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Tees CCPP Project

The Tees Combined Cycle Power Plant Project
Land at the Wilton International Site, Teesside

Volume 2 - Annex I2

Regulations – 6(1)(b) and 8(1)

Applicant: Sembcorp Utilities UK
Date: November 2017

- 1.1 This Draft Construction Transport Management Plan (CTMP) is to consider the additional traffic generated by the construction of a Combined Cycle Power Plant (CCPP) on land at Wilton International, near Redcar in Teesside; the referred to as the Tees Combined Cycle Power Plant (Tees CCPP) or 'the Project'.
- 1.2 This draft CTMP has been prepared in advance of the appointment of EPC contractor tasked with the construction of the Project and thus the management of traffic. It is intended to provide a framework and the EPC contractor will meet or exceed the framework provisions of this document and adapt it to their Project specific construction methodology. The EPC contractor will be required to submit for comment / approval to Redcar and Cleveland Borough Council (RCBC) and the Highway Agency as secured by requirement 25 of the draft DCO. This requirement is worded that it must be discharged prior to the commencement on any construction activities.
- 1.3 As the CTMP will cover the means of site access / egress for construction personnel and include measures to minimise the number of individual movement. It will also consider the management of heavy goods vehicles (HGV) delivering plant, machinery and other general construction materials and abnormal indivisible loads (AILs) which will need a special strategy for delivery.

I2.1 SITE CONTEXT

- 1.4 The Project Site is located within the wider Wilton International Site, which is made up of 810 hectares (2,000 acres) of land zoned for development with outline planning permission for heavy and light industrial use.
- 1.5 The wider surrounding area is highly industrialised with port facilities, oil refineries and chemical works.
- 1.6 The Project site is accessed from the A1053 Greystone Road, which forms part of the strategic trunk road network. The A1053 connects to the A174 to the south and A66 Tees Dock Road to the north. The A174 provides a link to the A19 to the south which in turn links to the A1 (M).
- 1.7 The location of the site in relation to the local highway network is shown in *Figure I2.1*.

Figure I2.1 Site Location**I2.2 PROJECT DESCRIPTION**

- 1.8 The Project site is currently unused and was formerly occupied by the GDF Teesside Power Station which was demolished several years ago.

1.9 The Project will comprise a natural gas fired Combined Cycle Gas Turbine (CCGT) generating station with an output capacity of up to 1,700 MWe. The station will include up to two gas turbine units, two steam turbine units, ancillary plant and equipment located in the main power island in the western part of the Project site. The northern part of the site will include hybrid cooling towers and an area of land for possible future carbon capture equipment has been set aside in the eastern part of the site.

I2.3 CONSTRUCTION PROGRAMME

1.10 There are two possible development scenarios, which are:

- Scenario One: 1,700 MWe CCGT (39 month build and commission period).
- Scenario Two: Two phased 850MWe CCGTs (two periods of construction separated by up to five years).

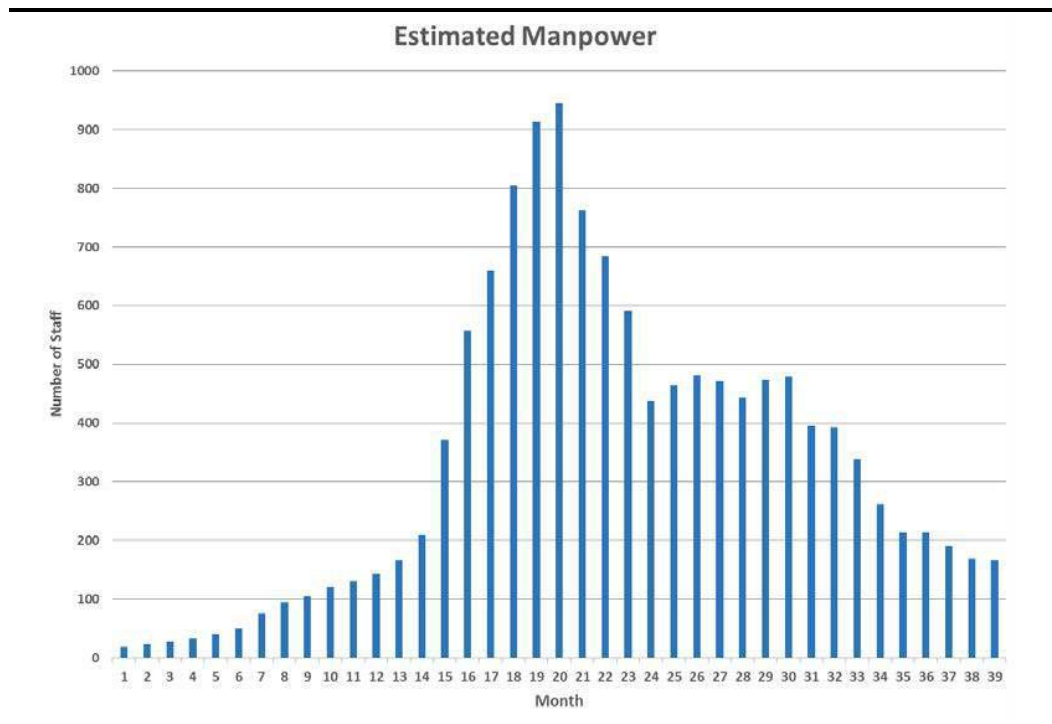
I2.4 SCENARIO ONE

1.11 Scenario 1 comprises a 1,700 MWe CCGT build.

1.12 It is anticipated that the construction phase for Scenario One will last for 39 months.

1.13 Numbers of construction workers will vary throughout the project based upon the current construction phase/activity, peaking in Month 20 at around 945 workers on site at any one time (see *Figure I2.2*).

Figure I2.2 Estimated Manpower Scenario 1



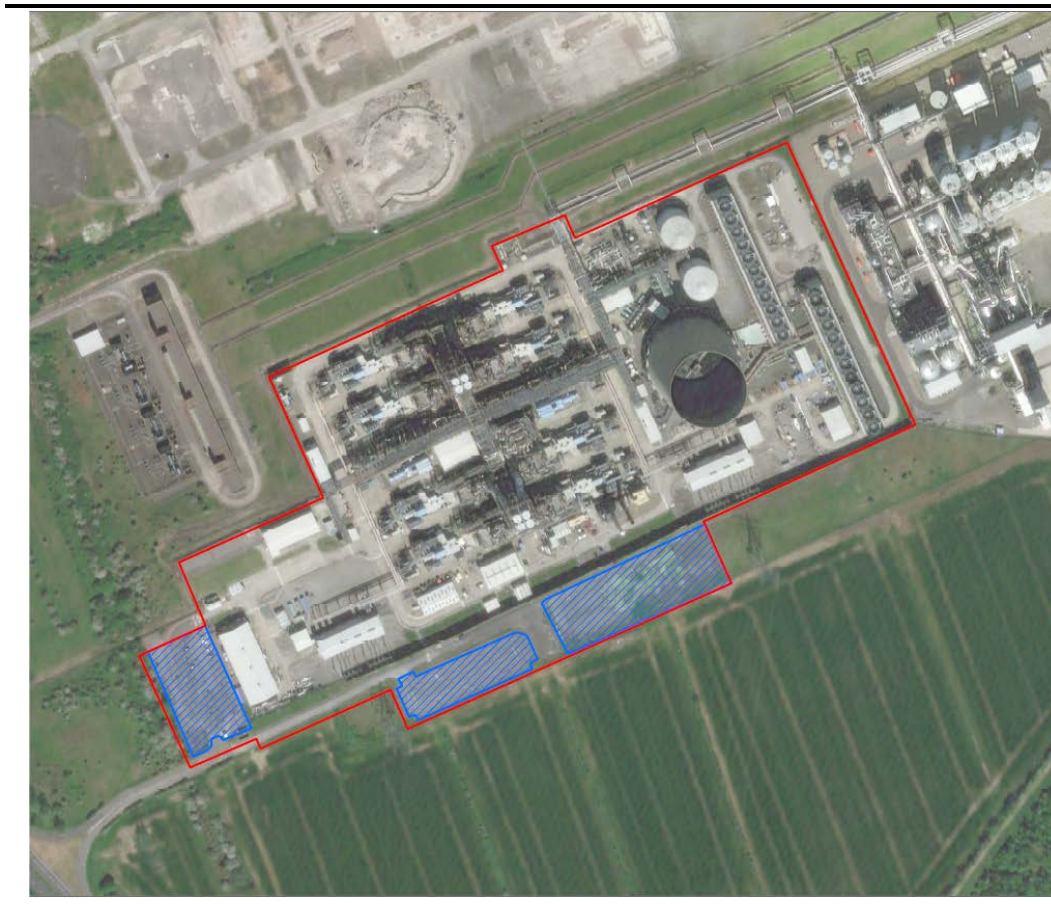
1.15 The staff will be working a 12hr shift (07:00-19:00). Construction worker travel is largely expected to be by car/van with a majority likely to be vehicle sharing due to workers generally operating in ‘teams’, thus reducing associated trips. An average car occupancy of 2.5 construction staff per car has been assumed, based on professional judgement and experienced gained on similar projects / sites, this level of occupancy has been agreed with Highways England following consultation conducted on the PEIR as detailed in email correspondence contained in Appendix A of the TA which is included as *Annex I1*. All construction staff will use the existing site entrance from the A1053 Greystone Road.

1.16 Therefore, based upon typical levels of vehicle sharing (three workers per vehicle) it is envisaged that construction is predicted to attract around 284 construction staff trips per day during the peak construction periods.

I2.5 VEHICLE PARKING

1.17 Parking for construction personnel is available on the southern and eastern sides of the Project as shown in *Figure I2.3*.

Figure I2.3 *Vehicle Parking*



1.19 Sembcorp have calculated that these three areas provide more than adequate parking for construction personnel’s vehicles. However additional parking is also available in the proposed laydown area, should it be necessary.

I2.6 *CONSTRUCTION HOURS*

1.20 In order to minimise the disruption to the public the standard construction hours will be restricted to the following.

- Monday – Friday: 07:00 – 19:00.
- Saturday: 08:00 – 18:00

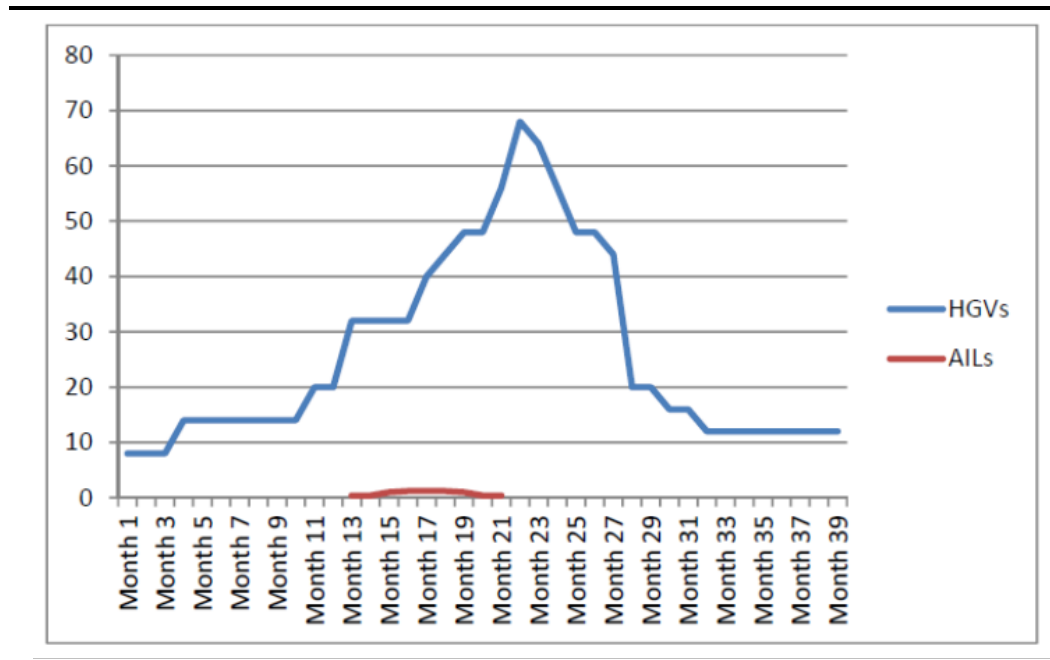
1.21 Any construction activities outside these standard working hours will be limited to non-noisy activities to avoid disturbance to local residents such as the delivery of abnormal loads.

1.22 The EPC contractor will arrange contact details for any local resident to use to if there are any issues, details to be shared with Lazenby Environment Group, other local resident groups and RCBC.

I2.7 HGVs

1.23 The number of HGV movements associated with the construction will peak at 68 two-way movements per day over the 39 month period, as shown in *Figure I2.4*.

Figure I2.4 HGVs Estimated in Scenario 1



1.25 HGV arrivals will be managed and spread evenly over the day between the hours of 08:00 and 18:00 to avoid onsite congestion, and avoid peak traffic on adjacent roads.

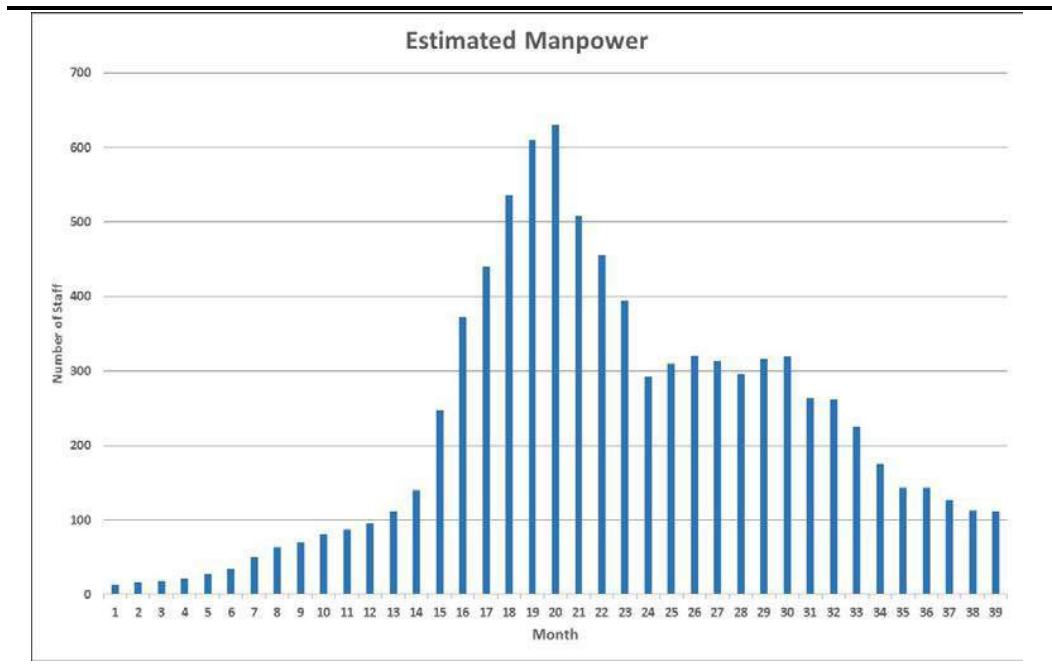
I2.8 SCENARIO TWO

1.26 Scenario Two comprises two 850 MWe CCGT's being built in phases, separated by five years.

- Phase One - Construct first 850 MWe CCGT.
- Phase Two - Construct second 850 MWe CCGT, first 850 MWe CCGT operational.

1.27 It is anticipated that the construction for Scenario Two, Phase One will last for 39 months followed by an interval of the first CCGT operating and then a further 39 months for the construction of the second CCGT. At peak construction of the first and second CCGT it is estimated that there will be around 630 construction workers on site, as shown in *Figure I2.5*.

Figure I2.5 *Estimated Manpower in Scenario 2 in Phase One*



I2.9 *CONSTRUCTION OF FIRST CCGT (PREDICTED 2021)*

1.29 Construction worker travel is largely expected to be by car/van with a majority likely to be vehicle sharing due to workers generally operating in ‘teams’, thus reducing associated trips. Therefore, based upon typical levels of vehicle sharing (three workers per vehicle) it is envisaged that construction will attract around 189 construction staff vehicular trips per day during the peak construction periods.

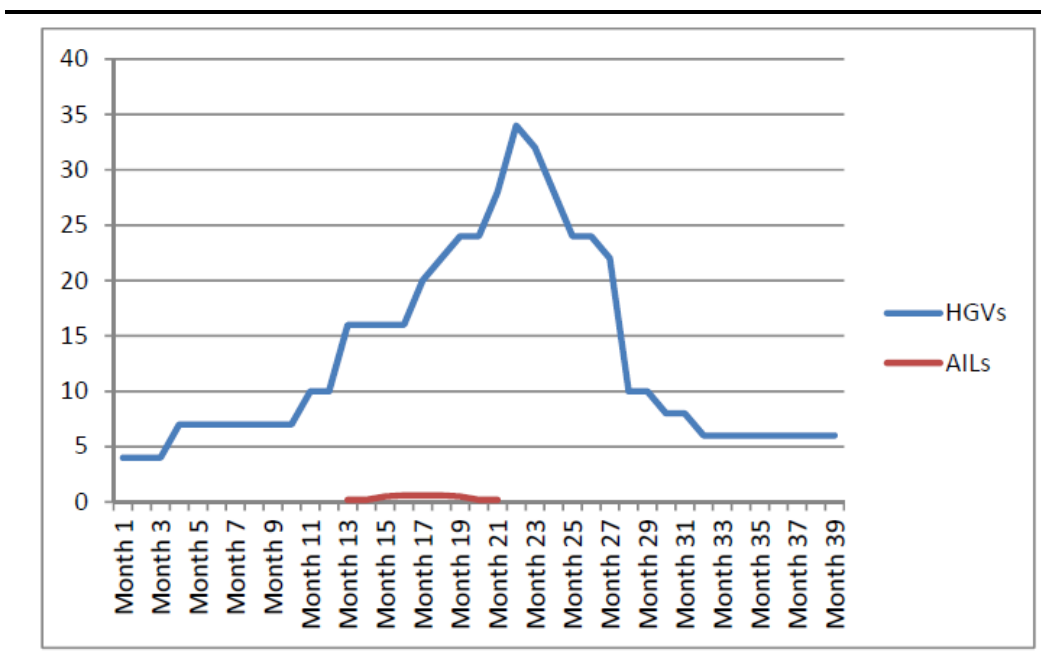
I2.10 *VEHICLE PARKING*

1.30 Parking for construction personnel is available on the southern and eastern sides of the Project as shown in *Figure 5.7*.

I2.11 **HGVs**

1.31 EPC contractor will set up a system to control HGV arrivals and departures, and the management of their movements on the site, as shown in *Figure I2.6*.

Figure I2.6 **HGVs Estimated in Scenario 1**



I2.12 **CONSTRUCTION OF SECOND CGT WITH FIRST CCGT OPERATIONAL (PREDICTED PEAK YEAR 2029)**

1.33 The construction phase for the second CCGT will generate the same level of construction workers, vehicle trips and HGV trips as the first CCGT. The construction will last for approximately 39 months.

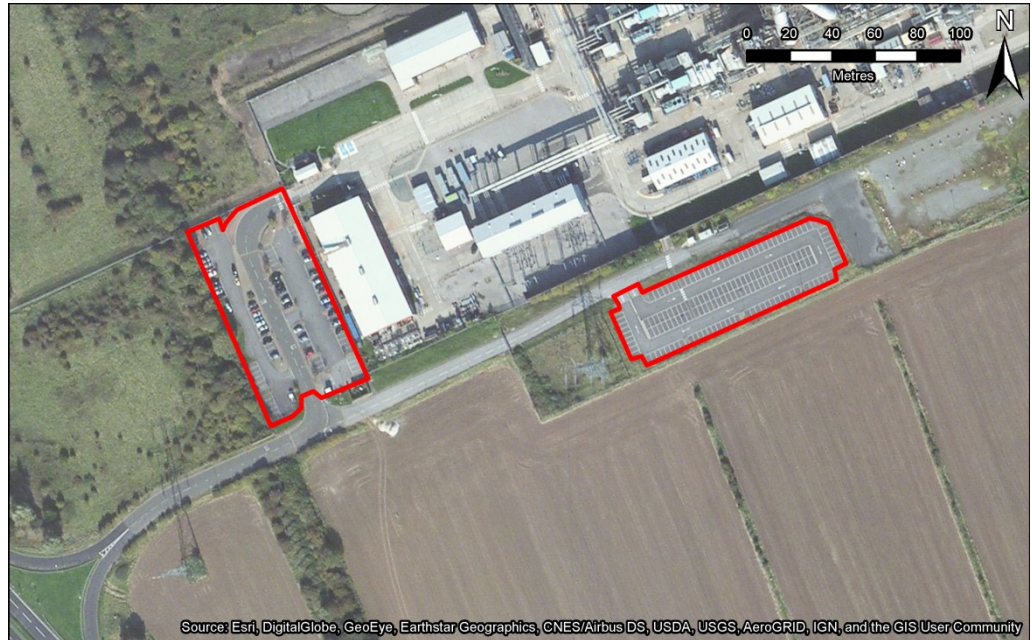
1.34 The number of HGV movements associated with the construction will peak at 34 two-way movements per day over the 39 month period.

1.35 Numbers of construction workers, as previously stated, will vary throughout the project based upon the current construction phase/activity, peaking at around 630 workers on site at any one time. Equating to around 189 construction staff vehicular two-way trips per day during the peak construction periods.

I2.13 *VEHICLE PARKING*

1.36 Parking for construction personnel is available on the southern side of the Project as shown in *Figure I2.7*.

Figure I2.7 *Construction Car Parking*



I3 MEASURES TO CONTROL HGV TRAFFIC

1.37 It is proposed that HGV deliveries will be made between 08:00 and 18:00.

I3.1 VEHICLE ACCESS TO THE SITE

1.38 Access to the site is gained via a left in left out junction onto the A1053 dual carriageway road to the west of the site.

1.39 Vehicles turning right into the site are therefore required to undertake a U-turn at the A1053/ A66/ A1053 Westgate Roundabout junction to the north, while those wishing to turn right out of the site undertake a U-turn at the A174/ A1053/ B1300 Greystone Roundabout to the south.

1.40 The Westgate Roundabout forms one of the main access points into the Wilton International Site.

I3.2 WHEEL CLEANING FACILITY

In the interests of highway safety and for dust control measures, wheel cleaning facilities will be installed on the Project Site from the start of the construction phase. All HGVs leaving the Project site will be required to use the wheel wash when exiting.

- 1.41 A number of AILs will need to be brought into the Project site over the construction period, for both scenarios. It is anticipated that the components for the CCGT will be manufactured abroad and shipped into a port located on the east coast of the UK. The most likely destination is Teesport shipping many of the parts directly into the Tees Valley area.
- 1.42 Any abnormal loads from Teesport will be transported via the strategic road network A66 and A1053 and the local Road Network Tees Dock Road.
- 1.43 When the AILs are to be transported to the site, an abnormal loads movement application will be made to HE, by either the contractor or the haulier as appropriate. Temporary road closures may need to be put in place on local roads along the haulage route, and Sembcorp will ensure that local residents (and businesses) are kept informed about these closures and movements. Street furniture, such as lighting columns or telegraph poles, may need to be removed temporarily, and alterations to kerb lines may be required to accommodate the swept paths of the required oversized vehicles
- 1.44 Swept path analyses for abnormal load route will be provided within the final Construction Traffic Management Plan.
- 1.45 The EPC contractor will be required to follow agreed procedures for scheduling arrival of abnormal loads to the Project site. These procedures will be agreed with the relevant local authorities, including identification of suitable routes, temporary protection to carriageway surfaces (if necessary), statutory undertakers' plant and equipment. The transport management requirements for the delivery of abnormal loads are already well understood for the Wilton International Site and will take place off peak and wherever possible overnight to minimise the disruption caused to general traffic.

I5 WORKERS TRAVEL PLAN

1.46 The EPC contractor will need to prepare a workers travel plan which will prioritise sustainable modes of transport With the following exception due to the context and safety requirements of the Wilton International Site

I5.1 WALKING

1.47 The Institute of Highways and Transportation document, 'Planning for Journeys on Foot' (2000) suggests that the preferred maximum is 2 km for commuting.

1.48 Considering a 2 km walking catchment, the potential for walking is limited with only Wilton village, Lazenby village, Lackenby, and parts of Grangetown and Eston. However there is no pathway along the A1053, so pedestrians would have to walk along the grass verge. This is not considered practicable and in all probability the majority of the workforce will be from a wider catchment.

I5.2 CYCLING

1.49 There is not a cycle pathway to the Project Site, and a possible cycle route through the adjacent Wilton International site is not practical due to safety concerns. Cyclists can use the road access, A1053.

I5.3 TRAINS

1.50 There are no train services nearby.

I5.4 BUS SERVICE

1.51 There are no bus stops nearby.

I5.5 CARS/MINIBUSES

1.52 Within the above context and giving consideration to how similar project are typically constructed, the majority of the workforce will arrive on the construction area by car, van or minibus. The construction contractor will ensure arrangements are in place to maximise car sharing and the use of minibuses, and these arrangements defined in the Workers Travel Plan in accordance with DCO requirement no. 15.

- 1.53 Other projects have been identified in the locality for which construction may occur at the same time as the Project. Sembcorp will seek to coordinate with the proponents of these schemes and the local highway officers prior to the start of Project construction to co-ordinate the delivery of these projects so that any cumulative impacts as a result of the construction traffic are minimised. This approach has been discussed and agreed in principle with Highways England. The formal mechanisms to be adopted by the EPC contractor will be defined in the finalised plan.

- 1.54 The construction contractor will consult with Redcar and Cleveland Borough Council and adjacent local authorities who have expressed any interest and the Highways Authority on the production of the final CTMP.
- 1.55 The final CTMP will include contact details for the public to raise any concerns regarding traffic associated with the project.