

# THIRTY NINE°

**ARCHITECTURAL  
TECHNOLOGY**  
DEGREE SHOW 2017

AT DEGREE SHOW 2017



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Stefan Kruczkowski  
Urban Design

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PRACTITIONER

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## MESSAGE FROM THE TEAM



**Bhavna Solanki**  
(Course Leader)

So, this is it! Your Degree Show marks the end of one chapter in your lives and the start of the next.

Back in October 2013 when you embarked upon your studies at NTU your degree show and forthcoming Graduation seemed an eternity away. Looking back, it will feel as though October 2013 was only yesterday. Time flies – and it will continue to fly past, so make the best of the opportunities and experiences ahead of you.

Over your time here and during your placement year you have all built the firm foundations for a successful and rewarding career within the built environment. Your learning will be life long and will continue as you embark upon your professional careers. Our knowledge of how we design and build buildings and spaces will evolve and change. The tools and skills we need to do our work will also evolve and change. Graduation does not represent an end in your learning, but instead is a recognition of your professional skills and knowledge; and your potential to learn more.

However, life is more than work. At NTU you have been encouraged to engage in sports, social and charitable activities. These are also life-long skills and it is essential that you retain this strong work-life balance as you move into the world of work. We urge you to put as much energy and time into your personal wellbeing as your professional careers. Finally, remember that Graduation is a celebration of your achievement and an opportunity to thank your family and friends for their support. We wish you all the very best

**Bhavna and the Course Team**

**“The more that you read, the more things you will know. The more that you learn, the more places you’ll go.” Dr. Seuss**

## THE TUTORS



**Adam O’rourke**



**Hilary Ainley**



**Richard Dundas**



**Vince Conway**



**Phil Shilton**



**Stefan Kruczowski**



**Tom Ridley-Thompson**



**Reuben Davies**

Laura Blakeman  
Gavin Tunstall  
Paul Newman  
Judy Carr  
Mark Haniford

Paddy McGrath  
Andy Hill  
Dave Singleton  
Anthony Ward  
Alan Fewkes

Hamel Tailor  
Moulay Chalal  
Una McAteer  
Brendon McMullan  
Julia Karoly

Hua Zhong  
Laura Alvarez



## AARON ORSBORN

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**DESIGN** /

The proposal incorporates a large music venue with arts and educational facilities, commercial office spaces and retail outlets to create a multi-purpose scheme. By linking visual and multimedia entertainment environments with flexible work spaces that are adapted to the current technological age, the proposed scheme intends to provide a platform for youth and creatives in Nottingham by expanding the Fabric brand.

**RESEARCH** /

Can recent lighting control market growth transition to commercial and public use applications; creating a more energy efficient and interactive environment?





## ALEXANDRA THORNE /

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07597 388 700

### DESIGN /

The development of a dementia care home located within the historical town of Beverley. The scheme will incorporate modern design techniques to create a seamless finish for the use of patients with all stages of dementia.

### RESEARCH /

Natural Light VS High-Intensity White Light, the effects on the behaviours of residents with dementia in a care home.





## ALEX ASTLEY JONES /

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### DESIGN /

A 30 bed inpatient mental health facility in Nottingham for females aged 18+ in the East Midlands. The architecture steps away from traditional healthcare styles and uses natural building materials to create an enhanced therapeutic setting. The building shape has been developed to stimulate relaxing thought processes; encouraging a healthy mind.

### RESEARCH /

Mental Health & The Built Environment: Can Light, Materials and Spatial Planning Help with Patient Recovery?





## ALICE REED /

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### CONTACT /

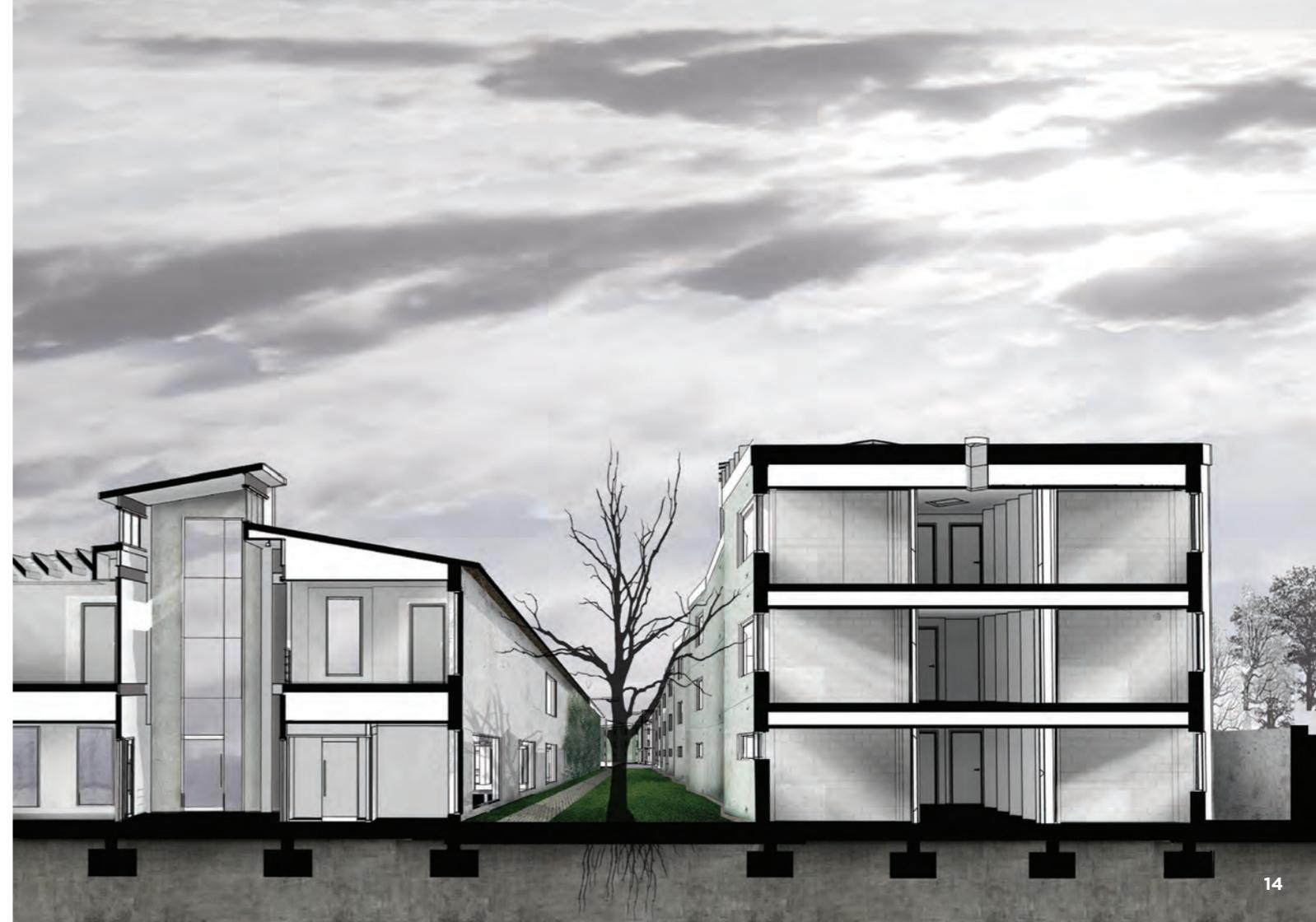
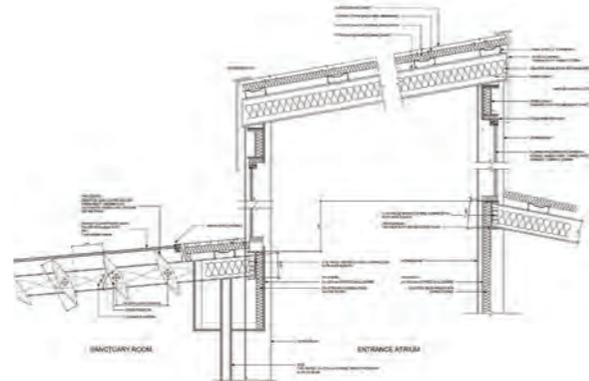
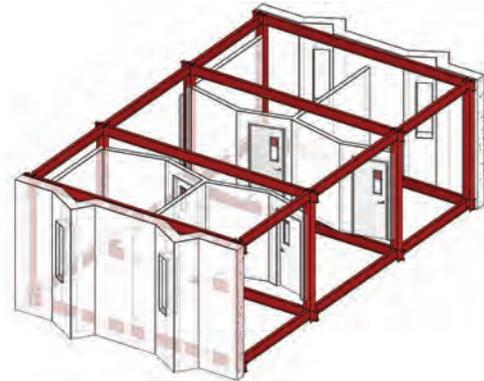
07772 955 882

### DESIGN /

Through linking my university project to my interest in current affairs, my project felt valuable and engaging. With the aim to re-design and reform current prison standards and design guides through showing that low cost, yet durable designs are possible, plausible and practical.

### RESEARCH /

Do current prison designs impede prisoner rehabilitation through creating oppressive environments?





## ANTUAN CREARY //

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**DESIGN /**

Renovation and re-development to create a communal hub, library and mixed-use space, which integrates the two communities within the local area. The proposal will take into consideration the local authority's framework for the area, while also encouraging the use of green space.

**RESEARCH /**

Communication of a Proposal to an Audience using Augmented Technology (AR) and Conventional CAD Modelling: A Comparative Study.





## BEN CHINONSO

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**DESIGN /**

The fire station on Shakespeare Street relocates to a new ultra-modern structure, and student accommodation is to be built. Fire House Apartments is made up of luxury studios flats of two different classes. This sits on a fitness area, swimming pool and an office space.

**RESEARCH /**

Light Transmitting Concrete (LITRACON)







## CALLUM DENNIS /

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### DESIGN /

A co-housing scheme, incorporating a community centre as an amendment to an existing proposed development on the Alliance Boots site in Nottingham; with the aim of bringing the existing proposal more in line with the needs laid out in the local plan.

### RESEARCH /

Can a co-housing scheme be successful within the Nottingham suburban environment? A study of suburban co-housing schemes.





## CALUM VICKERS /

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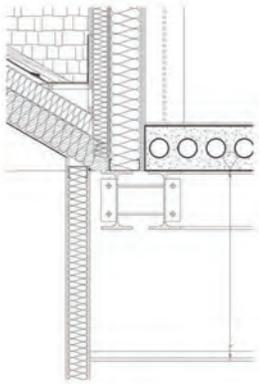
07568 539 525

### DESIGN /

The Wilford Lane Hospice is a palliative care centre focusing on dementia patients. The scheme has two distinct zones; the first zone is for residents use and the construction and materials are deliberately domestic in nature, the second is for the 'behind the scenes' element offering a modern office space.

### RESEARCH /

How the specification of internal wall cladding and flooring aids sufferers of dementia in a hospice environment.





## CHRISTOPHER WORSFOLD /

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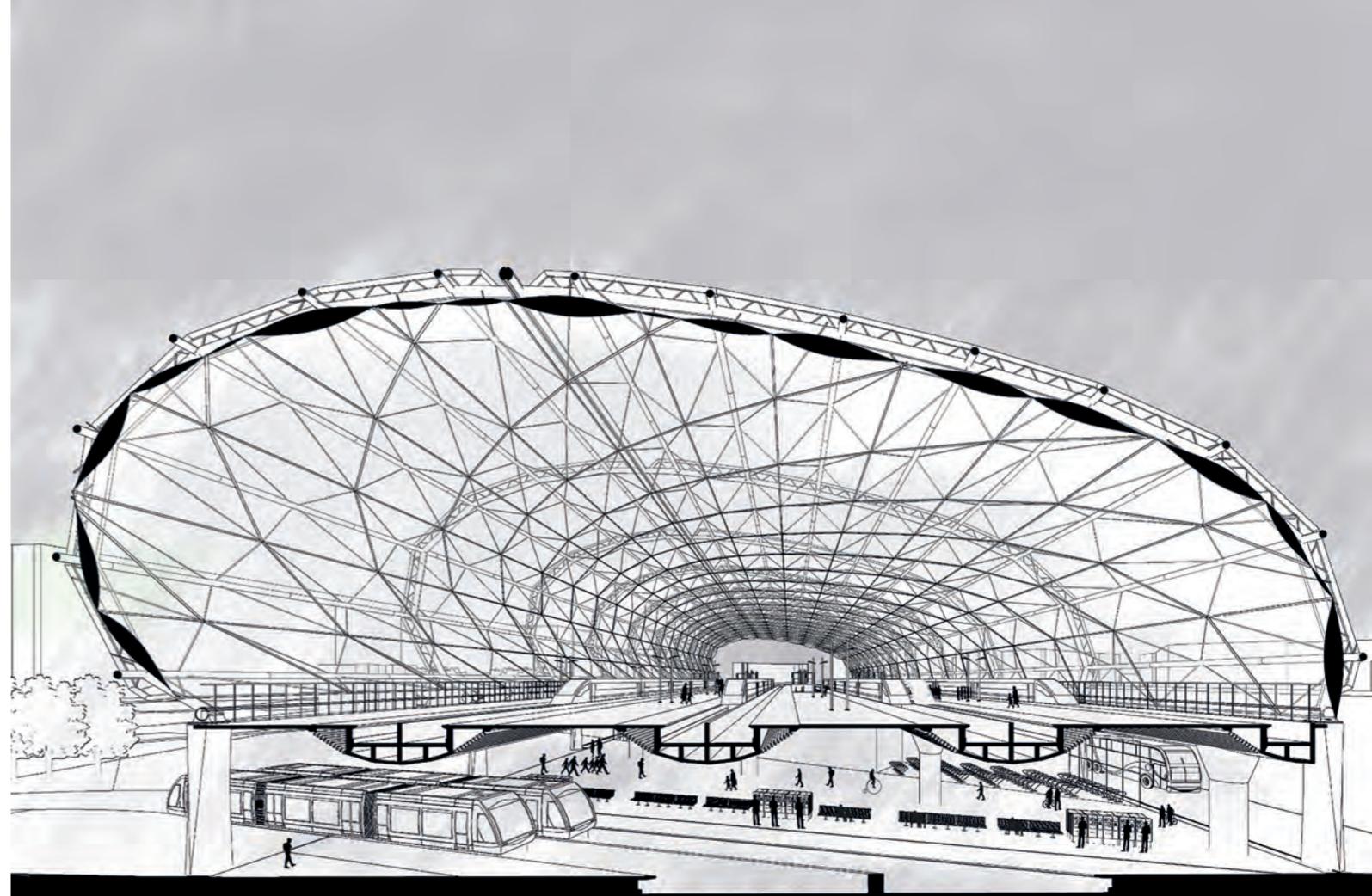
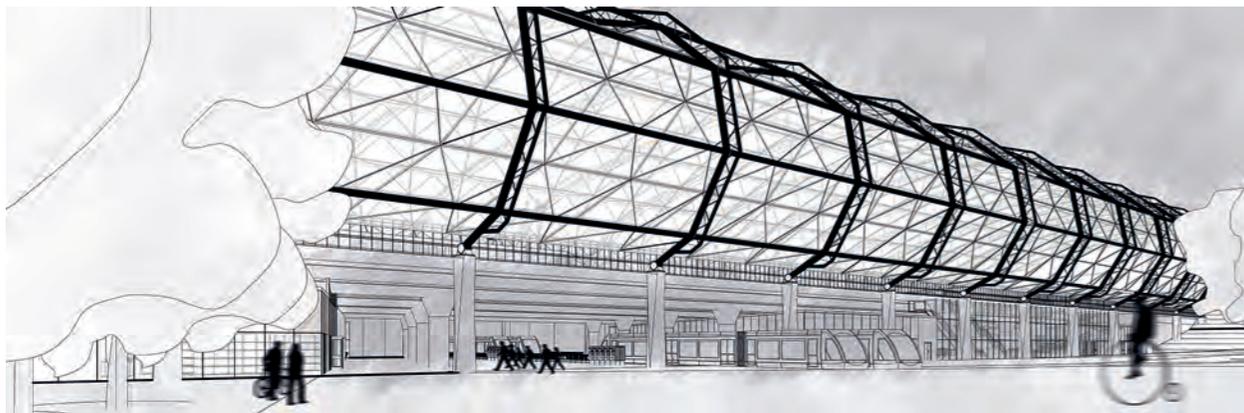
07939 168 136

### DESIGN /

The first major train station to be built since 1993, Birmingham Curzon Street is to be the catalyst and defining feature of the Birmingham Big City Plan. The proposed station will sit on the site of the former Curzon Street Station and will be used by HS2 and the Metrolink.

### RESEARCH /

A Study of Reverberation Buffering Using Timber:  
A Case Study of Birmingham Curzon Street Station





## DANIEL ENGLAND /

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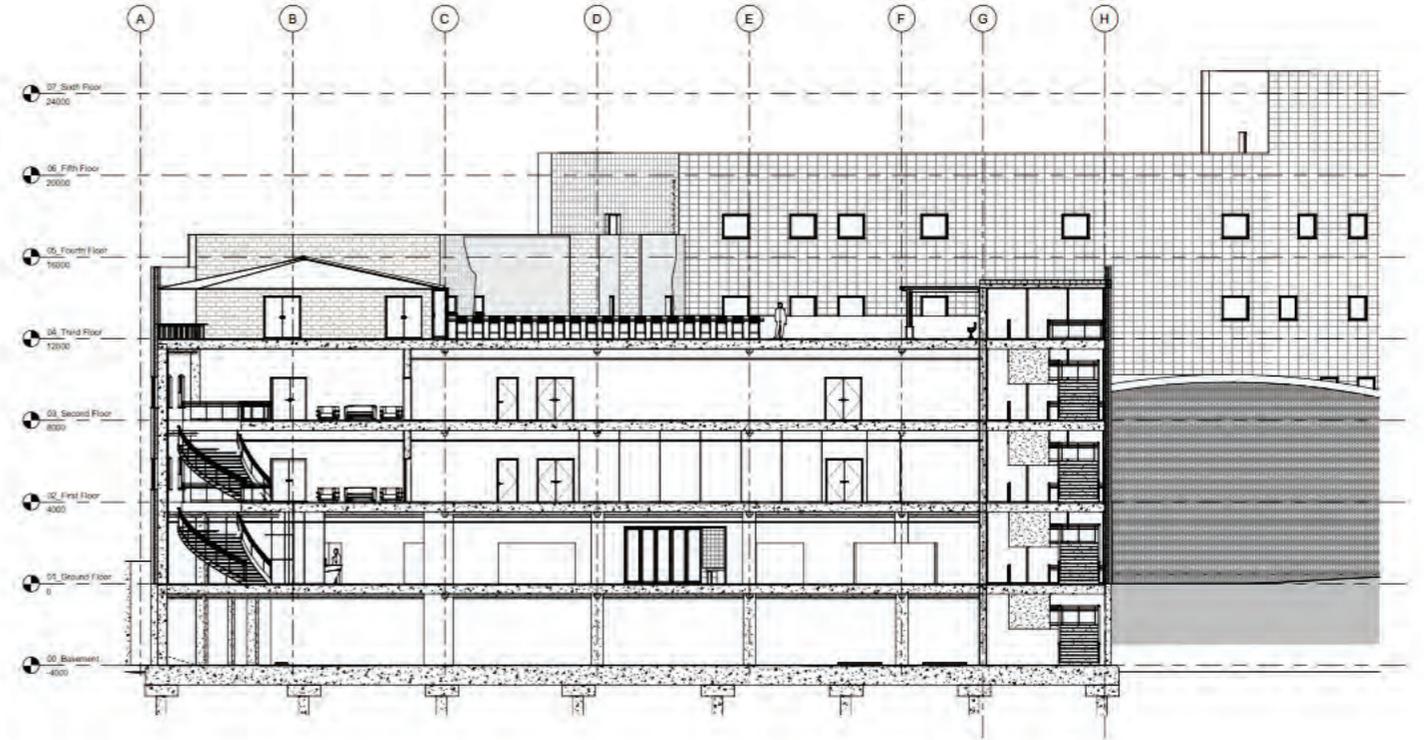
07598 250 246

### DESIGN /

My project is an adaptive reuse of the Victorian fire and police station on Shakespeare Street. The project will include 4 medium offices, post-graduate student accommodation (for around 100 students), a grand gallery/exhibition space, a restaurant and an underground comedy/acoustic venue which doubles up as a café.

### RESEARCH /

How the retention of key features affects the planning process for non-listed buildings.





## DILJOTE CHIMA

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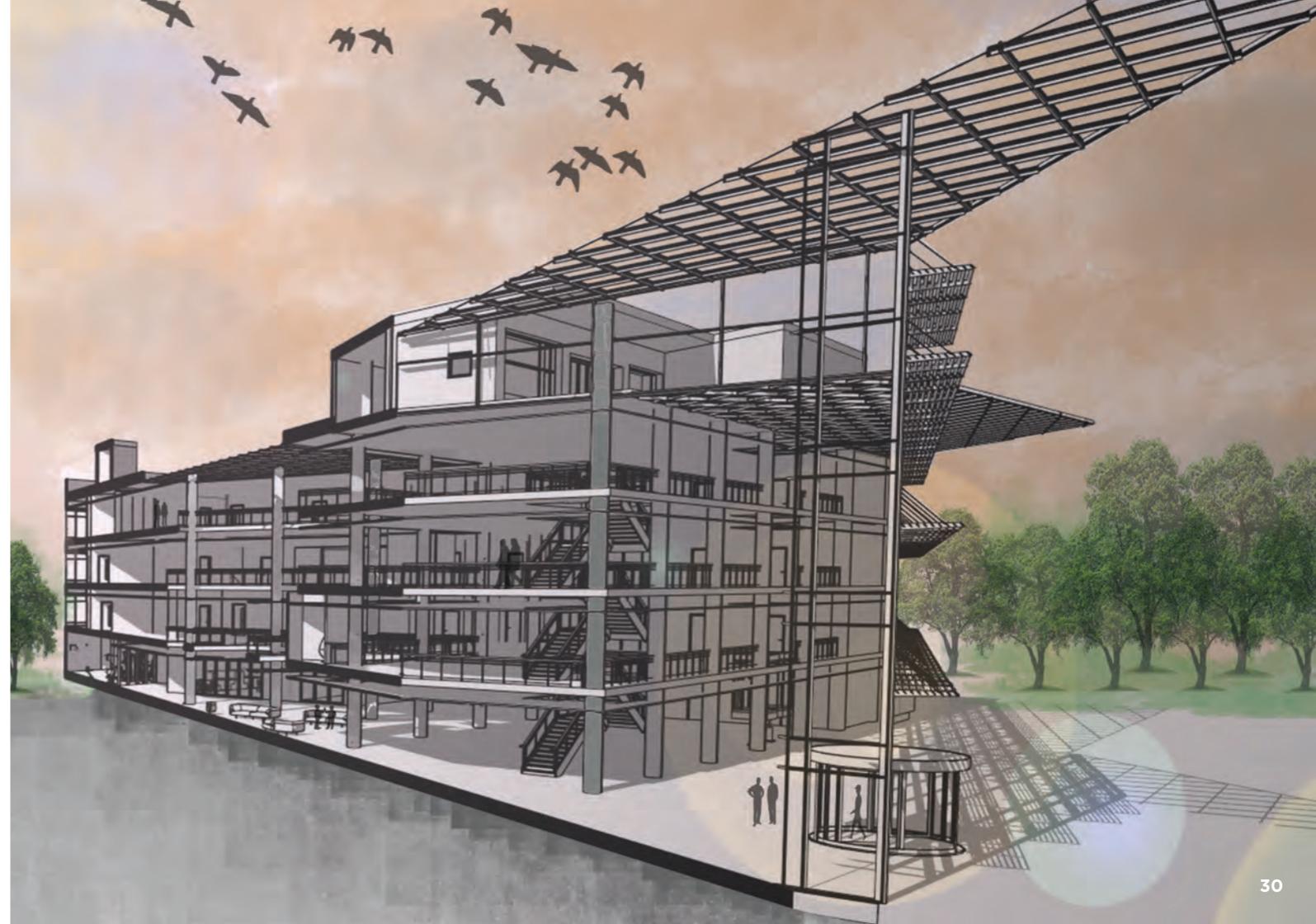
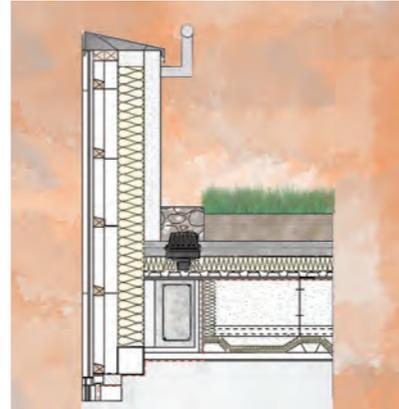
07875 707 226

### DESIGN

The Exhibition HUB is a 3 storey multi-use hub, consisting of exhibition spaces, restaurant and café, offices and gymnasium. The HUB will feature an atrium through the building, with walk bridges that cross. There is to be landscaping placed around the site in order to encompass the local vernacular.

### RESEARCH

An examination into the relationship between dynamic solar shading and human comfort: a study of thermal efficiency, room temperature, u-values and levels of light.





## DOUGLAS MOTHERSOLE /

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### DESIGN /

Refurbishment for a modern art gallery in the Grade II Listed Great Northern Railway Warehouse and James Alexander Building, east of Nottingham Train Station.

Following the success of Nottingham Contemporary this gallery will include an extensive indoor and outdoor exhibition gallery; plus, workshop, café, restaurant, bar and gift shop.

### RESEARCH /

Are Intensive Green Roofs a better solution to maximise water retention than Extensive Green Roofs?





## GEORGINA MELVIN

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### DESIGN

Renovation of a Grade II\* Listed deteriorating hotel, into a veteran rehabilitation centre, in North Wales. Incorporating client and visitor accommodation, rehabilitation equipment in the basement, including a gym, specialist swimming pool and a therapy area. Also, a contemporary entrance extension located at the rear of the building.

### RESEARCH

Veterans Rehabilitation: An application of The Therapeutic Environment Theory.





## HOI YAN NG /

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**DESIGN /**

Proposed development at Carlton Road, is changing the existing Aldi into a mixed-use building, bringing more facilities to the community such as a food court, gym, study room and multi-use area etc. The square located in the centre of the building provides a space for people from the nearby area to rest, trade things or as a secondhand market.

**RESEARCH /**

Can Natural Lighting Create a Better Environment for Human Comfort.





## JAKE QUINLAN /

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**CONTACT /**

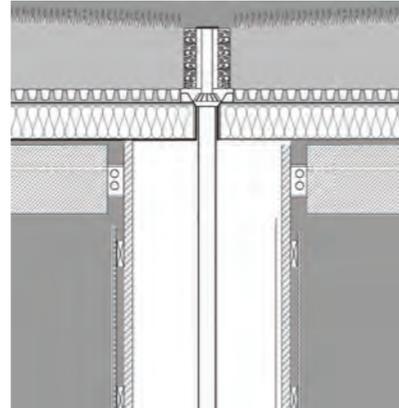
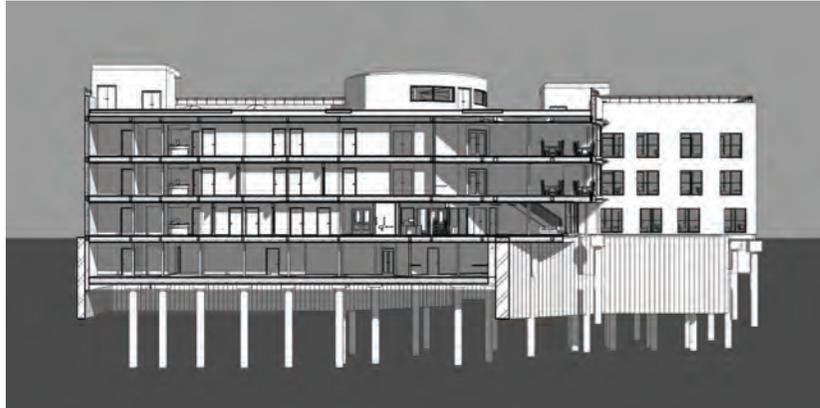
07939 129 620

**DESIGN /**

The proposal is for the erection of a multi-storey 50 bed new build care home, specialising in elderly care. The works will include demolition of the existing site, and a basement construction. The project is technically and aesthetically unique to other care homes, due to the focus on sustainability.

**RESEARCH /**

Can BREEAM Outstanding be achieved on a new build care home?





## JAMES BACCHUS

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### DESIGN

Multi-story student accommodation building in the heart of Birmingham. The building is comprised of 2 commercial retail spaces on the lower ground floor, social space and work space on the ground floor and 658 student rooms, of which there are 5 types, from the 1st to 14th floor.

### RESEARCH

Solar Activated Facades - The state of the art insulant





## JAMES HODGKINS /

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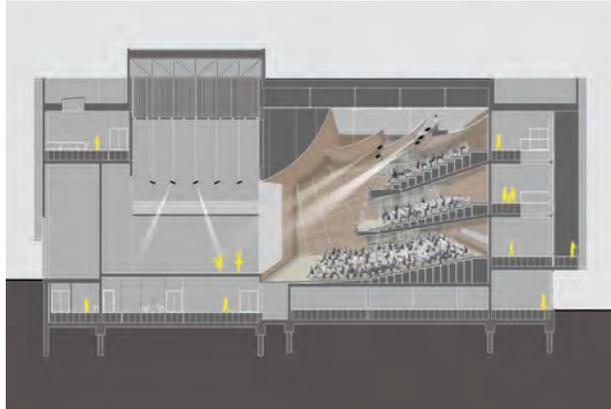
07940 570 215

### DESIGN /

Duckworth Square is located in the city centre of Derby. The project proposes to regenerate the area, which is known locally as an eyesore. The main focus of the project will be a new theatre complex to replace the fire damaged Assembly Rooms for the local council.

### RESEARCH /

Can 3D printed models help clients and the project team understand a building's design?





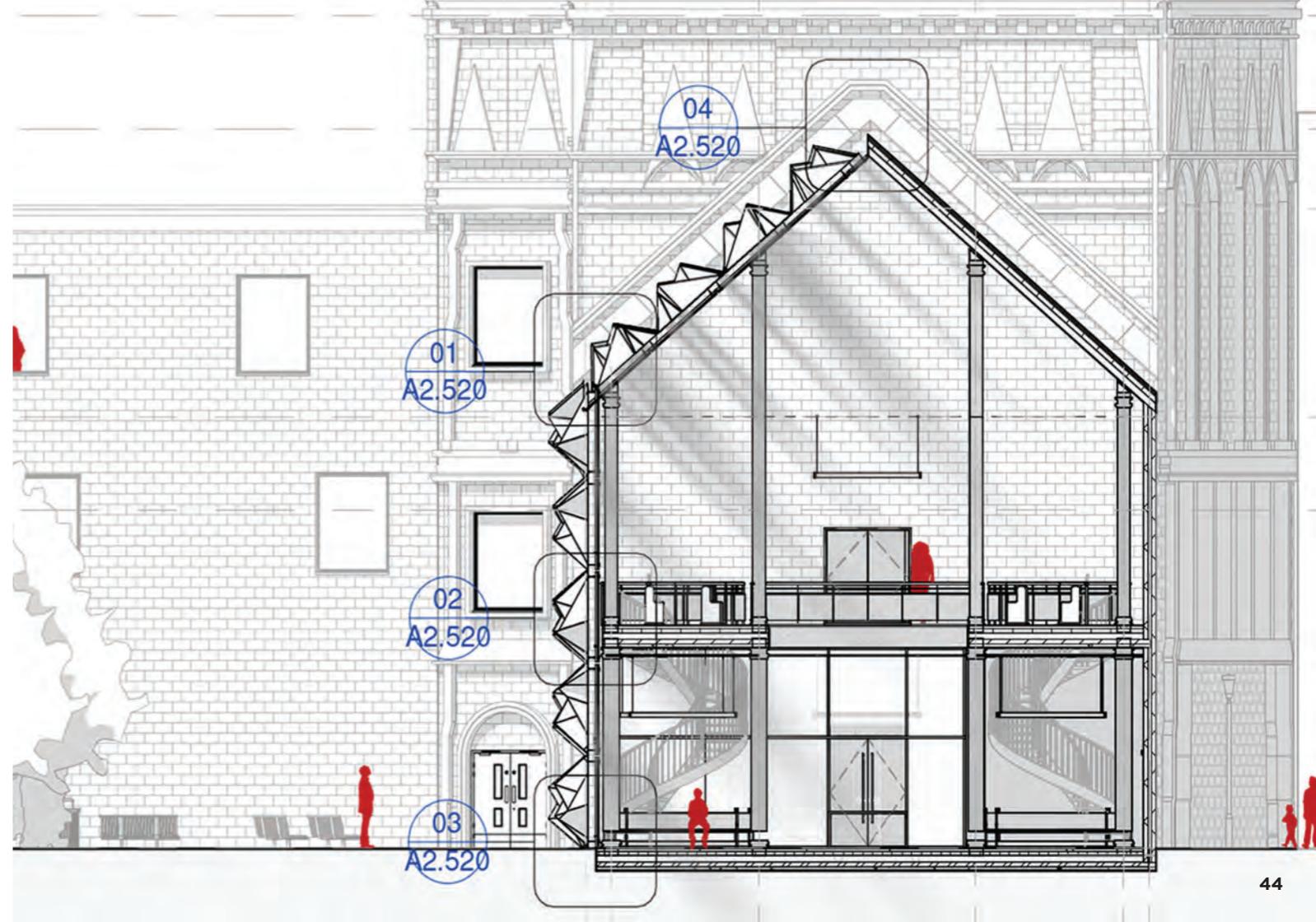
## JASMINE PANG /

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**DESIGN /**  
A 3000sqm redevelopment scheme of the derelict Grade II\* Listed Carriageworks and Westmoreland House. Situated in Stokes Croft, this ambitious regeneration incorporates innovative technologies to sustain the building as a multi-purpose Cultural Community platform. The build is to balance design and technical ability in response to environmental, user and legal requirements.

**RESEARCH /**  
A comparative study of the relationship between dynamic solar shading systems and human comfort.







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careers designing the living and working  
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## JASPAL LEHIL /

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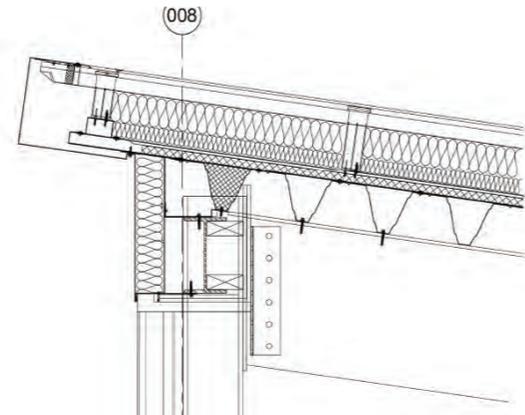
07446 900 221

**DESIGN /**

The Oracle Sports & Recreational Centre aims to change mind, body and community of people within the heart of Derby. This proposal aims to incorporate and build upon the previous Derby triangle masterplan situated within Pride Park.

**RESEARCH /**

Innovation on Solar Energy Technology; A comparison of standard solar and Building Integrated solar.





## JERMAINE TOQUES /

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**DESIGN /**

A mixed use community centre with a recreational focus. There is a redevelopment opportunity of the existing landscape, with the capacity for an outdoor garden, play area and car park. This development will aim to improve the local community; namely 'Bromford & Firs' Estate.

**RESEARCH /**

A Comparison of Off-site and In Situ Construction:  
A Case Study of a Proposed Construction in Birmingham.





## JIMMY BULL /

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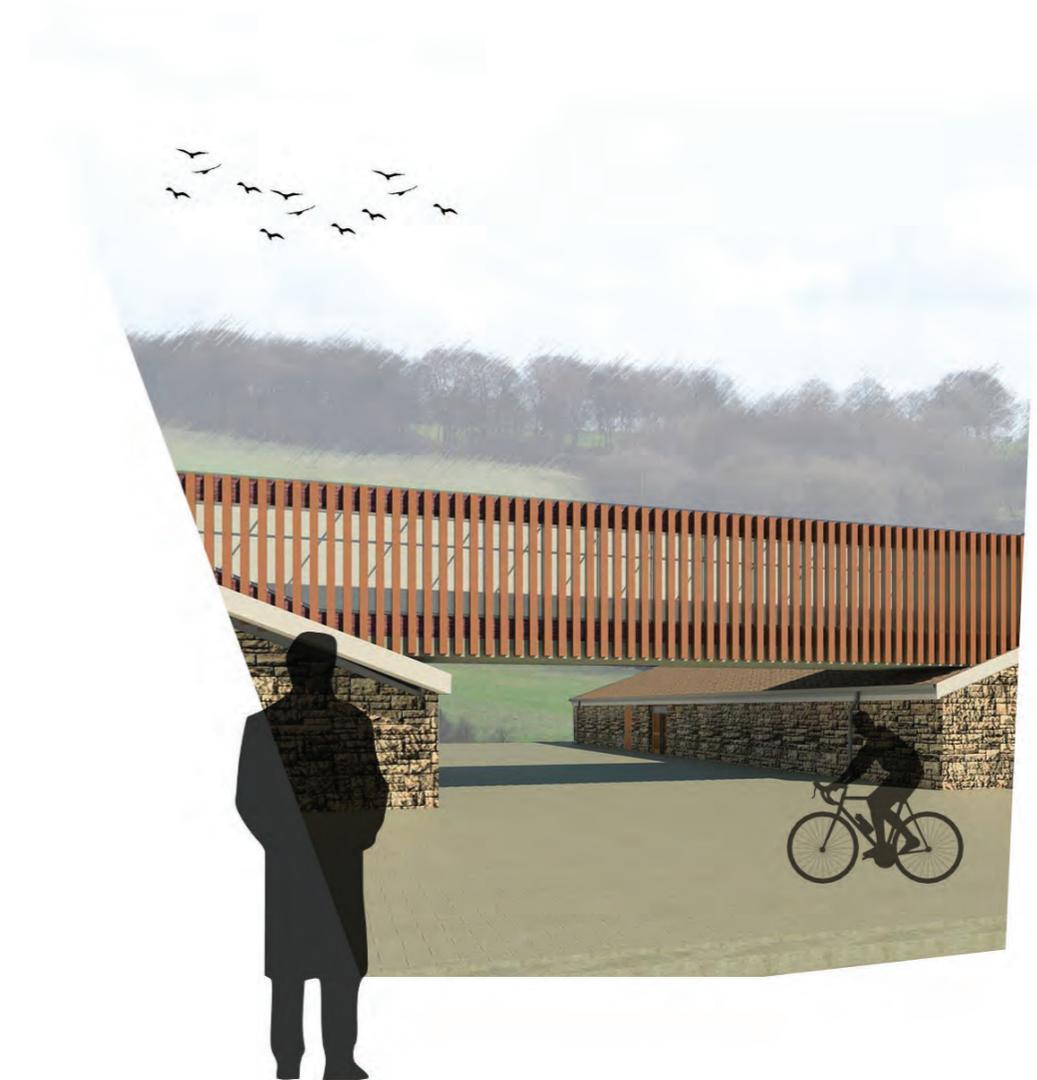
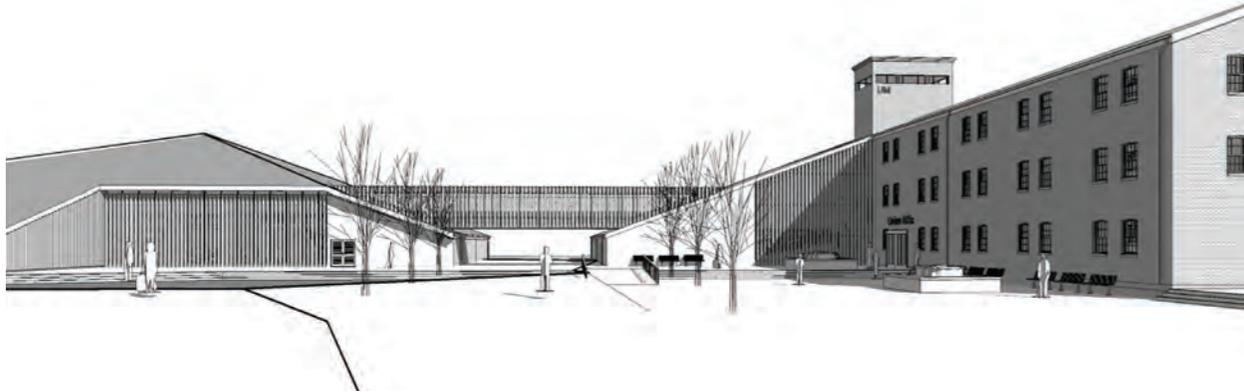
07532 365 698

### DESIGN /

Intentions will be made to embed social integration into Eccleshill and Bradford East, a severely deprived constituency in Bradford. In doing so, supporting and resourcing diverse, isolated and underprivileged communities to develop into a strong, unified community where students and existing residents can live and work in harmony.

### RESEARCH /

Can a university campus enable communities to thrive in a severely deprived area in Bradford?





## KELLY HUMPHRIES

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### DESIGN

A 2100sqm multi-purpose university building located on Goldsmith Street, offering unique design approaches throughout the mixed use space. Aiming to incorporate Biophilic design within the gallery, workplace and the sky garden. Featuring a distinctive façade within its local context, which replicates natural patterns in a contemporary concrete structure.

### RESEARCH

Wellbeing at work: A study of Biophilic design and the impact of natural light.





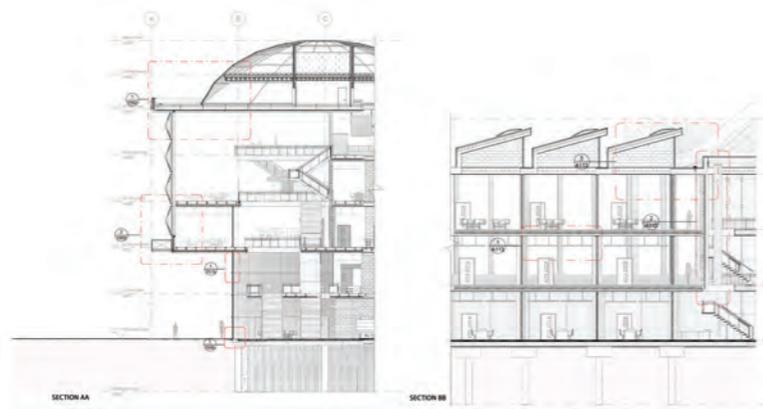
## LEMAR WHYTE /

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07943 963 636

**DESIGN /**  
Proposed is a Student Hub & Business School development for Kingston University, London. Architecturally the site is mixed in urban character, comprised by the complex of existing university buildings and semi-detached villas. Innovative learning spaces are key to the delivery of this scheme.

**RESEARCH /**  
Educational Design Strategies; Can the utilisation of Daylight through Parametric Design improve student performance within Learning Environments?





## LOLWA AL-KUWARI /

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### DESIGN /

The proposed development is located on Canal Street, the building is a 4 storey mixed use building for both retail and office use, the concept of the building is using a simple design plan following the equilateral shape of the land with creativity in using colours and pigmented concrete for interior to help adding some hierarchy in the building. As well as designing an outdoor area for both public and office staff use.

### RESEARCH /

The Impact of Colours on Behaviour in the Work Environment:  
A Case Study of Commercial Site Space.







## LORIDA MAMAJ

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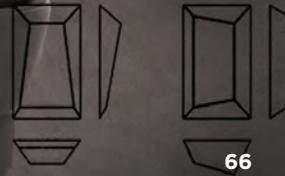
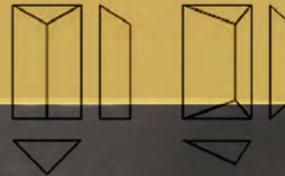
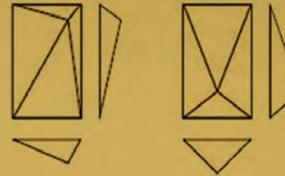
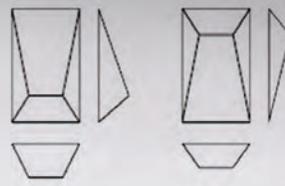
07570 587 930

**DESIGN** /

The proposed wellbeing centre is located in Ascot, south of Heatherwood Hospital estates. Set in a woodland the Centre aims to provide a tranquil environment for private patients seeking both spa and orthopedic treatments whilst illustrating the relationship between healthcare and wellbeing in an advanced architectural portrayal.

**RESEARCH** /

Daylighting and Glazing Specification: The Impact on the Wellbeing of Building Occupants.





## MARK LINETON

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### DESIGN

The new KTV Headquarters is an exciting telecommunications hub within Blackfriars, London. Celebrating its prominent location on Queen Victoria Street, the new building is seeking public inclusion via a viewing gallery and café. An accessible roof garden for the employees and guests aims to improve the biodiversity of the site.

### RESEARCH

Practicalities of Clash Detection:  
A Case Study of A Television Studio In London





## MATTHEW FOOTITT /

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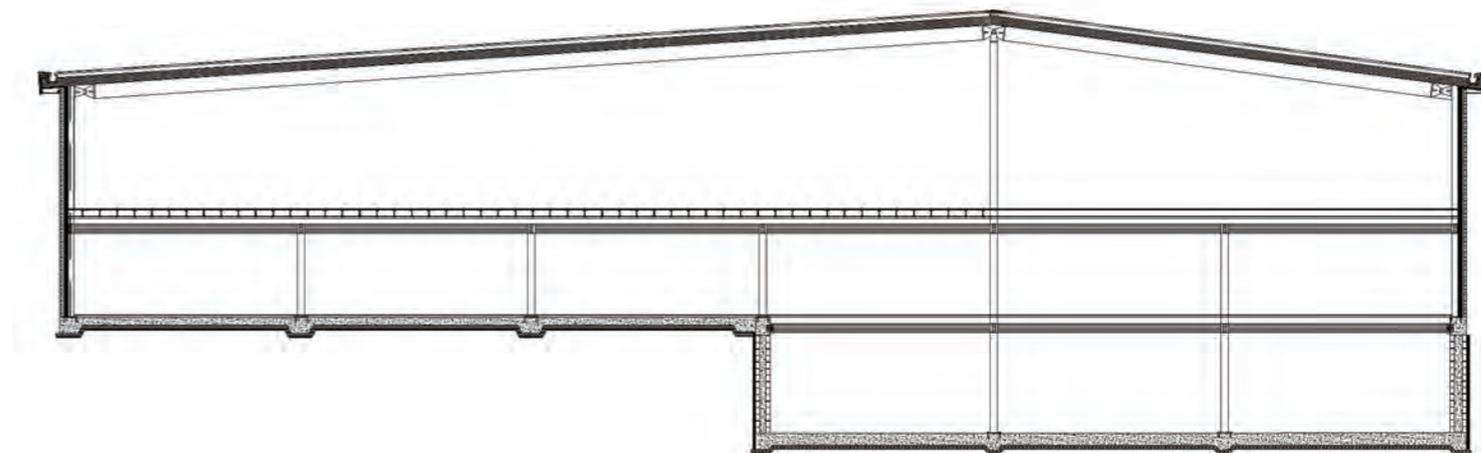
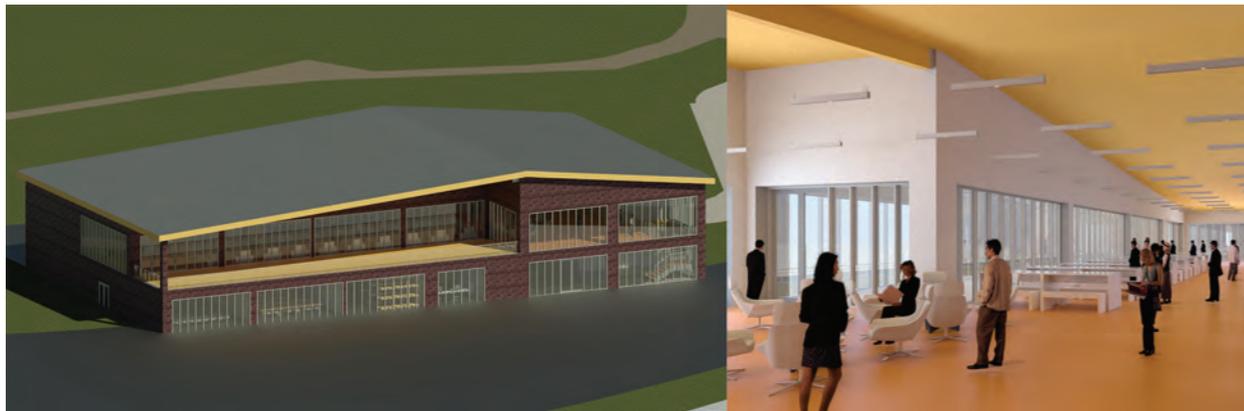
07842 256 372

### DESIGN /

A redevelopment of the white water course building and surrounding facilities at the National Water Sports Centre in Nottingham in order to increase the space available and to have all required facilities in one central building.

### RESEARCH /

Should rapid prototyping be used as a method of design communication to clients instead of traditional mediums?







## NABEEL NAUSHAH/

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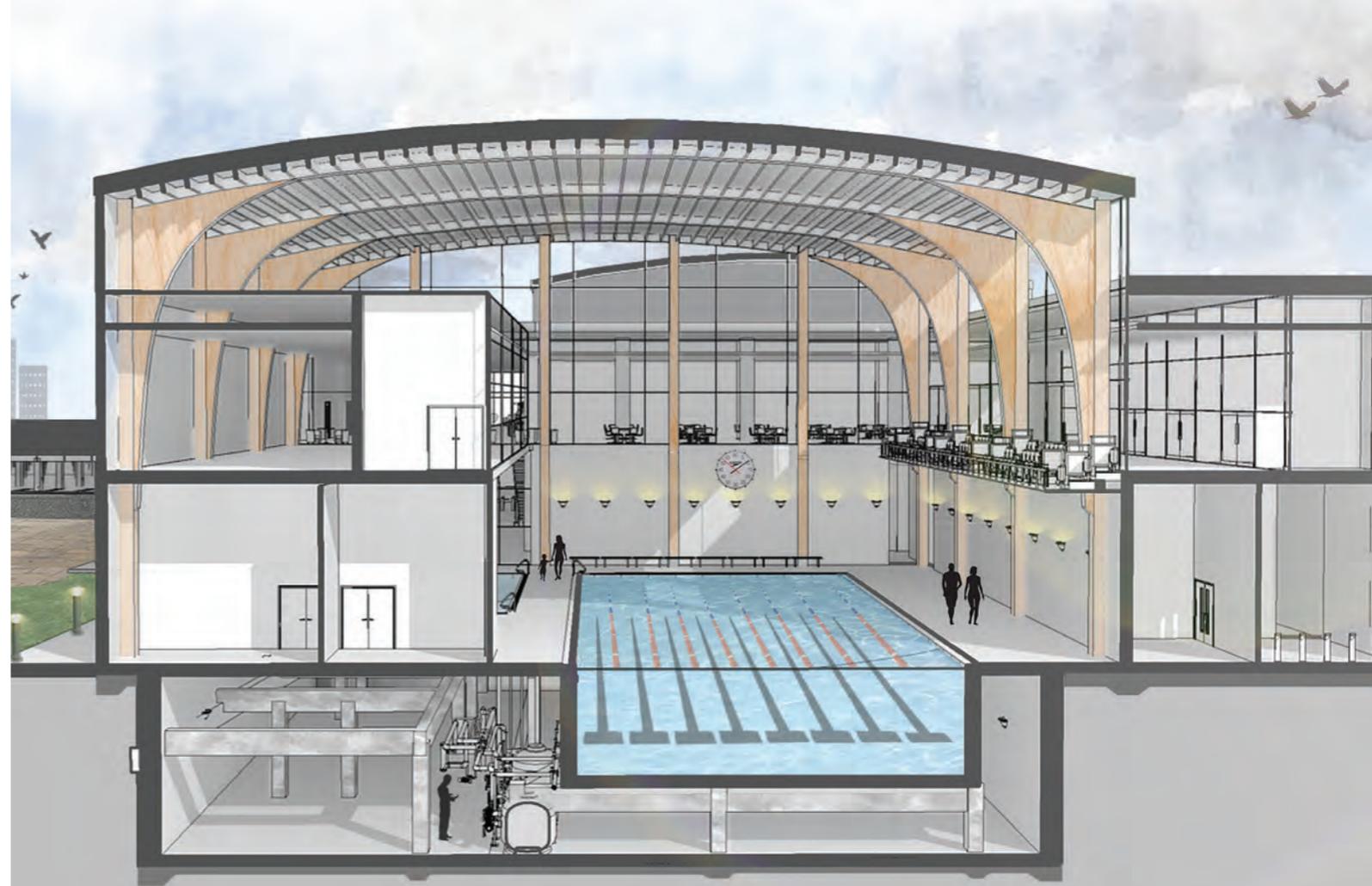
07547 275 596

### DESIGN /

This project aims to develop a multi-use leisure centre that will be situated within Giltbrook, Nottingham. Features of this sports centre will include a 25m 8 lane competition pool, a 4 court sports hall, 2 mixed use studios, a climbing wall centre and a fitness suite.

### RESEARCH /

An Evaluation Of Renewable Energy Methods To Measure The Differences Between Gas and Electric Heating Systems Within Swimming Pools.





## OLIVER CLARK

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### DESIGN

The Queens Park Dementia Centre is a base in giving support for dementia sufferers, their friends and families accommodating over 50 service users for specialist daytime care. The centre holds an atrium and winter garden joined via the roof structure enabling maximum light, which encourages the occupants happier well being.

### RESEARCH

Does spatial design and the use of light affect behavioural patterns in occupants?











## SHAUN BAGNALL

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**DESIGN** /

Situated on the Wirral peninsula, the Grand Peninsula Hotel is part of a larger hospitality and commercial coastal masterplan. Working in conjunction with the Wirral Council's unitary development plans and 2020 planning framework, the development aims to enhance tourism and revenue to the peninsula.

**RESEARCH** /

Renewable Energy Sources on a Peninsula: the comparative study into the application of a renewable energy system for a peninsula-based hospitality project.





## SHEETAL CHAVAN /

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### DESIGN /

The site extends to approx. 0.33 acres with plans proposed for a mixed used multi storey building. The ground and the first floor is for retail, cafés and stores. While the second, third and fourth have private offices.

### RESEARCH /

Use of Green Roofs to Mitigate the Atmospheric Heat in the Urban Environment.





## TASHLYN CHIBANDA

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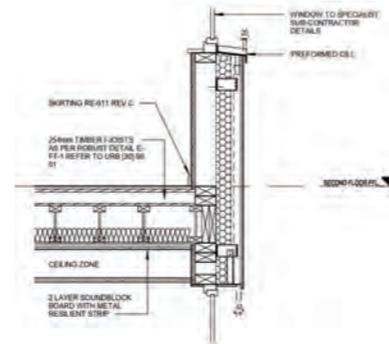
07960 715 411

### DESIGN

Nottingham offers a great student life socially and academically with a strong and brilliant student community. The Biophilia influenced student accommodation will offer students luxurious, flexible and diverse housing, improving student housing experience significantly as rent will be lower or similar to private landlords as well as quality housing.

### RESEARCH

An investigation of finding the extent in which Biophilic Design can bring measurable benefits to the well-being.





## THOMAS WAUGH

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### CONTACT

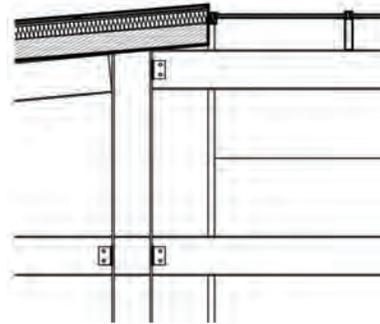
07710 579 206

### DESIGN

The project looks at 120 Holborn commercial offices and creating a mixed-use building by adding a parasitic structure, to create a large social space. Furthermore, the aim is to create a showcase of office designs for proposed fit-outs, to help identify positives and negatives in different styles of office design.

### RESEARCH

Acidic Architecture: Collaborative v.s Structured office design







## USMAN HUSSAIN

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### CONTACT

07531 855 983

### DESIGN

Development of a multi-use sports centre, located in Croyland Park, Wellingborough. The building will include numerous sports facilities such as a sports hall, squash courts, gym area, and multi-use studios. The proposal will create an open and friendly environment while exploiting fitness at its core.

### RESEARCH

How green environments can affect physical performance.





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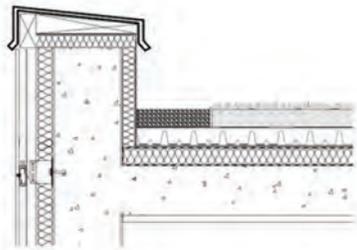
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**DESIGN** /

The project is a multi-storey residential building which includes retail outlets and apartments; the correlation between the interior and exterior design of this building is constructed a harmonious form to the building itself and also of this building's internal space. It proposes to provide a place of safety and well-being for all dwellers.

**RESEARCH** /

Evaluation of Thermal Performance of Green Roof Systems:  
Case Study of Multistory Residential Building, Canal Street Nottingham



Green Roof detail





## YINGSHAN CHEN

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### DESIGN

This is a student housing project located at the heart of Creative Quarter area within Nottingham. The design scheme intends to respond and emphasize the Nottingham image as a student city, through increasing site popularity, improve property values & security, promote local art and creative culture along with Sneinton Market.

### RESEARCH

The Behaviour of Green Roofs System: An Evaluation of Thermal Performance on a proposed construction within Nottingham.

