

South Central Institute of Technology (SCIoT) at Reading, Oxford and Bletchley

Milton Keynes College | £25.5m



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Information	SCIoT Reading	SCIoT Oxford [Blackbird Leys]	SCIoT Bletchley
Carbon reduction status achieved by the project[s]	Fully decarbonised on completion. Original budget and design was set to achieve Net Carbon in Use	Fully decarbonised	Fully decarbonise
Start Date	23/06/21	01/11/21	06/12/2021 This includes allowing time for a 12-week extensive enabling works package
End Date	12/09/21	17/10/22	31/07/2023
Duration of the construction works	12 weeks	50 weeks	86 Weeks
Preconstruction period [weeks]	4 weeks	10 weeks	14 weeks for the main works
GIA [project area m ²]	770 m ²	1850 m ²	3970 m ²
Construction Budget [inclnding VAT & fees]	£780,000	£4,750,000	£14,250,000
Overall Project Budget [including Fees, IT fitout, FFE, contingency and VAT]	£1,500,000	£5,500,500	£18,500,000
Senior Client Project Contact	sally.alexander@MKcollege.ac.uk was the overall sponsor for all three projects. However, two of the schemes were carried out in buildings owned and operated by Activate Learning. This was a requirement to achieve Wave 1 DfE funding that there needed to be collaboration across the FE sector to deliver the IoT's		
Cost/m ²	£1021/m ²	£2567/m ²	£3,328/m ²
Funding	- This project was 100% funded by the DfE. - The project team were able, mid contract, to instruct the contractor to remove and replace the felt roof covering and install improved insulation to modern building regulation standard.	- The internal refurbishment of the former 4 storey teaching block was 100% funded by the DfE. - Activate Learning provided £530k of top funding to allow the team to remove and reclad the building. The additional works included an extensive on-site power upgrade and below ground cabling modifications.	- This project was mostly funded by the DfE. - The college contributed £250k towards fire engineering upgrades that were included after the project commenced on site due to changes by a particular manufacturer regarding fire protection. - The overall project cost was successfully finalised despite the economic instability caused by the onset of the war in Ukraine.

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Information	SCIoT Reading	SCIoT Oxford [Blackbird Leys]	SCIoT Bletchley
Lead Consultant & Principal Designer	GSS Architects led the three centres		
Procurement	Open [via GOV Contracts Finder] - Single Stage Tender	Open [via GOV Contracts Finder] - Two Stage Tender	Open [via GOV Contracts Finder] - Two Stage Tender
Contract	JCT Standard Form of IFC Contract [2016 edition]	JCT Standard Form of Design & Build Contract [2016 edition]	JCT Standard Form of Design & Build Contract [2016 edition]
Contractor	T&B [Contractors] Ltd	Beard Construction [Oxford Office]	Ashe Construction [Hitchin]
Main Contractor contact [who can provide a project reference for PMS]	Kevin O Dell kodell@tandbcontractors.com	Dean Averies Dean.averies@beardconstruction.co.uk	Andrew Morris andrew.morris@ashegroup.co.uk
Site Address	SCIoT Reading; Part D Block, Third Floor, Reading College, London Road, Reading; RG1 4HU	SCIoT Blackbird Ley; City of Oxford College, Cuddesdon Way, Oxford, OX4 6HN	SCIoT Bletchley, Selwyn Grove, Bletchley, Milton Keynes, MK43 6DR



Images show Bletchley post completion, right to left, reclad front façade of existing Andrew Peck building, internal agile teaching space, assembly hub and external of new extension overlooking communal outdoor space

Introduction

PMS MK Ltd [formally PMS] has provided embedded capital works project management and cost consultation at Milton Keynes College for a period of 17 years. Over this period, PMS has worked on 10 projects with a combined value of £47m. In 2019, after a successful bid to the Department for Education (DfE) in the Wave 1 Institute of Technology (IOT) Funding round, the college embarked on a partnership with Activate Learning to develop three new Institutes of Technology centres based in Bletchley, Oxford [Blackbird Leys] and Reading.

PMS provided the technical content, master programme and cost plan for the successful bid. The college worked with anchor partners Microsoft, KPMG, Cranfield University and CCL Solutions Group. The SCIoT was the largest Wave 1 IOT and the college was successful in securing nearly 100% funding for the three centres. The project team were appointed to complete all three SCIoT projects.

In early 2020, with the design works underway for the first two centres, the college were finalising the location of the third IOT in Block D at Bletchley Park. The proposed site was of international significance, and the anchor partners were very keen for the IOT to be located at the home of computing.

The project team carried out extensive surveying of this historic location, advanced designs and costings were approved by the college’s senior leadership team.

Unfortunately, the landlord and the college were unable to agree a leasehold arrangement and after a series of sites were considered, it was decided to locate the third centre on existing campus at Bletchley. The Andrew Peck building was selected as it provided a standalone site with the potential to add a significant three-story extension.

Risk registers were maintained for each individual project from project inception and were reviewed at monthly client meetings. PMS developed a phased programme across five years for all three projects. The construction works were procured via two-stage open tender on Contracts Finder, ensuring flexibility for funding confirmation and compliance with Public Sector Procurement Regulations.

PMS chaired regular design team meetings ensuring coordinated output from architects, engineers, and M&E consultants. A federated Revit model was produced and maintained by design consultants. PMS coordinated clash detection workshops and resolution timetables.

PMS worked closely with key college stakeholders (student services, estates, teaching staff) conducting structured workshops to ensure a concise scope of works was defined. Operational college staff were consulted on the design of energy systems, entrances, and live-working requirements.



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Images show Oxford [Blackbird Leys] before and after

Project Outline

The grant award by the DfE was for all three centres to be delivered by a single college in collaboration with another FE partner [Activate Learning] in collaboration with industry and HE. The original master program assumed that the largest project [at Bletchley] would commence first with the smaller projects being delivered co terminus. Due to issues with finalising the location of the large IoT, PMS recommended to the college to switch the delivery program around and to deliver the schemes from smallest to largest. This decision-maintained traction with the DfE and avoid pauses in the overall delivery program protecting against cost rises.

Reading

The first project was carried out at Activate Learning Reading College and was located on the part third floor of the 1950s main teaching block. This project was challenging as the works could only be carried out during a narrow summer shut down period and all the materials had to be carried from the ground floor to the site. The works were completed on time and on budget.

Oxford [Blackbird Leys]

The second project was located at the heart of the main Activate Learning campus at Blackbird Leys in a three-storey redundant 1960s teaching block. The works included the decarbonisation of the heating system and the removal of gas boilers; extensive concrete structural repairs and the full removal and reinstatement of the external cladding façade on the main two elevations.

Bletchley

Once the final site location was agreed, the college had set the delivery team a challenge of keeping the Andrew Peck building live during the works. PMS ensured rigorous segregation of live teaching spaces and the installation of integrated, temporary fire alarm systems. RAMS were reviewed and approved for high-risk activities, including working at height and noisy drilling.

The project was constructed in three phases. Initially, a new side entrance was constructed to allow the new build works to commence independently at the rear of the site. At this point in time, the occupation of the building moved exclusively onto the ground floor.

In September 2020, the IOT was installed in this location. Two months into the project, works commenced on the first and second floors of the existing building. There had been a delay to the start of the works due to the Ukraine War which resulted in construction costs becoming highly volatile. PMS and Ashe Construction were able to value engineer the project to ensure that the works could commence within the authorised DfE budget spending window. During this time, external works had commenced. In July 2021, the IOT relocated to the refurbished areas on the first and second floor of the existing building.



The SCIoT at Bletchley is a four-storey building which is part new build, part refurbishment, and has a GIA of 3970 m². The accommodation created includes a large open plan reception with café open to the public, a large high-spec assembly hub with fixed tiered seating with capacity for 300 people, specialist IT laboratories and agile, teaching facilities. A variety of open and closed break out spaces, a fully equipped TV studio and green room and an esports gaming centre. Flexible hot desking solutions for staff and students and extensive showering/changing facilities and fully adapted wet room are available. The building was equipped with £1m high end IT teaching and learning equipment. The building includes a green roof and PV installation. Risk registers were devised and maintained by PMS with input from all the key stakeholders for each individual project. The risk registers were reviewed at monthly client project team meetings.

Project Challenges and Solutions

The funding for the IoT centres was initially launched by the DfE as a competition which could be entered by the entire FE Sector. With no capital monies available to cover the costs of preparing a bid, MK College contracted PMS to work with the CEO of the College to prepare all the cost and technical elements of the bid. This required the project manager to devise a robust cost plan and master program well in advance of any other professional team members being recruited.

To avoid the risk of cost and time over runs at hit early stage, PMS worked with the college to test the high-level assumptions and to set some robust project parameters. Robust site segregation on the occupied sites at Bletchley and Oxford [Blackbird Leys] was a staff a key priority. To achieve rigorous site segregation in the occupied building at Bletchley, the second man staircase was repurposed for operatives to use with an override linked to the fire alarm.

PMS ensured pre-construction information collated aligned to CDM 2015 roles and responsibilities and that a risk register maintained and updated with the Principal Designer.

Project Outcomes

Reading

- Opened to learners on time and was fully operational in all areas.
- £550,000 of specialist equipment was procured and installed before occupation in early September 2021.
- The project was decarbonised with a “fabric first” approach to specifying the MES plant and controls.

The centre can easily be adapted once the college implements additional net carbon in use technologies in the future.

- Although the roof upgrades were added during the construction phase of the works, the project was delivered on budget.
- The refurbished areas were removed from centralised wet fire heating system and modern controls installed.
- The internal fit out was styled to be similar for all three SCIoT sites.
- This part of the building has an extended usable life of at least 30 years.

Oxford [Blackbird Leys]

- Standalone building was overclad on the two main facades overclad with new class A rated aluminium/CPC panels. The project team worked very closely with the cladding specialist to ensure all the fire stopping and detailing was to the current best standards. This was backed up by regular fire engineer/approved inspector site checks.
- Failed concrete flooring/columns were repaired eliminating the need to demolish the building.
- All the gas supplies to the building were removed and a massive redundant heating oil tank was excavated and the contaminated spoil remediated.
- A new power supply from the on-site substation was installed across the site.
- External windows and doors were replaced and the walls fully insulated to 2023 thermal standards.
- The works were carried out mostly during the normal teaching year.



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- The project was delivered with no injuries or serious accidents.
- A highly cost-effective cost/m2 for a building that now has at least another 30 years of economic use.

Images show Reading post completion [no external facade works undertaken]



Project Outcomes

Bletchley

- The standalone building was fully refurbished and doubled in size whilst 70% occupied.
- The main facades overclad with class A rated insulated aluminium/CPC panels. The project team worked very closely with the cladding specialist to ensure all the fire stopping and detailing was to the current best standards. This was backed up by regular fire engineer/approved inspector site checks.
- A new substation was installed and switch over facilities incorporated into the design specification to ensure that the supply is uninterrupted in the future.
- External windows and doors were replaced and the walls fully insulated to 2023 thermal standards.
- The works were carried out mostly during the normal teaching year.
- The project was delivered with no injuries or serious accidents.
- A highly cost-effective cost/m2 for a building that now has at least another 50 years of economic use.

Lessons Learnt

For all three projects, PMS chaired lesson learnt meetings that were attended by the core design team, the senior college client team [including Activate Learning]; key stakeholders [including the DfE] and the construction / supply chain.

Key findings are set out below:

- It was agreed by the college[s], that the core team being appointed to work on all the projects had

to achieve a high level of continuity and that the sites all had a very similar architectural theme.

- The team acknowledged that achieving a ‘right first time’ commissioning and controls solution was an area for improvement.
- Partnering directly with plant manufacturers [e.g. Nilan] allowed problems with controlling the equipment to be resolved directly.
- The on-site premises team commented that managing a site alongside a live building required additional staff resources to be supplied.

Key Project Management Achievements (Mapped to ITT Requirements)

- Maintained live risk registers, held regular workshops. Risks tracked against time, cost, and quality.
- Delivered within approved budgets; managed live cost reporting, scenario testing, and value engineering.
- Phased programmes achieved early occupation of key areas especially at Bletchley.
- Extensive collaboration with teaching, estates, and student services teams; managed live site within occupied campus.
- No major incidents; proactive RAMS management; compliance with CDM 2015 and Building Safety Act 2022.
- Regular progress, cost, and change control reports produced; end-of-stage reports and lessons learnt compiled.



KPI Delivery: Project Management Solutions MK

- **Budget compliance:** 100% achieved.
- **Programme compliance:** all projects delivered on schedule.
- **Client satisfaction:** positive feedback; follow-on commissions awarded.

Images show assembly hub and exterior of Bletchley

