South Industrial Zone Environmental Statement July 2020

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Volume 2

Chapter B - Site Description and Scheme Proposals

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B1.0 Introduction

- B1.1 This Environmental Statement ('ES') Chapter describes the site and its relationship to the wider South Tees Development Corporation Area ('STDC') area, sets out the background to the proposals, provides a description of the development, explains the scheme assumptions that have formed the basis of this Environmental Impact Assessment ('EIA'), and considers the design rationale underpinning the proposals, providing an indication as to why alternative schemes have not been taken forward.
- B1.2 This chapter is structured as follows:
 - Section B2.0: provides a description of the site;
 - Section B3.0: provides a description of the site's surroundings within the STDC area;
 - Section B4.0: provides information on the background to the development;
 - **Section B5.0**: provides a description of the proposed development, including a detailed description of mitigation that has been embedded into the proposals;
 - **Section B6.0**: summarises the construction methodology that has been used as the basis for identifying potential environmental effects during the construction period within technical chapters of the ES;
 - **Section B7.0**: sets out the background to the proposed development and the planning policy context relevant to the determination of the planning application;
 - **Section B8.0**: discusses the alternatives considered to the proposed development including a consideration of their potential environmental effects;
 - Section B9.0: provides abbreviations; and
 - Section B10.0: sets out the references included within the chapter.
- B1.3 This Chapter is supported by the following Appendices:
 - 1 Appendix B1: Overview of Existing Built Structures on Site;
 - 2 Appendix B2: Existing on-site Infrastructure;
 - 3 Appendix B3: Sensitive Receptors Plan; and
 - 4 Appendix B4: Planning Drawings, including Parameters Plan, Indicative Masterplan and Access Drawings.

About the Author

B1.4 This ES has been coordinated by Katie Brown, Senior Planner at Lichfields. Katie is a Practitioner Member of the Institute of Environmental Management and Assessment and has 3 years experience in co-ordinating EIAs for a range of major development projects across the UK. The coordination role included the production of this chapter of the ES. She is also a Chartered Planner of the Royal Town Planning Institute.

B2.0 Site Location and Description

Introduction

B2.1 This section provides a description of the site's location and its characteristics. It includes information on the background to the development site. It is supported by figures and appendices to aid the understanding of the site.

Site Location

- B2.2 The development site is 174ha in size. It is brownfield industrial land and is largely free of active use and built development, as discussed in further detail below. The site has previously been occupied by iron and steel industries and it has also been used for the storage of materials and freight rail infrastructure.
- B2.3 The site is located approximately 2.5 miles north east of Middlesbrough town centre and 3 miles south west of Redcar town centre.
- B2.4 The site is situated immediately south east of the River Tees and it has a river frontage.
- B2.5 It is located within the STDC area and it lies between land operated by PD Ports for its industry and commerce park. British Steel's site is located to the south east of the development site, with the Lackenby and Grangetown Prairie sites located to the south.
- B2.6 The site is immediately bounded to the:
 - North West by the River Tees;
 - North East by the Lackenby Channel drainage cut and gas pipelines, forming part of the Sembcorp utilities corridor;
 - South East by the Darlington to Saltburn Network Rail line and the infrastructure corridor associated with the wider area (further information on the infrastructure corridor is provided below); and
 - South West by an existing line of raised vegetation and then by Smiths Dock Road.
- B2.7 The site's location and its surroundings are shown on Figure B2.1 below. A Site Location Plan is included at Appendix A1 of this ES.



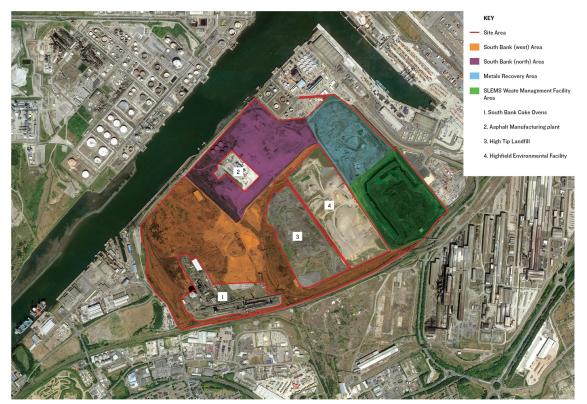


Source: GoogleEarth (June 2020)

Development Site

- B2.8 The development site is irregular in shape. Its shape is defined by current site workings and the existing surrounding infrastructure. The site also has distinct areas within it which have been used for different industries in the past.
- B2.9 Figure B2.2 shows this in more detail and a detailed description is provided below.

Figure B2.2 Site Plan



Source: GoogleEarth (June 2020)

Site Areas

B2.10 The site comprises four distinct areas, including:

1 The Metals Recovery Area

This area is shown in blue on Figure B2.2 above. It located in the north eastern part of the site. None of the area is currently in active use and it has previously been used for heavy industrial uses relating to the recovery of metals from the by-products of iron and steel making. The ground in the area is covered by a mixture of hardstanding and material associated with historic uses with an obvious internal vehicle network present.

There are a variety of built structures present on this part of the site, including containers, derelict buildings, two industrial style shed buildings, a viewing platform and associated structures and a wall.

An extract of a map showing the location of these built structures is included below. A full breakdown of structures and the complete version of the map is provided at Appendix B1.



Source: Lichfields (2020)

2 The SLEMS Waste Management Facility Area

This area is shown in green on Figure B2.2 above. It is located in the south eastern part of the site. It was previously in use as a waste handling and treatment facility for BOS oxide waste, for which it stopped receiving new material in 2015. Although the active use stopped in 2015, material is still occasionally exported from the site. Previously, the area has been used for heavy industrial uses relating to the recycling of materials from iron and steel making, and blast furnace slurry. The ground in this area is mostly covered by the waste material which is stored on site in mounds, however, this is interspersed by patches of vegetation. An internal vehicle network is also present across the area.

The Lackenby Channel and the Cleveland Channel watercourses are present on this part of the site, together running along three of its sides and draining into the River Tees via a drainage cut which takes it in a north west direction along the edge of the site, and then by an underground outfall to the River Tees. This is shown in greater detail on Figure B2.3 in the next section of this chapter and on the plans in Appendix B3.

In addition, there are three informal ponds on this part of the site (one towards the north of the area and two towards the southern end).

There are some built structures on this part of the site, including a storage shed, and electricity pylon. An extract of a map showing their location is provided below and a full breakdown is provided at Appendix B1.

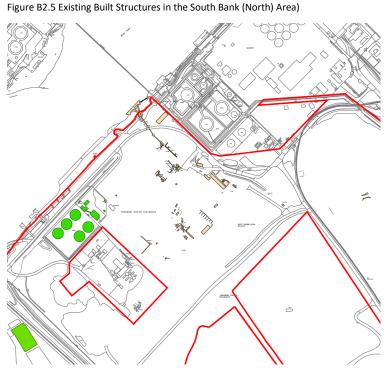


Source: Lichfields (2020)

3 The South Bank (North) Area

This area is shown in purple on Figure B2.2. It is located in the north western part of the site. Most of this part of the site is in occasional active use by Tarmac as an asphalt manufacturing plant. As such it contains mounds of material used in the manufacturing process, along with mobile and permanent plant. The ground is mostly covered by the material used in the on-site operations, interspersed by small pockets of vegetation. An internal vehicle network is present throughout, a small unnamed watercourse runs along the south western side of the area, as shown on Figure B2.3 and there is a settlement pond associated with the current use in the central northern part of the area.

There are a variety of built structures on this part of the site, including small buildings, containers, structures associated with the processing and transportation of materials and five disused oil tanks. Further details are provided below and at Appendix B1.



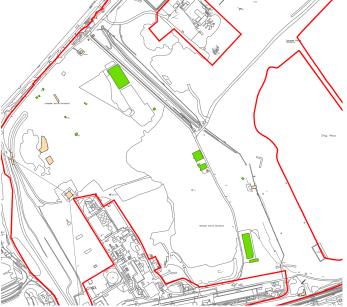
Source: Lichfields (2020)

4 South Bank (West) Area

This is shown as shown in orange on Figure B2.2. It is located in the western and southern central parts of the site. Historically, large parts of this area have been used for iron and steel manufacturing and none of the area is currently in active use. Grass and vegetation has grown over large areas of previous hard standing, whilst in the area to the east and north of the South Bank Coke Ovens evidence of recent use in aggregate processing remains. Although the material associated with this use has largely been removed, it still covers a large area of ground. The south eastern part of the site contains an unnamed private road and a track running parallel to the railway line as well as the industrial pipelines.

The area includes a variety of built structures, including small buildings and industrial style sheds, a substation, crushing plant, a raised section of road and bridge, two electricity pylons, and lighting towers. Further details are provided below and at Appendix B1 and B2.





Source: Lichfields (2020)

B2.11 Four pockets within the site are excluded from the redline (see Figure B2.1 and Figure B2.2 above). These are the South Bank Coke Ovens area in the south west corner of the site, the High Tip Landfill facility and the Highfield Environmental facility both located fairly centrally within the site and a rectangular area in the north western part of the site which is part of an asphalt manufacturing plant. These areas have been excluded from the site because they are either still active and working sites or because separate planning applications will be coming forward in respect of either the clearing or development of the sites. Three of these areas are marked as 'future phases' for development.

Site Wide Features

- B2.12 The underlying topography of the site is relatively flat however, previous and current uses across the site have led to the creation of a number of ridges and mounds of material, many of which are significant in height.
- B2.13 The site is located within Flood Zone 1 and is land assessed by the Environment Agency ('EA') as having less than 1 in 1,000 annual probability of river or sea flooding.
- B2.14 There are below ground assets within the site, including foundations of the South Bank Iron Works boiler house, Antonien Works, WW1 submarine base accommodation and the WW2 HAA battery and associated facilities. There are no designated heritage assets within the site, although the 20th century Riverside Pumping House and Custom House are considered of local importance.
- B2.15 The site is not within an Air Quality Management Area ('AQMA').
- B2.16 There are no designated sites within the site. The following species are known to be present or are likely to be present on site based on professional evidence: breeding birds, small population of breeding shelduck, brown hare, dingy skipper and foraging and commuting bats (although no roosting opportunities are present). In lieu of invertebrate surveys the invertebrate assemblage is considered to be significant in certain areas of the site. On an anecdotal basis it is understood

that common redshank utilise wetland habitats and further surveys remain on-going to undertake the exact position. Japanese knotweed is present in one location.

B2.17 There are no Public Rights of Way ('PROW') within the site.

On Site Infrastructure

B2.18 Figure B2.7 below depicts existing on-site infrastructure. Full versions of the individual components of this map are also included at Appendix B2. Much of this is associated either with the previous industrial uses on site or the wider industries within the surrounding STDC area.



Figure B2.7 On Site Infrastructure

Source: Lichfields (2020)

- B2.19 An internal private road network exists across the whole of the STDC area and some of these roads are located within the application site. Northern parts of the internal road network are utilised by PD Ports and they provide it with access between its facilities and to the wider road network.
- B2.20 Historically a freight rail network operated across the STDC area, parts of which are still operational. A section of track which diverts from the Darlington to Saltburn railway line, runs along the western edge of the Metals Recovery and the SLEMS waste management facility areas, before heading north east to Teesport.
- B2.21 National grid electricity infrastructure is present throughout the STDC area, and specifically, the site includes three electricity pylons and associated overhead electricity lines, with a further pylon located just outside the site. The pylons, and an 11KV electricity sub-station, are located in

the South Bank (West) Area as described above. The electricity infrastructure is shown on Figure B2.7 (in brown).

- B2.22 The STDC area contains a large network of critical industrial utility infrastructure, which is shown on the above figure (in green) and at Appendix B2. The following industrial pipelines are present on and under the site:
 - The now redundant Coke Ovens Gas Main ("COGM") runs from the South Bank Coke Ovens (at the south western part of the site) to the Redcar Coke Ovens in the north eastern part of the STDC area. The pipeline is an over ground feature on the development site and still contains hazardous material and is controlled under a nitrogen blanket to prevent ignition;
 - The Heavy Fuel Oil ("HFO") line. This pipeline is an over ground feature on the site and has trace heating to maintain flow; and
 - The BOC Gas pipeline is an over ground feature on the site, and follows the route of the Sembcorp utilities corridor, which carries a range of utilities from the Wilton International Complex under the River Tees to Seal Sands and the wider area.
- B2.23 The STDC area contains various water infrastructure associated as shown in the above figure (dark blue) Appendix B2. Water infrastructure present on the development site is shown on Figure B2.7, and comprises:
 - An Estuary Water Pumping Mains crosses the site in a north west-south east direction;
 - An NWL Water Mains crosses the north western end of the Metals Recovery Area before continuing under the River Tees;
 - Industrial Water Mains are present under the south of the South Bank (West) Area connecting to the Estuary Water Pumping Mains and to the South Bank Coke Ovens;
 - An Industrial Effluent Pipeline crosses the southern part of the South Bank (West) Area connecting to the South Bank Coke Ovens; and
 - An NWL foul sewer also crosses the southern part of the South Bank (West) Area connecting to the South Bank Coke Ovens.

B3.0 Site Surroundings

Introduction

B3.1 This section of the chapter provides details on the site's surroundings. It concludes by summarising the sensitive receptors for the EIA.

Surroundings

B3.2 An aerial photograph of the site and its wider surroundings is provided below (Figure B3.1).



Source: GoogleEarth (June 2020)

- B3.3 The site is located within the STDC area.
- B3.4 As set out above in paragraph B2.5, surrounding uses include Teesport, located to the north east of the site. This is operated by PD Ports, which is one of the largest ports in the UK and includes two container terminals, three general cargo berths, three Ro-Ro berths, rail sidings and extensive areas of warehousing and open storage areas. Beyond the site, to the west, is the PD Ports' Teesport Commerce Park which contains commercial and industrial uses associated with the port. To the south of the site is the Grangetown Prairie site, the South Tees Freight Park and the South Tees Imperial Park and Nelson Street industrial estates.
- B3.5 Other operations and operators within the STDC area include Redcar Bulk Terminal, Anglo America, Sembcorp and British Steel.

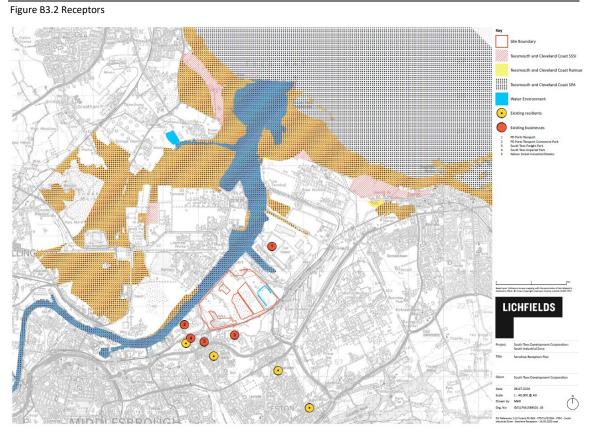
Access and Connectivity

B3.6 The development site is located directly to the east of Smiths Dock Road and directly to the west of Tees Dock Road. These roads provide connectivity to the wider local road network via the A66. The A66 provides direct links into the strategic road network via the A19 and A1M, and into the local road network including the A1053 and A1085.

- B3.7 The A66 links to Middlesbrough, Stockton-on-Tees and Darlington to the west, and joins the A1085 trunk road which links to Redcar to the east. The A19 links to Hartlepool, Peterlee and Sunderland to the north, and to Thirsk and York to the south. The A19 and A1(M) provide north-south links into the strategic road network.
- B3.8 Darlington Station which is located approximately 25 miles to the west. The station is on the East Coast Mainline which provides north-south rail links to London Kings Cross and to Durham, Newcastle and beyond. Darlington Station is connected directly to the STDC area via the Tees Valley line which connects Darlington to Saltburn and has two operational stations within the area; the South Bank Station, directly to the south of the site, and Redcar British Steel Station.
- B3.9 Teesside International airport provides national and international air connectivity to the region. The airport is located approximately 11 miles to the south, is within a 30 minute drive of the STDC area and is adjacent to the Teesside Airport train station which is on the Tees Valley rail line.
- B3.10 Walking and cycling facilities in the vicinity of the site and the surrounding area are limited. The Teesdale Way Public Right of Way ('PROW') runs parallel to the South Bank railway line. The nearest National Cycle Route (NCR) is Route 1 (NCR1) which runs across Redcar Road and parallel to Middlesbrough Road, approximately 1.3km (linear distance) to the south of the site. NCR1 provides strategic connections between Saltburn, Marske, Redcar and Middlesbrough.
- B3.11 There are no bus services within the vicinity of the site, with the nearest located in the residential area of South Bank approximately 1.3km walking distance from the south of the site.

Environmental Designations

B3.12 The surrounding environmental designations to the development site are shown on the receptors figure below (Figure B3.2).



Source: Lichfields

- B3.13 The River Tees is located directly to the north of the development site. This is part of the Teesmouth and Cleveland Coast Special Protection Area ('SPA') and Site of Special Scientific Interest ('SSSI'). This area includes intertidal sand and mudflat, saltmarsh and freshwater grazing marsh, saline lagoons, sand dune and shingle, rocky shore and shallow coastal waters that are able to support national and international bird species.
- B3.14 The river frontage on the northern bank of the River Tees is also designated as part of the Teesmouth and Cleveland Coast Ramsar site. This too is designated because of its range of habitats, including sand and mud flats, rocky shore, saltmarsh, fresh water and sand dunes. It is also identified as supporting invertebrates.
- B3.15 The closest residential receptors to the site are the houses in the residential area of South Bank, which is approximately 500m south of the western end of the site. These are separated from the site by the A66. Also within proximity of the site is the King George's Terrace mobile home site. This contains 18 pitches, and it is located on King George's terrace, approximately 800m south west of the site. It is separated from the site by the South Tees Imperial Park industrial estate and the Darlington to Saltburn railway line.

Summary of Sensitive Receptors

- B3.16 In light of the information presented in the above two sections of the chapter and with an understanding of the site and its surroundings, the following receptors are likely to be those most likely to be sensitive to the impacts arising from the development:
 - Users of the highway network including vehicles, pedestrians and cyclists on Dockside Road, Old Station Road, A66 / Old Station Road / Middlesbrough Road Roundabout, Middlesbrough Road, A66 / Tees Dock Road / A1053 Roundabout, A1053/ A1085 Trunk

Road Roundabout, A1053 (T), A1085 Trunk Road / A1053 Roundabout, A1053 Greystones Road / A174 Roundabout, A66 / Normanby Road signalised crossroads and A66 / Eston Road / Church Lane signalised crossroads.

- 2 Designated sites including Teesmouth and Cleveland Coast SPA and Ramsar Site and Teesmouth and Cleveland Coast SSSI;
- 3 On-site habitats including open mosaic habitats, lowland calcareous grassland, broadleaved woodland, open waters, saltmarsh, intertidal mud, and reedbed;
- 4 On-site species including invasive non-native species, invertebrates, dingy skipper, grayline, breeding birds, shelduck, wintering birds, bats, otter, marine mammals, migratory fish, brown hare and hedgehog;
- 5 Landscape Character Areas including industrial, intertidal estuary, coast and peninsula, Coatham Marsh, Eston Hills, Salthouse Wetlands, rural and urban green space;
- 6 Nearby sensitive viewpoints;
- 7 Existing on site and surrounding built and environmental landscape;
- 8 Nearby residential receptors, including those in South Bank and Grangetown and the mobile home travellers' site at King's George Terrace;
- 9 Existing drainage networks and watercourses the River Tees estuary, Holm Beck tributary, Knitting Wife Culvert and the Cleveland and Lackenby Channels, mercia mudstone, and superficial aquifer;
- 10 Surface water and ground water;
- 11 Nearby waste management facilities and landfill capacity;
- 12 Regional materials availability;
- 13 Construction workers;
- 14 Future site users;
- 15 Local employment;
- 16 Economic output;
- 17 National and local carbon targets and GHG emissions; and
- 18 Below ground heritage assets foundations of South Bank Iron Works Boiler House, foundations of Antonien Woks, foundations of WW1 submarine base accommodation, foundations of WW11 HAA battery and associated facilities, 20th century Riverside Pumping House, and 20th century Custom House.
- B3.17 A sensitive receptors plan is included at Appendix B3 of this ES.
- B3.18 Further consideration of the receptors is provided in Chapter C to M of the ES.

B4.0 Background to the Development

- B4.1 Chapter A of this ES sets out information on STDC as the applicant of this outline planning application.
- B4.2 As set out in Chapter A, STDC is the third Mayoral Development Corporation to be established. It was created in August 2017 by the then Secretary of State for Communities and Local Government pursuant to Section 198 of the Localism Act 2011 (Ref 1) at the request of the Tees Valley Combined Authority ('TVCA') and was established by The South Tees Development Corporation (Establishment) Order 2017 (Ref 2).
- B4.3 Prior to the establishment of the STDC, the area was used in the iron and steel making industry which had been present on Teesside for approximately 170 years. However, the liquidation of Sahaviriya Steel Industries ("SSI") in October 2015 caused an end to the majority of the industry on Teesside. The loss of this heavy industry left large areas of land, within what is now the STDC area, vacant or under used with ground contamination and built structures associated with that heavy industry.
- B4.4STDC was established as the public sector vehicle for delivering area-wide, economic
regeneration in the area to augment the wider economic growth plans of the Tees Valley. The
extent of the STDC area covers approximately 1,800 ha and is shown in blue on Figure B4.1
below. The site boundary is also marked in red on this figure.



Figure B4.1 STDC Area

STDC Masterplan (2019)

STDC produced its Masterplan (Ref 3) to support development of the area through the local planning and planning application process. The Masterplan sets out the vision for transforming the STDC area into a world-class, modern, large-scale industrial business park. It provides a

flexible development framework where land plots can be established in a variety of sizes to meet different occupier needs in the most efficient manner possible.

It identifies five distinct 'zones' within the STDC area using the area's opportunities and constraints alongside the Masterplan's vision. This development site is located within the 'South Industrial Zone'. This zone is identified for port related used, offshore energy industries, materials processing and manufacturing and energy generation. The Masterplan recognises the potential to use the site's river frontage for industry and commerce.

In conjunction with the Masterplan, STDC is also in the process of developing area wide coordinated strategies in relation to the following topics, to facilitate the comprehensive delivery of the Master Plan's vision:

- Transport;
- Environment and Biodiversity;
- Port Facilities and Logistics;
- Water and Flood Risk Management;
- Energy and Utilities;
- Ground Remediation;
- Materials and Waste;
- Demolition and Salvage;
- Construction Logistics; and
- Open Space, Public Realm, Heritage and Placemaking.

These strategies should be taken into account when developing project proposals. Their relevance to the proposed development is set out in relevant chapters of this ES.

Commercial Overview and Market Demand

- B4.9 The scale and location of the STDC area provide significant economic opportunities and it is within this context that the proposed development is intended to be delivered.
- B4.10 The presence of over a kilometre of river frontage in this zone is seen as major opportunity for the whole area to provide for a significant increase in port capacity on the river. Proposals to develop new port facilities are underway with an application for a new quay anticipated later in the year.

Planning History

- B4.11 Development proposals at the site are largely historic by their nature, however the following are relevant to this EIA.
- B4.12Planning permission was approved by RCBC on 27th September 2019 (reference.
R/2019/0427/FFM) for the following development:

"Demolition of structures and engineering operations associated with ground preparation and the temporary storage of soils and its final use in the remediation and preparation of land for regeneration and development."

B4.13 This application included the current development site and much of the surrounding area within the control of STDC. It sought detailed planning permission for engineering operations associated with two distinct elements of ground preparations works across the STDC area.

Firstly, for engineering operations associated with the temporary storage of soils in mounds, and secondly for its final use in the remediation and preparation of land (including the current development site) for redevelopment in line with the STDC Masterplan.

- B4.14 This permission is of relevance to this EIA insofar as it grants permission for the storage of soil in the metals recovery area of the development site. This part of the permission has not been implemented and the existing baseline position regarding earthworks has been taken into account in this EIA. Further information on earthworks are included within the following section of this chapter.
- B4.15 A prior approval application has been submitted on behalf of STDC. This includes:
 - 1 Prior approval application R/2020/0281/PND was submitted to RCBC on 5th June 2020 for the following development:

"Prior approval for proposed demolition of 5 quayside heavy duty oil tanks and associated structures and pipework"

- B4.16 This application seeks prior approval for the demolition of some of the on-site structures at the development site (as identified in section B.2 of this Chapter). STDC is also in the process of submitting other prior approval applications for the demolition of other built structures on site.
- B4.17 Alongside these approvals, existing permits exist on site for the operation of activities that would enable the demolition of other on-site structures. STDC is committed to implementing these approvals and permits. However, to address any potential uncertainty of these not being removed from this site prior to demolition, all demolition works associated with all existing structures on site has been taken into account in this EIA. This is explained in further detail Section B.8 of this chapter and within relevant technical chapters.

B5.0 Description of Development

- B5.1 This ES relates to the proposed development of up to 418,000 sqm of general industrial and storage or distribution facilities floorspace, with ancillary office accommodation, parking and associated works.
- B5.2 The description of development is as follows:

"Outline planning application for demolition of existing structures on site and the development of up to 418,000sqm (gross) of general industry (Use Class B2) and storage or distribution facilities (Use Class B8) with office accommodation (Use Class B1), HGV and car parking and associated infrastructure works. All matters reserved other than access"

Development Parameters

- B5.3 Since the application is submitted in outline (apart from site access), until specific building occupiers are identified, the precise specification of the warehouses and the development cannot be known. The EIA is therefore supported by a Parameters Plan which is submitted for approval and this is included at Appendix B4. This Plan provides details of the scheme's fixed development parameters (including development zones, maximum building parameters and access).
- B5.4 Subsequent reserved matters applications will be required to be submitted in accordance with the Parameters Plan details and it is anticipated that a planning condition will be attached to any outline planning permission requiring such an approach. The parameters therefore provide flexibility regarding how the site will ultimately be developed whilst providing all parties with a sufficient level of certainty about the development in order to undertake the appropriate level of environmental assessment.
- B5.5 The proposed development is a parameter led scheme and these have been set based on the site, its context and environmental considerations. The parameters have also been developed to allow flexibility as to the end user and with commercial requirements in mind. End users could include typical manufacturing and storage or distribution occupiers and also could include facilities associated with the offshore wind industry if the opportunity arises.
- B5.6 The parameters have also been designed in accordance with a separate application, currently being prepared by STDC, for the development of a new quay at the north of the site. This will create the opportunity to transport goods and materials to and from the site via ship. For the purpose of this EIA, it is however assumed that there will be no opportunities for deliveries via ships. This assesses the realistic scenario if this proposed development does not come forward.
- B5.7 Further details on the development parameters set out on the Parameters Plan, and other parameters on which the environmental assessment has been based on are set out below.

Land Use and Floorspace

- B5.8The outline planning application seeks permission for up to 418,000sqm of B2 (General
Industry) and B8 (Storage or Distribution) uses alongside offices. For the purpose of the ES, a
maximum of 10% of the overall floorspace will be B1 (Office).
- B5.9 The Parameters Plan which accompanies this planning applications includes 'development areas' where this proposed floorspace will be delivered.
- B5.10 Since the application is submitted in outline, the final floorspace and mix of uses is currently unknown. The precise quantum and footprint of floorspace will be delivered at reserved matters

stage. An Indicative Masterplan is included at Appendix B4 and this shows one option as to how the development could be built out. This plan is for indicative purposes only and is not being submitted for approval.

- B5.11 An area of hardstanding and storage is proposed at the north of the development site (see the accompanying Parameters Plan) to provide the opportunity for end users of the site to use a new quay which is being brought forwards as part of a separate planning application.
- B5.12 As explained within previous sections of the ES, the EIA has assessed the requirement to demolish all existing structures on site.

Maximum Development and Building Height

B5.13 For the purpose of this EIA, the maximum development height at the site will be 46m within all of the development areas marked on the Parameters Plan. The maximum building height will be 40.21m AOD. These figures take account of the proposed site levels and earthworks (see below).

Site Levels

- B5.14 For the purpose of this EIA, the minimum finished floor level ('FFL') will be 5.79m AOD. This will enable the maximum building height (set out above) to be delivered on site.
- B5.15 This FLL will also enable the development to be at the same level as the proposed quay (being brought forward in a separate planning application) in the northern part of the site. It will allow for the feasible transportation of goods and materials to and from ships and for their storage in the proposed hard standing area.
- B5.16 The finished floor level has also been determined by a requirement of the Environment Agency ('EA'). This will provide mitigation in the event of flooding.

Earthworks

- B5.17 The EIA is based on the assumption that the site will be cut and fill neutral.
- B5.18 To enable this, the FFL across the site may need to be greater than 5.79m AOD. The development parameters above have therefore been set to provide flexibility in how the site is brought forward. Within the maximum development height of 46m, warehouses can be bought forward based on different FFL and building heights as long as the maximum parameter is not exceeded.
- B5.19 Each of the relevant technical chapter has assessed the proposed development on the basis of a maximum development height of 46m and a minimum FFL of 5.79m. As the application is in outline, the final development height will be based on market demand and will be determined at the reserved matters stage of the planning process.

Building Design

- B5.20 Full details of building design will be agreed with RCBC at the reserved matters stage of the development. The specific design and specification will respond to end users requirements and market demand. Notwithstanding this, the Design and Access Statement submitted as part of this application provides an understanding of proposed design, examples and indicative images. It is anticipated that the building design will adopt a contemporary and modern architecture and the colour palette will be sympathetic to the site's surroundings.
- B5.21 STDC is in the process of producing a Design Guidance for Developments and the design of the proposals will accord with these guidelines.

Access and Parking

B5.22 Full details are submitted in respect of the proposed assess arrangements. Access plans are submitted for approval as part of this application and these are included at Appendix B4.

- B5.23 The main access into the site will be via the new roundabout junction which has been constructed at the junction of Smiths Dock Road and Dockside Road. The roundabout has been constructed to serve the STDC Regeneration Masterplan and facilitate access into the wider South Industrial Zone. There is also a secondary access provided on the eastern boundary of the site which connects to Tees Dock Road.
- B5.24 In addition to this proposed access the site will also include a service corridor at the south of the site. This will connect to the site access at Smiths Dock Road at the west of the site and to Tees Dock Road further to the south of the site. It is also designed to provide access to the wider area.
- B5.25 The site will also include internal access road(s) and parking and servicing areas for each development plot, which will come forwards in phases as and when development is brought forward at the site. The detailed design of these roads and parking / servicing areas will be subject to future reserved matters applications.

Landscaping and Biodiversity

B5.26 By the nature of the proposed development, no landscaping is proposed within the site. Consideration of how the loss of existing habitats and biodiversity is considered within chapter D (Ecology and Biodiversity) of this ES.

Hours of Operation

B5.27 Whilst the operating hours of each unit will be dependent on end user requirements, it is typical for such uses in the STDC and Redcar area to operate 24/7, seven days a week and this is the basis on which the EIA has been undertaken.

Drainage

B5.28 A water management framework is currently being discussed and developed with STDC and so at present there are no details available on the water management and drainage design for the site. A range of drainage parameter assumptions have been identified within the Water Management and Flooding chapter (Chapter G) that relate to drainage and these include that the strategy will not change the physical nature of the Tees bank and that it is assumed that all surface water runoff will require SuDS treatment and attenuation prior to discharge. However, due to contamination, this will not comprise soakaways.

Sustainability

- B5.29 The scheme will seek to achieve BREEAM 'Very Good' throughout the construction and operational stages of development. Whilst the exact sustainability credentials of the scheme will be established at the reserved matters stage, it is anticipated that the following measures could be implemented:
 - Encourage a reduction in Co₂ emissions, monitor energy and waste consumption and consider energy generation;
 - Future occupiers of the proposed development will be encouraged to consider the benefit of cooperating to manage resources, environmental issues, energy generation, logistics, green technology, local education and resources;

- Building design will consider the need to reduce the vulnerability of the development to climate change through the implementation of sustainable design;
- Contractors will consider using local suppliers, recycled materials and will be required to implement a Construction Environmental Management Plan ('CEMP') which will be monitored throughout the construction phase of development;
- All building materials and products will be sourced, where practical, from suppliers who manufacture with certified environmental management systems and timber will be Forest Stewardship Council ('FSC') certified, where possible; and
- Adoption of Framework Travel Plan ('FTP') and specific Occupier Travel Plans to promote sustainable modes of travel in accordance with STDC's emerging transport strategy.

B6.0 Construction Methodology

B6.1 This section describes the key construction parameters that have been assessed as part of this EIA.

Programme of Works

- 1.1 The proposed development will be brought forward in phases based on market demand for the employment uses proposed. It is assumed that the construction period will take between 5 and 8 years.
- 1.2 The first phase of the development will include the delivery of site preparation works and access arrangements for the site. For the purpose of assessment within this EIA it will be assumed that site preparation and infrastructure works will take between 12 and 18 months following the grant of planning permission and the discharge of relevant planning conditions. It is assumed at this stage that work will begin on site in early 2021 (subject to the determination of the planning application).
- 1.3 The subsequent phases will deliver a proportion of the employment units and their associated infrastructure (based on market demand), with first occupation in 2023. It is assumed that construction will commence to the east (at the metals recovery site) and the site will be developed east to west over the 5 to 8 year period.
- 1.4 For the purpose of this EIA it is assumed that the development life will be a minimum of 50 years. No assessment of decommissioning has been undertaken as it would not be reasonable to try and undertake an assessment of the environmental impacts at this time.
- 1.5 As the application is submitted in outline, apart from access, reserved matters applications for appearance, landscaping, layout and scale will be submitted to RCBC at the appropriate time for each phase of the development. These details will accord with the development parameters set out within this ES.

Development Works

1.6 The key stages of the construction works are set out below.

Pre-Commencement

B6.2 Prior to the commencement of development, site and ground investigation surveys will be undertaken in order to identify the need, or otherwise, for additional survey work and / or remediation work.

Site Preparation

- B6.3 Site and mitigation hoarding / fencing, plant and machinery and safety and security lighting will be erected and brought onto site. Mitigation and protective fencing will be required around the areas of land not being developed and areas of ecological importance, existing watercourses and around electricity pylons.
- B6.4 Site preparation works will include the creation of the construction access. The construction access will be at Smiths Dock Road of the site. Access drawings accompany this ES and the outline planning application (see Appendix B4).
- B6.5 The preparation of the site will include the creation of a construction compound. For the purpose of this EIA it is assumed that there will be one main construction compound near to the

construction access. When developed, each development plot will have its own construction compound. STDC is in the process of defining a Masterplan wide construction strategy. This will include a construction support site for the wider area, although a decision is yet to be made on its location and function. For this reason, the EIA is based on the above compound details. If the STDC strategy is progressed during the course of this outline planning application or throughout the reserved matters process additional details will be provided.

B6.6 The construction compound(s) will include offices for contractors and sub-contractors, toilet facilities, a first aid room, meeting and training room(s), site storage and cycle and car parking facilities. Waste, fuel and material storage areas will also be constructed in order to allow for the safe storage and collection of materials to and from the site in accordance with environmental permits. Best practice measures will be set out in this area in accordance with a Construction Environmental Management Plan (CEMP' – see further details below). No overnight staff accommodation is proposed.

Enabling and Ground Works

- B6.7 The site is relatively flat however, previous and current uses across the site have led to the creation of a number of ridges and mounds of material, many of which are significant in height. For the purpose of this ES, the site will be cut and fill neutral. If this is not achievable, it is assumed that all waste will be kept within the STDC area.
- B6.8 Where necessary, further information will be submitted at the reserved matters stage of the planning process.
- B6.9 As explained in section B.4 of this chapter, for the purpose of this EIA it is assumed that all existing buildings and structures on site will be included within these development proposals. A plan detailing the extent of these structures is included in Appendix B1. For the purpose of this EIA it is anticipated that the level of demolition material will be greater than 50,000m3. Once the exact position is known on site at the reserved matters stage of the planning process further information will be submitted to RCBC.
- B6.10 All hazardous waste and other waste, if relevant, will go to the Highfield Landfill Site which is marked on the Parameters Plan.

Access and Highways Works

- B6.11 The main access into the site will be via the new roundabout junction which has been constructed at the junction of Smith's Dock Road and Dockside Road. The roundabout has been constructed to serve the STDC Regeneration Masterplan and facilitate access into the wider South Industrial Zone. There is also a secondary access provided on the eastern boundary of the site which connects to Tees Dock Road.
- B6.12 A service road will be constructed at the south of the site and this is shown on the Parameters Plan. It will connect to the access at Smiths Dock Road and further to the south of the site along Tees Dock Road. It will be constructed in phases based on the phases of development and as and when it is required by the site occupiers. This will also provide access to the wider STDC area.
- B6.13 An internal site access road will also be constructed to provide connection to the buildings, once built. This will be constructed (insofar as necessary) as part of the first phase of development and completed on a phased basis thereafter. Each warehouse will include its own associated infrastructure, including car parking facilities, turning areas brought forward during the appropriate phases of development.

Drainage Design

B6.14 Once the drainage strategy is confirmed and agreed with RCBC and statutory consultees this will either be developed at a site wide level or as each development plot is brought forwards for development.

Building Foundations and Construction

- B6.15 For the purpose of this EIA, it is assumed that piling will be used for the construction of the development. Because of current ground conditions at the site, work is ongoing to understand the appropriate type of piling and a piling risk assessment will be undertaken prior to construction starting on site.
- B6.16 A batching plant is located in the most northernly 'future phase' area on the Parameters Plan and it is anticipated that this will be used for the construction of the development.

Building Materials

- B6.17 Materials are anticipated to include steel, timber and metal and those associated with the construction of warehouses. Where possible, materials will be sourced from local construction companies to reduce the need for deliveries and transportation times. An opportunity exists to source materials from within the STDC area and its existing manufacturers and steel works. The exact palette of materials will be based on occupier requirements and will be agreed with the Council at the reserved matters stage of the planning application process.
- B6.18 Building materials will be stored at the on-site compound(s) and they will be ordered when each warehouse is constructed to avoid the need to store excess materials on site.
- B6.19 The construction of each building will require the use of large cranes, tower / mobile cranes, scaffolding and hoists. It is also assumed that dumper trucks, fork lifts, heavy goods vehicles, generators, pumps and compressors will be used throughout the construction period.
- B6.20 All temporary construction works will be designed to meet engineering and safety standards. All works will be coordinated daily to ensure the safety and wellbeing of personnel on site.

Sustainability Standards

- B6.21 As set out in section B.5 of this chapter, the scheme will seek to achieve BREEAM 'Very Good'. The sustainability credentials of the scheme will be agreed at reserved matters stage, however those that relate to the construction stage include:
 - Contractors will consider using local suppliers, or sourcing materials from the STDC area and they will be required to implement Site Waste Management Plans ('SWMP') which will be monitored throughout the construction period;
 - All building materials and products will be sourced, where practical from suppliers who manufacture with certified environmental management systems and timber will be Forest Stewardship Council ('FSC') certified where possible; and
 - Adoption of a Framework Travel Plan ('FTP') and specific occupier travel plans to promote sustainable modes of transport.

Site Specific and Environmental Control Measures

1.7 Site specific control measures will be implemented throughout the construction process. A detailed account of these is provided in chapter P of this ES and in each technical chapter. Those relevant include:

Hours of Work

- B6.22 Construction is envisaged to take place 24/7.
- B6.23 The construction hours have been chosen to accord with the construction and operation hours of surrounding uses. An extension beyond typical construction hours will allow the construction phase of the development to be brought forward at a faster pace, thereby reducing the time for temporary impacts associated with the construction of the development.

Site Management

- B6.24 All construction activities will be undertaken by industry certified contractors and specialist for each phase of the construction process. This will be managed and coordinated by a Site Project and Environment Coordinator for each development plot who will be responsible for the health and safety of the site.
- B6.25 All work will be subject to risk assessments and method statements and these will be reviewed in order to accord with best practice standards. Where relevant, these will be required to mitigate the impact of the development, including specific measures as set out in the technical chapters of this ES.
- B6.26 All contractors and personnel entering the site will be required to show the relevant permits and, upon request, will be required to provide proof of compliance with waste and pollution regulations.

Construction Environmental Management Plan ('CEMP')

B6.27 A CEMP will be developed in accordance with the recommendations of each technical chapter and this will control activities on site during the construction stage of the development. It will include best practice methods and will also include the details of strategies and plans, including, but not limited to: a Construction Traffic Environmental Management Plan ('CTEMP'), a Dust Management Plan and Materials Management Plan.

B7.0 Development and Policy Background

- B7.1 This section provides an overview of planning policy relevant to the determination of the planning application.
- B7.2 A more detailed appraisal of all relevant policy is provided in chapters C to N of this ES, as well as in the Planning Statement which forms a standalone document to this submission.

Planning Policy Context

Statutory Development Plan

- B7.3 The statutory development plan for RCBC currently comprises:
 - Redcar and Cleveland Local Plan (adopted May 2018) (Ref 4); and
 - The Tees Valley Joint Minerals and Waste Development Plan Documents, comprising:
 - (a) Minerals and Waste Core Strategy DPD (adopted September 2011) (Ref 5); and
 - (b) Minerals and Waste Policies and Sites DPD (adopted September 2011) (Ref 6).
- B7.4 The site is allocated as a Protected Employment Area (Policy ED6) as identified on the adopted Policies Map. It is also identified as being within the STDC area (Policy LS4). The relevant section of these policies are set out below:

Policy LS 4 (South Tees Spatial Strategy)

"The South Tees Spatial Strategy includes:

- Wilton International
- South Tees Development Corporation area, as illustrated on the Policies Map (including current and former steelworks at South Tees and Redcar)
- Teesport
- South Tees Industrial Estates and Business Parks

The Council and its partners will aim to:

Economy

- a deliver significant economic growth and job opportunities through the South Tees Development Corporation and Tees Valley Enterprise Zone at Wilton International and South Bank Wharf;
- b support the regeneration of the South Tees Development Corporation area through implementing the South Tees Area Supplementary Planning Document;
- c grow the environmental and recycling sector;
- d investigate opportunities to create a new energy hub to support the offshore wind and sub-sea engineering sectors;
- e support the expansion and protection of the port and logistics sector;
- f improve existing employment areas and provide a range of modern commercial premises that meet contemporary business requirements including the target sectors of the South Tees Area Supplementary Planning Document;
- g continue development on general industrial and business estates;

- h give the area an identity and make it attractive to inward investment;
- i develop the chemical, technology and energy production industries at Wilton International;
- j support the existing steel industries and take a lead role in supporting the future regeneration of former steel sites as part of the South Tees Development Corporation;
- k enhance the quality and range of services and facilities that serve the needs of those working in the South Tees employment area;
- 1 encourage clean and more efficient industry in the South Tees area to help reduce carbon dioxide emissions and risk of environmental pollution;
- m support development related to Sirius Minerals' North Yorkshire Polyhalite project; and
- n support the extension of the road network to unlock the development potential of South Tees.

Connectivity

- o improve and maintain access links between South Tees and the strategic road network;
- p support improvements to the strategic and local road networks to support economic growth;
- q deliver rail infrastructure improvements to support an increased movement of rail freight;
- r investigate the feasibility for providing a new rail halt at Wilton International;
- s maintain and improve public transport connectivity with settlements in the borough and beyond;
- t support the extension of the road network to unlock the development potential of South Tees;
- u maintain and enhance walking and cycling routes from nearby towns to the South Tees employment areas;
- v improve access to, and the quality of, broadband internet;

Environment

- w enhance the environmental quality of employment through well planned boundary treatments;
- x secure decontamination and redevelopment of potentially contaminated land;
- y protect European sites, and safeguard and improve sites of biodiversity interest particularly along the River Tees and the estuary and encourage integrated habitat creation and management;
- z enhance the environmental quality of the River Tees and coastline;
- aa safeguard and enhance the significance of buildings, sites, settings and areas of heritage and cultural importance including the 'Dorman Long' tower at South Bank Coke Ovens supporting its adaptation to enable alternative uses;
- bb encourage improvements to access, interpretation and wildlife conservation and biodiversity across the area;
- cc support the development of the South Tees District Heating System; and

dd support the development Carbon Capture and Storage to de-carbonise the local economy."

Policy E6 6 (Promoting Economic Growth)

B7.5 The relevant extract of this policy states:

Land and buildings within existing industrial estates and business parks, as shown on the Policies Map, will continue to be developed and safeguarded for employment uses.

Specialist uses, such as heavy processing industries and port logistics, will be focused in the following areas, with 405ha of additional land available over the plan period. In these areas proposals falling within Use Classes B1, B2, B8 and suitable employment related sui-generis uses will be supported.

Ref.	Site	Location	Additional available land (net ha)
ED6.1	Wilton International ¹	South Tees	221
ED6.2	Land at South Tees ²	South Tees	184
ED6.3	Skinningrove	East Cleveland	0

Proposals at South Tees, South Tees Freight Park and Bolckow Industrial Estate (collectively referred to as the South Tees Development Corporation area) should have regard to the South Tees Area Supplementary Planning Document (SPD). Proposals which positively contribute towards growth and regeneration will be supported.

High tech and knowledge driven development should be focused within the South Tees Development Corporation area, at Kirkleatham Business Park and Cleveland Gate Business Park, as defined on the Policies Map.

•••

Some of the above employment sites lie adjacent to, or are within, the proximity of protected landscapes and nature conservations sites. Where appropriate, proposals will need to demonstrate that there will be no adverse effects on the integrity of the Teesmouth and Cleveland Coast SPA and Ramsar site, or other European designated nature conservation sites either alone or in combination with other plans and programmes. Any proposals for development within the Warrenby Industrial Estate adjacent to Coatham Marsh should include a buffer of undeveloped land and a suitable boundary treatment during both construction and operation, such that direct effects on land within and immediately adjacent to the proposed extension to the Teesmouth and Cleveland Coast SPA are avoided. Any necessary mitigation measures must be secured in advance of the development in order to meet the requirements of the Habitat Regulations.

Proposals will be encouraged to improve the quality of the environment, signage, security and accessibility of the sites."

B7.6 A full schedule of the relevant planning policies is provided within the standalone Planning Statement which accompanies the outline planning application.

¹ Includes Main Complex and land to the West of A1053.

² Includes Teesport Estate, Teesport Commerce Park and land along the River Tees.

Other Material Considerations

National Planning Policy Framework (2019)

- B7.7 The National Planning Policy Framework ('NPPF') (Ref 7) is a material consideration in the determination of planning applications.
- B7.8 The NPPF contains the Government's planning policies for England. The NPPF states that planning policies and decisions should play an active role in guiding development towards sustainable solutions and in doing so should take local circumstances into account to reflect the needs and opportunities of each area (paragraph 9 and 10).
- B7.9 It promotes sustainable growth and Chapter 6 (Building a Strong and Competitive Economy) puts significant weight on the need to support economic growth and productively, taking into account local business needs and wider opportunities for development. The NPPF recognises this as particularly important where Britain can be a global leader in driving innovation.
- B7.10 Chapter 6 of the NPPF also recognises that planning policies and decisions should recognise and address the specific locational requirements of different sectors, including storage and distribution operations at a variety of scales and suitable accessible locations.
- B7.11 The storage and distribution service sector is therefore recognised as a key economic sector in its own right, employing high levels of people directly. Its essential role in supporting other key sectors that rely on efficient movements of goods is also widely acknowledged.
- B7.12 Chapter 14 (Meeting the Challenge of Climate Change, Flooding and Coastal Change) recognises the role of renewable energy, by stating the plans should consider identifying suitable areas for renewable and low carbon energy sources and supporting infrastructure, where this would help secure development.
- B7.13 The relevant NPPF chapters comprise:
 - Chapter 6: Building a Strong and Competitive Economy;
 - Chapter 9: Promoting sustainable transport;
 - Chapter 11: Making efficient use of land;
 - Chapter 14: Meeting the challenges of climate change, flooding and coastal change; and
 - Chapter 15: Conserving and enhancing the natural environment.

The South Tees Area SPD (May 2018)

- B7.14 The South Tees Area SPD (Ref 8), prepared by RCBC, supports the economic and physical regeneration of the South Tees Area. It sets out the vision and core objectives for the area and provides greater detail on how adopted planning policies will be interpreted. The SPD is supported by the South Tees Regeneration Masterplan (details of this have already been presented in this chapter and summarised below), which has been prepared by STDC and is a background study to the SPD.
- B7.15 The SPD sets out the following vision for the area:

"The Vision for the South Tees regeneration programme is to see the area transformed into a hotbed of new industry and enterprise for the Tees Valley that makes a substantial contribution to the sustained economic growth and prosperity of the region and the communities it serves. The Vision sees the creation of up to 20,000 new jobs. The focus is on higher skilled sectors and occupations, centred on manufacturing innovation and advanced technologies and those industries best able to deliver sustained economic prosperity for the Tees Valley and its people, while realising a jobs spectrum that offers opportunities for all. The Vision is underpinned by the aspiration for new development to make best use of existing infrastructure and available land and to deliver a high value, low carbon, diverse and inclusive circular economy for the Tees Valley.

The Vision sees an aspirational, modern industrial park, combining industrial, environmental, heritage and community assets in a well designed development that is safe for all users and supported by a safe and efficient transport network, which delivers enhanced connectivity to the wider Tees Valley and beyond.

It extends to realising a telling, positive change in the external perceptions of the South Tees Area and wider Tees Valley to potential inward investors, to achieving the remediation of land contamination and to safeguarding biodiversity and promoting and encouraging environmental improvement. In overall terms, the realised Vision for the South Tees Area will deliver an exemplar, world class industrial business park that is renowned as a destination for manufacturing excellence."

- B7.16 The SPD includes a number of Strategic Development Principles intended to guide planning applications associated with the redevelopment of the STDC area. Those of particular relevance to the proposed development include:
 - STDC1 (Regeneration Priorities): provides a series of priorities for the South Tees area in line with the SPD's Vision and Objectives. These include a strong alignment with the Government's Industrial Strategy, a co-ordinated world class offer, promotion and support for the expansion of existing port facilities, support for uses associated with advanced manufacturing, the low carbon and circular economy and for the creation of high-skilled employment and to support development which makes the best use of available land and existing infrastructure;
 - STDC 4 (Economic Development Strategy): supports opportunities for specialist industries as well as the growth and expansion of existing operators and development proposals that will increase the attractiveness of the area for new users; and
 - STDC 6 (Energy Innovation): this supports the development of new generation within the South Tees Area, including renewable energy development and the promotion of other innovative energy projects.
- B7.17 The SPD also sets out a series of development principles and objectives relating to economic development, employment opportunities, transport and sustainability.
- B7.18 The site is identified as being within the South Industrial Zone ('SIZ'). The SPD sets out development principles for this area and a relevant extract to the principle of development includes.

"Within the South Industrial Zone, the Council, in partnership with the STDC, will encourage development proposals for port-related uses, including port-based fabrication, offshore energy industries, including manufacturing, materials processing and manufacturing, contract fabrication and energy generation and, potentially, rig and large equipment decommissioning..."

B7.19Part of the application site also lies within the South Bank Wharf Enterprise Zone. Enterprise
Zones include regulatory and tax incentives and are used to reverse the decline in existing

industrial areas. At South Bank Wharf, 100% Enhanced Capital Allowance on capital investments are available for renewable energy and advanced manufacturing sectors which meet relevant qualification criteria.

B7.20 South Tees Regeneration Masterplan

- B7.21 As has previously been discussed in this Chapter of the ES, the South Tees Regeneration Masterplan was published in November 2019. The Masterplan does not form part of the statutory development plan thought it has closely informed the preparation of, and is aligned with, that statutory policy framework.
- B7.22 The Masterplan identifies the application site as being part of the SIZ (as referenced above) and sets out a development overview for the area.
- B7.23 It identifies the SIZ as having the below assets and opportunities:
 - Close to 880 acres of land available for development;
 - 1.3km of river frontage with deep water potential;
 - Existing rail connectivity to the various land areas;
 - Over 2 million sq. ft. of existing large-scale industrial shed buildings with OH craneage and rail connections;
 - Legacy industrial facilities offering heritage preservation potential;
 - Very large licenced landfill facilities with significant residual capacity for both hazardous and non-hazardous waste;
 - Commercial development opportunities;
 - Close proximity to A66 with existing highway connections; and
 - Benefits from any future Free Zone status.
- B7.24 The Master Plan identifies the site's river boundary as offering the opportunity for a significant increase in port-capacity on the river. This opportunity enhances the potential for attracting major industries that rely on imports and exports by sea, and that serve offshore industries.

Planning Policy Framework Matrix

B7.25 Review and assessment of the above documents has identified that the following key planning policy issues are relevant to the assessment of the proposal:

	Relevant Policy	
Issue	NPPF Paragraphs	Redcar and Cleveland Local Plan (May 2018)
Principle of Development	8, 9, 10, 11, 80, 82, 84, 117, 118	SD3, LS4, ED6, SD1, SD5
Design	91, 124, 127, 130,	SD4,
Transport and Access	103, 106, 107, 108, 109, 110, 111	ΤΑ1, ΤΑ2, ΤΑ3
Other Environmental Considerations: Biodiversity and Ecology Noise and Vibration Air Quality Water Management and	150, 153, 163, 170, 171, 175, 178, 180, 181, 183, 189, 109, 192, 193, 197, 199	
Flooding		

Table B7.1 Key Planning Policy Issues for Assessment

	Relevant Policy	
Ground Conditions and		
Remediation		
Socio-Economic		
Waste and Materials		
Management		
Climate Change		
Landscape and Visual Impact		
Below Ground Heritage		

B8.0 Consideration of Alternative and Design Evolution

- B8.1 Schedule 4(2) of the 2017 Regulations (as amended) require identification of the reasonable alternatives that have been studied by the developer. Schedule 4(2) requires the consideration in the context of those that are relevant to the proposed project and its specific characteristics and an indication for the main reasons for selecting the chosen option, including a comparison of the environmental effects.
- B8.2 In addition, Schedule 4(3) of the 2017 Regulations (as amended) requires a review of the likely effects in the event that the development does not come forward (i.e. an outline of the evolution without implementation of the development). This is known as the 'no development scenario'.
- B8.3 To comply with these requirements, this section provides a review of:
 - 1 Likely effects in the event that the development does not come forward (i.e. the no development' scenario);
 - 2 Consideration of whether alternative locations would achieve the objectives of the current proposal; and
 - 3 Consideration of the evolution of the design of the scheme and whether alternative forms of development would achieve the same objective.

No Development

- B8.4 In addition to the requirements set out within the relevant regulations, guidance in carrying out an EIA suggests that it is good practice to consider the evolution of the site in the absence of the proposed development (in other words the 'do nothing' scenario).
- B8.5 If the proposed development were not to come forward, there is the possibility that the site would remain in its existing use as vacant brownfield industrial land. This scenario would not deliver economic development on one of RCBC's protected employment areas and STDC's vision for the site and its surrounding area. STDC was established as the public sector vehicle to deliver transformation change and economic growth plans for the area. STDC's vision for the area (as set out in its Masterplan (November 2019) and Supplementary Planning Document (May 2018)) is to create up to 20,000 jobs with the focus on high skilled sectors and occupants, centred on manufacturing innovation and advanced technologies. The development site itself is located within the South Industrial Zone and is an area STDC has identified for materials processing and manufacturing, port related uses and offshore energy uses, including manufacturing. Without development at this site, this vision would not be realised and the associated economic benefits, including job creation and the ability for the site to complement surrounding economic development would not come to fruition. The site also benefits from a frontage onto the River Tees and any benefit associated with its direct link to this would also not be realised.
- B8.6 If no development were to come forward on this site then other associated environmental benefits would not be realised. These include the delivery of a remediation strategy for current ground conditions and offsite biodiversity net gain within the wider STDC area. STDC is in the process of publishing strategies to bring forward environmental enhancements in the area, and where possible, this proposed development will contribute to these strategies.
- B8.7 Finally, and as explained below, the development site has been assessed by both RCBC and STDC and it is considered appropriate in terms of location and environmental impact to support

employment development. For this reason a 'no development scenario' is unlikely in this instance.

Consideration of Alternative Locations

B8.8 The proposed development site is allocated as a protected employment area by RCBC and it forms a key developable area within STDC'S strategy for the South Tees area. The proposed development is being brought forward in accordance with the aspirations for the South Industrial Zone and therefore no alternative locations have been considered for the development in the STDC area or the wider region. Developing an alternative site would not fulfil the objectives of STDC or RCBC for this area.

Environmental Considerations

- B8.9 In deciding to allocate this site for future employment development within the STDC area both RCBC and STDC have undertaken environmental assessments to understand the baseline of the area and to understand if there were likely to be any environments impacts that would either prevent development or require mitigation through the submission of planning applications. These assessments included, but were not limited to:
 - Transport Connectivity and Accessibility Assessment: this assessment looked at road, rail, air and sea connectivity and identified potential connectivity barriers. As part of the STDC's role in the area is it working with other statutory bodies to bring forward a transport investment programme for the area and it recognises that the redevelopment of the STDC area will offer the opportunity for improved transport connections and a network of sustainable transport across the region. A new roundabout access off Dockside Road has recently been completed and this is the first stage in the delivery of a comprehensive area wide strategy to support the regeneration of the area;
 - Watercourses: survey of the surrounding watercourses has been undertaken. In addition to the River Tees there are on-site channels and of relevance to the development site is the Lackenby Channel. STDC has identified that development of sites within the Masterplan area provide the opportunity to culvert the channels, enhance, divert or, where possible open the culverted sections to enhance the water and landscaped environment. STDC has also identified that the development of this site provides the opportunity to increase ground levels to act as flood alleviation;
 - Ground Conditions: as previously identified above, development at this site and the wider STDC area will enable a ground remediation strategy to be implemented. This will provide a solution to existing contamination issues in the area that are associated with its industrial heritage; and
 - Ecological Considerations: STDC identify the presence of designated sites, important habitats and wildlife but recognise the opportunity to enhance and protect these assets through mitigation and compensation measures delivered as part of planning applications. As set out above, STDC is in the process of completing a biodiversity net gain strategy which will seek to create a coordinated approach to emerging industry requirements.
- B8.10 In undertaking the EIA, the technical team has worked closely with STDC and relevant statutory consultees to consider and address the environmental matters at the site. An iterative process has been followed, as discussed below, to agree parameters that maximise the potential socio-economic and ground remediation benefits of developing the site whilst minimising potential adverse ecological effects.

Design Evolution

- B8.11 The proposed development is a parameter led scheme and it is based on market demand and on an understanding of environmental considerations for the site and its immediate surrounding area. The nature of the development proposals have emerged through a robust process of consultation with STDC, potential future occupiers, RCBC and relevant statutory consultees. The design evolution process is discussed in turn below.
- B8.12 On-site environmental considerations have defined the proposed development parameters. These parameters are set out in section B.5 of this chapter and are based on the following:
 - **Proposed Floorspace**: the maximum proposed floorspace of 418,000sqm takes into account the site's ability to accommodate a particular quantum of development. It is based on the understanding that a greater level of development and associated employment generation may give rise to a greater environmental impact, including for example of the local transport network.

The Parameters Plan submitted with this application includes a series of 'development areas' and these are located in a way which will allow for the maximum amount of floorspace to be brought forward, whilst also allowing for sufficient space for internal access roads, services yards, parking.

As this site is part of the wider STDC Masterplan area, a comprehensive approach is being taken to address environmental matters at the site, particularly in relation to ecology and biodiversity.

- 2 **Proposed Development Height**: the maximum development height has been based on an understanding of landscape and visual impact. In deciding on the development height consideration was also given to site's surrounding context. Once future occupiers are known, reserved matters applications will be submitted to RCBC and this will include information on the heights of each building. It is likely at this stage of the planning process that a variation in building heights will be introduced, but will not exceed the maximum building height parameter set on the submitted Parameter Plan.
- 3 **Finished Floor Levels**: the minimum FFL of 5.79m AOD is based on consultation with the EA and on the understanding of flood risk alleviation.
- 4 **Earthworks**: for the purposes of this EIA, the earthworks are proposed to be cut and fill neutral. This parameter is anticipated to be achievable based on ground conditions, the wider STDC wide remediation strategy and the proposed minimum finished floor level. Further details are provided on earthworks and waste in the relevant technical chapters, however this assumption reduces the waste associated with the construction stage of development.
- 5 Access Arrangements: the proposed development will include two access points. The main access will be at Smiths Dock Road at the western boundary of the site and a secondary site access will be at Tees Dock Road to the north eastern boundary of the site. Transport surveys have underpinned STDC's strategy for its Masterplan area and for this site. The results of the surveys identified the need for two access points to the site (rather than three) and the decision to a main access point is based on the requirement to have a 60/40 split in traffic flows in order to reduce traffic delays and maintain highway safety on the surrounding road network.
- B8.13 The proposed development parameters are tested further within the technical chapters of the ES. The EIA has been based on the final scheme design as shown on the accompanying Parameters Plan (Appendix B4).

B9.0

Abbreviations & Definitions

1	AOD	Above Ordnance Datum
2	AQMA	Air Quality Management Area
3	BREEAM	Building Research Establishment Environmental Assessment Model
4	CEMP	Construction Environmental Management Plan
5	СТЕМР	Construction Traffic Environmental Management Plan
6	COGM	Coke Ovens Gas Main
7	DPD	Development Plan Document
8	EA	Environment Agency
9	EIA	Environmental Impact Assessment
10	ES	Environmental Statement
11	FFL	Finished Floor Level
12	FSC	Forest Stewardship Certified
13	FTP	Framework Travel Plan
14	HFO	Heavy Fuel Oil
י 15	NCR	National Cycle Route
16	NE	Natural England
17	NPPF	National Planning Policy Framework
18	NWL	Northumbrian Water Limited
19	PROW	Public Rights of Way
20	RCBC	Redcar and Cleveland Borough Council
21	SIZ	South Industrial Zone
22	~	Special Protection Area
23	SPD	Supplementary planning Document
24	SSI	Sahaviriya Steel Industries
25	SSSI	Site of Special Scientific Interest
26	STDC	South Tees Development Corporation
27	SWMP	Site Waste Management Plan
28	TVCA	Tees Valley Combined Authority
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BIO.0 References

- 1 Localism Act 2011 (Minister of Communities and Local Government; November 2011)
- 2 The South Tees Development Corporation (Establishment) Order 2017 (Minister of Communities and Local Government; August 2017)
- 3 South Tees Regeneration Master Plan (South Tees Development Corporation; November 2019)
- 4 Redcar & Cleveland Local Plan (Redcar & Cleveland Borough Council; May 2018)
- 5 Tees Valley Joint Minerals and Waste Development Plan Documents Core Strategy DPD (Stockton-on-Tees Borough Council, Redcar & Cleveland Borough Council, Darlington Borough Council, Middlesbrough Council, Hartlepool Borough Council, Tees Valley Unlimited; September 2011)
- 6 Tees Valley Joint Minerals and Waste Development Plan Documents Policies & Sites DPD (Stockton-on-Tees Borough Council, Redcar & Cleveland Borough Council, Darlington Borough Council, Middlesbrough Council, Hartlepool Borough Council, Tees Valley Unlimited; September 2011)
- 7 National Planning Policy Framework ('NPPF') (Minister of Housing, Communities and Local Government; February 2019)
- 8 The South Tees Area Supplementary Planning Document (Redcar & Cleveland Borough Council; May 2018)