

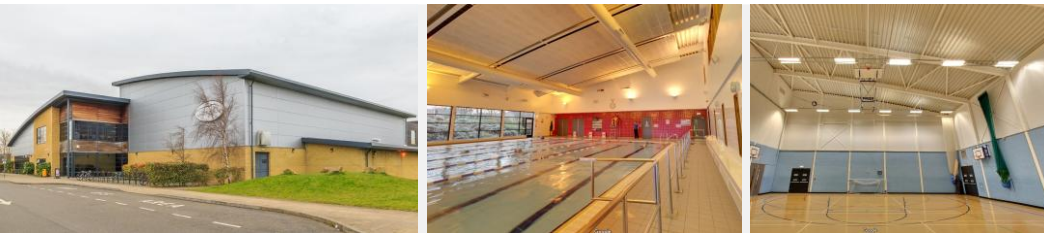


**Saunders
Boston
Architects**

Willmott Dixon Construction Limited
on behalf of North Hertfordshire District Council

Royston Leisure Centre Decarbonisation and Extension

Design & Access Statement
March 2025 Rev P02



RLC-SBA-XX-XX-L-A-00011

Revisions

Revision

P01 - 13/03/25

P02 - 02/04/25

Drawings & Documents

First issue

Revised issue incorporating relocated substation

Introduction

Saunders Boston Architects (SBA) have been appointed by Willmott Dixon Construction Limited on behalf of North Hertfordshire District Council on the NHDC De-carbonisation project at the North Herts, Royston and Hitchin Leisure Centre sites across RIBA Stages 2-5. In addition to the proposed de-carbonisation works, Royston Leisure is also to include a new two-story fitness extension on the north (primary) elevation, along with a reconfigured ground floor changing village. Funding for the de-carbonisation works is being provided via the SALIX Public Sector Decarbonisation Grant Scheme to support the NHDC commitment to Net Zero carbon target by 2040.

The decarbonisation works involve the replacement of existing gas boilers and CHP with air source heat pumps & PVs which requires upgrades to the thermal envelope of each building to facilitate this. This DAS covers the proposals at Royston Leisure Centre, please also refer to Bidwells' Planning Statement & RPS landscaping proposals submitted as part of the full planning application.

Project Team

Client - North Herts Council

Contractor - Willmott Dixon

Architect - Saunders Boston Architects

Structural & Civil Engineer - Conisbee

Landscape Architect - RPS

Planning & Heritage Consultant - Bidwells

MEP Consultant - Qoda

MEP Services (S.C. Partner) - CPS

Fire Engineer - Affinity Fire

Acoustic Engineer - Mach Acoustics



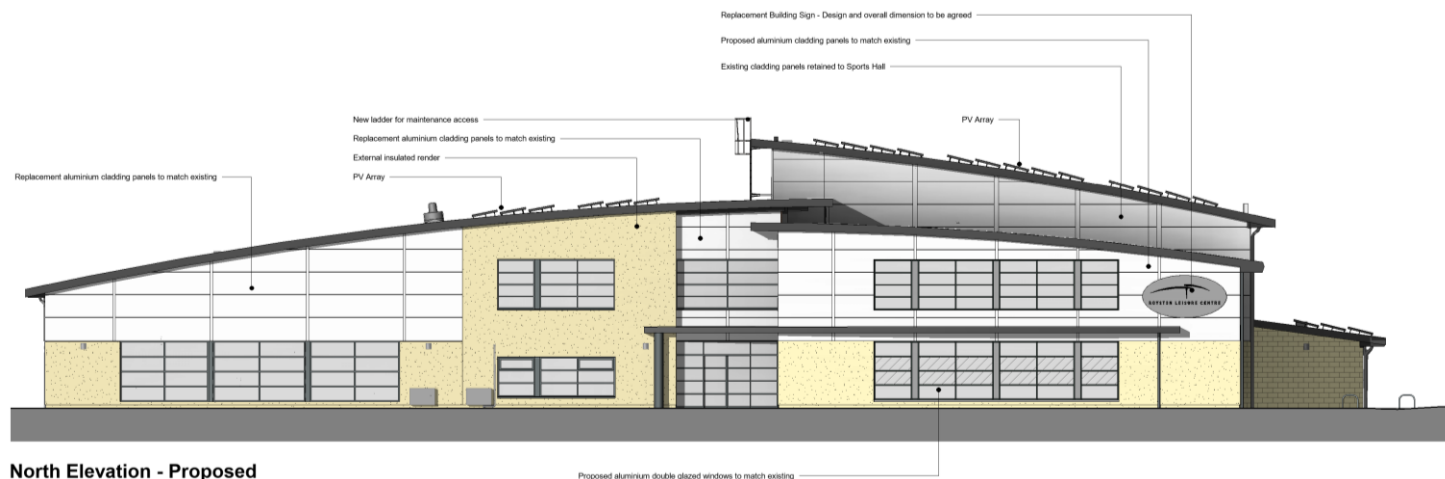
Scheme Summary - Extension

The proposals at Royston Leisure Centre include of a two-storey fitness extension to the primary (north) elevation alongside measures to reduce the amount of carbon used in the leisure centre's operation (summarised overleaf).

The proposed extension will consist of the following;

- A circa 300m² GIA extension comprising ground floor multi-purpose exercise studio along with a first floor extended fitness suite.
- The roof will be curved and with a metal standing seam finish to match the existing main roofs above the Swimming Pool and Sports Hall.
- A canopy at first floor level provides wayfinding and weather protection to those approaching the main entrance.
- Ground Floor external walls will be of masonry construction with an insulated render finish to match the insulated render system proposed under the Decarbonisation works .
- First floor external walls will be light-grey composite cladding panels to match the existing cladding panels being retained around the Sports Hall.
- Proposed glazing to match the existing glazing / curtain walling around the entrance and Swimming Pool wing.
- An existing set of Sheffield Stands will be relocated and supplemented with additional stands to provide a total of 94 short-term visitor cycle spaces across the site.
- A new secure cycle stand will be installed to the east of the existing building to provide 10 long-term secure cycle spaces for staff members (currently there is no provision).

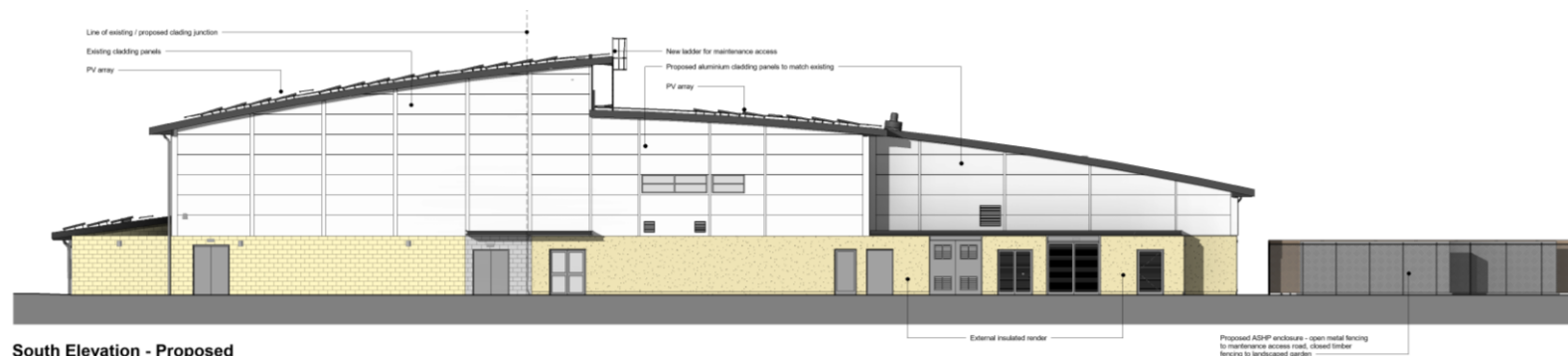
These works are all within the scope of the formal application being put forward.



Scheme Summary - Decarbonisation

In addition, decarbonisation proposals at Royston Leisure Centre consist of the following upgrades to the thermal envelope of the building and services to facilitate the removal of fossil fuel-gas heating. The proposals exclude the Sports Hall envelope, which will sit outside the new thermal envelope. As agreed as part of the formal pre-application advice (see overleaf), these items fall within the scope of permitted development requiring prior notification, are classed as *de minimis* or are within the scope of this formal application as follows;

- External insulated render to existing masonry external walls– *For consideration in this application*
- Replacement composite cladding at first floor (to match existing albeit thicker insulation) – *De Minimis*
- Additional insulation and new flat roof finish over rear (south) single story plant extension – *De Minimis*
- External ASHP compound adjacent to the existing plant entrance – *For consideration in this application*
- Replace the existing gas fired boiler plant with air source heat pump technology & modify existing heating systems accordingly – *De Minimis*
- Modify the existing heating system as necessary to provide temperature zone control – *De Minimis*
- Introduce Passive InfraRed Sensors in Office areas – *De Minimis*
- Install Photovoltaic (PV) panels to the roofs over the Pool Hall, Sports Hall and Sports Store – *Falls under Permitted Development / Prior Notification*
- Proposed substation & relocated bin store to the southeast of the existing building – *Falls under Permitted Development*



Consultations

A pre-app submission was made by Bidwells to NHDC in October 2024, followed by a site visit with the Case Officer attended by SBA, Bidwells & Willmott Dixon. The formal response (ref: 24/02243/PRE) regarding external works from this site visit is summarised as follows;

It was confirmed that the following external works are De minimis and would not require planning permission;

- *A - Replace existing insulated panels for higher performing panels. Like-for like aluminium composite panels will be used in terms of colour and appearance. Whilst the panels will be slightly thicker (240mm) than the existing (80mm) in the context of the building this is not considered to be noticeable*

It was confirmed that the following external works require planning permission;

- *G - Insulated render*

It was confirmed the following would meet the requirement for permitted development subject to prior notification;

- *H - PV array added to roof*

Whilst the following was confirmed in the pre-app response as permitted development, it has since emerged that the ASHP enclosure will be in excess of the 200m³ threshold, therefore is included within the full planning submission;

- *L - Air Source Heat Pumps and Enclosure*

The feedback on the following was received however these works are no longer proposed;

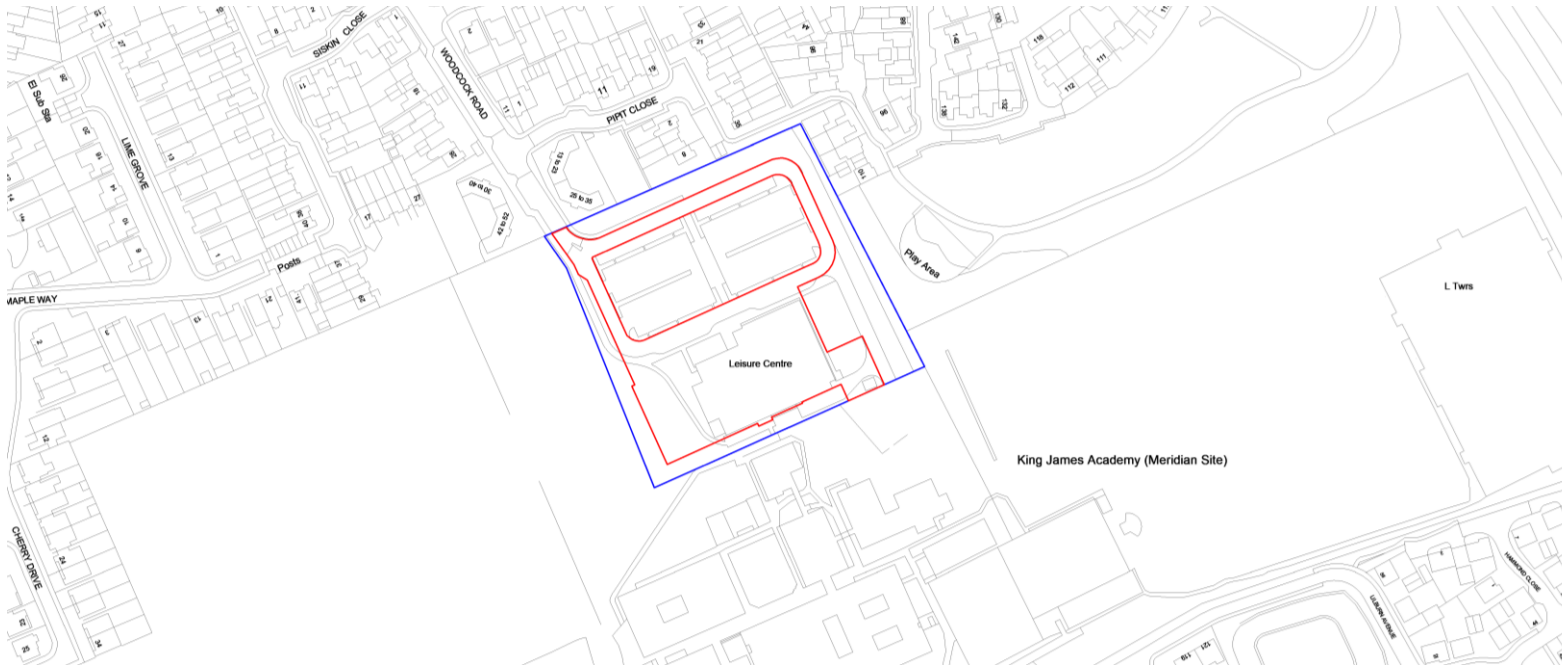
- *F - The swimming pool roof will be stripped back to structural deck and new insulation and single ply finish above, with adhered standing seam profiles to closely match the existing roof appearance*
- *I - Additional PV above car park*
- *J - Additional PV on empty land around site*

The site

Royston leisure Centre was constructed in 2005, consisting of a 25m indoor pool, Sports Hall, Fitness Studio, Multi-purpose Studio & associated changing facilities. A number of internal refurbishments have taken place, the latest is an ongoing refurbishment to the first floor changing facilities and back of house areas. A new single storey extension was constructed in circa 2020 to the south corner elevation containing Sports Hall storage. The leisure centre is managed by Everyone Active and is owned by NHDC.

The site is to the northeast of Royston town centre located off Woodcock Road. It lies between the A10 (400m to the west) and the A505 (300m to the east). A residential development is located to the north of the site, to the south is the King James Academy. Immediately east & west are open playing fields.

The building is a lightweight steel-frame structure with a mix of external partial-fill masonry cavity wall construction and composite cladding panels at first floor. The two primary roofs are curved, falling away to the east & west of the site, and are of composite standing seam insulated panels. There is no plant located on the roofscape, which is primary split between a ground, first and second floor plant room. All windows & curtain walling are aluminium & doubled glazed.

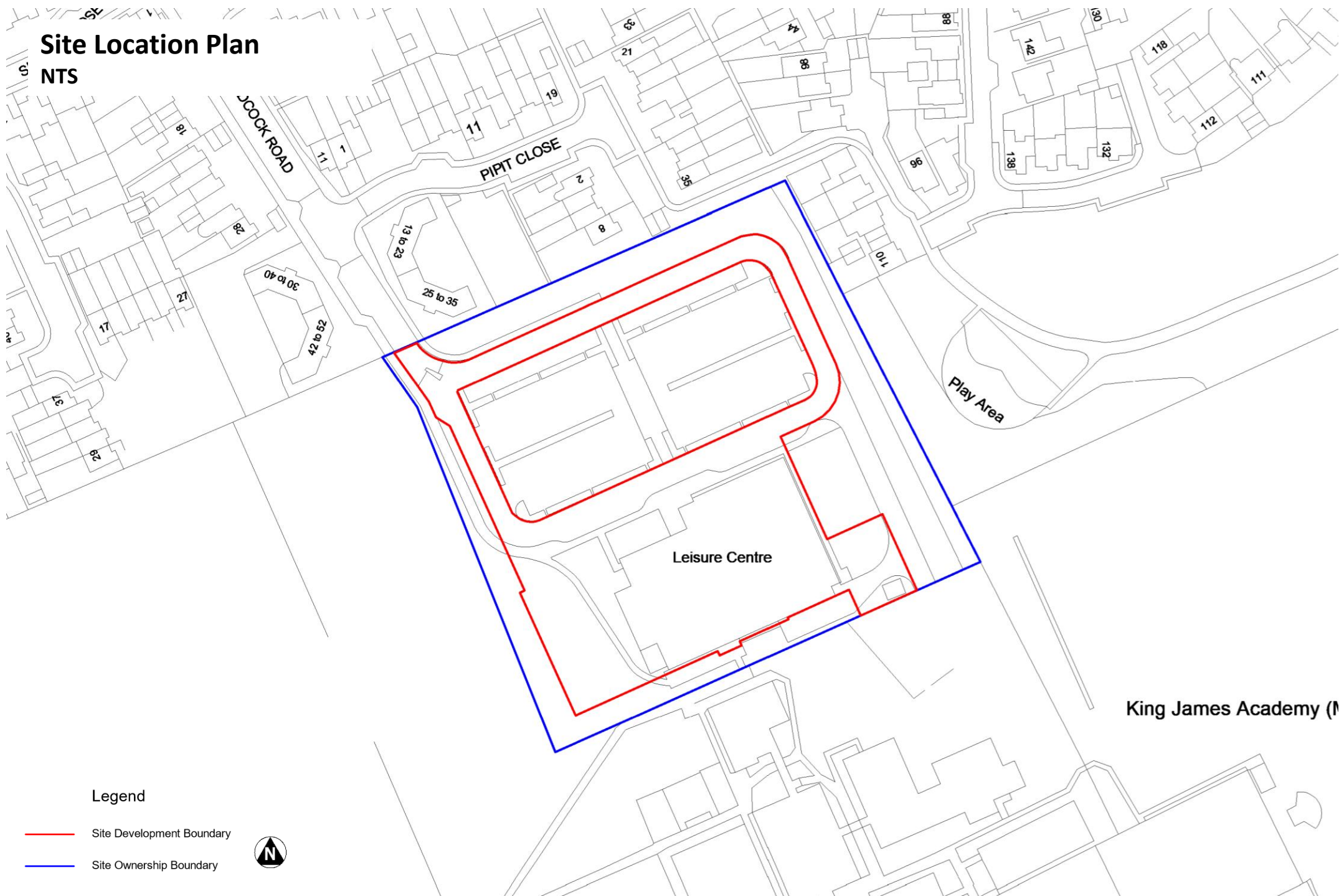


Site Location Plan (NTS)



Site access from Woodcock Road

Site Location Plan NTS



Google Earth View External Photo Locations



External Site Photos



Internal & Roof Photos



Proposed Architectural Scheme

(To be read with proposed plans & elevations on following pages)

External Walls

- To the existing external partial-fill cavity masonry wall add External Insulated Render utilising mineral wool insulation adhered to the existing masonry with a high quality durable render finish. To achieve overall U-Value Target 0.18 W/m²k. *For consideration in this application*
- Replace existing timber cladding around entrance with light grey aluminium composite cladding panel to match existing. To achieve U-Value of 0.18 W/m²k. *For consideration in this application*
- Replace existing composite cladding at high level with light grey aluminium composite cladding panel to match existing. To achieve U-Value of 0.18 W/m²k. Excluding Sports Hall. *De Minimis*
- Proposed masonry cavity wall to Fitness Studio Extension with External Insulated Render utilising mineral wool insulation adhered to blockwork with a one-coat, through-coloured mineral render or silicone render. To achieve overall U-Value Target 0.18 W/m²k. *For consideration in this application*
- To the Fitness Studio Extension at high level light grey aluminium composite cladding panel to achieve U-Value of 0.18 W/m²k to match existing. *For consideration in this application*

Roof

- Replacement existing flat roof to rear single store extension above plant and substation with single ply flat roof system utilising circa to meet target U-Value of 0.12 W/m²k. *De Minimis*

Proposed Architectural Scheme

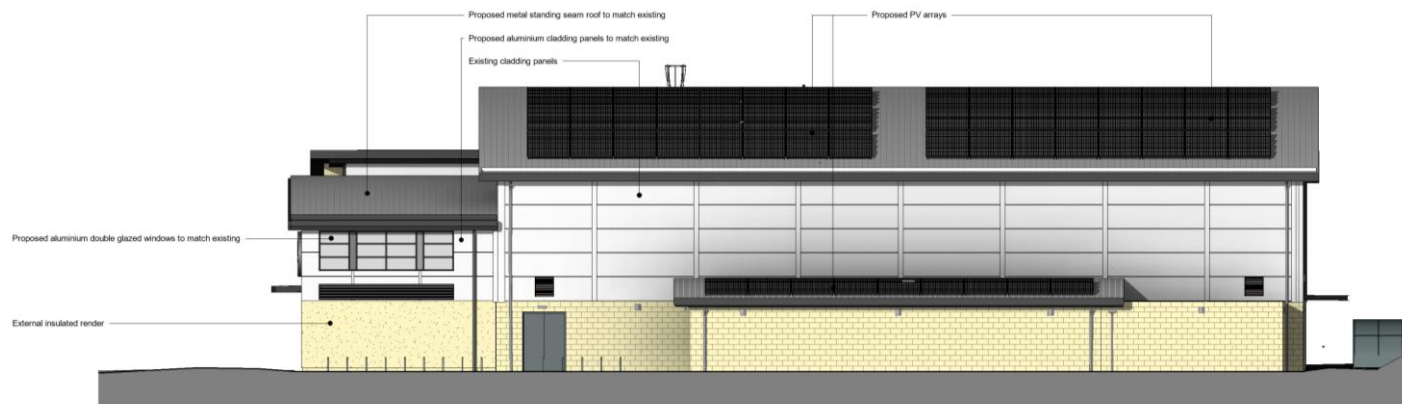
(To be read with proposed plans & elevations on following pages)

External Glazing

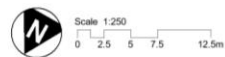
- To proposed fitness extension new thermally broken aluminium polyester powder coated frames with double glazed high performance coated glass to 1.2 W/m²k. To match existing curtain walling. *For consideration in this application*

External works

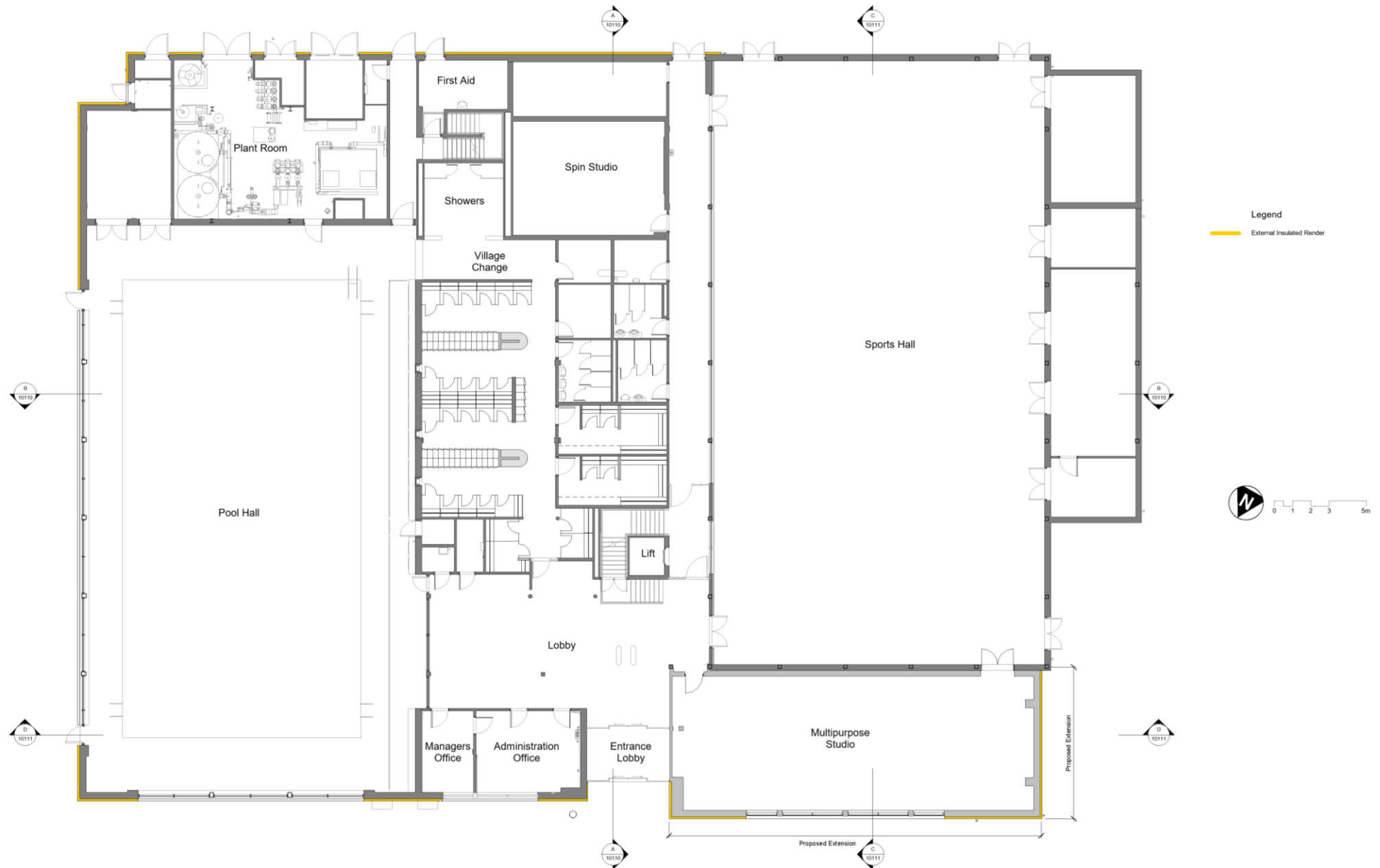
- Proposed ASHP enclosure to the southeast of the existing building (adjacent to plant room access), to be of timber fence construction to the southern end for visual screening from the public and open metal fencing to the north, easts & west for ventilation & security purposes. Both to be approximately 2.7m high. *For consideration in this application*
- Relocated sheffield stand cycle storage to west of proposed fitness short-term increased from 80 existing long-term spaces to 94. 10 new covered long-term spaces proposed to the rear within a lightweight steel structure. *For consideration in this application*
- Proposed GRP substation and relocated timber bin store to the southeast corner of the site. *Permitted Development*
- Enhancements to associated soft & hard landscaping to meet 10% biodiverse net gain. *For consideration in this application*



West Elevation - Proposed



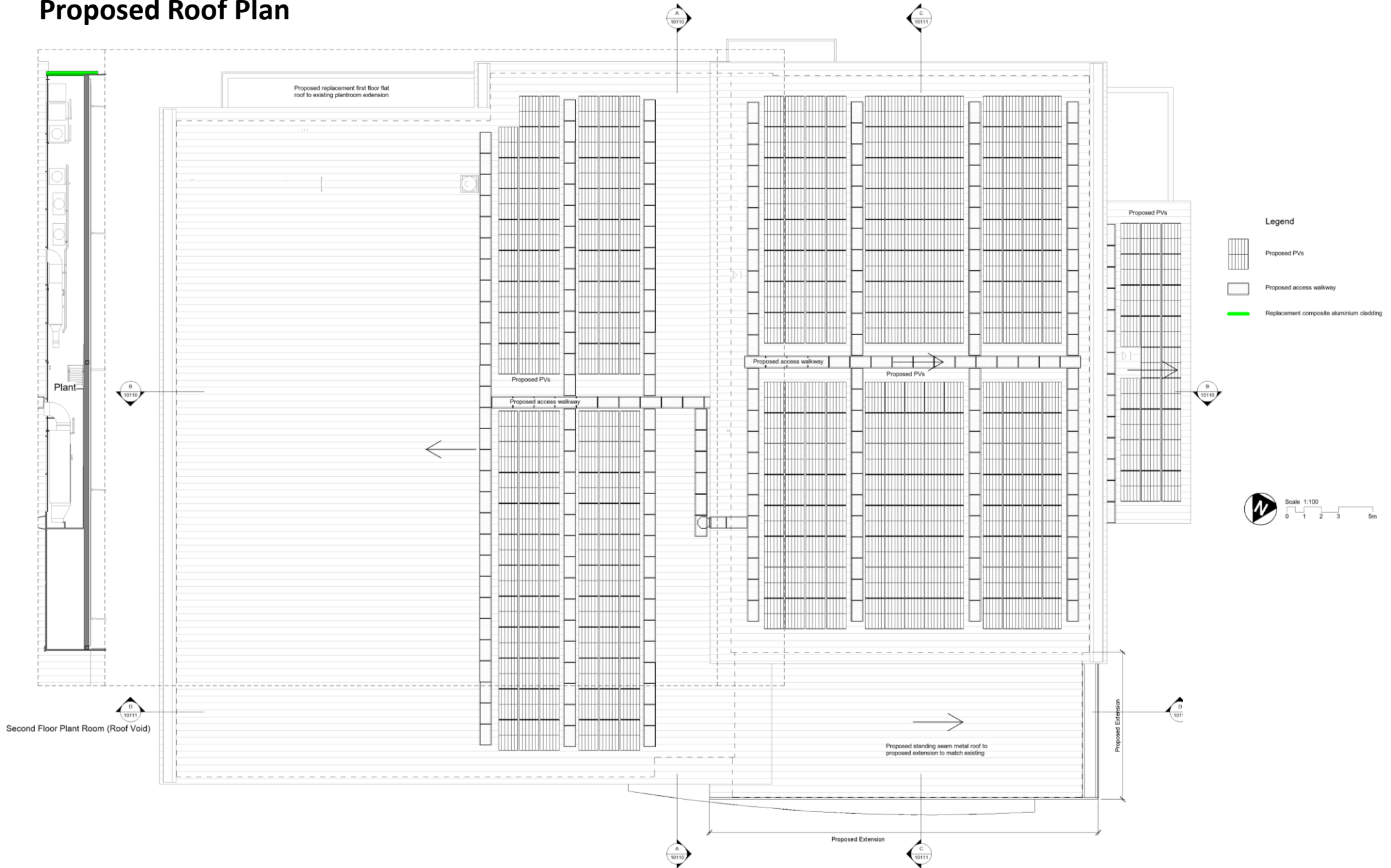
Proposed Ground Floor Plan



Proposed First Floor Plan



Proposed Roof Plan

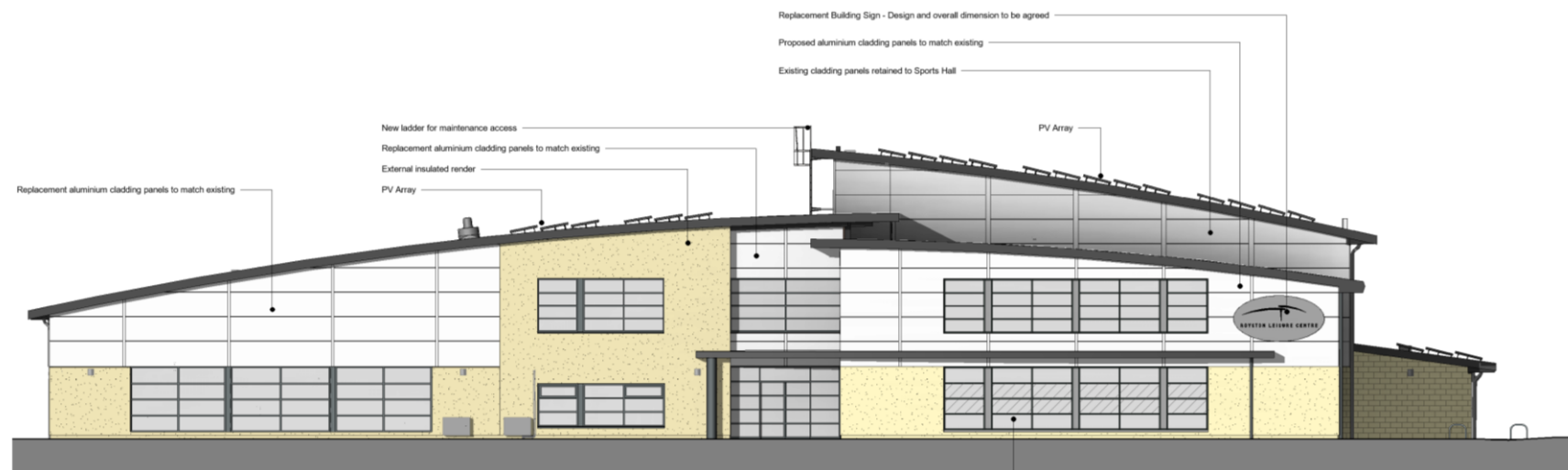


Existing & Proposed North Elevations



North Elevation - Existing

0 1 2 3 5m



North Elevation - Proposed

0 1 2 3 5m



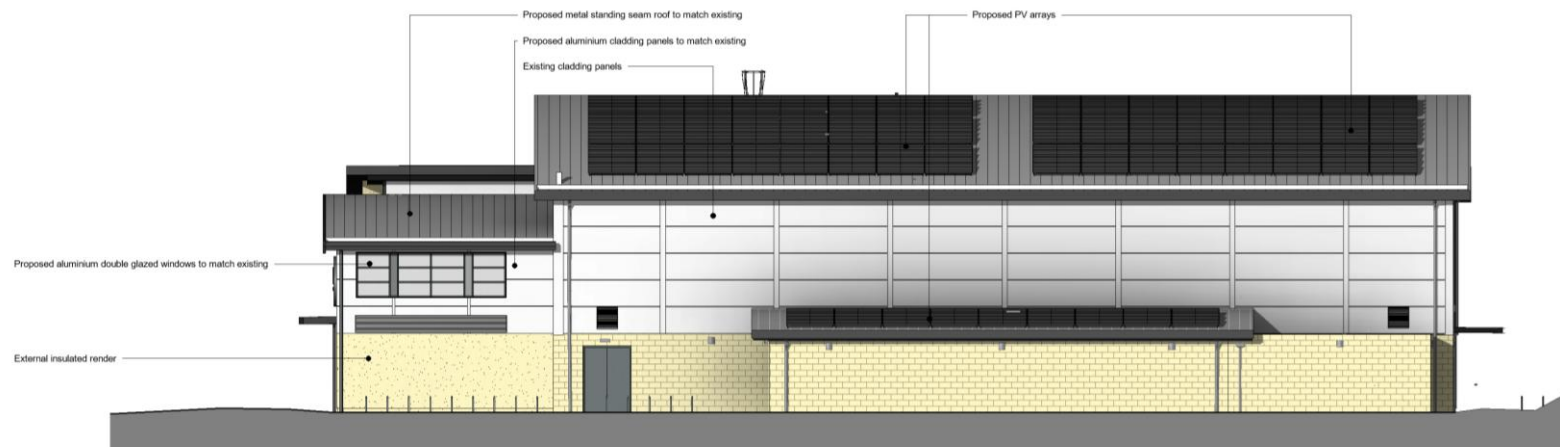
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Existing & Proposed West Elevations



West Elevation - Existing

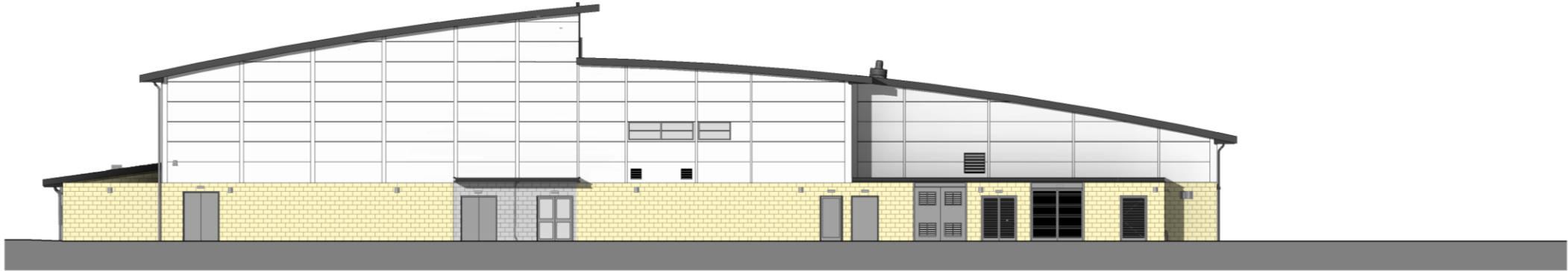
0 1 2 3 5m



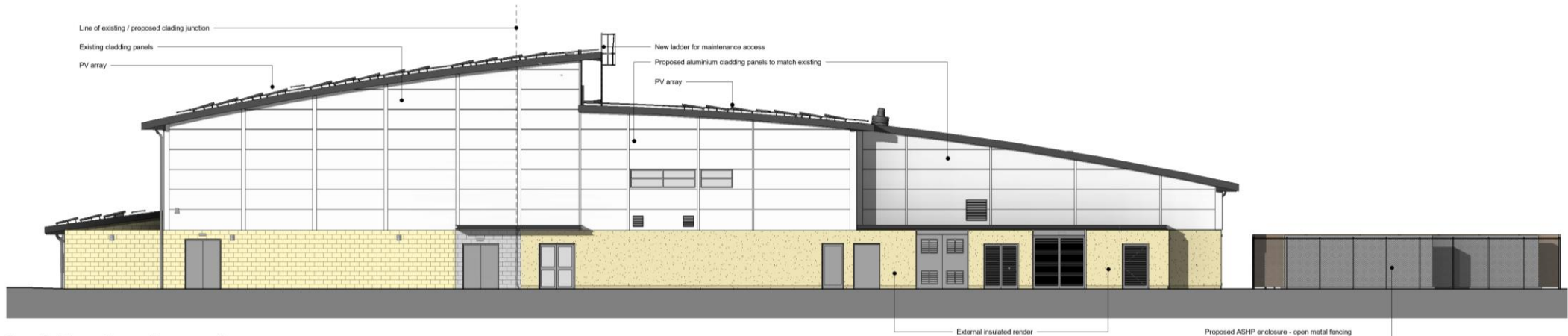
West Elevation - Proposed

0 1 2 3 5m

Existing & Proposed South Elevations



South Elevation - Existing



South Elevation - Proposed



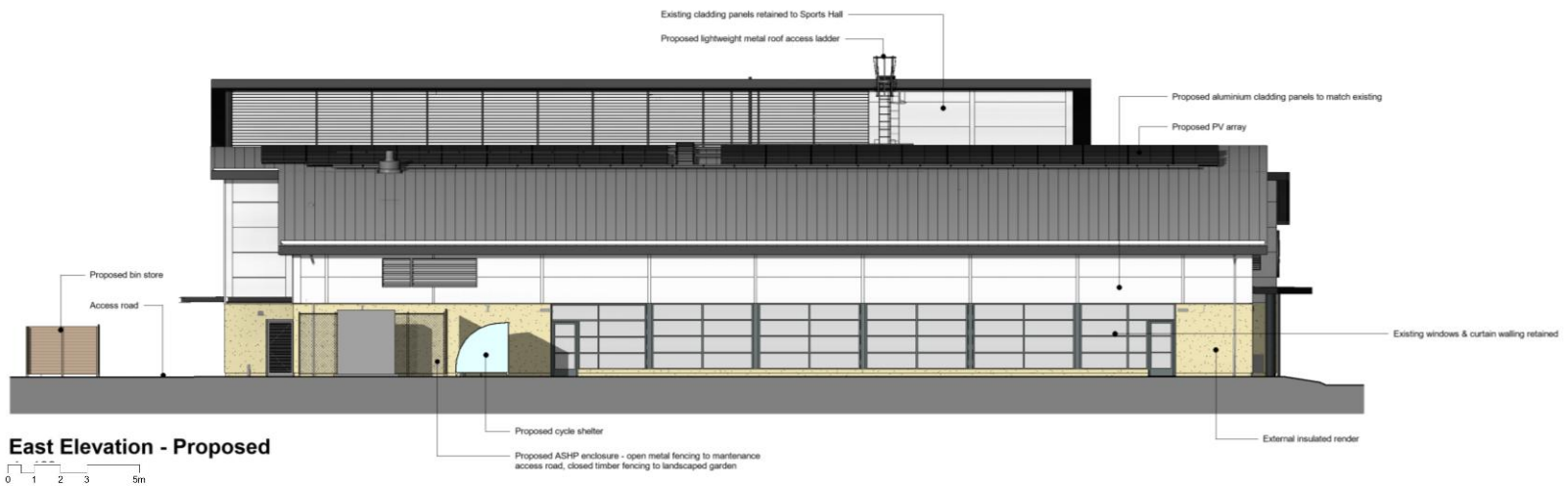
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Existing & Proposed East Elevations



East Elevation - Existing

0 1 2 3 5m



East Elevation - Proposed

0 1 2 3 5m



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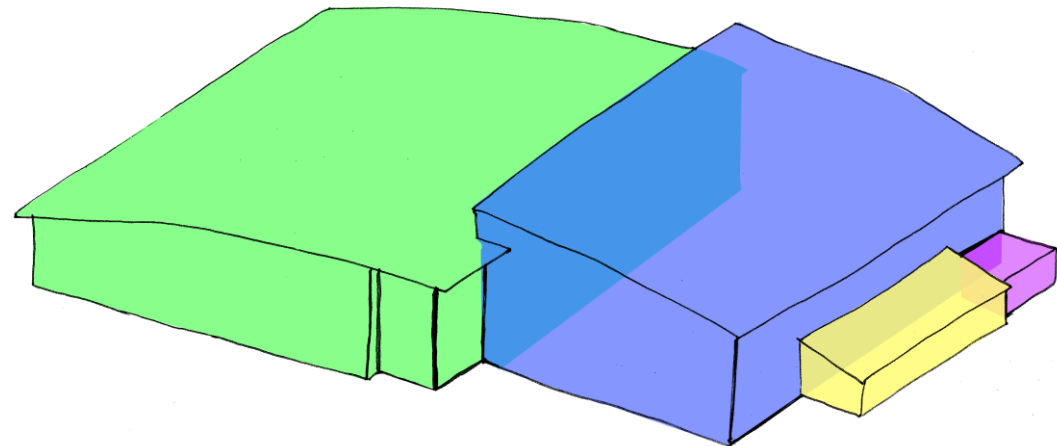
Amount / Scale of Proposed Works

Amount

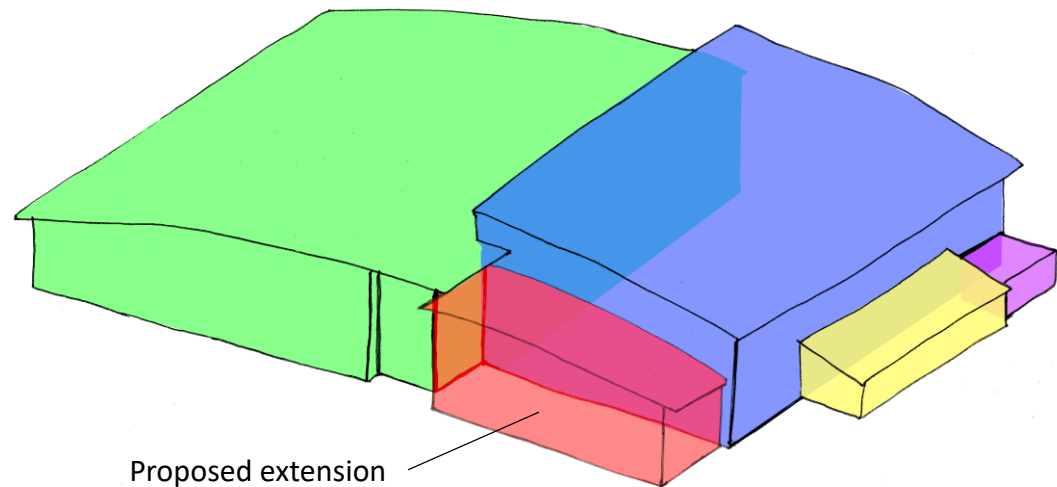
- The insulated render will be applied to the majority of the exposed external blockwork, predominantly on the North, East and South sides of the building (consisting of the Pool Hall, Plant areas and central circulation and changing area).
- The existing insulated cladding panels at first floor level will be replaced for similar panels that provide greater amounts of insulative performance by virtue of being of an increased thickness.
- Solar PV panels are proposed to be placed on the main existing roofing areas except the Pool Hall.

Scale

- A two-storey element is proposed to be built adjacent to the main entrance though it is of lower height, keeping it subservient to the main body of the building.
- The extension provides an additional circa 300m² of floor space across the two storeys.



Existing Site Massing



Proposed extension

Proposed Site Massing

Appearance

- The Insulated Render System will be an off-white/ beige colour to be complementary to the existing feature blockwork. A through-colour or silicone render will be specified to ensure a high-quality long-lasting finish.
- PV panels will be mounted on the existing standing seam curved aluminium roof, set back from the edges of the roof which will minimise visibility from ground level. The angle of the PV panels are to follow the curvature of the roof on the main roofs, with a circa 17° pitch on the panels on the Sports Store.
- Proposed curtain walling on the extension will match the appearance of the retained curtain walling on the existing building, with the frames to be the same anthracite grey colour and of a similar profile size, subject to thermal performance requirements. Sections of the glazing on the ground floor are to be obscured with privacy film for safeguarding of any vulnerable users of the multi-purpose studio.
- The proposed Air Source Heat Pump enclosures will be a mix of circa 2.7m high timber close-boarded fencing and open metal fencing.



Proposed Birdseye Visual (looking southeast)



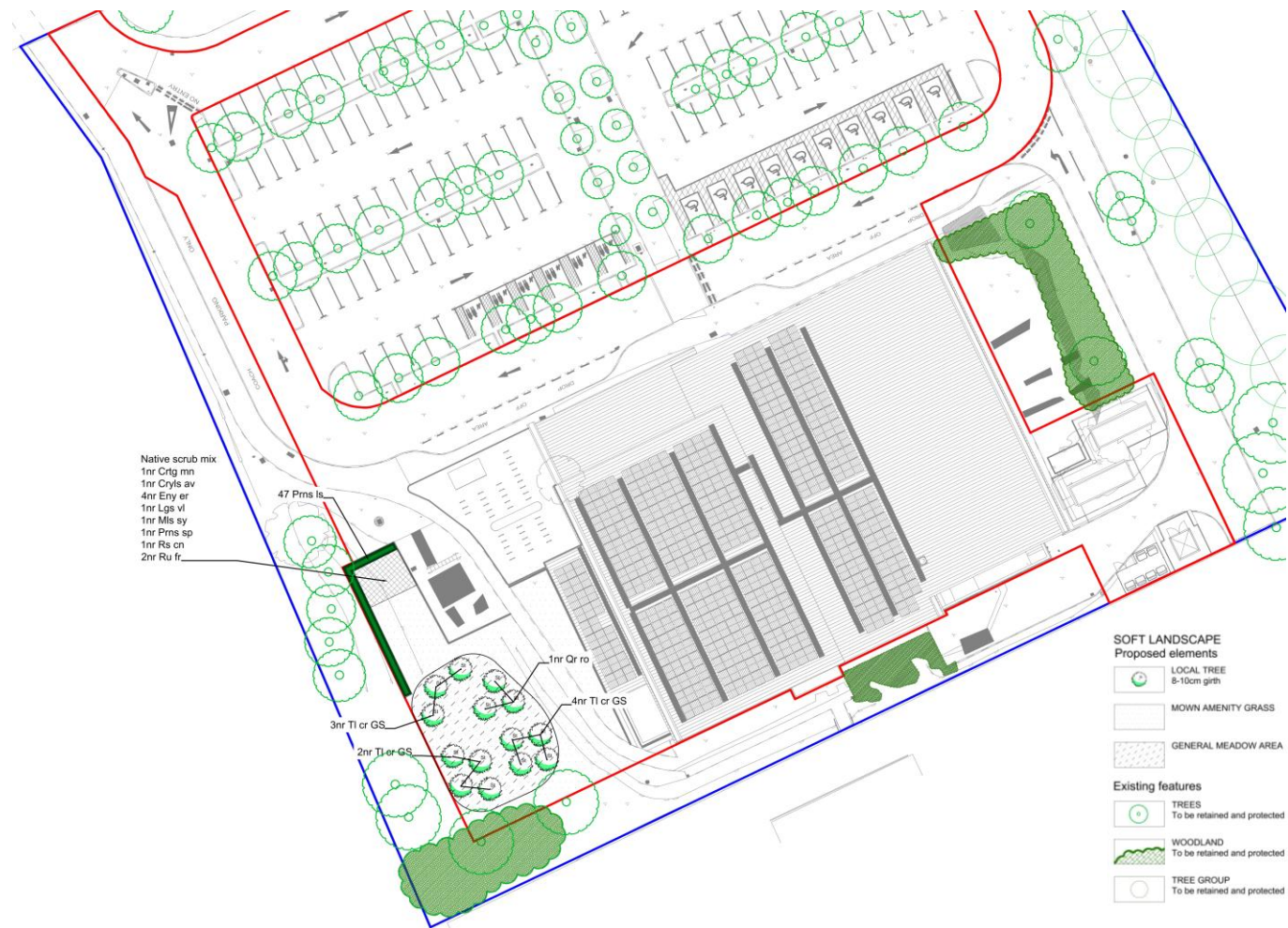
Proposed Building Approach Visual (looking southeast)



Proposed Entrance Approach Visual (looking south)

Landscaping & Biodiversity

- To be read in conjunction with RPS';
 - Preliminary Ecological Appraisal
 - Biodiversity Net Gain Assessment
 - Landscape Planting Plan
- An area of existing hard landscaping at the front of the building that is currently used for cycle parking is to be utilised for the two-storey extension. Therefore these existing Sheffield cycle stands will be relocated to a new area of hard landscaping to the west of the main building. The surface material is to match that of the existing outdoor gym opposite.
- The proposed Air Source Heat Pump (ASHP) enclosure sits alongside the main Pool Plant room on the southeast corner of the building. The proposed substation will be located adjacent to the western boundary. Four existing trees are to be removed to facilitate the ASHP enclosure & substation.
- The biodiversity on site is to be improved via the reinforcement of existing green areas on site via the planting of trees, shrubs and a more diverse range of native plant and flower species appropriate to the local area. Please refer to the above noted RPS documents submitted as part of this application.



Extract of RPS Proposed Landscape Plan



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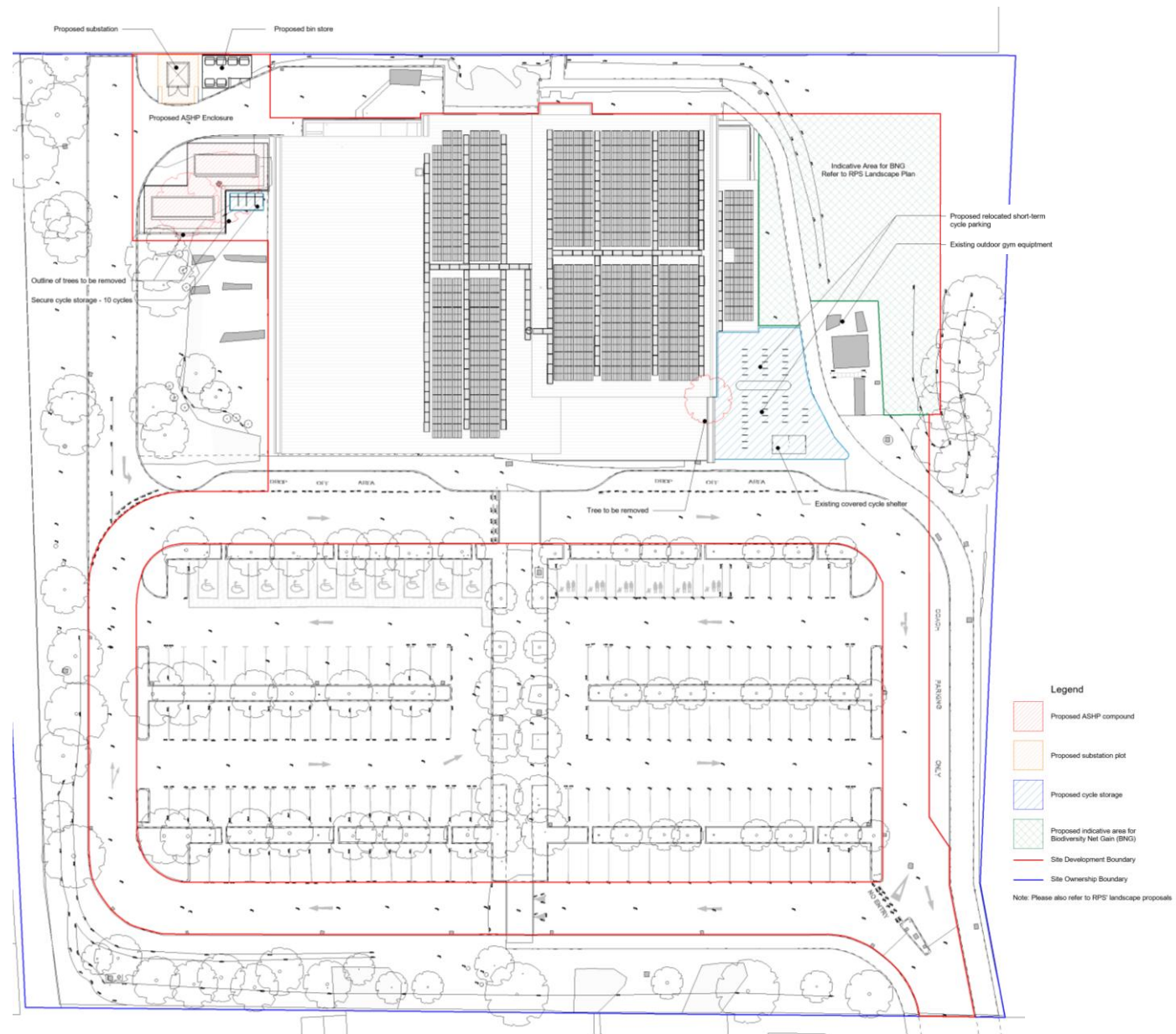
Transport and Access

Transport

- Please also refer to the to the Rappor Transportation Statement & parking survey for detailed information submitted as part of this application.
- The parking survey concluded that adequate car parking space exists on site to account for the additional increase in expected visitor numbers the extension will bring.
- Additional cycle parking spaces in the form of Sheffield stands are to be provided for visitors to the centre, with a covered and lockable cycle shelter for the use of Centre staff being provided to the east of the existing building.

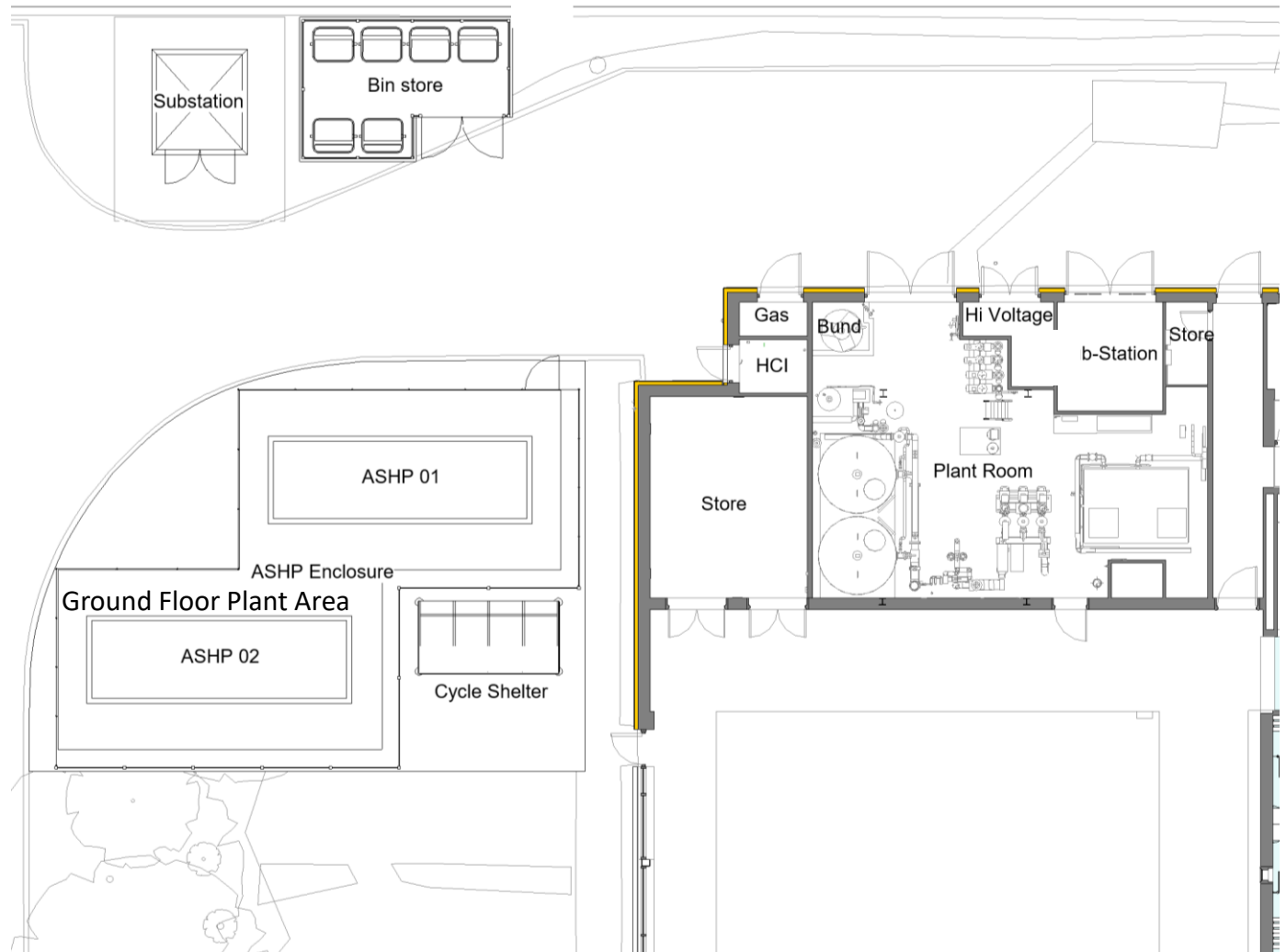
Access

- No changes are proposed to the existing access or egress routes from the building or to the site. Vehicular access to the ASHP enclosure and substation for maintenance access will be via existing vehicular access routes.



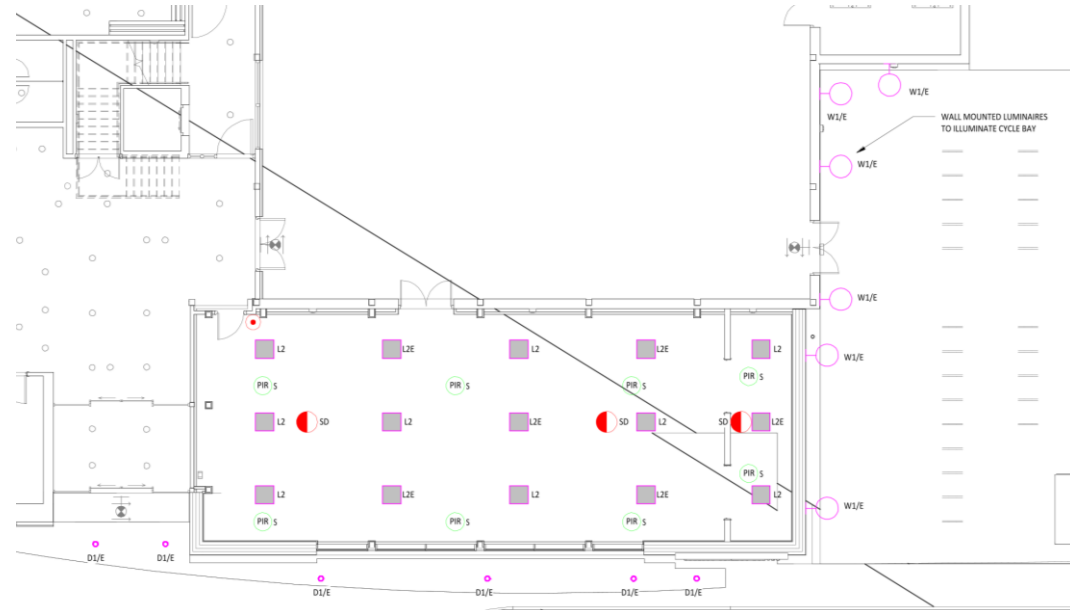
MEP Services

- As part of the SALIX decarbonisation initiative, the current gas-fired boilers will be replaced with Air Source Heat Pump (ASHP) systems to provide domestic hot water (DHW), including heating for the pool, as well as space heating.
- To optimize energy usage, Passive Infrared (PIR) sensors will be installed in office areas to ensure energy is only consumed when required. Additionally, photovoltaic (PV) panels will be installed on the roof to contribute to carbon savings.
- The electrification of the building's heating system necessitates upgrades to the electrical infrastructure. This will include increasing the capacity of the incoming power supply and upsizing the Main LV switchgear. A new GRP substation is proposed where the existing bin store is located, which will be relocated adjacent to it.

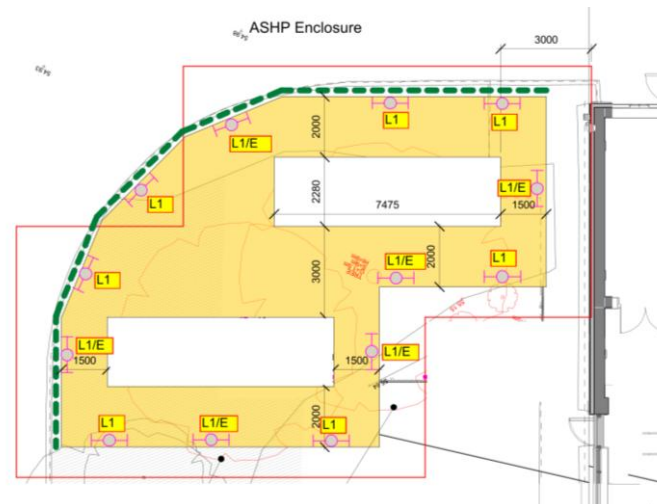


Lighting

- New external lighting is proposed to provide security and visibility to those using or moving around the building as well as to the new cycle parking area. Lighting is to be calibrated and specified to avoid interfering with the foraging and commuting of local wildlife such as bats, following guidance set in the Ecologist's Appraisal.
- Freestanding external lighting will be retained. Existing wall-mounted lighting fixtures will be removed to facilitate the addition of the External Render System before being reinstated and recommissioned .



Qoda Proposed Lighting Layout – Ground Floor Extension & External Bike Store



Qoda Proposed Lighting Layout – ASHP Enclosure

