

Introduction



Welcome to Fred Longworth High School. I am proud and privileged to be the Headteacher of such a dynamic and forward-thinking school. Our aim is simple – to inspire all our students to achieve their best through “belonging, engaging and succeeding together”. We ensure our students experience a truly great education; as a result, they flourish academically, shine personally and are prepared for a happy and successful adult life.

At the heart of our success is a rich and varied curriculum, delivered by a team of highly committed, dedicated and enthusiastic teachers. Visitors to Fred Longworth frequently comment upon the happy, purposeful atmosphere around school and the excellent behaviour of our students.

Not only do our team work hard to ensure students achieve great academic standards, they are also fully committed to providing educational and extra-curricular experiences that support our students’ personal and social development. Each student is treated as a unique and valued individual and their talents and abilities are nurtured both within and outside the classroom.

We place an emphasis on high standards, a strong commitment to building good working relationships between staff and students and the excellent support we receive from parents. We constantly seek ways to foster a real sense of community spirit for students, parents and staff and our students thrive within this supportive environment.

Paul Davies
Head Teacher **Fred Longworth High School**



This is a fantastic opportunity for the school and will enable us to provide the modern, state of the art facilities that our students and staff deserve.

A lot of hard work and planning has taken place so far to put the school in a position to replace our building stock, most of which are mid-sixties Intergrid style blocks. We have just completed a £3.3m project to replace the Maths & Humanities block and are now excited to be replacing the remaining buildings.

Great things already happen here at Fred Longworth and this rebuilding project will complete our property strategy to create a modern, efficient and engaging learning environment to enable us to raise the bar even higher. It’s certainly going to be an exciting few years at Freddie’s as we see the new school develop.



Paul Davies
Head Teacher



Alex Gallimore
Director of Business and Finance

Timeline:

Initial development of proposals	July & August 2021
Local engagement sessions	Late August
Submit planning application	03 September 2021
Period for consideration	15 Weeks
Planning Committee meeting	January 2022
Start of construction	April 2022
School opens	September 2023

Next Steps

It is intended that a Planning Application will be submitted to Wigan Council Planning Department on the 3rd of September 2021. The Local Planning Authority will then provide an opportunity for members of the public to comment on the final proposal submitted to the planning portal.

We welcome your comments on the new school building which is to be in a new position on the existing school grounds. Comments can be made by completing the feedback forms available here in person or via our online survey. The web address to view the consultation boards and complete the survey online is listed on the feedback form.

The web address is: flhs.org.uk/public-consultation

Alternatively, you can email or post your comments to LSH (Simon Peake Associate Director Planning, Development and Regeneration) to the addresses below:

- 6th Floor, 3 Hardman Street, Spinningfields, M3 3HF
- Email: SPeake@lsh.co.uk

Closing Date: 27th August 2021



Fred Longworth High School in Tyldesley

Redevelopment of existing campus

Where will your new school be? What is the proposed new layout

Development of a collegiate campus - collegiate buildings dispersed to work within the existing school context

New L shaped Academic block completes the square and create an intimate courtyard of space between existing buildings

Large provision of photovoltaic panels and other sustainable features to achieve the Department for Education sustainability criteria and the Net Zero Carbon in use target

New main buildings material palette has been selected to complement the existing Fred Longworth retained buildings and elements of the brick built context

Inclusion provision reprovided in new academic building. Dedicated landscape space provided for the inclusion centre

Please refer to the environmental strategy boards

Please refer to the elevations in context and the material palette boards

Please refer to landscape and ecology boards

Newly completed block to house maths and humanities

New porous macadam 3 court multi use games area (MUGA)

Loss of sports pitch reprovided once the existing school is demolished - see phasing board

Enhanced pedestrian crossing points on Printshop Lane

Improved visitor parking (12 spaces and 3 accessible spaces) and drop off route for pupils

Public right of way maintained during and after construction

The arts block is retained and acts as a strong book end fronting Printshop Lane



Indicative Aerial Visual



Landscape Masterplan

What is the construction plan?

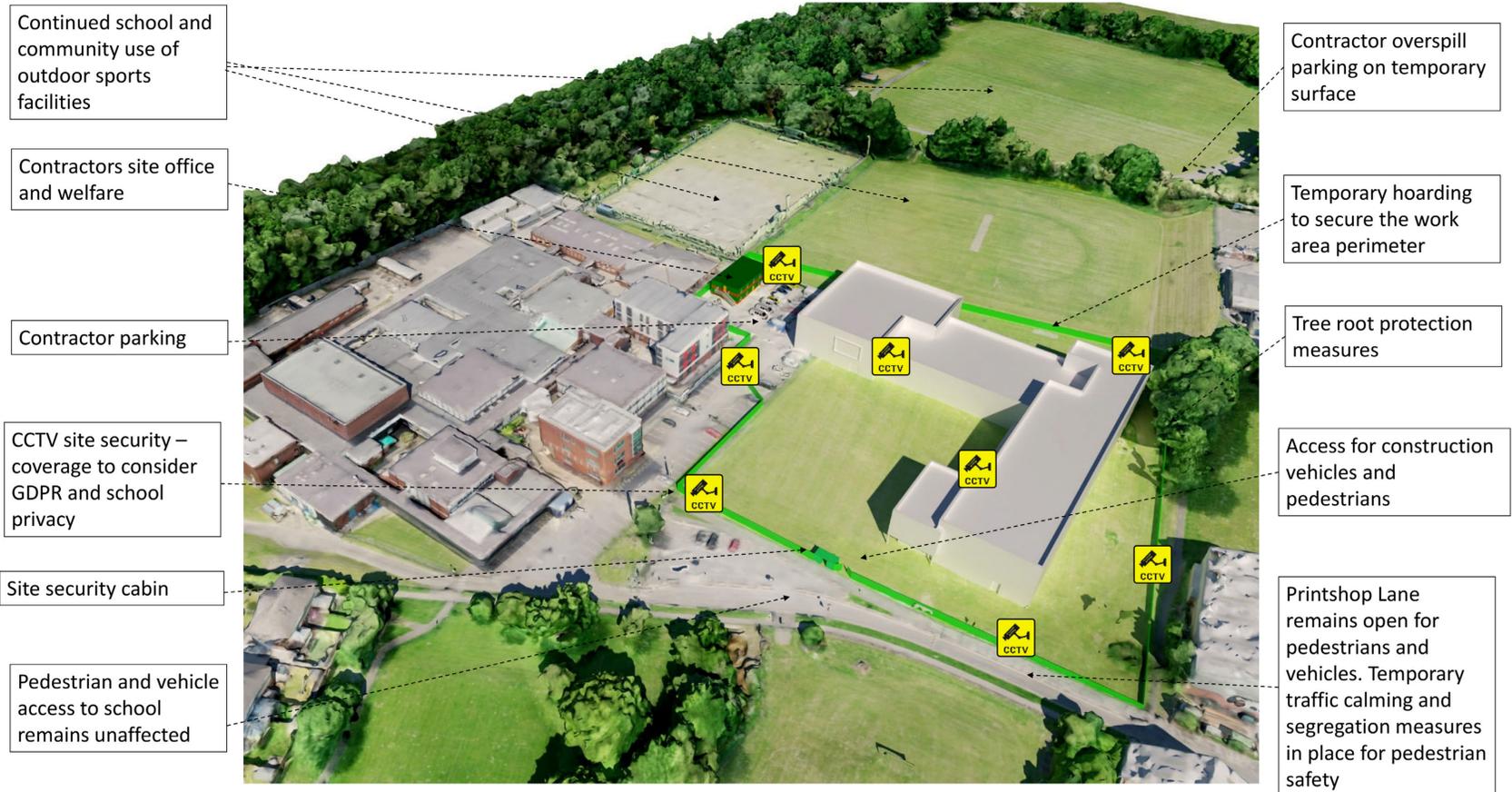
Start of construction	April 2022
School complete	August 2023
Demolition of original school building	September/October 2023
All works complete	April 2024
Sports pitch reprovided	Spring 2025 (after 1 yr growth)



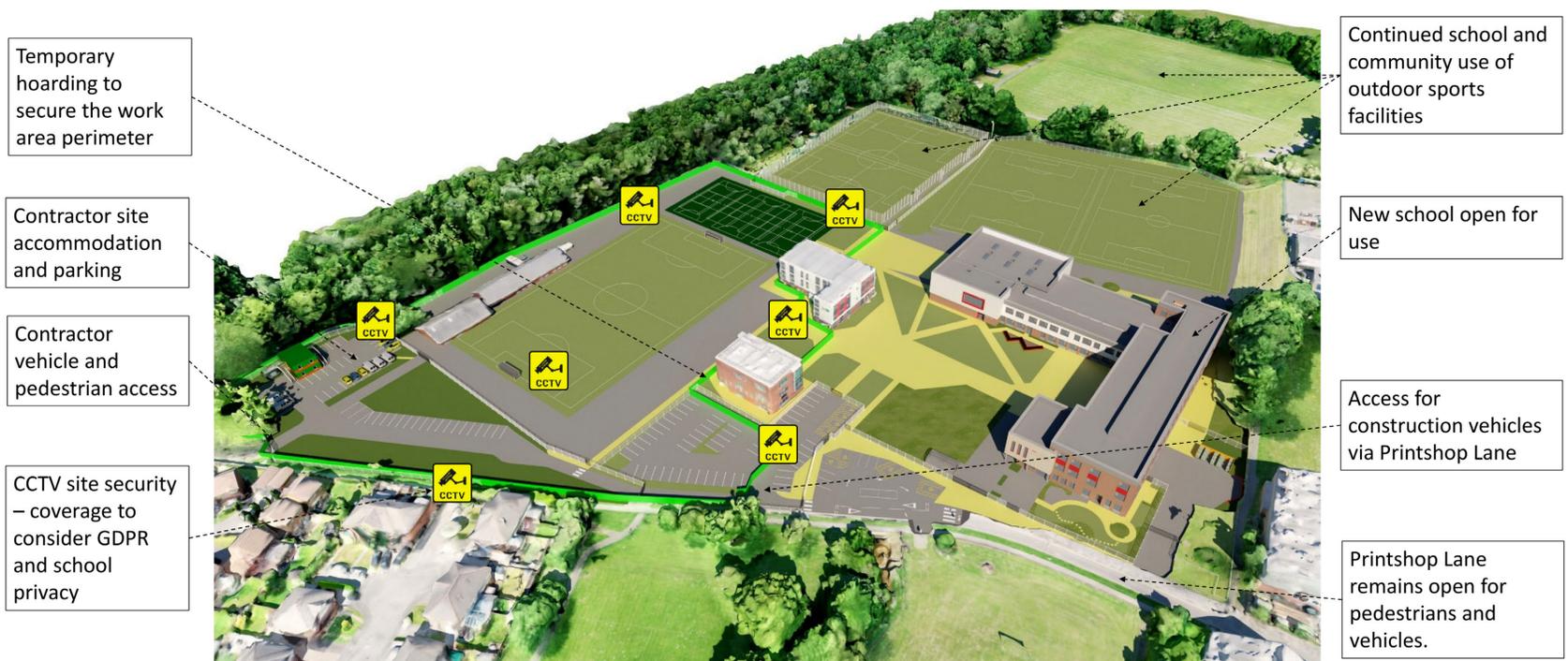
BAM will register the project with the Considerate Constructors Scheme. This means BAM will be committed to being clean, safe, environmentally conscious, and respectful to the site neighbours during the construction stage, and will try to cause as little inconvenience as possible.

In 2020, BAM's average score across 76 site audits was above 40 compared to the industry average of 37.76. This means we are committed to being a good neighbour and working with the community to leave a positive legacy.

A Construction of the new building and associated landscaping



B Demolition of redundant buildings and forming new multi use games area and sports pitch



Key site logistic considerations

- Considerate site working hours
- Site and compound lighting will consider neighbouring properties
- Construction vehicle wheel washing facilities to keep the surrounding roads clean
- All construction related vehicles to park within the site boundaries, with no off site parking allowed. Site personnel will be encourage to car-share or use public transport
- Scheduled deliveries to avoid peak times
- Off site vehicle hold point for large deliveries, with vehicles called in by the BAM Gatesmen, avoiding congestion around the site entrance and minimising disruption to Printshop Lane
- Dust and noise mitigation measures
- All material loading, unloading and storage will be done within the site boundaries
- Secure site perimeter hoarding with CCTV coverage to prevent unauthorised access
- Regular communication with local residents through newsletters, social media updates and site open days
- Open door policy for neighbours to meet with our Project Manager and to raise any concerns and receive feedback
- Regular litter pick around site boundaries by BAM operatives
- Site registered with Considerate Constructors Scheme

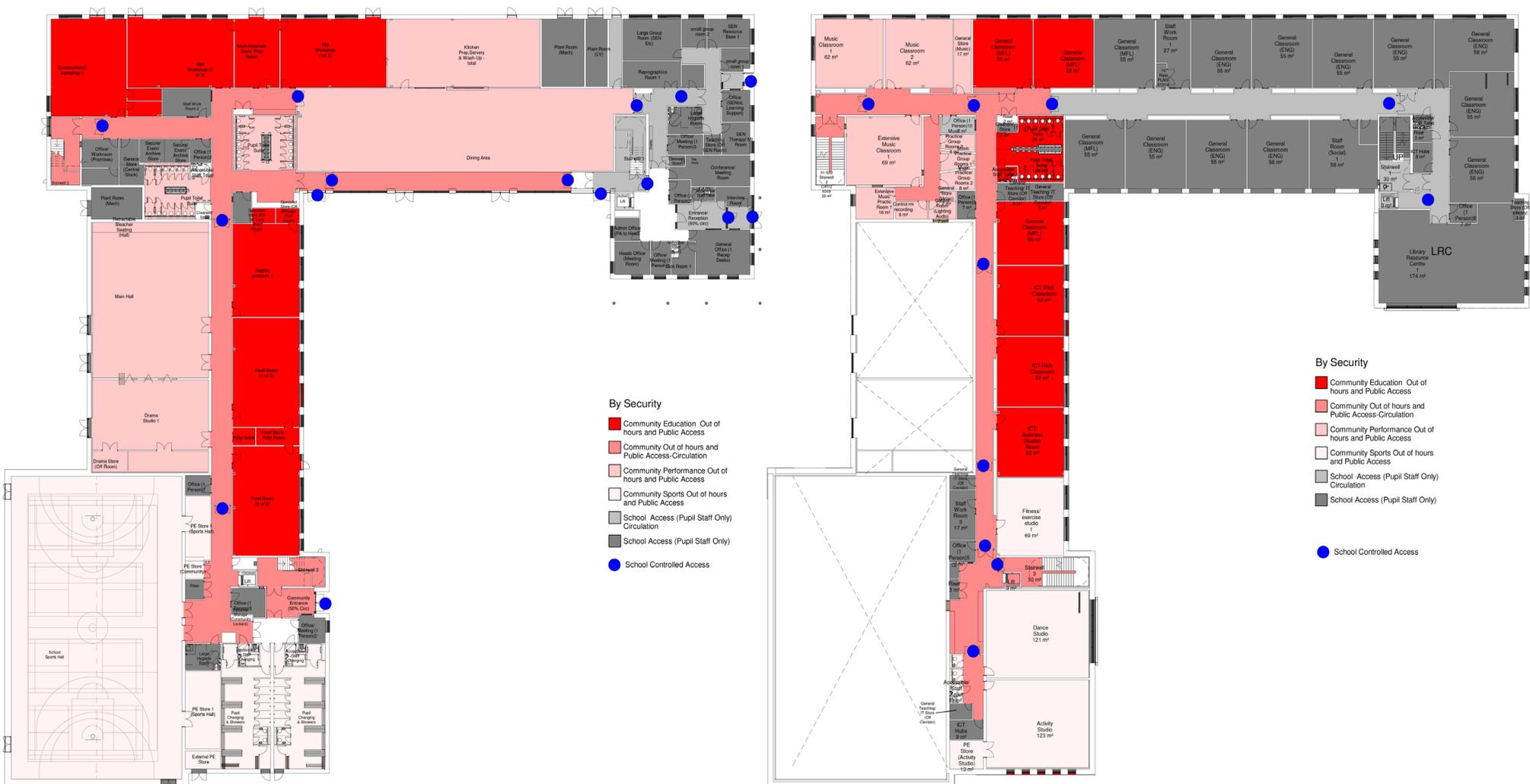
Community usage

Community Pitch Usage



Community provision of facilities inside building

- A four court Sports England sports hall
- Community sports hall storage and locker areas
- 3 Dance and activity Studios
- Main hall for performances
- Dining room facility for events and theatre
- Food technology facilities
- Graphic product facilities
- Construction and FM workshops
- Classroom use for adult education



Community Usage - Ground Floor Plan

Community Usage - First Floor Plan

What will your new school be like?



▲ External sketch perspective - approach and inner courtyard



▲ Activity and dance studios



▲ ICT classroom



▲ Main hall for the performing arts and assembly

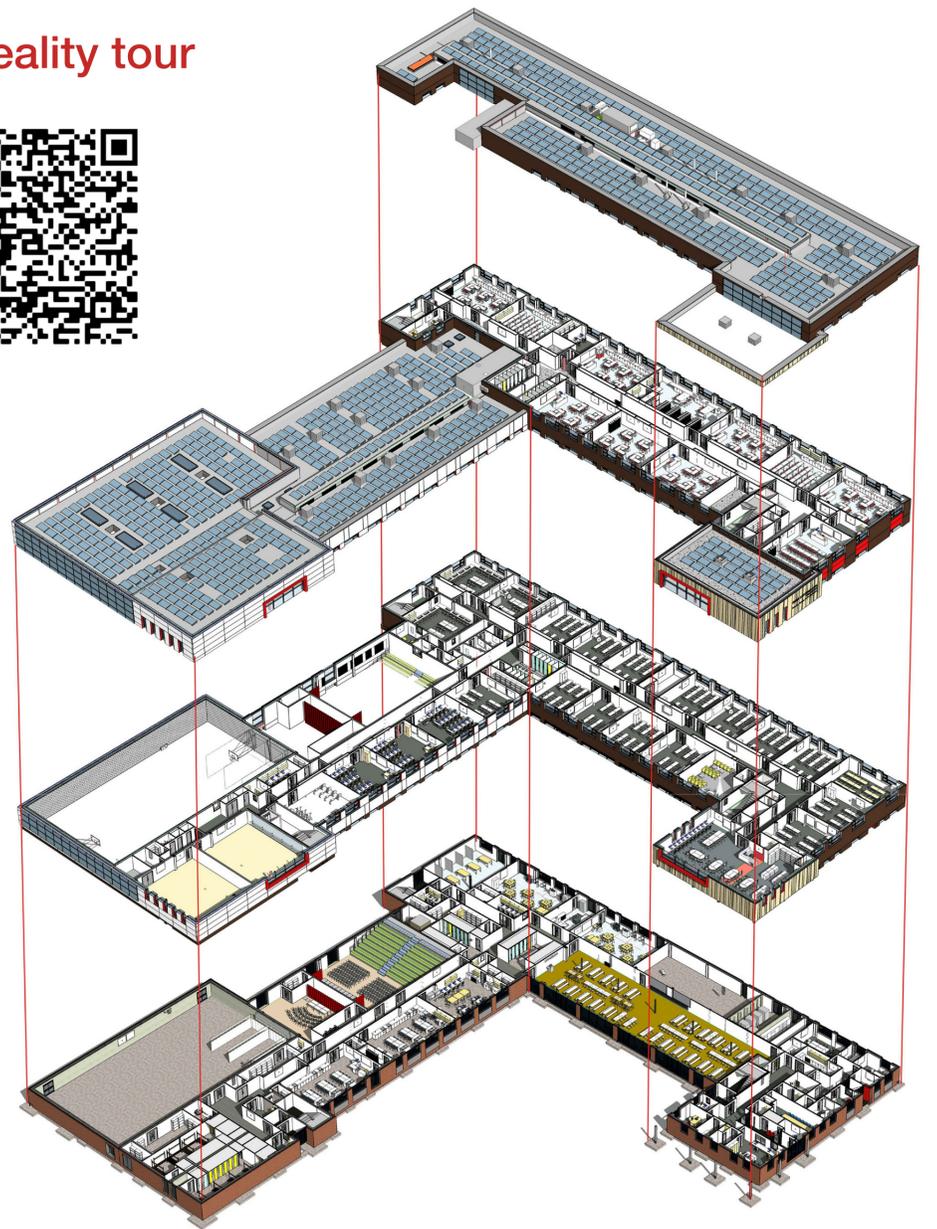


▲ Learning resource centre

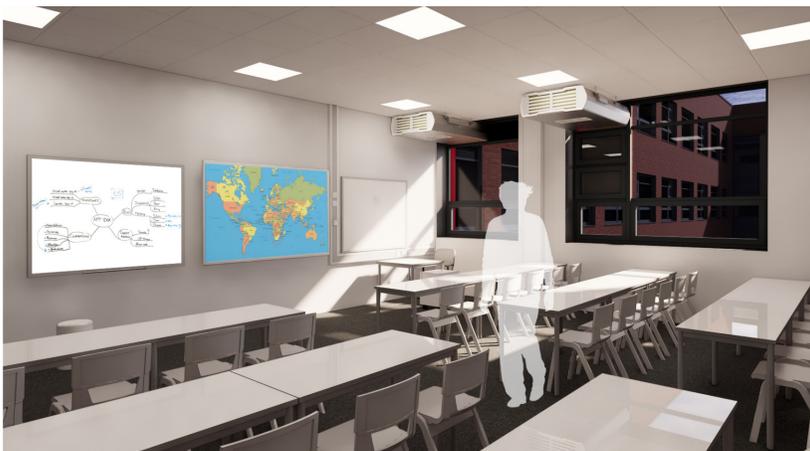


▲ Visitor reception - access to administrative area

Virtual reality tour



▲ Dining hall



▲ Typical classroom

- The school admission numbers will remain the same
- There will be no change to admissions criteria and policies
- Staffing numbers also remain the same at circa 140 full time equivalent staff members



▲ Laboratory classroom



▲ Typical music classroom



▲ View of courtyard and proposed building

Landscape



Transport

- No anticipated increase in traffic or on-street parking in proposed scheme
- Overall total car parking - 132 spaces
- Secure staff parking being provided in new and existing car park - 113 Staff Spaces & 4 accessible bays
- Drop off and disabled parking bays provided in close proximity to entrance - 12 visitor and drop off spaces & 3 accessible bays
- Secure enclosed bicycle parking for staff and student - currently 40 spaces but potential to expand up to 140 spaces
- Improved crossing points added to Printshop Lane along desire lines linking both sides of school campus
- Deliveries for the new academic building will be in a dedicated service yard to the North of the building
- South entrance gate off Elliot Street utilised for maintenance and secondary exit point - majority of access remains from top of Printshop Lane
- Please refer to construction phase board to see how disruption with regards transport arrangement will be managed and minimised during the construction period



External appearance - material palette



01 - East Elevation



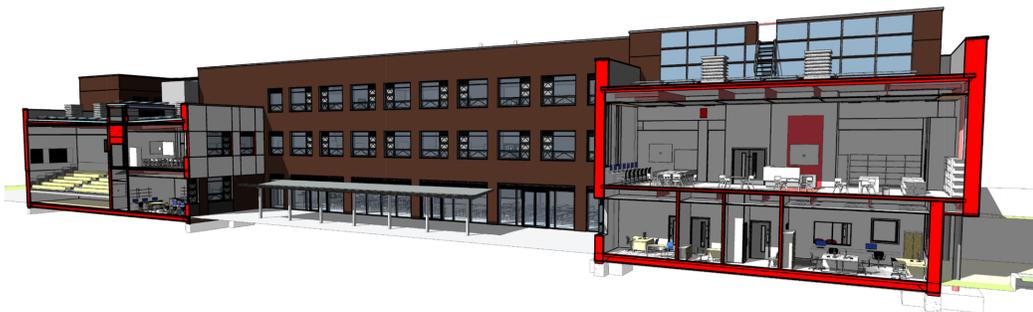
02 - South Elevation



03 - West Elevation



04 - North Elevation



Perspective section aa



Perspective section bb



Site plan showing elevations and sections

Mechanical, electrical and environmental strategy

Biophilic Design

We have considered the concept of Biophilic Design within the site planning. It is a term, meaning love of nature, used to describe our deeply rooted, emotional connection to nature, natural systems and living things. The theory, based on years of evidence based research of living and working situations, suggests that because humans evolved in natural environments, access to quality nature is essential to our happiness, sense of belonging and overall well-being. With increasing urban living this connection is becoming weakened.

- The benefits of adopting this approach has been assessed to;
- **Increased productivity**
 - **Faster healing times**
 - **Reduced staff turnover**
 - **Enhanced creativity and reduced stress**
 - **Improving social interaction and reducing hostility**



- And specifically within an educational environment
- **Increased rates of learning at schools by 20-25%**
 - **Improved test results and concentration levels at schools**

Water Efficiency

We have designed the water systems to operate as efficiently as possible

- Dual flush WCs **reduce water consumption**
- Water saving devices will be installed on showers and taps
- **Rainwater harvesting** is currently proposed to provide water for WC flushing
- Water storage has been sized to balance storage volumes with a good level of water turn over to eliminate the risk of stagnation



Low Carbon Technology

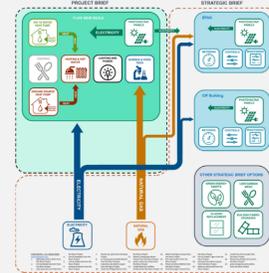
An appraisal of low and zero carbon technologies has been undertaken with the following options considered;

- high efficiency **ground source and air source heat pumps**
- VRF heating and cooling systems for the ICT areas
- **LED lighting**
- Heat pumps to heat hot water
- **Photovoltaic panels**
- **Low energy fans** providing great indoor air quality

The proposals are currently based upon using heat pumps to provide all the heating and hot water requirements to the site. Energy modelling has been undertaken, based on benchmarks to determine indicative load profiles for heating and electrical energy.

Low energy and maintenance LED lighting will be used throughout to drive down energy use and reduce on-going maintenance costs

Extensive use of photovoltaic panels offset the building's carbon emissions. A BREEAM 'Good' rating will also be achieved to demonstrate the inherent sustainable credentials of the building's design.



Sustainable Urban Drainage

Our strategy for drainage is to provide a sustainable solution that maximises the use of SUDS features to regulate water run-off from the site whilst enhancing the biodiversity and ecology of the external spaces. SUDS features include;

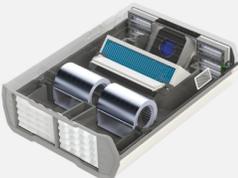
- **Permeable paving/Porous surfacing to provide water attenuation**
- **Underground attenuation tanks used to regulate water discharge from site**
- **Rainwater harvesting** to store rain water on site, use for WC flushing and prevent local flooding



Heat Recovery

Heat recovery will be provided on all ventilation systems where possible providing;

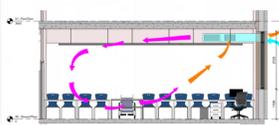
- **High efficiency heat recovery** from exhaust air to pre-heat fresh air for occupants
- Thermal wheels or counterflow heat exchangers **provide up to 80% efficiency to minimise heating requirements** from the main heating plant.
- Ventilation plant will include bypass systems to take benefit from **'free cooling'** when available



Heating Systems

We have selected heating systems to suit the needs of each space. A number of different systems will be installed as follows;

- Warm air heating to give a **high level of thermal comfort** in the classrooms. This gives a **dependable, flexible and easy to use** solution for teachers.
- Underfloor heating to Sports hall, Drama, Main Hall and Dance/Activity Studios gives **good levels of thermal comfort**
- Warm air heating to changing to **maximise flexibility of the rooms**

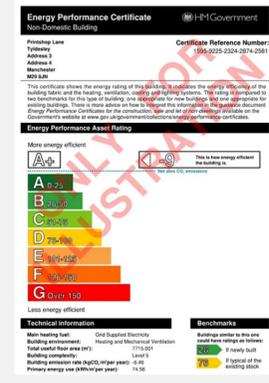


Energy Performance

We have carried out detailed thermal modelling using IES Virtual Environment to determine the performance of the building with respect to **compliance with Part L** of the Building Regulations. The following design considerations have been made;

- We have followed the well established **Lean, Clean, Green** approach to design, first considering good passive design, followed by energy efficient technology, **then considering renewable/green energy**
- **High performing thermal constructions** will be targeted, exceeding the minimum requirements of Part L.
- **Solar control glazing** will be used on the south, east and west facades to limit solar gains and maintain occupant comfort.
- High air tightness of $3m^3/h/m^2 @ 50Pa$ will be targeted to **minimise heat losses in winter**.

An **A+ EPC rating is achievable** due to the inclusion of heat pump technology, low energy consumption and photovoltaic panels on the roof. With high efficiency heat pumps, hybrid ventilation, and high efficiency LED lighting a **net zero carbon building** is achieved



Controls

We have included a central Building Management System (BMS) to control and operate all the HVAC plant. The BMS will provide the following;

- **Optimisation of all systems to maximise efficient operation** and running
- **Night time cooling** of occupied areas to **reduce risk of overheating** in summer
- Variable speed controls to **reduce energy consumption** during low occupancy or out of hours
- Classroom controls are **simple and intuitive**. User controls are provided to ensure the **systems are easy to operate**, and generally run autonomously.



Hybrid Façade Ventilation

The teaching areas within the building will be ventilated via hybrid façade ventilation units integrated into the window module, and encased within a ceiling bulkhead.

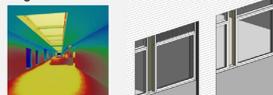
- The units are designed to provide an **enhanced level of ventilation** and achieve **superior levels of thermal comfort**, both in summer and winter.
- Each unit will contain an LTHW heater battery to provide space heating to the classroom, and as units are located at high level, **floor flexibility is maximised**.
- The diffusers promote **good mixing** with air velocities to give **high levels of occupant comfort** removing the perception of draughty environments.
- Boost mode for warmer summer periods the unit will increase the fresh air rate based on the internal CO2 and temperature
- Night cooling mode to **securely pre-cool areas overnight**
- **Acoustically treated** to meet the requirements of BB93



Daylighting

We have carried out detailed assessments on both natural and artificial lighting for the project. A detailed **climate based daylight model** has been produced to determine the availability of natural light to the teaching and learning spaces.

- Climate based modelling gives a more **robust indication of quality daylight** availability vs older, more traditional methodologies such as daylight factors
- Daylight linking will be included in all teaching spaces to **automatically dim artificial lighting in response to availability of natural light**
- Integrated window design to incorporate opening elements to supplement and enhance hybrid ventilation, **maximise penetration of natural light**, and to give **great views out of the building**.



Lighting

Artificial lighting to supplement the available daylight has been designed to be **energy efficient and simple to operate**.

- Daylight linking will be included in all teaching spaces to **automatically dim artificial lighting in response to availability of natural light**
- Manual dimming and switch is provided to give **flexibility in teaching spaces**
- **High efficiency LED fittings** are proposed to **minimise energy consumption** from artificial lighting, when required.
- LED lights have long life expectancy so significantly **reduce maintenance and replacement costs**

