each of the potential visual receptor locations were visited to understand the nature and scope of the existing/ potential views of the Site and the proposed development.

6.13 Local visual receptors have a variety of assessed sensitivity to change resulting from the proposed development within this locality. Residential receptors having the greatest sensitivity to change, i.e. High with users of the local road network being assessed as having the lowest sensitivity to change i.e. Low as a result of their transient nature and limited time duration of view of the Site/ proposed development.

Table 5: Assessed Magnitude of Effect

Development	The proposed development is for the installation of two additional bitumen tanks, load out gantry, the installation of a bitumen emulsion plant and alternative car parking on land at Imperial Wharf. These new elements and activities being the same/very similar to the adjoining FM Conway Imperial Wharf Terminal and Technology Centre.
Size/scale	The size and scale of the proposed development is of a small to medium nature, set within a similar visual context and surrounding medium to large scale visual mass structures/built forms within a manufacturing/retail workplace and block retail environment.
Geographical extent	The proposed development will occupy ~0.7 Ha of land. Its potential geographical influence is small and contained within its immediate southern setting. Its northern visual setting again being contained/restricted by the existing FM Conway Centre. Receptors located on higher ground/or at higher built elevations can, however, look across and down onto the proposed development. The proposed structures set within the visual context of both similar structures and larger block structures. As such the sites and proposed developments visual envelope is varied with some potential views from the River Thames and receptors located to the north.
Duration	The proposed development will be permanent.
Assessed General	It is assessed that the proposed additional bitumen tanks (the tallest and longest new structures) in combination with other proposed

Magnitude of effect to local Visual Receptors	development structures and activities will have a Low to Medium level of magnitude of effect in local visual receptors.
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Visual Mitigation and Enhancement Measures

- 6.14 The nature of the existing urban employment and residential activities and the types of views available to and of the proposed development are generally mitigated, limited, and part restricted by existing built urban structures and/or from adjacent receptor location points which currently contain similar views.
- 6.15 A 4.5m high screening bund is proposed around the two new silos. The proposed silos and other new structures will be coated in the colours of the existing structures of matt greens to lower levels and lighter grey to higher levels. The visual approach as illustrated on Receptor Photograph Sheet 2- Receptors 5 & 6 demonstrate blend in the structures within the local and wider visual context.

Assessed Overall Significance of Visual Effects

- 6.16 This is achieved by combining the separate judgements about sensitivity of the visual receptor and the magnitude of the proposed development (including any mitigation measures) on visual impacts/effects. See Table 6 below.
- 6.17 Significance of visual effects is not absolute and can only be defined in relation to each development and its specific location. In making a judgement about the significance of visual effects it is noted that:
- Effects on people (receptors) who are particularly sensitive to change in views and visual amenity are more likely to be significant.
 - Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant.
 - Large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present within the view.

Table 6: Assessed Overall Significance of Visual Effects during the Operational (Construction) Period

Ref	Description of Visual Receptor	Receptors Assessed Sensitivity to change	Assessed Magnitude resulting from the proposed development	Assessed Significance of visual effect from the proposed development
1	Users of the London International Cruise Terminal / Ferry to Gravesend - looking south east towards the Site at a distance of ~0.8km.	Medium	Low	Slight Adverse
2	Receptors using northern Thames Embankment, south of The World's End Public House. Looking south	Medium	Low	Slight Adverse

	east towards the Site at a distance of ~1.1km.			
3	Receptors / visitors / setting of Tilbury Fort - looking south east towards the Site at a distance of ~1.3km.	Medium/High	Very Low	Very Slight to Slight Adverse
4	Users of Thames Embankment pathway - looking south east towards the Site at a distance of ~1.5km.	Medium	Very Low	Very Slight
5	Views of southern Thames Embankment - looking west towards the Site at a distance of ~150m.	Medium	Neutral	Neutral
6	Residents of Baltic Wharf whose balconies and / or windows face west - looking towards the Site at a distance of ~150m.	Medium/High	Medium	Moderate Adverse
7	Visitors to the Imperial Retail Park (shopping centre) - looking west immediately adjacent to the eastern part of the Site.	Medium	Neutral	Neutral
8	Users of Clifton Marine Parade adjacent to the eastern area of the Site.	Low	Medium	Slight Adverse
9	Users of West Street - looking west towards the Site (Site set behind existing buildings) at a distance of ~130m.	Low	Neutral	Neutral
10	Users of Clifton Marine Parade - located within the Site.	Low	Medium	Slight Adverse
11	Users of Site adjacent industrial units and associated car parking - looking north towards the Site at a distance of 0 to ~50m.	Medium	Medium	Moderate Adverse
12	Users of Site adjacent industrial units and associated car parking - looking immediately north east towards the Site.	Medium	Medium	Moderate Adverse
13	Users of road junction of The Shore and Clifton Marine Parade - looking east towards the Site.	Low	Medium	Slight Adverse
14	Pedestrian receptors using The Shore footpath (within a Conservation Area) adjacent to Rosherville Pier 1837 and Mine Watching Post WW11 (Grade II Listed)- looking east towards the Site at a distance of ~40m.	Medium/High	Low	Slight to Moderate Adverse
15	Receptors using raised Public Space (within a	Medium/High	Low	Slight to Moderate Adverse

	Conservation Area) - looking immediately east towards the Site at a distance of ~40m .			
16	Receptor views from land around the W J King Vauxhall Gravesend car dealership, located off the A226 Overcliffe Road - staff and visitors have the opportunity to look north over the Business Park, down onto the Site at a distance of ~120m .	Medium	Medium	Moderate Adverse
17	Potential receptors using the enclosed entrance / escalators off Overcliffe Road to a retail park (Asda) - receptors can look north east towards the Site at a distance of ~170m .	Medium	Very Low	Very Slight Adverse
18	Residents of 3 to 6 storey block properties accessed off Stuart Road nr. Iceland Foods / Gravesham Community Hospital. Receptors can look west and north towards the retail park, Imperial Business Estate and the Site, at a distance of ~170m.	Medium/High	Medium	Moderate Adverse
19	Residential Receptors located around the periphery of the former chalk quarry on higher ground.	Medium	Medium	Moderate Adverse
20	Office/ workers at The White House	Medium	Medium	Moderate Adverse

Visual Matters Summary Conclusion

- 6.18 Of the 20 typical representative receptors/receptor location points it is assessed that NO receptor will receive a significant adverse visual effect as a result of the proposed development. It is assessed that 9 representative receptors will receive a moderate adverse effect, 6 representative receptors will receive a slight adverse effect, 2 representative receptors a very slight adverse effect and 3 representative receptors a neutral effect.
- 6.19 The Moderate Adverse effect is predicted by three different groups of receptor types. These being:
1. Residential receptors - principally located on higher elevated land which look across and down onto the site/proposed development. These include representative receptor location points 6 (Baltic Wharfage Flats, 18 (Residential accommodation off Stuart Road) and 19 (Residential receptor located off Pier Road including Warren Hastings Court). These residential receptors are considered of a medium susceptibility to visual change and high value of either current views or value of view from a Conservation Area, giving a Medium to High sensitivity to a visual change

resulting from the proposed development type. The assessed magnitude of change from the proposed development being Medium. It is considered that the resulting assessed significance of visual effect will be Moderate Adverse. It is not assessed as any higher as a result of both the existing views being urban / urban estuary, with a variety of large and medium scale height and mass building structures already present within the visual envelope of receptors and also the relatively small to medium scale and height of the proposed development elements with mitigation of colour allowing for the structure's visual integration. The assessed visual effect is NOT Significant.

2. Office/working environments - including representative visual receptors at locations 11, 12 including M&H Steel, 16 WJ King Vauxhall, Gravesend and 20, The White House. Receptors being assessed as of Medium Sensitivity with the proposed development of Medium Magnitude resulting in Moderate Adverse levels of significance of effect. The visual effect is NOT Significant.
3. Receptors using either pathways or public open spaces within a conservation area or next to listed structures - Representative receptors 14 and 15. Although these receptors have restricted/ very restricted potential views (Low Magnitude) of the proposed development, their sensitivity to change is considered Medium to High . This results in a Moderate Adverse effect. This visual effect is NOT Significant.

Potential for Cumulative Landscape and Visual Impacts

- 6.20 The potential for landscape and visual cumulative effects have been considered. This includes the increase in built footprint associated with the proposed development in combination with the site's location within its urban context.
- 6.21 In respect of landscape character, the nature, scale and landuse along with its built elements and form are not judged to cumulatively significantly impact on either the physical fabric, make up or atmosphere of the combined existing setting or its character.
- 6.22 In respect of potential cumulative visual effects that could be caused by combined visibility, which occurs where the observer is able to see two or more developments from one view point, and or sequential effects which occur when the observer has to move to another viewpoint to see different developments, no significant adverse impacts are assessed to occur. There is a new residential housing development currently constructed/under construction ~250 to the west of the site off the junction of Crete Hall Road and the Shore. This development is, however, screened from the Site by both landform and intervening built structures with the more visible housing site entrance already landscaped and properties built.
- 6.23 Across the River Thames within Tilbury Docks, it is understood that a proposed construction and operation of a cementitious products manufacturing facility has received a Scoping Opinion. This appears a large structure and would be within the same visual envelope as the Site, the docklands / estuary land use character and its visual nature reflect those of the potential development. We assess that due to a combination of existing similar land use types set within the open and expansive landscape character along the River Thames, no significant cumulative landscape character effects will result.

- 6.24 We therefore assess there will be NO Significant cumulative effects associated within this application in combination with any other known development.

7.0 OVERALL CONCLUSION

- 7.1 The proposed assessed development is for the installation of two additional bitumen tanks, load out gantry, the installation of a bitumen emulsion plant and provision of an alternative car parking. The scheme includes mitigation of the use of colour on the proposed structures which both reflect the existing colours used at Imperial Wharf and provides a change in the use of darker green colour towards the lower areas of structures and a lighter grey to higher elevations to help integrate and respect lower built elements from those of a skyline lighter colour narrative. A 4.5m high screening bund around the two main silos is also proposed.
- 7.2 In respect of the Landscape Character and Townscape the Site is located within the Gravesham 'Urban' defined Landscape Character. Where the Site is located within and adjacent to the Imperial Business Estate, an industrial and retail area that is set at a low level within a former chalk quarry that was once occupied by the Imperial Paper Mills. The character of the area being dominated by large scale / mass industrial / manufacturing and retail shed style type structures combined and interspersed over this area and including the Site and adjacent residential properties to higher ground and/or blocks along the Thames embankment/immediate area.
- 7.3 It is assessed that the sensitivity of this urban character area (in proximity to the Site) to change from the type of development proposal is Low to Medium. The assessed magnitude of effect resulting from the proposed development is also assessed as Low to Medium. The resulting combined level of significance of effect being Very Slight to Slight Adverse. At a townscape level, with respect the immediate built morphology, land use, size scale and massing of the Site and its immediate mixed urban context, this is also assessed as being of Low to Medium Sensitivity, which when combined with an assessed Magnitude of Low, results in a Very Slight to Slight Adverse Significance of Effect. These are NOT Significant Adverse Levels of Effect.
- 7.4 It is assessed that Minimal Adverse Effect on the character of Tilbury and Docks urban area and a Very Slight Effect to Tilbury Marshes could occur across the River Thames. These are NOT Significant Adverse Levels of Effect.
- 7.5 It is noted that Lansdowne Square and Overcliffe Conservation Areas are located in proximity/ look down onto the Site. Both Conservation Areas located within the Gravesham Urban Landscape Character. The conservation status increases the value/sensitivity of landscape receptors within these areas. It is, however, noted that the Conservation Areas were designated in 1995 and 1990 i.e. pre development of some of the large scale and mass shed form character component / land uses of the Imperial Business and Retail Park which were considered acceptable in respect of the conservation area status and policies. The magnitude of the proposed development has been assessed in respect of the Conservation Area Landscape Character and with a resulting Moderate Adverse Effect. This effect is NOT a Significant Level. The High Street Conservation, which is also within relative proximity to the Site, does not however afford intervisibility with the Site. As such, it is assessed that effects would be Neutral i.e. no change to the character of the conservation area.

- 7.6 In respect of visual matters desk-based zones of Theoretical Visual Influence (ZTVI) of the current site and proposed development were carried out. ZTVI's are only based on Ordnance Survey ground levels and do not take account of existing buildings, built structures or screening vegetation. The current ZTVI being geographically very small and contained. The proposal ZTVI being larger both in terms of its geographical spread and level of potential magnitude of impact. Further desk based and Site / local area survey work took place and it soon became apparent that as a result of the urban nature of land surrounding the western, southern and eastern areas of the Site that potential visual receptor views were limited both in the amount of potential application new development which could be visible, its intensity and also its visual backdrop and settings located within an urban built environment. Based upon detailed site survey works it is assessed that NO representative visual receptors will receive a Significant Adverse Visual Effect resulting from the proposed development and that the mitigation measures, including the proposed colours of new structures, will help in blending / integrating to proposals into the local visual setting.
- 7.7 In conclusion, based on landscape character, townscape and visual grounds the Site is in an appropriate location for additional bitumen facilities associated with FM Conway Imperial Wharf Terminal and Technology Centre. The proposals will NOT result in any significant adverse impacts on either landscape or visual receptors. As such it will also be in accordance with landscape and visual orientated national and Gravesham Local Core Strategy Policies.