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Design & Access Statement

Octagon Project Energy Centre

July 2020

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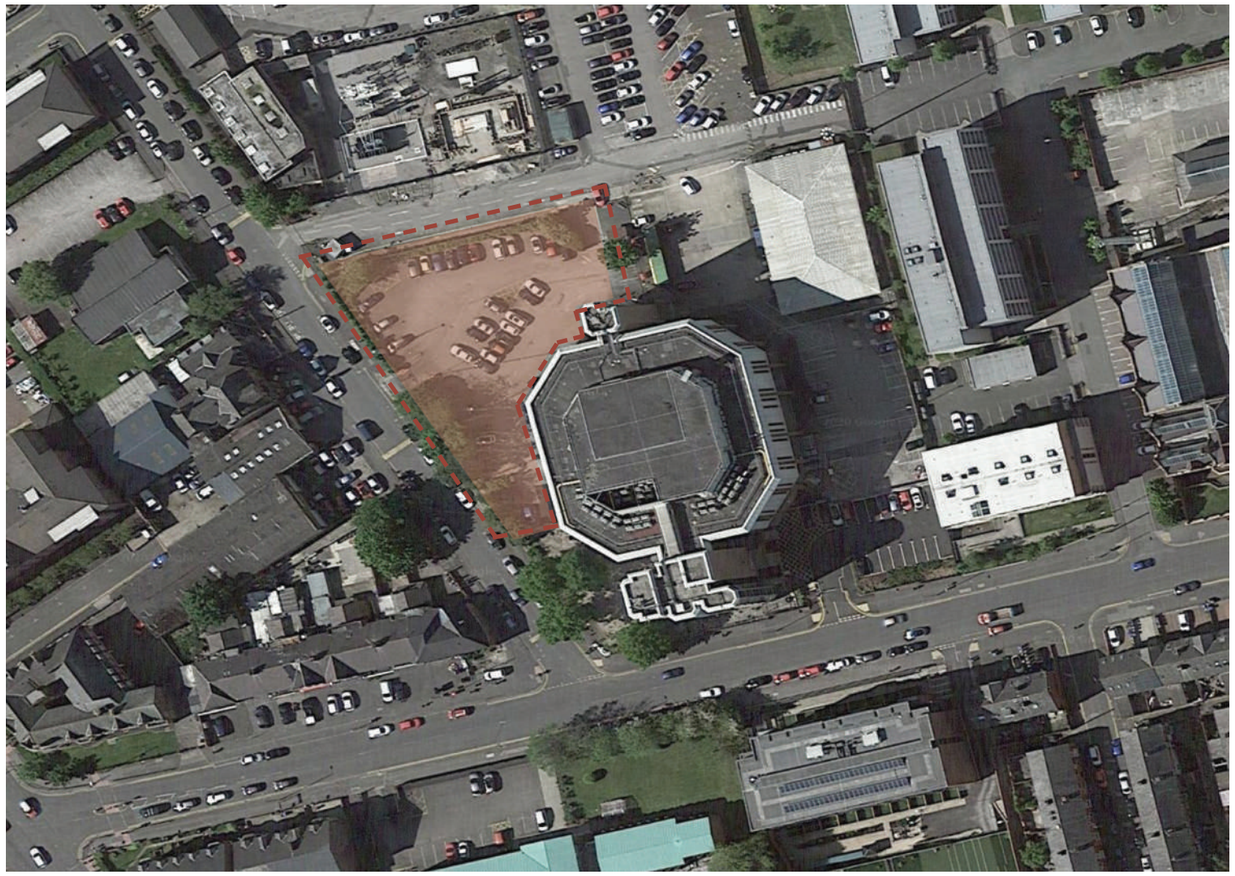
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1 Introduction & Background

This Design & Access Statement has been prepared by Artform Architects in support of a planning application for the erection of an energy centre as part of the Octagon Project Energy Network.

The proposal is for a single volume energy plant and ancillary single-storey volume.

The aim of the proposed development is to create an energy plant to provide locally generated , decentralised heat and electricity to serve local business and residential communities within a local energy infrastructure network. This approach aims to offer a cleaner and more sustainable methods than traditional power stations and energy delivery schemes.

The application site sits within the Octagon Project site in Carmoor Road, Manchester. The present Design and Access Statement will seek to outline the nature of the site and the development of the proposal.

This Design and Access Statement should be read in conjunction with all architectural drawings submitted with the application.

2 Project Overview

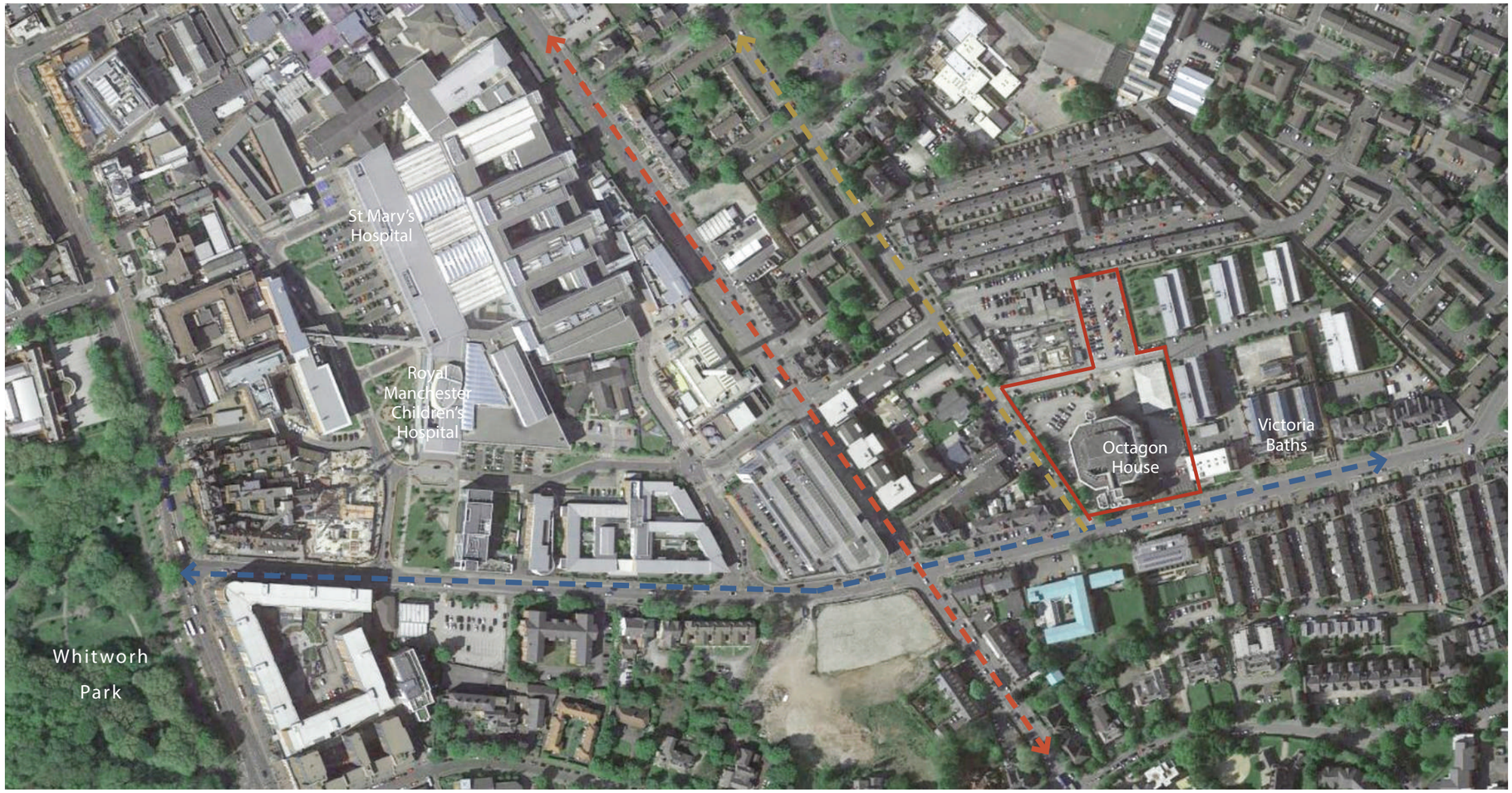


3D Street View from Carmoor Rd to South

The proposed development sits to the north-west of the existing Octagon House building located at the junction of Carmoor Road and Hathersage Road, off the A34.
It consists of a single volume energy plant, a single-storey ancillary volume for administrative use and storage, thermal storage and chimney.

The location of the site adjacent to Octagon House will not be detrimental to the existing building. Instead, the massing and volume of the proposal has been developed in order to respect and enhance the context within which it sits.

In addition, the development of the site into a low carbon and economically efficient local Energy Centre offers a great benefit to the local community and provides a precedent for an emerging Community Energy Infrastructure Project.

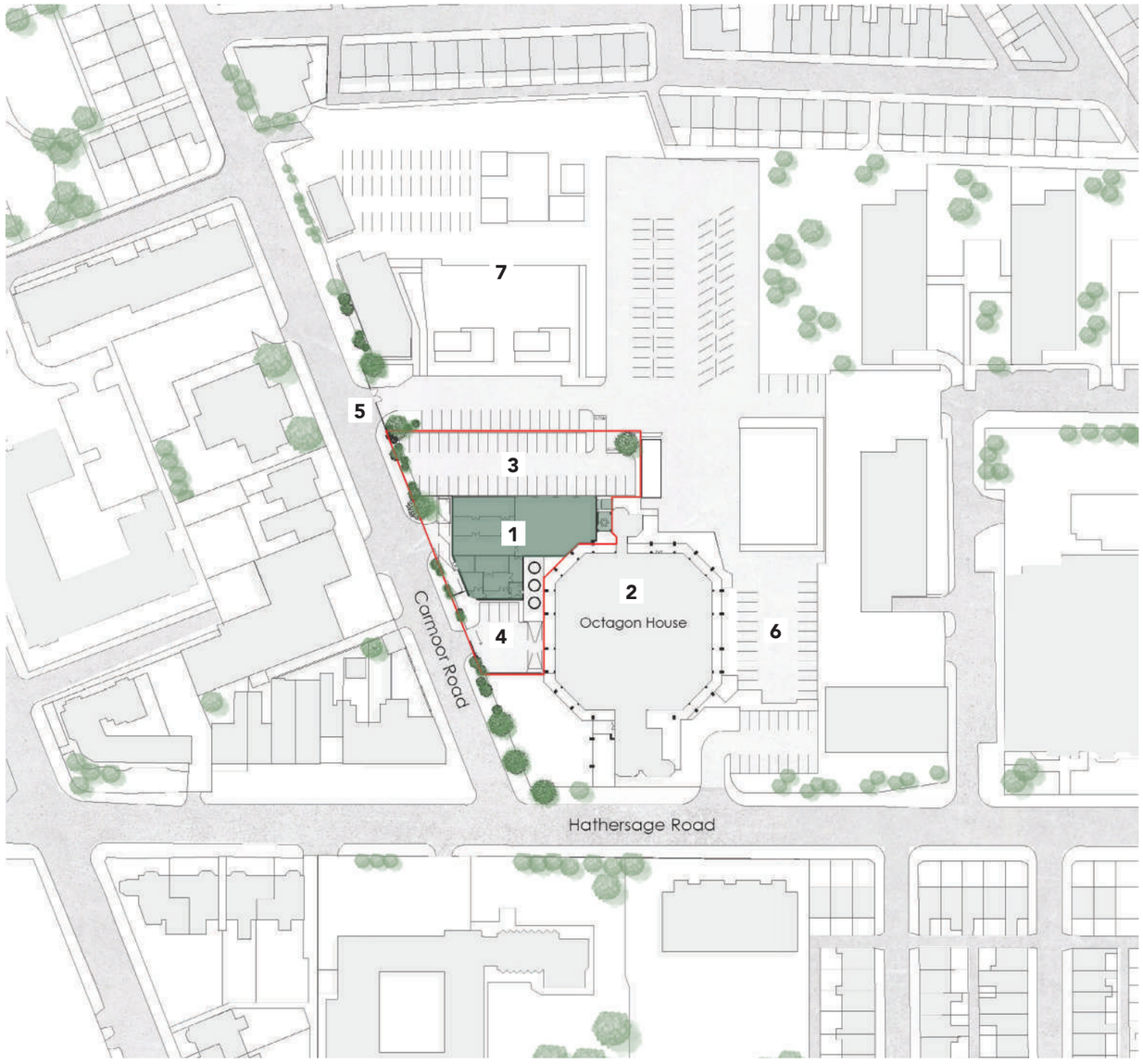


3.1 Location

The site is located at Carmoor Road, in the south of Manchester's city centre. It sits close to the Corridor Manchester, with relative proximity to the University of Manchester Campus. The Manchester Royal Infirmary, Royal eye Hospital and St Mary's Hospital are located to the North West and Victoria Baths to the near South East. Transport links to the city are optimum.

The buildings surrounding the site range from terraced-housing and multi-storey apartments to a garage and a power substation. This wide variety in context provides different architectural styles and references.

The immediate neighbour is the Octagon House building, an octagon shaped multi-storey building with a dominant and heavy character. It is big in volume and its materiality is traditional red brick and white metal cladding.



Proposed Site Plan

3.2 Site Plan

1 Proposed Energy Centre
2 Existing Octagon House
3 Remodelled Octagon House car parking
4 Main entrance with gated parking
5 Existing North entrance with gated access
6 Existing Octagon House parking
7 ENW Primary Sub-station













3.3 Existing site photos

01 Site view from Carmoor Rd.
02 Existing entrance to Octagon House car park
03 Street view to South
04 Street view to North
05 Site view from Carmoor Rd.
06 Site view from existing Octagon House parking


01


02


03

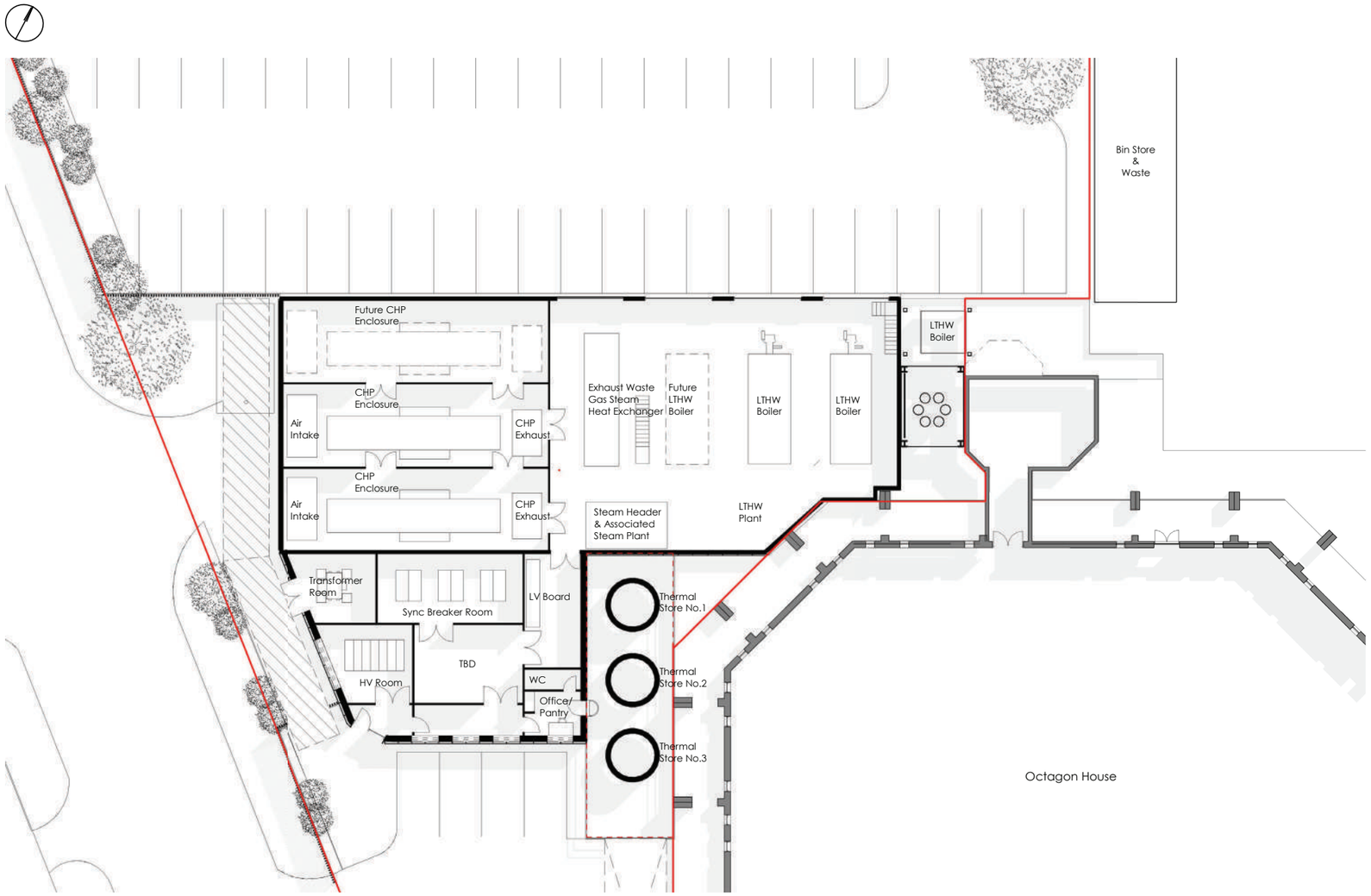
3.4 Area Character

01 Octagon House
02 Red brick buildings opposite site
03 ENW Primary Sub-station
04 Garage opposite site
05 Housing down Carmoor Rd
06. Victoria Baths nearby site


04


05


06



Proposed Ground Floor Plan

4.1 Layout

The proposed site layout locates the Energy Centre to the North West of the existing Octagon House, with the tall chimney adjacent to the existing stair core. The building is offset from the street leaving a zone for diversion of supply cables that serve the Octagon building transformers.

The main entrance is located on the south elevation, with an electric gate access from Carmoor Road to a small parking area for building users. Additionally the existing parking space to the North has been rearranged to provide 40 parking spaces access from the existing gated entrance to the north. An additional parking space with bollard for regular engineer's visits is located to West elevation, opposite CHP area.

The building layout is divided into two volumes. To the north the main energy plant, and a single-storey volume to the south including a transformer room, HV room, Sync Breaker room, a space for administration use and access to thermal store pit. The no. 3 thermal store volumes are located to the East between the single storey volume and Octagon House.

The layout allows for future up-scaling of energy plant in order to potentially increase energy provision for the local community.



3D Aerial View

4.2 Volume / Massing

The proposed plot area, including parking to South and North of proposed building, totals **2400sqm.**

The internal floor area of the proposed Energy Centre is **691sqm**.

The building footprint has been designed in order to accommodate all necessary facilities for energy plant, whilst using space effectively to minimise its extents and the impact of it's volume on the streetscape.

During the design process, the relationship between the proposed energy centre and the existing Octagon House has been carefully considered aiming to create a positive and non-obstructive relationship between the two buildings,



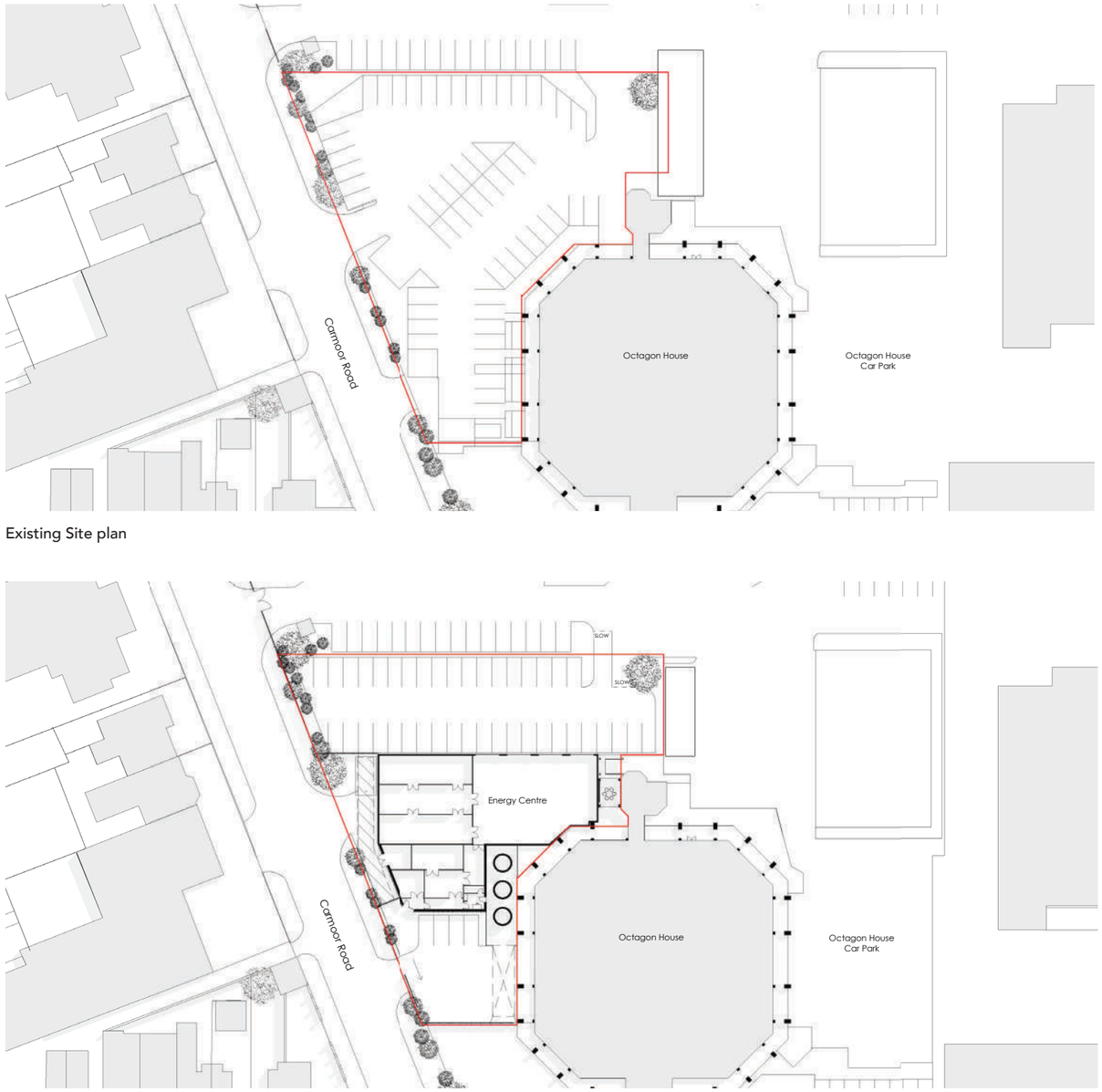
Proposed West Elevation from Carmoor Road

4.3 Scale

The proposed development has considered its surroundings and direct relation to the Octagon House, ensuring that its overall massing and scale do not have a negative impact on either the existing building or streetscape.

The height of the bigger volume of the proposal relates to the cladding overhang on across the facade of Octagon House which defines the 2nd floor level. The three thermal store volumes are lowered to a 1.5m pit in order to reduce their height in relation to the building, ensuring that no upper slot window is blocked. The chimney enclosure is located next to the existing stair core, so that its massing and volume is proportionate to context. Its height extends 1.5m above the service core as required for the chimney discharge point

The building has been designed to accommodate all the necessary plant equipment and circulation space required for an energy centre of this type. However the scale and size remains significantly less that the adjacent office building and is proportionate to the other buildings along Carmoor Road.



Existing Site plan

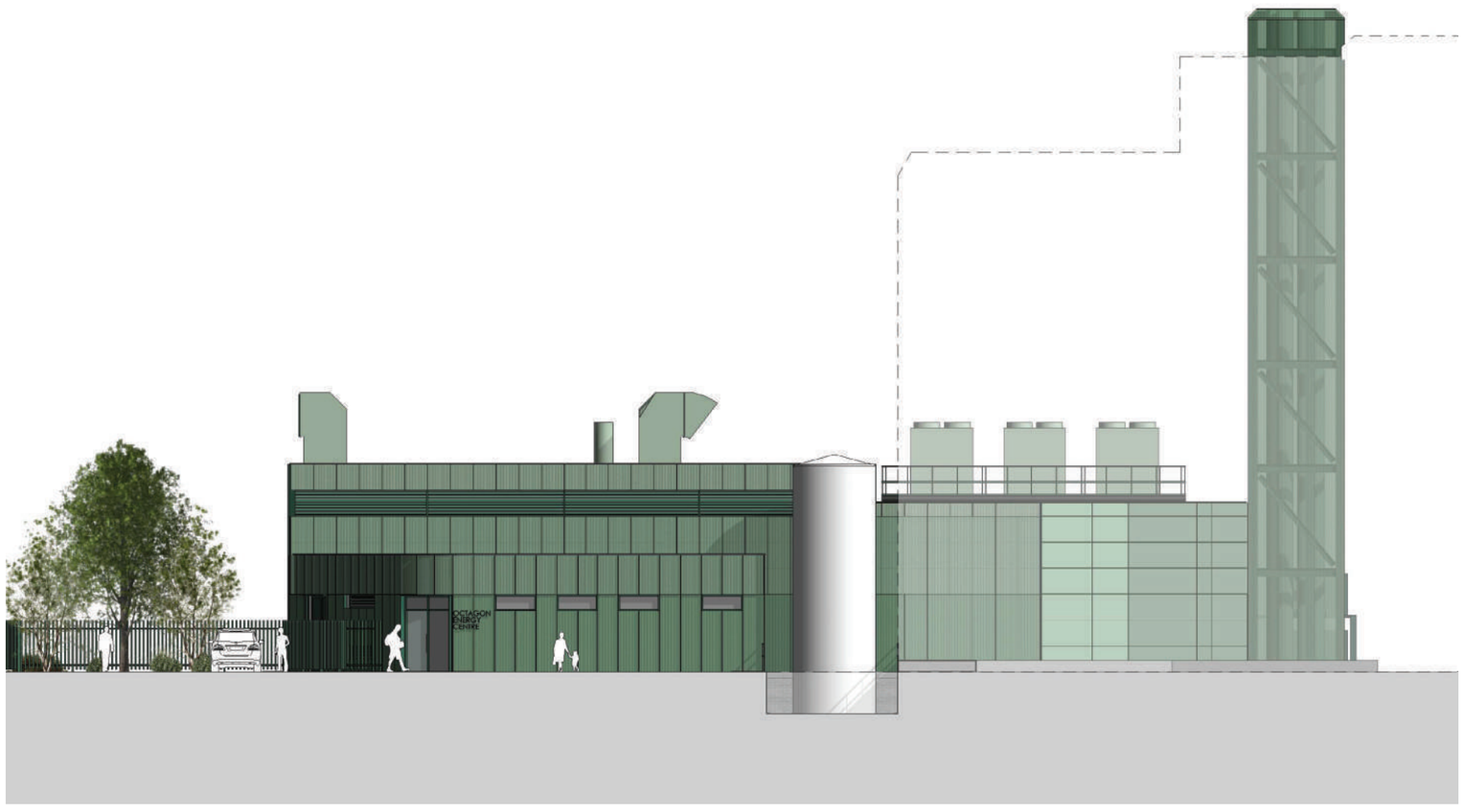
Proposed Site plan

4.4 Proposed Landscape

The proposed development will retain all existing trees on site, and greenery will be placed along the edge of site and paving.

A new coloured fence will enclose two parking areas. The south area with four parking spaces will include an electric sliding gate. The north fence will connect to the existing gate at the Octagon House car park entrance. The appearance of this will tie in with proposal and enhance the street aspect of site.

In order to facilitate the footprint and arrangement of the energy centre, the existing parking layout for Octagon House has been rearranged, resulting in 44 car park spaces, plus one engineer's parking space. This represents 6 spaces less than the 50 spaces currently existing within site area.



Proposed South Elevation

4.5 Appearance

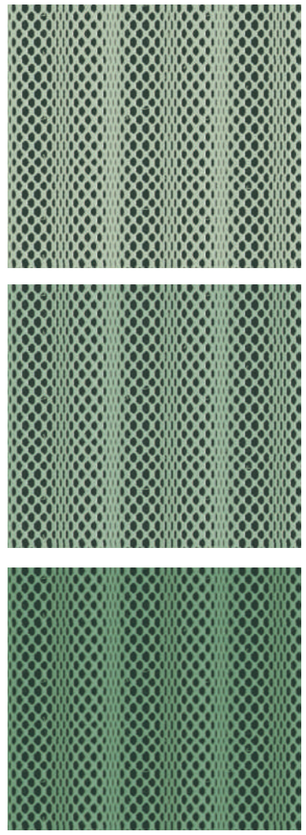
The proposed Energy Centre has been designed as a contemporary addition to the varied context where it sits. The building programme represents a new typology within Carmoor Road and this is reflected in its appearance.

The facade design does not aim to imitate any surrounding reference, but instead expresses this new addition to the street-scape This is also representative of the 'green' sustainable approach that the Octagon Project Energy Centre provides to the local community.

Therefore, the building uses one green colour across all the elevations, chimney enclosure and roof equipment elements in order to echo the building as one holistic built form. The chosen colour green aims to have a soft but confident impact on the street-scape. This will graduate in tone from darker to lighter on South and West elevations.



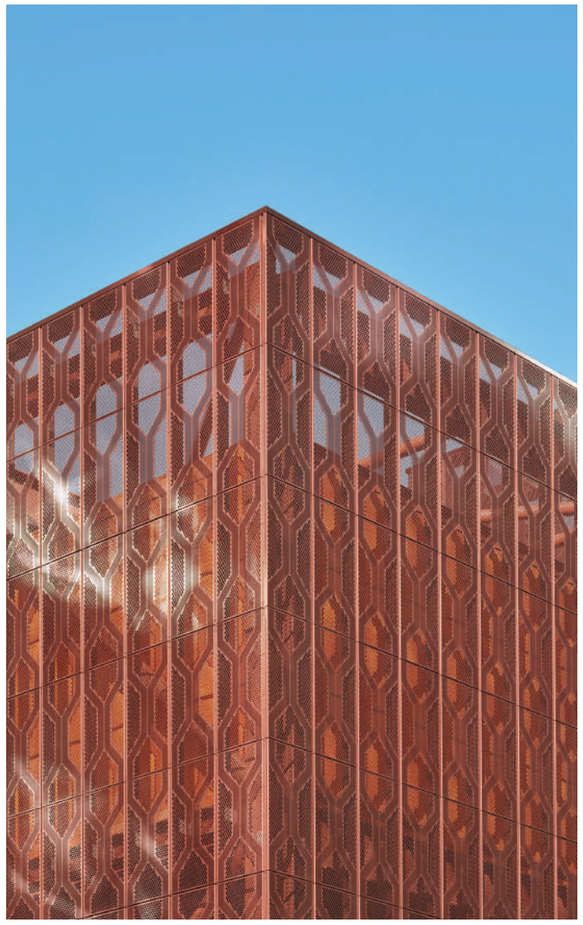




4.6 Materiality

The proposed materiality is a combination of two different types of metal cladding: Coloured metal panels to the north and east elevations, and perforated profiled metal cladding facing the road and wrapping the main entrance single-storey volume. The use of the perforated metal cladding aims to lift the public facade and create interest in the street-scape.

The chimney flues are enclosed with a steel frame and clad in the perforated profiled metal. This would be semi-transparent and reveal the flues and steelwork discretely The purpose is to reflect the 'industrial' working nature of the Energy Centre and provide contrast to the existing office facade.







4.7 Precedent Studies

As part of the design development, a study of precedents was carried out to explore schemes with similar building programmes, their use of material and facade design.

The examples shown opposite reflect the applicant's overall aspiration for the proposed development.

The main element we have drawn upon is a facade that creates interest, evokes an industrial feel, while having a light touch on the site.

5 Access & Refuse



The building's main access is located in the corner of its south and west elevation. Vehicular access is provided to the south of the site with fenced parking and a sliding access gate. This leads to the main entrance to the building. Part of the existing Octagon House car park is remodelled to the north of the site.

The proposed building will produce minimal waste due to the limited operatives on site. Any domestic waste will be taken to the common area waste disposal bin to the east of parking area illustrated on the opposite diagram.

6 Sustainability









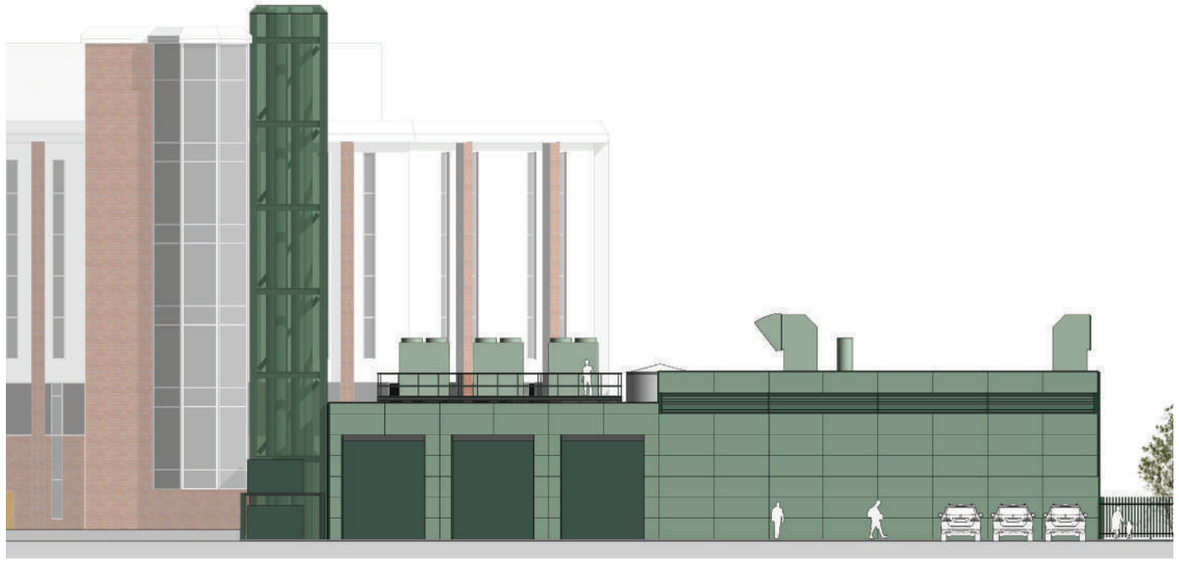
Images from Vital Energi, Lothian Energy Centre

The proposed development of a Community Energy Infrastucture Project offers a micro generation scheme that, like others emerging around the UK , represent a sustainable alternative to mass energy generation like traditional coal and nuclear stations.

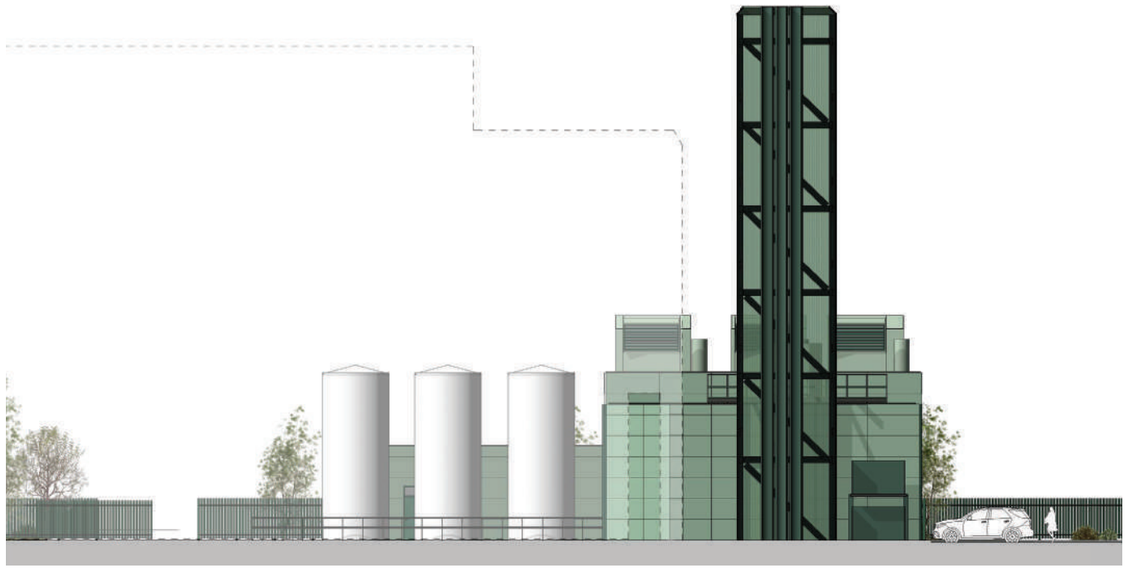
The importance of schemes like such lies in the provision of locally generated heat and electricity, which unlike traditional power stations, do not waste power in the transmission over long distances across urban and rural communities.

The technology that OPEN proposes, uses the heat generated by CHP engines during cooling electricity turbines and exhaust gases. This is captured and distributed as hot water around the local area for well-equipped bussinesses and residential users. Additionally, electricity is delivered over a new transmission infrastructure, supported in its resilience by a connection to Electricity North West Ltd., primary sub-station at the Octagon site.

Therefore, it can be said that the proposal will have a direct possitive impact on its surroundings by lowering energy costs, while reducing the carbon footprint of the local community.



Proposed North Elevation



Proposed East Elevation

7 Summary

This Design and Access statement has outlined the design principles behind the development of the proposals set out in the planning application. It explains the approach that has been taken in order to propose a high-quality scheme that enhances its setting and represents the building programme adequatly.

This document highlights how and why the proposed scheme is acceptable in both planning and design terms and how in particular it represents a suitable addition to its context and provides great benefits to the local community and the environment.

The design has been carefully considered in relation to its immediate context and surroundings in order to develop a proposal that is respectful of the streetscape while expressing its own identity.

We therefore consider this an appropiate development that should be supported by the local authority as a precedent for the creation of sustainable projects that respond positively to the environmental demands while enhancing the character of the context.