

**GRADON**ARCHITECTURE

# Our Studios

## Newcastle Upon Tyne

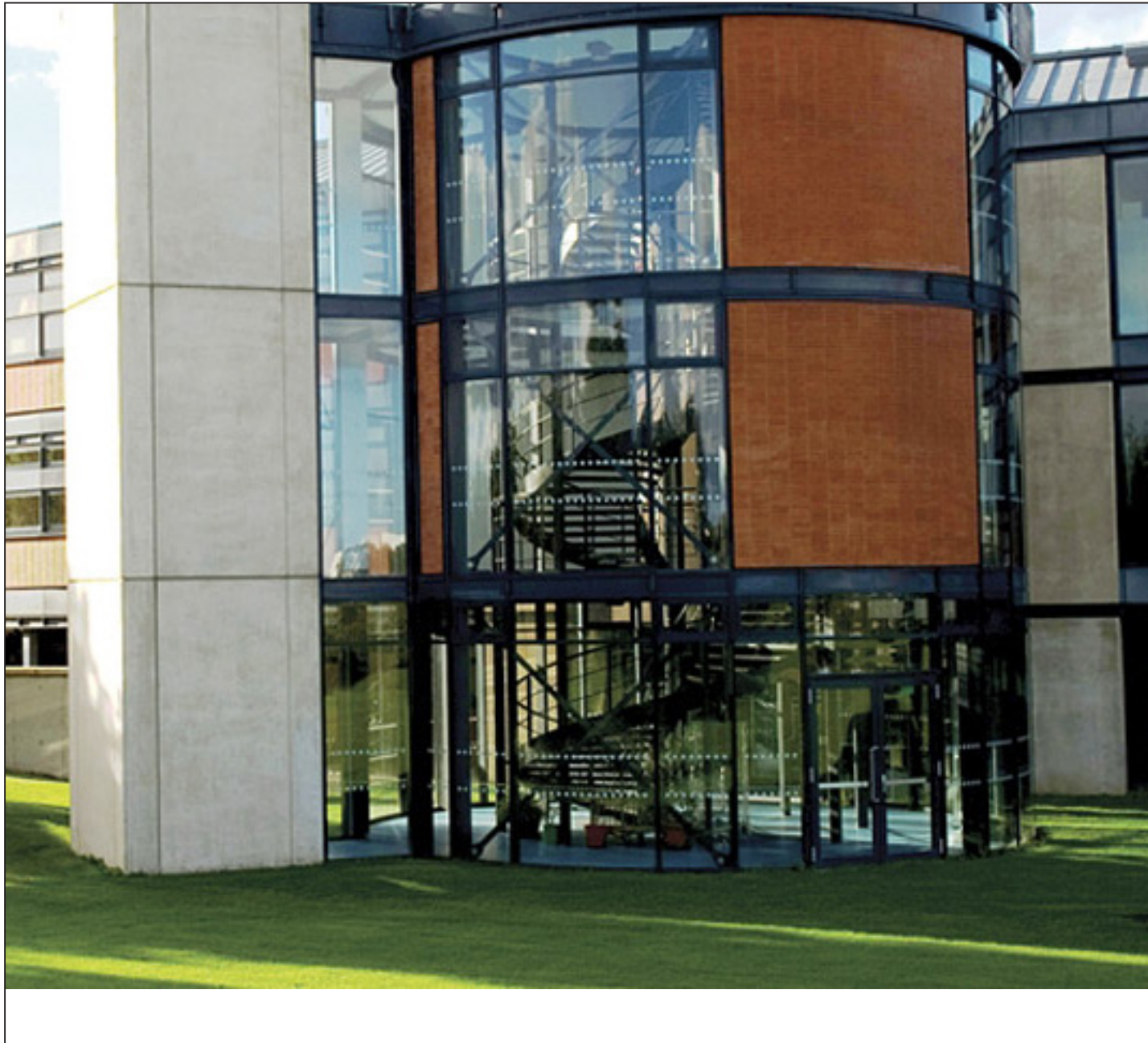
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# Northumbria University, Coach Lane East

Design and Access Statement

Revision:	Date:	Author:
A	07/12/2023	AM



# Contents

## 1.0 Introduction

The following Report provides information around the decarbonisation of the heating and domestic hot water systems within Northumbria University, Coach Lane East Campus, Coach Lane, Newcastle upon Tyne, NE7 7XA.

This report should be read as part of a planning submission which seeks to and addresses matters in relation to:

Access  
Design  
Amount  
Layout  
Scale

The scheme is primarily led by Mechanical and Electrical design, however, Architectural design is considered on a within the following sections:

## 2.0 Design Development

- 2.1 Project Introduction
- 2.2 Location

## 3.0 Proposal

- 3.1 Site Proposal
- 3.2 Design Rationale
- 3.3 ASHP
- 3.4 Bin Store



## 2.0 Design Development

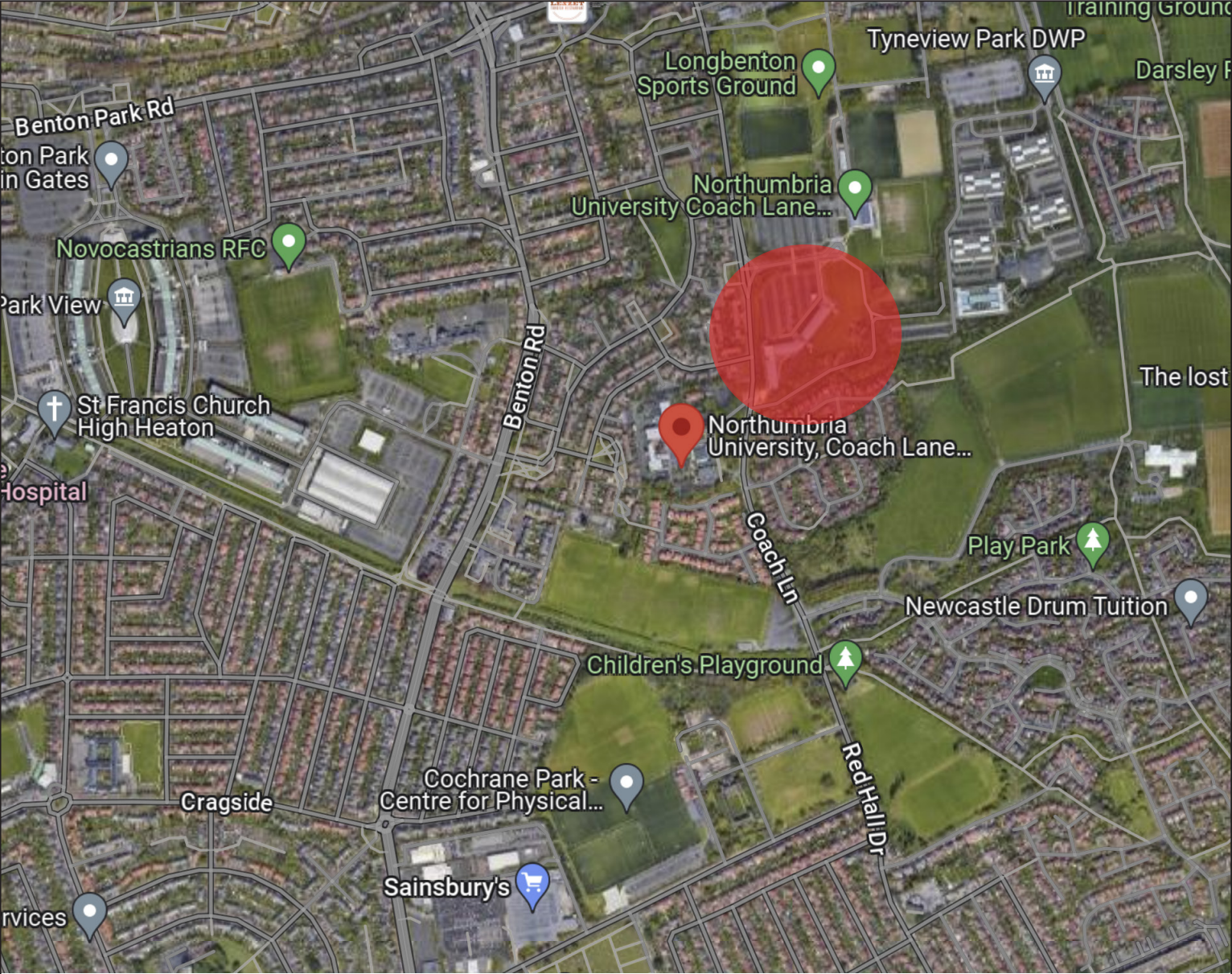
### 2.1 Project Introduction

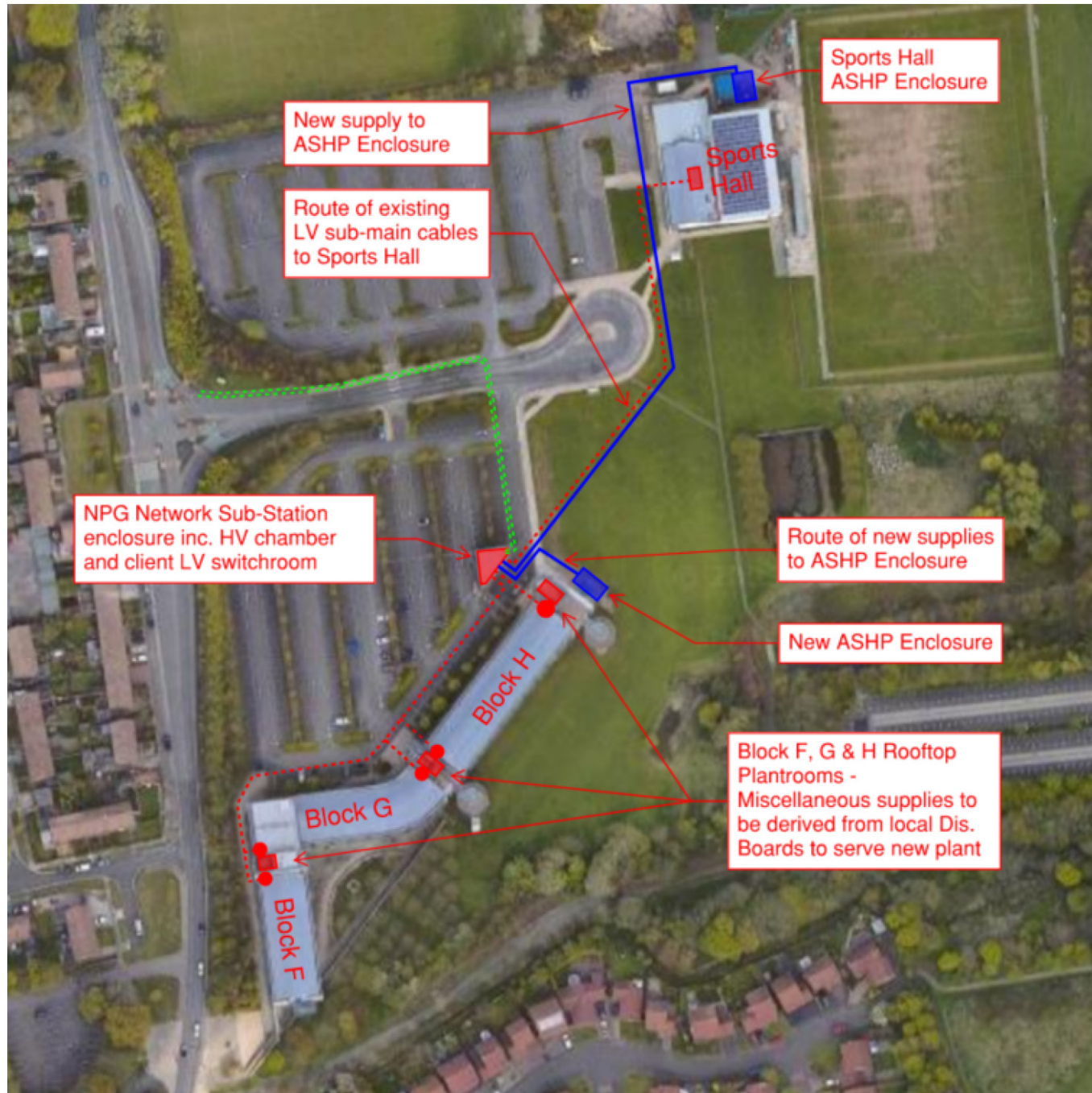
This Design & Access Statement has been prepared by GRADON ARCHITECTURE on behalf of Northumbria University for the proposal for decarbonisation of the heating and domestic hot water systems within Northumbria University, Coach Lane East Campus, Coach Lane, Newcastle upon Tyne, NE7 7XA. This will be done by replacing the existing gas boilers and fire water heaters with air source heat pumps (ASHP) to serve a primary heat source for the low temperature hot water (LTHW).

The Proposed site has been split into two. The first comprises of a teaching block that is divided into 3 Blocks F, G and H. The Second is a Sports block and its surrounding sports fields

2.2 Location

Coach Lane campus is located 3 miles from Newcastle City centre to south of Benton. Directly to the east of the site is Tyne view park which is a large Government office site. The west and south of the site are residential houses and apartments buildings to the north of the site there are sports fields.





### 3.0 Proposal

#### 3.1 Site proposal

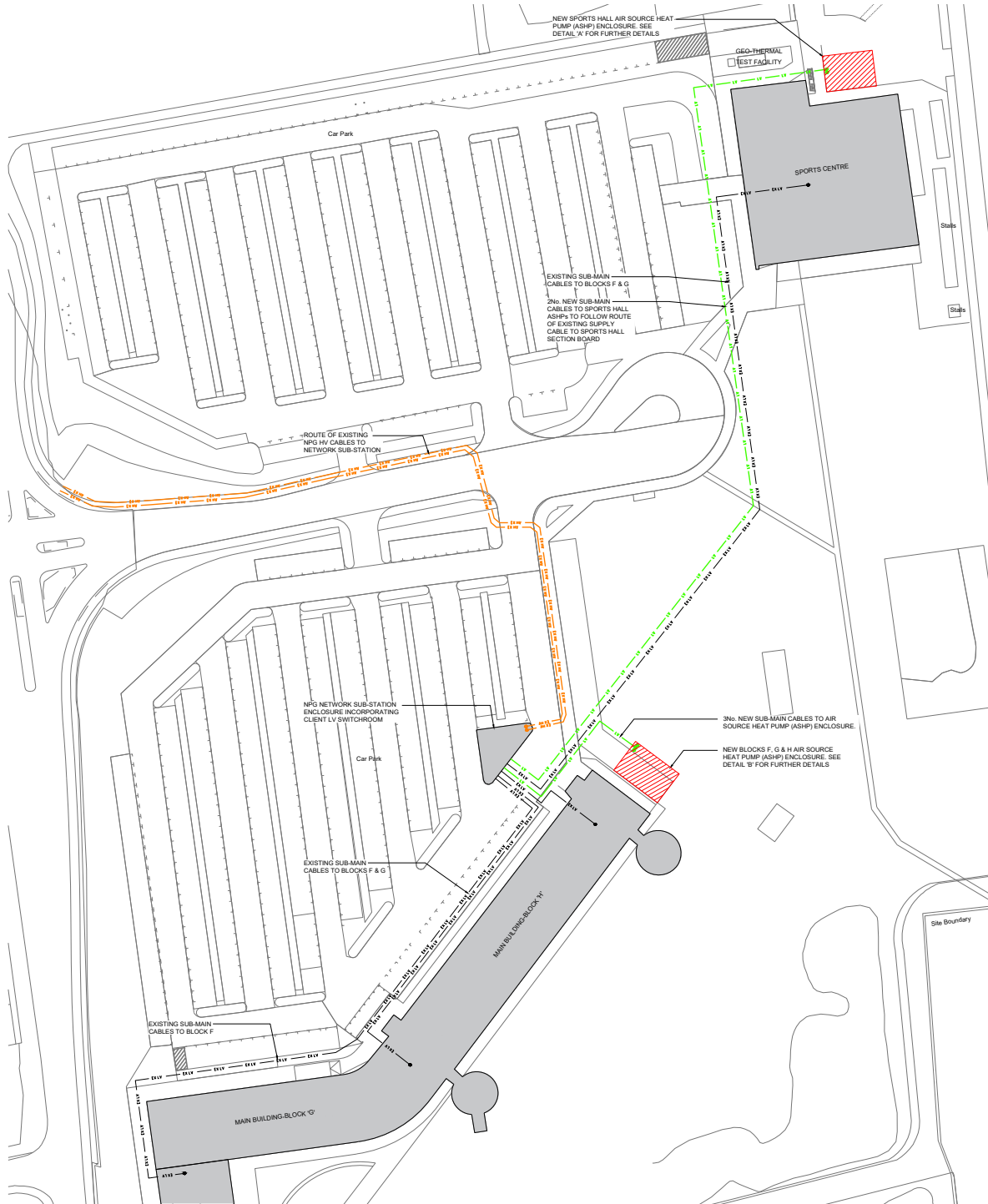
The proposal is to install new air source heat pumps (ASHP). The sports hall pump will be located where the current bin area is to the north of the building. The service cables will run underground to the substation alongside existing services.

For the education block, the ASHPs will be laced on the north side of block H.

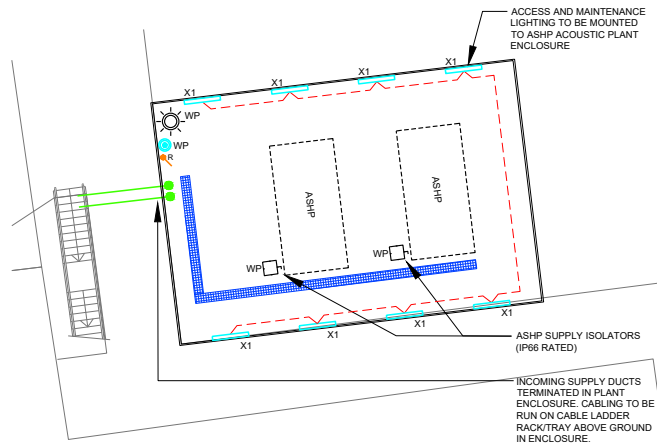
The boundary will be enclosed by a green coated fence

3.2 Design Rationale

For mechanical and electrical connection between the ASHP compounds and existing substation. The trenches will run along the existing services as shown.







DETAIL 'A' - SPORTS HALL ASHP ENCLOSURE (1:100)

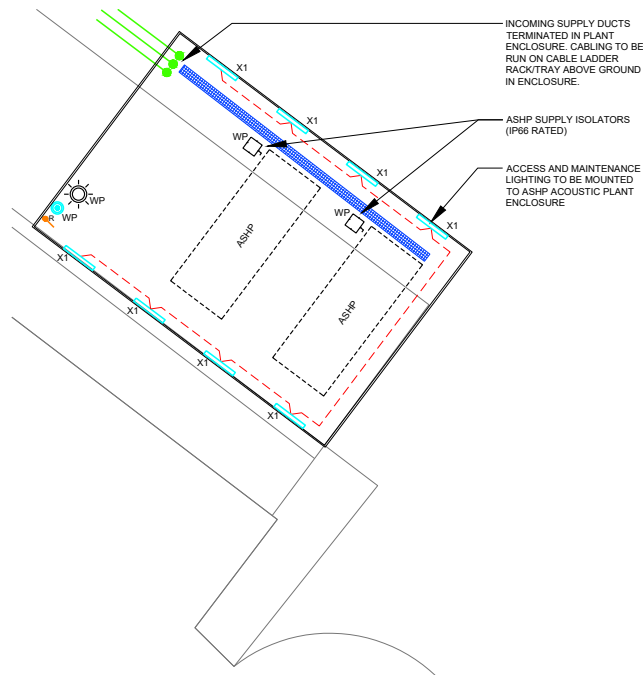


### 3.3 ASHP

#### SPORTS HALL ASHP COMPOUND ENCLOSURE 1

8m x 12m compound enclosure: plastic coated steel mesh fence as per example shown in fig.

Installation of 2.0m high 656 twin wire mesh (2.0m x 2.50m panels & 8no. posts) fencing, PPC RAL 6005 Green. Maintenance access gate (east elevation)- 2.0m high x 1.20m wide single leaf twin wire gate, 2no. Gate posts, drop bolt and slide locking bar to take customers own padlock, hot dipped galvanised & PPC RAL 6005 Green.



DETAIL 'B' - BLOCKS 'F, G & H' ASHP ENCLOSURE (1:100)

#### MAIN BLOCK ASHP COMPOUND ENCLOSURE 2

8m x 12m compound enclosure: plastic coated steel mesh fence as per example shown in fig.

Installation of 2.0m high 656 twin wire mesh (2.0m x 2.50m panels & 8no. posts) fencing, PPC RAL 6005 Green. Maintenance access gate (east elevation)- 2.0m high x 1.20m wide single leaf twin wire gate, 2no. Gate posts, drop bolt and slide locking bar to take customers own padlock, hot dipped galvanised & PPC RAL 6005 Green.



### 3.4 Bin Store

there is a bin storage incorporated in the propose scheme. The current bin stores will be relocated to a more accessible location. The bin store will be 5 metres by 5 metres in size and have a 2M timber close board fence surrounding it, with a double gate and a lock.

