

**STRIDE TREGLOWN**

**GLANTAF SRB**

**YSGOL GYFUN GYMRAEG GLANTAF**

DESIGN & ACCESS STATEMENT

NOVEMBER 2023



Certified



Cooperation

FILE	REVISION
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PROJECT <b>YSGOL GLANTAF SRB</b>	2
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	6

# STRIDE TREGLOWN

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## Sectors

Landscape Architecture  
Masterplanning & Urban Design  
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RIBA Client Adviser  
Sustainability  
Town Planning

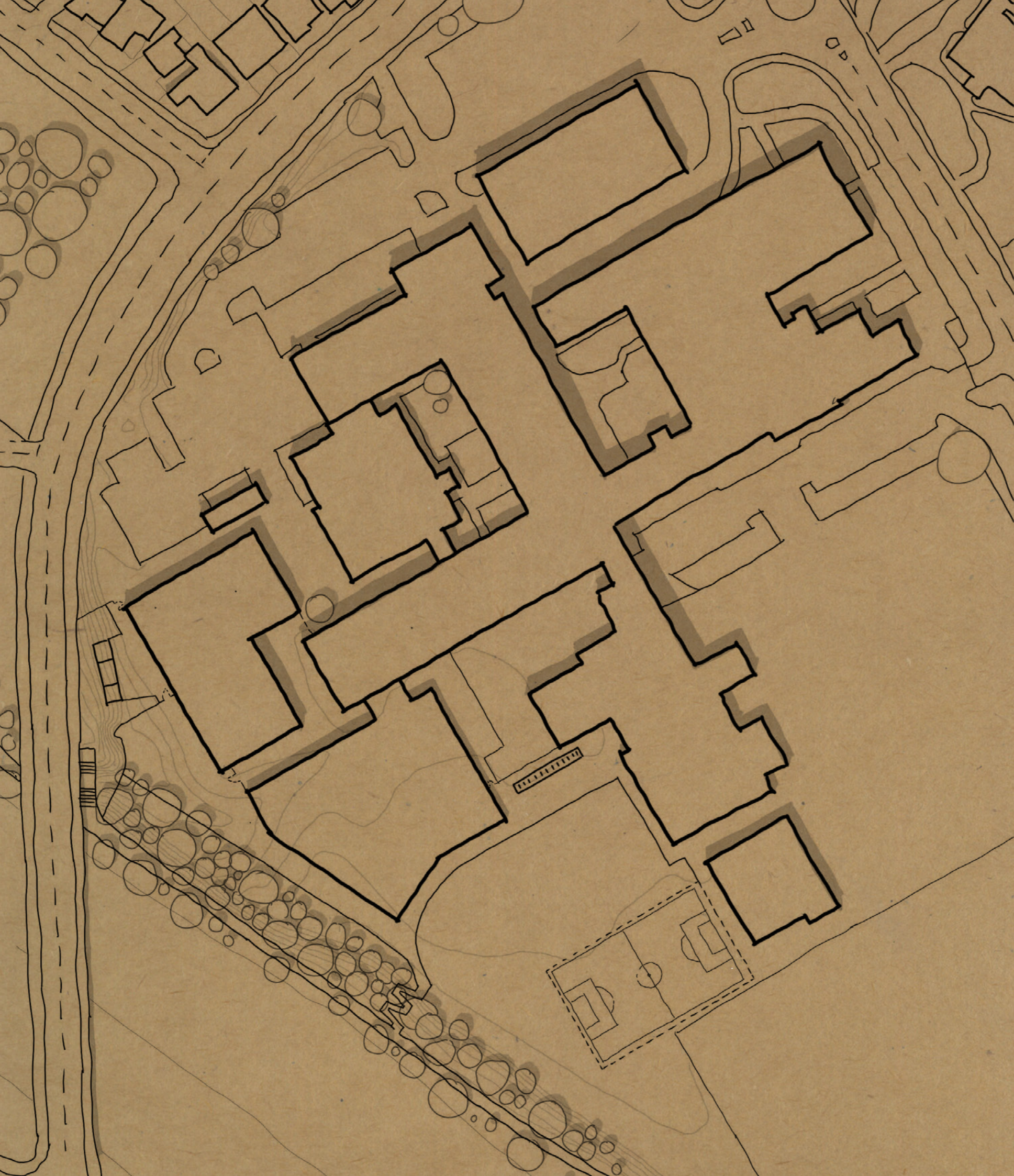
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1.0

**EXECUTIVE SUMMARY**

## 1.1 EXECUTIVE SUMMARY

This report proposes the provision of a new Specialist Resource Base (SRB) for pupils with profound learning needs, located on the site of the existing Ysgol Gyfun Gymraeg Glantaf.

The new facility will provide a safe and inspiring SRB to learn and grow with independence by providing the means of delivering integrated education, in line with the current Welsh holistic curriculum.

### Utilities

The new SRB will be provided with new water and electricity connections, the underground utilities survey indicates that the proposed location for the new SRB is free of existing services, with the exception of an below ground power (electrical) cable, which runs close to the existing school buildings - *potential diversion requirement to be determined.*

### Ecology

An initial ecology review has identified that if the site boundary alters and any other habitats are identified to be lost or affected by the development, then further surveys for habitats and protected species may be required.

The Preliminary Ecological Appraisal completed by Wardell Armstrong is available separately to this report as well as an Otter report.

### Trees

A Tree survey was undertaken by ArbTS - Arboricultural Technician Services which is available separately to this report.

### Acoustics

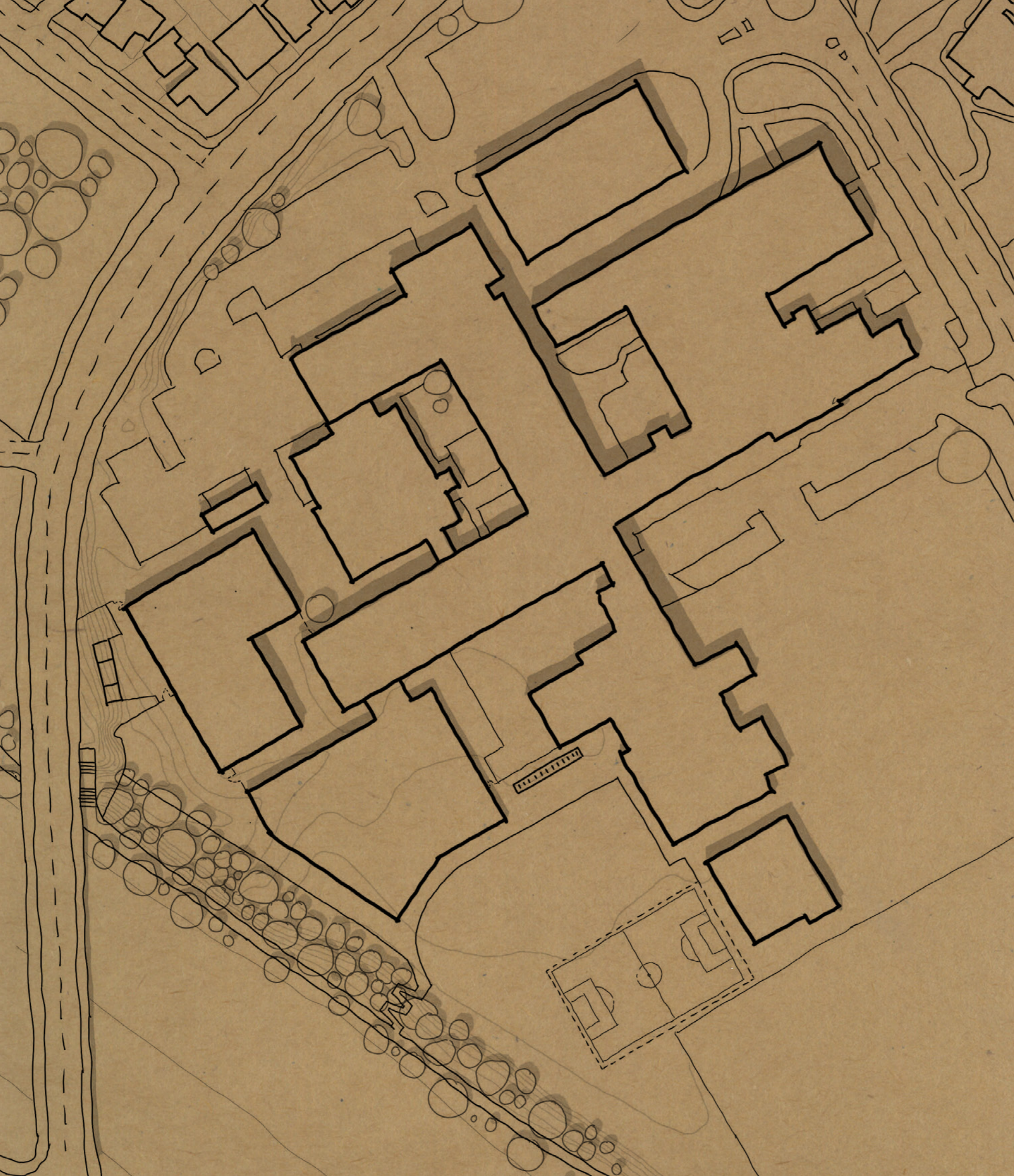
An environmental noise assessment has been carried out by Hunter Acoustics for the proposed Special Resource Base. The assessment concludes that natural ventilation for SEN spaces is not feasible for facades facing the road, and mechanical or hybrid ventilation strategies are therefore likely to be required.

### Flooding

Please refer to JBA Flood Consequences Assessment (FCA) for further details.



Above - Ysgol Glantaf, aerial view.



2.0

**INTRODUCTION**  
& Design Standards

## 2.1 INTRODUCTION

Ysgol Glantaf was founded in 1978, a Welsh-medium coeducational secondary school located on the banks of the River Taff in Llandaff North, a district in the north of Cardiff, Wales. It is the largest of its kind in the country for pupils aged 11-18.

*"The school's aim is simply to create a welcoming, supportive and friendly school community as well as well-rounded, respectful citizens"*

**Mission Statement:** To offer a rounded education, equal opportunities, and enriching experiences, in the Welsh language, and in a supportive, Welsh atmosphere. (School's Prospectus).

Cardiff Council's vision for the SRB is to create a truly inclusive new building that caters for pupils with profound learning needs and also enables pupils to learn via shared community focused spaces that will promote a sense of independence via the use of 'social enterprise'.

This document has been produced to summarise the architectural design for the new SRB and has been informed by client engagement sessions with the school and local authority.

- A key aspiration for the SRB is to have a shared community space which will be used in conjunction with a learning kitchen & cafe, with potential for additional access to the new performance hall. The community elements of the SRB will be accessed from the Taff Trail.
- The SRB will aim to create opportunities to establish a 'social enterprise', with students being able to learn key skills via public interactions. Catering & Hospitality education will be a huge benefit to the pupils and will promote life skills, team work, communication as well as a range of other key skills.
- The community cafe will help create partnerships with the local area and will also aim to provide benefits for the pupils of the existing Glantaf school.
- External landscaping will play a key role in the pupil experience of the SRB, with the inclusion of a sensory garden and additional planting elements, the SRB will aim to blend into its surroundings, alongside the Taff Trail
- The SRB is anticipated to be Net Zero Carbon, as well as BREEAM 'Excellent'.

### Key Objectives and Aspirations:

The key objectives identified for the project are as follows:

- The main objective is to provide a safe and inspiring place to learn and grow in independence by providing 30 ASD (Autism Spectrum Disorder) and 30 number CLN (Complex Learning Needs) places
- The new SRB will aim to enhance & encourage communication skills, life skills, drama performance plus many more via the use of Welsh language.

## 2.2 Design Standards

The following is a list of architectural design standards and statutory guidance that will inform the design:

Building Bulletin 102: Disabled children and children with SEN

The design will be guided by BB102 'Disabled children and children with SEN'

The new SRB will be designed for 60 pupils (plus staff)



- Client Ownership Boundary Line
- - - Area of Development

Above - Ysgol Glantaf Existing Site Plan

**The School Premises Regulations (1999) Accessibility**

The design will comply with The School Premises Regulations (1999) which set out minimum standards of school design.

The building will be fully accessible to all in accordance with Approved Document M of the building regulations as a minimum.

**21st Century Schools**

The scheme will refer to design guidance provided by Welsh Government's 21st Century Schools programme.

Door thresholds will be level throughout the scheme.

**Building Regulations**

The design will comply with all current building regulations.

**Ventilation**

The design will be in accordance with Building Bulletin 101: Guidelines on ventilation, thermal comfort and indoor air quality in schools (2018).

**Acoustics**

The design will meet the standard required by Building Bulletin 93, Acoustic Design for Schools. Any derogations will be agreed with the client.

Pre-completion testing will be carried out in accordance with BB93.

**Secured by Design**

The design will follow the principles of Secured by Design where possible.

**Sustainability & BREEAM**

The design seeks to achieve an energy standard of net zero carbon. The strategy to achieve NZC is being developed in conjunction with the project M&E engineers.

The design will incorporate all necessary measures to achieve a BREEAM 'excellent' rating in line with Welsh Government funding criteria.

The design of the new school will be in accordance with Part L of the Building Regulations.



Above - Ysgol Glantaf School - Main Entrance



Above - Ysgol Glantaf School - Car Park Entrance (proposed SRB drop-off Route)



## 2.3 PROJECT AIMS & OBJECTIVES

There is an increasing demand for places in schools that can cater for additional learning needs (ALN), particularly in schools where the accommodation has been well designed.

**NOTE:** *Autistic pupils can be three times as prevalent as hearing impairment, visual impairment and physical impairment combined. Currently there are no Welsh medium primary schools with ALN provision within the local area. Previous experience at other purpose built ALN schools indicates that there could be a demand for even more places at the new school.*

Our aim is to allow for a wide range of needs in an inclusive design that encourages pupils who are both willing and able to take part in activities alongside their peers. There is no standardised solution that will suit everyone.

Flexibility, adaptability, and versatility will be key principles in the design of spaces and how they interconnect. Create a learning environment that can accommodate the varying learning needs of ALN pupils from year to year.

ALN Pupils present a wide range of learning needs and difficulties. This can be in terms of physical impairments and in terms of cerebral challenges. Pupils with complex needs (CLN) may have a combination of these difficulties; for example some will use wheelchairs to move about the school.

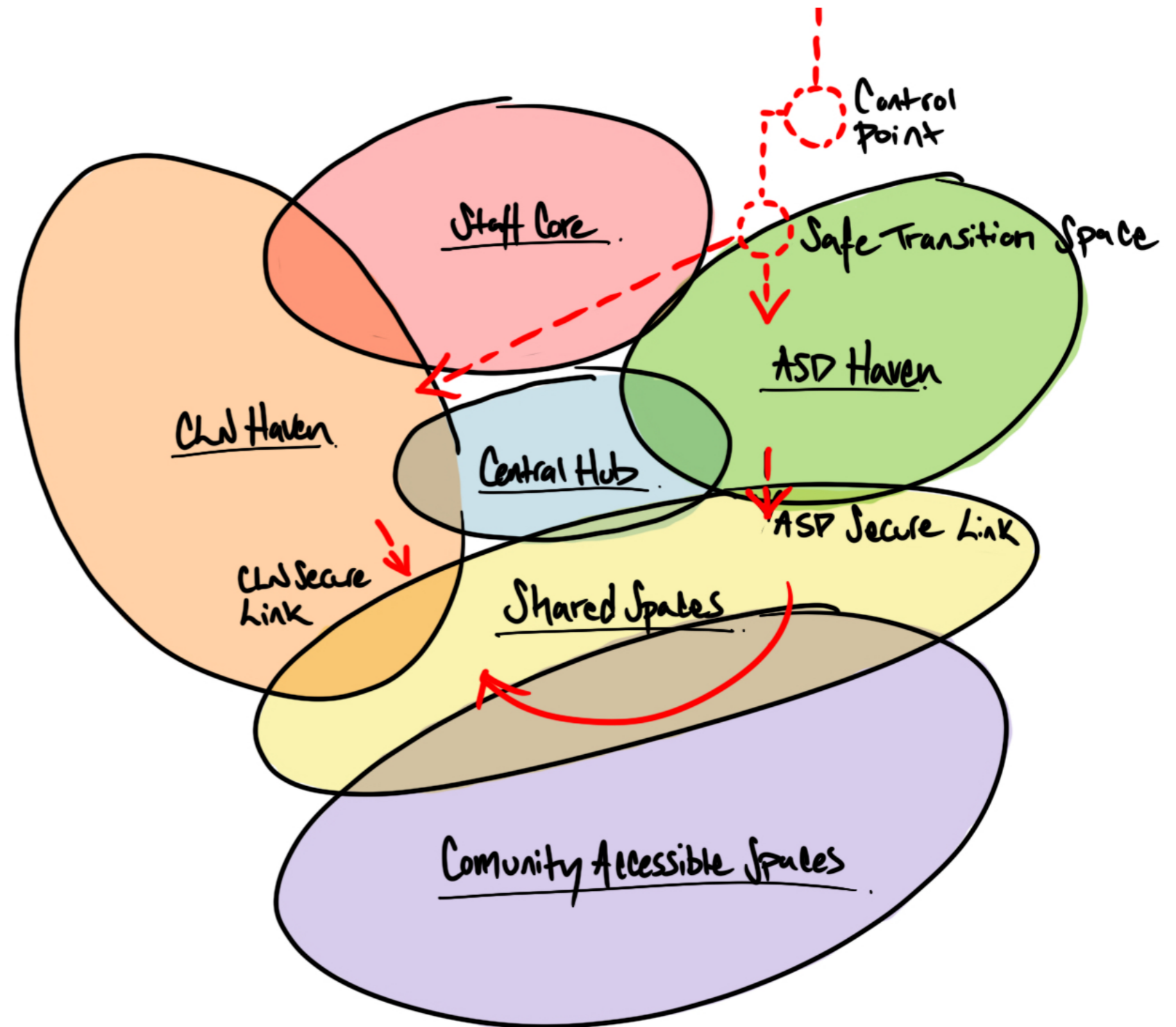
Pupils identified with an Autism Spectrum Conditions (ASC) are usually able bodied, with some being able to make their own way to school. Some pupils will be encouraged to cycle, but the catchment area for Ysgol Gyfun Gymraeg Glantaf is wider than for most schools, resulting in many pupils arriving by taxi or minibus. Traffic management will be a crucial aspect of the design, and it could influence the location and orientation of the new school. Staff parking will need to allow for

part time support staff.

Much can be learned from precedent design solutions. Visiting completed projects when they have been in use for a few years can reveal feedback on how well design objectives have worked. From the outset it is worth assessing the scope of needs the school is aiming to cater for and how the school wishes to manage these needs.

Collaboration with the school, possibly with the pupils as well as the staff, can help to inform how the completed building should feel when the school is in use. Flexibility and adaptability will be key words in the development of this design.

*Please see appendices ' 221209 - Ysgol Glantaf SRB Aims & Objectives' for further details.*



**Above: Bubble diagram based on client brief and proposed departmental relationships**



3.0

**SITE CONTEXT & DESIGN OPTIONS**

### 3.1 THE SITE

#### Site & surroundings

The school site is located on a fairly level plot in Llandaff, North of Cardiff. The client ownership boundary is approximately 5.5 Hectares with the area of development approximately 0.5 hectares.

The school site is neighboured to the north by housing, beyond the A4054, and to the west by the River Taff and associated Taff Trail. To the east there is further housing and in the wider vicinity to the north are shops and the 203 Welsh Field Hospital.

#### Existing Site Access

Glantaf School is currently only accessed via Gabalfa Road (both vehicular & pedestrian) on the eastern boundary of the site. The new SRB drop-off area is proposed to the north of the school site (within the boundary line).

#### Existing Site Features

Upon approach via Llandaff Bridge, the scale of the site is apparent. Upon entering the vehicular entrance, there is a large car park which sits alongside a dedicated coach drop-off area. Upon entering the site via foot and the main entrance, there is a small staff car park with approximately 15-20 spaces.

Beyond the existing hard-play area and Multi-use Games Court (MUGA) there is a large area of soft play which is currently utilised for sports. Within the area noted for development there is a level area of soft-play, also currently used for a number of various sports, the site starts to significantly slope down to the Taff Trail along its boundary line (approximately 1900-2000mm) where there is dense vegetation.

Within the area of development sit two existing demountable teaching units, which currently house the SRB element of the school. These are both anticipated to be removed before project completion and are currently proposed to be replaced by a sensory garden.

#### The School Building

Ysgol Gyfun Gymraeg Glantaf was mostly constructed in 1978, initially sharing premises with the English-language Glantaf High School, before expanding to occupy the entire building. Since then a number of additions have been made to the school site such as the large sports-hall located directly along the boundary line of the area of development. The following materials are evident:

- Red facing brickwork
- Sand coloured external columns
- Limited areas of grey cladding
- Light grey/white metal framed windows, door and curtain walling
- Sloped metal standing seam roofs

#### Topography

Through its development as a school, the site is generally flat with localised level changes down to the river.

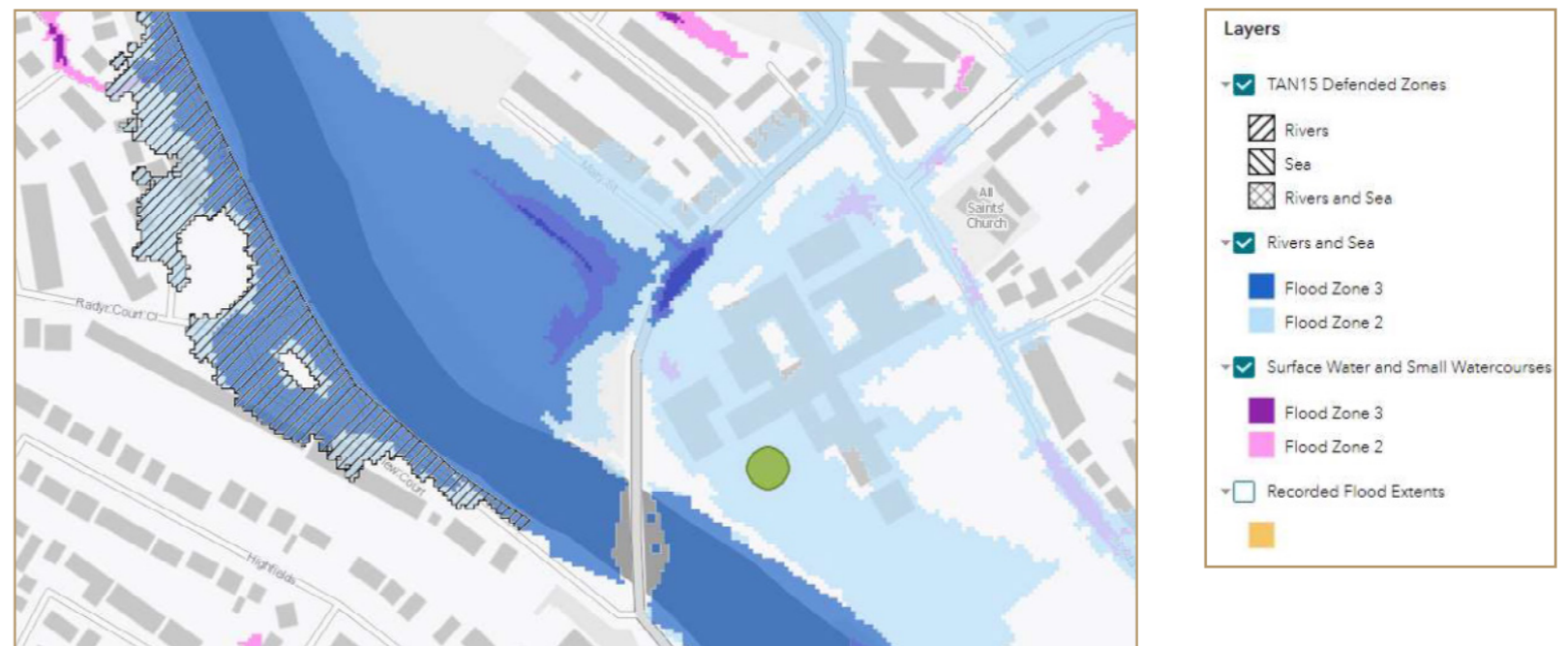
#### Flooding

In accordance with Tan 15, a new building within the school grounds will be classed as Highly Vulnerable Development. The school site is currently partially in Flood Zone B and partially in Flood Zone C1, please see the JBA Flood Consequence Assessment (FCA) Report for further details.

An extract from Curtins Stage 2 report states:

*Flood mapping from the NRW shows that the site is flood affected, see Fig 3.0 (green circle denotes location of proposed development). The Flood Maps for Planning show the site in Flood Zone 2 (1 in 1000 chance of flooding from Rivers and Sea in a given year) having*

*recently been updated from mapping that showed the site within Flood Zone 3 (1 in 100 chance of flooding from Rivers and Sea in a given year). Based on the available mapping, the development will be suitable to the Flood Zone categorisation.*



**Above: Flood map taken from Curtains Stage 2 Report.**

### Utility Survey

McCanns have produced a 'Utility Infrastructure Tracker report' illustrating below ground services that are present within the site, these services are limited to gas, water, electrical & telecoms.

The area of development is free of existing services apart from one below ground power cable which runs parallel to the existing school gym – this can be seen illustrated in the image to the right.

### Gas

There is a low pressure gas line running around the site, following the A4054, and a medium pressure pipe following the same route, which cuts into the site on the north west corner. It is not proposed to provide gas to the new block.

### Water

With regards to water, there are a series of mains pipes, rising mains and private pipes feeding the areas around the site. Its assumed that the main site would be fed from one of the mains pipes and is proposed that the new development will be fed from this existing network subject to available capacity.

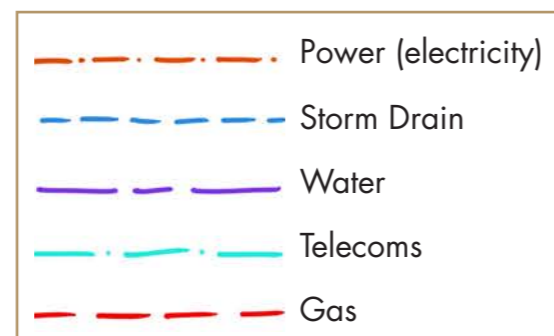
### Electricity

As can be seen on the map to the right, there is an existing HV network running near and on the A4054 which supplies the main school site. A dedicated transformer serves the school via LV cables to a central point. There also seems to be a second LV Feed from a smaller LV network, just outside the boundary of the site. It is unknown whether the new development will be served from the existing school or if a new WPD Supply is required.

### Telecoms

As can be seen on the map to the right, there is an existing Telecoms network in the vicinity of the site, running along the roads surrounding the A4054 and Gabalfa road. The site appears to be fed from a junction box on Gabalfa Road, which is run into the school. It is proposed the new development will be fed from this existing network subject to available capacity.

The map illustrated to the left is limited only to these services installed and owned by Wales and West Utilities and is based on findings within McCanns Utility Infrastructure Tracker





**1** - View from the south of the site looking north



**2** - View from the south (proposed location for external M&E and SRB hard-play)



**3** - View from the north of site (proposed location for external M&E and SRB hard-play)



**4** - View from proposed drop-off area looking towards proposed SRB entrance



5 - View in between existing school & gym (proposed external teaching area)



Photo location overview



6 - View from the north of site showing proposed location of SRB



7 - View from existing hard play area (alternative SRB approach)

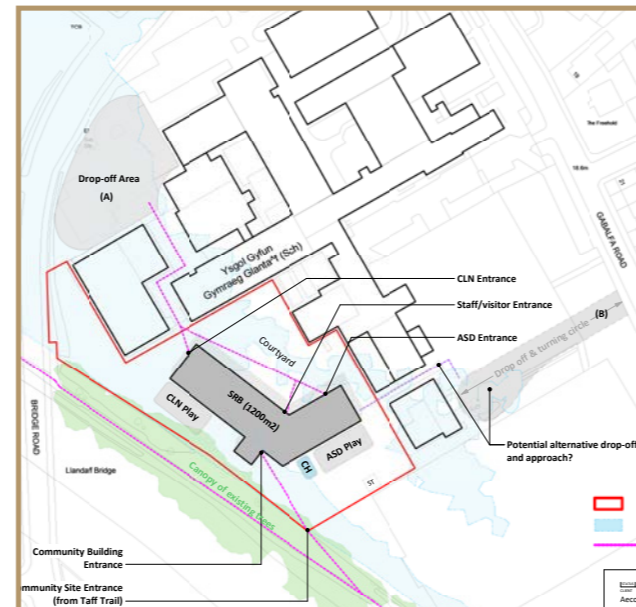
### 3.2 INITIAL SITE OPTIONS

A range of options were initially considered for the position and form of the new SRB. These options ranged in terms of location and building footprint.

Each of the initial site options considered both proximity to the school for inclusion and integration, as well as the taff trail and community connection.

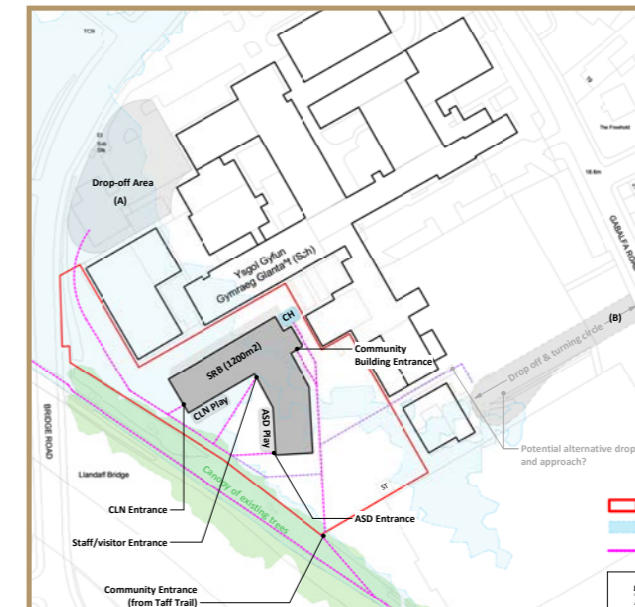
It became apparent after a number of meetings with Aecom & Cardiff Council, that the connection and integration of the SRB within the existing school was far more important to consider.

Although we had explored a number of locations throughout the school site, it was agreed that the SRB would be located within the existing soft play area.



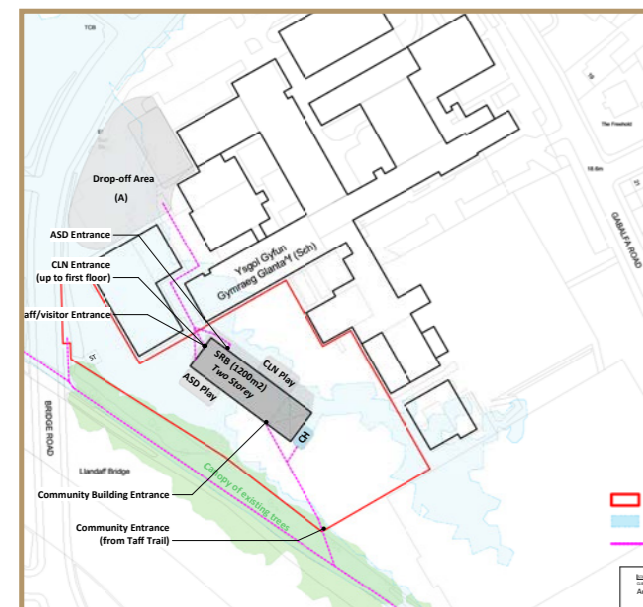
**Option 1**

L - shaped footprint in the middle of the site, considering possible connections to the existing school and community elements along the south-west boundary of the SRB. This option also explores the potential of a private SRB courtyard and associated play areas.



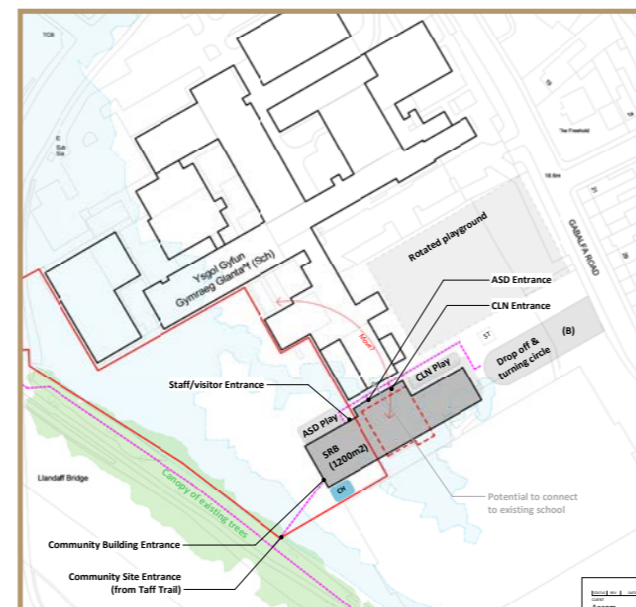
**Option 2**

This option considers the connection with the Taff Trail. L - shaped footprint creating a private courtyard facing the taff trail which included both ASD & CLN play areas.



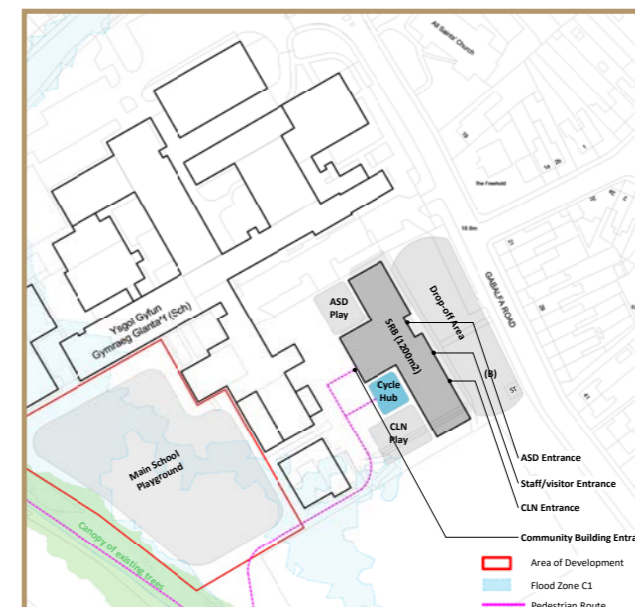
**Option 3**

A simple two storey building, considering the potential connection with the existing school. This option was quickly discounted as one of the ASD & CLN pupils had to be on the first floor.



**Option 4**

This option was proposed as an extension to the school. This option considered direct integration and the demolition of an existing sports store. This option was quickly discounted to the potential costs associated with demolition.



**Option 5**

This option considered an alternative part of the site (outside of the area of development), this was due to the concerns with regards to the SRB approach from the proposed drop-off area. In this option, a drop-off area could be formed to more easily serve the SRB.

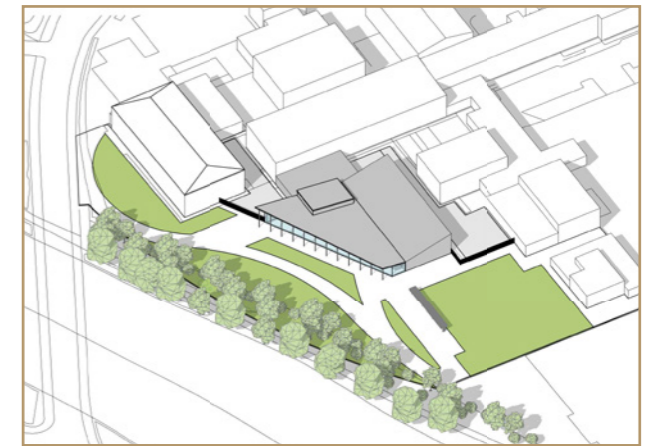


### 3.3 DEVELOPED SITE OPTIONS

In response to the previous options discussed we came up with a number of advanced site options based on the feedback from our initial meetings.

These options considered integration much more, with the possibility of physical connection to the existing school to try and shorten the approach from the proposed drop-off area for the students.

Three options were presented which all had various impacts on the existing school, as well as the wider site and form factors. The form of these options were based on potential impacts on site boundaries, more specifically the south-west taff trail boundary as well as effects on ecology.



This option considered utilising two existing classrooms for the ASD, with a more direct approach from the external and a large reception/entrance area. This helped relieve the footprint on the wider site. It was agreed that the location of the dedicated play areas were not ideal and less of an impact on the existing school should be considered.

Option 1



This option also considered utilising two existing classrooms for the ASD and having both CLN & ASD at either ends of the building, making the community and hall space the 'heart' of the SRB. Architecturally it was felt that the mass could be a simple and cost effective design with the taff trail elevation made more aesthetically inviting for community approach. It was felt that the approach for the CLN users was too long, especially from the drop-off area.

Option 2



This option considered no impact on the existing school, with even approaches for both the AS & CLN pupils. The community element was then based at the south of the site which worked well for the community approach. It was felt that this option had the most potential out of the three.

Option 3



### 3.4 ADVANCED OPTIONS CONSIDERED

In response to the previous meeting where option 3 was preferred, two more slightly more developed option were presented for consideration.

Both options explores a single storey layout intended to link directly to the existing school as illustrated. The ASD & CLN 'wings' have their own entrances off a main circulation area where the SRB pupils would arrive and unwind before entering their designated classrooms.

#### Advantages

- Good community/public access from Taff Trail
- Good distance from south-west boundary line (less of an impact on ecology)
- Hall can be accessed by existing school pupils via an external door from the east
- Good amount of roof area to utilise PV's and potential green roof
- Potential for external canopy on taff trail elevation, helping to reduce solar gain

#### Disadvantages

- CLN play area is enclosed
- Life skills/plant arrangement is not ideal in this layout - to be looked at if chosen

As a preferred layout



Site Plan

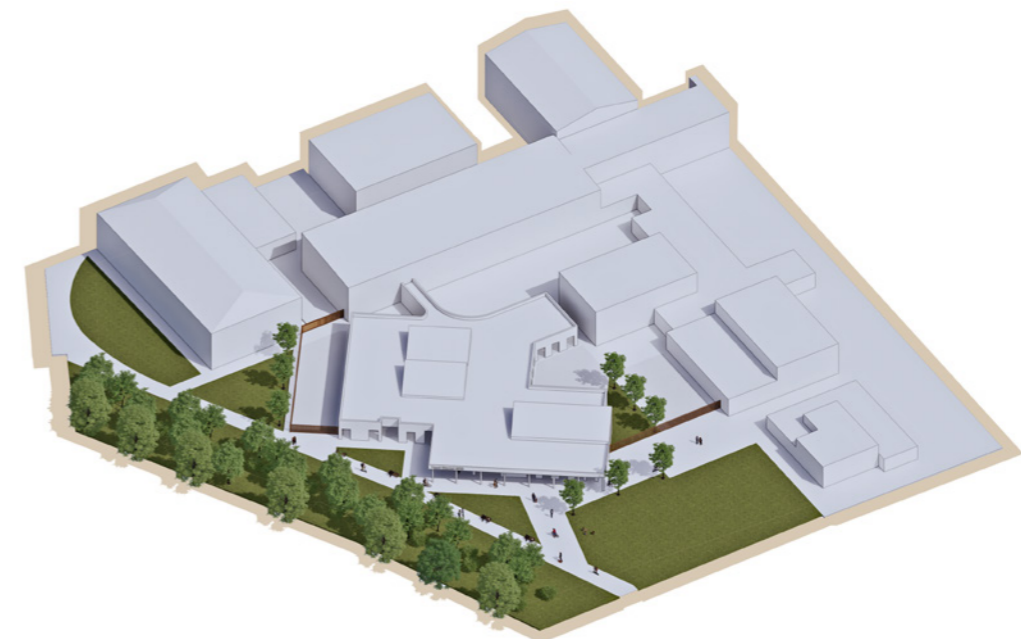


ASD	Shared	Community	Staff	Music	Store
CLN	School Link	WCs/Changing	Plant	Circulation	Cycle Hub

Areas		
Department	Area	Comments
ASD	219.99 m <sup>2</sup>	
Circulation	290.88 m <sup>2</sup>	Does not include school link.
CLN	270.00 m <sup>2</sup>	
Community	171.16 m <sup>2</sup>	
Plant	30.86 m <sup>2</sup>	Based on M&E advice
Shared	125.66 m <sup>2</sup>	Learning kitchen & life skills
Staff	41.67 m <sup>2</sup>	
Stores	52.22 m <sup>2</sup>	
WC/Change	28.44 m <sup>2</sup>	
	<b>1230.89 m<sup>2</sup></b>	

Additional Areas:  
 - School link = 28m<sup>2</sup>  
 - Cycle Hub = 24m<sup>2</sup>  
 - Music = 56.5m<sup>2</sup>

Schedule of Accommodation



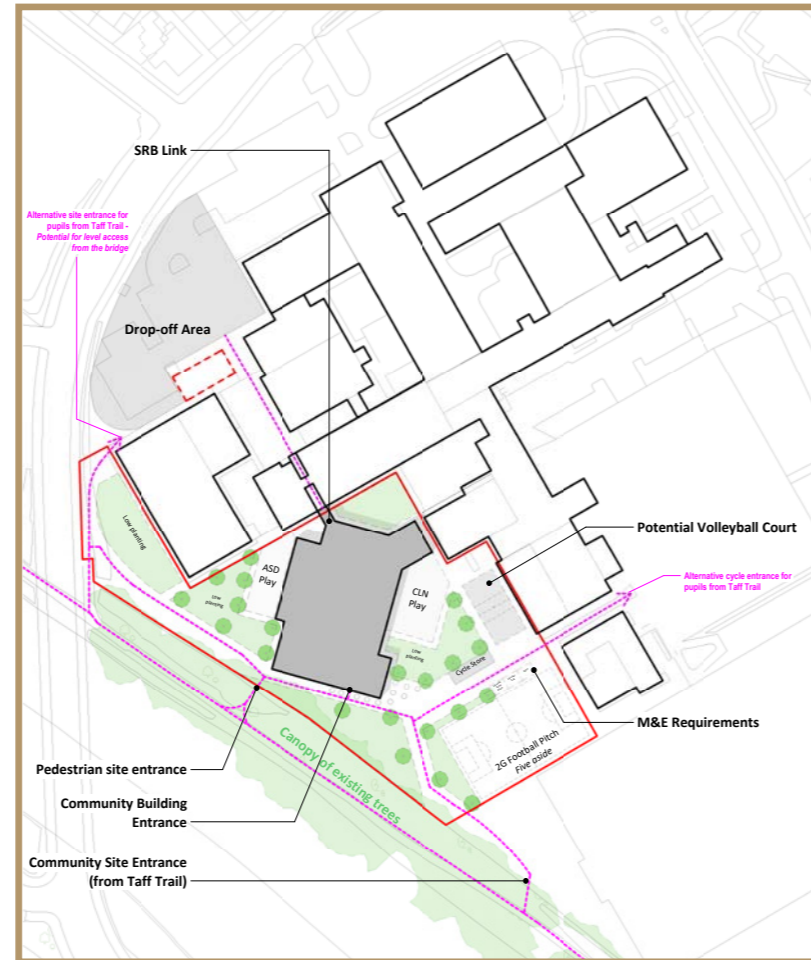
3D Overview

Advantages

- Good community/public access from Taff Trail
- Good distance from south-west boundary line (less of an impact on ecology)
- Hall can be accessed by existing school pupils via an external door from the east
- Good amount of roof area to utilise PV's and potential green roof
- Potential for external canopy on taff trail elevation, helping to reduce solar gain

Disadvantages

- CLN play area is enclosed
- Life skills/plant arrangement is not ideal in this layout - to be looked at if chosen as a preferred layout



Site Plan



During a meeting and presenting these options to Aecom, Cardiff Council and the School, it became evident that all options presented (including previous) were taking up vital external space of the existing school site.

Other points discussed at the meeting were:

- Significant concerns regarding proximity to boundary line (taff trail)
- Music store/room was causing too many issues and potentially needed to be bigger (this was later agreed to be removed from scope)
- WC's to be open plan rather than individual cubicles
- Remove Meeting & Resource rooms and cerate a more flexible 'multi-use' space
- ASD & CLN play area to be shared
- Consider potentially utilising a single classroom for direct connection
- Cycle Hub was to become a 'Music Studio'

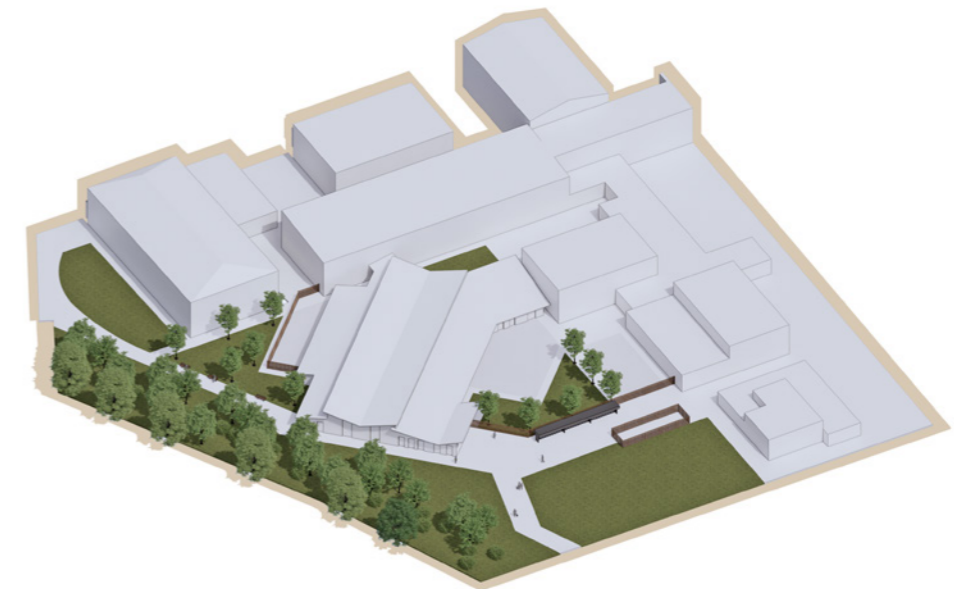
Areas		
Department	Area	Comments
ASD	228.98 m <sup>2</sup>	
Circulation	223.94 m <sup>2</sup>	Does not include school link
CLN	272.32 m <sup>2</sup>	
Community	168.84 m <sup>2</sup>	
Plant	28.58 m <sup>2</sup>	Approx. based on M&E advice
Shared	140.52 m <sup>2</sup>	Learning Kitchen & Life Skills
Staff	26.59 m <sup>2</sup>	
Store	56.85 m <sup>2</sup>	
WCs/Changing	32.84 m <sup>2</sup>	
	1179.48 m <sup>2</sup>	

Additional Areas:  
 - School link = 15m<sup>2</sup>  
 - Music = 75m<sup>2</sup>

Schedule of Accommodation



3D Overview



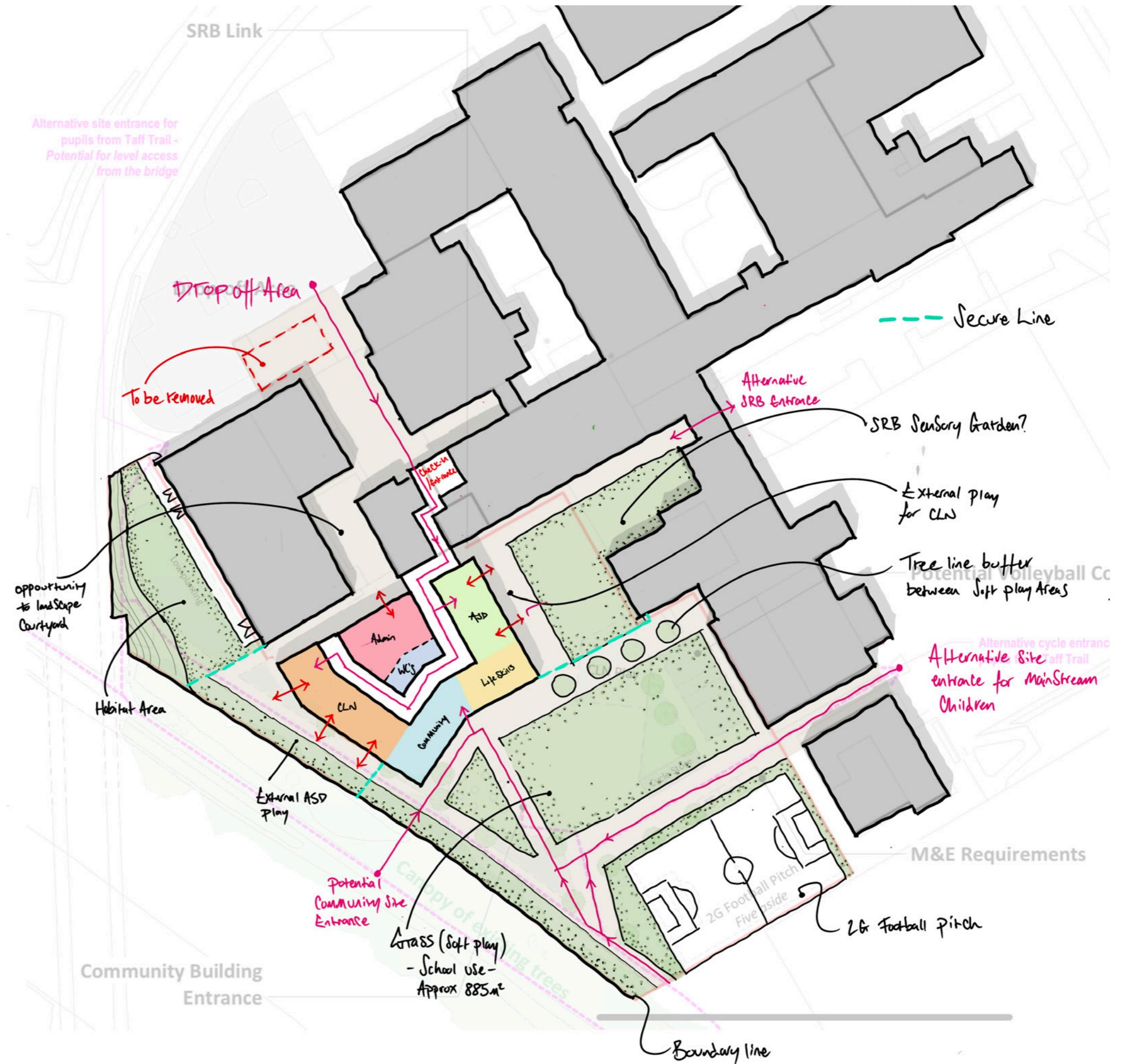
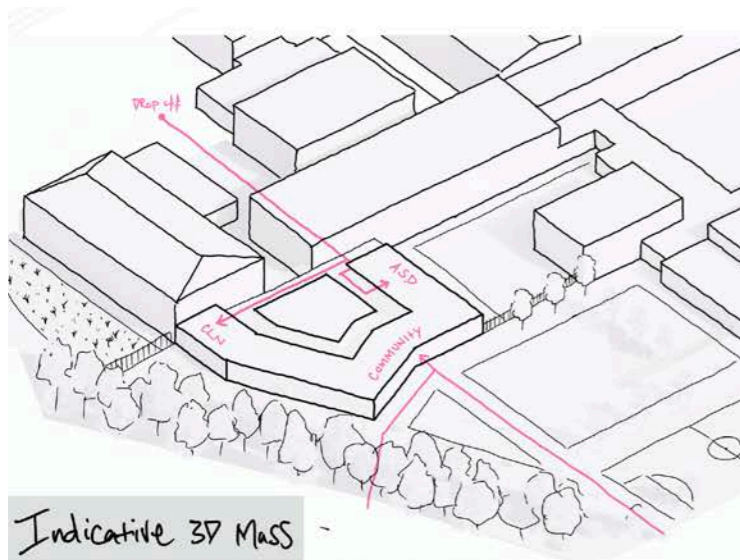
### 3.5 FINAL OPTION

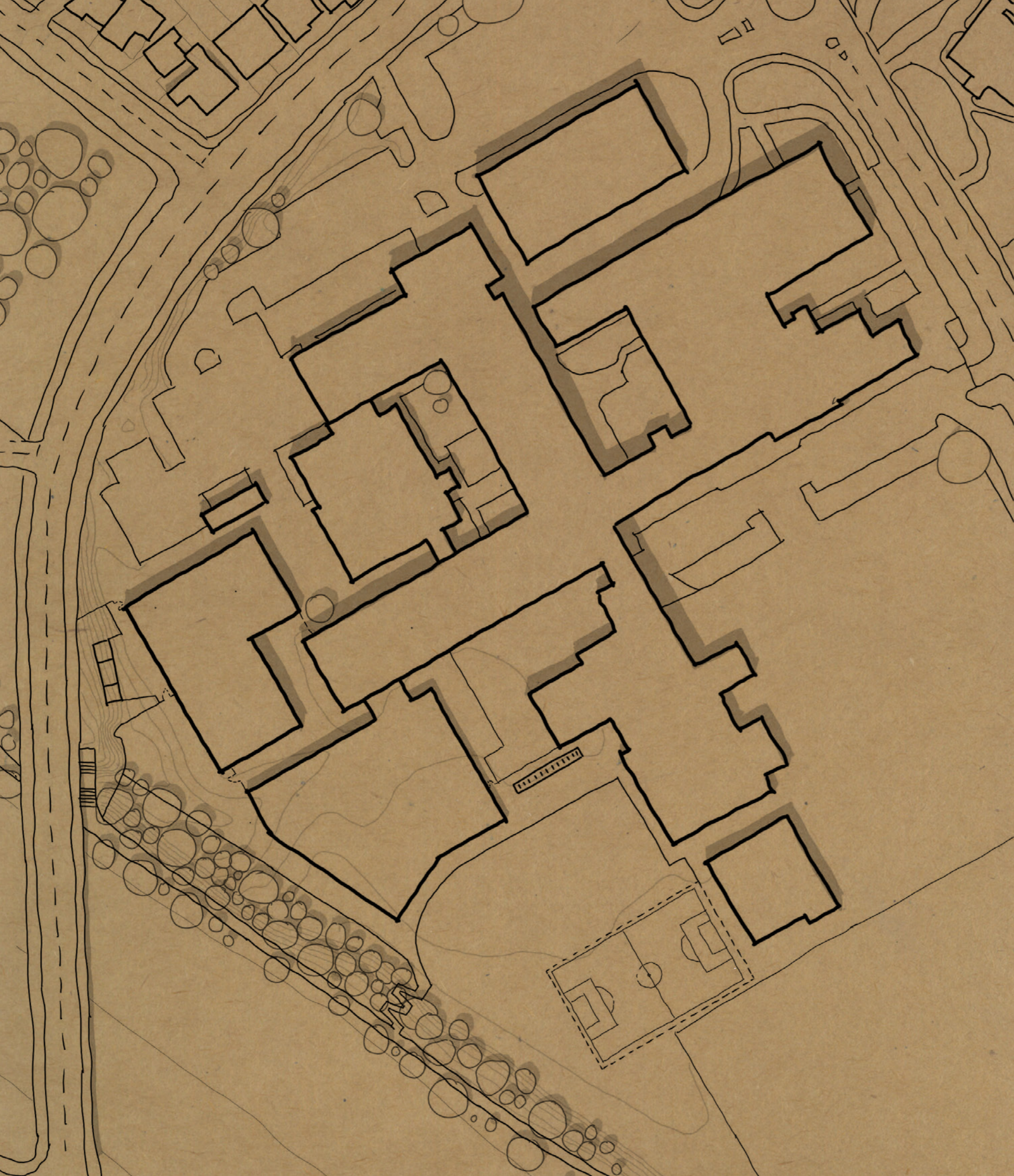
As response to the previous meeting the option to the right was developed to consider minimal impact on the existing school site (soft play) and to create less of an impact on the teaching rooms at ground floor level of the existing school which look directly into the area of development.

During a meeting where this high level option was presented, the team shared the view that this was the right direction to go, as it not only freed up external space for the rest of the school, but also had a physical minimal impact on the existing school building.

#### Advantages

- Boundary: Relieves pressure on boundary
- Location: Ideal location on site in terms of maximising external spaces
- Mainstream soft play: Approx 885m<sup>2</sup> of existing site available to be used by the rest of the school
- Area to north-west (current SRB location): Well situated for potential ecology zone/sensory garden
- Overlooking: 1st floor students of the existing school are not overlooking the SRB as much as demonstrated in the previous options
- Future expansion: Potential for future expansion along the south





4.0

THE DESIGN

## 4.1 SITE LAYOUT

The new SRB is proposed to sit at the western side of site, within an area of existing soft-play that is located between gym, sports hall & Taff Trail.

The new building will form a new base for children with complex learning needs, children with Autism Spectrum Disorder, as well as a community element to help build relationships with the wider community and also act as social enterprise for the children via use of spaces such as the community café, learning kitchen and performance hall.

The aim is for a new drop-off area to be formed within the existing car parking area to the north of the client ownership boundary. This drop off point will lead to a newly formed entrance within the existing school building, whereby the new SRB will be linked via a small glazed passage.

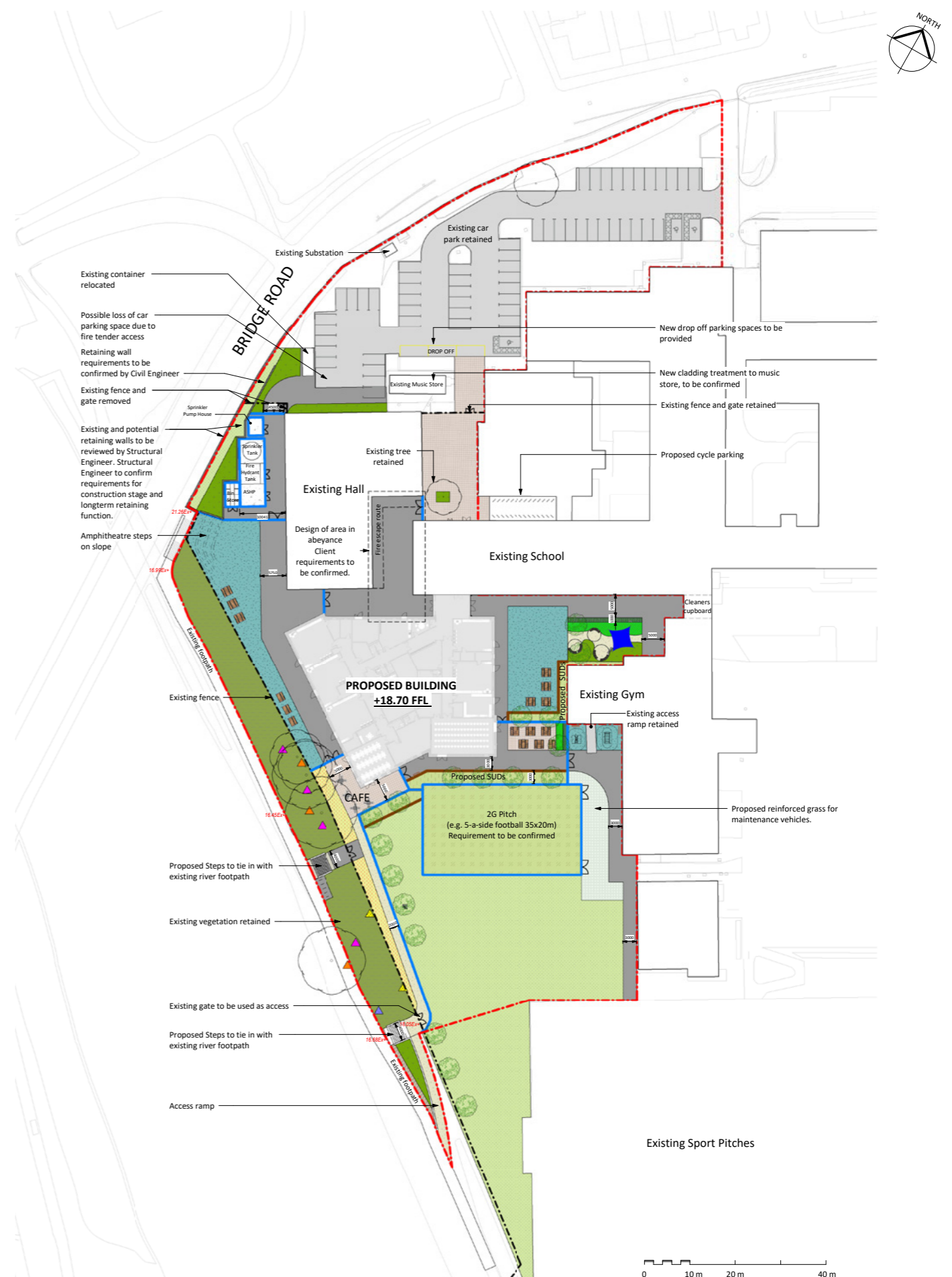
The existing site entrance (vehicular) from Gabalfa road will remain and be utilised for the new drop-off, with a number of newly formed dedicated SRB spaces to be proposed. As well as this, a new turning circle will be implemented, to help ease any potential congestion, as well as making it easier for students to be dropped off either by family, carer's or taxis.

Within the area of development there are two existing demountables which currently house the existing SRB unit, with a small sensory type garden beyond that was formed as part of a the sustainable schools programme. Further to this, along the Taff Trail boundary line, there is dense vegetation, mostly made up of trees and bushes. Along this boundary line, the site starts to considerably slope down to the Taff Trail path, approx. 2m. Please see ecology report for further details.

The community approach is proposed from the existing taff trail, with a new path proposed to be formed from the Taff Trail up towards the new SRB to create an easy access point for members of the local community. Furthermore, adjacent Taff Trail boundary is the proposed

SRB hard play area, this location gives a good amount of privacy for the SRB pupils whilst allowing the front of the SRB to be opened out for use by the mainstream school students.

A sprinkler tank, pump house and air source heat pump enclosure is proposed in the area beyond the hard play area, which lends itself well to external M&E requirements as its hidden away from view from the general public and community, additionally this location is able to serve the dedicated plant room well with regards to shorter services runs.



## 4.2 ACCESS & MOVEMENT

### SITE - PEDESTRIAN MOVEMENT

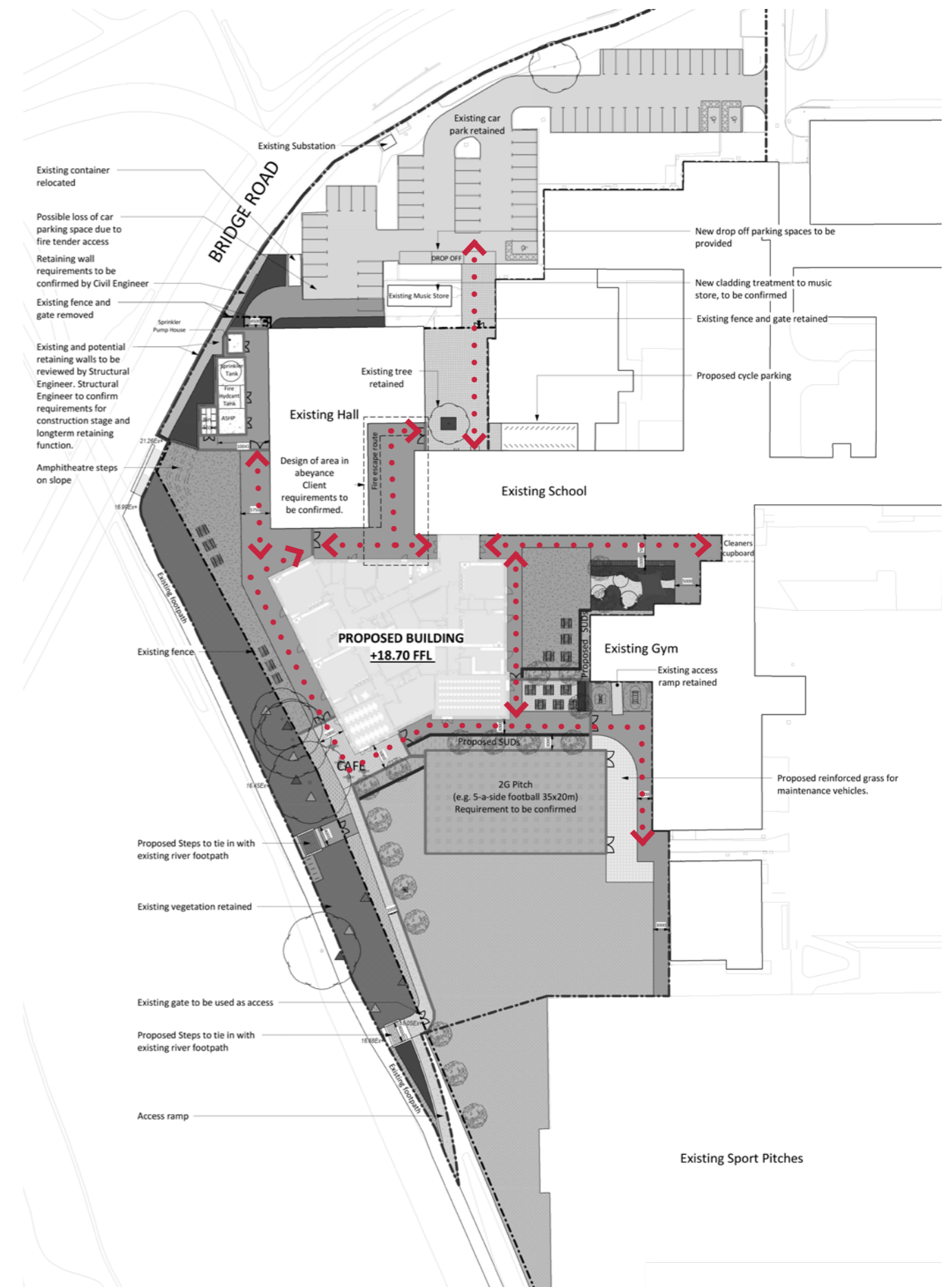
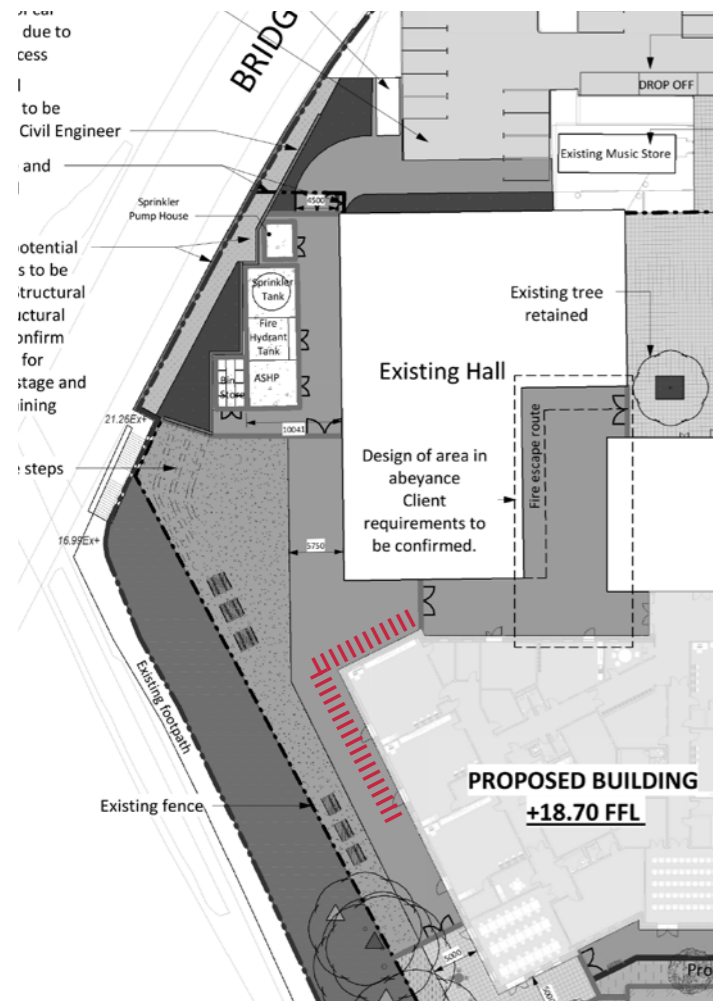


#### FIRE PERIMETER ACCESS

Based on BB100 15% perimeter available for fire tender access is required.

The total building perimeter is circa 160.6m. Therefore 15% = 24.1m.

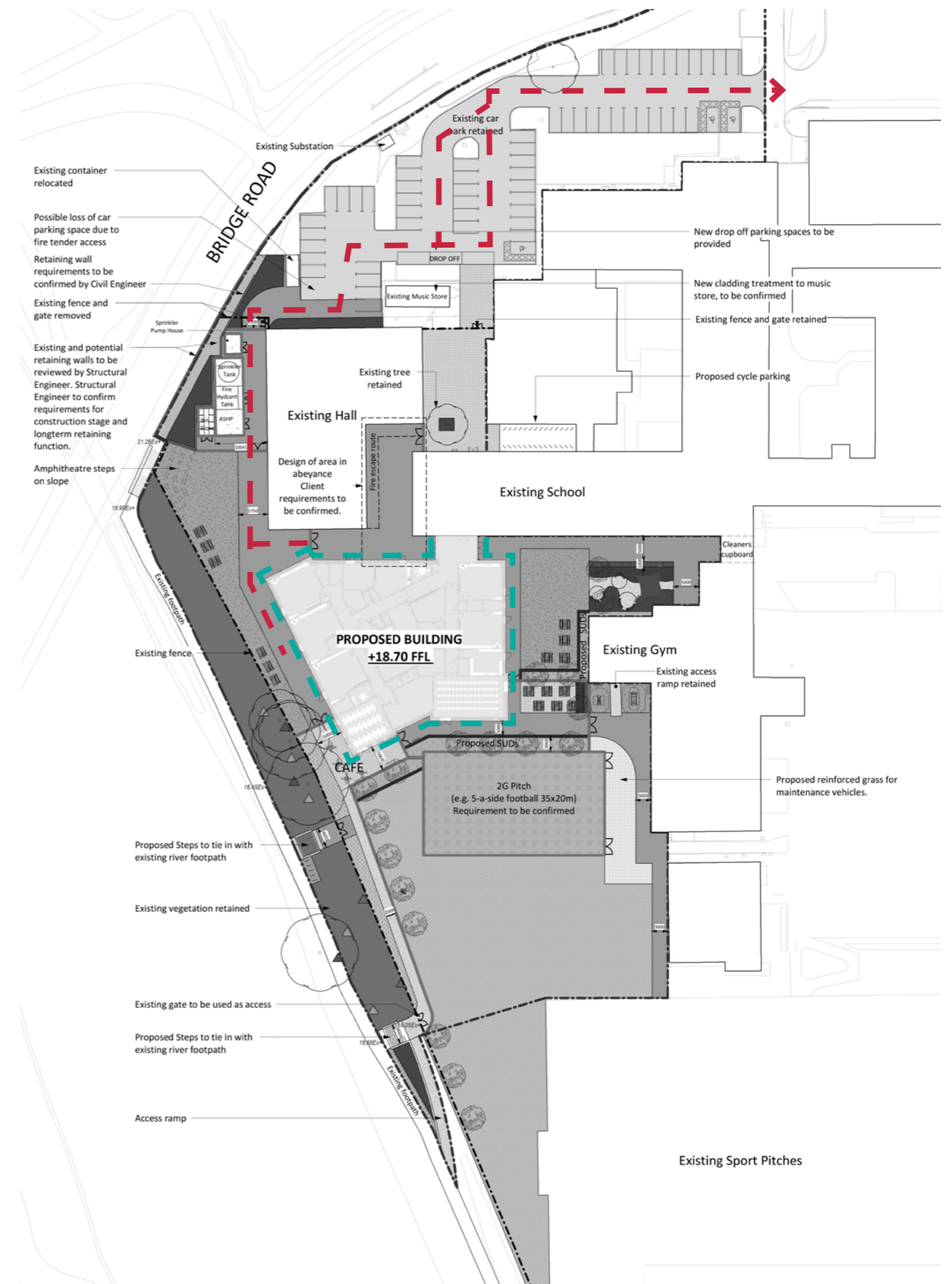
Directly from the car park we have a total of 26.8m available (as highlighted via the red dashed lines below), this is 16.7% of the total building perimeter. See Hydrock fire report for further justification.



## 4.3 ACCESS & MOVEMENT

### SITE - VEHICULAR MOVEMENT

- - - - - **VEHICLE MOVEMENT**
- - - - - **MEWP BUILDING PERIMETER MOVEMENT**



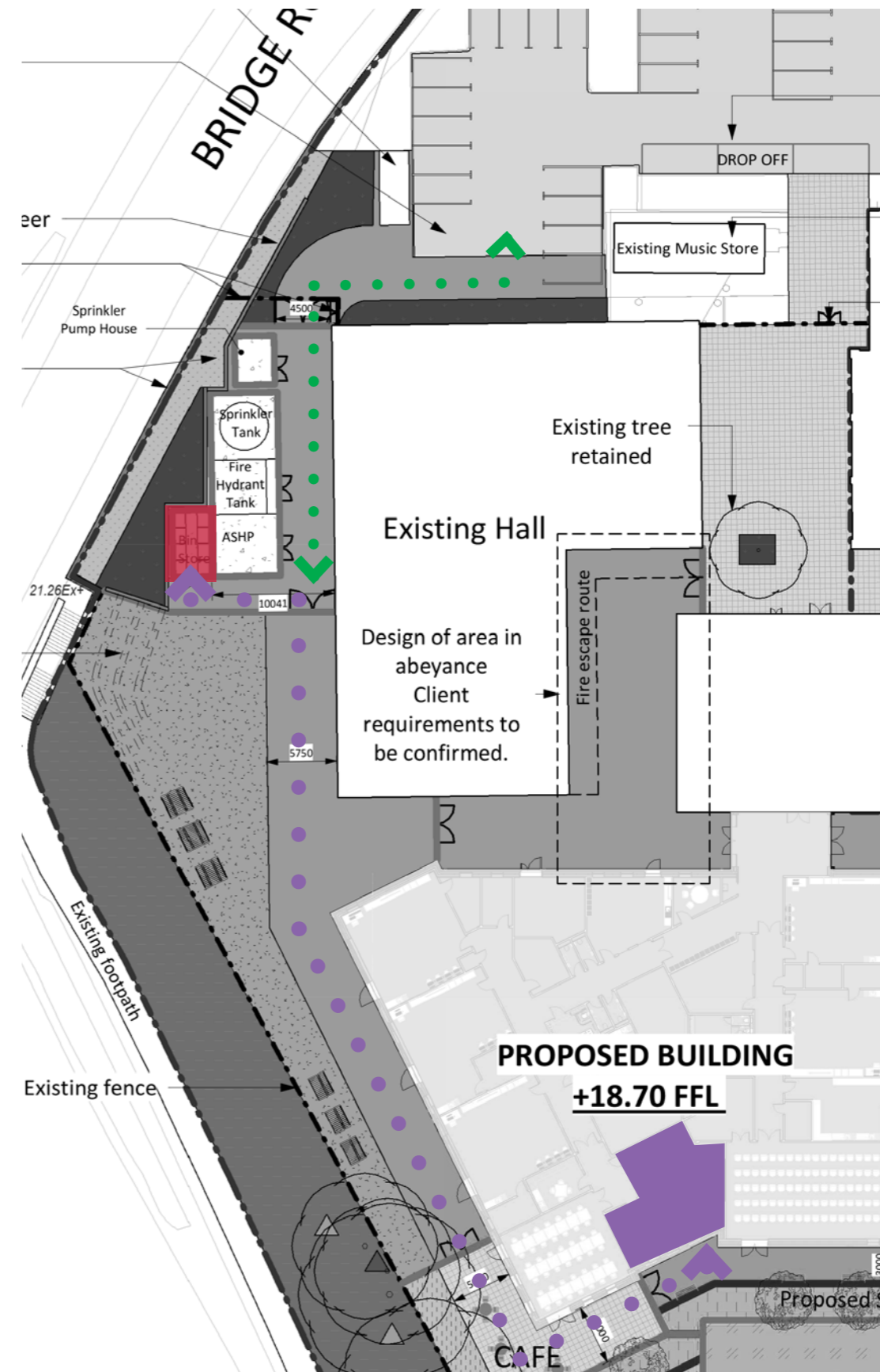
## 4.4 ACCESS & MOVEMENT

### SITE - BIN & REFUSE

- TEACHING KITCHEN LOCATION
- BIN STORE LOCATION
- BIN ROUTE TO CAR PARK FOR REFUSE VEHICLE COLLECTION
- RUBBISH ROUTE FROM THE KITCHEN TO THE BIN STORE

The bin store has been located on the plan as highlighted in red in the image. This location has been chosen for the proximity to the building, kitchen and accessibility for waste vehicles.

During the next design stage further details will need to be developed including the number of waste receptacles required. This includes both general waste and recycled waste.





## 4.5 FLOOR PLANS

The proposed layout houses a number of key areas for the SRB; **CLN, ASD, staff & community**.

As an SRB building user, the primary entrance is via the existing school from the north. The main entrance is via a glazed link where you enter into an open area (control point), here you have the option to use the locker area for clothing and baggage storage, and you then have the choice to either go down the ASD or CLN 'wings'.

The ASD 'wing' consists of a common room, 2 classrooms, breakout rooms and art & DT room.

The CLN 'wing' consists of a number of varied space such as:

**-3 x Classrooms** each with a breakout space

**-Sensory room.** This area will provide a space for physical and mental stimulus to help students develop their senses of touch, sight and hearing

**-Soft play room.** This area will provide the CLN students a space for various types of soft play furniture, helping to develop motor skills and bodily awareness

Further to this, there are a number of shared spaces (in yellow) that can be used by both the ASD & CLN students. These shared spaces are:

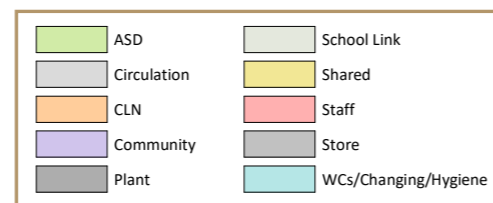
**-Life skills & Utility.** A space for students to learn important life skills such as cooking, washing, folding clothes and making beds. These skills will help the students develop a sense of independence and will be key to their future beyond the new Glantaf SRB.

**Art & DT.** A creative space for art and DT activities.

**-Learning Kitchen & Cafe.** The learning kitchen sits between the main performance hall and community café. Catering & hospitality education will help the students develop important life skills such as team work and communication. The community cafe space is anticipated to be used by members of the public who will be prominently arriving from the Taff Trail. This will link the SRB to the wider community. This is an opportunity to establish "social enterprise" with focus on pupil development and progress. Catering & Hospitality education would be a real benefit to promote life skills, teamwork, communication and wider key skills as well as a setting for community partnership links. The logistics of the cafe space is to be determined with the client. The learning kitchen equipment is to be developed at the next stage.

**Multi-use space.** This area is aimed to be flexible in terms of its use and also the people who use it. There is an opportunity via the use of access control that this space could be used by staff in the event of meetings, alternatively this space can also be used by the students as a large breakout area.

There are a number of storage areas and WC's strategically located throughout, including a visitors WC for the community café.



## 4.6 CONNECTION WITH EXISTING SCHOOL

The new entrance to the SRB will be via the existing school building. As indicated on the drawing to the right, there will be an element of refurbishment required to allow for a seamless connection between the drop-off area proposed to the north of the plan and the proposed linked connection of the new SRB.

The aim is to create a new double door entrance within the existing external wall noted on the right. These double doors will take you through a newly formed corridor and into a large open 'decompression space'. The aim of this transition space is to give the SRB users a sense of arrival before actually arriving into the SRB building.

This newly formed transition area should be designed to provide easy way-finding as well as a range of sensory textures to change the reflectance and absorption of sound as you enter the SRB. Touch will be an important sense to allow for in the design. There will need to be a controlled approach such as including changes to sight, sound and touch. Each area should have a distinct feel that identifies each of the spaces for the CLN or ASD pupils.

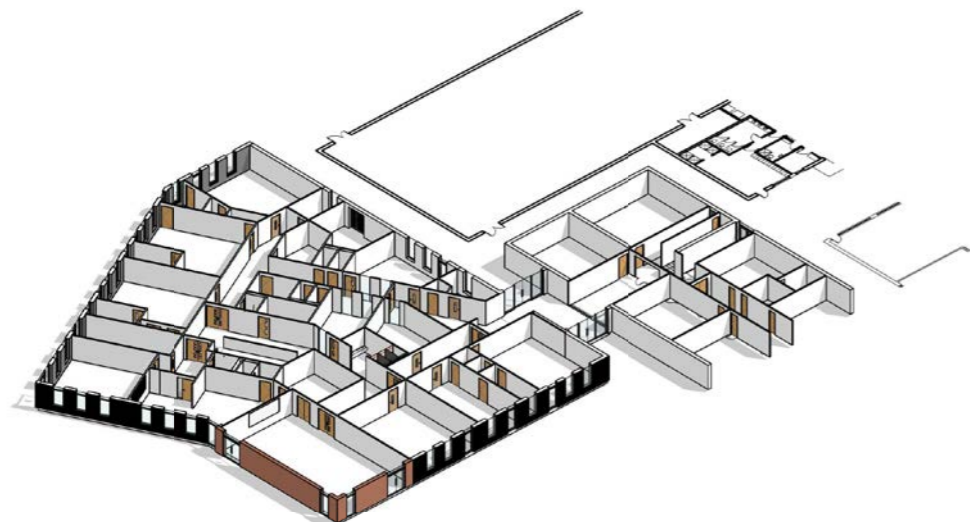
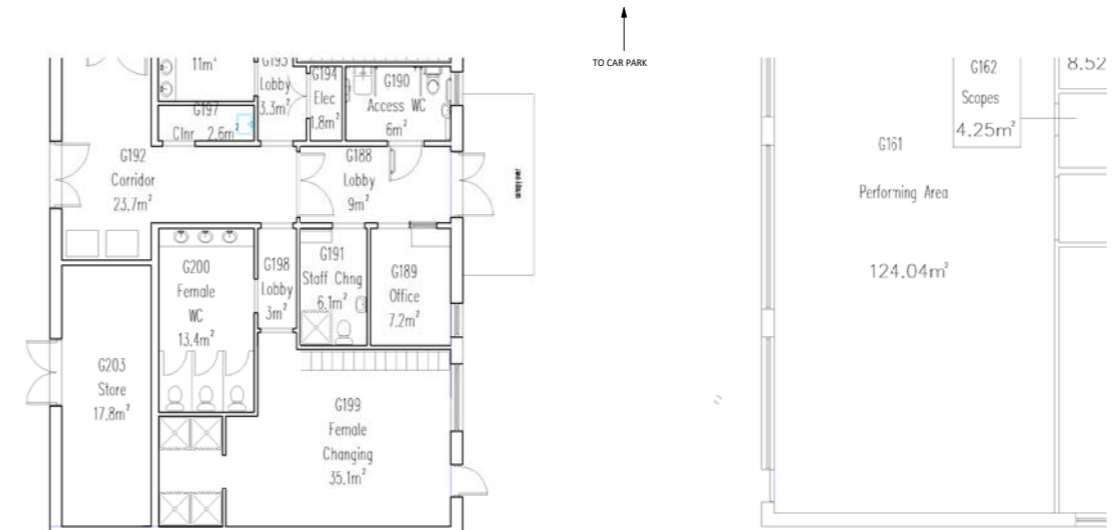
A number of minor alterations will be required as highlighted in the drawing to the right. Classrooms G137 & 133 will be reduced as a direct implication of the new entrance route required:

G137 - Approx. Existing size = 65.5m<sup>2</sup>  
 - Approx. Proposed size = 46m<sup>2</sup>

G133 - Approx. Existing size = 49m<sup>2</sup>  
 - Approx. Proposed size = 38m<sup>2</sup>

Store rooms G132 & G138 will also be lost as a consequence. Furthermore, the existing double doors to the stair core will need to be set back as indicated in the drawing, this is to allow for an easier flow of foot traffic.

*The above text and content of the drawing are both subject to a review by a fire consultant.*



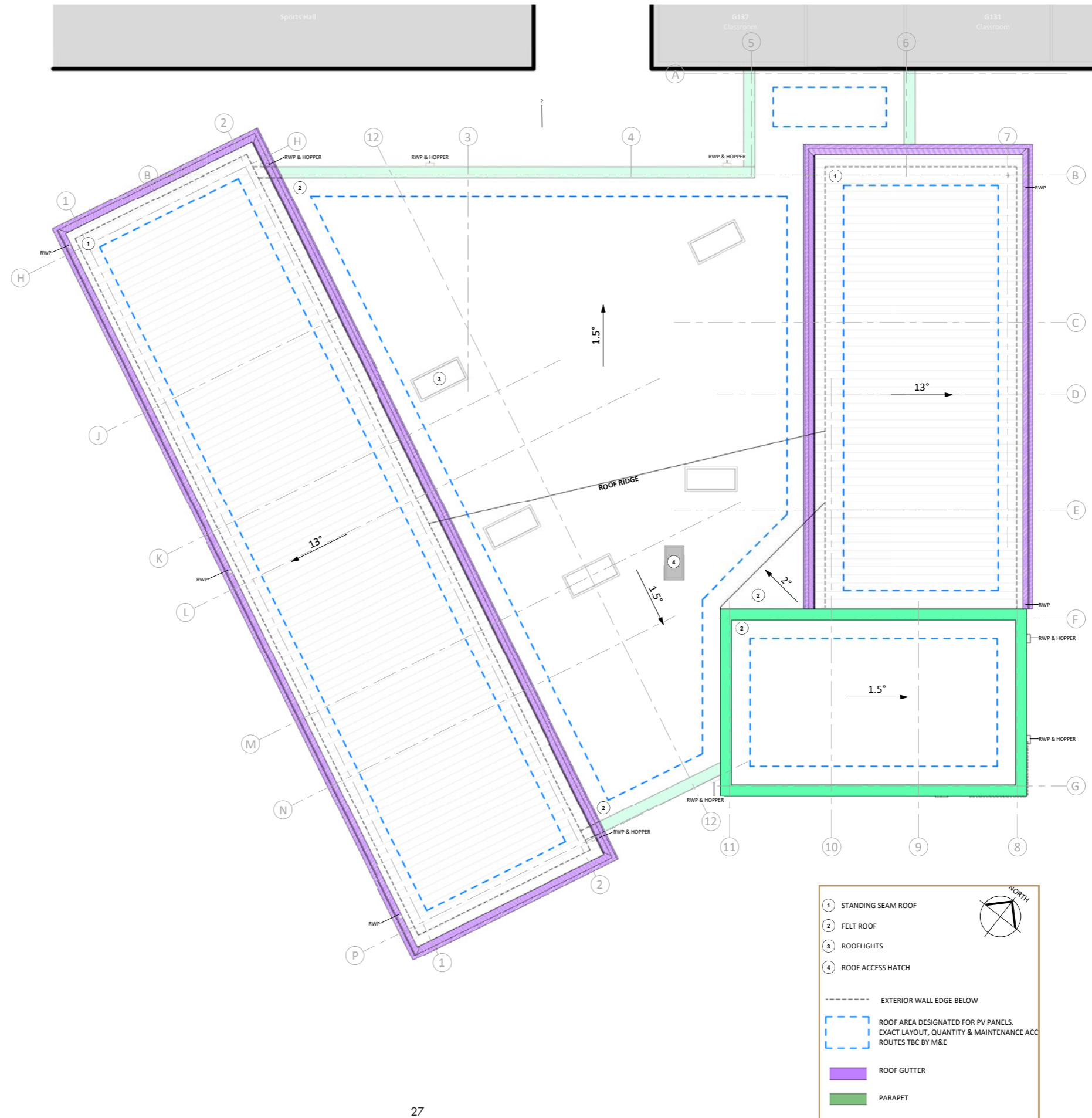
## 4.7 ROOF PLAN

The roof is made up of three main elements;

- 13 ° roof pitch to the perimeter spaces
- Flat roof (1.5 °) to the performance hall
- Flat roof (1.5 °) to the central space, with strategically placed roof lights to key spaces below

It is anticipated that where possible, the roof will be utilised for PV's, locations and quantities TBC by M&E.

Previously there was a design aspiration to include green roofs into the scheme. This element did not make it through as it was not financially viable due to the system cost and the uplift in structure this would have attracted. It was also dismissed as the roofs are anticipated to be covered in PV's (locations TBC) and therefore there would be little space left over to allow exposed green roof, again adding to this element being discarded.



## 4.8 ELEVATIONS

The new SRB block will be a single story building that can be read as two teaching wings either side of the performance hall.

A limited materials palette has been proposed to reference existing materials on site and allow for cost efficiency.

The proposed roof form is low pitched metal standing seam, similar to that of the existing school across the teaching areas.

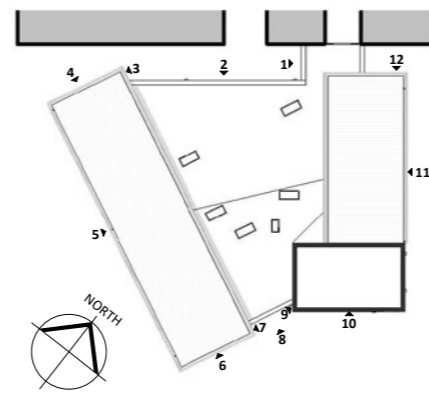
The taller performance hall is expressed as a larger box element with its (flat 1.5 degrees) roof sat behind a brick parapet.

Facing brickwork is proposed as the predominant elevation material. A change in brick colour is proposed to differentiate the teaching spaces from the performance hall. The performance hall will also have a feature dental course brickwork corner adding texture and shadows to the facade.

Brick has been selected as its a robust material that works well in education settings.



- 1 FACING BRICKWORK - BUFF COLOURED
- 2 FACING BRICKWORK - DARK GREY/BLACK COLOURED
- 3 STANDING SEAM ROOF
- 4 LOUVRES
- 5 PPC ALUMINIUM FRAMED WINDOW/CURTAIN WALL/DOOR/LOUVRES - DARK GREY
- 6 COLOURED SPANDEL PANELS (COLOURS TBC)
- 7 SIGNAGE - INDICATIVE ONLY TBC
- 8 RAINWATER DOWNPIPES - DARK GREY
- 9 DENTAL COURSE BRICKWORK FEATURE (STARTING HEIGHT TBC)
- 10 CLERESTORY GLAZING IN COMPOSITE CLADDING PANELS



Elevations Key

## 4.9 MATERIALITY

All COLOURS TBC BY CLIENT



Buff Mix brick



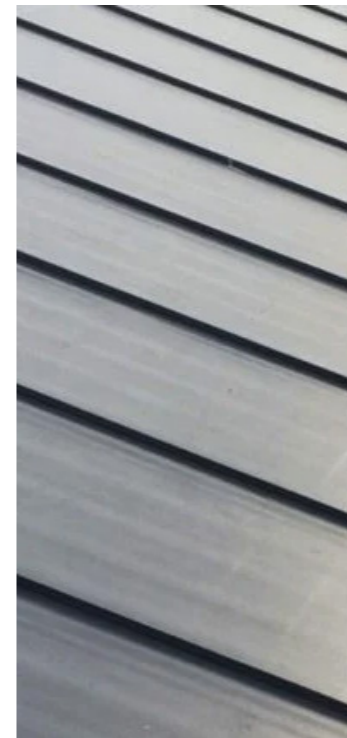
Dark Grey/Black brick



Orange Spandrel Panels



Yellow Spandrel Panels



Dark Grey Standing Seam



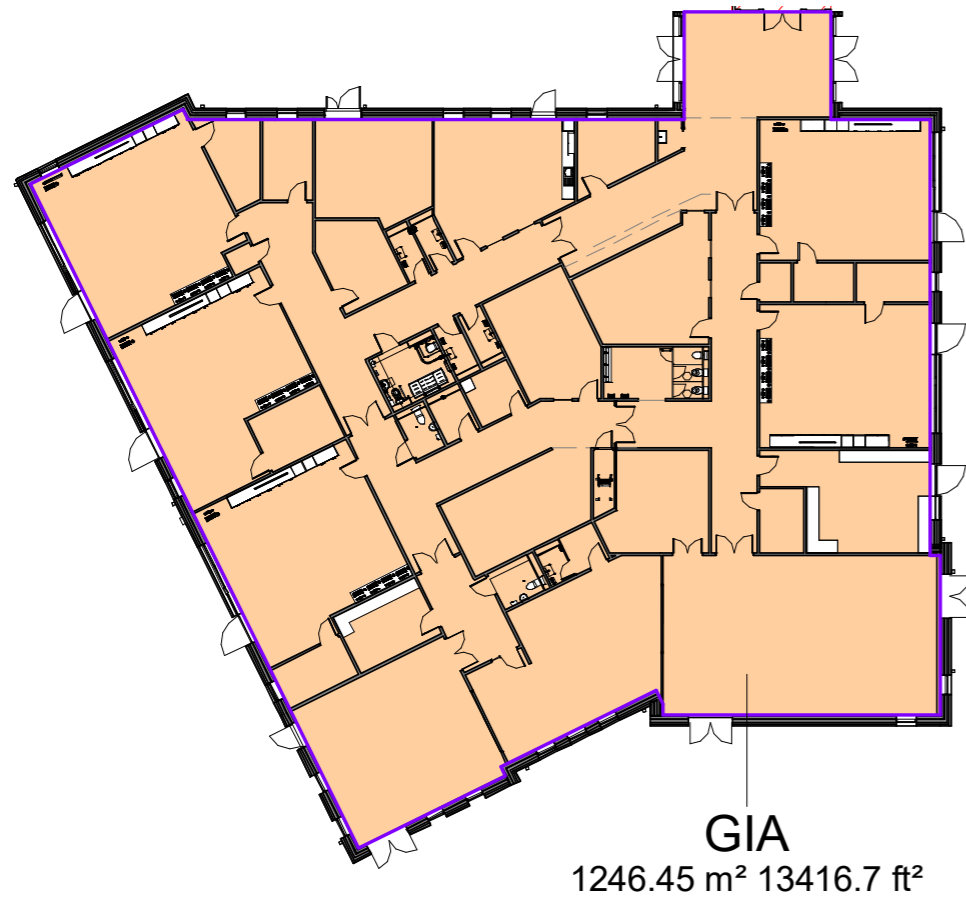
Anthracite Dark Grey  
Cladding to Clerestory windows  
Spandrel panels  
Window & door frames

The current proposed materials are shown to the left. This pallet has evolved from earlier designs and evolved through design development.

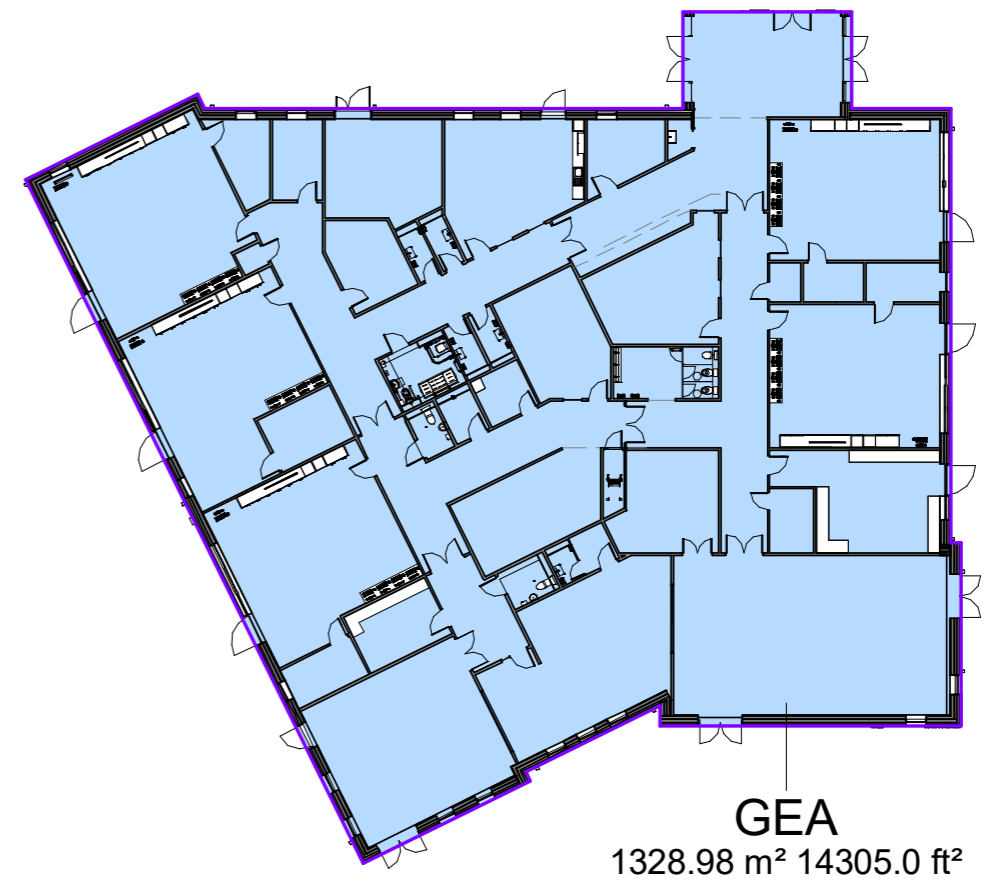
Previously there was a timber facade proposed, this is replaced by brick due to its robustness and non-combustibility. Bricks robustability is more favorable in a school setting that timber and will last allot longer with very little ongoing maintenance required. The buff colour brick was chosen to softly blend the building into the landscape, whilst this is juxtaposed to the performance halls dark grey/black brick to announce its presence which provides a strong anchor to the building design and composition.

## 4.10 GIA & GEA

**GIA - GROSS INTERNAL AREA**



**GEA - GROSS EXTERNAL AREA**

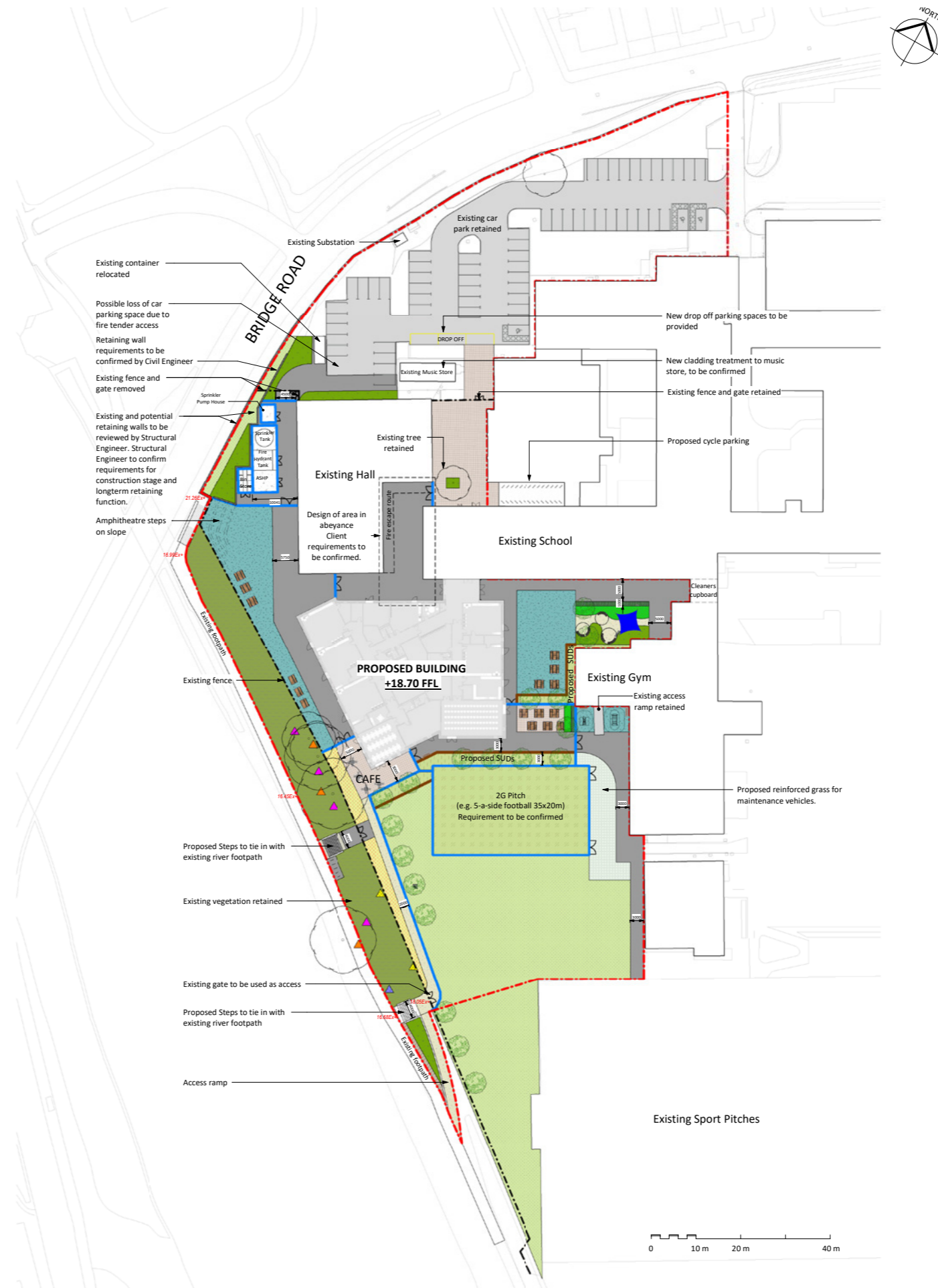


# 4.11 SITE PLAN

## The Landscape Site Plan

The landscape of Ysgol Glantaf SRB has been designed to respond to its urban context as well as considering the following design criteria:

- Providing fun and safe spaces for the pupils to play in, together with creating enriching environments for learning.
- Providing a sense of arrival and community space from the River Taff Trail.
- Maximising areas of soft landscape, in particular ecological enhancements.
- Promote and maximise sustainable drainage on site.
- Offering a secure environment, for daytime and night time use.
- Facilitating easy access and servicing to the site and new building.



### LEGEND

- Site Boundary
  - SOFT LANDSCAPE**  
Refer to Soft Landscape Plan for details, dwg no. GSRB-STL-XX-XX-DR-L-9020
    - Existing trees to be retained
    - Proposed trees
    - Existing Planting retained
    - Proposed hedge planting
    - Proposed ornamental shrub and herbaceous planting
    - Proposed sensory planting
    - Proposed rain garden / SuDS
    - Grass
    - Wildflower and species rich grass mix
  - HARD LANDSCAPE**  
Refer to Hard Landscape Plan for details, dwg no. GSRB-STL-XX-XX-DR-L-09160
    - Proposed asphalt surface to pedestrian areas  
Heavy duty build-ups will be required to servicing, maintenance and emergency access zone. Refer to Engineers plans for details
    - Proposed asphalt surface to vehicular areas
    - Proposed resin bound paving
    - Proposed paving
    - Proposed reinforced grass for maintenance access
    - Proposed concrete slab to service area
    - Proposed wetpour
    - 2G sports pitch
  - FURNITURE**  
Refer to Furniture Plan for details, dwg no. GSRB-STL-XX-XX-DR-L-????
    - Benches
    - Curved benches
    - Tables and benches
    - Canopy
    - Outdoor gym equipment
    - Cafe style tables and seating
    - Sheffield cycle stands
    - Knee rail
  - FENCING**  
Refer to Landscape Hard Layout Plan for details, dwg no. GSRB-STL-XX-XX-DR-L-09180
    - Existing Boundary Fence (to be retained)  
Repairs and making good as required.
    - Proposed Fencing
  - ECOLOGICAL ENHANCEMENTS**
    - Bird box (mounted on existing trees)
    - Bat box (mounted on existing trees)
    - Log piles
    - Hibernaculum
    - Bee bank (bare earth)
- NOTE:**
- For levels and drainage information refer to engineers plans and details.
  - All roof rain water run-off to discharge via green roof system or rain gardens.
  - All other landscaping borders are purely ornamental with no dual drainage function.

## 4.12 LANDSCAPE STRATEGY

### Site Security and Pedestrian Circulation

Secure fencing has been considered to ensure pupils, staff and visitor safety is maintained at all times. Where possible, the secure line is softened by planting. Pedestrian access will be prioritised through the sites entrances. The provision of cycle facilities has been considered for staff and visitors within the school grounds.

### Soft Landscape Materials and Ecological Enhancements

The soft landscape design will aim to provide a planting structure that brings seasonal colour and interest to break up the hard surface finishes and enhance biodiversity across the site. New tree planting, areas of native and ornamental shrubs will aid the visual and ecological enhancements. Tree planting will help to avoid solar gain, provide shade in the playground for the pupils and form a connection to the riverside footpath treescape.

Existing trees and habitat area have been retained wherever possible.

Biodiverse swales (urban rain gardens) will be implemented to aid site drainage, together with providing seasonal planting beds.

Recommendations from the ecology report will be incorporated in the landscape design such as bird boxes, insect hotels and native planting to enhance biodiversity.

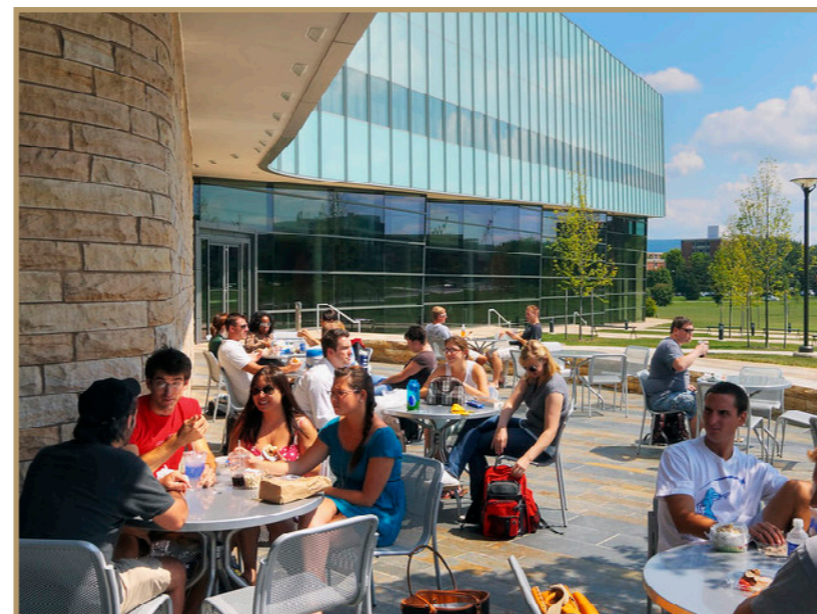
### Hard Landscape Materials

The landscape plan will focus on utilising a number of mixed material surfaces to provide varying spatial, physical and contextual experiences. These include contemporary block paving to the new entrance plaza and outdoor cafe zone. Colourful play surfacing will be used in the central play spaces. Robust asphalt

paving will be used for outdoor learning spaces, as well as circulation routes around the existing and new school buildings.

### External Furniture and Play Features

New contemporary and robust furniture will be implemented such as benches, picnic style tables and benches. Outdoor gym equipment will be provided to further enhance the sports provision within the school grounds. Cafe style seating will be implemented in the outdoor cafe zone.





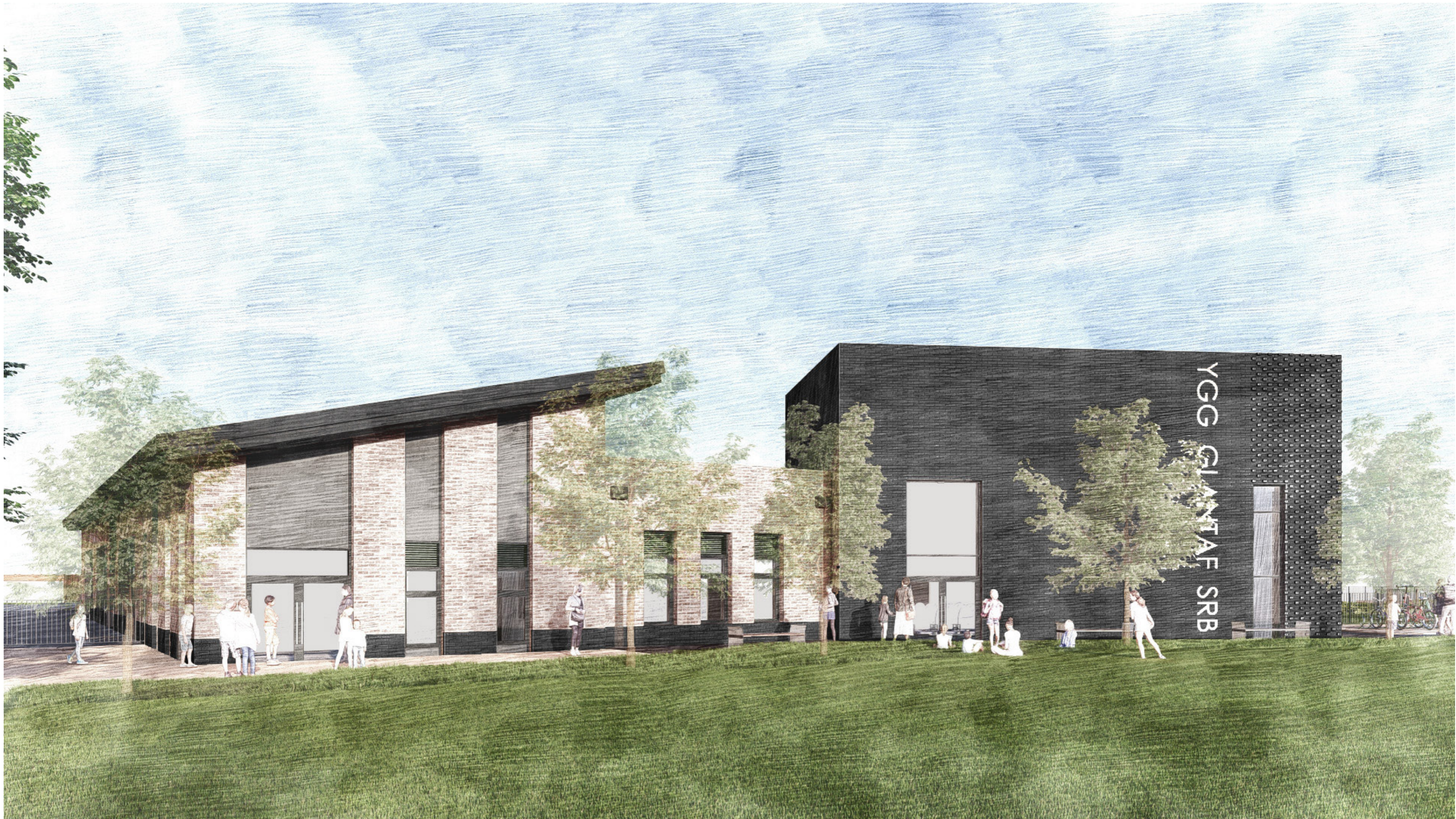


5.0

**VISUALISATIONS**

## 5.1 VISUALISATIONS

### VIEW FROM THE PLAYING FIELDS



## 5.2 VISUALISATIONS

### PERFORMANCE HALL FEATURE CORNER



## 5.3 VISUALISATIONS

### VIEW FROM THE PLAYING FIELDS



## 6.0 INCLUSIVE DESIGN

The scheme has been developed to provide access to all which embraces inclusiveness.

At this design stage our proposals have addressed the key issues of entrances, circulation and all necessary sanitary provisions. The scheme will meet the requirements of the Equality Act 2010.

### SITE WIDE

On three sides the site is surrounded by an existing road and pedestrian path network.

Access to the site will be via foot, cycle, car or local bus network. The building will have level thresholds to ensure easy access for all.

Legibility and accessibility has been designed into the overall site landscape strategy. The majority of visitors/occupiers will access the site via the main school entrance at the east or dropped of to the car park situation to the North. Landscaping/signage will guide you towards the new SRB building. Externally, disabled parking spaces will be required in accordance with Part B and will be located in the northern existing car park.

### VERTICAL CIRCULATION

There is no vertical circulation as the building is single storey.

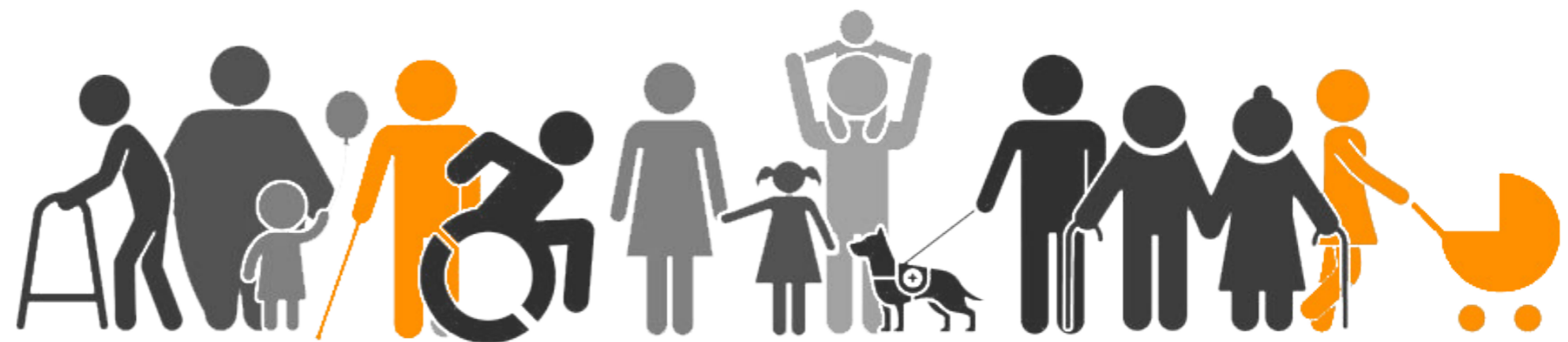
### VISUALLY IMPAIRED

Internal spaces will be well lit and, wherever possible, they will be naturally lit by the presence of windows. Colour selection will comply with the recommendations of BS 8300 regarding the visually impaired, and ensure compliance with Part M of the Building Regulations.

### BUILDING REGULATIONS PART M

The project will need to comply with all parts of the Building Regulations. The proposals comply with the current requirements of the Approved Documents in Part M of the Building Regulations. The Contractor will be responsible for meeting all regulations and guidelines for access for disabled people both internally and externally. The Contractor must comply with best practice in relation to access for disabled people including the following technical guidance:

- Approved Document to Part M of the Building Regulations, 2004 edition incorporating 2010 amendments
- BS 8300:2009+A1:2010

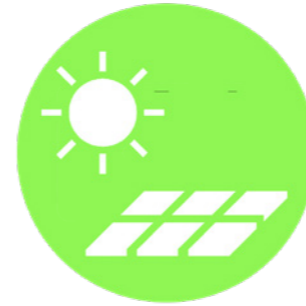


## 7.0 SUSTAINABILITY

**PROJECT AIM** - For the building to go towards achieving Net Zero Carbon.

### HEATING

- Air source heat pumps (ASHP's) will provide heating and cooling for the building. There is no gas. The classrooms will also have a NVHR system. MVHR's are also proposed where natural (NVHR) systems are not viable.



### RENEWABLE ENERGY

- PV's will be located on the roof

### BREEAM EXCELLENT TARGETED

A few of the credits targeted by the design team are -:

- ENE04 - Passive Design Analysis
- MAT01 - Building Life Cycle Assessments (LCA)
- MAT06 - Material Efficiency



### SOFT LANDSCAPE MATERIALS AND ECOLOGICAL ENHANCEMENTS

- The soft landscape design will aim to provide a planting structure that brings seasonal colour and interest to break up the hard surface finishes and enhance biodiversity across the site.
- New native tree planting, wildflowers, areas of native and ornamental shrubs will aid the visual and ecological enhancement.
- Recommendations from the ecology report have been incorporated in the landscape design.



**Wildflower planting**



**Insect hotels & potential beehives**



**Tree log areas to create habitats**

## 8.0 CONCLUSION

This design and access statement offers an overview of the architectural journey and design.

The 60 pupil place SRB building will have 5 classrooms & additional supporting rooms for ASD & CLN pupils along with approximately 22 staff.



# STRIDE TREGLOWN