

DESIGN & ACCESS STATEMENT

DSS310 GENERATOR & PORTACABIN PROPOSAL

JUNE 2025

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DESIGN & ACCESS STATEMENT

DSS310 GENERATOR & PORTACABIN PROPOSAL

REVISION HISTORY

P1	31/03/2025	CR	Issued for Pre-Application Discussion
P2	13/05/2025	CR	Options Appraisal added to document DRAFT
P3	30/05/2025	CR	Document finalised for planning submission
P4	02/06/2025	CR	Portacabins defined as temporary on p4 and p20
P5	18/06/2025	CR	Timescale for portacabins added and further detail on options appraisal

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DESIGN & ACCESS STATEMENT

PROJECT DEFINITION

This Design and Access Statement has been prepared by Sodexo Ltd on behalf of Manchester University Hospital NHS Foundation Trust. The document is to support a full application being made to Manchester City Council Planning Department for the installation of 2 Nr stand-by power generators within the existing waste management enclosure. The application also includes the proposal to place 2 nr stacked portacabins on the same site for yard office welfare and associated storage purposes. The cabin is temporary and being hired by the waste team, while the site make space within the building for a permanent welfare solution. This is part of a larger master plan to free up as much space in the yard for all the waste and deliveries. The Trust expect a two year approval would allow for works during the generator install, and also facilitate yard improvements and welfare within the Energy centre building. Should the works look to extend over two years, the applicant would arrange for an extension / further application to be submitted.

The purpose of this document is to provide supportive information for the new generators, portacabin accommodation and associated services. It is intended the following document will support the rational, design principles and access strategy for the planning application in accordance with CABE's Design and Access Statements Guidance and would be read in conjunction with all other information submitted within the application.

BRIEF & CLIENT REQUIREMENTS

The existing hospital buildings require 2 nr external stand-by generators to provide emergency back-up for critical operations in the hospital. The proposed location is within the existing Central Energy Services Complex (waste yard) is located on the South-East part of the Hospital Campus, sitting between Upper Brook Street and North Road.

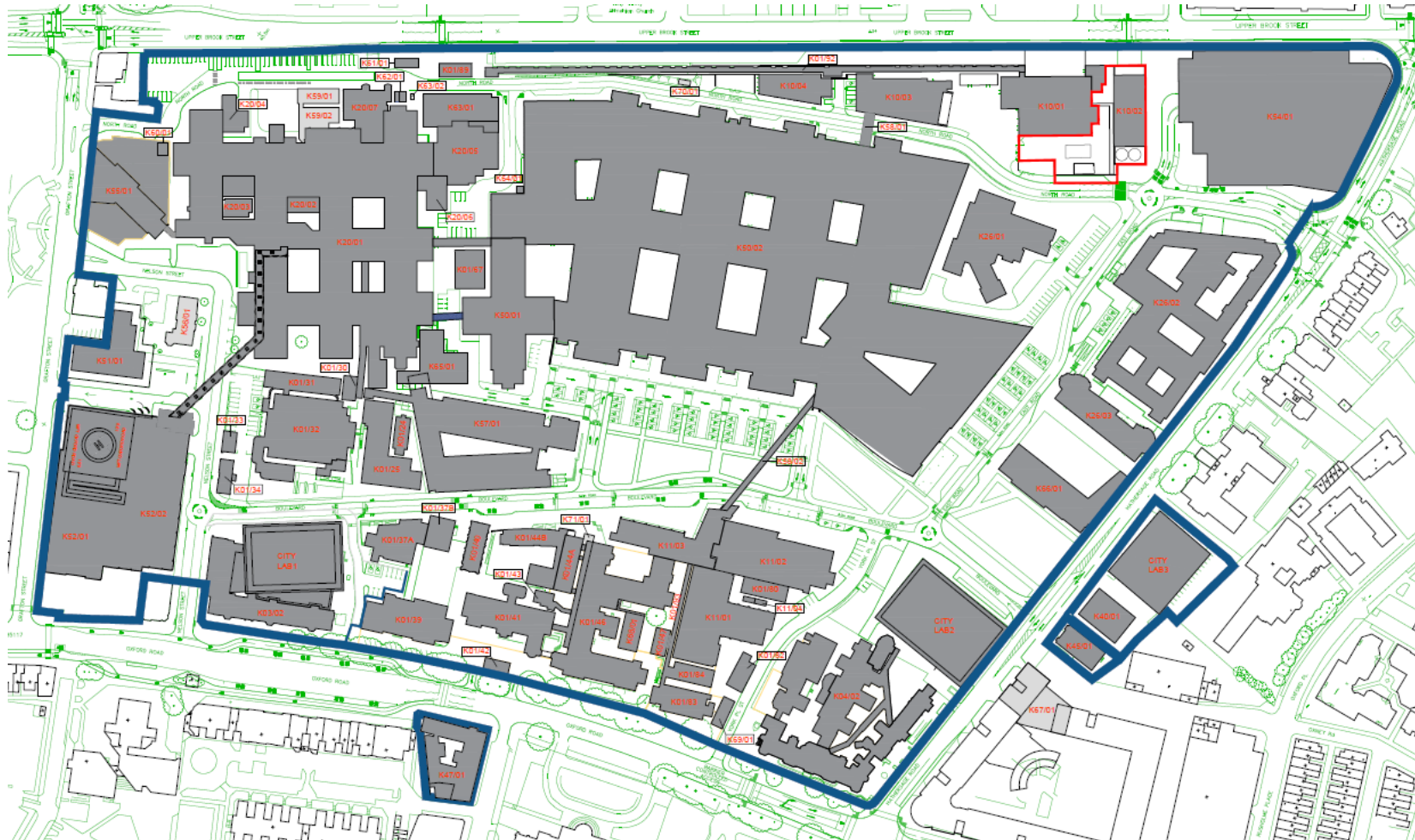
In addition to the requirement for stand-by power generators, the Trust also have a requirement to accommodate a two storey 40ft temporary portacabin within the site. This is for the use by waste team operatives, incorporating a drying room, locker space, rest room and office area. This would rationalise site provisions for efficiency, safety and allow for removal of existing equipment in the yard area.

The proposed temporary portacabins will provide additional space, whilst also facilitating the generator sets to be installed and subsequently enabling progress with other works which currently present a significant operational challenge to the Trust at present.

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SITE ANALYSIS

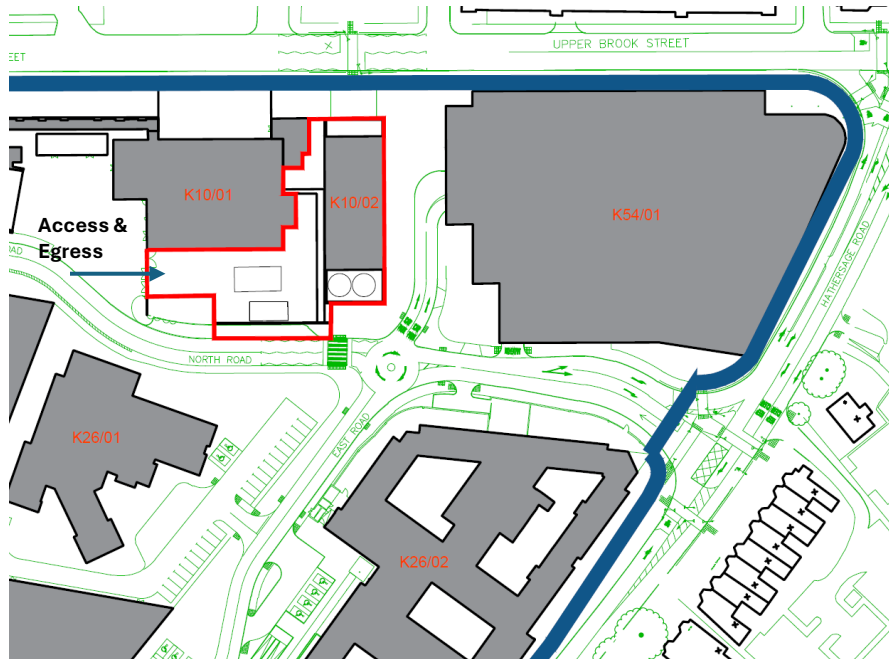
Manchester University Hospital is located 3km South of Manchester City centre and has been subject to substantial redevelopment over the years. The first phases were constructed during the 1980s with various medical facilities throughout the site. The area relevant to this application sits within the buffer zone on the Upper Brook Street (A34) boundary.



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SITE LOCATION PLAN

The area which relates to the proposed generators and portacabins is small comparable to the full Manchester University Hospital site, therefore for the purpose of the application the area of works boundary (blue line) only takes in immediately adjacent buildings and boundary walls.



The existing yard area incorporates a vehicle turning area, waste yard incorporating waste compactor, bin storage and cleaning area, mess room and toilet facilities, a medical gas cylinder compound and space for skips.

Activities on site have increased considerably since the PFI build in 2008, which directly impacts on the yard area due to increased deliveries and waste quantities. It has not been possible to increase the space within the yard, and the proposed generator installation which is required to improve the electrical provision and resilience to the site, along with the need for welfare portacabin facilities further reduces the amount of space available.

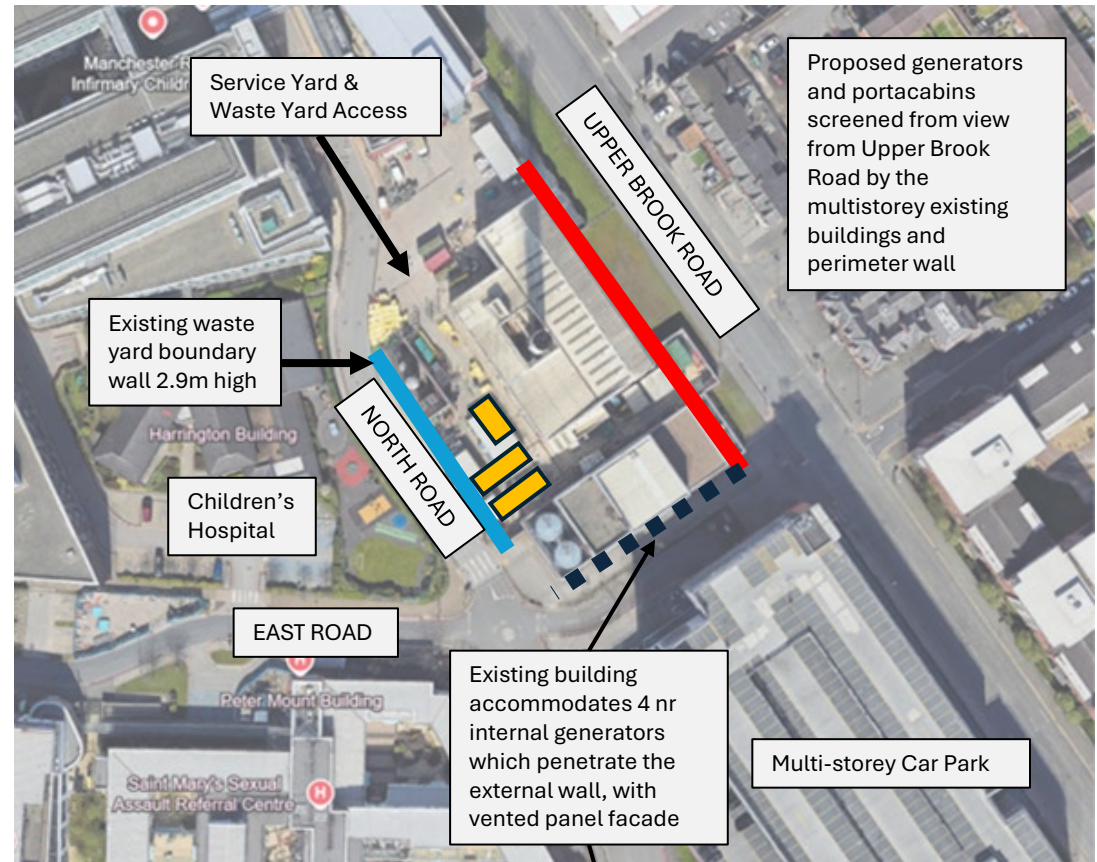
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SITE APPRAISAL

The existing neighbouring buildings are part of the PFI complex, characterised by the red brick, white concrete and built-up louvred cladding system. Much of the immediate surroundings have an industrial appearance, given it is the energy centre services building containing various heavy plant.

KEY DRIVERS IN DESIGN SOLUTION

- The proposed generators need to be in close proximity to the existing HV plant infrastructure and LV switch room
- The generators are preferred to be in a secure, screened area
- The generators require adequate ventilation space at the inlet and outlet grills to prevent overheating, along with access all round unit for maintenance and replacement
- The solution must consider requirement for fire escape routes from main building
- The waste yard is a busy area with the requirements for laydown space, unloading, vehicle turning etc. The solution must consider this as well as ensuring safe walkways for operatives are prioritised.
- The solution must accommodate the welfare facilities within a 2 storey portacabin to allow for existing redundant structures to be removed.
- The solution must look to minimise visual impact and disruption to surrounding area as far as practicable.
- This document explores the various considerations in an options appraisal (pages 16 – 18), with option 3 being the NHS Trust preference to move forward.



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EXISTING PHOTOS

Existing Photograph Below; Existing view towards North Road and proposed site boundary wall. Existing generator louvred panels to façade.



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EXISTING PHOTOS

Existing Photograph Below; Looking South along North Road towards East Road. The generators and portacabin would be located behind the red brick wall on the left side.



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EXISTING PHOTOS

Existing Photograph Below; Existing Energy Services Building and Waste Yard entrance, looking South along North Road.



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EXISTING PHOTOS

Existing Photograph Below; Existing view along North Road, with view of Children's Hospital opposite.



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EXISTING PHOTOS

Existing Photograph Below (Google Earth); 3D Model view from neighbouring buildings on Upper Brook Road towards proposed site.



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EXISTING PHOTOS

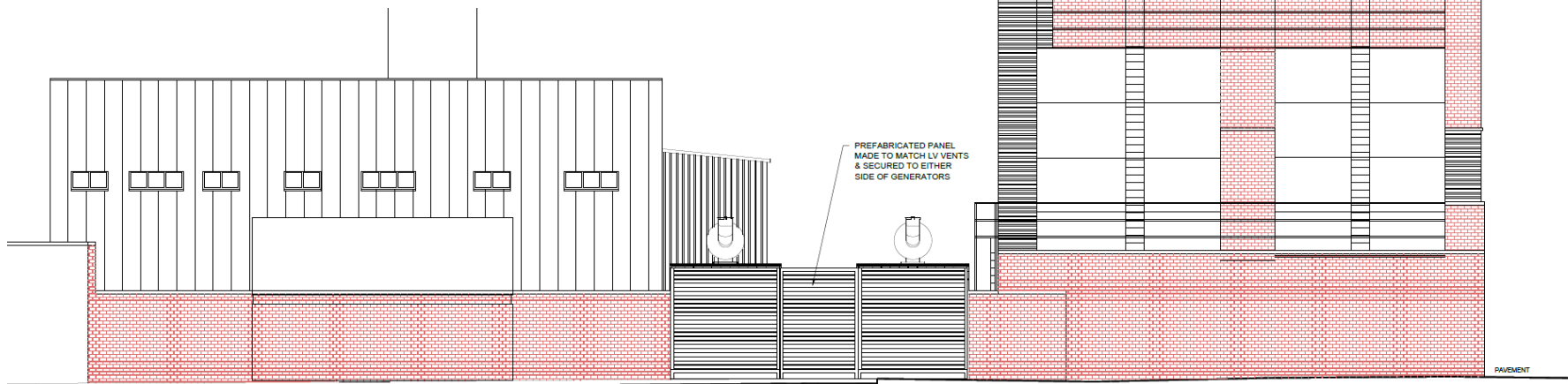
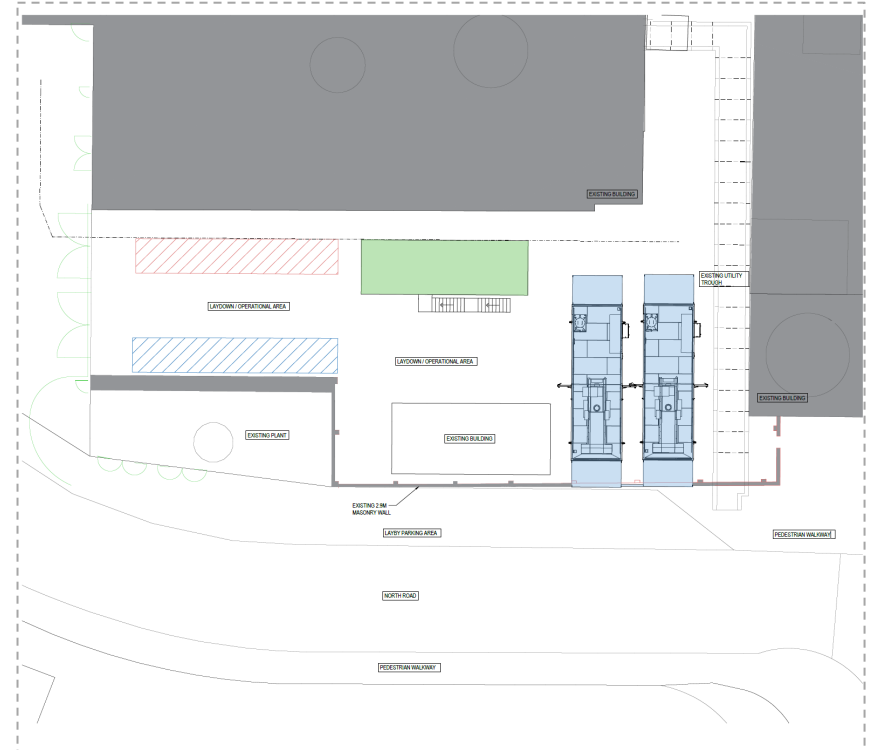
Existing Photograph Below (Google Earth); 3D Model view towards Upper Brook Road from East Road.



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DESIGN PRINCIPLES

- 2 nr generators to sit perpendicular to existing 2.9m high waste yard boundary wall facade.
- Outlet louvres of both generators to penetrate wall, requiring partial demolition (8.8m section). This is to provide adequate air flow at both the inlets and outlets, along with ease of access for maintenance and replacement of generator engines.
- The section between the generators to be infilled by a fabricated louvred panel to match the generator grilles.
- The proposal looks to provide as much clear yard space for lay down, operations and safe walkways as possible.
- Height of generators and exhausts will sit higher than existing wall as indicated on below elevation. Investigations by a Structural Engineer have been carried out to appraise the option of increasing the height to conceal these. By structural comparison of the neighbouring higher walls, the wind posts of this section of wall has evidently smaller and less frequent wind posts and as such very unlikely to have residual capacity to take the additional height through the foundations. Should this wall need to fully conceal the generator and portacabin units, a fully new wall with substantial foundations would need to be built. This would have significant impact on programme and cost to the NHS Trust.



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DESIGN PRINCIPLES

USE

The existing yard is currently dedicated for services and plant use. We look to site the generators and portacabins here due to the need to be near the HV and LV services and also to keep the stand-by generators out of clear view from public amenities.

AMOUNT

The floor area of both generators and portacabins will be approximately 200m², inclusive of space between generators and concrete foundations.

LAYOUT

The new generators and portacabins will be located to maximise as much clear vehicle space as possible within the service yard. The generators must have adequate space to open doors within the acoustic containers and also provide suitable space for cable connections and maintenance.

SCALE

The proposed generators and portacabins are small in comparison to the neighbouring structures on the site. Generators within acoustic containers: 3700mm (W) x 15375mm (L) x 3800mm (H) / 5298mm (H + exhaust). Portacabins: 4210mm (W) x 12410mm (L) x 5400mm (H)

LANDSCAPING

No new or modified external landscaping is proposed.

APPEARANCE

The new generator housing will have an external finish of grey, which is sympathetic to the surrounding cladding, fencing and roof colours. The grey painted louvres of the outlet attenuators will be in keeping with those on the existing façade running perpendicular.

SUSTAINABLE ACCESS

The hospital campus benefits from a full range of public transport links. It features multi-storey and onsite parking, cycle provisions, DDA compliant accessibility have been catered for via the recent developments within the estate.

VEHICLE & PEDESTRIAN ACCESS

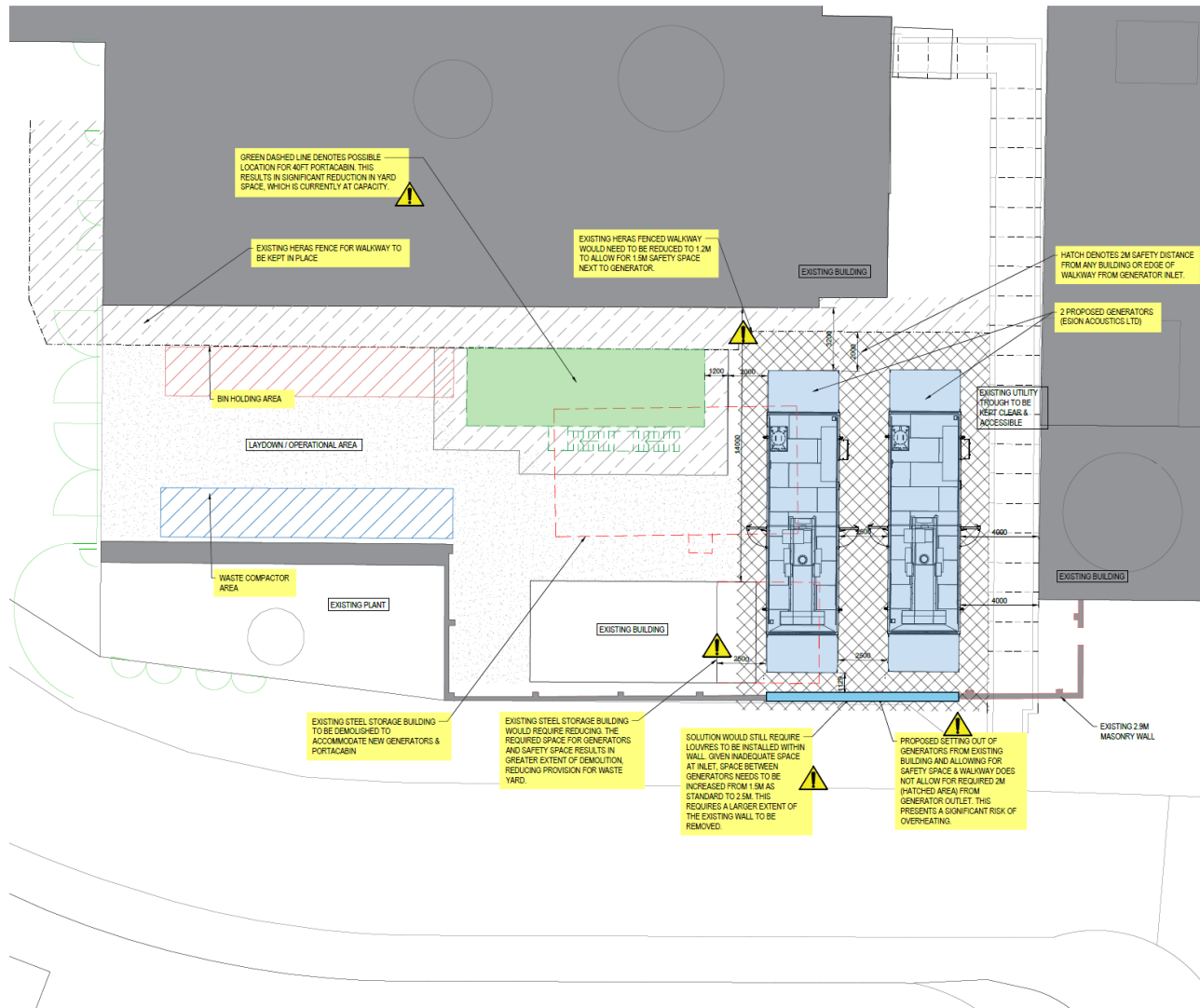
The vehicle access to the secure yard remains unchanged to existing and is for the facilities team only.

No parking provision is currently within the service yard, therefore the proposal results in the loss of 0 parking spaces, nor does it intend to increase parking spaces in respect to the additional floor space. Street lighting and lighting within the service yard space remains unchanged as part of the application. There will be a new external light fitting at the access doors of the portacabins on both levels.

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OPTIONS APPRAISAL

OPTION 1 – GENERATORS SET BACK FROM EXISTING WALL



Given the high demand on space within the service yard, potential visual impact of the generators and portacabin, along with requirements for adequate air-flow to the new units and safety considerations for site operatives, an options appraisal has been carried out.

OPTION 1 OVERVIEW

BENEFITS

- Top section of portacabin can be seen over wall from street.
- Generators would sit back from wall, requiring height of louvres to be reduced to same height as wall.

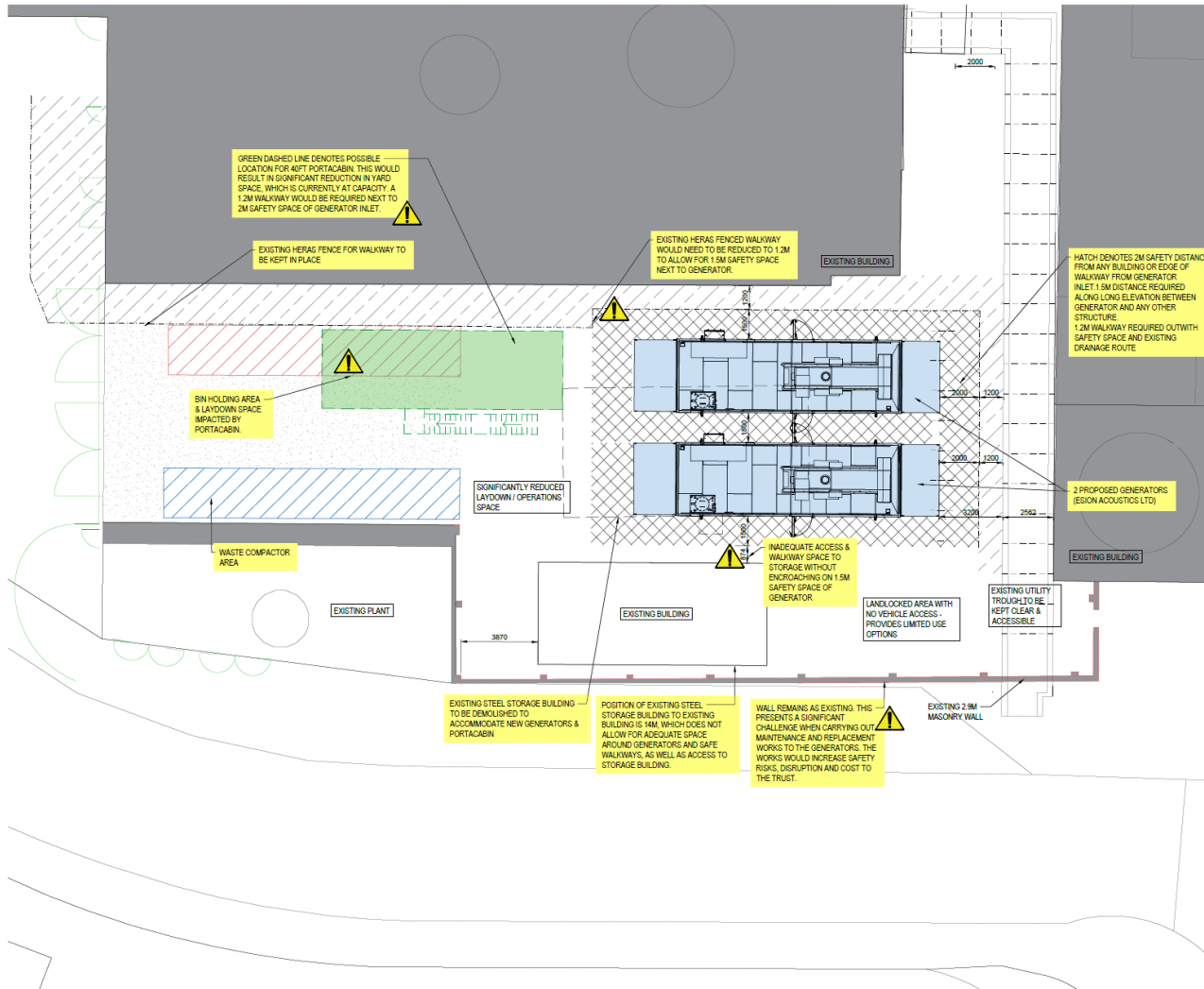
DRAWBACKS

- This solution would still require partial demolition of the existing wall as additional louvres (blue line) would need to be fitted within wall to provide adequate airflow and access for maintenance.
- There would be insufficient space for a required walkways / safety spaces as illustrated by the hatched area surrounding the generators.
- Generators would need to be spaced 2.5m apart due to decrease in clear airflow at inlets and outlets. This impacts on the existing storage building and also would push the portacabin further to left of plan, which impacts on the bin holding area and vehicle access.
- Top section of portacabin can be seen over wall from street.

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OPTIONS APPRAISAL

OPTION 2 – GENERATORS PARALLEL TO EXISTING BUILDING



OPTION 2 OVERVIEW

BENEFITS

- Existing wall remains reducing disruption to pedestrian / North Road.
- Generators sit further back in yard, reducing visual impact from street.

DRAWBACKS

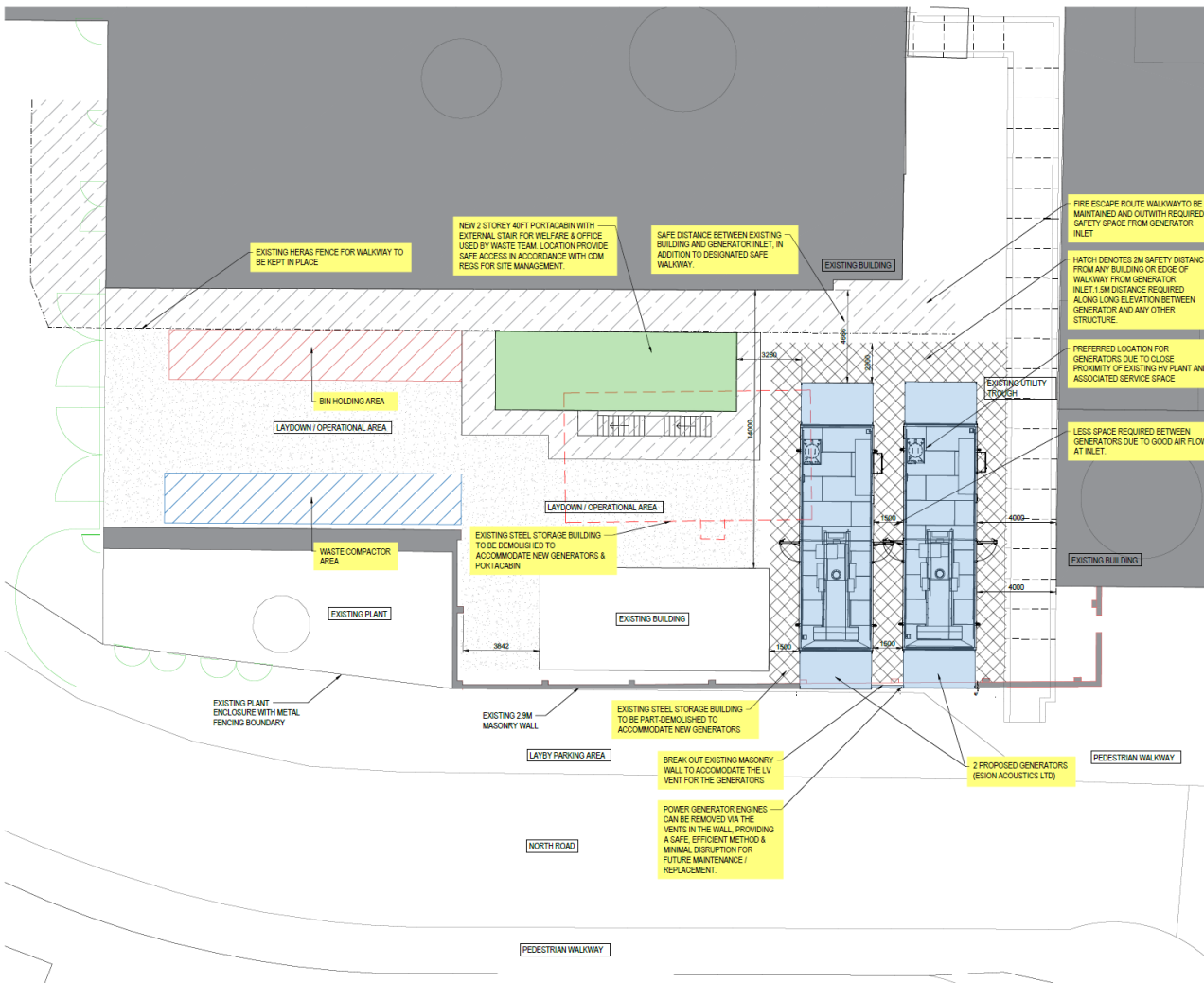
- Whilst this allows existing wall to remain, this does pose a significant challenge to maintain and repair the generators.
- Existing heras fenced walkway alongside existing building would need to be reduced in width.
- Existing storage building would have insufficient space for access, outwith 1.5m safety zone around generators.
- Portacabin location impacts on entrance to waste yard and bin holding area
- Service yard space fragmented by various structures, no clear laydown and operations space.
- Top section of portacabin can be seen over wall from street.

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OPTIONS APPRAISAL

OPTION 3 – GENERATORS SIT WITHIN EXISTING WALL – CLIENT PREFERRED SOLUTION

OPTION 3 OVERVIEW



BENEFITS

- Generators have sufficient airflow at both inlets and outlets, minimising risk of overheating.
- Provides safe circulation spaces and utilises current walkway provisions
- Keeps site entrance, existing bin holding and compactor area clear.
- Provides suitable access to new waste team portacabin facility.
- No requirement for adaptation to existing storage building
- Provides ease of access and limits disruption during maintenance and repair of generators

DRAWBACKS

- Requires section of wall to be removed to accommodate generator outlet louvres.
- Louvres will site higher than existing wall height.
- Generator exhaust visible from North Road
- Top section of portacabin can be seen over wall from street.

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OPTIONS APPRAISAL SUMMARY

OPTION 1

Reduces impact of generators due to being contained within the yard space

Insufficient space within yard to accommodate generators with safe space around the units and would need to reduce width of existing circulation walkways

Louvres still required to section of wall, due to insufficient airflow space at outlet and need for access for future repair / maintenance.

Generators would require to be spaced further apart for ventilation if perimeters were tight, which impacts space for portacabin and existing laydown space

Note:

In attempt to minimise visual impact where possible, as part of this option to step the generators back into the yard, design options were explored for the new section of infill in front of the generators. These were;

- Grey louvres to match those of the neighbouring building
- A hit and miss type wall construction, providing some air flow through the wall yet retaining the colour and brick size of the existing wall
- Decorative screening with artwork / graphic applied / laser cut.

Whilst these options do not create a fully solid wall, the MEP Generator contractor has advised this still would not allow for sufficient airflow and poses the same challenges outlined in Option Appraisal 1 (pushing back the units into the yard, reducing the walkway and safety zone around the inlet).

OPTION 2

Reduces impact of generators due to being contained within the yard space

Moves the generators further from the existing wall, therefore reducing the extent of generators seen from the roadside / pavement.

Insufficient space within yard to accommodate generators with safe walkway space

Creates challenge for future repair and maintenance if only access to generators is through main gated access and through heavily utilised yard

Further work would be required to existing storage building in yard to accommodate layout

Very limited space for waste yard activity and creates pockets of inaccessible areas, rather than an open space for laydown

OPTION 3

Safety space and walkways can be achieved and clearly marked on site. Also utilising access to existing plant within space.

Generators have clear vented space at both inlet and outlet louvres, therefore distance between each one can be reduced, allowing for more space in yard

Provides safe and accessible way to repair and maintain the generator units

Louvres can be finished in colour to match neighbouring louvres on building around corner of street

Portacabin can be placed out-with existing laydown area and out-with required safety space for generators

Visual impact of new louvres and infill section to street, along with generator exhausts above existing wall height

Very limited space for waste yard activity and creates pockets of inaccessible areas, rather than an open space for laydown

CLIENT PREFERRED SOLUTION

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GENERATOR HOUSING UNIT SPECIFICATION

The power generators will only be in operation as a back-up to the main power supply.

Manufacturer & product details; MITSUBISHI S16R-PTAA2 - 2250kVA

Air Flow: 41.67m³/min@ 196Pa

Material: Composite Steel

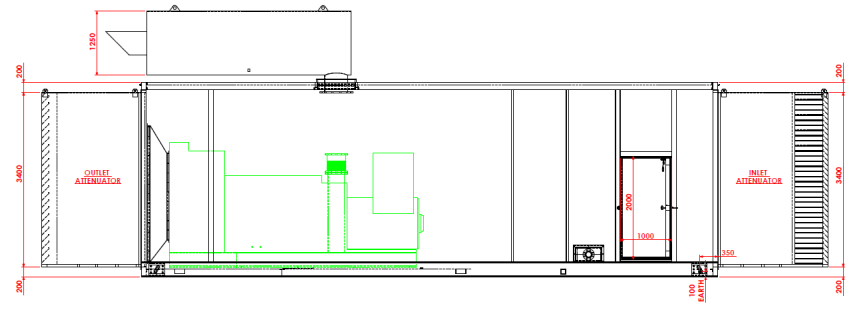
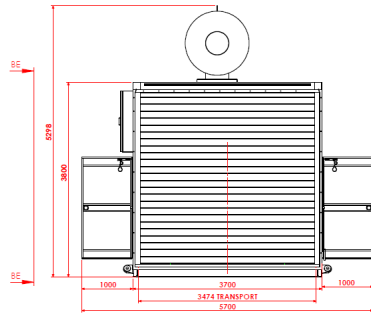
Estimated Weight: 34,449KG

Internal Paint: 00 E 55 – WHITE

External Paint: RAL 7040 (example on the right). Note, there will be no advertising on the generator.

The acoustic unit box has a height of 3.8m, so will sit higher than the existing red brick faced wall by 740mm. From ground to top level of the exhaust is 5.3m, however the exhaust sits further back on the unit, so will be more concealed from the street.

The generators will be housed in an acoustic unit which has a target SPL (sound pressure level) of 80dBA @1m.



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PORTACABIN ACCOMMODATION SPECIFICATION

2 nr stacked Portacabin accommodation for use by the waste team, to be used for welfare (mess room and kitchen, locker space and office).

Manufacturer & product details; Portakabin Titan TN124

Material: Plastisol-coated galvanised steel external wall finish

Walls@ Goosewing Grey BS 10 A 05

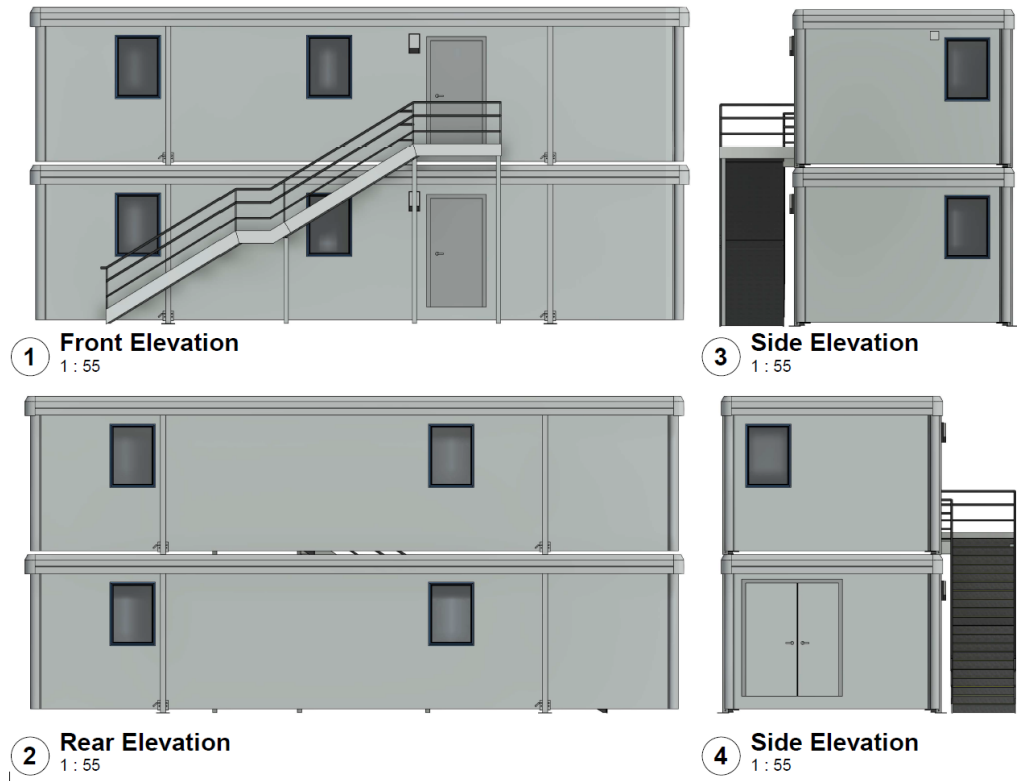
Windows: Blue BS 18 E 58

Doors: Slate Grey BS 18 B 25

The need for portacabin accommodation is likely to be a temporary requirement (circa 2 years), hired by the facilities team while the site make space within the building for a permanent welfare solution. It's part of a larger master plan to clear space in the yard for all the waste and deliveries.



Stacked TN124s Elevations



Prepared by Sodexo Tech & Services