

Hereford College of Arts Digital Hub

Design and Access Statement

Hereford College of Arts,
College Road, HR1 1EB

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1.0 Introduction

This is a supporting document for the Planning and Listed Building Consent application for a new digital hub within the existing buildings of the Hereford College of Arts, College Road Campus.

The new digital hub is part of the Skills Foundry collaboration of projects within Hereford's Town Investment Plan which has successfully secured government funding. The proposal is to deliver a flagship, industry-standard, digital teaching and learning hub within the main college, to enable the expansion of HCA's new School of Creative Digital Futures.

The proposal is to refurbish existing buildings within the College Road Campus to provide approximately 350m² of teaching and learning space with an internal courtyard and upgraded digital resources including hardware, software and network capability.

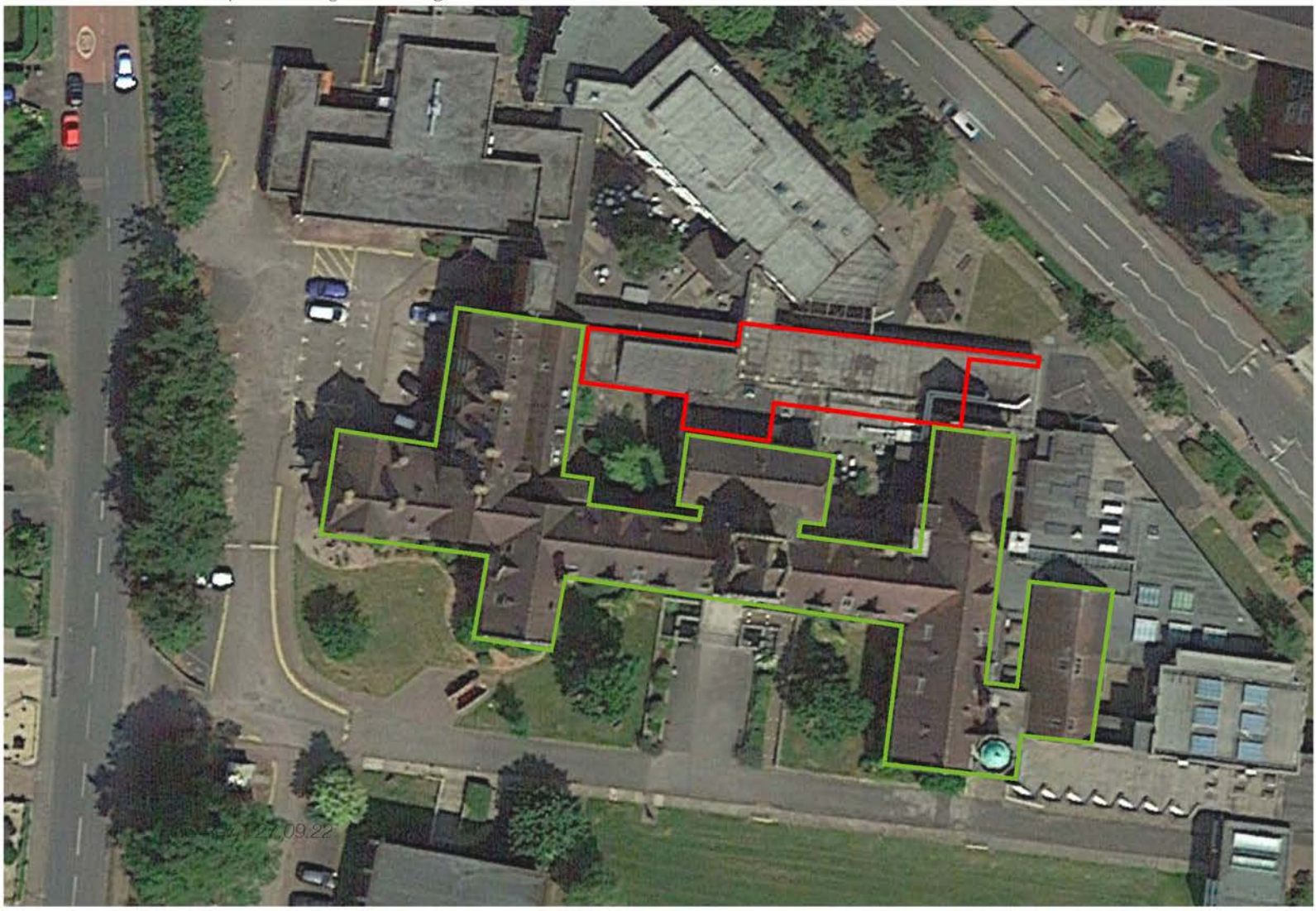
The new hub will be an exciting, visible, contemporary space within the arts school, transforming some of the drab modern extension areas into a vibrant centre for digital teaching and learning and a central facility in the delivery of several new courses.

The proposed refurbishment will take an exemplar low carbon approach to address condition issues of the existing buildings and to modernise and reduce inefficiency in both space and energy use.

2.0 Location

The proposal is located in the College Road Campus of the Hereford College of Arts, within the post-war extensions to the Grade II listed building. The buildings to be refurbished are outlined in red below.

Fig 1. Aerial view of Hereford College of Arts College Road Campus. Proposal outlined in red, the original 1881 Fred Kempson building outlined in green.



3.0 Existing Buildings

The Hereford College of Arts, College Road Campus is Grade II listed under the statutory address ROYAL NATIONAL COLLEGE FOR THE BLIND, VENNS LANE. The main building design by architect Fred Kempson was built c.1881. The proposal relates to two single storey post war extensions of this building shown in Fig 2 as Areas A and B, and does not involve any alteration of the original Kempson building. Further information regarding the listed building and the impact of the proposal on this heritage asset are in The Heritage Statement submitted with this application.

Area A comprises 2 areas of flat roof separated by a larger asymmetric pitch roof. All roofs are clad in bituminous felt. There is a patent glazing roof light along the entire length of the north face of the pitched roof. The walls are brick punctuated by individual windows to the north and floor-to-ceiling semi-glazed infill panels to the South. The windows are all single glazed, the walls are not insulated and the roof does not appear to be insulated other than the flat roof in the South East corner. The internal walls are chiefly timber stud, clad in plasterboard with the exception of one small area of painted block.

Area B comprises a large flat roof clad in bituminous felt and does not appear to be insulated. The internal walls and east external wall are brick. The north external facade is a curtain wall comprising timber posts, glazing and timber infill panels. The windows are all single glazed. The whole wall is in a very poor state of repair with approximately 75% of the timber posts showing signs of rot. Many of the window frames are held together with temporary repairs.

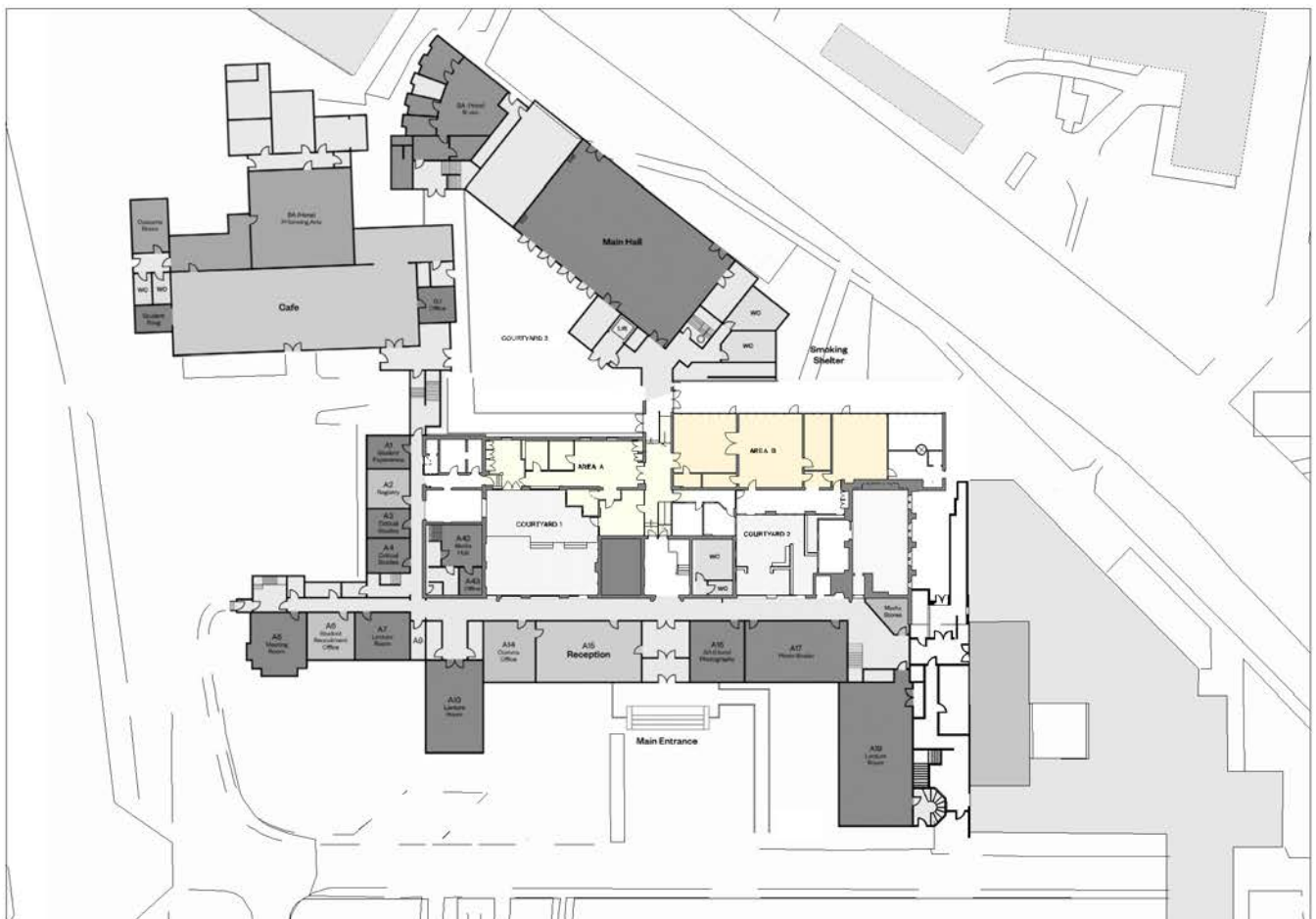


Fig 2. Existing Site Plan showing areas to be altered and refurbished

3.1 Exterior photographs of the existing buildings



Fig.3 View of proposed buildings from the west.



Fig.4 View of Area B from east



Fig.5 View of north side of Area A



Fig.6 View of Area A and Courtyard 1 from the west



Fig.7 View of Area B from main corridor exit



Fig.8 View of Area A, zone 1 from the south

3.2 Interior photographs of the existing buildings



Fig.9 View of Area A, Zone 2, towards corridor



Fig.10 View of Area A, zone 1 from the south



Fig.11 View of Area A, Zone 3



Fig.12 View of main corridor looking north

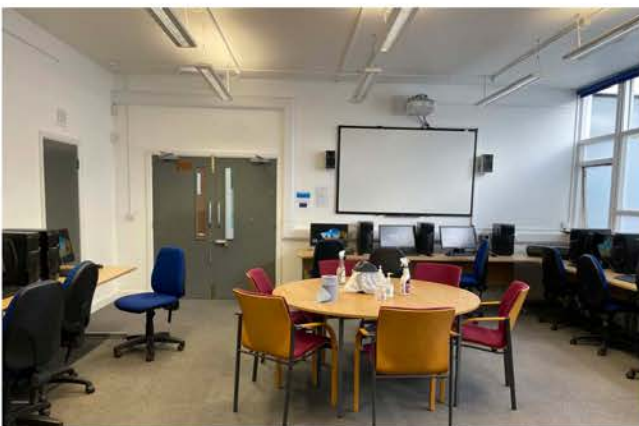


Fig.13 View of Area B, Zone 1



Fig.14 View of Area B, Zone 2

4.0 Project Aims

To reorganise the internal arrangement of existing Areas A and B within the school (Fig.15) to facilitate a modern and efficient Digital hub.

To be an exciting visible contemporary insertion within the old fabric of the existing art school that conveys the idea of a future career in digital design and acts as a creative agency within the school.

To improve the energy performance of the façades and create a pleasant indoor environment by avoiding over-heating and avoiding glare whilst optimising daylight penetration and similar improvements.

The environment will encourage equality, be pro-actively inclusive and enable a dynamic range of working environments so that all types of learners are provided for.

To create an exemplar low carbon solution for the refurbishment of the existing buildings with energy generation on-site to offset the energy consumed in area A, with the aspiration of it being a Net Zero Carbon space.

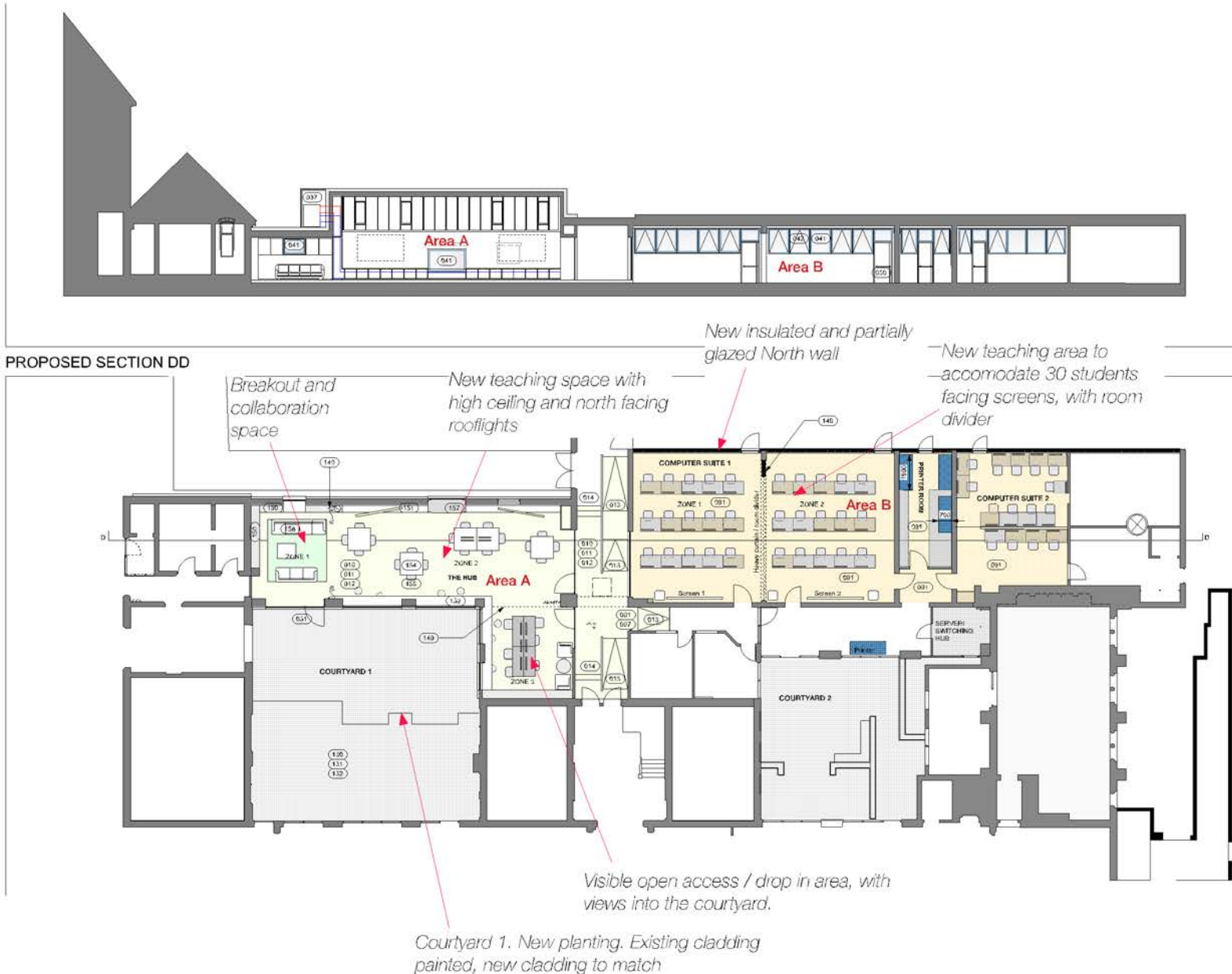


Fig. 15 Proposed floor plan and long section

5.0 Design

Areas A and B sit either side of the main north south corridor that links the Main Entrance to the Main Hall of the school. There will be large glazed openings into the corridor from both Areas A and B. This is in order to create a unified identity for the Digital Hub with a high level of visibility for all students within the school as they use this main circulation route (fig16).

Whilst the choice of materials, colours, fixtures and furniture for both areas will be coordinated and clearly represent the Digital Hub on both sides of the corridor the two areas will provide differing environments so that multiple teaching and learning approaches are accommodated for.



Fig.16 Proposed sketch image from main corridor



Fig.17 Proposed sketch image of Area A

5.1 Area A

Area A is designed to provide a flexible space that can be used for workshop based teaching of up to 20 students. The space would provide working areas that range from for standing, sitting, and lounging, for both on-screen working or off-screen making, for working on a desktop or laptop and for individual or group working. Zone 1 will contain low seating, Zone 2 will provide power to different furniture arrangements for flexible workshop teaching and Zone 3 will be a dedicated help desk and open access area. Heavy curtains will be used to screen off each zone as required to add to the flexibility of use.

The Area A building will be stripped back to its original L shaped form, removing the existing suspended ceiling to expose the pitched roof-space. New floor to ceiling windows will be placed in existing window openings. The lean-to corner office will be demolished allowing a new matching window to be added to the exterior wall to maximise the connection with the courtyard enabling an awareness of the weather, nature and natural light.

To ensure good thermal performance, insulation will be added to the existing floor rather than creating a new floor. This will be cost effective but it will also retain the embodied carbon of the existing concrete slab.

So as not to encroach on the internal space available, new insulation will be added externally to the roof and walls, resulting in new external cladding. The proposed new wall cladding is vertical timber slats chosen to work with the existing cladding on the other external walls of the internal Courtyard 1. The aim being to homogenise and simplify this space which is highly visible from within the



Fig.18 Proposed sketch image of Area from South

school. This cladding would then be repeated on all new external elevations to reinforce the identity of the Digital Hub externally as well as internally.

The new roofs will be an anthracite grey single ply membrane with a pv array on the south facing slope of the pitched roof. New flashings, gutters and downpipes will serve to unify the courtyard elevations as will a matching paint finish to the old and new timber cladding.

5.2 Area B

Area B will provide a new digital teaching space for up to 30 students on desktop computers, a new printer room and a dedicated Mac Suite.

The existing north wall is not insulated and is in very poor condition. It will be replaced with a new insulated timber-frame wall and sufficient glazing to provide optimal daylighting and ventilation for the teaching spaces within.

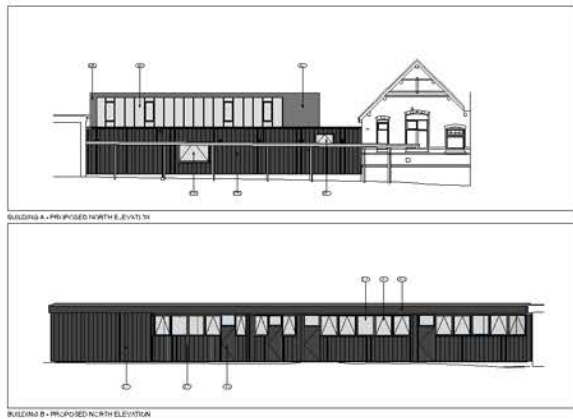


Fig.19 Proposed North Elevations



Fig.20 Proposed South and West Elevations

6.0 Sustainability

In 2019 the UK Government passed a law to require the UK to end its contribution to global warming by 2050 by bringing all greenhouse gas emissions to net zero. The built environment contributes 37% of global energy-related carbon emissions, and the construction industry as a whole is responsible for around 40% of global resource demand every year. It is therefore critical to reduce carbon emissions from the built environment.

Statistics show that 70-80% of the buildings that will be standing in 2050 are already standing today. Therefore arguably the greatest challenge in achieving the net zero carbon emissions goal is in operational energy use and retrofit of existing. One of the ambitions of this project is to act as an exemplar net zero carbon solution for the retrofit of the existing Hereford College of Arts estate.

Working within the constraints of the budget the proposal is to keep embodied carbon to a minimum by retaining as much as possible of the existing building fabric, to design Area A with the aspiration that it achieves net zero operational carbon and to upgrade key thermal elements of Area B to improve thermal performance in-line with current building regulations.

To achieve zero operational carbon in Area A the following approach will be followed subject to budget constraints:

1. To use a 'Fabric First' approach. The walls roof and floor will be insulated to U Values recommended by the LETI best practice performance targets for an unconstrained retrofit.
2. To minimise energy demand with solutions that include replacing the fossil fuel based heating system with a mechanical ventilation and heat recovery system and using LED lights.
3. Installing on-site PV panels to generate sufficient power to offset the regulated and unregulated power used in Area A and possibly some of Area B.

For further information see the Stage 3 report for this project by MEP consultants, Hydrock.

7.0 Equality, Diversity and Inclusion

The college seeks to be inclusive of neurodiversity as well as physical disability. Consultation with students has already highlighted the need for flexibility of environment.

Work station areas will range from the smaller darker space for the solitary worker to a light large space for collaborative working with a variety of work stations: high up, low down, for standing, sitting, lounging for both on-screen working on a desktop or laptop, or off screen making.

7.1 Universal Access

The existing building has been added to over many years with both steps and ramps utilised to provide access to different levels on the ground floor of the existing building.

The access into the building from the outside remains unchanged. The proposal aims to ensure that all areas are universally accessible and inclusive.

Area A floor will be raised to allow for insulation. This has resulted in the following changes of the existing circulation routes to ensure that there is a level threshold into all of the proposed spaces:

- The corridor floor has been raised to provide a level access into Area A and the steps and ramps have been modified accordingly.
- The floor of Area B remains at the existing level therefore a new entrance has been provided via a short corridor and ramp as shown on the plans.

All new doors and ramps will comply with ADM of the building regulations.

8.0 Ecology

As the proposal does not involve the extension of the building footprint a PEA was not considered necessary however Focus Environmental Consultants were appointed to carry out a Preliminary Bat Roost Assessment report (submitted with planning documents).

Their survey found there was negligible potential for roosting bats. They made the following recommendations:

1. No further presence/absence surveys are required to support the planning application for this site as the potential for bats to occur and significant impacts to arise during works is considered to be negligible.
2. As a precautionary approach, it is recommended that a licensed bat worker remains 'on-call' during the development works. In the event that roosting bats are discovered, work must cease immediately and the on-call ecologist contacted, they will liaise with Natural England (as required) to advise on any licensing requirements to allow lawful completion of the work.
3. In line with Government policy on biodiversity, a single bat box should be installed within the landownership of Hereford College of Arts. The box should be integrated within an existing built structure (e.g. Ibstock enclosed bat box, Habibat bat box, Schwegler Wall- mounted Bat Shelter 2FE, Habi-Sabi Bat Box or Schwegler 2FR Bat Tube) or installed on a suitable mature tree (e.g. Schwegler 2F Bat Box). The box should be installed at least 4m above ground-level, and not placed above windows.
4. This report is considered valid for 12 months for planning purposes (CIEEM, 2019). An update survey may be required to reassess the condition of the site (and its suitability for bats) should this 12-month period be exceeded.

These recommendations will be implemented with the proposed works.

9.0 Pre-application advice

Advice was sought from Herefordshire Council planning department regarding the principle of using Areas A and B for the development in 2021. David Gosset visited the site and emailed a summary of his advice on 21 December 2021. This advice was reiterated in a follow up email to Kate Darby from Simon Withers on 13 June 2022.

In summary the advice was as follows:

Given the works are generally restricted to modern extensions and subject to appropriate detailing the works are unlikely to result in harm to the listed building as confirmed by the Historic Buildings Officer.

Further consultation was offered but it was suggested that it better to submit applications for Planning and Listed Building Consent and rely on the formal process to address any detailed negotiations that may prove necessary

A list of documents required to support the application was provided:

- Site Plan – existing and proposed
- Existing and proposed elevations
- Heritage statement
- Preliminary ecological appraisal (PEA) and/or preliminary bat roost assessment (PRA)
- Supporting Statement

The above documents have been submitted with the planning application

10.0 Student Numbers

The new digital teaching and learning hub is intended both to help update the college's current curriculum provision and also support the launch of some new digital programmes. A maximum of approximately 450 staff and students currently can attend campus on any one day although in practice the nature of higher education provision means that normally only a fraction of the total are on campus at the same time. The business case for the new courses anticipates incremental growth of full time students between the academic years 2024/5 and 2030/31 by which time it is anticipated that there will be 100 additional students enrolled across the two new courses (inclusive of different levels), which could require up to 6 new staff.

10.1 Impact on welfare facilities

Campus welfare facilities currently comfortably exceed requirements for the population of the campus. The campus has 36 toilets to support a maximum of 700 people (in compliance with regulation 20 of Workplace (Health, Safety and Welfare) Regulations 1992.) This is sufficient for existing student and staff numbers and for the projected increase until at least 2031.

Some day and short courses will also use the facilities but these will be planned for periods of under-utilisation of the campus as a whole.

The college will continue to keep this under review.

10.2 Impact on transport and parking strategy

The college has a significant amount of parking on site which is currently well within capacity for staff and students. Students do not have an automatic right to park and are encouraged to walk, cycle or use public transport where possible. The college operates a permit system to allow those students with particular needs to park if approved. It is anticipated that many of the new students will live in residential accommodation in the city and therefore be able to walk or cycle. The new digital hub should not lead to any increase in parking.