

# INSIGHT



**HINKLEY POINT C: CELEBRATING  
FIVE YEARS  
ON-SITE**

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**WALDECK  
SHORTLISTED  
IN NATIONAL  
TECHNOLOGY  
AWARDS**

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**COMMERCIAL  
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BRINGS NEW  
SPECIALIST  
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# HINKLEY POINT C: CELEBRATING FIVE YEARS ON-SITE

As Waldeck celebrates five years on site at Hinkley Point C, we take a look at our involvement, and what we have achieved so far as part of the journey.

**THE PROJECT**

On completion, the Hinkley Point C site will host two nuclear reactors capable of producing enough low carbon electricity to power around six million homes. The £19.6bn project is expected to have created 25,000 job opportunities during the 10 years of construction and provide huge opportunities for local, national and international businesses throughout its 60-year lifecycle.

**OUR INVOLVEMENT**

Following Waldeck's successful involvement in the delivery of EDF Energy's West Burton CCGT project, Waldeck were asked to assist EDF Energy on their Hinkley Point C development, one of the UK's first nuclear new build project for over 20 years'.

Functioning as technical specialist and management consultants, Waldeck have been involved with the project for the past five years as one of EDF Energy's four Genco 390 Framework engineering firms.

A team of Waldeck engineers have been working alongside EDF Energy on the Hinkley Point site in Somerset and from EDF Energy's offices in Bristol and London.

Teams across our network of offices have been involved with; site enabling works, management and co-ordination of works packages, BIM and site engineering.

We caught up with some of the team, to find out what it's like to work on the first in a new generation of nuclear power stations in the UK:

**Richard Sargent (RS)** Associate Director at Waldeck, is the Site Engineering Integration Lead for Conventional Island at Hinkley Point C and has worked on the project for the last two and a half years, having also previously worked on site in 2012 when it was undergoing site clearance and early development.

**Matthew Bloodworth (MB)** is a Director of special projects and Deputy Project Director on Hinkley Point C for Waldeck, he is the Site Engineering Area Integration Lead for the Nuclear Island at Hinkley Point C for NNB having worked on the project for four and a half years.

**Yulei Tian (YT)** is a Site Engineering Main Civil Works Technical Lead at Hinkley Point C and has worked on the project for three years acting as the Site Engineering Technical Lead for the Main Civils Works.

**1. What do you find most fascinating about working on such a large-scale project?**

**RS:** The volume of people and services that are required to construct and operate the site never fails to amaze me. For example, the bus station is larger than most bus stations you'd find in a large city! Each day I look out of the window and there is something new to see; it could be the world's largest tower crane being constructed, or a tunnel boring machine being prepared for launch, or sometimes a TV crew capturing footage for their evening bulletin.

**MB:** There are many aspects which are fascinating on this project, but probably the most interesting for me is its scale and pace. With so many different designers and contractors working on so many different work-faces with plant, which in many cases is the largest in class, in the world, makes the task of coordinating the design and construction in order to meet programme a real challenge.

**YT:** For me, the most fascinating aspect is the extraordinary amount of complex activities, and how they are all taking place within one single site, as Matthew says, it really does all require world class management.

**2. What has been the most challenging piece of work you have been involved in on the project?**

**RS:** With so many contracts delivering so many different parts of the design, there are multiple stakeholders involved in every piece of work. In my role I am responsible for ensuring the excavation profile aligns with the building profiles.

When one of the building profiles changed, the excavation profile had already been completed and I had to coordinate the modifications required to ensure minimal impact to the overall schedule. Each day that delayed completion of the excavation profile could have resulted in significant costs to the project.

**MB:** Like Richard, I am also responsible for aligning the excavation profile with the building footprints. This may not sound particularly complex, but it has involved making agreements with the building designers who are based throughout France, on buildings where the design was not yet complete in order to agree what shape the circa. 5.5million m<sup>3</sup> excavation, which was in the process of being created on-site, should be. The scale, pace, potential ramifications of failure and complexity of interfacing made this a real challenge.

**YT:** The work I have been involved with as Site Engineering Technical Lead for the Nuclear Island works targeting the J0 date has been my most challenging piece of work so far, it is one of the most significant and important milestones of the entire project.

**3. If you could have a different job on the project for one day only, what would it be?**

**RS:** I'd be a crane operator at the top of one of the enormous tower cranes. Being able to see the site from that high up would give me even more of an appreciation for the scale and complexity of what we are trying to achieve. Plus, I'm sure it would be a great adrenaline rush as the high winds shook the cabin around!

**MB:** As Richard has already mentioned Crane Operator, I would go for Tunnel Boring Machine operator. These are the machines being used to create the intake and outlet tunnels being driven below the Severn estuary.

**YT:** When the power plant is commissioned, I would love to be part of the team to run the plant for a day!

insider **MADE IN THE MIDLANDS**

SHORTLISTED 2019

# WALDECK MAKES THE SHORTLIST FOR INSIDER: MADE IN THE MIDLANDS AWARDS

For a second year running, Waldeck has been shortlisted for Insider's Made in the Midlands awards in the Digital Engineering / Technology category.

The shortlist follows the further development and implementation of our Digital Reality Capture solution, which has seen our Digital and Technologies team leverage Machine Learning and Artificial Intelligence to capture, intelligently categorise and manage our clients' assets.

Mark Greatrix, Director of Digital and Technologies shares: "Our team offer clients a cradle-to-grave solution, which provides many benefits across a projects lifecycle:

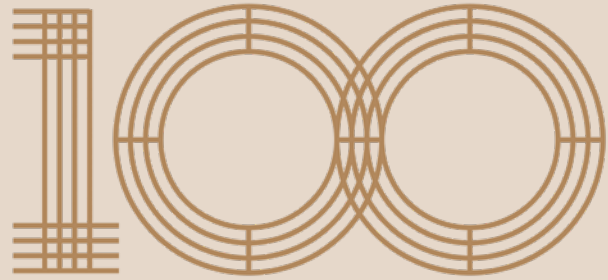
- **Fast data capture**
- **Efficient large scale mapping**
- **Improved built accuracy**
- **Time and cost savings**
- **Complete site coverage**
- **Practical completion prediction**
- **Safe surveying**

"As an example, through the delivery of this solution, we have seen up to an incredible 63% cost saving and 68% time saving for clients against traditional surveying and capture methods."

The awards are hosted by leading regional business publication, Midlands Business Insider, and aim to celebrate all that's great about the region.

**The winners will be revealed at a black tie awards night on Thursday 2nd May at the Macdonald Burlington, Birmingham.**

## New Civil Engineer



COMPANIES OF THE YEAR 2019

## NCE100 & POWER LIST

**Waldeck shortlisted again for NCE100 companies of the year awards**

Waldeck has been shortlisted for a second year running as a finalist at the NCE100 Companies of the Year Awards.

The NCE100 is New Civil Engineer's annual awards recognising and celebrating the most innovative, impactful and inspirational firms operating in civil engineering.

Shortlisted under the 'Innovative Operator' category, Waldeck was invited to attend a face-to-face interview with the NCE100 panel of judges, who represent the industry's leading clients, stakeholders and industry bodies.

Mark Greatrix, Director of Digital and Technologies, shares some details of Waldeck's submission: "Waldeck's Digital Capture solution has advanced significantly over the past 12 months, and leverages Machine Learning and Artificial Intelligence to both capture and intelligently categorise assets and their associated defects.

"Utilising cutting-edge gaming design software, we are able to rapidly turn around outputs from digitally capturing an asset, through to conveying it within a navigable and acquirable virtual 3D environment.

"With the added capability of integrating location and context based information, such as existing plans and layouts, the deliverables present a huge step change from traditional paper based reporting and schedules.

"Having tried and tested this solution, Waldeck are now focused on rolling out a programme of work for several major logistics and transportation clients, as well as exploring opportunities and benefits for clients across all sectors."

Digital Capture enables the planned, managed, safe and efficient surveying of a given environment. Data is captured, processed and analysed utilising our authored software solutions.

**The winners of the NCE100 Companies of the Year Awards 2019 will be announced on Tuesday 30 April at The Brewery in London.**

# WALDECK SHORTLISTED IN NATIONAL TECHNOLOGY AWARDS

Waldeck have been shortlisted for the National Technology Awards 2019, in three categories:

- **Internet of Things (IoT) Project of the Year**
- **Tech Team of the Year**
- **Tech Investment Award**

The shortlist follows the successful delivery of several client projects and the on-going Research and Development (R&D) programmes through our Innovate UK funded Knowledge Transfer Partnership, which have both seen the Digital and Technologies team leverage Machine Learning and Artificial Intelligence to capture, intelligently categorise and manage our clients' assets.

Mark Greatrix, Director of Digital and Technologies at Waldeck, said: "For many years now, we have been investing in technology and developing solutions which both enhance our way of working and the solutions we deliver for our clients.

"It is a true testament to our dedication towards R&D and digital, to be shortlisted in these three highly competitive categories, which seek to reward lateral thought and technical excellence in creating an outstanding service that has the potential to revolutionise an industry."

The awards celebrate the pioneers of new technology and help drive standards and encourage excellence within the technology sector, and see organisations such as National Grid, Vodafone, Lloyds Bank and Barclaycard as finalists this year.

**The winners will be announced at the Awards Gala Dinner in London on the 16th May.**



National Technology Awards 2019  
**SHORTLISTED**

# YOUNG ACHIEVER WINNER ANNOUNCED: SOPHIE HARWOOD

**Sophie Harwood announced  
as winner at Greater  
Lincolnshire Construction  
& Property Awards 2019**

**“It really is an honour to  
take home this award, thank  
you very much.”**

Digital Capture Specialist and Engineering BIM Technician, Sophie Harwood, was announced as the winner in the ‘Young Achiever of the Year’ category for the Greater Lincolnshire Construction and Property Awards 2019.

Over 350 people gathered to celebrate the Construction and Property sector in Lincolnshire, which took place at the Doubletree by Hilton in Lincoln.

Guest speaker, Homes Under the Hammer presenter, Martin Roberts shared that the judges were impressed by Sophie’s enthusiasm and attitude to her professional development, as she excels in her two roles within Waldeck’s project delivery teams. Working on multi-disciplinary construction projects ranging from intricate digital surveys to multi-million pound capital investment programmes.

Sophie later commented: “Walking through the door of the Waldeck BIM Academy as a Trainee CAD technician over four and half years ago, I never thought I would be stood here tonight! I have continued to grow and develop with each step of my journey, which I couldn’t have done without the support of the great people around me.”



# COMMERCIAL TEAM GROWTH BRINGS NEW SPECIALIST SERVICES



As Waldeck's Commercial team continues to secure work through a range of frameworks and clients, we have recently expanded our capabilities to also include a specialist services division offering:

- **Building Surveying (such as Clerk of Works and Party Wall)**
- **Development and Fund Monitoring**

This enhances our established team of top talent who currently deliver solutions for clients across the Built Environment, including:

- **Commercial Management Support Services**
- **Contract Administration**
- **Employers Agent**
- **Health and Safety / CDM Advisory**
- **Principal Designer**
- **Project Managers**
- **Quantity Surveyors**

Graham Wright, Director of Waldeck's Commercial team shared: "Our team works closely with clients in planning and setting up projects from inception to completion, preventing and mitigating potential delays and disruption."

"We are proud to say that clients employ Waldeck to ensure that every aspect of their programme or project is properly governed, well-executed and fully supported from the outset of the commercial process delivering on cost, time and to highest quality standards."

"Our team have access to the RICS and BICS market data, software and digital technologies, assuring clients that we can be relied upon to be there throughout the construction process, helping to make informed decisions and keep the project moving forward positively and with certainty."

The Commercial team work closely with the wider multi-disciplinary business to deliver commercial and risk management solutions across the sectors, with particular expertise and experience within:

- **Affordable Housing**
- **Extra Care**
- **Private Housing**
- **Retail**
- **Retirement Living**
- **Secondary Education**
- **Student Accommodation**

If you would like to find out more about our Commercial and Risk Management capability, please contact Graham Wright on 08450 990285.

# WHAT CAN BIM CONSULTANCY DO FOR YOU?

## AN INTRODUCTION

In May 2011, the UK Government mandated a minimum requirement for Level 2 BIM on centrally-procured public projects from April 2016. This distinguished level of collaborative working requires all parties to produce 3D models with all associated project and asset data being electronic and delivered in accordance with processes set out in Publicly Available Specifications, PAS 1192-2 and PAS 1192-3.

Since the mandate, the industry has witnessed BIM being widely adopted on non-mandated projects due to the many efficiencies it can provide.

For many, understanding what impact these requirements have on their method of working can be daunting, and now with the recently released international BIM Standards to adhere to, BS EN ISO 19650-1:2018 and BS EN ISO 19650-2:2018 this can become ever more confusing.

Whether your team is new to BIM or simply looking to transition to the new ISO standards, Waldeck's BIM Consultancy offering can assist you with every step.

## BUT, WHAT IS BIM CONSULTANCY?

BIM Consultancy is centred on turning our client's visions for their assets into reality; helping organisations develop robust processes and workflows to improve performance, whilst generating value and delivering efficiency. BIM Consultancy describes the support given to clients and their supply chain alike to be able to achieve this.

## WHAT WALDECK CAN OFFER YOU...

Waldeck's BIM Consultancy team provide our clients with the necessary tools and processes to successfully deliver BIM Level 2 projects.

## OUR CORE BIM CONSULTANCY SERVICES INCLUDE:

- **BIM Capability Assessments**
- **BIM Education and Training**
- **BIM Standards, Workflows and Processes**
- **Compliance**
- **Organisational Information Requirements (OIR)**
- **Pre and Post Contract BIM Execution Plans**
- **Project Start-up Strategies**
- **Standards, Methods and Procedures (SMPs)**

As well as Asset Information Requirements (AIR) and Employer's Information Requirements (EIR) for those in pre-transition to the new ISO, 19650 and Project Information Requirements and Exchange Information Requirements for those looking to transition to the new ISO 19650.

Importantly, Waldeck engage with our clients to undertake bespoke assessments of their organisations and projects, working with them every step of the way to understand their needs, and road-map their digital transformation in order to offer an end result which meets the necessary BIM requirements, delivers increased operational efficiency and significant competitive advantage.

Waldeck's BIM Consultants are MSc qualified in Building Information Modelling Management and have vast first-hand experience of BIM project delivery across a wide range of sectors, and therefore understand the needs and constraints faced by client's, organisations and suppliers alike.

Veronica Ruby-Lewis, Associate Director within Waldeck's Digital and Technologies team commented: "While most feel daunted by the proposition of adopting and implementing BIM within their organisations and projects, the reality is, it can be made much simpler if the road-map to adoption is broken down into smaller manageable steps.

"We have seen first-hand how this approach also helps with the cultural shift to new ways of working, whilst seeing huge efficiencies as a reward."



## KTP ASSOCIATE DELIVERS GUEST LECTURE

Following continued success in her role, Knowledge Transfer Partnership (KTP) Associate Clara Osuna was invited to deliver a guest lecture at the University of Huddersfield.

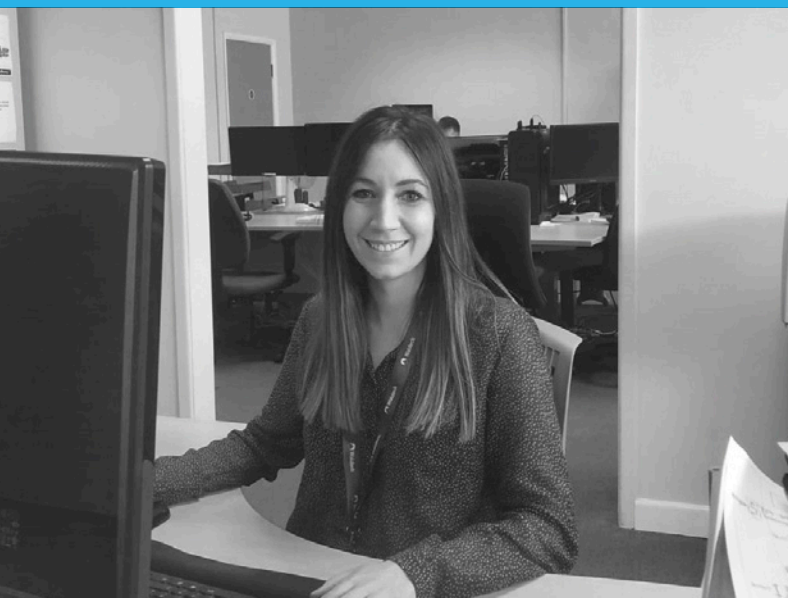
Clara shared with current Project Management MSc students her insights into the application of Building Information Modelling (BIM) and digital technologies, alongside an overview of her KTP project which she is working on in partnership with Waldeck and the university. Clara shared: "Having spent almost eighteen months in my KTP role, it is great to be able to give something back to the University of Huddersfield and share with students the exciting work I am involved in at Waldeck.

"I hope the lecture gave a good insight to the students about the integration of BIM with innovative tools, such as intelligent dashboards or graphical programming, and how this can be applied within the business environment."

The lecture also included the following topics:

- **The challenges that Clara has faced during the KTP project, and how they were overcome**
- **How the knowledge Clara gained has been successfully transferred to develop tangible and commercial solutions for Waldeck and our clients**
- **Case studies of live projects**
- **The benefits of a KTP program for any graduates who wish to join as Associates**

**"...it is great to be able to give something back to the University of Huddersfield and share with students the exciting work I am involved in at Waldeck."**



## MAIDSTONE CIOB: DRONES IN INDUSTRY

Digital Capture Lead, Amy Cheeseman is delivering a CPD presentation about the use of drones in the construction industry to The Chartered Institute of Building members in Maidstone.

The presentation follows a recent survey from ProDroneWorx, which found that 52% of the Construction Industry are now utilising drones; a significant increase of 19% since 2017.

With the types and uses of drones and their data ever increasing, Amy's presentation will cover the capabilities of drones as well as the many uses for the data which can be leveraged by the construction industry.

As construction sites can be a dangerous place, filled with potential hazards, the presentation will also outline the importance of always using licenced operators and how to ensure they are working within the Drone Code.

Amy shared: "Leading Waldeck's Digital Capture delivery across the business, it is my role to collaborate with clients and project teams alike to ensure all UAV and terrestrial survey operations are conducted in-line with regulatory and project based requirements.

"As a business we undertake digital capture operations across a broad range of industries, and I am responsible for the management and deployment of digital capture solutions in highly regulated industries such as Nuclear, Energy and Rail where health and safety, operational efficiencies and cost savings are of the utmost importance.

"This presentation aims to highlight the uses and benefits of drone-captured data, and also educate the audience on how to avoid unnecessary risks and delays."

Amy's presentation will take place on Tuesday 30th April 2019 from 8pm at the Ashford International Hotel.

**If you are interested in holding a similar CPD, please contact Amy on 08450 990285.**

From grassroots activism to worldwide action, we are entering an exciting period of history where the world expects balance. We notice its absence and celebrate its presence.

The race is on for the gender-balanced boardroom, a gender-balanced government, gender-balanced media coverage, a gender-balance of employees and more.

We hear from Managing Director, Sue Wright about why Waldeck support #BalanceforBetter and how a diverse workforce drives a better working world:

“Gender balance, and balance across all diversities is essential for economies and communities to thrive, as well as businesses.

“At Waldeck, equality has always been important when considering aspects of the business such as recruitment, training and career progression, in order to ensure an inclusive, empowering environment for all.

“Our recent (January 2019) staff survey results show that 98% of staff believe that Waldeck values diversity in the workplace, which is a figure we are incredibly proud of.

“Over the years, across the industry we have seen stereotypes being challenged and a diverse representation of women is definitely becoming more evident. At Waldeck we are proud to have an above average representation of women within our organisation, in roles across Senior Management, Project Delivery and Support Services, to the point where I believe as a business we would consider diversity not only in gender but also ethnicity, race, age, religion, disability etc. as ‘the norm’.

“That said, there is still a continuing need worldwide for more progressive mind-sets and inclusive behaviours, which we hope to be able to continue to support through our internal programmes such as apprenticeship schemes, graduate training, professional development reviews, flexible working and other internal initiatives.”



**This year's International Women's Day 2019 theme #BalanceforBetter campaigned to build a gender-balanced world. Where everyone has a part to play - all the time, everywhere.**

## NATIONAL APPRENTICESHIP WEEK:

# A CATCH UP WITH JOE BAKER



For National Apprenticeship Week 2019, we caught up with Joe Baker to talk about his apprenticeship at Waldeck, and experiences so far.

Joe has been working at Waldeck since 2017, where at the age of 18 we welcomed him as a Trainee Technician as part of our apprenticeship scheme. Joe is currently in the first year of his Level 3 Construction Technical and Professional Construction Contracting Operations course at Lincoln College, which he is due to complete in 2021.

The Waldeck Apprenticeship Scheme recruits groups of school and college leavers and graduates onto our bespoke programme which combines their studies with on-the-job training, enabling them to become fully qualified CAD Designers and Engineers working on real-life projects. Students are offered ongoing learning support, along with excellent career opportunities across our network of nationwide offices.

### Tell us about your experience of doing an apprenticeship at Waldeck

During my apprenticeship so far, I have been balancing my one day a week at college, and college work with working at Waldeck on live multi-disciplinary projects for a variety of clients.

Primarily, I have been involved with projects such as Forge Island for Rotherham Borough Council and Doncaster Delivery Unit for Buckingham Group. My main roles have been to work closely within the Civil Engineering team, carrying out drawing work from engineering designs, document control, variations and keeping our document management systems up to date; I have been using software such as AutoCAD, Civils 3D and Revit.

I was also given the opportunity to complete my BIM Essentials course, and train on niche software relevant to different projects I have been working on.

### What first interested you in a career in construction?

My Dad owns a local construction business, so it is something I have grown up around. I used to work with him at the weekends when I was at school, and really enjoyed it, so decided to take BTEC construction subjects at Sixth Form, before I then considered my routes into a career within the industry and chose to pursue this through an apprenticeship.

### What has been your personal career highlight so far?

I have really enjoyed my time at Waldeck so far, working as part of a strong team to achieve tight deadlines and deliver quality work. I have actually surprised myself with how quickly I am learning and progressing, and feel settled in my role and positive about my future prospects. It's great to feel like I have achieved something at the end of each working day, especially as each project we work on is so different.

### What are your plans for the future?

For now, I want to keep doing what I am doing, stay focused on my College course and developing my role at work. Having the support of my mentor, and other experts in the business is helping me to pick up new skills and expand my knowledge, and I would definitely like to continue to learn about the other disciplines too.

After completing my Level 3, I would then like to do my HNC and go on to do a degree, and perhaps become Chartered at some point in the future!

### In the face of a skills gap and lack of people choosing a career in STEM subjects, how would you inspire someone to take a similar route into the workplace?

I would say if you are considering taking a route into construction or any other STEM subject, it is important to think about what interests you the most. I have seen first-hand how the roles can be so varied, creative and rewarding.

For me, an apprenticeship was the best option, it has been a great way to get into the workplace, combining education with hands-on learning and transferable skills that I wouldn't necessarily have learnt at University, such as liaising with clients and working within a design team. The social aspects have been great too!

### Tim Leach, Director of Civil and Structural Engineering commented:

"As soon as Joe joined the Company, he very quickly integrated himself with his team and the wider Waldeck community, within his first week he was working on a range live projects. The apprenticeship scheme has provided Joe with a platform for kick starting his career surrounded by experienced and knowledgeable colleagues and supported by a structured technical learning programme."

## FASTER BY 50: PHIL WALKER

Waldeck are pleased to be supporting Technical Director, Phil Walker in his aim to get 'Faster by 50' whilst raising money for Cancer Research UK (CRUK).

Dad of two, and (sometimes) keen triathlete Phil, who is fifty next year, has entered two long distance triathlons in Nottingham as part of the 2019 Outlaw Triathlon Series.

Phil will warm up with the 'Outlaw Half' in May, before racing the full ironman distance in July, which will see him endure a 2.4 mile swim, 112 mile bike ride and 26.2 mile run in order to finish.

Phil shared: "Originally I had challenged family members to enter as a relay team, and race against me, but they have dropped out for various reasons. So I thought, who better to compete against than myself!

"I have set the challenge to beat my Personal Bests (PBs) for both distances before I am fifty, and for those who know me well, alongside my training I will need to cut right back on the four key food groups; sausage rolls, pork pies, donuts and cookies, although I might struggle on the last one.

"CRUK is a charity close to the heart of many, and one I have supported for a long time, in fact, the first time I took part in the Outlaw series was for CRUK, so I am feeling motivated to smash my PBs and raise as much money as I can along the way.

"I am really grateful for Waldeck's sponsorship, and any other donations I may receive which are hugely appreciated, no matter how small."

If you would like to support Phil in reaching his ambitious target of £1,500, please donate through his JustGiving page by searching 'Phil-Walker70'.



## THREE PEAKS FOR 'MIND'

Birmingham based Bid Manager, Claire Gallagher will be braving the mighty Three Peaks Challenge this June to raise money for mental health charity, Mind.

Claire and five of her friends have committed to bunk beds and blisters in order to raise as much money as they can for their chosen charities. Claire will be supporting Mind, which is one of Waldeck's chosen charities for 2019.

The Challenge involves climbing the highest peak in each country of Great Britain; Ben Nevis (Scotland), Scafell Pike (England) and Snowdon (Wales) which in total includes 23 miles of walking, a total ascent of 3064m, and 462 miles of driving – all within 24 hours!

Claire shared: "I consider myself an active person and enjoy walking and the gym, but the Three Peaks really will be a challenge. Luckily I have the support of my friends alongside me, and knowing I will be raising money for such a good cause is sure to spur me on.

"Having worked in the construction industry for 13 years, I have really noticed a shift in conversations about mental health, and think it is great that we can support Mind in their mission to provide advice and support to empower anyone experiencing a mental health problem, as well as improving mental health services, raise awareness and promoting understanding."

The Challenge is taking place on 1st June 2019, if you would like to support Claire in reaching her target of £250, please donate through her JustGiving page by searching 'Claire-Gallagher-3Peaks'.





## A DAY IN THE LIFE OF AN ENGINEER

Mechanical Engineer, Rob Lancaster recently joined pupils and teachers for the day at Totley All Saints Primary to share an insight into what it is like to be an engineer.

The day is part of the schools wider 'Aspire' programme taking place each year to promote the STEM (Science, Technology, Engineering and Mathematics) subjects, welcoming professionals from architects to doctors, and ocean sailors to bee conservationists through the classroom doors.

Rob spent his day talking to pupils ranging from Y2 to Y6 discussing the STEM subjects, Building Services (Engineering) and Sustainability, as well as his own personal experiences with dyslexia.

Rob shared: "All the pupils seemed to really enjoy dressing up in the protective clothing (PPE) and even one or two of the teachers too!

"It was great to see how engaged and excited the children were, especially by the technology we are using, which on this occasion was some 3D modelling on an iPad, which we use for site visits and also some laser scanning.

"I think it is important for children to understand early on the opportunities available to them across all sorts of career paths, how they can overcome any barriers, and in particular the diversity of work which each role provides. Hopefully this was something that the pupils at Totley All Saints Primary could really take away with them."

## DISSERTATION TOPIC CATCHES THE EYE

The dissertation topic of Structural Engineer, Nick Barnes has caught the eye of experts across the globe, and as a result, his dissertation is being presented at The 34th International Conference on Solid Waste Technology and Management conference in Annapolis, US later this year. Nick recently graduated from his MSc at Nottingham Trent University, with a distinction in Structural Engineering with Materials, after writing his dissertation on: **'Structural Performance of Concrete Elements Constructed using Recycled Concrete Aggregates and Recycled Tyre Steel Fibres'**.

### DISSERTATION OVERVIEW

As the world begins to better understand the need to reduce carbon emissions, solutions are being sought for the waste materials produced by two of the biggest industries in the world; the construction and motor industries.

These waste materials consist of construction and demolition waste, most notably in the form of concrete elements from the demolition of structures, as well as waste tyres that cannot be re-used.

Concrete is being produced in quantities of 2 billion tonnes per year and it is estimated that during 2015, 55 million waste tyres were produced by the UK alone. Due to these astonishing figures, past research has been conducted to understand how these waste materials can be utilised in new construction projects with the aim to lower greenhouse gas and CO<sub>2</sub> emissions.

Recycled Concrete Aggregates (RCA) and Recycled Tyre Steel Fibres (RTSF) have both been used previously in the construction industry in isolation, normally in areas where the properties of the materials are not as structurally important, such as in the construction of road bases and in ground bearing slabs. However, Nick could not find existing research to show these two materials being used combined together, or for structural purposes.

Nick's dissertation set out to investigate existing research available around the use of RCA and RTSF, and to review if previous findings showed results that indicated these materials can be used more widely across the construction industry.



# WALDECK CONFIRMED AS NHS FOUNDATION TRUST APPROVED CONTRACTOR



Nottinghamshire Healthcare  
NHS Foundation Trust

Following the delivery of successful projects with the Nottinghamshire NHS Foundation Trust, Waldeck have been confirmed as an approved contractor for the provision of Mechanical, Electrical and Building Services Design.

Our Mechanical, Electrical and Building Services Design division have been delivering a wide range of services to the Trust over the last four years. Including works at:-

1. High Security Hospital, Rampton
2. Arnold Lodge, Medium Secure Health Unit, Leicester
3. Wells Road Low Secure In Patient Hospital, Nottingham
4. Wathwood Medium Secure Hospital, Rotherham

Our services include:

- **Building Regulation and Sustainable**
- **Planning Reports**
- **Climate Based Daylight Modelling**
- **Council Adoptable Standards External**
- **Lighting Designs**
- **Detailed [BSRIA] Stage 4 Designs**

- **Dynamic Simulation Modelling (DSM) for Energy and Overheating Assessment**
- **Lifecycle Costing and Planning**
- **Low Carbon Consultants**
- **Monitoring of On-Site Commissioning and Workmanship**
- **Performance Designs for Specialist Installations**
- **Infrastructure Planning and Provision**
- **Post Occupancy Evaluations (POE)**
- **Pre-Planning Advice and Expertise**
- **Reviewing of Manufacturers' and Installers' Proposals**
- **Surveys and Condition Reports**

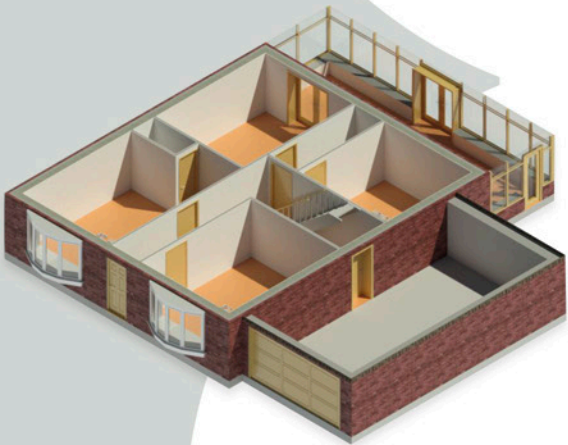
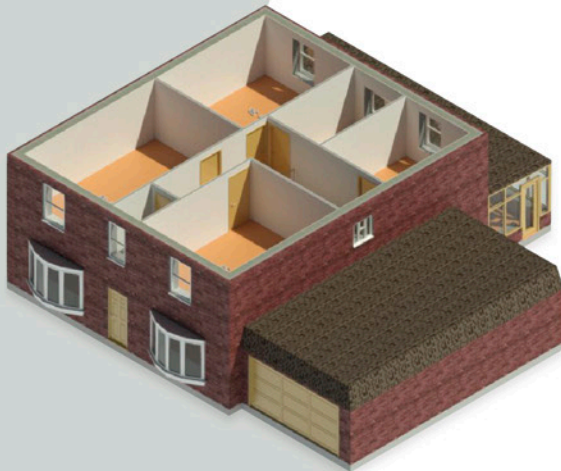
Andy Inkson, Director of the team shared: "We are delighted to further strengthen our relationship with the Nottinghamshire NHS Foundation Trust through our place on their approved contractor list. We look forward to continue working with the Trust and its supply chain on future projects."

## TRENT & DOVE FRAMEWORK

Following Waldeck's appointment through Trent and Dove Housing Ltd's framework to provide Employer's Agent services on the Shobnall Street 26 unit residential scheme, we are pleased to share that we have been appointed as Employers Agent on four further sites in and around Burton-upon-Trent. All four sites have been appointed through the framework and include:

1. Red House Farm - 11 residential units
2. Newton Road - 18 residential units
3. Etwall Phase 2/3 - 22 residential units
4. Forest Road - 8 residential units

Graham Wright, Director of Waldeck's Commercial team shared: "As our Commercial team goes from strength to strength, I am delighted we have secured further work with Trent and Dove who we are very excited and proud to be working with as one of their framework consultants."



## A 'MODEL HOME' FOR NUMBER EIGHT

Waldeck are proud to be supporting Tamworth charity, 'Number Eight' which provides housing and life skills to young mums with no support network.

The charity is currently looking to purchase a second property and is fundraising to secure a deposit and enable important renovation works including a new kitchen, a playroom extension and a utility area to facilitate better teaching and living facilities for the young mums and their babies living at the house.

As part of the fundraising, Waldeck have created a 3D interactive model of the proposed renovation works, which demonstrates where in the house donations could be spent.

Trainee Technician, Angus Marr, who created the model explains: "The charities aspirations are to communicate and demonstrate visually where monies raised are to be spent on the renovation works.

"The Waldeck team looked to address this by developing a 3D model of the current property, working from the latest survey information. The team have established a free to view hosting and sharing environment where the model can be retrieved without the need for expensive software, which allows the model to be accessed by a secure link on a PC, tablet or mobile phone.

"As the project progresses towards completion, we will be keeping the model updated in-line with the renovation works, highlighting which aspects have been completed and also which aspects will be targeted next, subject to securing the required level of funding."

Through their journey so far, Number Eight have some impressive statistics to be proud of:

- **Only 10% of the young mums who move in with Number Eight have a GCSE, but when they move on, 94% are either in education or employed.**
- **100% of the young mums who Number Eight have supported into their own independent homes are still living in them. No-one has been evicted for non-payment of rent, which the charity puts down to learning about how to budget and cook healthy meals on a budget, whilst they are living with Number Eight.**
- **95% of the babies continue to live in the care of their young mum without social service involvement.**

**"The charities aspirations are to communicate and demonstrate visually where monies raised are to be spent on the renovation works."**

# WHO ARE **MORSON** PROJECTS?



**In 2018 Waldeck was acquired by Morson Group, and now the business works intimately alongside sister business, Morson Projects.**

## EXPERIENCE

**13,549**

Completed Projects to Date

**14,644,648**

Engineering Hours posted to Date

Morson Projects are a multi-disciplined management, engineering and design company who specialise in delivering services and solutions to clients across the sectors. Morson Projects and Waldeck, together, have a workforce of circa 800 professional staff.

Executive Director, Chris Burke explains more: "Morson Projects provides an incredibly diverse range of quality driven engineering services to a wide array of industrial sectors.

"Our highly qualified engineering teams deliver capability and experience across numerous engineering disciplines, enabling the provision of complete end-to-end project management, design and delivery services to our valued long-term client partnerships.

"Our relationship and collaboration with Waldeck continues to develop and strengthen, and the joint experience and expertise we can offer clients is already seeing great opportunities and solutions emerge."

## SECTORS



**Aerospace & Defence**



**Nuclear**



**Power & Renewable Energy**



**Industrial & Process**



**Infrastructure & Transportation**

## FAST FACTS

**39+**

Year History

**40M+**

Revenue

**700+**

Employees

**2**

Countries

**9**

Offices





# SERVICES



ADS-B Solutions



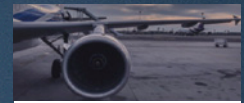
Structural Design & Analysis



SCADA & PLC Control Systems



Asset Care & Technical Documentation



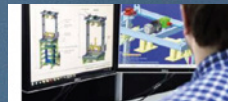
EASA Part 145 Line Maintenance



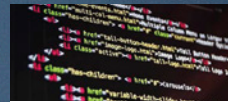
Primary & Secondary Engineering



EASA Part 21J Design Services



Tooling Design & Manufacture



Software Development



Industrial Communication & Networking



Project & Programme Management



Specialist Tunnel & Highway Systems



Civil, Structural & Architectural



Installation & Commissioning



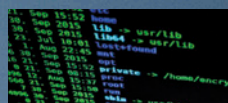
Plant Design



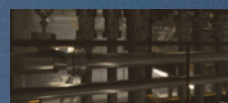
Panel Build



Process Engineering



Industrial Cyber Security



Piping & Vessel Design



Control, Electrical & Instrumentation



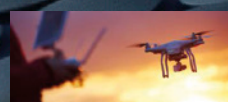
Decommissioning



Systems Engineering & Integration



Manufacturing Engineering



UAV Aerial Drone Surveys



Virtual Engineering



Lifting & Handling Equipment



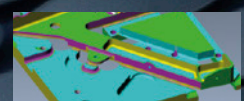
Plant Layout



Data Translation



Through Life Support



CNC Programming



eMaster Lighting Control



Test & Build Software Toolkit



Electrical & Avionic Design

**“Aircraft Engineering is the latest offering from the Morson Projects team, its development was led by a desire to bring together complimentary services within the aviation sector...”**

## MORSON PROJECTS EXPAND LINE MAINTENANCE OFFERING

Morson Project's Aircraft Engineering division has expanded its Line Maintenance offering to meet the needs of a growing client base.

Last year, Morson Aircraft Engineering, a division of Morson Projects, entered the Maintenance, Repair and Overhaul (MRO) market as an EASA Part 145 approved maintenance provider.

The EASA Part 145 Line Maintenance approval is a company level certification to the European Commission Regulation standards of design, production, maintenance and operation of aircraft components.

Morson Projects' relationship with its sister company, Morson International, who are the third largest engineering recruitment business globally, means this EASA Part 145 approval takes this offering to the next level in delivering fully certified maintenance solutions for clients.

### OUR CLIENTS

Morson Aircraft Engineering are pleased to announce that as of April 2019, the division will be adding new clients Virgin Atlantic, Sunwing, SmartLynx and Avion Express to our portfolio, which already includes Thomas Cook and Cathay Pacific.

Alongside these clients, the team will be working under its new approvals including Boeing 747, Airbus A310 and Airbus A330 P&W 4000, adding to current approvals on the Airbus A320 family and Boeing 737 aircraft.

### OUR LINE STATIONS

Morson Aircraft Engineering also recently acquired a new line station at Bristol (BRS) Airport, which has added to the ever-growing portfolio of line stations, which already includes Belfast (BFS), Birmingham (BHX), East Midlands (EMA), Gatwick (LGW), Glasgow (GLA) and Newcastle (NCL).

Scott Wells, Director of Morson Aircraft Engineering Services at Morson Projects shared: “Aircraft Engineering is the latest offering from the Morson Projects team, its development was led by a desire to bring together complimentary services within the aviation sector, which we identified a client requirement for.”

# ENERGY FROM WASTE: TRANSFORMING RESIDUAL WASTE INTO POWER AND RESOURCE

The UK's power, energy and waste management sectors are facing a period of significant growth in response to renewed government pressure to reduce waste to landfill.

Already accounting for over 5% of the UK's electricity supply, Energy from Waste facilities, which allow the transformation of residual waste into power and resource, provide an important solution to these pressures.

By 2020 Energy from Waste facilities could account for 6% of total UK electricity, making a significant contribution to our energy security.

Supporting this goal, Waldeck and Morson Projects work across both local and national schemes providing solutions for:

- **Agricultural Clients**
- **Distribution Network Operators**
- **Education and Housing Sectors**
- **Food and Drink Clients**
- **Funders and Investors**
- **Green Energy Providers**
- **Local Councils and Communities**
- **Manufacturing Clients**
- **The Environment Agency**

In order to support our clients with their Energy from Waste projects, we offer extensive project experience, cutting-edge design and technologies, and industry leading expertise to drive client projects from concept to completion.

We understand that:

- **UK waste policies clearly identify the need for essential new recycling and recovery infrastructure**
- **Waste planning policy continues to recognise the necessity of new recycling and recovery set-up**
- **As the industry faces more challenges from climatic changes it is important to design sustainable solutions within our urban developments**
- **It is critical to have the top talent and expertise working on these projects to deliver success**

## OUR SOLUTIONS

Waldeck and Morson Projects have extensive experience delivering detailed design solutions for clients, leveraging Building Information Modelling (BIM) and digital technologies to capture, plan, create and manage complex assets and their models.

We continue to drive results for our clients through delivering solutions to include:

- **Asset Care and Technical Documentation**
- **Building Information Modelling**
- **Civil and Structural Engineering**
- **Control Systems**
- **Control, Electrical and Instrumentation**
- **HVAC**
- **Low Carbon and Sustainability Solutions**
- **Mechanical and Electrical Building Services**
- **Mechanical and Electrical Engineering**
- **Piping**
- **Power Engineering**
- **Project Management**
- **Resource Solutions**
- **Stress Analysis**
- **System Integration**
- **Tooling Design and Manufacture**

## OUR EXPERIENCE

Our teams of top talent have worked on Energy from Waste plants across the UK including:

- **Energy from Waste Facility, Margam**
- **Energy from Waste Facility, Teeside**
- **Energy from Waste Facility, Wilton**
- **Waste to Energy Plant, Derby**
- **Waste to Energy Plant, Isle of Wight**

If you would like to find out more about our Energy from Waste experience and capabilities, please contact Paul Waldeck on 08450 990285.

**PROJECT ENQUIRIES**

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Telephone: 08450 990285

**PR & MEDIA ENQUIRIES**

Contact: Hannah Wharton

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**CAREER OPPORTUNITIES**

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