TEES VALLEY ENERGY RECOVERY FACILITY

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN – ANNEX 2

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

GRANGETOWN PRARIE, GRANGETOWN, REDCAR, TS6 6TY.

ECL Ref: ECL.007.04.01/CEMP-ANNEX.2
March 2023
Version: Issue 2

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ACRONYMS/TERMS USED IN THIS REPORT

CEMP	**Construction Environmental Management Plan**
CPP	**Construction Phase Plan**
CTMP	**Construction Traffic Management Plan**
ERF	**Energy Recovery Facility**
FCC	**FCC Waste Services (UK) Limited**
HGV	**Heavy Goods Vehicle**
HSE	**Health, Safety, and Environment**
HZI	**Hitachi Zosen Inova**
IHT	**Institution of Highways and Transport**

REVISION HISTORY

Revision Number	Sections Affected	Changes by	Reviewed by	Date
1	All	ECL	FCC	23.08.2021
2	2.1, 3.1, 3.2, 3.3, 4.3	ECL	FCC	01.03.2023

1. INTRODUCTION

1.1. Overview

1.1.1. Condition 4 of the outline planning permission (Reference No: R/2019/0767/OOM) requires a Construction Environmental Management Plan ("CEMP") to be prepared to support the delivery of the development proposals.

1.1.2. A Construction Traffic Management Plan ("CTMP") has therefore been prepared and shall be implemented prior to commencement of development activities.

1.1.3. This document provides the information required to enable the above requirements of Condition 4 to be discharged.

1.1.4. A copy of this CTMP shall be provided to all contractor and subcontractor representatives who are subsequently required to plan and execute their work in line with the requirements and measures outlined in the document.

1.2. Project Information

1.2.1. The project concerned is that of the Tees Valley Energy Recovery Facility ("ERF") located at, Grangetown Prairie, Grangetown, Redcar, TS6 6TY.

1.2.2. The nature of the project is the design, building, and commissioning of a new Energy Recovery Facility as described in detail in the CEMP (Document Reference 50134216_0.0) and associated Construction Phase Plan ("CPP") (Document Reference 50134151_1.0).

2. RELATED DOCUMENTS

2.1. Overview

2.1.1. Table 1 provides further documents which should be read in conjunction with this CTMP.

Table 1: Related Documents

Document Reference	Document Title
50134216_1.0	Construction Environmental Management Plan
50124151_1.0	Construction Phase Plan
ECL.007.04.01/CEMP-ANNEX 3	Dust Management Plan

3. SITE LAYOUT

3.1. General Layout of Proposed Development Site Compound

3.1.1. The general layout of the Development Site is shown on the Construction Site Layout Plan (Drawing Reference: SK510 -Overlay Red Line Boundary + CAA-HZI-40132023_2.0_Contruction Site Layout) provided in Appendix I of this document.

3.1.2. In order to minimise traffic and waiting times both on the approaches to and haul roads within the Development Site, delivery vehicles are routed via a one-way loop system through the Development Site where possible. The broad principles of this one-way system are illustrated on the Construction Site Layout Plan (Drawing Reference: SK510 -Overlay Red Line Boundary + CAA-HZI-40132023_2.0_Contruction Site Layout).

3.1.3. This plan also identifies the location and extent of laydown areas across the Development Site, as well as pre-assembly zones. The additional parcel of land which will be utilised for construction laydown and car parking during the construction phase of the development is illustrated on the Construction Site Layout Plan (Drawing Reference: SK510 -Overlay Red Line Boundary + CAA-HZI-40132023_2.0_Contruction Site Layout) as the area outside of the red line Site Boundary.

3.2. Proposed Development Site Access

3.2.1. The Development Site is served by one main vehicular access point. On entering the site, main construction heavy goods vehicles ("HGV") will either be directed to a gate providing access to the development site construction areas, laydown areas and pre-assembly zones or to the additional laydown land

3.2.2. Staff vehicles will be directed to the staff parking area. Staff will access the development site construction areas and Welfare Compound from the parking area via pedestrian walkway and security turnstiles

3.2.3. A speed limit of 10 miles per hour for all vehicles will be enforced across the Development Site.

3.3. Parking Area

3.3.1. Staff parking is located as indicated in the Construction Site Layout Plan (Drawing Reference: SK510 -Overlay Red Line Boundary + CAA-HZI-40132023_2.0_Contruction Site Layout) included in Appendix I of this document. The staff car parking area occupies an area of 4710m^2. No off-site/ on-road staff car parking is envisaged. No parking shall be allowed outside of this designated area.

3.3.2. A permit system is in place for the staff car park. Every worker on the Development Site is required to apply to the Office Manager for a car parking permit and these are reissued every 3 months. Access to the staff car park is controlled by a traffic barrier operated by Site Security, to only allow those with parking permits, as issued by the Office Manager. A list of visitors is provided by the Office Manager or delegate to Site Security

3.3.3. All staff car parking areas will be compacted granular surface in order to ensure that they are available during all weather conditions and to minimise any issues of dust / mud transfer to the adjacent public highway.

3.3.4. The staff parking area is directly linked to the main Site Office / Staff Welfare Area via a short pedestrian walkway followed by pedestrian security turnstiles.

3.4. Vehicle Cleaning

3.4.1. In order to minimise the transfer of dust and debris to the adopted highway network from construction HGV delivery/ collection traffic, wheel cleaning facilities will be provided at the main Development Site access point until tarmac has been laid on the Development Site roads. Wheel washing facilities shall be brought on to the Development Site during final site landscaping if required.

3.4.2. In addition to wheel cleaning procedures, general dust suppression good practice measures (e.g. correct packaging of potentially dusty materials, sheltering of stockpiles, use of spray systems where appropriate, etc.) will be implemented across the Development Site in order to limit the generation of dust and dirt during main construction activities. Full details of on-site dust mitigation measures are set out in Dust Management Plan (ECL.007.04.01/CEMP- ANNEX.3).

3.5. Cleaning of Roads

3.5.1. Internal construction site access roads will be inspected daily, and good site management practice implemented as necessary to ensure that dust and mud effects are minimised.

3.5.2. Paved internal construction access roads will be swept on a regular basis using a vacuum sweeper. Non-paved internal access roads will have limited vehicle speeds and be damped down during dry windy weather.

3.5.3. The main project contractor will operate a street cleansing unit based on the Development Site, which will be utilised to address any dust/ mud issues both within the Development Site and on the immediate Development area access roads. The street cleansing unit will be operated as appropriate in response to changes in site / weather conditions.

4. TRAFFIC AND TRAVEL MANAGEMENT

4.1. Delivery Hours

4.1.1. Construction hours including HGV delivery / collection traffic movements to / from the Development Site will be limited to non-sensitive times of the Day. The Development Site is open to Contractors for work between the following hours on a normal basis:

- Monday to Friday 07:00 to 19:00 (start up from 06:00)
- Saturday and Sunday 07:00 to 16:00
- Public and Bank Holidays 07:00 to 19:00 as required for works on site.

4.1.2. No construction HGV movements would take place outside of these periods without prior written agreement from the Local Planning Authority. Best endeavours will be followed to avoid, where possible, substantive construction HGV traffic demand taking place during the core morning local network 'rush hour' peak period of 08:00-09:00 hrs.

4.2. Predicted HGV Traffic Levels over the course of the Development Programme

4.2.1. The estimated number of construction delivery movements on a month-by-month basis will be provided following appointment of the lead contractor. Vehicle demand is expected to vary on a day to day basis dependent on the construction activities taking place on the Development Site.

4.3. Construction Vehicle Egress from Site

4.3.1. The construction road is shown on Drawing SK510 -Overlay Red Line Boundary + CAA-HZI-40132023_2.0_Contruction Site Layout, which may be found in Appendix 1. This road operates on a one-way system where possible to ensure that vehicles may enter and leave the site in a forward gear. This is to prevent any reversing of vehicles onto local roads.

5. CONSTRUCTION HGV ROUTING STRATEGY

5.1. Traffic Routing Strategy

5.1.1. All Contractors will be given Delivery Information by the Procurement Team when appointed detailing the most direct approved route to the Development Site.

5.1.2. All construction HGV movements associated with the project shall be required to adhere to a designated 'Construction HGV Routing Strategy'. Such an approach will enable the following traffic management objectives to be met:

- prohibit construction HGV traffic movements on inappropriate local routes such as those subject to height/weight restrictions;
- restrict construction HGV traffic to routes appropriate to accommodate HGV's; and
- minimize construction traffic effects on local routes with direct local residential frontage.

5.1.3. HGV movements to/from the Development Site will be subject to a local routing plan to restrict construction delivery/export traffic to appropriate route corridors. The details of this routing strategy will be developed with reference to existing local network restrictions (i.e. routes that are inappropriate/inaccessible for large/heavy vehicle operation) and to avoid HGV related traffic effects on immediate residential/commercial areas.

5.1.4. The Development Site Operator will instruct all HGV contractors servicing the Development Site to adhere to the local routing strategy.

5.1.5. Construction HGV movements outside of the immediate vicinity of the Development Site will be directed to utilise relevant sections of the Strategic Highway Network/Classified Road Network as appropriate in line with standard HGV good operating practice.

5.2. Local Construction HGV Signage Strategy

5.2.1. The proposed local construction HGV route strategy will be supported by an 'on the ground' signage strategy that will reinforce to HGV drivers accessing the Development Site the approved HGV delivery corridor.

5.2.2. The layout and wording of individual signs and details of where signs are to be installed will be discussed and agreed with the relevant highways stakeholders.

5.3. Route Strategy Enforcement

5.3.1. FCC, together with Hitachi Zosen Inova ("HZI") as required, will continue to liaise with the local community. Local residents will be encouraged to report the time and vehicle registration of any construction related HGVs observed as not complying with the local routing strategy to the Site Community Liaison contacts.

5.3.2. Drivers of vehicles identified as not complying with the HGV routing strategy shall be issued with an official written warning. Any haulage contractor and / or individual driver recorded as repeatedly disobeying the HGV routing strategy will be suspended/banned from accessing the Development Site.

5.3.3. Any recorded construction traffic management issues raised by local parties will be reviewed and where practical mitigation measures incorporated into future best practice operations.

5.4. Abnormal Loads

5.4.1. It is anticipated that some construction tasks may require the delivery of materials / machinery that would require the undertaking of specific abnormal load transportation.

5.4.2. Several abnormal load movements are anticipated to take place throughout the construction period at the Development Site. An abnormal load route appraisal will be carried out by a specialist haulage contractor to identify an appropriate transport corridor.

5.4.3. The route appraisal will not identify any material hazards that would prevent abnormal load access but will highlight a number of temporary traffic management measures (prohibition of parking, etc.) and short-term relocation of street furniture that will be required to facilitate abnormal load events.

5.4.4. Ultimately, any abnormal load events associated with the construction site will be carried out in accordance with standard road closure / abnormal load transport procedures and involve direct liaison and planning with relevant highway authorities, police, and other appropriate technical and community stakeholders in advance of scheduled events and will be the subject of detailed risk assessment.

6. CONSTRUCTION STAFF TRAVEL PLAN MEASURES

6.1. Introduction

6.1.1. Construction works at the Tees Valley ERF is expected to commence in December 2023. Works are anticipated to extend for circa 43 months, including for the main civil and structural works, building fit out and commissioning periods. Staffing levels will fluctuate over the lifetime of the construction project with estimates of maximum staffing levels being of the order of 524 site operatives.

6.2. Site Location and Context

6.2.1. The Development Site is to be located at Grangetown Prairie and forms part of the Tees Works Development, an area established to further the economic development of the Tees Valley through redeveloping former industrial and underutilised land around the banks of the River Tees.

6.2.2. The Development Site is well located for access by road transport and is generally located some distance away from existing significant centers of population.

6.2.3. The following sections outline the extent of available local opportunities to utilise alternative travel modes to the private car access to the Development Site.

Walking & Cycling

6.2.4. The Institution of Highways and Transport ("IHT") guidance document 'Providing for Journeys on Foot' (2000)[1] suggests the preferred maximum walking distances to everyday facilities is of the order of 1.2km. National Government guidance has previously recognised 2km as an appropriate suitable regular walk distance for work related trips.

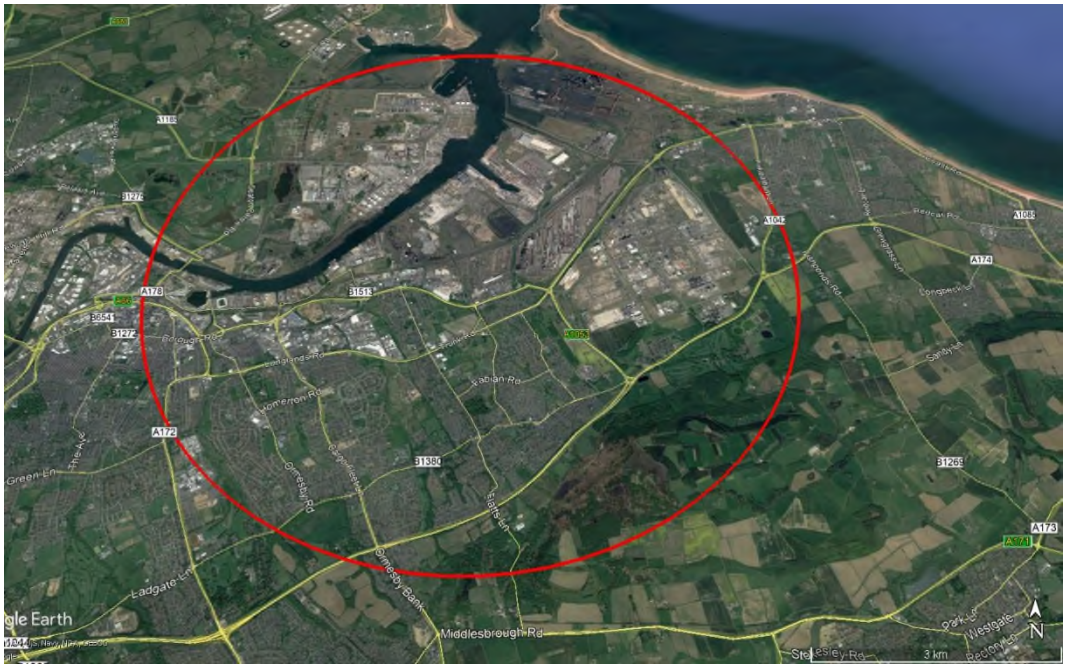
6.2.5. The Tees Valley ERF site is located outside of a 2.0km walk catchment from existing substantive local centres of population / settlements and so it is therefore not considered likely that walking would likely represent an attractive regular commuting option for the majority of staff members based at the Development Site.

6.2.6. Cycling is recognised as a sustainable, healthy and environmentally friendly form of transport. National guidance has previously noted that cycling has the potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport.

6.2.7. Figure 1 illustrates a 5km cycle catchment (outlined in red) from the Development Site based on the local available road network and other dedicated cycle connections. This catchment includes the local settlements of Grangetown, South Bank, Middleborough, Eston, Ormesby, Wilton and the eastern reaches of Redcar.

[1] Providing for Journeys on Foot, available online at, www.hwa.uk.com/site/wp-content/uploads/2017/09/NR.4.3F-CIHT-Guidelines-for-Providing-Journeys-on-Foot-Chapter-3.pdf. Accessed June 2021.

Figure 1: 5km Cycle Catchment



6.2.8. The location of the Development Site therefore potentially provides some opportunity for staff and visitors to cycle to the Development Site.

Public Transport Connections

6.2.9. Guidance published by the IHT 'Planning for Public Transport in Developments' (1999)[2] recommends that the maximum distance to a bus stop from new development should be 400m - roughly equating to a five-minute walk.

6.2.10. Local passenger rail connections are available from South Bank Station located approximately 900m to the west of the Development Site. South Bank Station could therefore be considered to lie within a suitable local cycle distance from the site or could be linked by a local mini-bus shuttle service operated by the Development Site contractor.

6.3. Management of the Development Site Travel

6.3.1. The management of the construction staff travel for the project shall be achieved by the Development Site Office Manager or delegate as part of their other duties. Key roles and responsibilities shall be:

- liaising with all contractor organisations operating on the Development Site promoting use of busses; and
- maintaining a Travel Plan Noticeboard at the Development Site to include up to date travel information.

[2] Planning for Public Transport in Development, available online at. www.sthelens.gov.uk/media/331757/cd-2232-guidelines-for-planning-for-public-transport-in-developments-iht-1999.pdf. Accessed June 2021

6.4. Construction Staff Travel Plan Measures

6.4.1. The following section outlines measures to be promoted and implemented at the Development Site to maximise demand for sustainable travel use (public transport, car-sharing, walking, cycling etc.).

6.4.2. Facilities to be provided at the construction site to encourage the use of sustainable travel modes are as follows:

- secure cycle parking area;
- staff shower and washing facilities will be provided on the Development Site to support walking and cycling to the Development Site; and
- provision of Travel Plan Noticeboards.

6.4.3. Operational measures to be delivered to support the construction phase will include the following:

- provision of up to date travel information and timetables for display on the travel noticeboard;
- the setting up of a formal car-sharing database available to all construction staff, to encourage staff to share their car journey, thereby reducing the overall number of vehicles travelling to/from the Development Site, whilst providing journey cost saving benefits to staff;
- offering a personal travel plan service to demonstrate to staff the potential to undertake their journey to the Development Site by more sustainable modes; and
- development of a 'guaranteed ride home' scheme for one-off late working or personal emergency situations for those staff who take part in the travel plan and therefore choose to leave their cars at home.

7. MONTORING AND ENFORCEMENT

7.1. Overview

7.1.1. HZI and their construction partners are committed to managing the construction impact of the project works. The operation and performance of the CTMP will therefore be reviewed on a regular basis by the Development Site Manager or delegate and updated where necessary.

7.2. Monitoring

7.2.1. Recording of deliveries and operational construction HGV traffic movements will take place at the Development Site access point with information being held at the Development Site project offices. Recorded information will be summarised within a quarterly report. The report will be utilized to identify any deviations from the proposed construction traffic programme and any improvements required to the plan to manage planned future construction tasks.

7.2.2. The Site Security Team shall conduct daily Development Site inspections and ensure that staff parking is limited to the designated areas as described in Section 3.3 of this plan.

7.2.3. FCC recognises the importance of continuing dialogue with local community stakeholders and will continue to liaise with local community stakeholders. Any recorded construction traffic management issues raised will be considered and, where practical acted upon, with feedback provided through Site Community Liaison contacts.

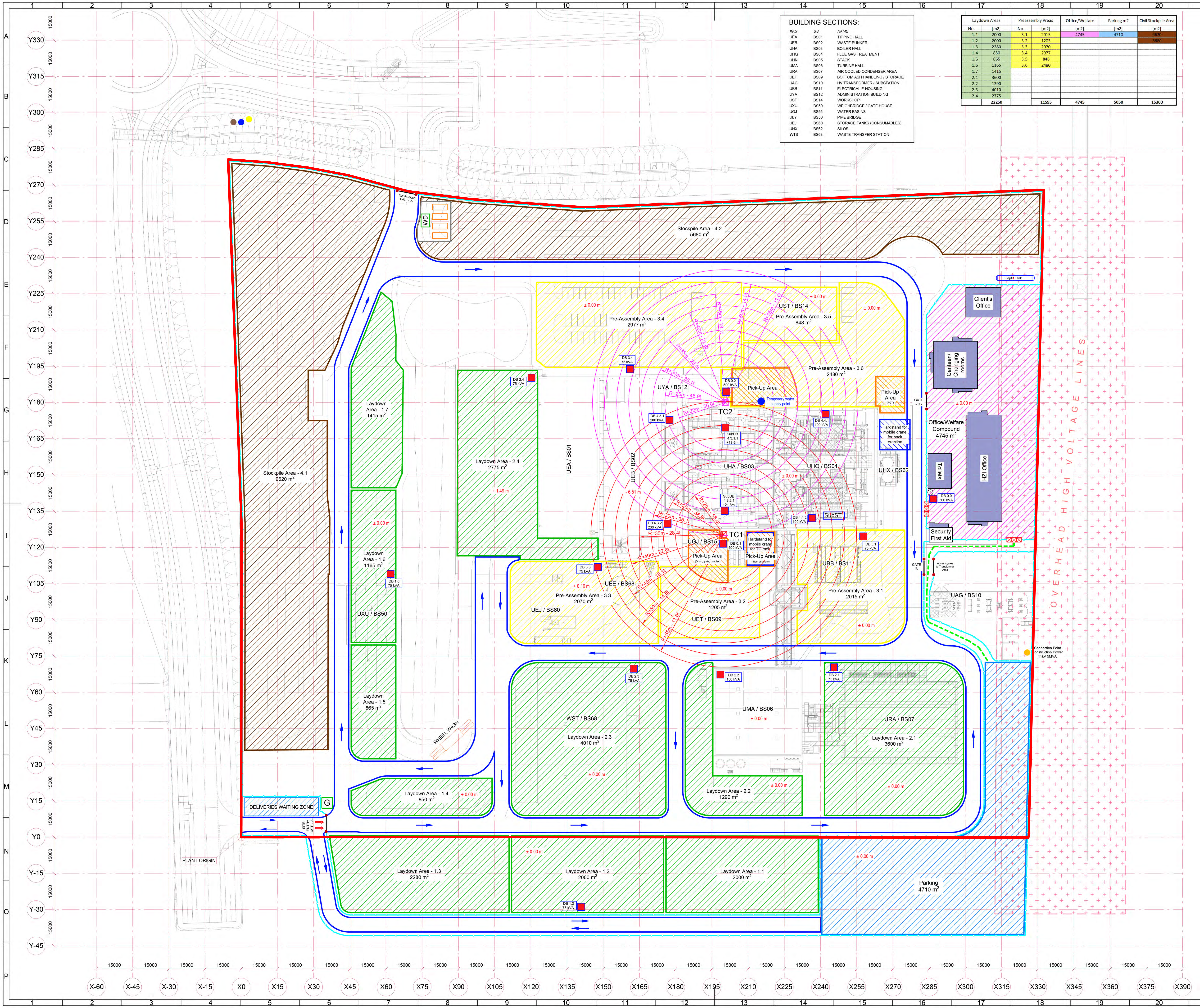
7.2.4. The condition access roads will be checked by the Development Site Health, Safety, and Environment ("HSE") Team as part of regular inspections, to ensure no mud or dust is being entrained on the road.

7.3. Enforcement

7.3.1. As outlined above, construction traffic impact on the immediate highway network to the Development Site will be managed via the following measures:

- operation of restricted construction HGV delivery periods in line with Section 4.1. of this plan;
- adoption of a construction HGV traffic routing strategy in line with Section 5.1 of this plan and to be supported by the suspension/banning of any vehicle drivers/haulage contactors identified as not adhering to authorized routes;
- control of staff parking with designated staff parking in line with Section 3.3. of this plan; and
- operation of vehicle wheel cleaning and local road cleansing measures, in line with the approach set out in Section 3.4. and Section 3.5 of this plan.

APPENDIX I
CONSTRUCTION SITE LAYOUT PLAN
SK510 -Overlay Red Line Boundary + CAA-HZI-40132023_2.0_Contruction Site Layout

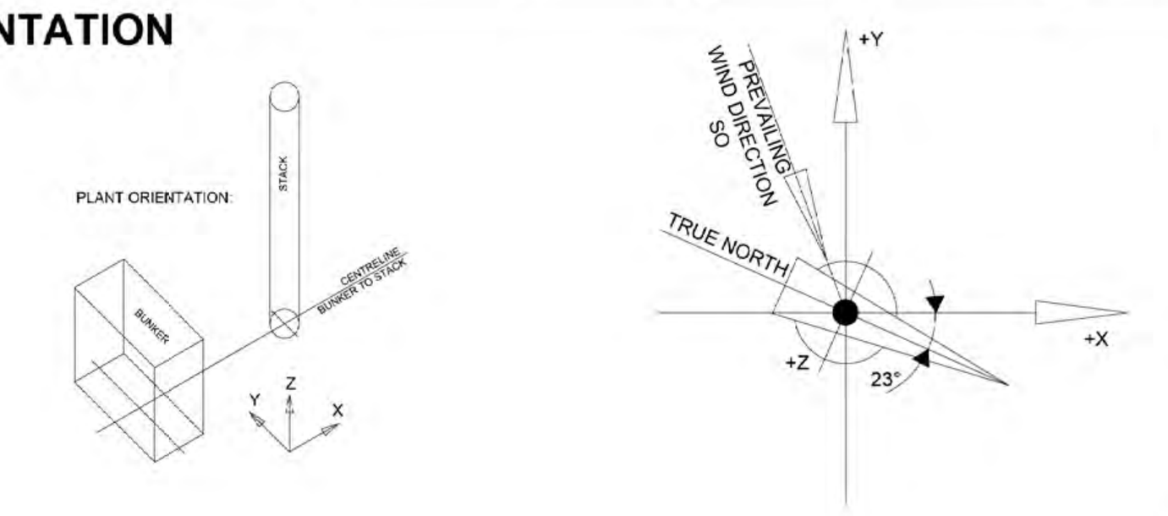


BUILDING SECTIONS:

KKS	BS	NAME
UEA	BS01	TIPPING HALL
UEB	BS02	WASTE BUNKER
UHA	BS03	BOILER HALL
UHQ	BS04	FLUE GAS TREATMENT
UHN	BS05	STACK
UMA	BS06	TURBINE HALL
URA	BS07	AIR COOLED CONDENSER AREA
UET	BS09	BOTTOM ASH HANDLING / STORAGE
UAG	BS10	HV TRANSFORMER / SUBSTATION
UBB	BS11	ELECTRICAL E-HOUSING
UYA	BS12	ADMINISTRATION BUILDING
UST	BS14	WORKSHOP
UXU	BS50	WEIGHBRIDGE / GATE HOUSE
UGJ	BS55	WATER BASINS
ULY	BS56	PIPE BRIDGE
UEJ	BS60	STORAGE TANKS (CONSUMABLES)
UHX	BS62	SILOS
WTS	BS68	WASTE TRANSFER STATION

Laydown Areas		Preassembly Areas		Office/Welfare	Parking m2	Civil Stockpile Area
No.	[m2]	No.	[m2]	[m2]	[m2]	[m2]
1.1	2000	3.1	2015	4745	4710	9620
1.2	2000	3.2	1205			5680
1.3	2280	3.3	2070			
1.4	850	3.4	2977			
1.5	865	3.5	848			
1.6	1165	3.6	2480			
1.7	1415					
2.1	3600					
2.2	1290					
2.3	4010					
2.4	2775					
	22250		11595	4745	5050	15300

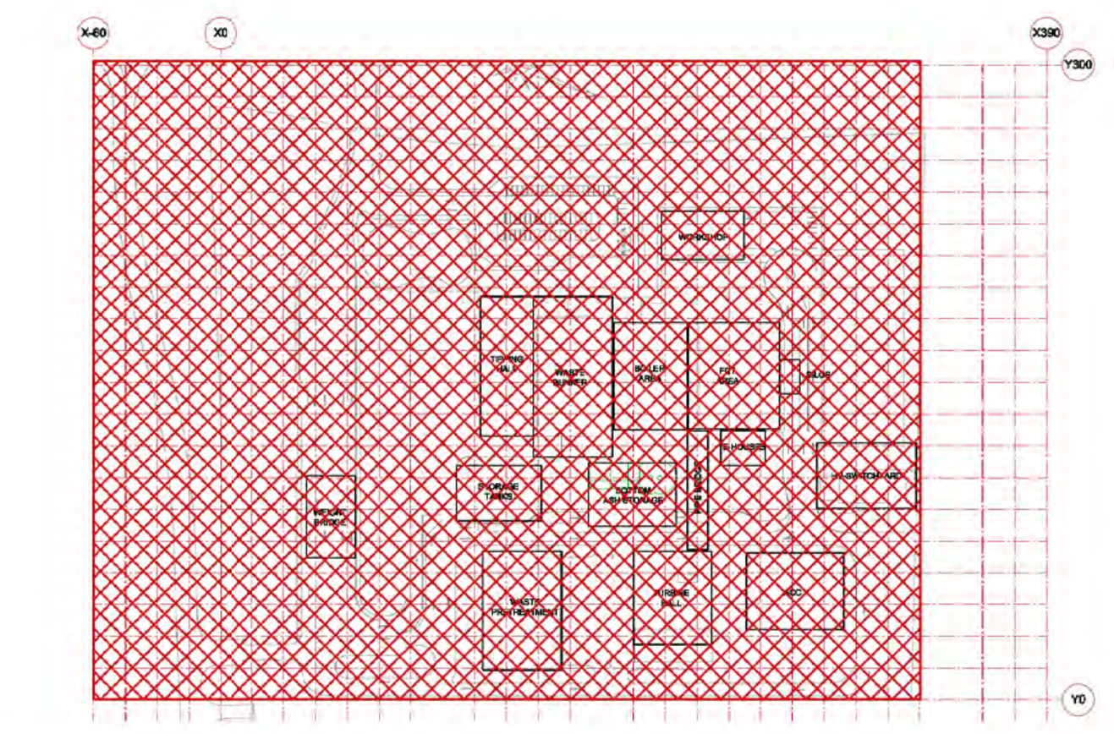
ORIENTATION



SCALE

1:500 0 10 20 30 40 50 m

KEYPLAN



NOTES AND SYMBOLS

- ALL DIMENSIONS IN MM
- ALL LEVELS IN M REFERING TO FINISHED FLOOR LEVEL (FFL) ±00.00M
- PLANT ORIGIN
  X=0MM Y=0MM Z=±00.00M
  CORRESPONDING TO SITE COORDINATES
  E=XXXXXX N=XXXXXX U=+XX.XXm AOD

LEGEND

- PRE-ASSEMBLY AREA / HEAVY ERECTION (E=40MPa / (PLT) According to ASTM 1196/D1196M-12(2016) or equal to SWL60 from DIN 1072; max slope 3%)
- LAY-DOWN AREA (E=40MPa / (PLT) According to ASTM 1196/D1196M-12(2016) or equal to SWL60 from DIN 1072; max slope 3%)
- PARKING AREA
- WELFARE & OFFICE AREA
- STOCKPILE AREA
- CRAWLER CRANE POSITION
- TC TOWER CRANE
- PICK-UP AREA
- OVERHEAD HIGH VOLTAGE LINE AREA
- FENCES PERMANENT
- FENCES TEMPORARY
- SITE BOUNDARY
- CONSTRUCTION ROAD CONVENTIONAL (SLW60 / min. width of 6m / min. clearance of 6m / max slope 5%)
- FOOTPATHS
- GATE
- TURNSTILES
- LIGHT MAST
- CONSTRUCTION POWER DISTRIBUTION BOARD
- SubST. TEMPORARY SUBSTATION
- CONNECTION POINT CONSTRUCTION WATER
- CONNECTION POINT CONSTRUCTION POWER SUPPLY
- CONNECTION POINT CONSTRUCTION SEWAGE
- CONNECTION POINT CONSTRUCTION INTERNET
- T S W TOILETTE / SMOKING / WATER POINT
- A ASSEMBLY POINTS
- F FIRST AID POINTS
- G GATE HOUSE
- FM AREA FOR FLAMMABLE & HAZARDOUS MATERIALS
- EAP EMERGENCY ALARM POST

Building Section	BS00 - Site Overall		
2.0	Various modifications	Frma 28.01.2022	Josc 28.01.2022	Wan 28.01.2022
Rev.	Modification	Drawn	Checked	Approved

Project-No.: YE-3425
Project Name: Tees Valley
Description: Layout Drawing
Title: Construction Site Layout

Hitachi Zosen INOVA

AIC	10AAF111
Weight	---
Scale	1 : 500
Status	RELEASED
Size	A0

Replaced by:
Replaced for:

Sheet	DocType	Supplier	Drawing-No.	Revision
1/1	CAA	HZI	40132024	2.0