

Chartered Building  
Surveying & Property  
Consultancy



**Design and Access  
Statement**

HWK01-E3C-XX-ZZZ-DS-A-  
001

**for**

**New Second Floor  
Extension Project**

**at**

**Heckmondwike  
Grammar School  
High Street,  
Heckmondwike,  
West Yorkshire  
WF16 0AH**



“Delivering Aspirations”

**April 2024**



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## 1.0 INTRODUCTION

E3Cube Ltd, acting on behalf of Heckmondwike Grammar School Academy Trust, has prepared this Design and Access Statement to support an application for the erection of a new second-floor extension and the demolition of a temporary structure which has deteriorated beyond repair.

Heckmondwike Grammar School is located on High St in Heckmondwike, West Yorkshire, WF16 0AH.

The statement presents justification for the proposed development to demonstrate accordance with the local planning authority's Local Development Framework and Supplementary Planning Documents, as well as the National Planning Policy Framework (NPPF), Building Regulations, Building Bulletins, Equality Act, and other details submitted as part of this application.

**Type of Application:** Full Planning approval.

**The Applicant:** Heckmondwike Grammar School Academy Trust

### 1.1 Application Summary

Heckmondwike Grammar School is a standalone converter academy of outstanding quality. The school serves students between the ages of 11 and 18 and prides itself on outstanding academic accomplishments.

REF: <https://www.heckgrammar.co.uk/school/company/>

The objective of the proposed scheme is to remove unfit basic needs teaching accommodation, address urgent health and safety, statutory non-compliance, and significant building Condition Category D1 issues, which are confirmed by independent experts to be impacting the safety of the School's teaching environment and key support spaces.

With a net capacity of 1,400 and 1,553 pupils on roll, the site operates over a capacity of 111%. As such, all teaching spaces are timetabled, and utilization rates of teaching spaces are extremely high. The building cannot be demolished before it is replaced, removing the option of providing a new building on the existing site.

The proposed solution involves providing alternative teaching facilities in the new extension to the Powell building comprising four classrooms, a SEN block, office, as well as accessible WC, Plant Room, and connecting stairs. The accommodation will achieve the design criteria of Building Bulletin 100 – Fire Safety Design for Schools. The building will be aligned to achieve the requirements of the DFE Output Specification.

The school endeavours to enhance all aspects of its operations, including its teaching environment, aligning with governmental policies. REF: Kirklees Local Plan Strategy and Policies.



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Policy LP1

**The presumption in favour of sustainable development.** The proposed scheme is designed to achieve enhanced U-Values for the external envelope, M & E services design strategy is proposed to achieve maximum energy efficiency and minimal carbon emissions. The proposed design aims to improve the quality of the teaching environment and health and well-being. (See Section 3.4)

Policy LP49

**Educational and health care needs.**

Proposals for new or enhanced education facilities will be permitted where:

**a. they will meet an identified deficiency in provision.**

**Justification:** The deteriorating condition of the existing temporary building necessitates its demolition, prompting the construction of new classrooms to mitigate overcrowding risks.

**b. the scale, range, quality, and accessibility of education facilities are improved.**

**Justification:** The proposed extension integrates an SEN block, ACC WC, and lift platform, improving the accessibility of the educational facilities.

The primary goal of the proposed extension is to provide students with an alternative to the current teaching facilities, thereby fostering a more comfortable and effective learning environment.

The development seeks to furnish teaching facilities capable of accommodating the current occupancy.

## 2.0 CONTEXT

### 2.1 Application Site

Heckmondwike Grammar School is situated in the High St, Heckmondwike.



Google Map Arial View

- To the north edge of the Powell building is a mixed-use built area consisting of mainly terraced and detached two-storey dwellings and industrial and commercial buildings. The Powell building is positioned away from the road to prevent any overlooking of adjacent properties across the street and is screened with trees. The residential properties opposite the road are also situated at a distance from the street, facing the High Street with the gardens.



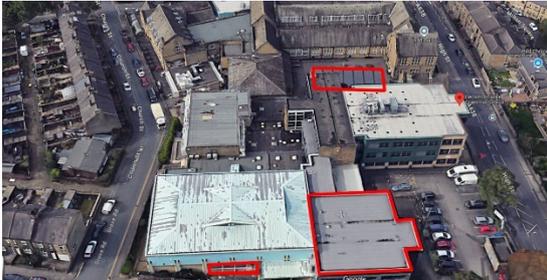
View to the North



View to the South

- To the south of the school, there are predominantly single and two-storey dwellings.
- The mixed-use area is to the west of the school and consists of terraced two-storey dwellings and industrial and commercial buildings.

- Large, single, and two-storey houses with spacious gardens and a school sports pitch are situated to the east of the school.



View to the West

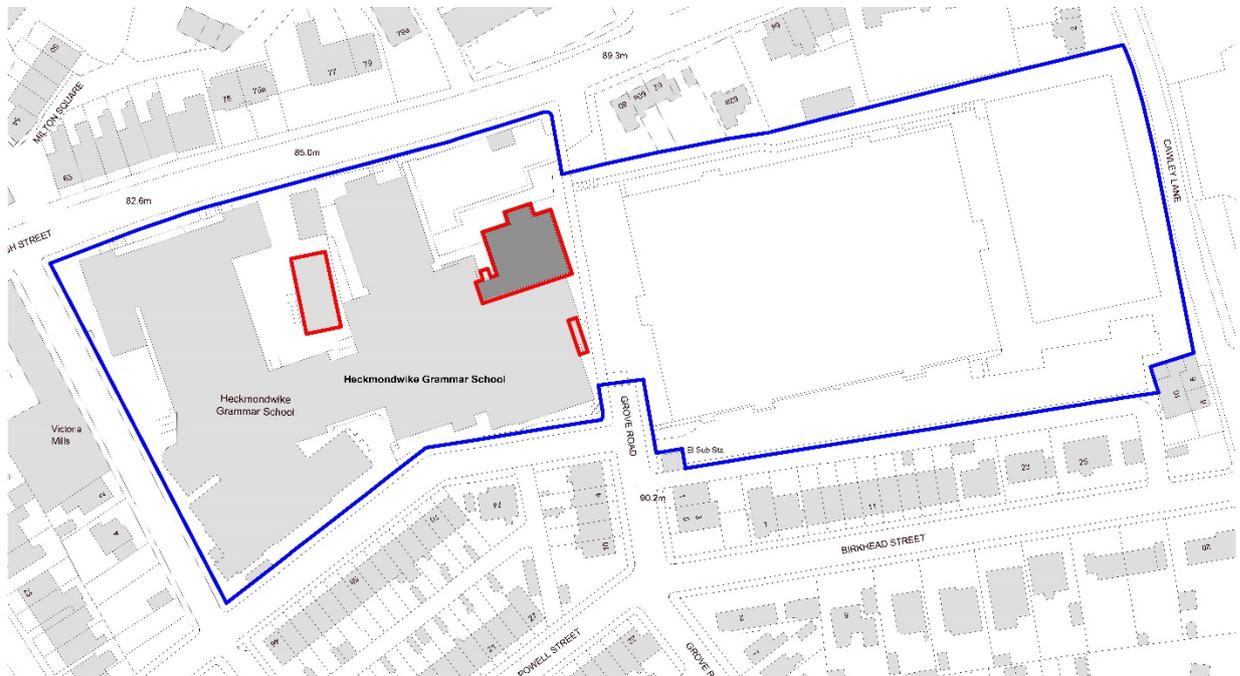


View to the East

The existing site is extremely restricted, with no land opportunities for the construction of a new standalone block, therefore the option of a second-floor extension was considered.

The site of the proposed extension sits within the curtilage of existing buildings.

The area of proposed works is indicated with a redline boundary in the diagram below.



Site Location Plan. REF: HWK01-E3C-04-00G-DR-A-001-S2



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## 2.2 Historic Context.

Since its establishment in 1898, the Heckmondwike School has benefited from numerous extensions. Expansion including the construction of the new wing occurred in 1931, followed by the erection of the school library in 1938. In the 1960s, a CLASP modular science block was constructed.

The site's planning history encompasses various projects including the below relevant to the proposed scheme:

1990: Extension to classroom. REF: 90/62/03554/A2

1997: Erection of sports/recreation hall and storage, 4 no. portable buildings, formation of hard paved area and fencing. REF: 97/93460

2001: Erection of temporary classrooms for 6th form accommodation REF: 2001/63/90085/E5

2008: Erection of two-storey extension to create additional 6th form accommodation. REF: 2008/62/90478/E2

2009: Erection of single-storey lean-to store. REF: 2009/62/90513/E1

2011: Erection of extension and alterations, and formation of fire escape. 2011/62/92069/E

2014: Erection of two-storey extension. REF: 2014/62/90414/E

2021: Erection of second-floor extension. REF: 2021/62/91659/E

REF: <https://www.kirklees.gov.uk/beta/planning-applications/search-for-planning-applications/default.aspx>

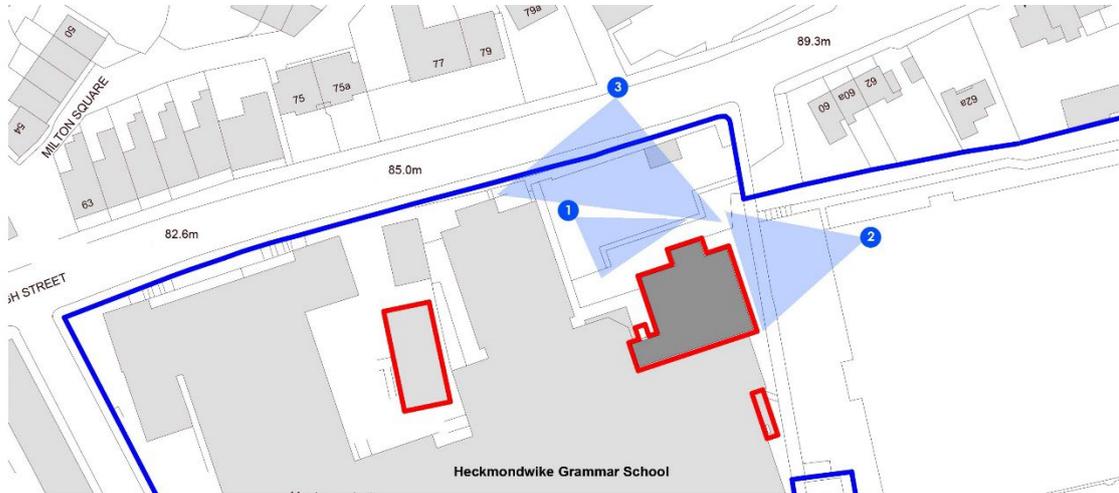
Based on the prior application history, the original school building has undergone several alterations over time, including renovations and the construction of extensions.

The proposed new second-floor extension was approved in 2021, with the planning permission set to expire in 2024.

As a result, the current application is being prepared for a new submission to enable the commencement of construction, aiming for completion by April 2025.

REF: 2021/62/91659/E

### 2.3 Surrounding Context and Existing Site Photographs



Photographic positioning key plan

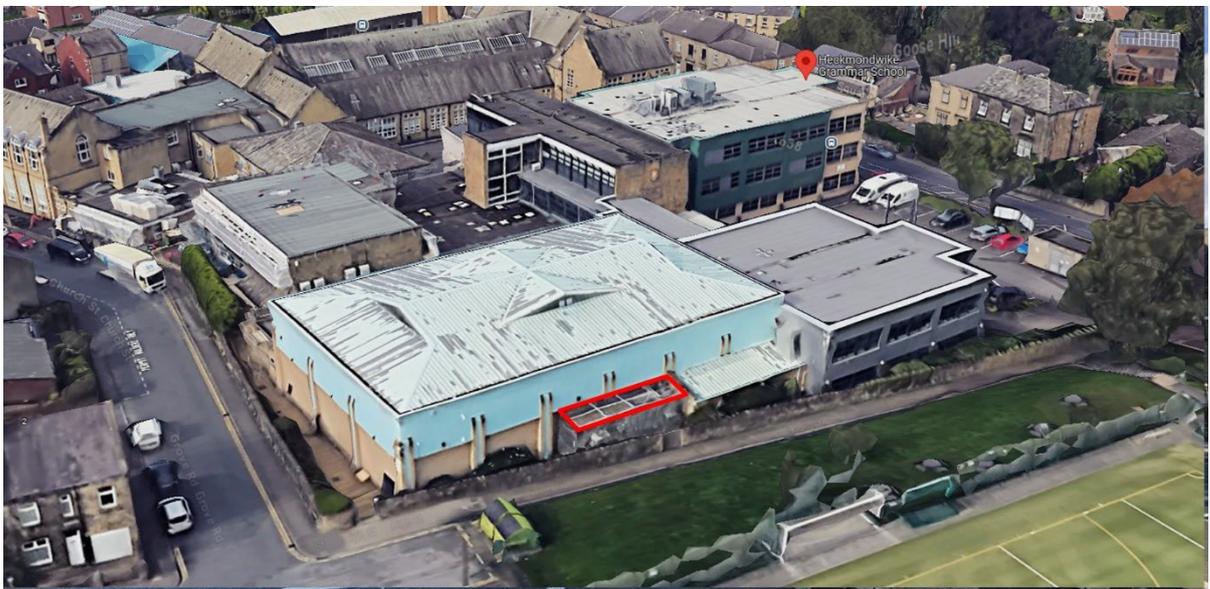


### 3.0 DESIGN STATEMENT

#### 3.1 Proposed Site Layout

The scope of work includes the provision of a lift aimed at improving the functionality and accessibility of the proposed extension. The platform lift is proposed to be partially glazed which will allow it to seamlessly blend into the existing elevation design creating a cohesive and unified appearance, avoiding stark contrasts or visual disruptions.

A New Air Source Heat Pump condenser Mitsubishi PURY-EP250YNW-A2 or similar is to be installed within the existing compound area identified in the below picture.



There will be no expansion in the school's student or staff number, and the proposal ensures that there will be no impact on the existing access and parking arrangements.

#### 3.2 Amount & Layout

##### Existing and demolition.

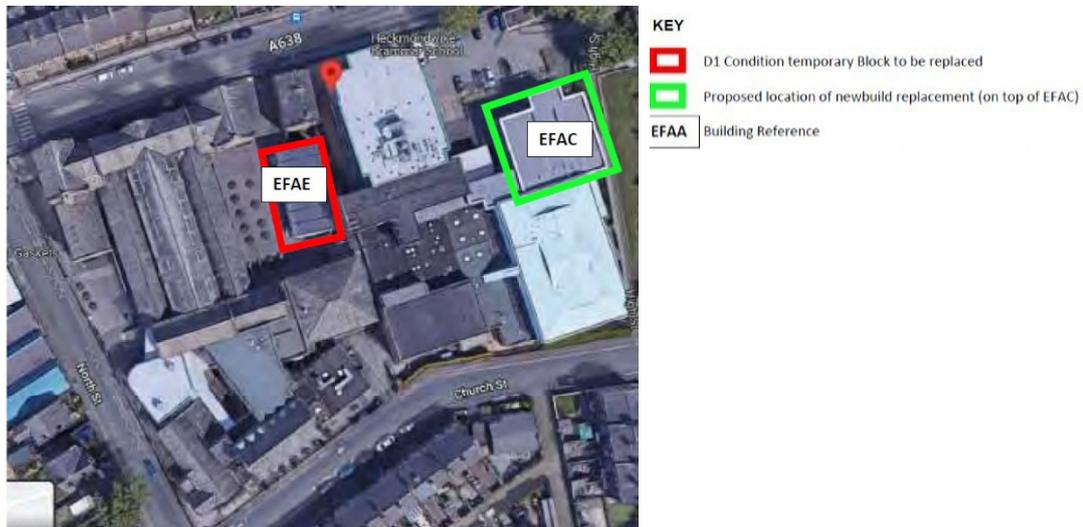
The existing temporary building falls drastically short of the ventilation requirements set out in the Building Regulations, BB101, and the Output Specification Annex 2F, resulting in dangerous levels of Carbon Dioxide, exposing occupants to serious health risks which, in turn, has created uncomfortable learning environments within key teaching spaces and the curriculum delivery is being significantly disrupted.

The thermal performance of the temporary building accommodation is very poor, which is further, and significantly compromised due to the extent of defects and water ingress into the building's external envelope elements, contributing towards poor thermal performance, uncomfortable teaching environments, and increased energy bills at the school.



The existing temporary building is to be replaced.

The building being replaced, and its proposed location is illustrated below:



Considering the restricted site area space available for expansion, the proposed site for the new construction application is on the top of an existing building, referred to as the EFAC block above. Constructed in 2016, the EFAC building was intentionally designed to accommodate an extra floor in the future.

Features of the future that will facilitate this development include:

1. Substructure designed to accommodate an additional storey.
2. Services within close proximity for connection.
3. Existing steelwork designed for extension.
4. The roof over the stairs is built as a knock-out panel so it can be easily extended up.
5. The structural roof deck specified is the correct specification for the new composite floor slab.

**Proposed new teaching block design.**

The new teaching block will have a total GIA floor area of 415.13m<sup>2</sup> over one storey.

**By Department Legend**

- Circulation
- Classrooms
- Cleaners
- Office/ Admin
- Plant Room
- Roof Access
- SEN
- Store
- WC



Proposed new second-floor plan. REF: HWK01-E3C-20-02L-DR-A-001-S2

The proposed scheme will create valuable new teaching area and enhance the flexibility and accessibility of the overall school environment.

Careful consideration has been given to the allocation of space for the SEN area. This provision will enhance the inclusion of the facility and allow effective support for children with special educational needs.

The implementation of the lift and extension of two stair cores, positioned both to the north and south of the Powell building and connected by a corridor, will simplify wayfinding within the school, facilitating easy access to all classrooms. This layout will enable students to transition smoothly within the building and will facilitate staff circulation from the main school building into the new teaching area.

Internal Room Schedule as Proposed			
Number	Name	Metric	Imperial
Proposed 2nd Floor			
02-01	Stairwell 02	26 m <sup>2</sup>	278 ft <sup>2</sup>
02-02	Circulation	45 m <sup>2</sup>	489 ft <sup>2</sup>
02-03	Office 01	16 m <sup>2</sup>	176 ft <sup>2</sup>
02-04	ACC WC	4 m <sup>2</sup>	46 ft <sup>2</sup>
02-05	Plant Room	6 m <sup>2</sup>	70 ft <sup>2</sup>
02-06	Cleaners	5 m <sup>2</sup>	56 ft <sup>2</sup>
02-07	SEN	39 m <sup>2</sup>	417 ft <sup>2</sup>
02-08	Classrom 01	53 m <sup>2</sup>	573 ft <sup>2</sup>
02-09	Classroom 03	51 m <sup>2</sup>	551 ft <sup>2</sup>
02-10	Classroom 04	51 m <sup>2</sup>	546 ft <sup>2</sup>
02-11	Classroom 02	53 m <sup>2</sup>	570 ft <sup>2</sup>
02-12	Stairwell 01	14 m <sup>2</sup>	152 ft <sup>2</sup>
02-13	Roof Access	3 m <sup>2</sup>	33 ft <sup>2</sup>
02-14	Store	2 m <sup>2</sup>	27 ft <sup>2</sup>
Grand total: 14		370 m <sup>2</sup>	3982 ft <sup>2</sup>

### 3.3 Visual Impact Analysis

#### 3.3.1. Height, Scale & Massing

The design of the proposed new extension building has taken into consideration the overall Heckmondwike Grammar School building volumes and the nature of its immediate surroundings.

The mass of the extension has been carefully planned to ensure minimal visual impact. The building itself has been designed with a simple layout and massing model, maintaining a clear and uncluttered design aesthetic.

The volume of the new second-floor extension has been deliberately designed to be a single-story to avoid creating a stark contrast with the existing building. The overall new building height aims to be in line with the Crellin building.



3D Visualisation of the Proposed Extension. View from the High Street.

The proposed extension ensures a harmonious integration with the existing building and its architectural character, promotes visual coherence, and a sense of place, and contributes to the overall functionality and aesthetics of the development.

#### 3.3.2. Appearance

The proposed scheme aims to harmoniously integrate an extension into the existing building, ensuring it blends in with the adjacent structures. Due to the improved thermal performance and performance in fire specification, the proposed new external wall built-up system differs from the one installed in the Powell building. Non-combustible and not composite built-up wall is proposed with the aluminium flashing introduced to weatherproof the junction element. The outline of the existing building is preserved, and new cladding is proposed to sit in line with the floor below.

The school campus has a visual character that has evolved over time, incorporating a mix of designs, recladding, and remodelling of older buildings. The northwest section of the building features a diversity of cladding types and colours.



Photographs of the external materials used on the School property

The proposed design carefully considers the architectural style, materials, and finishes of the existing building, aiming to complement its historical charm and maintain visual harmony throughout the campus. The proposed extension structure will be a steel frame clad with flat panels externally, a flat roof, and a parapet, reflecting the design elements of the existing Powell building.

To ensure coherence with the existing colour scheme, the cladding colour for the proposed extension will be thoughtfully chosen to match the tones and hues of the surrounding buildings. Similarly, the fenestration of the new extension will replicate that of the existing building, employing windows of similar size to align with the architectural style of the campus.



3D Visualisation of the Proposed extension



Visualisation of the North-East Elevation as Proposed



East Elevation as Proposed. REF: HWK01-E3C-21-ELZ-DR-A-001-S2



West Elevation as Proposed. REF: HWK01-E3C-21-ELZ-DR-A-001-S2



North Elevation as Proposed. REF: HWK01-E3C-21-ELZ-DR-A-001-S2

### 3.4 Sustainability and Passive Design

#### Responsible sourcing



The works and the materials specified have been carefully chosen to ensure they are responsibly sourced to reduce the environmental impact and reduce carbon emissions associated with the project. This will be achieved by maximizing the specification of BRE Green Guide and BES 6001 certified construction products and materials. Green Guide-certified products are sustainable products. Over their life cycle, they have fewer environmental impacts and produce less carbon than comparable alternatives.

### **Passive design principles**

The proposed works have been aligned to The Climate Change Act 2008 and the Government's net zero target for 2050. As such, the project has been specified with enhancements to support with achieving Carbon Neutral in accordance with the DfE's Output Specification 2022, reducing the school's production of CO<sub>2</sub> in line with the school's Net Zero Carbon Transition Plan.

Passive design principles will be predominantly utilized, prioritizing the performance of the building's external envelope through a fabric-first approach. This involves maximizing thermal performance, ensuring air tightness, and mitigating thermal bridging to minimize heat losses and gains.

- The extension's building fabric will meet or surpass the thermal transmittance values.
- Glazing will be carefully chosen with a low G-value to restrict solar heat gain.
- Additionally, the extension aims to achieve a minimum air tightness of 3m<sup>3</sup>/hr/m<sup>2</sup> @ 50Pa to effectively control airflow entering and exiting the extension.
- Enhancements for the attainment of carbon-neutral.
- An enhanced specification for the building thermal performance over and above building regulations to reduce energy use and carbon emissions.
- Specification of low VOC building products to improve indoor air quality.
- An enhanced specification for the building's mechanical and electrical systems to reduce waste, support with zero carbon and reduce energy use.
- An enhanced specification for the building's mechanical and electrical systems to increase metering, control, and monitoring of Heckmondwike Grammar School Replacement of Temporary Building in Defective Condition.
- An enhanced specification for the building's mechanical and electrical systems to improve air quality.
- The roof space of the new extension will be utilized to provide a photovoltaic system to offset some of the building's energy consumption and carbon emissions.

### **Heating Installation**

Heating of the second-floor level extension will be achieved by the provision of air source heat pumps, these will serve the 4No. classrooms and office, the remaining small amount of circulation area will be heated by radiators served from the existing LTHW heating distribution at the first-floor level.



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## **Mechanical Ventilation System**

The existing mechanical ventilation system providing fresh air to the ground and first-floor occupied areas comprises a packaged air handling unit (AHU), which does not have capacity to serve the proposed second-floor level extension. A hybrid ventilation system is proposed to serve the second-floor level classroom areas. The systems will operate at different times of the year to provide improved thermal comfort and reduce energy use. This will comprise:

winter months: mechanical fresh air ventilation with heat recovery.  
summer months: natural ventilation.

## **Comfort Cooling Installation**

Given the office is an internal space and the mechanical fresh air ventilation flow rate will be limited to providing sufficient air for occupancy only, a DX split system will be required to provide comfort cooling in addition to heating to offset the internal heat gains. During peak summertime temperatures when there is a need to prevent excessive temperatures in classrooms, the reverse cycle heat pumps can be operated to provide mechanical cooling. It is envisaged there will be a limited heat gain to classrooms, given the passive measures to be employed e.g., provision of solar control glass, the control of fresh air rates entering the classrooms and the inclusion of a plate heat exchanger providing transfer of cooling from the extract to fresh air inlet. These measures will ensure energy consumption is kept to a minimum and will be offset by the installation of a photovoltaic system.

## **4.0 ACCESS STATEMENT**

### **4.1 Site Approach / Building Access**

Through a comprehensive approach, the project aspires to deliver accessible facilities, ensuring inclusivity for all occupants, regardless of their physical abilities.

The installation of the lift will significantly improve accessibility for pupils, visitors, and staff members alike. Currently, the only available lift within the building is situated at a considerable distance from the Powell building, making access challenging for those needing it.

### **Crime prevention**

The security of the building will be enhanced through the implementation of an access control system, regulating entry to the lift door to deter unauthorized individuals.



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## 5.0 DOCUMENTS

The drawings accompanying the planning application comprise:

- Site Location Plan. REF: HWK01-E3C-04-00G-DR-A-001-A3
- Site Plan as Existing and Demolition. REF: HWK01-E3C-05-00G-DR-A-001-A3
- Site Plan as Proposed. REF: HWK01-E3C-10-00G-DR-A-001-A3
- Existing and Demolition Ground and First Floor Plan. REF: HWK01-E3C-13-ZZZ-DR-A-001-A3
- Roof Plan Existing and Demolition. REF: HWK01-E3C-13-06R-DR-A-001-A3
- Elevations as Existing and Demolition. REF: HWK01-E3C-13-ELZ-DR-A-001-A3-P02
- Proposed Second Floor Plan. REF: HWK01-E3C-20-02L-DR-A-001-A3-P02
- Elevations as Proposed. REF: HWK01-E3C-21-ELZ-DR-A-001-A3-P02
- Roof Plan as Proposed. REF: HWK01-E3C-20-06R-DR-A-001-A3-P02