



CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

The installation of two additional bitumen tanks, load out gantry, the installation of a bitumen emulsion plant and alternative car parking

**Imperial Wharf, Clifton Marine Parade, Gravesend, Kent,
DA11 0DY**

Prepared on behalf of:
F M Conway Limited



Date:
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DRAWINGS

Drawing Number KD.IMP.D.001	Location Plan	Scale 1:25,000 @ A3
Drawing Number KD.IMP.D.003	Current Situation	Scale 1:1,250 @ A3
Drawing Number KD.IMP.D.004A	Proposed Development	Scale 1:1,250 @ A3
Drawing Number KD.IMP.D.005	Silo Elevations	Scale 1:250 @ A3
Drawing Number KD.IMP.D.010	Emulsion Plant	Scale varies @ A3
Drawing Number KD.IMP.D.011	Loadout Gantry	Scale 1:50 @ A3

APPENDICES

Appendix 1	Key Contacts
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1. INTRODUCTION

- 1.1 Gravesham Borough Council (GBC) has recently granted planning permission for the installation of two additional bitumen tanks, load out gantry, the installation of a bitumen emulsion plant and alternative car parking (the Development) on land at Imperial Wharf, Clifton Marine Parade, Gravesend, Kent, DA11 0DY (the Site).
- 1.2 PDE Consulting Limited (the Agent) has been commissioned by F M Conway Limited (the Applicant) to provide a Construction Environmental Management Plan (CEMP) for the enabling, construction and completion works of the Development.
- 1.3 The principles of this CEMP will apply to the Development at the Site and it is considered that the information contained within this Statement is sufficient to discharge Condition 3 of the planning permission.
- 1.4 Planning permission reference 20220733, to which this CEMP relates, was granted by GBC on 11 September 2023. Condition 3 attached to this planning permission relates to the production of a CEMP. Condition 3 is worded as follows:

"No development shall take place until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The document shall cover all environmental impacts from the clearance and construction phases of this development including details of the following, as well as any other measures deemed reasonably necessary:

- (a) *Suitable mitigation measures to minimise noise pollution and vibration during the construction phase including the insulation of fixed plant and the silencing of vehicles and mobile machinery.*
- (b) *A Dust Management Plan to minimise emissions to air and to prevent nuisance from wind-blown dust including fencing and the dampening down with water of excavated construction and cover materials on site, and other areas traversed by plant vehicles and machinery.*
- (c) *A Construction Traffic Management Plan covering:*
 - *Means of direct access to the site from the adjoining maintainable public highway;*
 - *Surface treatment of the access to avoid spill of migratory material on to the maintainable public highway;*
 - *Details of numbers and routeing of construction and delivery vehicles to / from site;*
 - *Timing of deliveries and waste movement;*
 - *Loading and unloading of plant and materials away from the maintainable public highway;*
 - *Parking and turning areas for construction and delivery vehicles and site personnel;*
 - *Type and location of wheel washing and chassis cleaning facilities;*
 - *Temporary traffic management / signage.*
- (d) *Details of the location of the proposed construction compound.*
- (e) *Details of security fencing and other site security measures.*
- (f) *Details of stockpile areas for building materials or for fill or removed topsoil.*
- (g) *A Construction Drainage Design Plan to identify the required devices to prevent construction run off from flowing into existing drainage.*
- (h) *Ecological mitigation measures.*

- (i) *Measures to be undertaken to protect any public sewers and water apparatus.*
- (j) *Details of vibration monitoring and mitigation during any necessary piling works.*
- (k) *Details of the location, form and visual appearance of any site hoardings along road frontages and footpaths including decorative displays and facilities for public viewing, where appropriate.*
- (l) *Details of pest control.*
- (m) *Details of temporary construction or security lighting; and*
- (n) *Monitoring and review provisions with the Local Planning Authority.*
- (o) *A Community Engagement Strategy covering how local residents, community groups and businesses will be kept informed about the development and construction timetable and works taking place, until completion of the development.*

The construction of the development shall adhere at all times and be carried out in full accordance with the relevant approved document or any subsequent variations that may be approved in writing by the Local Planning Authority.”

2. AIMS AND OBJECTIVES

- 2.1 This submission is made on behalf of the Applicant, and it is intended that it will meet the requirements of Condition 3 of planning permission reference 20220733 by providing a CEMP relating to the enabling, construction and completion works for the Development at the Site.
- 2.2 The works will be undertaken in full accordance with planning permission reference 20220733 and its associated planning conditions, where relevant.
- 2.3 All works on Site will be undertaken in compliance with the CEMP. The format of this CEMP is such that it sets out a framework for operational matters for the Development at the Site ensuring adherence to industry best practice measures with regard to air quality, ecology, noise, traffic and transport and water. This document also highlights mitigation measures to be implemented by the Applicant to control these environmental factors and fulfil engagement procedures for local residents and neighbouring businesses.
- 2.4 Adherence to the principles of the CEMP and related documents should ensure the appropriate protection of the surrounding environment as the works take place.
- 2.5 The CEMP provides project-specific management measures and is a dynamic document which is designed to be reviewed if activities or conditions on Site change in a way as to influence management measures.

3. BRIEF DESCRIPTION OF WORKS

Site Location and Access

- 3.1 The Site, can be seen outlined red on Drawing Number KD.IMP.D.001 and extends to approximately 0.7 hectares. The Site lies within the administrative boundary of GBC, sitting on the south bank of the River Thames, approximately 0.9 kilometres to the northwest of the centre of Gravesend. The Site's immediate surrounds consist of industrial and retail development, located to the south, east and west, with the River Thames to the north.
- 3.2 Presently, the Site comprises of previously developed land under the control of the Applicant, including an area of car parking located to the south of Clifton Marine Parade, vacant land located adjacent to the east of the technology laboratory and land currently used for general storage located to the west of The White House. Access to the Site comes from an existing access off Clifton Marine Parade, from where vehicles can access the wider highway network. The access to the proposed new car park comes from West Mill off Clifton Marine Parade.

Construction Phase

- 3.3 The Applicant is responsible for the enabling, construction and completion works relating to the Development at the Site. There are a number of elements to the overall construction works as set out below, these works will not necessarily be undertaken in the order set out below:
- Site clearance;
 - Piling and foundation works;
 - Installation of drainage infrastructure;
 - Erection of 4.5m bund wall.
 - Erection of truck loading system;
 - Installation of silos;
 - Installation of proposed oil heater;
 - Erection of emulsion tanks and installation of bitumen emulsion plant;
 - Installation of car and HGV parking; and
 - Erection of fences and gates.
- 3.4 It is anticipated that the construction of the Development will commence following the approval of pre-commencement planning conditions.
- 3.5 The Applicant's existing operations at Imperial Wharf comprise of the importation, storage and distribution of bitumen products. At present, the land to which the Development relates comprises of an area of vacant land, in addition to land used for car parking and general storage. The current situation is shown on Drawing Number KD.IMP.D.003.
- 3.6 It is proposed that the construction of the Development will be undertaken on a phased approach, commencing with the construction of the new car park which will enable the existing car park to be relocated to facilitate the construction of the new bitumen storage tanks. At the same time as the new car park is constructed work will also take place on the land to the west of The White House to clear

areas in preparation for the establishment of the new HGV parking areas and improvements to the flood defences including the provision of a vehicle crash barrier to protect the flood defence.

- 3.7 The new car park is already surfaced with road planings and has historically been used for storage and additional parking as and when required. As part of the construction work within this area some excavation works will be required to install drainage infrastructure together with the removal of a nominal amount of planings to achieve the correct surface levels prior to the completion of final asphalt surfacing and landscaping.
- 3.8 The alternative car parking shall make provision for 36 spaces of which three are designated disabled and can be seen on Drawing Number KD.IMP.D.004A.
- 3.9 Once the new car park has been constructed, work will commence on the construction of the two new bitumen storage tanks and the surrounding bund wall. It is envisaged that the new bitumen emulsion plant and associated tanks would also be installed at this time.
- 3.10 The final phase of work would be to install the new loading gantry on the land to the west of The White House in preparation for the new bitumen tanks becoming operational.
- 3.11 Within each phase of construction works it will be necessary, in the first instance, to clear the areas which will be subject to development. This will involve, where necessary, the minor re-profiling of the existing ground contours to those required for the development. This may necessitate the off-Site removal of a nominal amount of surplus materials which will be taken to an appropriate facility for recycling where possible. At the commencement of works within each phase the drainage infrastructure will be constructed in line with details to be approved in accordance with Condition 4 attached to planning permission reference 20220733.
- 3.12 Alongside the installation of the drainage infrastructure any necessary service media will be installed prior to the completion of site surfacing.
- 3.13 The land upon which the proposed bitumen tanks are to be constructed is to be laid to concrete hardstanding surrounded by a 4.5m high bund wall. The emulsion plant is to be housed within a container and consequently limited enabling works are required for this aspect. The main enabling works associated with the emulsion plant shall be required for the installation of the two emulsion tanks. The new bitumen emulsion plant is illustrated on Drawing Number KD.IMP.D.010.
- 3.14 The main components of the Development including the bitumen storage tanks, elements of the emulsion plant and load out gantry are of modular design and therefore relatively easy to erect once the initial preparatory works have been completed. Nevertheless, it is expected that the construction phase and commissioning of the Development will take around 18 months.
- 3.15 The layout of the completed Site is as shown on Drawing Number KD.IMP.D.004A and elevations of the Development are as shown on Drawing Number KD.IMP.D.005.
- 3.16 During the construction phase a temporary Construction Compound will be established which shall provide for loading and unloading areas to be used during the construction phase as well as material storage and welfare facilities for construction operatives. Further details of the Construction Compound are provided within Section 5 of this CEMP.

Construction Hours

- 3.17 The Site benefits from unrestricted operating hours. However, in respect of construction activities the decision notice for planning permission reference 20220733 contains an informative which states that: *"Where sensitive premises are likely to be affected by noise and / or vibration, all works and ancillary operations which are audible at the site boundary, or at such other place as may be agreed with the council, shall be carried out only between the following hours (these to be known as normal working hours): -*

08:00 to 18:00 Mondays to Fridays;

08:00 to 13:00 Saturdays; and

Sunday and Bank Holidays. No works audible at the site boundary or any other place agreed by the council.

In addition to the above times the contractor may use up to one hour before and up to one hour after normal working hours for start up and close down of activities. Examples of these activities would be:

- a) Day to day maintenance, checking, lubrication and cleaning / washing down of plant and machinery.*
- b) Refuelling of plant and machinery (from on-site storage facilities only).*
- c) Deliveries and unloading.*
- d) Site inspections and safety checks, but excluding any works necessary to make the working zone and / or construction site safe (which are to be undertaken within normal working hours).*
- e) Arrival and departure of workforce and staff at the construction site, but only in so far as the arrival and departure times provide for the minimum time necessary to undertake the tasks allowed by these start up/close down activities.*
- f) Site meetings.*
- g) Site clean up."*

- 3.18 It is proposed that the above hours are adhered to in respect of construction activities.

Security and External Lighting

- 3.19 Part k of Condition 3 states that the CEMP should include:

"Details of the location, form and visual appearance of any site hoardings along road frontages and footpaths including decorative displays and facilities for public viewing, where appropriate."

- 3.20 Furthermore Part e of Condition 3 states that the CEMP should include:

"Details of security fencing and other site security measures."

- 3.21 Construction areas will be secured every day and on weekends when working is ceased and security patrols will be implemented.

- 3.22 The Operator will make certain that access to the Site is restricted only to those with a legitimate reason to be there. This will include staff working on Site and legitimate visitors. The Site Compound will be

properly protected with hoarding, safety signage and controlled vehicle / pedestrian entry points that will prevent unauthorised access.

- 3.23 Steel palisade fencing is already in place along Clifton Marine Parade which prevents unauthorised access to the proposed new car park and the land to the west of The White House where the new load out gantry is proposed to be constructed. Steel palisade fencing is also in place along Clifton Marine Parade to the west of the proposed bitumen storage tanks. It is proposed that this palisade fencing will be extended east along Clifton Marine Parade near to the completion of construction works to surround the land where the new bitumen tanks will be constructed.
- 3.24 In the interim during the construction phase, temporary timber or steel hoarding will be erected around the Site Compound and construction activities associated with the new bitumen storage tanks. A vehicle gate will be installed within the hoarding to allow access into the compound and working areas. This type of temporary fencing will conceal the building works and increase Site security during the construction phase. It will also protect the public from any hazards on Site.
- 3.25 Each hoarding panel size will be circa 2 m wide x 2.4 m in height. The access gate to the Site Compound and working areas will comprise of a half mesh secure vehicle gate measuring 2.4 m in height by 5.1 m wide. The hoarding will be high enough such that it cannot be easily scaled, secure enough that it cannot be easily penetrated or knocked down and obscure construction activities visually.
- 3.26 Part m of Condition 3 states that the CEMP should include:

“Details of temporary construction or security lighting”
- 3.27 Construction works will be undertaken during the hours stated at paragraph 3.17 and therefore the need for any external lighting during the construction phase will be limited. If deemed necessary mobile lighting rigs will be used and positioned where needed to support any specific construction tasks. Lights will be positioned pointing downwards to the locations where they are required in order to minimize light spill. Once the construction works are completed there will be a need for permanent lighting to be installed on site and details are to be provided to GBC in accordance with Condition 12 attached to planning permission reference 20220733.
- 3.28 Existing CCTV cameras will be used to monitor the site and some additional CCTV will be installed to monitor the new car park. All machinery utilised as part of the Development will be locked and immobilised at the end of each shift.

Site Information (Contacts, Visitors and Signage)

- 3.29 Key site contacts, including the Applicant, EA and LPA are listed in Appendix 1.
- 3.30 All persons entering the Site will be expected to report to the Site office and will be required to complete a Site induction and will be required to sign to show acceptance.
- 3.31 The Site induction will be tailored to the operation of the Development and the specific hazards and safety procedures which must be followed on Site in respect of the Development. During the Site safety induction everyone will be made aware of the Site requirements, welfare, first aid and emergency requirements, specific hazards and safety control measures.

- 3.32 Regular visitors to the Site do not require induction on each and every visit but a 'refresher' is given when necessary e.g. following a change to conditions or practices on Site and at no greater than 12 monthly intervals.
- 3.33 Visitors who are attending the Site for a single or isolated visit may not undergo a formal induction where they are to be accompanied by a competent member of F M Conway staff at all times.
- 3.34 In the event of an emergency the signing in book is checked to ensure that all persons visiting the Site can be accounted for.
- 3.35 A business identification board will be prominently displayed at the entrance to the Site, clearly stating the company name and emergency contact details.

4. OPERATIONAL MATTERS

Roles and Responsibilities

- 4.1 The Project Director has overall responsibility for the project, with a full time Operations Manager being responsible for the development and implementation of the CEMP.
- 4.2 The Applicant has appointed a civil engineering contractor to carry out the main construction works associated with the Development. Whilst the Project Director and Operations Manager will be overseeing the work undertaken by the construction team, the civils contractor has appointed their own Principal Contractor who will be responsible for managing the day to day construction activities.
- 4.3 During the construction phase of the development the Principal Contractor will have full control of the Site. Once the construction phase has been undertaken, the Applicant will take on full control of the operation of the Site.
- 4.4 The main roles and responsibilities are set out below:

Project Director

- 4.5 The Project Director is responsible for the overall management of the project including the appointment of the civil engineering contractor. The Project Director will liaise with the Operations Manager and civils contractor throughout the construction of the Development.

Operations Manager

- 4.6 The Operations Manager is responsible for coordinating and managing all the environmental activities while the operations are taking place. The Operations Manager will carry out the following duties:
 - Organise corrective actions, to ensure that the corrective procedures are effective and implemented within the appropriate specified period;
 - Be responsible for reviewing environmental actions arising from meetings and for ensuring that environmental issues are reported to staff;
 - Develop, review and ensure compliance with the CEMP and specialist environmental procedures;
 - Ensure delivery of environmental training to personnel within the project team; and
 - Act as a main point of contact between the regulatory authorities, such as the Environment Agency (EA) and Highways Authority (HA), and the project team on environmental issues.

Principal Contractor

- 4.7 The Principal Contractor is responsible for managing the day to day operation of the Site during the construction phase including overseeing operations taking place on Site and dealing with any complaints. The Principal Contractor will work in conjunction with the Operations Manager in ensuring that the CEMP is adhered to on a daily basis. The main responsibilities of the Principal Contractor are as follows:

- Organising and managing construction activities;
- Ensure that activities are undertaken in accordance with the requirements / commitments set out within the CEMP;
- Be responsible for identifying any activities or events on Site that may generate risk of environmental damage or adverse environmental effects;
- Resolve any conflicts between environmental requirements and other objectives; and
- In conjunction with the Operations Manager, agree corrective actions resulting from Site inspections.

Environmental Specialists

- 4.8 Environmental specialists such as air quality and noise consultants will support the project on a part-time basis, assisting the project team with specific issues as they arise during the project.

Communication and Co-ordination

- 4.9 Part o of Condition 3 states that the CEMP should include:

“A Community Engagement Strategy covering how local residents, community groups and businesses will be kept informed about the development and construction timetable and works taking place, until completion of the development.”

- 4.10 In addition, Part n of Condition 3 states that the CEMP should include:

“Monitoring and review provisions with the Local Planning Authority.”

- 4.11 Co-ordination within the project will be achieved through regular meetings of the project team. During these meetings the team will discuss any ongoing issues or concerns which might have been raised by local stakeholders, including residents and neighboring businesses, in addition to the ongoing operation of the Development. Representatives from Statutory Authorities will also be invited to attend these meetings where considered appropriate.
- 4.12 This CEMP will be communicated to the full project team, including all sub-contractors, to ensure that all parties are aware of the environmental requirements. Details of specific environmentally sensitive activities will be communicated to staff and contractors.
- 4.13 Meetings within the project team will take place at varying frequencies throughout the Development of the Site depending upon the works taking place. As a minimum it is expected that either the Project Director or Operations Manager will meet with the Site operatives once a week to discuss progress.
- 4.14 It is proposed that an information board will be maintained on Site which shall contain updates relating to the progress of the construction of the development. The information board will contain a brief description of the development works and will be regularly updated as construction activities progress.

Site Safety Committees

- 4.15 Site Health, Safety & Environmental committees will be established as required. These problem-solving teams shall address the adequacy of the Site safety management systems, safety communication, the promotion of safety awareness, the development and implementation of the projects safety policy, rules and regulations and critical problems identified through accident and incident analysis and environmental impact issues. Relevant information shall be passed up or down through the different levels, to ensure all concerned are made aware of health, safety & environmental and welfare issues and progress.

Complaints Procedure

- 4.16 A complaints procedure shall be implemented at the Site to provide local stakeholders with the appropriate channels through which they can raise any concerns in respect of the development and these shall be passed through to the project team for investigation.
- 4.17 A business identification board will be prominently displayed at the entrance to the Site, clearly stating the company name and emergency contact details. A list of the key contacts in respect of the development can also be found attached to this document at Appendix 1.
- 4.18 As soon as a complaint is received the Operations Manager will be informed. A complaints record shall be fully completed. Measures should be taken to assess the issue and find possible mitigation methods i.e. if there is a complaint of dust, ensure dust suppression systems are functioning correctly and sweepers are on hand to clean the Site and access if required. The record should be kept and if deemed necessary discussed with the Local Planning Authority on their next visit.

Training and Awareness

- 4.19 The Applicant recognises that the provision of adequate environmental training for all levels of personnel makes a vital contribution towards effective environmental management and will therefore ensure that a suitably structured schedule of training is adopted by all parties throughout the project.
- 4.20 All personnel involved in the construction of the Development will receive environmental awareness training. The environmental training and awareness procedure will ensure that staff are familiar with the principles of the CEMP, the environmental aspects and impacts associated with their specific construction activities, the procedures in place to control these impacts and the consequences of departure from these procedures.
- 4.21 All personnel associated with the construction of the Development are expected to have the required level of competency for the task which they have been assigned to. The Project Director will ensure that any contractors employed to undertake the construction works supply proof of their competencies to ensure that they have a suitable level of qualification before being assigned to the project.
- 4.22 On Site training will be provided to ensure that all persons working on Site have a practical understanding of environmental issues and management requirements prior to commencing activities. All personnel will also be made aware of the planning permission at the Site and the associated conditions which must be adhered to for the life of the development as part of a tool box talk.

- 4.23 Training will include Site briefings and toolbox talks for relevant staff to maintain the necessary level of knowledge on community relations and environmental topics. The training will ensure that all personnel are able to follow environmental control measures and will advise employees of changing circumstances as work progresses.
- 4.24 Site induction training will ensure all personnel are aware of the environmental risks and have an understanding of legal obligations, licences and permits associated with Site, as well as the associated management plans and procedures.
- 4.25 The effectiveness of the training delivered will be reviewed at regular intervals by the project safety personnel in conjunction with the Operations Manager and sampled at the workplace to ensure that training objectives are realised.

Checking and Corrective Action

- 4.26 Monitoring compliance is a crucial part of the implementation of the CEMP. An appropriate person using a field inspection sheet will carry out day to day monitoring of activities. In addition, a weekly inspection will be completed against a suite of agreed Site standards. The results of these inspections will be discussed at the project team meeting.
- 4.27 The Operations Manager will also carry out a monthly assessment of the project's environmental performance, based upon the performance measured; environmental monitoring undertaken and their own Site inspections.
- 4.28 Regular audits will be completed to verify that the project is compliant with the CEMP, and legislation.
- 4.29 All areas of non-conformance identified through the monitoring will be documented and investigated and corrective measures will be developed, implemented and then formally closed out through follow up inspections.

5. ENVIRONMENTAL CONTROL MEASURES

- 5.1 This section details the specific environmental control measures to be adopted and implemented throughout the construction phase of the Development. This includes environmental management and monitoring measures relating to individual environmental topics included within the planning application for the Development.

Air Quality

- 5.2 Part b of Condition 3 states that the CEMP should include:

“A Dust Management Plan to minimise emissions to air and to prevent nuisance from wind-blown dust including fencing and the dampening down with water of excavated construction and cover materials on site, and other areas traversed by plant vehicles and machinery.”

- 5.3 An Air Quality and Odour Assessment was undertaken to support the planning application for the Development. The assessment concluded that the Development was not considered to be contrary to any local or national planning policies with respect to air quality or odour.
- 5.4 An Odour Management Plan has been produced and submitted to GBC to enable the discharge of Condition 9 of planning permission reference 20220733. At the time of writing the document is pending approval by GBC.
- 5.5 It is proposed that appropriate Site-specific mitigation measures, as set out within IAQM 2014 Guidance on the Assessment of Dust from Demolition and Construction v1.1, will be employed during the construction phase.

Communications
Display the name and contact details of person(s) accountable for air quality and dust issues on the Site boundary.
Display the head or regional office contact information.
Dust Management
Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
If deemed necessary, the Principal Contractor will instruct the suspension of any operation causing visible dust emissions until such time as the situation has been resolved. Once the dust source has been identified and mitigated, operations can be resumed.
Make the complaints log available to the local authority when asked.
Record any exceptional incidents that cause dust and / or air emissions, either on or offsite, and the action taken to resolve the situation in the log book.
Increase the frequency of Site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
Plan site layout so that machinery and dust causing activities are located away from receptors, as far as possible.

Erect solid screens or barriers around dusty activities or the Site boundary that are at least as high as any stockpiles on Site.
Avoid Site runoff of water or mud.
Keep Site fencing, barriers and scaffolding clean using wet methods.
The existing site is laid to hardstanding, much of which will be retained throughout the development works. Where resurfacing is required, this will be done as early in the construction phase as possible to provide a running surface for vehicles.
Remove materials that have a potential to produce dust from Site as soon as possible, unless being re-used on Site. If they are being re-used on-Site cover.
Cover, seed or fence stockpiles to prevent wind whipping.
Ensure all vehicles switch off engines when stationary - no idling vehicles.
Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
Ensure an adequate water supply on the Site for effective dust / particulate matter suppression / mitigation, using non-potable water where possible and appropriate.
Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
Avoid bonfires and burning of waste materials.
Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas.
Construction
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
Avoid scabbling (roughening of concrete surfaces) if possible.
Ensure any bulk cement and other fine powder materials are stored appropriately to prevent escape of material.
For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.
Trackout
Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site.
Avoid dry sweeping of large areas.
Ensure vehicles entering and leaving site are covered to prevent escape of materials during transport.
Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.

Record all inspections of haul routes and any subsequent action in a Site log book.

Ecology

- 5.6 Part h of Condition 3 states that the CEMP should include ecological mitigation measures.
- 5.7 A Preliminary Ecological Assessment (PEA) was undertaken to support the planning application for the Development. The assessment concluded that there will be no significant adverse impacts upon valued ecological resources and no specific mitigation measures relating to ecological interests are therefore required.
- 5.8 Best practice is to be enforced during site clearance works, including site 'house-keeping', control measures, supervision and monitoring as appropriate.
- 5.9 Part l of Condition 3 requires that detail is provided relating to pest control in respect of the construction phase of the Development. Due to the nature of the Development it is not considered that there will be a need for pest control during the construction phase. Construction activities are unlikely to give rise to large volumes of waste arisings and any waste which is produced will be disposed of in appropriate bins which shall be emptied on a regular basis.

Noise

- 5.10 A Noise Assessment was undertaken to support the planning application for the Development. The report concluded that there would be no adverse impact upon sensitive receptors. In respect of noise during construction activities, Part a of Condition 3 states that the CEMP should contain:

"Suitable mitigation measures to minimise noise pollution and vibration during the construction phase including the insulation of fixed plant and the silencing of vehicles and mobile machinery."

- 5.11 Best Practical Means (BPM) as set out within the BS5228 Code of Practice for Noise and Vibration Control will be employed which will balance noise and vibration against the works to be completed. The following factors will be considered:
- Proximity to residents;
 - Duration of the works;
 - Time of day the works are to be undertaken; and
 - Engineering, practicability and safety.
- Construction work will be undertaken during the hours of operation stipulated at paragraph 3.17 of this CEMP.
 - The noise control hierarchy will be implemented – Eliminate > Substitute > Isolate > Control – to minimise the effect of the operations and plant and machinery on neighbours.
 - Where works adjacent to sensitive receptors are unavoidable, the construction method utilised will be chosen to minimise noise and vibration.
 - Where possible, noise and vibration will be controlled at source.

- Site operatives will be trained to employ appropriate techniques to keep Site noise to a minimum, and should be effectively supervised to ensure that best working practice in respect of noise reduction is followed.
- There will be no fixed plant at the Site, vehicles and mobile machinery on the Site will be fitted with silencers and maintained in accordance with manufacturer's specifications;
- All plant and equipment will be used in accordance with manufacturer's instructions.
- Where possible plant shall be positioned so that emissions do not cause nuisance to neighbours or sensitive receptors.
- Where noise cannot be avoided, screening and acoustic enclosures will be utilised to minimise noise transmission off the construction site.
- The Site layout will be created and maintained to avoid creation of unnecessary noise and vibration, e.g. one way traffic routes created and haul routes regularly inspected and maintained.
- A phone number will be made available for residents to contact the Operations Manager to report any disturbing noise or vibration events. Such events shall be recorded in a log indicating date and time of the complaint, a brief description of the reported disturbance, and a comment from the contractor indicating the likely activity that caused such disturbance, along with measures taken to reduce the reported noise or vibration disturbance after the complaint.

- 5.12 It is considered that piling works associated with the construction of the new bitumen storage tanks present the greatest risk with regard to noise and vibration. With respect to piling works Part j of Condition 3 states that the CEMP should include:

"Details of vibration monitoring and mitigation during any necessary piling works."

- 5.13 Condition 14 attached to planning permission reference 20220733 states that:

"No piling or any other foundation designs using penetrative methods shall be undertaken without the written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to groundwater. The development shall be carried out in accordance with the approved details."

- 5.14 It is proposed that prior to the commencement of any piling works that a piling risk assessment / RAMS will be produced and submitted to GBC. As part of this document consideration will be made to noise and vibration. The chosen method of piling will be outlined as part of the risk assessment and this will consider the risk of noise and vibration as well as any necessary mitigation measures deemed necessary to reduce these risks.

Traffic and Transport

- 5.15 A Transport Statement was undertaken to support the planning application for the Development. The Statement concluded that the Development would not result in an unacceptable impact on highway safety or result in a severe residual cumulative impact on the road network. Part c of Condition 3 states that the CEMP should contain a Construction Traffic Management Plan (CTMP). The key elements of the CTMP are addressed under the headings below.

Means of direct access to the site from the adjoining maintainable public highway

- 5.16 The main Site has direct access from the public highway at Clifton Marine Parade via existing access points. No new accesses are required to facilitate the construction of the proposed bitumen storage tanks, bitumen emulsion plant and loading gantry.
- 5.17 Access to the proposed new car park will be via West Mill. Again, no new access point is required to facilitate this.

Surface treatment of the access to avoid spill of migratory material on to the maintainable public highway

- 5.18 The entire Site is already laid to hardstanding which will be maintained where possible. Vehicles making deliveries to the site will be directed to surfaced areas near to the locations where the materials are required for construction. As far as possible, delivery vehicles will not travel on unsurfaced areas. Departure checks will be made to vehicles to ensure no spilling of migratory material onto the maintainable public highway. Water assisted sweepers will be used to maintain haul routes and accesses free of debris.

Details of numbers and routeing of construction and delivery vehicles to / from Site

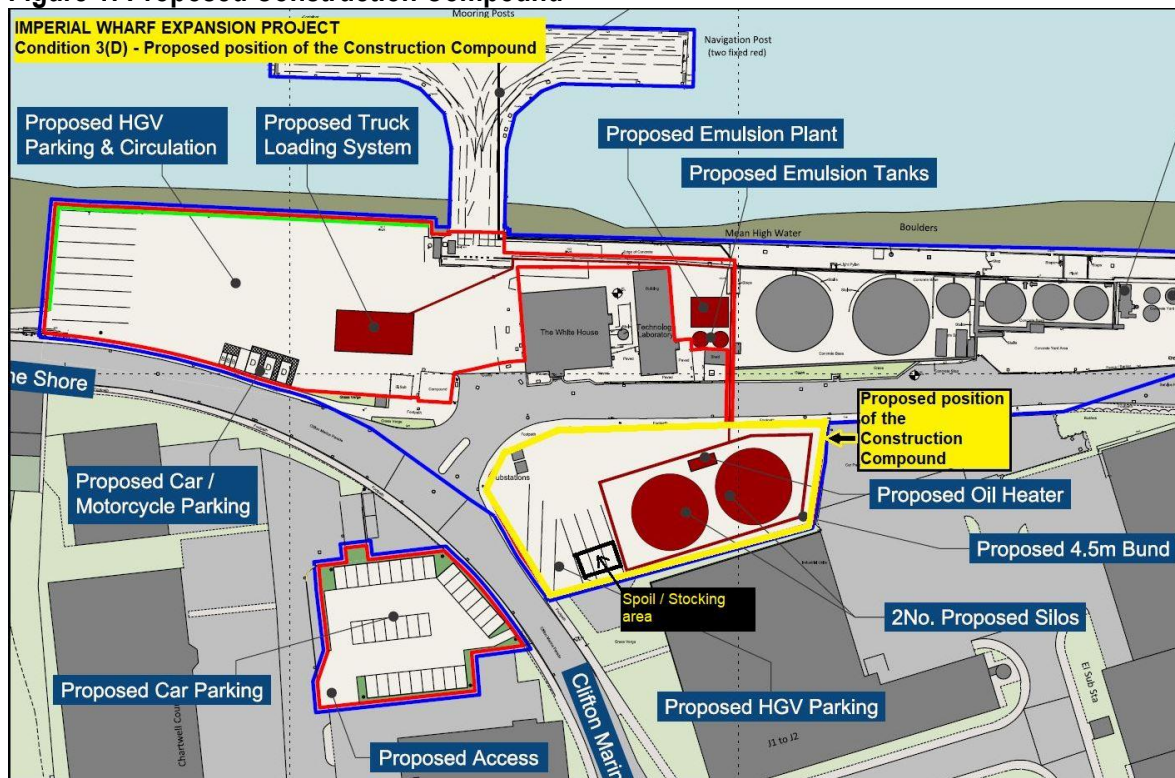
- 5.19 During the peak of the construction phase it is anticipated that there will be approximately 15 deliveries of materials per day, though the number of deliveries on any given day are likely to be variable depending upon the works taking place at the time. These deliveries will predominately be made by HGV, though some smaller LGV deliveries will also be made.
- 5.20 Construction traffic leaving the Site will head south along Clifton Marine Parade which links to Thames Way via a roundabout junction. Vehicles will continue south up to a signal-controlled junction with the A226. The A226 leads west from where vehicles will travel onto the A2260 which provides a link south onto the A2 Springhead Interchange and therefore onto the A2. Vehicles accessing the Site shall do so in the opposite direction along this route.

Timing of deliveries and waste movement

- 5.21 Construction activity and associated deliveries will be limited to the hours specified at paragraph 3.17.

Loading and unloading of plant and materials away from the maintainable public highway

- 5.22 Part d of Condition 3 states that the CEMP should contain the location of the proposed Construction Compound. Part f of Condition 3 states that the CEMP should contain details of stockpile areas for building materials or for fill or removed topsoil.
- 5.23 A temporary construction compound will be erected on land to the west of the proposed bitumen storage tanks, as shown in Figure 1 below. The compound will be used to store any materials required for the construction of the proposed bitumen storage tanks, emulsion plant and loading gantry, together with other ancillary aspects of the Development. The location has been selected as it is central to the individual aspects of development and is in close proximity to the proposed bitumen storage tanks which will be the main focus of construction activities.
- 5.24 This area is already laid to hardstanding, thus providing a suitable maintainable surface for loading and unloading activities.

Figure 1: Proposed Construction Compound

Parking and turning areas for construction and delivery vehicles and site personnel

- 5.25 Initially car parking for Site personnel will continue to be provided for within the existing Site car park whilst the new alternative car park is established. The location of the existing car park can be seen on Drawing Number KD.IMP.D.003. Once the new car park has been constructed as illustrated on Drawing Number KD.IMP.D.004A, car parking for Site personnel will be switched to this new area, allowing work to commence on the two main bitumen storage tanks. Car parking will also be provided for within the Construction Compound for construction vehicles.

Type and location of wheel washing and chassis cleaning facilities

- 5.26 Due to the nature of the Site and the type of development proposed it is not considered that wheel washing facilities will be required. Delivery vehicles will be restricted to surfaced areas of the Site as far as possible and will be inspected prior to departure should there be a risk of tracking debris out of the Site. Water assisted sweepers will be used to maintain haul routes and accesses free of debris.

Temporary traffic management / signage

- 5.27 Due to the nature of the Development, no temporary traffic management measures will be required during the construction phase however a banksman will be on hand to direct delivery vehicles when required.

Water

- 5.28 A Flood Risk Assessment (FRA) was produced as part of the planning application for the Development. Furthermore, a Surface Water Drainage Strategy was also produced to support the Development. Part g of Condition 3 attached planning permission reference 20220733 requires a Construction Drainage Design Plan to identify the required devices to prevent construction runoff from flowing into existing drainage.
- 5.29 The construction of the Development essentially comprised of four main areas. These are the new car park, the proposed bitumen storage tanks, the emulsion plant and the loading gantry and associated HGV parking to the west of The White House. The discrete nature of the works means that any management of surface water would be undertaken locally to these areas.
- 5.30 The nature of the construction on Site will limit the risk of construction runoff from entering existing drainage networks. Where possible existing surfacing will be retained which will reduce the risk of bare ground becoming uncovered which would present a risk of transporting silts into the drainage system. Where excavations are required which present a risk of contaminated runoff flowing to drainage systems, the Contractor will implement measures to contain any water. This water will be captured by a mobile treatment system such as a 'Siltbuster' interceptor which is able to separate the sediments from the water before it can be discharged to the drainage network.
- 5.31 Part i of Condition 3 states that the CEMP should contain:
- "Measures to be undertaken to protect any public sewers and water apparatus."*
- 5.32 With respect to public sewers and water apparatus, surveys and utilities searches have been undertaken by the Applicant. There are no known operational water apparatus or public sewers within close proximity to the main components of the Proposed Development and therefore the risk to these features is assessed to be low. The location of any utilities will be marked by a surveyor prior to construction works breaking ground to ensure that activities are kept well away from these assets. During excavations a CAT scanner will be used to search for buried utilities.

DRAWINGS

Drawing Number KD.IMP.D.001
Drawing Number KD.IMP.D.003
Drawing Number KD.IMP.D.004A
Drawing Number KD.IMP.D.005
Drawing Number KD.IMP.D.010
Drawing Number KD.IMP.D.011

Location Plan
Current Situation
Proposed Development
Silo Elevations
Emulsion Plant
Loadout Gantry

Scale 1:25,000 @ A3
Scale 1:1,250 @ A3
Scale 1:1,250 @ A3
Scale 1:250 @ A3
Scale varies @ A3
Scale 1:50 @ A3

Imperial Wharf

Location Plan

River Thames

The White House

Navigation Post
(two fixed red)

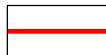
Navigation Pos
(two fixed red)

The Shore

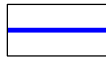
FM Conway - Imperial Wharf, Bitumen Terminal & Technology Centre

Imperial Retail Park

Legend



Planning Application Boundary



Land Under the Control of the Applicant

metres

0

50

100



PROJECT

Imperial Wharf

DRAWING TITLE

Location Plan

DATE _____

July 2022

SCALE

1:1,250 @ A3

DRAWING No

KD.IMP.D.001

DRAWING STATUS

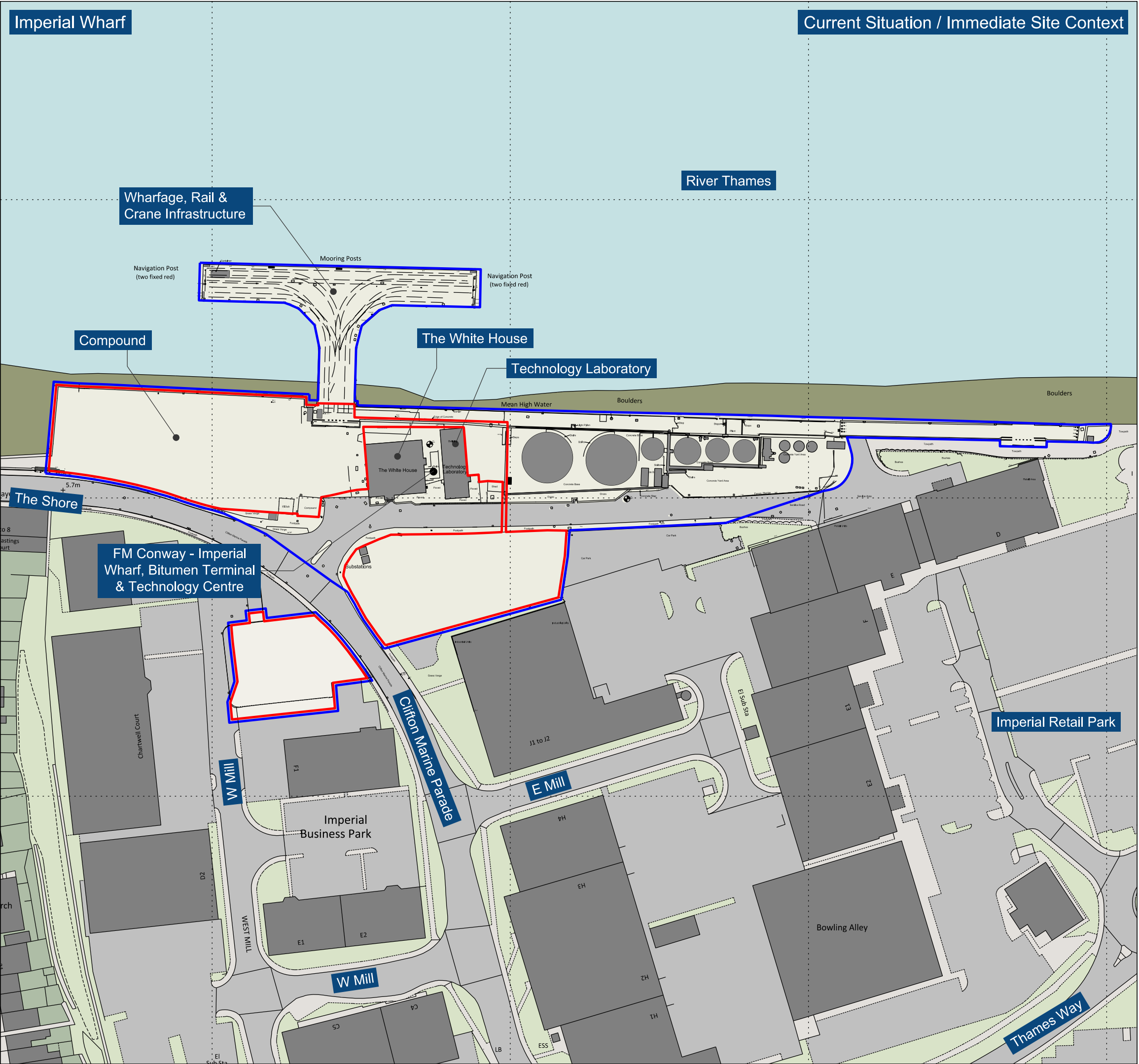
FINAL



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Legend

- Planning Application Boundary
- Land Under the Control of the Applicant
- Existing Buildings & Infrastructure within and surrounding the Site

0 50 100 metres

pde. consulting limited
chartered surveyors

PROJECT
Imperial Wharf

DRAWING TITLE
Current Situation / Immediate Site Context

DATE
May 2022

SCALE
1:1,250 @ A3

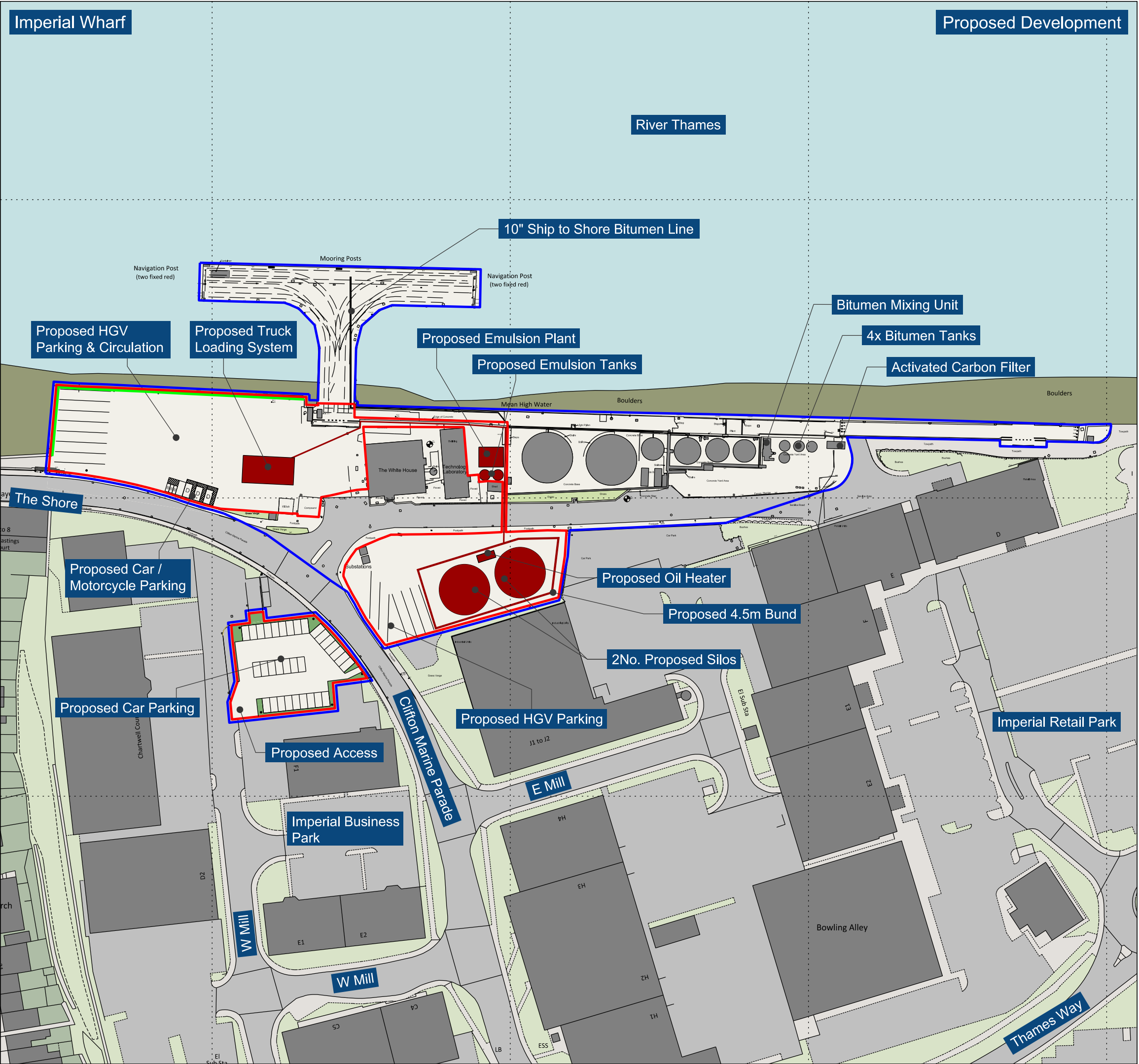
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KD.IMP.D.003

DRAWING STATUS
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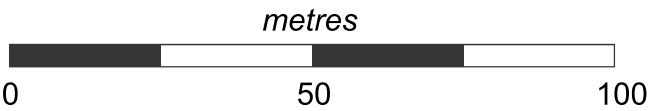
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Legend

- Planning Application Boundary
- Land Under the Control of the Applicant
- Existing Buildings & Infrastructure within and surrounding the Site
- Proposed Additional Plant, Tanks & Infrastructure
- Proposed Landscaping to Car Parking Area
- Vehicle Crash Barrier



pde. consulting
limited
chartered surveyors

PROJECT
Imperial Wharf

DRAWING TITLE
Proposed Development

DATE
February 2023

SCALE
1:1,250 @ A3

DRAWING No.
KD.IMP.D.004A

DRAWING STATUS
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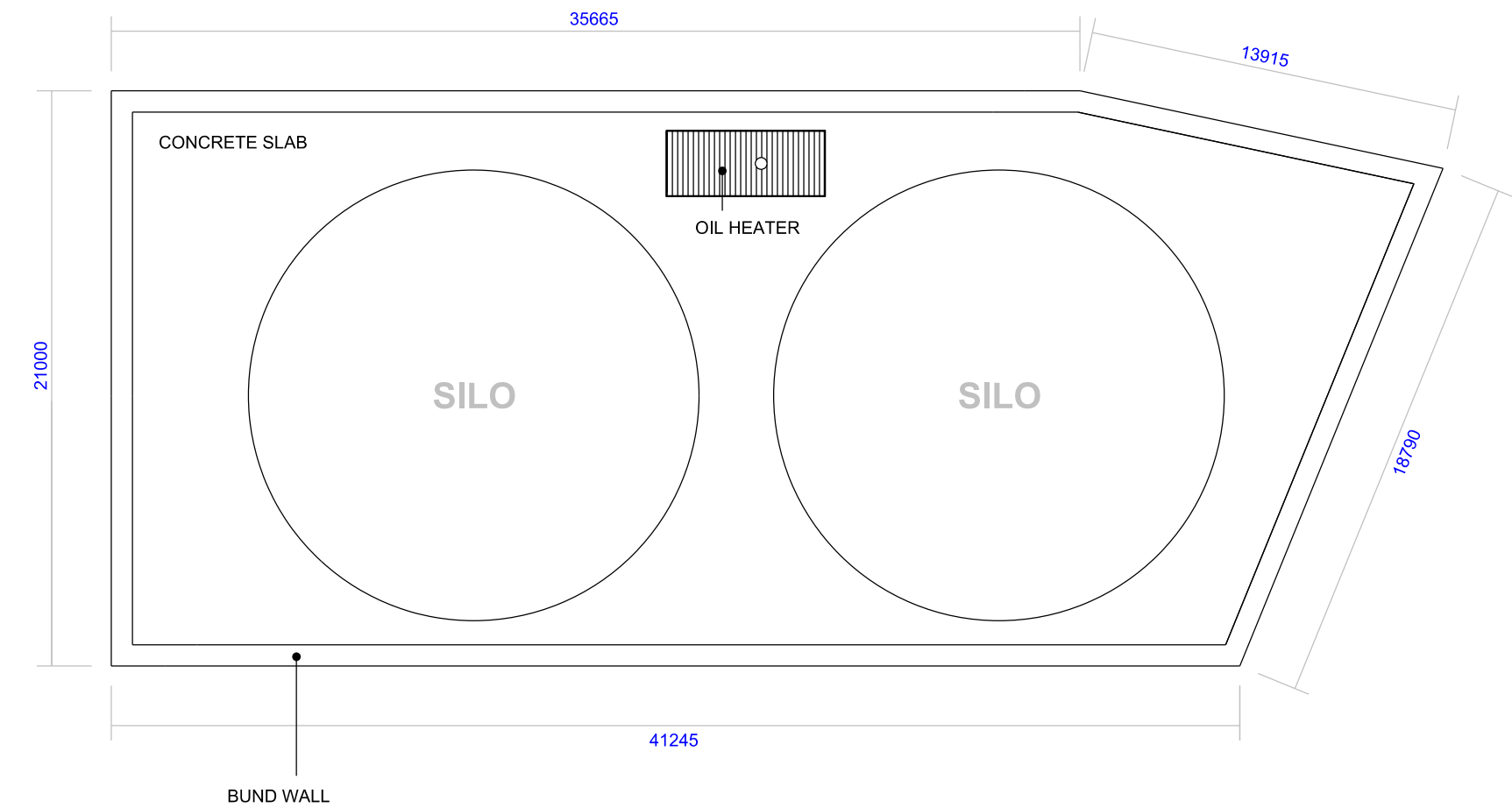
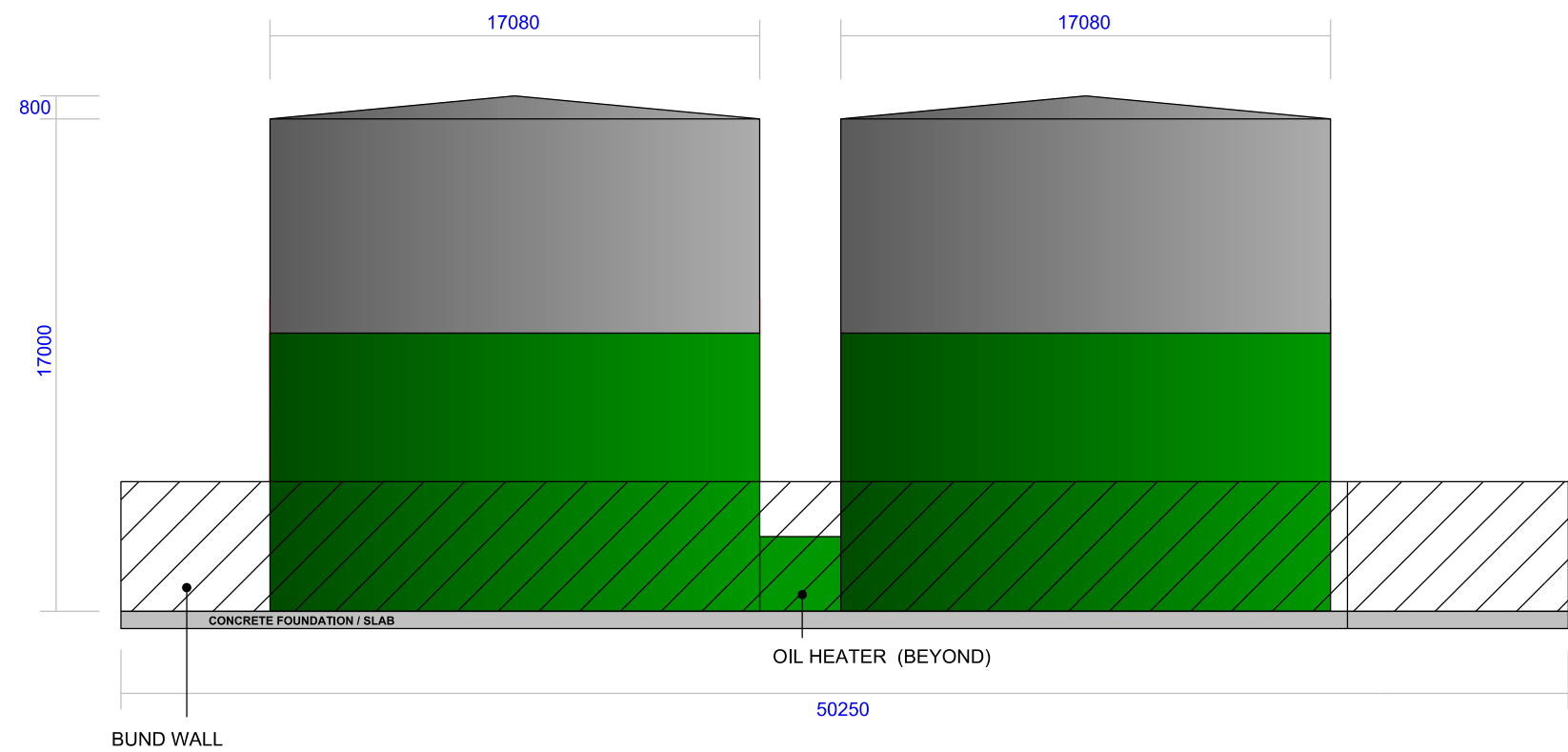


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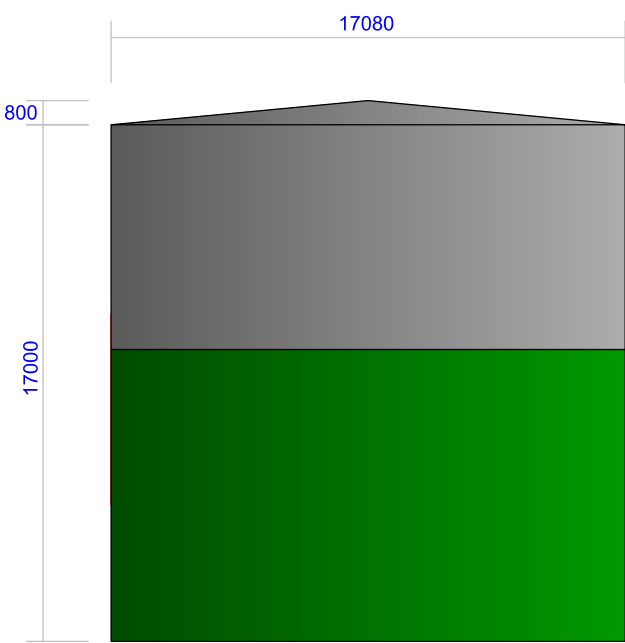
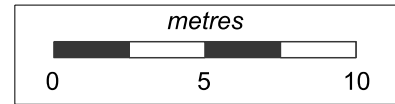
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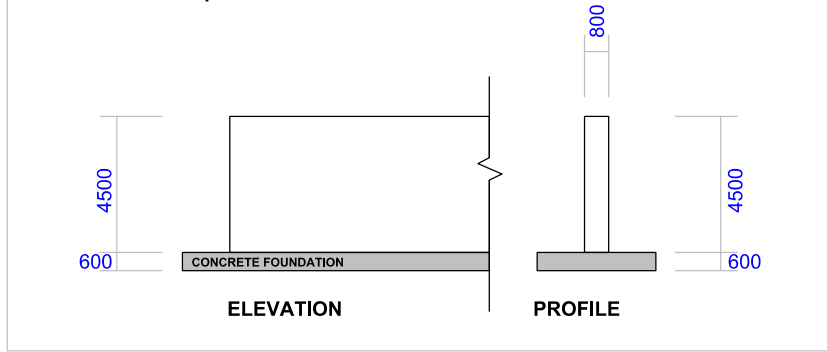
ELEVATION A: 2No. Proposed Silos, Bund Wall & Oil Heater



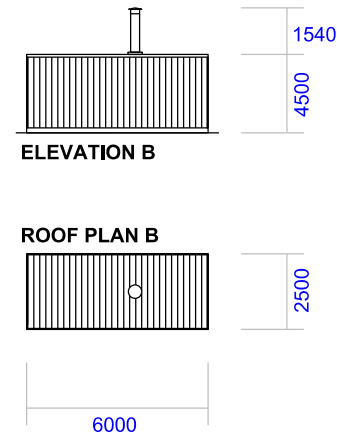
ROOF PLAN A: 2No. Proposed Silos, Bund Wall & Oil Heater



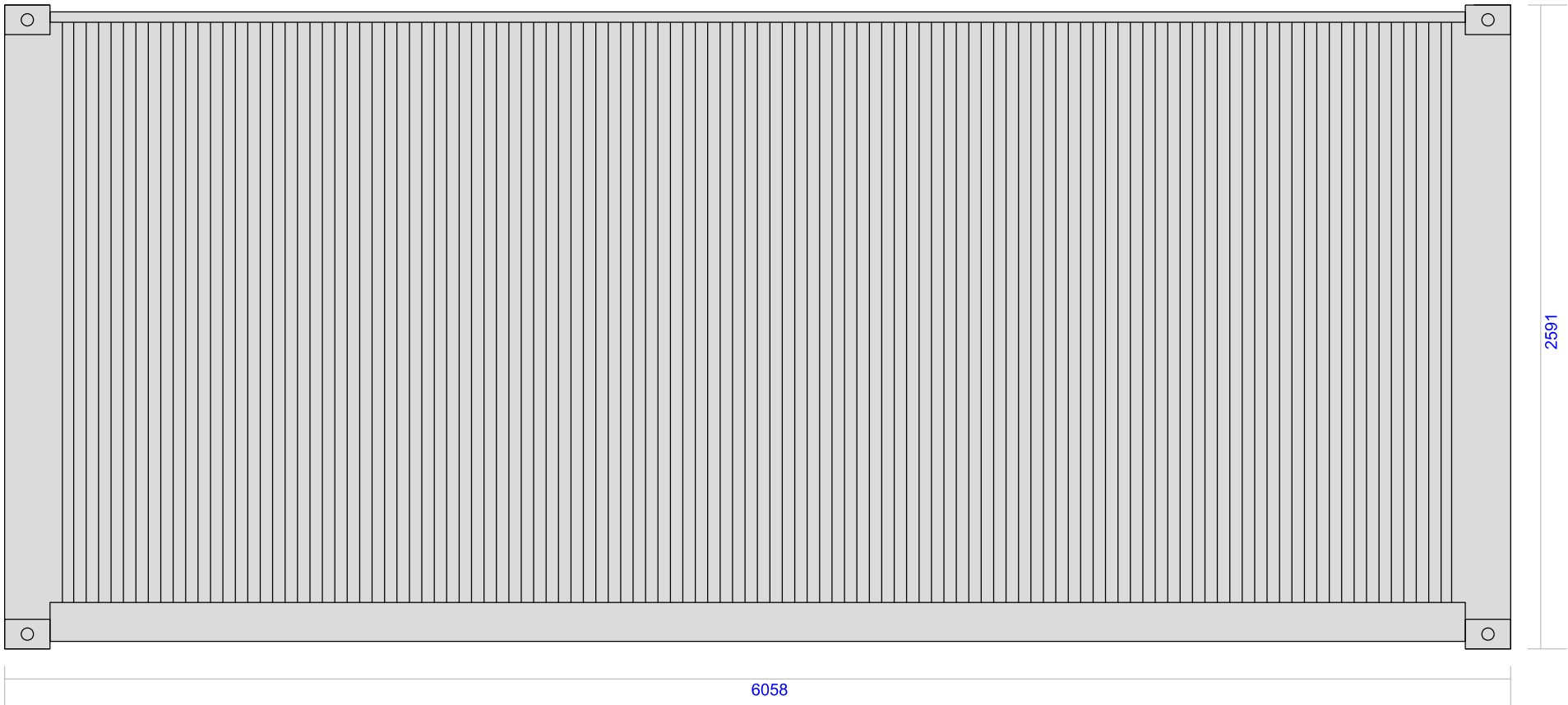
ELEVATION C: Proposed Bund Wall



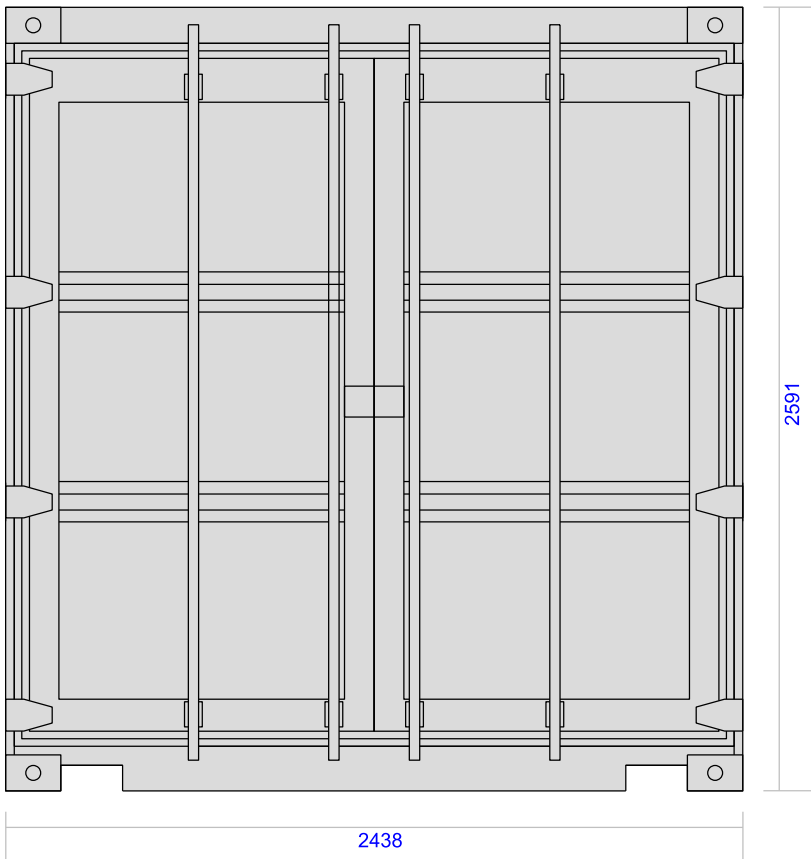
ELEVATION & ROOF PLAN B:
Proposed Oil Heater



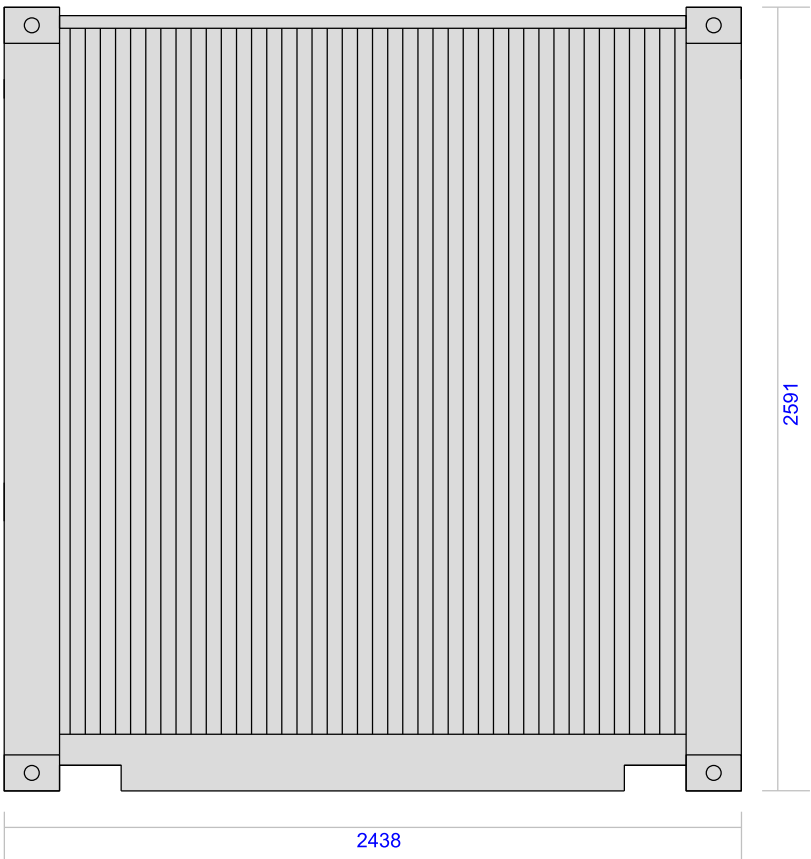
SIDE ELEVATON



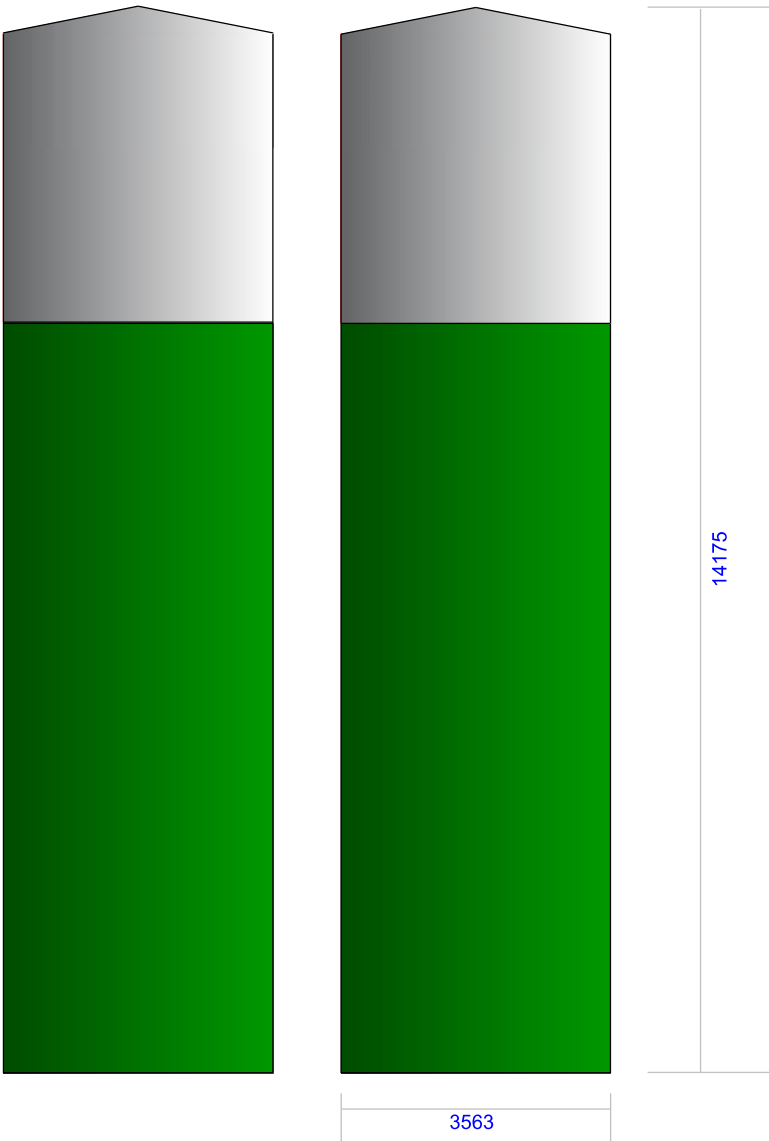
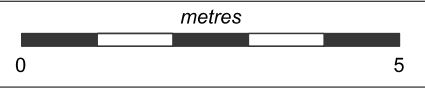
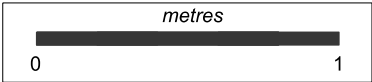
FRONT ELEVATION



REAR ELEVATION

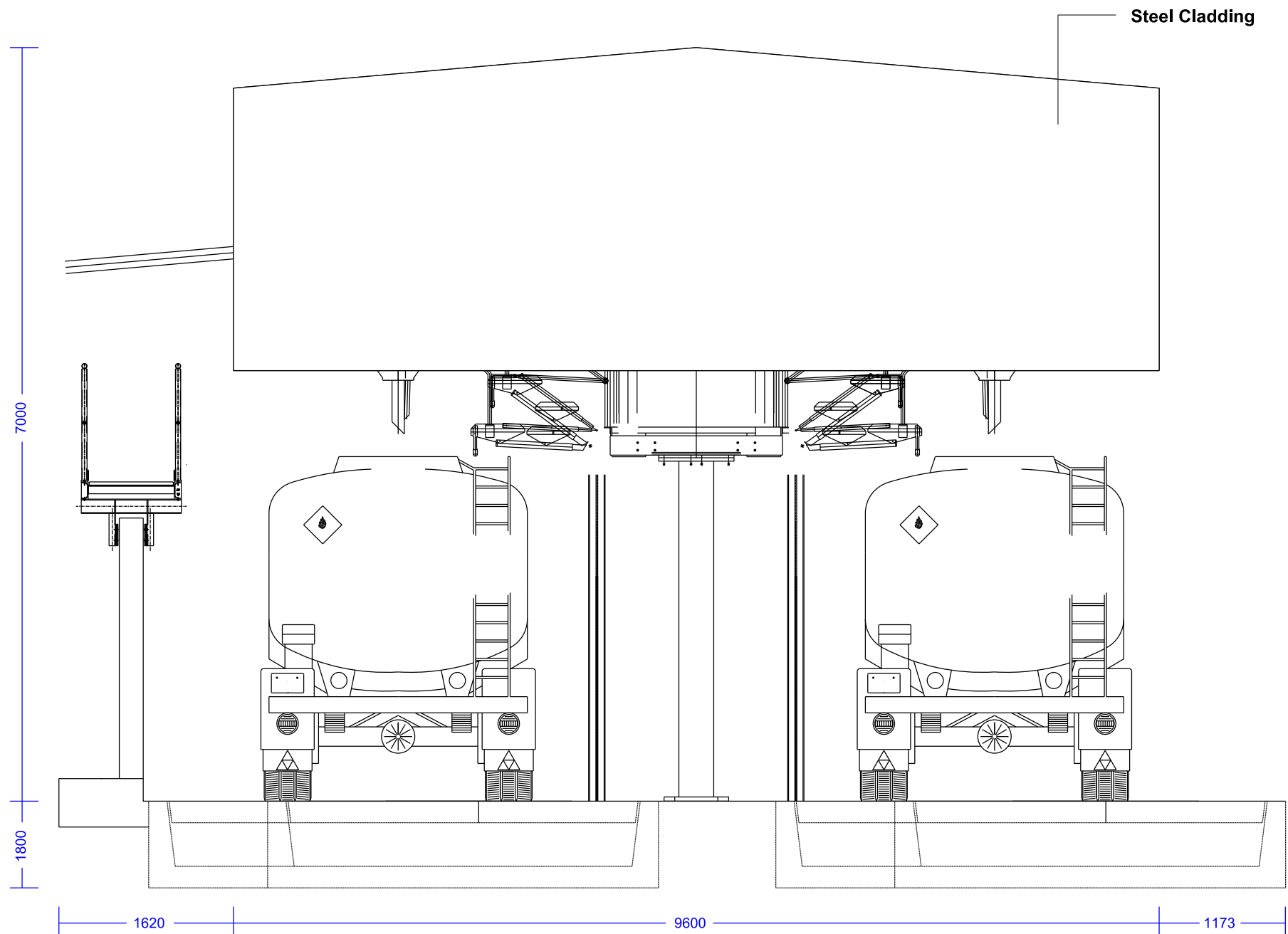


TYPICAL 20' SHIPPING CONTAINER - HOUSING EMULSION PLANT (1:25 @A3)

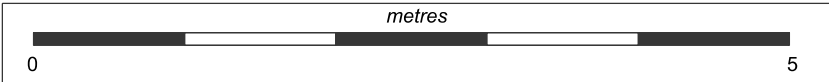


EMULSION TANKS ELEVATIONS (1:100 @A3)





ELEVATION - TRUCK LOADING SYSTEM



PROJECT
Imperial Wharf

DRAWING TITLE
Truck Loading System

DATE
November 2021

SCALE
1:50 @ A3

DRAWING No.
KD.IMP.D.011

DRAWING STATUS
FINAL



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APPENDIX 1

Key Contacts

SITE DETAILS		
Location: Imperial Wharf, Clifton Marine Parade, Gravesend, Kent		
Postcode: DA11 0DY		
ORGANISATIONAL STRUCTURE		
Role	Name	Contact Details
Project Director	Mark Whelehan	Mark.Whelehan@fmconway.co.uk
Operations Manager	Michelle King	Michelle.King@fmconway.co.uk
Principal Contractor	TBC	
Head Office	Conway House Vestry Road Sevenoaks Kent TN14 5EL	01732 600 700
EMERGENCY SERVICES		Contact Details
Hospital (A&E):		Darent Valley Hospital Darent Wood Road Dartford DA2 8DA Emergency: 999
Police:		Kent Police Thamesway Northfleet Gravesend DA11 8BD Emergency: 999
Fire:		Thames Side Fire Station Coldharbour Road Northfleet Gravesend DA11 8NT Emergency: 999
REGULATORS		Contact Details
Health and Safety Executive (HSE); Incident Contact Centre:		0345 300 9923
Local Authority; Gravesham Borough Council Ethan Bonthron, Planning Officer		01474 337393 ethan.bonthron@gravesham.gov.uk
Environment Agency (24 hour emergency hotline):		0800 807060