

Building E

**New Masters of their trade
Meet the mental health first aiders
Lecture theatres are transformed**

Welcome

December. Winter is well and truly here, and with Christmas just around the corner, the focus in Estates Operations is on the delivery of our targets, long after Santa has completed his!

Top of the request list is the fit out of Building E: the Sir Michael Uren Hub which will be ready for occupation in January. You can read more about this on page 8.

Since the start of summer, our division has achieved a great deal. High profile projects have included the transformation of two lecture theatres which you can read about on page 11.

Everyday activities, which slip by almost unnoticed or unsung have included work such as teaching room upgrades, procurement of utilities, toilet refurbishment, window cleaning, pest control and not to forget the plugging of all those leaks during extreme rain in the autumn!

I purposely mention unsung, as celebrating the success and profile raising of Estates Operations so we are not just regarded as the 'leak hotline' is something I am deeply passionate about.

Steps have been taken to improve our communications and profile, not just internally, but with all our stakeholders, and publishing this magazine is just one way in which I hope to achieve this.

Have a good Christmas and New Year,

Nick Roalfe, Director Estates Operations



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SPACES		

Alternative format

This magazine is available as a downloadable PDF on our website at: <https://www.imperial.ac.uk/estates-facilities>



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Our new magazine

The name of our new magazine is: 'People, Places and Spaces'.

In a bid to celebrate success across Estates Operations, that's exactly our focus. Our people, including our contractors and other stakeholders, the places we work in and on, and the spaces both inside and outside the many buildings that collectively form Imperial College.

The magazine is yours – something to be proud to see your successes featured in, help you connect more with your colleagues across the division, and share with contractors and other stakeholders.

There are many successes to celebrate in this first edition: academic achievements, contributions to wellbeing across College, and the teamwork in transforming tired lecture theatres to modern, accessible, inclusive spaces for our students, to mention just a few.

If you would like to contribute an article for a future edition please email Jan Carberry, EstatesCommunications@imperial.ac.uk.

Waterless printing technology

Our printing company's 20 year journey of transformation

Before deciding to publish we thought long and hard. Print is often seen as the bad boy of communications. However, digital delivery is not accessible to all, and has its own environmental impacts.

How could we ensure that our good intentions to communicate in an accessible format did not have a negative effect on the environment?

We found a printing company which uses sustainable technology and supports our values on sustainability. This magazine is:

- Printed on 100% FSC certified recycled paper, using 100% waterless offset printing which is 100% alcohol / VOC free.
- Produced in a carbon positive factory, using 100% renewable energy, with zero waste to landfill.

The company is Seacourt, based in Oxford. It was one of the very first printing firms to achieve Eco-Management and Audit Scheme (EMAS) certification in 1999. It has won three Queen's Awards for Sustainable Development and in 2017 the title Europe's most sustainable SME.

For 20 years Seacourt has worked to transform from a typical polluting printer, using water and discharging chemicals, to 'doing less harm' by developing a new printing technology, and now 'doing more good', making a positive contribution to the environment and society through many other initiatives. You can read more about them on their website: <https://www.seacourt.net/planet-positive-printing>.

A sense of identity

As part of the magazine design icons have been created to represent each section within Estates Operations.

They will be used to convey some information in a simple format.

They will also appear elsewhere in communications, for example on noticeboards. Here they are:

Project delivery



Engineering



Fire safety



Customer services



Energy and environment



Property



Health & Safety



Soft services



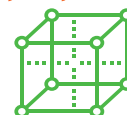
Building Operations



Strategic infrastructure



Space planning



Learning & Development



Maintenance



The Apprentice(s)

Lunch with the Provost, family and friends

Three Estates Maintenance Technician Apprentices completed their programmes this year.

The four-year programme included a year of full-time study at Kingston College and rotations across the maintenance teams at South Kensington, St Mary's, Hammersmith and White City. They also spent three months shadowing and getting hands-on experience with our contractors ABEC on the Building Energy Management System.

Hasan Polat, (pictured right above) now Assistant Maintenance Technician at South Kensington, also achieved his Technical Certificate Level 2, Diploma in Operations and Maintenance Level 3, NVQ Level 3 in Electro-Mechanical Maintenance and BTEC Level 4 HNC General Engineering. Shenice Lalor (pictured left above) completed two years of the programme and was promoted to Engineering Technical Assistant. Kieran Kotecha has moved on to opportunities outside Imperial.



On 19 September, Shenice, Hasan and Kieran were guests of the Provost, Professor Ian Walmsley and presented with their completion certificates. Lunch was served for them along with families and guests and other apprentices from across College as part of the event held at 58 Prince's Gate.

Expanding the future talent pool

The apprenticeship scheme to secure a strong pipeline of future talent in the College workforce is to be expanded. There are three apprenticeship schemes running, including one for Estates Maintenance Technicians.

The first College scheme, for Technical Apprentices, started in 2011, with Estates apprenticeships following four years later. The proposal is to expand the scheme, which supports succession planning, to other areas including Building Operations and Property and Estates Management.

The scheme is also expanding by offering apprenticeships to: employees who need to gain new skills, employees who want to do a professional qualification, and staff who are moving into management (or senior management) positions.

Learning and Development Senior Coordinator Angela Williams can offer guidance and support about all opportunities available to Estates staff.

Study aid

Estates Operations' Sponsorship Policy was introduced in 2017. Staff can apply for sponsorship to support their continued professional development. Applications are considered by the Sponsorship Panel which is made up of the Director, Heads of Departments and Learning and Development.

Staff with at least 12 months service by 31 March can apply for up to 100% funding towards a qualification or professional membership. Courses ranging from Masters to technical qualifications studied by day release at college/university, distance learning, blended learning have all been supported. Funds are limited and not all applications are successful or are 100% funded.

The Learning and Development Centre operates the College-wide Study Loan Scheme which is open to all staff.

Fully wired

Congratulations to the engineers who have completed City & Guilds 18th Edition Wiring Regulations.

James Kelly, Brompton; Liam Henden and Paul Young, Hammersmith; Christopher Khan, White City; Peter Szpur, Silwood; Michael Nutley and John Harrington, St Mary's; Paul Edwards, Calvin Bennett, Kare Rai, Filipe Martin, Reece Shelley, James Penfold, Andy Turner, Vinay Patel, Jack Woodrow, David Wenborn, Terry Bent, Jemil Kewfi, South Kensington.



“I HAD TEARFUL MOMENTS”

Alyson Brewer

Jacks of trades, and Masters too

We hear from some colleagues who are recent Masters and one currently studying.

Alyson Brewer, MLitt Dundee 2018
Records and Archives Officer

I didn't have a formal archives qualification when I started my current role, selected instead for my architectural background.

After starting my archival training on one-day courses, seminars and shadowing the College Archive, I embarked on a distance learning Post-Graduate course at Dundee University, having first taken a module on Digital Records Management which was counted towards my final grade. I studied in my own time with an agreed amount during work.

To attain the Masters (MLitt) qualification, I submitted an 18,000-word dissertation, which enabled me to conduct research into preservation of architectural records, from paper through to BIM models.

Returning to study after a 20-year break was daunting, particularly when working full-time. I won't pretend there weren't any tearful moments, but overall it was a rewarding experience. I learned the importance of making the Estates Archive more proactive and being involved at an early stage to capture vital records.

Since graduating, I have applied for accreditation from the Archives & Records Association and am currently completing my CPD portfolio Foundation Membership (FMARA)

David Larbie MSc UCL 2019
Assistant Building
Services Engineer



My dissertation, completing a Master of Science (MSc) in Environmental Design and

Engineering, was titled 'Developing a Window Opening Control Strategy to Limit the Risk of Discomfort in Cellular Office in Central London'. I studied four years part-time at University College London's Bartlett School of Environment, Energy and Resources.

The thought of returning to education after a seven-year absence was very daunting (and extremely challenging). However, the support from colleagues and the College as a whole, was great and significant in my success.

The period away from formal education and a range of different work experiences determined me to pursue a career as a Building Services Engineer. My chosen course covered a range of topics

such as indoor air quality, energy efficiency in building and systems design, building modelling and simulation, and environmental analysis. My next goal is to work towards engineering Chartership and hope to achieve this in the coming years.

Lauren Devereux MSc UCL 2019
Project Manager

This summer I completed an MSc in Project & Enterprise Management at the UCL Bartlett School of Construction and Project Management which I've been doing with College backing over three years. I wanted to get a construction related qualification (my degree was in Physics) in order to progress my career. I was encouraged by my line manager to apply for the UCL course.

George Caleap
Assistant Project
Manager



I started work at College in July '17 and I have just completed my first year sponsored MSc

in Construction Law and Dispute Resolution at King's College, London. The course provides a unique cross-professional perspective on construction law and its development throughout the life of projects.

The results are in ...

The College-wide staff survey was conducted this spring. Roadshows were held to feedback the key themes emerging from the analysis. These were identified as work pressure, managing change, leadership impact, barriers to collaboration, and unacceptable workplace behaviours.

Further focus groups and engagement activities have been held to probe the themes, and to produce a College-wide action plan by February 2020. Each faculty and department has its own plan to produce. In Estates heads of service have developed focused actions based on the results from their team. They will be sharing and discussing them at team meetings.

Some actions apply to all, some are specific. Examples include:

- Managers ensuring regular one-to-ones to support staff, with staff taking responsibility for workload discussions as part of this
- Improving career opportunities by encouraging training and development, and ensuring vacancies are visibly advertised
- Reviewing protocols and actioning to provide clarity to working practices.

Director of Estates Operations, Nick Roalfe said, "It is two years since the last staff survey, and the structure of Estates has changed in the interim. This survey was timely for us to hear staff concerns, in the wider context of benchmarking against the whole College, and to address them. One way of keeping you updated and hearing your feedback is through our regular Estates Forums."

Mindful of mental health & wellbeing

Back in the day, slicing out parts of people's brains, shock treatment, or pumping people full of drugs were the 'go-to' for mental 'illness'. Little wonder that fear and stigma has surrounded mental health, even though treatment and support have advanced light years.

Workplaces have a duty to ensure arrangements for the treatment of minor health emergencies - First Aid: including mental health.

At Imperial we have Mental Health First Aiders (MHFA). Currently there is one for around every 100 people across all Imperial's campuses. They are

trained, having taken an accredited course, to listen, reassure and respond, even in a crisis – and can potentially help avert one. They can do this by recognising warning signs, and through the skills and confidence to approach and support someone experiencing mental ill-health. They also have a role in supporting wellbeing and tackling stigma.

We have 10 MHFAs within Estates Operations, recognisable by green lanyards.

Personal testimony, sharing your own lived experience, is a powerful tool. We hear from some of our MHFAs. ►

You can train to be one too

David Traske, Quality and Audit Compliance Manager, said: "The number of us within Estates Operations – 10 - really supports the College target."

All MHFAs have been taught an understanding of mental health, suicide, anxiety and depression and psychosis, and how to:

- Spot the early signs of a mental health problem
- Feel confident about helping someone experiencing a mental health problem
- Provide first aid help
- Help prevent someone from hurting themselves or others
- Help stop a mental illness

from getting worse

- Help someone recover faster
- Guide someone towards the right support
- Reduce the stigma of mental health problems

If you are interested in training, you will need to take and complete the full two day course, accredited by Mental Health First Aid England.

You'll receive an MHFA Standard manual and an attendance certificate to confirm you are a Mental Health First Aider.

Details: <https://www.imperial.ac.uk/health-and-wellbeing/mental-health>

The College target is for the ratio of MHFAs to be 1:50 by 2020



Darsi Wickham is the Building Manager for Hammersmith Campus. She has lived experience of a mental health condition.

She was a temp in 2005 when sadly, someone jumped from a building in front of her. Darsi explains: “There were a number of trigger points which actually pushed my mental health over the edge but witnessing such a tragic suicide was certainly a main one. My mental state collapsed, and after a long time off work, on my eventual return I wanted to try and help others.

“When I heard about the MHFA scheme I immediately asked to train, it’s a hugely important support mechanism.”

Darsi appears confident, lively and bubbly, but says something that may resonate: “It can be a mask.” Her truth is simple: “I can listen, giving time, a safe space, and signpost to help.”

Energy Engineer **Hari Haren** is based in South Kensington has experienced how an anxiety condition can affect someone’s everyday life.

He said: “I volunteered as they particularly wanted men to come forward – men just don’t talk, do they? Many of us will experience the pressures of work / life that can be overwhelming and lead to increased stress and anxiety. This could build up to illness. Seeking advice from a friendly, non-judgmental, confidential advisor can be a welcome relief, the first step to addressing the issues and a road to recovery.” He added: “Whatever the issue, talking to a MHFA can help. You will often find that they have experienced mental health issues themselves or with someone close, so can relate.”

Gary Clements has worked for Imperial for 20 years, and is part of the maintenance team at South Kensington. “I’m a ‘big fella’ but easy to

talk to when you know me”, he says with a smile and a twinkle in the eye. “Life can be hard, there’s a lot expected from people.”

Gary is very aware of self-harm because of someone he once knew. While he hasn’t been called on since recently training, he hopes he can support colleagues before they ask. “It’s easier to help if you are familiar with someone and can see when they are not their usual self.”

Health and Safety Advisor **Sangita Kerai**’s mantra is “Let’s have a coffee,” with “it’s good to talk.”

“I’m a people person, that’s how I am with friends and family, always listening. When my awareness of mental health was raised by someone I know, I decided to train.”

Sangita has worked at Imperial in different departments since 1996, so is a familiar, friendly face to many, especially at South Kensington.

“Someone might be really cross, angry within, I take them for time out from an environment or situation and listen.”

Also recently trained, **Steve Walker**, Fire Safety Advisor, said: “Everyone needs a shoulder to cry on or a hand to lift them up now and again.”

All our MHFA recognise issues and combinations of issues that can be triggers for mental health episodes: work and home pressures, loneliness, isolation, domestic violence, abuse, bullying, post-traumatic stress, bereavement, colleagues leaving, making new friends in the workplace, changes and moves at work, among many others.

● **The 10 MHFAs in Estates are (above left to right): Hari Haren, Steve Walker, Sangita Kerai, David Traske, Ivan Carromero Manzano, Darsi Wickham and Denis Murphy, and (not photographed) Maria White, Julie Bryant, and Gary Clements.**

A simple name belies a legacy

The triangular 54 metre tall Building E is almost complete

Its correct title: *Sir Michael Uren Hub* is a 13 storey building at White City campus. It is named after distinguished engineer, philanthropist and businessman Sir Michael Uren who graduated from Imperial in 1943 (Mechanical Engineering and Motive Power).

Sir Michael, who died in August, is the most generous benefactor in the College's history. The building that now bears his name was made possible with a £40m gift – around half the cost of construction.

Following his death, Professor Alice Gast, President of Imperial College London said: "His legacy will live on in perpetuity through his vision for, and generous support of many world-leading research programmes at Imperial. The Hub, made possible only through his remarkable gift, will

stand as a testament to his vision and generosity."

Her words are literal: the façade is substantially made from the material developed by Sir Michael – ground granulated blast-furnace slag (GGBS). It pioneers the architectural use of the material - more commonly used in structural concrete - in its fins. The fins, which create a striking visual identity, shade the interior providing a visual effect that changes dramatically with the viewing angle and light conditions.

GGBS, a by-product from making steel, replaces cement in the production of concrete. Its use as a binder as a replacement to carbon-intensive cement reduces the carbon footprint of concrete manufacture. In this project 50:50 GGBS and cement was used.

Staff will start to occupy the building from January 2020. It will bring together more than 500 engineers, clinicians and scientists to develop new and affordable medical technologies.

The project was first conceived in 2014 and after design, approvals and procurement, Sir Michael performed the breaking ground ceremony in January 2017. In September 2018 the 'topping out' (when construction of a building reaches the highest point) took place.

In October we achieved the completion of the building and have since been preparing it for occupation as well as landscaping around it.

Making the Hub fully operational will include installation of a number of specialist labs and the creation of a bar /restaurant, all scheduled to be completed during 2020.

That's interesting

Timely work

Building E took approximately 1,270,000 person hours to build.

Many hands

29 different subcontractors worked with the main contractor ISG to complete the building.

Take the stairs

There are more than 300 steps from the lower ground floor up to floor 12.

Penny for them

There are 56 toilets and 12 disabled toilets provided in the base build of building E.

Standing tall

If you look out of the glazing on floor 12 you are approximately 55m above the entrance that you used to access the building.

Cover Story Building E



Project file
Construction Value Circa £84m
Form of Construction Contract NEC
Form of Procurement Design and Build
Floor area (GIFA) 18,150m²

Team
Project Manager Turner and Townsend
Quantity Surveyor Faithful & Gould
Architect Allies and Morrison
M&E Engineer Buro Happold
Principal Designer Allies and Morrison
Approved Inspectors Bureau Veritas
Principal Contractor ISG
M&E Sub Contractor Michael J Lonsdale
Structural engineer Curtins

Inside, floor by floor

Level Lower ground houses plant, and staff showering and changing areas. There is also space for a future clinic.

Level Ground contains a large reception and waiting area, shell for café (fit-out beginning May 2020) and small retail unit, a small loading bay circa 60m², and office space.

Level 1 is shell only for future fit-out as a clinic.

Level 2 contains mainly laboratory space and research-based area. Portion of the space is allocated for office use.

Levels 3, 4 and 5 have very similar layouts and consist primarily of open plan laboratory spaces, with associated secondary labs, meeting, write-up and breakout spaces.

Level 6 contains enclosed laboratories, offices and meeting rooms with a clean room fit-out beginning in January 2020.

Level 7 will house the Dementia Research

Institute (DRI) and it contains a different balance of laboratory and office spaces.

Level 8 will house the Royce Foundation. Part is currently a shell layout for a clean room.

Levels 9, 10 and 11 are currently left for future fit out, for the School of Public Health (SOPH), DSR and Cardio from the School of Medicine.

Level 12 has a slightly reduced floor plate, with several external spaces. Three contain plant and two will be used as external terraces. There are two lecture/seminar spaces next to one another, each has capacity for circa 80 people, with two exits from each. A glazed corridor runs along the central lecture rooms, as circulation space and to host catering services during conferences and events. It offers a magnificent view. Two smaller lecture rooms with capacity of 35 people each are at each end of the corridor.

Level 13 is a flat roof covered by a filigree metal structure.

Access by design

The renovated lecture theatres include features that follow ‘accessibility by design’ principles. For example: multiple wheelchair places in lecture theatres providing those in wheelchairs choice of where they wish to sit; entry ramps; wall partitions; AV solutions to help lip reading and sign language interpretation software; power and data points at all seats; and high contrast between objects such as carpets and chairs for those with sight impairment.

Mary Bown is the Head of the College’s Disability Advisory Service. Universal Design she says, “is a hard concept”. Accessibility should not be ‘a problem’ that needs to be addressed for the individual, instead the whole of society adapting its approach to inclusivity.

Beyond such high-profile transformations, Mary’s relationship with Estates Operations is a two-way street. An element of her role is reporting to Director of Estates Operations, Nick Roalfe on accessibility and she attends the Technical Advisor Group for large projects.

She explains that Estates Operations is good at thinking about universal accessibility improvements strategically when project opportunities such as this arise, and supportive of providing retrofit works for the individual when she requests them within the constraints of existing and sometimes historic buildings.

Two lecture theatres, Blackett 113 and RSM 147, were stripped out this summer and renovated as part of a long-term project to improve learning and teaching spaces across the College.

There has been significant investment in the transformation, heralded by College for the considerable ownership and involvement of staff and students in influencing the design. The improvements are not only aimed at providing flexible use for a far wider variety of learning and teaching for current students, but to meet the needs and expectations of students for decades to come.

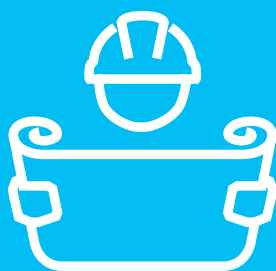
The project was, as is often the case, a tight turnaround. The process began back in January 2019, when a procurement strategy for two-stage ‘design and build’ was agreed.

This allowed for a contractor to be appointed to begin the strip out before the design work was completed. The decision saved around four to five weeks in the project – fundamental to ensuring handover on schedule in September. Everything was running well. ►



Changing the dynamic

The refurbishment is for introducing newer ways of teaching, and also provides opportunity to make that experience as universal as possible, including for hidden disabilities, through design. Mary Bown, Head of the College’s Disability Advisory Service, feels the success of the two re-fits in terms of accessibility is highly successful. There are trade-offs, she explains. For example, that to ensure there are enough wheelchair accessible spaces the overall capacity of the lecture theatre is reduced.



5,000 person hours

7 sub contractors

190m of sustainably sourced wood cladding



Fulfilling our mission statement

Then came the challenge. As part of the transformation air-cooling systems were being installed in each lecture theatre. Despite the risks and mitigations considered for any project, an air-cooling system delivery date cannot be confirmed until it is ordered. Two were, date confirmed to allow time for set-up and testing. Then the supplier said there was to be a delay, the one for RSM 147 was within a workable timeframe. The second, for Blackett 113, would arrive on planned handover day.

It was then that a combined department - Estates Operations was previously split into Facilities and Projects - paid dividends. As the alarm was raised about the potential project derailing for want of a cooler – the industry connections and experience of Acting Head of Maintenance, Rak Patel, saved the day. He was able to identify a supplier who could provide the order sooner – although still behind schedule – switching the late delivery cooler for a planned project elsewhere.

Dave Sellens, of Henry Riley Associates, Project Manager,

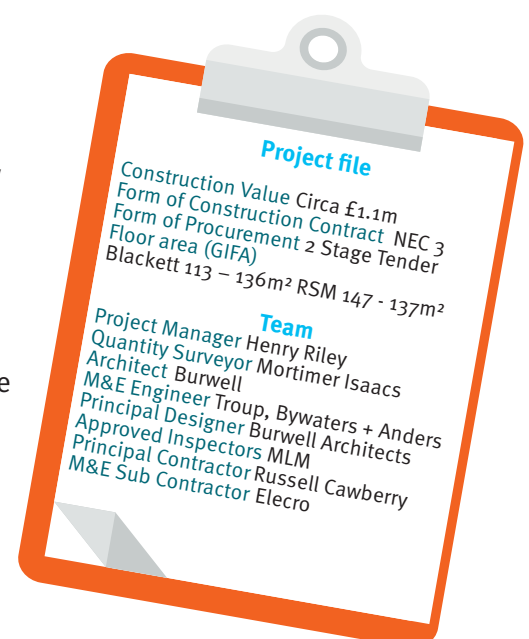
said: “Despite all your checks, working together well, and everything seemingly going to plan, something like this can let you down. Rak pulled a rabbit out of the hat.”

Both theatres were handed over on schedule. Those interested in the transformation can see a ‘before’ in the case of Blackett 113, as its mirror lecture theatre Blackett 112 remains unaltered.

Feedback is positive. Dr Jonathan Eastwood, Senior Lecturer, was involved in the redesign of Blackett 113. He said: “Everyone across College worked together very effectively to deliver the new room. It is fantastic. I have already noticed students using the space for private study, and on the staff side, we are very excited about developing new activities that will make use of the space. Our first year students are now using it regularly for active learning seminars as part of the new physics curriculum. I will be teaching in Blackett 113 in the spring term – I can’t wait!”

Vice-Dean (Education) for the Faculty of Engineering, Professor Omar Matar said: “By evaluating the impact of these renovations we’ll get a sense of how the spaces are being used, and what our priorities should be for the future.”

Next, and bigger than both these theatres are plans for the Glenister building at Charing Cross.



Planning ahead - 2020 diary dates

Date	Description	Venue
March 2020	11th. Spring Estates Operations' Forum.	To be confirmed.
June 2020	Dates vary by venue. Staff survey roadshows with the Provost, Director of HR and Organisational Change team.	Hammersmith, White City, St Mary's, Silwood, South Ken.
July 2020	14th. Support Services Summer Party, 4pm onwards.	Queen's Lawn, Queen's Tower Room, South Kensington.

Practical heritage

In 1905 the corner site belonging to the Science Museum, in Exhibition Road and Imperial Institute Road (as it was then) was appropriated for a Post Office and early meteorological office. It was built between 1908-10 to a design by architect Fairfax Wade by Clerk of Works, Sir Henry Tanner.

When College took over the building in 2016 for the Dyson School of Design Engineering the Met Office had long gone, as had the last occupant, the Royal Mail sorting office.

A £12 million donation from the James Dyson Foundation made it possible for College to create this new centre transforming the grand, beautiful Edwardian Baroque-style building.

Although not listed, the four-storey building is within the Queensgate Conservation area. As a planning condition period features had to be retained and heritage considered in its redesign.

Architects Pascall+Watson were briefed to provide a sensitive yet practical design for change of use. Carbon consumption needed minimising, as well as energy use and wastage in line with the College's Environmental Policy. The aim is to become the leading UK academic institution providing a showcase low carbon heritage estate.

Significant heat and energy can be lost through poor performing windows, so secondary glazing

was specified. Low-E glass secondary windows can reduce U-values to 1.8-1.95 and eradicate virtually all draughts.

Selectaglaze, a company founded in 1966 and granted a Royal Warrant in 2004, were the suppliers. Configurations were designed to treat the more than 180 beautiful, original single glazed windows of all shapes and sizes that were retained. Seven different types were installed to match the varying styles; large sweeping curved headed casements, tall traditional box sash windows, stairwell porthole windows. Units were glazed with 6.8 low-E laminate glass.

Obscurity glass was fitted in overlooking windows, and on Exhibition Road and Imperial College Road a cavity added noise insulation - as in the photograph above.

Security was enhanced by Secured By Design accredited windows, the Police Preferred Specification with specialist locking systems and key locking handles.



Sustainability Statement

This magazine has been produced using methods which support our values on sustainability. It is printed on 100% FSC certified recycled paper, using 100% waterless offset printing which is 100% alcohol / VOC free. It has been produced in a carbon positive factory, using 100% renewable energy, with zero waste to landfill.

Imperial College London Estates Operations is committed to the environment.

This document is printed using processes that are:



Printed by **seacourt** – proud to be counted amongst the top environmental printers in the world

Zero
0%
waste
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