

**Green
Imperial**

Inside▶

**35 years as a
groundsperson**

**Decarbonisation
of South
Kensington**

**Grantham's
living wall**



Welcome

from Nick Roalfe

As People, Places, Spaces went to press we were experiencing record-breaking temperatures, in part attributable to climate change. Our cover story, and a few other articles in this edition showcase some of the work that Imperial, supported by Estates Operations, is

taking towards net zero and the drive for greater sustainability of our built environment.

As this edition lands on your desks, we are nearing the end of the summer and anticipating the start of the autumn term. This brings with it a very real challenge that we can all relate to – high energy bills. This is not just simply a question of how we can afford them,

but how to reduce our energy consumption in the first place, driven by our move towards net zero. Our Energy and Environment team are actively addressing these issues and would positively welcome ideas and suggestions for ways to save energy, reduce our costs and drive down bills. Please do get in touch with any ideas you might have.

This period is one of transition. We've said farewell to President Alice Gast - I'm sure you'll join me in wishing her well and in her recovery - and we now welcome our new President Hugh Brady. I await, as we all do, news of an appointment of our new Chief Operating Officer, (my new boss!) hopefully there should be some news to share on this soon. The move to hybrid working takes full effect this autumn, and we will continue to monitor practicalities relating to this. I do hope as many of you as possible will take part in our 'Values Roadshows' run by my senior leadership team taking place over the coming months.

Thank you for your hard work and professionalism in supporting the Academic and Research missions of the College. Imperial is first in the UK for research outputs, first in the UK for the research environment and first for research impact amongst the Russell Group for universities!

I look forward to seeing you soon at the Estates September Forum.

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Alternative format
This magazine is available as a downloadable PDF on our website at: <https://www.imperial.ac.uk/estates-facilities/about-us/people-places-spaces/>

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Cover Story: The living wall

A living wall has recently been completed to create a new vertical garden on Dalby Court between Faculty and Electrical and Electronic Engineering Building (EEEEB). The installation has created approximately 22m² of new green space which is a lovely addition to this area.

The stackable trough assembly was suitable for this low height location, with only the need to restrain the boxes back to the existing balcony walling. The integrated irrigation, and the water reservoirs within each trough, makes watering really easy.

Living walls bring many benefits to people and the environment; cleaning the air, improving health and wellbeing, enhancing biodiversity, using plants to soften and enrich previously hard, bare vertical surfaces. This excellent development was created by Biotecture who have a lot of experience in similar installations, and the project overseen by Nic Dent and the Soft Services team.



New Starters

We say hello to new starters, Lizzy Hand, (top left) Head of Building Operations, Sally Karrar, (bottom left) Minor Works Project Manager, Gabriel Galvez, (below) Assistant Project Manager and Lucy Cowell, (right) Fire Safety Advisor.



The plant boxes are built to last using 100% UK recycled plastic by manufacturers in the UK. There are 260 plant boxes containing 1040 plants, suitable for partial shade, which are a mix of the following plant varieties: honeysuckle, lilyturf, bellflowers, Japanese spurge, ivy and spindle.

Assistant Building Manager Tim Flint arranged for additional furniture to be provided to bring people into the space. Lettering is being added so, the feature will also be used to signpost the Grantham Institute which, although technically part of EEEB, is a separate entity for access. From the moment of installation the plants looked well established and we hope it will thrive in years to come.

Movember mile match

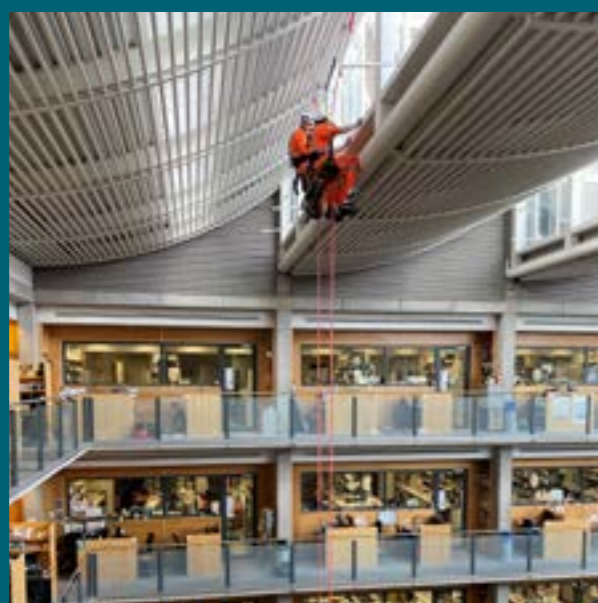
Maintenance will be 'doing Movember', the annual moustache growing event during November to raise awareness of men's health, such as prostate cancer, testicular cancer, and men's suicide.

They'd like Mo bros and sisters to join in. As Mo sisters can't easily grow moustaches, here's the plan: One of the team, Jemil Kewfi has been taking on epic virtual challenges the whole year to walk, run or cycle 3,500 miles, raising funds for Prostate Cancer Research. During Movember the team will set out to mile match, combining this as part of the 'Run or walk 60km

over the month' challenge - that's 60km for the 60 men lost to suicide each hour, every hour across the world.

- What you can do:
- log your daily commute, steps at work, or any running or walking activity and get sponsors if you can. Use your phone, fitness tracker or app, or one of the 50 pedometers we will be loaning for the event. Log your daily total on a spreadsheet, we will publish a weekly leaderboard.
 - sponsor Jemil on his Just Giving website page
 - grow a moustache – if you can, and
 - check your health!

More details beforehand in the weekly newsletter.



A bright solution

How do you install lights at least four storeys high with no access? You ask Spiderman if he is free, or get an abseil team. The latter had a better rate so we went with them when fixing a long-standing source of complaint and annoyance for users of the Sir Alexander Fleming (SAF) building on South Kensington Campus.

The atrium lighting in the write-up areas on levels two and four was insufficient, and so each work station had a task light. These 120 or so lamps were often broken, or disappeared and were repeatedly being replaced.

Twenty-four years since they were put into service, a new solution is in place, thanks to the thinking of Building Manager Michael St Clair Laing, and the expertise of Maintenance Manager Ian Day.

Michael came up with a long term solution of using new overhead LED which Ian helped him to trial. A contractor was then appointed to design the new system. Now there are just 16 dimmable LED lights with a life span of seven years, and all saving energy and maintenance costs.

The atrium was closed off back in the Easter closure period to ensure minimal disruption for users during installation. So far, the future seems bright.

Employees of the Quarter



A bumper crop of eight Employee of the Quarter award recipients were announced at our June Forum and celebration.

Grouped by team they are: John Harrington, Jemil Kewfi (Maintenance) Rod Coppard,

Anna Talletti (Building Operations) Rob Poulton, (Space Management) Paco Villegas Ruiz, Michaela Dacosta (Projects Delivery) Amy Shaw (Finance).

Those at the event were presented with their certificates (photo L-R Nick Roalfe, Director, Michaela Dacosta, Anna Talletti, Rod Coppard, Jemil Kewfi and Paco Villegas Ruiz).

Here are some extracts from their citations.

John Harrington, Technician (Electrically biased) Maintenance

- Nominated by Allan Webb for his terrific work ethic and commitment to provide the best possible service. 'His ability to think outside the box is instrumental in overcoming the challenges frequently encountered in the Medical School's high profile working environment, even more so during the pandemic and he's highly respected by the various research groups on campus. John has also played a key role in the development of apprentices, two of which are still with the College progressing their careers and hopefully many more will benefit from his extensive knowledge and skill sets'.

Jemil Kewfi, Technician, Maintenance

- Nominated by Terry Bent and James Penfold for his dedication and support of others always with a beaming smile. 'Jemil is a shining example to all his fellow team members of what it takes to truly live the Imperial values. Maintenance has been short of hands recently and Jemil has leapt at this chance of collaborating with other shift team members, something that is not usually possible to do. This has had a positive effect on our ability to support each other.' 'He is one of those quiet people, but we all know that, with that quiet comes balanced and solid ways to move a problem to a successful resolution. His note taking is legendary in the maintenance community'.

Rod Coppard, Building Manager, and Special Projects, Building Operations

- Nominated by Michael St Clair Laing for his juggling of two building groups at the same time as stepping up to

cover gaps during the absence of a Head of Building Operations. 'He demonstrated what it was to work collaboratively and he delivered excellence,' 'able to do as he had the respect of his peers and managers', 'He has led in the interim with professionalism and integrity which I am grateful for. He is a light within the team and should be recognised as such'.

Anna Talletti, Building Manager, Building Operations

- Nominated by building users at MSRH at White City for her proactive approach to sorting legacy issues as well as her general day-to-day effectiveness.

Comments include: 'So far she is the one of the most effective building managers. Please forward thanks from FoNS Safety team to her.'

'A wonderful addition to White City' and 'we are super chuffed you joined the department. You are doing a wonderful job and making such a difference everyday'.

Rob Poulton, Building Information Co-ordinator, Space Team



- Nominated by Alyson Brewer for his pro-active approach and down-to-earth outlook and always being willing to help others. 'His outlook to work embraces the College values through his willingness to collaborate with others, understanding of others' views and always looking

for the best way to resolve issues and improve our processes. Although I can only speak for where my work crosses over with that of Rob's, I am sure my colleagues would agree that he is an asset to our team, and to Estates as a whole'.

Paco Villegas Ruiz, Project Manager, Projects Delivery

- Nominated by John Field for his professionalism. 'He establishes strong relationships, building bridges between departments. This ensures a sense of community between the departments. Instilling a teamwork approach having the right people onboard at the right time for a project to ensure full engagement



when it is needed. He demonstrates he is willing to be accountable in his role'.

Michaela Dacosta, PA to Head of Projects Delivery

- Nominated by John Field for her work ethic. 'She takes pride and is passionate in everything she does and is very supportive no matter which department one is from, bringing a sense of community to the division. She is extremely trustworthy, once given a task you can guarantee it will be fulfilled to an extremely high standard. She plays a very important role within Estates as a whole and her work activities have a big impact on many members of staff's day-to-day activity, sometimes, without us even knowing it'.

Amy Shaw, Category Manager, Finance Division

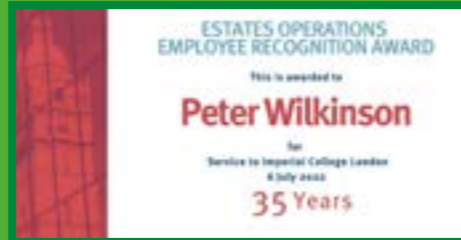
- Nominated by John Field. 'She is always willing to assist. Not only does she ensure we have completed documents as appropriate, but she is also more than willing to sit down with us and take the time to go through the completion of the documents to ensure they are completed right the first time. For those new to the process of procuring tenders and subsequent contractors for projects Amy takes the time to explain the process in detail allowing the user to gain an understanding on how the process works showing it is a vital process which is not as complex as it first appears'.



Celebrating long service

The Estates Operations' Long Service Recognition Scheme celebrates those serving 10, 15, 20, 25, 30, 35, 40 or more years, and those who are retiring.

At significant work anniversaries each long-server receives a certificate in a presentation folder and a letter from their Head of Department.



This year we celebrate 13 colleagues with 230 years' service between them.

All those who could attend the Estates Forum in June were congratulated and presented with their certificates in person by Director Nick Roalfe.

Colleagues reaching their milestones in the first part of the year were featured in our April edition of People, Places, Spaces magazine. This edition we focus on the rest of the year's recipients.

Imperial's postgraduate facility Silwood Park in Ascot, Berkshire celebrates its 75th anniversary this year.



At the same time, celebrating an impressive 35 years working there is **Peter Wilkinson**, the in-house groundsman.

Mancunian Peter had an interest in horticulture as a teenager, and first

worked at Arley Hall and Gardens in Cheshire (Peaky Blinders fans would recognise the hall from the explosive end to the series) under a training programme. It was jointly funded by the Stanley Smith Horticultural Trust and the Historic Houses Association.

When that ended he was unemployed for almost a year until his mum spotted an ad in 'Horticulture Week' for a gardeners' job at Silwood. He was invited for an interview, was offered the job that same day, and a week later drove down in his Mini "with my worldly possessions". He started work with the then team of 10 on July 6 1987.

At first he lived on site – a similar age to many of the students, he found the bar, the main hub of a small community, and quickly became affectionately known as PTG (Pete The Gardener). He found the campus classless and would enjoy the company of the academics as well as the students.

He is full of affection for the man who employed him, and mentored him, Colin Merryman (below) the Grounds Foreman and later Head Gardener, and remembers fondly in his first few years helping grow the flowers that were brought to South Kensington to decorate for the Summer Ball.



There's also a great relationship with Mick, Prof Crawley, Emeritus Professor of Plant Ecology in the Department of Life Sciences. A lot of Peter's work is to meet the needs of his department and students, looking after field sites for experiments, and grass for a long term experiment.

Ploughing, cultivating and woodland management of the 200 acres he thinks of as "my own back garden" is now supported by contractors rather than an in-house team. Peter considers himself very fortunate to be caring for such an ecology rich area, and able to enjoy the array of wildlife that it attracts such as Red Kites, Roe & Muntjac deer and many rabbits. "Sometimes it doesn't feel like a job," he says, adding, "I just like being hands on". Ornithology is one of his hobbies, so no surprise why he is so happy in the environment.

In stark contrast his other hobby is visiting Brooklands Museum, the birthplace of motorsports, and watching the many events held there.

"I was once advised to have a career, rather than 'jobs' and I think I have achieved that here."

Neil Walsh came to work in the Customer Services Centre as a temp. Like so many others, that couple of weeks turned into years. In his case 20.

For Neil the role has provided a good work/life balance, allowing him to maintain his interests outside work, with relative job security and a good salary. "There is more focus now on people, rather than just a job to be done," he says, commenting on this as one of the positive changes that he has seen. Neil has moved up to supervisor level in his time, having taken the LEAP course, and has found changes have kept the job fresh.

When he first came to the then 'Estates Helpdesk' it was tucked away in Huxley building at South Kensington, with a brick wall for a view, "very much behind the scenes". There have been changes to location, up to Level 5 Sherfield building, and during the pandemic, home: "you can work wherever the (phone) number is." There have been changes to the management structure too, from Maintenance, to Building Operations, with David Traske as manager, and back, perhaps the better fit.

Back in the day the computer system for requests relied, says Neil, on entering details, printing them, "so we killed a lot of trees" putting job sheets in maintenance team pigeonholes and in some cases faxing them – "remember faxing? It seems so antiquated now." Gradually over time digital technology advances have come, the old system Concept replaced by Planon, and now maintenance requests are sent directly to an operative's mobile device. Neil is now involved in looking at how the elements of the Planon system that aren't being utilised can be brought into service to bring further improvements in a variety of different uses and applications, including expansion of the room-booking side.

The pandemic lockdown was an interesting phase.



"We would have people phone us for a natter, it was clear some were really struggling." He adds, "I suppose a lot of the role is patience, diplomacy, along with data extraction, admin and looking for improvements that can be made."

Plus

Lisa Holland
Energy Advisor,
10 years



Maria Des Neves Matos
Cleaning Operative,
10 years



Piotr Siciak
Stores Operative,
10 years



Filipe Martins
Maintenance Supervisor,
15 years



Allan Webb
Maintenance Manager,
15 years



Maria Ramil
Soft Services Coordinator
25 years



Rak Patel
Head of Maintenance,
25 years





Mark Batten is one of our long servers, now 10 years with the College. This Chartered Quantity Surveyor (QS) holds the role Cost Manager – Capital Investment & Appraisal within Estates. That is, all things related to construction and project costs. Some would say ‘bean counter’, his daughter calls him a ‘brick counter’.

He chats to Jan Carberry about said beans, brushes with Bosnian snipers and other stuff.

Mark’s current conundrum is how to estimate accurately during a period of high inflation, particularly affecting the construction industry, and shortages in materials caused by Brexit, COVID-19 and war!

As an example, Mark has worked on high-level cost estimates for the Faculty of Medicine strategy to enable the move out of

St Mary’s Medical School building in 2024. This involved compiling multiple refurbishment project estimates in three different scenario options for senior management to assess and include sufficient funds within the capital plan to deliver the proposed programme of works.

This spreadsheet mastery as well as crystal ball gazing is backed by some 37 years’ experience in both consultancy and construction side cost management, and is how he manages to bring realistic figures to the table.

That table is PRM (Project Review Meeting) the monthly meeting of senior figures who agree funding for capital projects. Those senior figures include Martyn Boutelle, the ‘new’ Associate Provost, Estates Planning; Maria Knight, Head of Capital Finance and

Appraisal; Estates Operations Director Nick Roalfe; Adam Srodzinski, Head of Projects; and Shauna Murphy, Head of Space Management and Planning.

Mark first joined Imperial just as the College embarked on its delivery of White City North Campus, then just a large brown cleared site, and was embedded within the Finance department, under the then Chief Operations Officer, to ensure value for money on the funding being requested. Following various restructures, he was brought under Estate’s umbrella, reporting to the Head of Projects, and as Mark says: "This is a more natural fit for me being with similar construction minded team members."

Effectively his role is still to support the management of the circa £100m p.a Estates Capital Plan, so he has dotted line

responsibilities to Finance, still keeping an eye out for value for money, and providing a bridge (sometimes a wall) between project/building managers and the complexities of College Central Finance and their demands for project cost data.

His everyday work revolves around the monthly cycle of PRM and the impact approved project funding has on the phased spend of the capital plan, working closely with Kevin Meehan, the Projects Capital Accountant. Mark is also the link for external project managers who don’t have access to our finance system so he can be found sorting out purchase orders, and problems, being ever mindful that works can’t start, or might stop if POs aren’t raised or payments made.

He works closely with project managers, meeting with them quarterly to financially review their portfolio of projects. He’s also line manager for Commercial Manager Cindy Feng, the QS on our smaller projects.

Just for good measure, (pardon the pun) Mark has recently agreed to mentor our new joiner Sally Karrar, Minor Works Project Manager, to assist in preparation for her assessment to achieve her RICS Chartership qualification.

Qualifying

In total it took Mark around 10 years to qualify. He left school at 17, and went to work with his dad, also a QS. Mark tells me: “Dad said come and work with me while you think about what you’re going to do.” He combined work with studying part time, taking BTEC’s, ONC & HNC in Building Studies, then a degree in Quantity Surveying, and finally obtaining his Chartered Quantity Surveyor status.

Before coming to Imperial he worked in the commercial sector on various construction projects.

Being the money man also has its dangers as he tells me: “I was once threatened by a site manager, because I was disputing payment on some incomplete brickwork (literally counting bricks). Afterwards I found out that in a past life he’d been a Bosnian sniper!”

Musical

Those in Estates during lockdown will know of Mark’s musical ability. He plays keyboards and provides backing vocals with cover band Solid State. They provided us with a fantastic music video cover version of ‘Cake by the Ocean’, and at Christmas, ‘Lonely this Christmas’ to lift spirits.

Also he recently joined a choir of community singers in his hometown of Battle, East Sussex, taking part in a performance to accompany the Queen’s Platinum Jubilee beacon lighting. He laughs: “The choir is full of little old ladies – although to be fair, they’re probably younger than me, it’s just I think I’m still 18.”

Mark also tells me that as a dedicated cat person he was caught off-guard by his teenage daughter to get that cliché of lockdown purchases ... a Cockapoo puppy. He says “I now bore people with my vast collection of dog photos ... and I haven’t seen the cat in a while!”

He really likes building and construction, so much so that another of his hobbies is renovating old houses, he’s on his fifth to date. He says: “This one is probably my last, until my wife says we’re off again.”

Which, sort of, brings us back to work, and why he’s been with us 10 years. “I would say definitely the people, and Imperial being a good employer, I’ve had some major life events while I’ve been here, and in all aspects of that, they’ve been good in every way.”

Learning and development



A selection of some of the training options available this autumn are listed below. Please visit the Estates Learning and Development One-Stop Shop for further information about these and other courses available this term. You’ll also find details of how to apply for Estates sponsorship for your professional studies.

● Estates Forum (Online)

14 September, and 14 December – 13:00-14:30

● Records Management and Building Resources (Online)

13 October – 09:30-10:45

● Legionella and Cooling Towers (In person)

27 September, 4 and 31 October, 7 November, South Kensington, 14 November, Silwood Park, 21 November, Hammersmith – 09:30-12:30

● Asbestos Awareness (Online)

19 October and 6 December – 09:30-11:00

● 18th Edition Wiring Regulations - 2nd Amendment (In person)

30 September and 18 November, South Kensington – 09:00-13:00

Add a touch of Italian styling



Ferrari had Pininfarina to style its iconic cars, other household Italian design names include Piaggio, Alessi and Bialetti. In Estates we've got a Talletti: namely Building Manager Anna, bringing her own distinctive Italian style to the care of the MSRH building at White City.

Over at the developing campus we also have the flair of another Italian, Project Manager Bruna Santandrea, who led on the development of the Sir Michael Uren Hub, and is now leading on the new School of Public Health (SOPH) building, currently rising from the ground.

Anna (pictured left above with Bruna right) is to be the manager for the new building, and in readiness for this, she is being involved at the construction stage by Bruna.

Anna, one of our featured Employees of the Quarter (see p5)

joined Imperial 15 months ago. "I was interviewed during COVID and didn't get to see my building. As a building manager I think you have to fall in love with your building. When I saw it", she said, referring to MSRH, "I wasn't disappointed, I think of it as my baby." "The SOPH will be my little baby," she says.

Anna came from the commercial sector, including facilities management of 49 floors of the HSBC building at Canary Wharf, so while the 'lab environment' or academic research is new to her, customer service isn't. It was what gained her the nomination for Employee of the Quarter from her building users.

She said: "The first thing I did was get to know the Maintenance Manager Herbie (Lewis), and his team. It was important for us to function as a team, and to take things off their plate that were going to them that could be

coming through me. Then I got to know my building users, Erika Rosivatz, Chemistry Departmental Head of Operations, Oscar Ces, Head of Chemistry, and to meet with the faculty health and safety team. That helped me to bring fresh eyes to resolve outstanding issues so I could then focus on the future."

Since joining she has established regular meetings, put protocols in place to help things run smoothly and ensured she is a very visible presence, and readily available in person or at the end of a phone.

She is gratified that the building users have recognised this and consider her 'part of the team'.

So to the 'little baby' and the collaboration with Bruna, Capital Projects Programme Manager, who Anna praises as "great to work with, as she is so knowledgeable and professional."

Involving Anna during the construction phase of the SOPH, explains Bruna, provides her with

This way instead of a cold induction when complete, the details of which it might or might not be possible to remember, the manager gets to know the building gradually, and have a feel for it.

Anna will get to know "what to find, where to find it, and how to find it, and therefore if there's a problem, hopefully how to resolve it." The building is very complex, explains Bruna, and while Anna is not involved

in construction, it is ideal that she is learning the building in this way. Meanwhile Anna hopes that the

knowledge she has gained about the end users' needs will enable her to have some practical influence on details more during the fit-out, pre-empting requests, for example, maximising storage.

The next levels

- The new School of Public Health Building is designed by Allies and Morrison, who also designed the neighbouring Sir Michael Uren Hub which completed in 2019. The nine-storey School of Public Health building will provide nearly 58,000 sq ft of space, fitted out by Graham Construction.

- The new multidisciplinary building will provide collaborative, flexible, and interactive spaces for academics, collaborators, students and the local community.

- Imperial will have space on the ground floor, there will be two floors of teaching space, with levels 3-7 as office space. The top floor is not yet assigned.

a growing awareness of the fabric and details of the building and provides a 'soft landing' for when it is handed over to the end user.



ANNA CENTRE, WITH THE MEN IN BLACK, MAINTENANCE COLLEAGUES HERBIE LEWIS, CHRIS KHAN AND PANASHE MWENYE

Chemical kitchen

A new chemical kitchen – to teach science through the medium of cookery – is now in full use. The shiny new facility on Chemistry level 7 replaces the old one on level 4 at South Kensington campus.

Estates Capital Programme Manager Tom Louvre oversaw this project alongside other changes to the Chemistry building. These included:

- The completion of the refurbishment of level 4 by creating an independent study room to complement the previous informal and relaxation spaces on the same level
- The creation of a 'white box' lab on level 7
- The refurbishment and extension of an ICT



suite on level 1, in progress.

These projects retained and reused building services wherever possible. The fit-out works on level 4 were subject to a student body co-design process to ensure that the end product was fit for purpose and attractive to the end users.

There for the ups and downs

It's always good to start with a fact. Did you know that there are 203 lifts across the Imperial College estate, with 120 of those at South Kensington!

While most of us think purely of passenger lifts, some are for goods only, and there are also some specifically designed for accessibility and wheelchair users.

Something they all have in common is the team that service them. The contract is currently with Temple Lifts, and on the ground are engineers Graham Fenton, Jack Turner and Garfield Francis, based on-site at South Kensington and White City campuses.

Amazingly, Graham (left) has now been looking after our lifts since 1989, and it is fair to say he knows a thing or two about them.

It's also fair to say that he has been called to attend to a lift he didn't know was there!

Graham said: "We go to buildings to service, repair and maintain lifts, so we don't necessarily see other areas. We had no idea the lift existed. It turned out it was covered by the contractor for the first year!" After that it came under his remit.

Amusing tales of confusion about new lifts aside, most on the estate have an average age of about 15 years, although there is one remaining from the 1960s.

Lifts have evolved from energy hungry, generator driven (now gone from our campuses) to AC electric motors, with energy saving features such as LED lights and sleep modes when not in use.

Graham and his team maintain the lifts to a set schedule for safety and insurance compliance purposes, much like you would carry out service checks on a car, and carry out planned and responsive repairs. They also respond to breakdowns and when people are trapped. All passenger carrying lifts include an alarm activated emergency communication system which connects to Security to enable a timely release.

The team have a good relationship with our insurers Zurich, who inspect the lifts. Graham says: "As their perspective is risk, the repairs they require tend to be focused on safety and defects."

There are many manufacturers, and for older lifts, it can often be difficult to source parts and spares. As they are decommissioned and

replaced, one of the things the team does is to salvage useable parts and components that are commonly needed to keep remaining lifts running.

Graham came to his job from 12 years in the Navy, where he worked on submarines, applying his skills and knowledge of power, electrical and hydraulics engineering to another type of vehicle that goes up and down!

Jack now has eight years' experience, with an NVQ Level 3 in engineering, and Garfield is an experienced NVQ qualified engineer.

They are on standby when students move in and out of residences, when breakdowns can be more frequent.

Lift etiquette

As they explain the common causes of breakdowns it becomes clear that some education in lift user etiquette might be of help.

Holding the doors open by blocking doors is a common cause. Users will often use bags or boxes to wedge them open, and then find that the doors will then only partially close and of course the lift will shut down.

Automatic lift doors are equipped with non-contact detectors which cause doors to re-open if they sense an obstruction whilst closing and this equipment will shut down the lift to protect door motors from damage.

Pressing both the up and down call buttons simultaneously causes the controller to memorise a logged call and stop to answer a directional call when there are no passengers waiting.

An occasional problem is the misuse of platform lifts. Often at the entrance to a building with stairs and no ramp, they are of a particular design for wheelchair users' independence. They aren't

designed for loading heavy goods, or to save others walking a few steps. "This can cause a breakdown, and real hardship to the user who really needs it," says Graham. Only recently such a lift needed premature replacement because of its use for heavy goods.

Building refurbishment projects always take into consideration the safe and dignified access to buildings for those with accessibility requirements, and as part of this programme a new external platform lift is planned for the RCS building.

Traditionally, lifts linked to building fire alarm systems will automatically stop and return to the ground floor to avoid trap-ins in the event of a fire.

The 2017 fire tragedy of Grenfell Tower in west London, in which 72 people died, has led to a move to 'evacuation lifts'. Recently London Fire Brigade Commissioner Andy Roe said that it was "neither morally nor legally justifiable" to tell non-disabled ... that they must evacuate in an emergency, while leaving disabled ... to be rescued by firefighters."

College has a programme of upgrading some appropriate lifts to include emergency evacuation features which have intercoms and a separate electrical feed and can be controlled by trained wardens to go to selected floors to facilitate an evacuation.

There is also a programme of lift improvements and troublesome

or older lifts with obsolete equipment are identified during regular audits for refurbishment or replacement.

Major refurbishment or replacement works, as with most projects, are wherever possible scheduled for overnight, or



AN ACCESSIBLE LIFT, THIS ONE IS IN THE ETHOS BUILDING

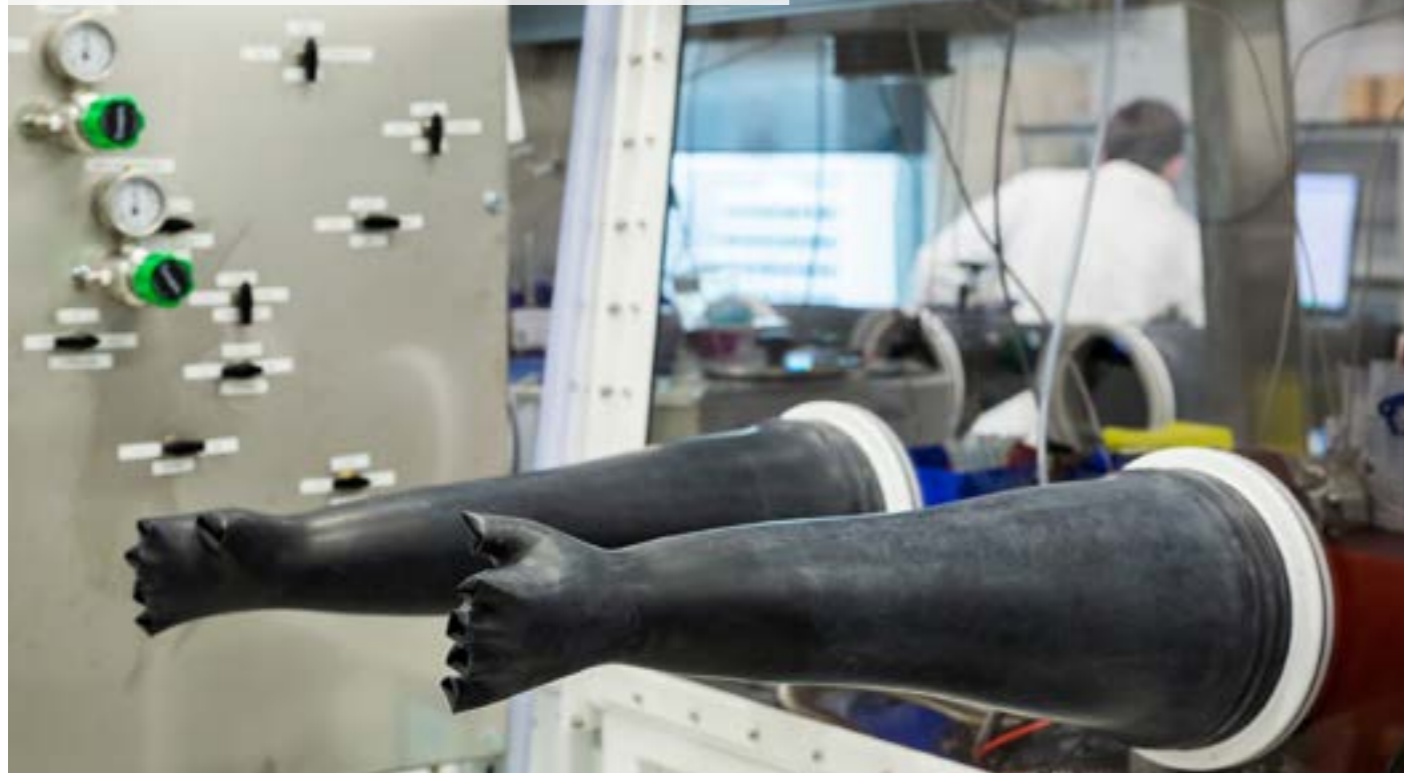
longer summer and Christmas breaks when fewer people are around to minimise noise and disruption.

As new lifts are installed the team attend training in their maintenance with the manufacturer, to ensure they have the knowledge required.

If a breakdown occurs or a repair is needed that they can't manage themselves, they can often contact the maker for technical advice, or call on expertise from the Temple engineering team.

The ground team meet quarterly with Estates' Head of Maintenance Rak Patel, and Customer Services Centre Manager Julie Bryant. The Temple Lift's team supporting the Imperial College contract are Matt Boxall, Amanda Affleck and Steve Brown the Consulting Engineer.

Levelling up Uren



The RIBA London Award-winning Sir Michael Uren Hub on White City Campus was completed in 2019 and since then level by level fit-outs and fine tuning for the various users and purposes have continued.

Coming up are works in the 'nose cone', a new restaurant on the ground floor, installation of additional fume cupboards on levels 3, 6, 7 and 9, and eventually the fit-out level 1.



Living and breathing much of this work in the last two years has been Project Manager, William Frame (left). Here we focus in on level 8, which he has overseen.

The floor houses the £10m Engineering and Physical

Sciences Research Council funded Materials activity 'Atoms to Device', part of the Henry Royce Institute.

Imperial's Professor Neil Alford FEng MBE is the lead for this research area working with Dr Peter Petrov. The Royce Partnership is formed of nine leading institutions: Imperial and the universities of Manchester, Cambridge, Liverpool, Leeds, Oxford, Sheffield, the National Nuclear Laboratory, UK Atomic Energy Authority, and two associate university partners: Cranfield and Strathclyde.

The centre's fit-out has been a high-profile project, given the prominence of the academics, the institutions involved and the funded research that is

being carried out there. Peter Petrov commented: "I am honoured and privileged to run a world-class facility that will drive forward UK Materials Science and Engineering."

The state-of-the-art facilities are dedicated to the innovation of novel multifunctional devices. Imperial



researchers and collaborators have access to facilities for nano-scale thin film deposition, device patterning and electrical characterisation and instrumentation able to analyse of a wide range of surfaces, along with a range of tools for prototyping nano-devices, a 140m² clean room as well as advanced materials characterisation facilities.

To the layman, development of electronic materials for the energy transition to meet net zero carbon targets, such as: photovoltaics, thermoelectrics and calorics, and low-loss electronic, 'chargeless'

electronics, developments such as bioelectronic sensors that can be applied to support personalised healthcare and clinical assessment, along with the development of resource abundant, scalable, and recyclable materials.

Will explains the complexity of working in a new building. "The building was designed some 6/7 years ago, took three years to build, and two to fit out. In that time the desired use may have changed, but it can be restrictive to make changes. Unlike an older building these new buildings are sealed units. They have no opening windows, one central system for cooling or extract, and have limitations, so difficult to expand or alter. All the facades of this building are visible to the public, there is no external route or lightwells for services to travel up the building."

Challenges encountered making level 8 fit for purpose included: ensuring sufficient air changes for the clean room, designing and installing safe systems for storage and use of gasses, installing a cooling water system to meet specific needs, providing and connecting services for specialist equipment, and the restriction of a building where services cannot be attached to the façade.

What's been done

- Construction and fitting out a clean room – to achieve ISO Class 6, medical device manufacturing and pharmaceutical compounding standard, with four fume cupboards and chemical workstation.
- Construction and fitting out of clean room, plant room – for the housing of a dedicated air handling unit, suitable for 50 air changes per hour.
- Construction and fitting out of gas bottle storeroom - for the housing of non-toxic and non-flammable gasses to feed all areas on level 8.
- Toxic and flammable gasses – installation of fireproof gas bottle cabinets for the storage of the toxic and flammable gas bottles.



- Gas abatement - installation of gas abatement system for the toxic and flammable gasses and extract from laser enclosure.
- Process cooling water – installation of a dedicated process cooling water system to feed all level 8 labs.
- Clean earth – installation of clean earth terminals,



to protect against equipment malfunction, from the basement up to all areas on level 8.

- Extract alterations – alterations and extensions to the existing air extract system to enable the installation of gloveboxes, moveable extract arms, furnaces and to enable the use of liquid nitrogen.
- Gas detection – design and installation of gas detection central panel system with sensors and warning sounders and beacons to cover all labs.
- Power sockets – installation of additional small power, single phase and three phase power sockets to all labs to accommodate a variety of equipment.
- Relocation of existing lab equipment – from South Kensington Campus, ensuring that all required services are available and assist with the service connections.
- Installation of new lab equipment – working with specialist suppliers to arrange the delivery and unpacking of new lab equipment, ensuring that all required services were available and connected.

Neil Alford said: "This project was extremely complex and I am most grateful for the fantastic effort of our colleagues in Estates Operations and all the contractors to achieve a world class facility where we will carry out world class Materials research."

PHOTOS:
LEFT PAGE, TOP - GLOVE BOX ATTACHED TO SPUTTER, ADJACENT TO GAS CONTROL PANEL. BELOW: LEVEL 7 PLANT ROOM, GAS BOTTLE CABINETS AND GAS ABATEMENT SYSTEM THIS PAGE, TOP; CLEAN ROOM, YELLOW ROOM, LIGHTING, AND WINDOW FITTED WITH UV FILTERS, LEFT: CLEAN ROOM, DEPOSITION TOOL.

Holidays, celebrations, diversity days and events

● World Suicide Prevention Day	10 September	● European Prostate Awareness Day	17 November
● National Recycling Week	20 - 25 September	● Disability History Month	18 November
● World Sight Day	13 October	● World Aids Day	1 December
● Diwali	24 October	● College closes for Christmas	23 December

Decarbonisation project

A bold project removing a significant amount of legacy steam generating infrastructure from South Kensington Campus and upgrading one of the largest Low Temperature Heating System networks in London is being led by Estates.

New infrastructure will allow for the next generation of carbon reducing heating plant to be installed which is able to utilise a significant source of currently wasted heat. This project will reduce the College's CO₂ emissions by circa 2,400 tonnes a year and save over £1.3m annually after implementation. It is key to assisting the College to achieving net zero carbon by 2040.

The project has been made possible thanks to £12.341m grant funding from the Government's Public Sector Decarbonisation Programme, match-funded by College. Estates Energy Manager Andrew Caldwell bid for the funding, which was awarded in March.

Three heat networks will be consolidated into one and College would no longer have 180°C steam in circulation around the campus and plant rooms.

The works, to be completed by November 2023, can be broken down into the following packages:

- Upgrade water heat network in tunnels /remove

steam and condensate

- Plant room modifications
- Building works to remove / replace steam
- Energy Centre works to replace steam boilers.



Andy Hammond, Head of Engineering, Energy and Environment has responsibility for ensuring compliance with the grant-funding terms, with Adam Srodzinski, Head of Projects Delivery acting as Senior Supplier. Rod Coppard, is acting as Special Projects Manager, Paul Felton is the Clerk of Works and Owen Everall will be acting as technical lead on behalf of the Engineering Team.

First steps are underway. Andy said: "So far there have been lots and lots of surveys. We are going through every building on the campus looking to identify steam services and systems that they affect. We are also looking at locations and plans for temporary boilers which will be required throughout the project period."

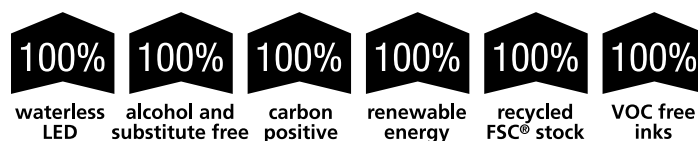
Contractors appointed are Arup (design & project management), Mortimer Issacs (cost management).

Sustainability Statement

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