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**ISSUE 5** | 2021

## RECOGNISED AS ONE OF THE BEST PLACES TO WORK

Plus **BUSINESS, PROJECT & TEAM UPDATES** 

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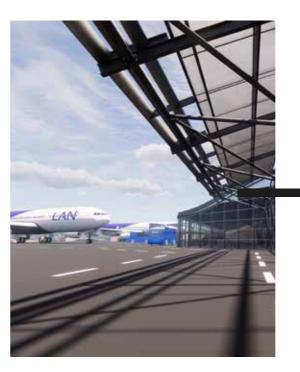




Ematics CONTROL SYSTEMS ENGINEERS



## 06 STAFFORDSHIRE UNIVERSITY'S CATALYST BUILDING



12 UK DATA CENTRES **RANKED NO.1 IN** THE WORLD

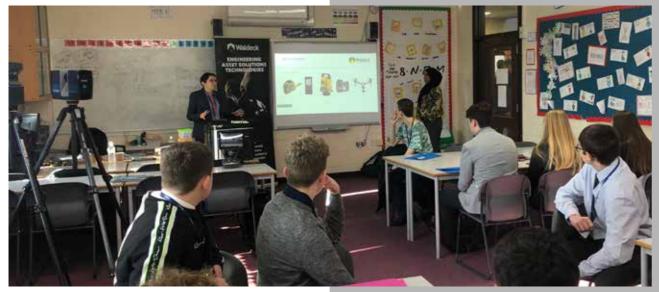


## 80 CASE STUDY: SOUTHEND AIRPORT BAGGAGE HANDLING FACILITY









## WALDECK ANNOUNCED AS APPRENTICE **EMPLOYER OF THE** YEAR FINALIST

### Waldeck are delighted to announce that we are a finalist for Apprentice Employer of the Year at the Nottinghamshire Live Business Awards 2020/21.

Waldeck are delighted to announce that we are a finalist for Apprentice Employer of the Year at the Nottinghamshire Live Business Awards 2020/21.

Although within the engineering industry the focus is often on project delivery and getting results for clients, Waldeck pride ourselves on looking inwards to our staff and ensuring they are working in an empowered culture where they are valued and nurtured.

We work to ensure that Waldeck is a place where people want to work, can progress in their career and can make a difference through new ideas and innovation.

Becky Hicks, who looks after Training and Development at Waldeck, shared: "At Waldeck, our people are at the heart of everything we do, as a service-based organisation, we ensure we support our people to explore their passions and unlock their potential through their development and training. Across our network of offices, development is key in encouraging our team to reach the next level in their career and be the best they can be.

"Our Academy Programme, Graduate Scheme and Knowledge Transfer Partnership are just three ways we recruit and nurture up-and-coming talent, bringing in aspiring school and university leavers to the organisation and providing them with both training and a rigid support structure to ensure they excel within their chosen career.

"We believe that the passion, determination, tireless energy and skill that goes into running a top-performing company all deserve recognition and our 15 award categories are designed to celebrate businesses from across a range of sectors."

"Growing our own talent is hugely important to us, and to be able to have groups of young people growing with the business as it develops has been vital in the company's evolution over the past 5 years.

5

"We are also passionate about educating our local communities about careers in engineering / construction and look forward to visiting local schools and colleges again when restrictions allow."

Nottinghamshire Live and Nottingham Post editor Natalie Fahy said: "These awards celebrate success, recognise achievement and highlight the innovative people and companies throughout Nottinghamshire who are putting their region on the map by boosting the economy while making a positive contribution to the local community.

"We believe that the passion, determination, tireless energy and skill that goes into running a top-performing company all deserve recognition and our 15 award categories are designed to celebrate businesses from across a range of sectors.

"The awards will be a celebration of the county's best companies and a reminder that Nottinghamshire is a great place to do business."

This year's awards will culminate in a black-tie awards night at the East Midlands Conference Centre on the night of Thursday, October 14, which will be attended by hundreds of people from Nottinghamshire's business elite.



# Project Update-STAFFORDSHIRE UNIVERSITY'S CATALYST BUILDING









Catalyst Building will enhance the learning and social experience of all of our students, enabling them to achieve their full potential and to play an active part University and wider

### In 2020, Waldeck were appointed by Imtech **Engineering Services, who were** selected by VINCI UK to support them with a £27m design and build project for Staffordshire University's new Catalyst building - a flagship regional hub for apprenticeships and digital skills.

Waldeck's Mechanical & Electrical Building Services Design team are helping to deliver the state-of-the-art facility which is set to open in September 2021.

The Catalyst building will support students to study flexible degrees that meet their needs and those of employers, and help students secure highly-skilled jobs.

The facility will act as a study base for 6,500 new apprenticeships by 2030, and once complete, will be home to a dedicated Apprenticeships and Digital Skills' hub, an employer hub, a modern library and learning hub, a new food court and flexible event space.

Luke Mitchell, Waldeck's Project Lead, shared: "It has been great to visit site recently and see the design going in as intended. You'll see in the progress photos below how far the project has progressed over recent months."

"Imtech Engineering Services are doing a great job and it has been a pleasure working with their team to date. We are very much looking forward to seeing the facility come to life as it opens up later this year."

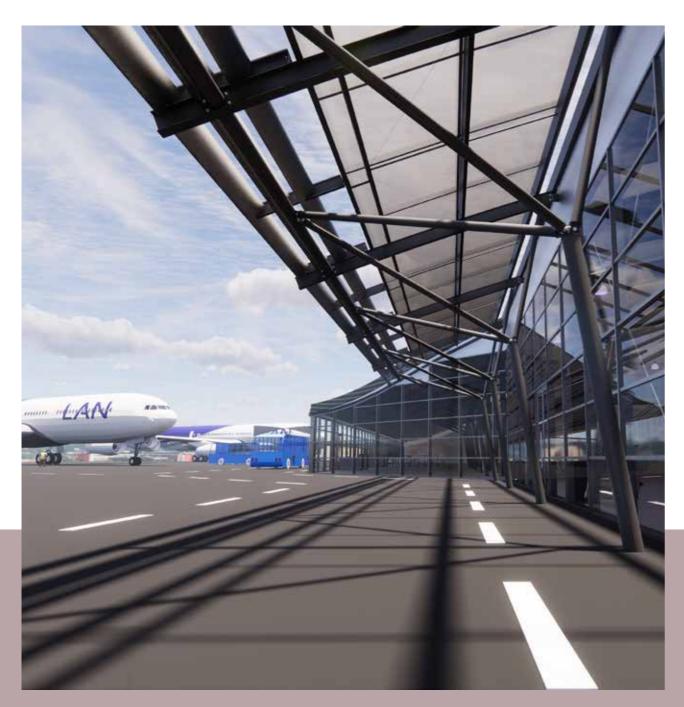
Professor Martin Jones, Deputy Vice-Chancellor of Staffordshire University, said the building would have a positive impact on students and the wider community:

"The new Catalyst Building will enhance the learning and social experience of all of our students, enabling them to achieve their full potential and to play an active part in the life of the University and wider community.

"The cutting-edge facilities will support our students to study flexible degrees that meet their needs and those of employers. The University plans to be the catalyst in transforming lives and prospects and helping students secure highly-skilled jobs.

"Many of our students come from the local area and our investment in them, through the Catalyst building and the work of the University, is supporting the region to grow and take on the challenges of the 21st century."

Find out more about Waldeck's Mechanical & Electrical Building Services capability by calling Luke and the team on 08450 990 285.



## Case Study: BAGGAGE HANDLING FACILITY

#### **PROJECT OVERVIEW**

#### KEY CHALLENGES & ACHIEVEMENTS

From the outset, the Waldeck team engaged with







#### RESULTS

Find out more about Waldeck's capability by calling Stuart and the team on 08450 990 285.

# **FIRST OF 48 HOMES** OVER TO STONEWATER



"We have worked successfully with all stakeholders to fully mitigate a number of complexities faced from the geographical position of this site and the whole team is very proud of what has been delivered here."



Living Space Housing has handed the first tranche of homes over to Stonewater at the former Victoria Carpets Sports Ground in Kidderminster. A total of 48 affordable homes are being constructed at the complex 5.4-acre site, which has a project development value in excess of £8m.

We are delighted to see the first handovers have taken place at the former Victoria Carpets Sports Ground in Kidderminster.

The £8million residential scheme is our first complete scheme partnering with Stonewater and Living Space Housing.

The site, located on Spennells Valley Road has lain derelict for a number of years, as previously planned uses for the site were seen as uneconomic because of the work needed to mitigate flood risk.

Delivering a development for a not for profit housing provider that can see the long term value of the investment needed to prepare the site to build affordable rent and shared ownership properties has made this scheme viable.

The whole developable area has now been raised by at least one metre and a pluvial flow water course has been created below ground, so that if the area did flood, the homes would not be damaged. As a consequence of the ground level being raised, all 48 homes have been constructed at virtually the same level, which is an unusual feature for a development of this size.

The new homes have been constructed using two complementary types of red brick, as well as render and are surrounded by public open space and a newly created ecological area. Living Space has also installed a foul water pumping

station close to the site entrance. with a main well depth of over five metres. This new facility is designed to be adopted by Severn Trent Water. A vast balancing pond feature and porous tarmac are other key features to aid site drainage.

Steve Davies, Managing Director of Living Space Housing said: "Transforming this derelict former sports ground into a high quality new residential community has been our most technically challenging project to date. We have worked successfully with all stakeholders to fully mitigate a number of complexities faced from the geographical position of this site and the whole team is very proud of what has been delivered here. Having handed over the first tranche of homes, we are now working at pace to complete all the remaining works, so that all 48 affordable homes can be ready for occupation."

With the development neighbouring Kidderminster Golf Club, earlier this year, Living Space commissioned traditional hedge laying professionals to install a new 250 metre 'Stafford style' hawthorn hedge boundary to respect and reflect the history of the area. Matt Crucefix, Director of Development (West and South) at Stonewater said: "We're delighted to have been working in partnership with Living Space to bring these much-needed affordable homes to this

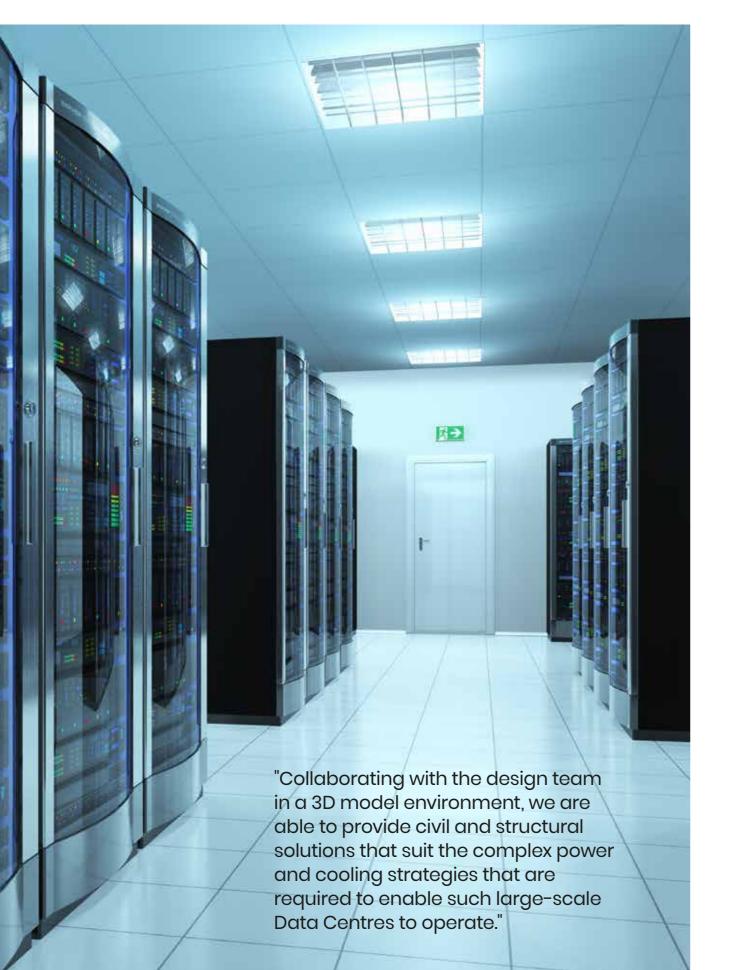
popular and well-located part of Kidderminster. Covid-19 has created its challenges, but it has not stopped our work in delivering high-quality affordable homes to the people who need them most.

"We are committed to giving everyone the opportunity to live in a home that they are proud of and we recognise that this is especially challenging in areas where wages are low, but property prices in towns such as Kidderminster are high. 60 per cent of the homes at this scheme are for affordable rent. with the remainder available to buy through Stonewater's shared ownership scheme."

Living Space is a developmentled residential planning, design and construction services solution for Registered Providers, PRS Funds, the NHS, Universities and Defence Estates. Having launched to the market in 2019, the company is already well underway with the construction of seven residential developments across middle England, with a number of additional sites in the planning system.

The combined construction value of its development portfolio is in excess of £72million, which equates to 580 affordable houses, apartments and bungalows.

To find out more about how Waldeck support clients across the Residential sector, please call Graham Wright on 08450 990 285.





**Dagenham Data Centre** 

Waldeck were appointed by with

Oakmont Construction to support

them in the design and build of a

new 24,000m2 data centre shell

building and an accompanying

gatehouse on a site of 55,000m2.

This data centre forms an integral

part of the new campus known as

The UK London 1 Data Centre.

**Dunstable Data Centre** Waldeck were appointed by Vocalink to provide the Electrical Building Services Design on their Data Centre upgrade in Dunstable in order to meet the

be compliant.

### **UK Data Centres Ranked No.1 in the** World

With the UK geared up for more Data Centre developments over the coming years, we caught up with our team to find out more about Waldecks capability and experience.

The UK has emerged as one of the top locations in the world to build Data Centres, according to a recent Arcadis report.

London's position as the largest Data Centre market of any European city and the UK's superior cyber security, which the report ranked as the best in the world, make the country a "prime target" for Data Centre investment.

With the UK geared up for Data Centre developments, which were booming even before the pandemic, the need for new build facilities are undergoing exponential growth as people increasingly move online.

We caught up with Director of Civil & Structural Engineering, Tim Leach and Director of Mechanical & Electrical Building Services Design, Adam Machan, to find out more about Waldeck's Data Centre capability for clients building both in the UK and overseas:



strict requirements of the Uptime Institutes Tier III standard and



**European Data Centres** 

Our sister company, Morson Projects, were appointed by Unilever to deliver Monitoring and Control Building Management Systems for two geographically dispersed mission critical data centres. Works included full system design, installation, testing and commissioning of hot standby PLC systems.

Tim Leach shared: "Waldeck's staff have extensive experience in the planning, design and implementation of business and mission critical Data Centre facilities. As such we fully understand the complexities faced in the design and coordination of the highly resilient infrastructure that is required for these very specific facilities."

"Collaborating with the design team in a 3D model environment, we are able to provide civil and structural solutions that suit the complex power and cooling strategies that are required to enable such large-scale Data Centres to operate."

Adam Machan added: "In addition to the above, our team are conversant with the requirements of a Failure Mode Effect Analysis (FMEA), Single Point of Failure (SPoF) studies and Uptime Institute's Tier classifications.

"We also have the in-house knowledge in the design and implementation of parallel redundant service arrangements and diverse routing to ensure overall system resilience to component and system failure, and to facilitate routine maintenance without effecting business critical operations.

"Within our team we have an Uptime Institute Accredited Tier Designer and have been involved in helping clients achieve Tier Accreditation both for design and operation."

This expertise, coupled with the Controls System Integration capability of our colleagues at sister company, Morson Projects, positions Waldeck to provide unique and robust multi-disciplinary services for large-scale Data Centres and their supporting infrastructure.





## **AMY CHEESEMAN** PRESENTS AT 'EBRIDGES 2021' PANEL

**Our Head of Digital Capture, Amy Cheeseman joined experts** from across the industry at this year's Bridges conference, which took place virtually as 'eBridges' for 2021.

Amy was invited to join the event as a panel member and also hosted a workshop for the event, which took place across the 26th and 27th May.

#### About Amy

Amy has over 15 years' experience in the engineering industry, delivering projects across the rail, logistics and infrastructure landscape.

Amy leads Waldeck's Digital Capture delivery across the business, effectively and efficiently collaborating with clients and project teams alike to ensure all UAV and terrestrial survey operations are conducted in-line with regulatory and project-based requirements.

Amy has worked on a number of technically challenging projects for Network Rail and most recently has been actively supporting the bridge inspections R&D team with their aspirations to move towards a digital approach.

Amy is also a qualified Remotely Piloted Aircraft Systems (RPAS) Operator, with several years' experience in undertaking digital capture across a broad range of complex environments.

#### The Workshop

Amy's workshop 'Digital technology for inspections and monitoring' took place on Day 1 of the event from 13:40 - 14:40, showcasing the digital capture and asset management work Waldeck have been carrying out for Network Rail's portfolio of bridges:

• Network Rail manage a large portfolio of bridge structures across the network that require continued and varying levels of examination, assessment, maintenance and repair/renewal. Methods for recording and monitoring of structures condition are subjective which leads to inconsistencies in the reports received.

· The desire is to move towards a more digital approach which enables a more context-based and holistic view of the asset and its surrounding environment; reliable/measurable/comparable and non-subjective data on assets; data driven workflows and deliverables to facilitate detailed analysis and reporting; and an enabler to facilitate future aspirations to use artificial intelligence for defect recognition.

During the workshop delegates were encouraged to discuss current approaches, including their limitations and shortcomings, as well as consider future needs and potential technologies that could improve existing practices.

If you are interested in finding out more about our Bridges or Digital Capture & Asset Management capability, please get in touch with Amy by calling 08450 990 285.



## Case Study-**NETWORK RAIL PANOPTIC BRIDGE** MANAGEMENT

#### **PROJECT OVERVIEW**

Working collaboratively with Network Rail's R&D team, Waldeck and our University Partner Nottingham Trent, have developed means to digitalise Masonry Bridge condition inspections.

The beta development of the solution remains the focus of our latest project, which is also targeting the scalable deployment of the approach overall.

The solution has been developed to support a digital, data driven approach to the asset management of their 29,000+ bridge portfolio, providing holistic and lifecycle benefits to Network Rail. The solution sees digital data supporting informed decision making for project engineers and asset care teams over the entirety of each bridge's lifecycle, as well as supporting Network Rail's ambition to create a 'Digital Railway'.

The project has focused on digital means of data collection and the application of this data. The data is leveraged to support machine learning and artificial intelligence for condition assessments, automation of BIM models, and their aggregation into Network Rails 'Digital Railway' and asset management solution. Following initial proof-of-concept trials, Waldeck and Nottingham Trent University are now on their 3rd project with Network Rail.

#### **THE BRIEF**

Network Rail's aspirations are to digitalise the condition monitoring of their assets, enabling non-subjective and data led decision making. Working with key stakeholders, Waldeck have developed and actively deployed techniques which offer improvements over the current means of asset condition monitoring and assessments.

#### **OUR SOLUTION**

Focusing on employing a 'golden thread' approach to the data which is collected, the team worked collaboratively with Network Rail to understand the many limitations of the current methods, and how through a data-focussed approach this could be both improved and leveraged to provide wider reaching asset care benefits for Network Rail, as well as very much supporting their 'Digital Railway' aspirations.

Undertaking trials over a cross section of masonry bridge and viaduct assets, the team focussed on realworld application of digital data collection and its use within an engineering environment.

The initial trials worked to understand how engineering decisions could be better informed through the use and analysis of digital data. The beta development of the solution remains the focus of the latest project, which is also targeting the scalable deployment of the approach overall.

#### RESULTS

The adoption of leading digital surveying technologies offered many benefits to the approach overall. Previously, individual photographs would be taken of defects which were they appended to reports with engineer's annotation. Whilst these do provide

individual instance snap shots of the defect, they fall short in offering and holistic view of the asset to better understand their location and frequency.

Capturing geolocated 360-degree data sets of the structure and its immediate surrounding area has enabled the viewing of high-definition imagery, which via point cloud technology has allowed measurable and comparable assessments to be made of each assets condition. These added benefits support progressive assessments, allowing for accurate understanding of defect progression between surveys. A key benefit of the approach considerably reduces the need for boots on ballast, which offers huge improvements from a health and safety perspective, enabling engineers to review and analyse the data remotely.

Working with these data sets has enabled the team to research and develop how machine learning techniques for object and defect recognition can also be integrated to support engineering assessments and the categorisation of the defects. The same approach has also enabled the team to explore visual programming techniques which automate the production of BIM Models from the survey data sets. The project and technology utilised has led to wider conversations within Network Rail, seeing the team develop a bespoke asset viewing solution to maximise the engineering potential of this new approach.

Mark Greatrix, Director of Digital & Technologies at Waldeck shared: "Being able to support Network Rail with their future aspirations and to take their visions into





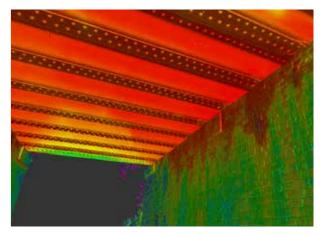
demonstratable working solutions over the past two years has been a prestigious project for Waldeck. The project has been founded on a strong and collaborative working relationship, which has certainly enabled the teams to deliver the best results. "As we continue to work through the scalability of the approach and solution overall, we are working with Network Rail to release all of the 'value adds' which the works offer for the wider periphery of Network Rail stakeholders."

Nataliya Aleksieva, Senior Engineer at Network Rail shared: "The trials undertaken by Waldeck and their university partner on 50 masonry bridges in 2020 were not only to demonstrate the capability of the technologies but also to enable Network Rail engineers to holistically evaluate the condition of the structures off-site in their real environment. The project team were able to combine point cloud surveys undertaken by drones and terrestrial laser scanning with sufficient accuracy which provided a complete survey for the structures.

"The team has developed algorithms to create BIM models directly from the surveys to support the automation of the existing processes for determining the condition marking index for the structures and the development of the digital railway twin.

"This development is expected to bring significant benefits to Network Rail by minimising the traffic disruption, reducing boots on ballast, and obtaining richer data on our assets which will enable NR engineers to evaluate their condition more accurately."





WALDECK



## MECHANICAL & ELECTRICAL TEAM WELCOMES NEW MEMBER

### We are delighted to have welcomed Electrical Engineer, Craig, to our busy Mechanical & Electrical team, based in Sheffield.

Craig has 16 years industry experience and extensive practical knowledge in the installation and maintenance of electrical equipment across a diverse range of environments and is already proving a valuable team member.

We caught up with Craig to find out more about him and how he is settling in as part of the team.

#### Hi Craig, welcome to Waldeck! How have your first few weeks been?

The first few weeks at Waldeck have flown by, I have joined the team during a very busy period where everyone is currently working to strict and often demanding deadlines, nevertheless, all of my colleagues have been very welcoming and helpful during my transition to office life.

#### What sort of projects are you working on?

I am currently working on an exciting rail project where Waldeck are currently providing the full M&E design of a new rail depot. It's an excellent project to gain valuable experience as there is multiple facilities and environments to consider on one site. Furthermore, I am also involved in a refurbishment project for a HMYOI facility which has required numerous site surveys and interaction with numerous disciplines across the business.

### What particular skills do you bring to the team?

I believe my practical experience will be my greatest benefit to the team as it may help understand certain elements of a project in a more pragmatic way.

#### What is your favourite part about your job?

My favourite part of the job is working in a positive multi-disciplinary team where each individual is determined to produce a high standard of work. And, although I haven't worked on a project long enough to see the end results, I believe the job satisfaction of seeing a successfully completed installation will also be a favourite aspect in my role.

#### What're you looking forward to most about the next few months at Waldeck?

I am mostly looking forward to working on a diverse range of projects whilst developing my skills on the different engineering software. Furthermore, I am looking forward to establishing myself as an integral member of the Waldeck electrical team. However, I realise, this will only come through diligent working practices.

Lastly, I am really hoping we can get the Waldeck team together for a much-needed social event as the restrictions continue to lift!



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ELECTRICAL DESIGN ENGINEER GFORGF COMPLETES DEGREE WITH **A FIRST** 

Following the successful completion of his BSc in **Building Services Engineering at** Leeds Beckett University, we are delighted to share that George Naylor, one of our Electrical **Design Engineers has received** a First Class Honours Degree.

Following the successful completion of his BSc in Building Services Engineering at Leeds Beckett University, we are delighted to share that George Naylor, one of our Electrical Design Engineers has received a First Class Honours Degree. We caught up with George, to find out more:

#### Congratulations on your First, George! How does it feel?

Thanks! I'm really happy to have achieved a degree, never mind achieve a First Class honours! Five years ago I would've never believed someone if they told me I'd be graduating from university in five years' time and for that reason I can't thank Waldeck enough.

#### Tell us a bit about your degree journey?

My degree journey started long before I joined the degree course. At 16 I began an electrical installation apprenticeship, when the course was coming to an end I knew I wanted to further my education and ultimately gain a degree.

I self-funded the first year of a HNC course before being offered a position at Waldeck where I would have support to continue doing the course.

#### What made you want to pursue a career in Electrical Engineering?

I wanted to complete an apprenticeship as I was not interested in doing full time education after leaving school. I was offered an apprenticeship at a local Electrical Contractors and my interested grew from there.

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

My highlight of my career so far has been working on multi-million-pounds projects such as a Hyatt Hotel in London as well as IKEA Greenwich. The 3D design environment amazed me when I first joined Waldeck and it has been nice to see a few projects from start to finish.

#### What's next for you?

I am starting a Master's in Building Services Engineering at Leeds Beckett in September. With this and the work experience I am gaining every day I will be in a good position to apply for Chartership which is the ultimate aim.







### **Architectural BIM** Technician, Katie, completes 4th year of part-time degree with a first

Following the successful completion of her fourth year studying Architectural Technology at Sheffield Hallam University, we are delighted to share that Katie Nesbitt, one of our Architectural BIM Technicians, has received a First for her work across 2020 and 2021.

Following the successful completion of her fourth year studying Architectural Technology at Sheffield Hallam University, we are delighted to share that Katie Nesbitt, one of our Architectural BIM Technicians, has received a First for her work across 2020 and 2021. We caught up with Katie to find out more:

#### **Congratulations on your First, Katie!** How does it feel?

Thank you! I am ecstatic with the results, especially with everything that has happened over the past year, Covid restrictions meant that studying was all online, which was a lot harder than having the usual tutor 1-1 experience. I am very pleased with my results so far and hope that I can carry this on into the next year!

#### Tell us a bit about your degree journey so far?

I do the course part time so have just finished my 4th year of 6, which equates to an overall second year grade.

It has been great to be able to combine my skills from university with my work and being able to adapt those skills has helped me a lot. The course itself is mainly designed to explore the structural elements of building as well as the architectural, which gives you a much broader and applicable knowledge in my opinion. This year has been very interesting, but I feel the university has done well and its best to make the transition into online learning easier for the students, we have had a lot more contact time with tutors than we would normally get from just going in one day a week. I carried out two key projects as part of this years' course:



### **Project 01**

The first studio project was to redesign and add a fourth floor to the Montgomery theatre in Sheffield 'The brief for assignment 1, semester 1 is for the refurbishment of the current Montgomery Theatre in Sheffield - the client wants to celebrate Sheffield's multi-cultural heritage and to optimise income generation to counteract the adverse effects of Covid-19 on the entertainment industry' this was a bit of the brief.

### **Project 02**

The second project was to design a patient care centre 'Your client wants to explore innovative multi-storey, post-surgical ward and clinical support accommodation. Each patient is to have their own separate room with ensuite and connection to the outside. Each of the 5 floors of the building is to have 4 patient rooms with clinical support.' This was a multi-storey building design and the aim was to create a hospital environment that felt like home and incorporated nature for healing and wellbeing in the best possible way.



### "After my first review, the company and I realised my strengths and passion was for the architecture..."

#### What made you want to pursue a career in architecture?

I joined Waldeck in 2015 through the in-house BIM Academy as a trainee CAD Technician, where I started my Level 4 in Construction and The Built Environment.

After my first review, the company and I realised my strengths and passion was for the architecture side of the business, due to my creative flair and eye for design. This area was naturally where a lot of my skills pointed towards, and it was highlighted by my team leaders that I excelled in this field.

After 6 months I integrated into the architectural team as a Junior Architectural Technician, later progressing again after a year, to Architectural BIM Technician. My roles have continually evolved to meet the needs of the business, and to allow me to learn, develop and progress within my role.

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

A highlight for me has been working and gaining knowledge from the team around me, their experience that I can learn from has helped me a lot during my career and being able to see projects unfold from paper to on-site has been a great achievement for me knowing that I was part of the team that helped make it happen.

#### What's next for you?

I am now going onto my fifth year of university where I hope to start developing my dissertation and further expand my knowledge in the world of architecture and being able to link that knowledge and skill back into my work.

I am hoping in November to be going on a university trip to Denmark if Covid allows, where we will be working with the University of Copenhagen as part of our multidisciplinary assignment to create a project that is fully integrated with multiple teams working together in a common data environment to successfully create a 3D model.

You can find out more about our team's Architecture capability by visiting our website: www.waldeckconsulting.com

## 





30 MORSON PROJECTS **RECEIVES ROSPA** GOLD AWARD



## 26 WE HAVE BEEN RECOGNISED AS ONE OF THE BEST PLACES TO WORK



## 42 MORSON PROJECTS LAUNCH EEXI CALCULATION TOOL

## WE HAVE BEEN **RECOGNISED AS ONE OF THE BEST PLACES TO WORK**

@morson projects

THE NORTH WEST'S

BESTCOMPANIES

TO WORK FOR

2021

### We are delighted to share that our parent company, Morson Group, has been recognised as one of the best places to work, having placed on multiple regional Best Companies lists.

the continued steps taken by our whole group, to create a flexible, inclusive and rewarding workplace, which has seen the business ranked 66th in the top 100 businesses in the North West and 16th in the top 40 companies in Scotland.

Morson Projects are part of the group alongside other businesses including Waldeck, Ematics, Morson Talent, Vital, The Bridge IT and AndersElite.

#### What's next?

Our teams will utilise the colleague data and quantitative feedback to continue to shape our people strategy, inform decision making and introduce new employee benefits.

In the last 12 months, we have benefited from enhanced maternity and paternity pay and a flexible working policy as part of the on-going evolution of the business. We also provide full-pay charity days for employees to give back to their local community.

of Morson Projects, shared: "The people in our team at Morson Projects and across the wider group are what drives our business. We've always been people-focused, but several years ago we decided to give our employees a new opportunity to be heard, through the Best

The accreditations acknowledge

Chris Burke, Executive Director

Companies survey.

"For Best Companies to recognise our improvements year-on-year demonstrates our ability to listen to our colleagues, and knowing this latest accreditation is based on direct feedback from them proves the measures we have put in place to create that step change have been more than worth it."

Ged Mason OBE, CEO for Morson Group, added: "We've worked hard over recent years to redefine our purpose and ensure our mission for the next half a century and beyond builds on the incredible successes that we've had during our first 50 years in business, all whilst continuing to build a company that people want to work for and that clients want to work with.

"We have always been an employer brand that places people first and our workforce is empowered. Our core values were reimagined and reshaped by our employees to create a suite of guiding principles that keep what we have built successfully to be maintained, excelled and to maximise our greatest asset - our people. I'm incredibly proud that we've been named on multiple Best Companies lists and want to thank the entire Morson Group family of people whose passion and dedication – particularly during the challenges of COVID-19 - enabled this to happen."

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The Institution of Engineering and Technology

## **MORSON PROJECTS CELEBRATE ONE YEAR AS AN IET ENTERPRISE** PARTNER

### Morson Projects are celebrating one year as an IET Enterprise Partner.

We are working with the IET to both acknowledge the level of professionalism within our technical staff and to highlight to our staff the activity that occurs within the wider global engineering and technological community.

As a result, we have 17 engineers and technicians who are registered with the IET in order to gain a range of professional qualifications and working towards becoming chartered.

Chris Burke, Executive Director at Morson Projects, shared: "This is an important partnership for Morson Projects, as we continue to grow and develop our own talent within the team. Something we are proud to have been very successful at over the past 40 years.

"Importantly for us, the IET's values align closely to ours as we look to inspire, inform and influence the global engineering and technology community to engineer a better world."

Howard Morrison, Software Systems Manager at Morson Projects who joined up to the programme shared: "I started at Morson Projects in 2016, having emigrated from South Africa. Initially I was engaged as a contractor for the automation of a new Waste to Energy plant, but once my role changed to one of leading a team I accepted a staff position. In this time we have successfully deployed projects in Waste to Energy, Power Generation, Road Traffic Management and Rail Power Distribution.

"IET registration is, for me, about the recognition of skills that I have crafted over the last 13 years of delivering projects in industry. Through joining the programme I am working towards becoming a Chartered Engineer, befitting my role and experience in heading up a team of engineers delivering automation and control projects in a variety of industries.

"At Morson Projects we are fortunate to have wonderful in-house IET mentors to help us along our journey. The imparting of knowledge and skills from our senior engineers is what ensures the consistency and continuation of quality project delivery."



"The IET are the benchmark for professional registration in our field of engineering and professional registration gives our customers the confidence that they are dealing with engineers who strive to better themselves, and in doing so improve industry as a whole.

"At Morson Projects we are fortunate to have wonderful in-house IET mentors to help us along our journey. The imparting of knowledge and skills from our senior engineers is what ensures the consistency and continuation of quality project delivery.

"My ambition is to complete the requirements for CEng / MIET and offer my support in enabling all the young engineers in our team to achieve the level of professional registration to which they aspire."

#### More about the IET:

The IET is the worlds' largest professional engineering institution offering professional qualifications; Chartered Engineer (CEng), Incorporated Engineer (IEng), Engineering Technician (EngTech) and ICT Technician (ICTTech).

With a membership community of over 169,000 professionals, their role is to disseminate information and promote and develop knowledge and professionalism across the global engineering community through a vast array of activities, products and services.

Visit the IET website for more information about how your organisation can get involved: www.theiet.org

"The RoSPA Awards scheme is the longest-running of its kind in the UK, but it receives entries from organisations across the globe, making it one of the most sought-after achievement awards for health and safety worldwide."

### **Morson Projects Sellafield operations** receive RoSPA **Gold Award for** Health & Safety **Achievements**

Morson Projects' Sellafield Operations, which is part of our Asset Care and Technical Services Division, is celebrating after landing an internationallyrecognised award for demonstrating high health and safety standards.



Morson Projects' Sellafield Operations has received a ninth consecutive RoSPA Gold Health and Safety Award for working hard to ensure their staff, clients and contractors get home safely to their families at the end of every working day.

Organisations receiving a RoSPA Award are recognised as being world-leaders in health and safety practice. Every year, nearly 2,000 entrants vie to achieve the highest possible accolade in what is the UK's longest-running H&S industry awards.

Ian Ross, Associate Director, said: "We are delighted to receive our ninth consecutive Gold Award which is a great endorsement of our sustained approach to health and safety.

"It is testament to the hard work our teams put in every day that we have been recognised in this way and I'd like to thank all of them for their efforts."

Julia Small, RoSPA's achievements director, said: "The RoSPA Awards scheme is the longest-running of its kind in the UK, but it receives entries from organisations across the globe, making it one of the most sought-after achievement awards for health and safety worldwide.

"RoSPA is very proud of the achievements of its entrants, and with this award we recognise the best of the best, those organisations that have gone the extra mile, raising the bar for the delivery of safety in the workplace. Employees, wherever they may be should be able to go to work safe in the knowledge that they will return home unharmed and healthy at the end of every day.

"Our RoSPA Award winners are central to achieving this goal. By entering, they are driving up standards and setting new safety benchmarks for organisations across the world. Currently, around 7million people are directly impacted by the RoSPA Awards, but the scheme's global influence is even wider - with nearly 2000 organisations from 46 countries represented this year. I would also particularly want to thank our main sponsor NEBOSH, the National Examination Board in Occupational Safety and Health - for their continued support for the 16th consecutive year."

To find out more about our Asset Care and Technical Services Division please don't hesitate to contact lan and the team on 0161 707 1516.

For more information about the RoSPA Awards visit: www.rospa.com/awards

### **Project Success:** Legacy Ponds -Zero Overdue **Documents**



We are pleased to share the recent success of a combined team of technical authors from Morson Projects and our colleagues at The Design Alliance who achieved zero overdue documents across Legacy Ponds at Sellafield.

#### **Project Background**

The Legacy Ponds and Silos (LP&S) at Sellafield represent some of the most complex and difficult decommissioning challenges in the world, and they remain the highest risk in the NDA estate. They date back to the very start of the nuclear industry and were constructed at a time when priorities were very different to those of today. As a result, decommissioning the LP&S at Sellafield is a complex task which remains a top priority for the NDA.

#### The Challenge

To ensure safe nuclear operations and compliance with Nuclear Site Licence Condition 24 the Document Team manage over 1,400 Operations and Maintenance documents for Legacy Ponds. These are being constantly created, removed or updated to reflect the work being done on-site.

A site wide Office for Nuclear Regulation (ONR) target was agreed by the Central Team to achieve zero category loverdue and <2% other overdue documents by end of May 2021.

#### **The Solution**

At the start of April 2020, the team had 143 overdue documents and an additional 30 documents per month due for periodic review.

To tackle this backlog a coordinated approach was required with a series of surgeries to identify and resolve the issues preventing their sign off - measuring progress by a burn-down curve against a plan to keep on track.

#### Results

There was a huge team effort involved as the review process requires support from many areas. Thanks to a massive 'One Team' team effort, Sellafield Limited were able to close out all of their overdue documents - the first time in 4 years!

This was achieved without cutting corners in the quality of the reviews, validations and approvals. Ian Woodburn, Morson Projects' Documentation Manager said: "It comes as no surprise to me that our Legacy Ponds Technical Writing Team have helped make a positive impact in this area. Many thanks and appreciation to the team for the work they have delivered, this extends to those not directly working for Morson Projects, all One Team, in it together."

# MORSON PROJECTS ANNOUNCE WEST OF **ENGLAND AEROSPACE** FORUM MEMBERSHIP



# WEAF

As we continue to grow our presence in the South West of England, we are pleased to share that Morson Projects are now members of the West of England Aerospace Forum (WEAF), which represents the aerospace and defence industry in the area.

The WEAF is the leading networking association for aerospace and defence companies in the South West of England, with members including Airbus, Atkins and Rolls Royce; offering critical support services, sharing best practice and enabling businesses of all sizes to understand supply chain needs.

Becky Veal, Head of Business Unit who is based in Morson Projects Yeovil office shared: "Joining the WEAF was the next natural step for Morson Projects as our presence across the South West of England continues to expand. We look forward to becoming an active member of their community which is well-known as a reputable platform for growth.

"We are delighted to be able to support them on their mission to strengthen the South West aerospace and defence community in order to foster innovation and collaboration, which are two important drivers for us."

Morson Projects are currently working on a range of Design and Stress projects for clients in the South West, as well as working with long-term client, Leonardo Helicopters, as their strategic partner supporting Through Life Support programmes across a number of platforms. As the workload increases, we are looking at new and innovative ways of developing our service offering as well as enhancing our workforce to support their growth in this area. As an example of our capability, services we provide to Leonardo include:

#### **Integrated Logistic Support**

- Failure Modes Effects and Criticality Analysis (FMECA)
- Failure and Defect Reporting and Corrective Action Systems (FRACAS/DRACAS)
- Level of Repair Analysis (LORA)
- Logistic Support Analysis (LSA)
- Logistic Support Analysis Recording (LSAR)
- Reliability Centred Maintenance (RCM) Analysis/RM&T
- Obsolescence Management (Component & Systems Level)
- Spares Provisioning
- Safety Engineering
- Training Requirements



#### **Technical Publications**

Morson Projects have the ability to deliver a full range of publications, from complete system manuals to individual handbooks:

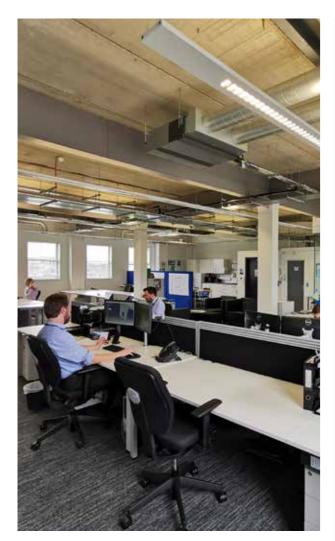
- Books of Reference
- Computerised Maintenance Management Systems
- Illustrated Parts Catalogue (IPC)
- Instruction Booklets & User Guides
- **Operation & Maintenance Manuals**
- **Repair Manuals**
- Service Bulletin (SB)
- **Spares Provisioning Data**
- System Maintenance Review Manuals
- Technical Illustration (2D/3D, eManuals)
- Unsatisfactory Features Reports (UFRs)
- **User Guides**
- Wiring Maintenance Manuals

#### Software Applications – Information **Environment Systems**

We provide Leonardo with design and stress analysis support on a number of programmes. Morson Projects enjoys being reactive to the challenges Leonardo present us with! These include:

- Certification and Technical Reports
- **Check and Final Stress Analysis**
- Detailed Design and DFM
- Dynamic Analysis of Mechanisms
- Fatigue and Damage Tolerance
- FEM Analysis Including Pre and Post Processing
- **Initial Conceptual Design Studies**
- Kinematics
- Product Development
- **Project Planning and Programme Management**
- **Prototype and Production Design**
- **Stress Conceptual Design Evaluation**
- **Stress Sizing**

To find out more about how we can help you with your projects, please don't hesitate to call Becky Veal on 0161 707 1516.



## MEET THE TEAM: BROUGH OFFICE

Following the move of our Brough team into their new office last year, we caught up with the team to find out more about the delivery of projects across the country from their base in East Yorkshire.

### 'The Brough team are dedicated to providing high quality and tailored services to the client and deliver continued support to our existing client base."

Following the move of our Brough team into their new office last year, we caught up with the team to find out more about the delivery of projects across the country from their base in East Yorkshire. We caught up with the team to find out more:

#### Hi team, tell us a bit more about the Brough office?

Our Brough office has recently relocated to the same site as BAE Systems, Brough who have historically been one of our biggest clients. We have been supporting BAE Systems and a wide range of other clients for over 30 years and currently have a diverse and dynamic team of 12 technical staff working with a variety of clients through the aerospace and automotive industry.

The team provide a wide range of services from concept design to design for manufacture, along with build line and in service support.

The team also work collaboratively with other Morson Projects design and stress teams located in Manchester, Belfast, Bristol, Rosyth and Yeovil.

Typical services we provide clients with are:

- Certification and Technical Reports
- **Check and Final Stress Analysis**
- **Detailed Design and DFM**
- **Dynamic Analysis of Mechanisms**
- Fatigue and Damage Tolerance
- FEM Analysis Including Pre and Post Processing
- **Initial Conceptual Design Studies**
- **Kinematics**
- Product Development
- **Project Planning and Programme Management**
- Prototype and Production Design
- **Stress Conceptual Design Evaluation**
- **Stress Sizing**
- **On-site support**
- Marine design

#### What makes your team different from competitors?

Our wide range of skills and experience gives us the edge on our competitors. The team consists of senior engineers who have been in the industry for decades working alongside graduates and apprentices who are just starting their careers.

The senior engineers bring their experience to the table and the graduates and apprentices bring a fresh perspective and a focus on new technologies and techniques.



more tailored service to our clients. We also have the added benefit of providing direct access to the wider range of products and services offered by Morson Projects, including marine, power, rail, civil and systems engineering, alongside software development.

#### What projects are you working on at the moment?

We work with a variety of clients across the aerospace, defence and automotive industries.

One current client the team are working closely with at the moment is Leonardo Helicopters. We have a longstanding relationship which stemmed from us offering on site resource in their Yeovil office. From there we have gone from strength to strength steadily increasing the team and offering more and more services to the client. These include new development designs, customer kit design and development, weight saving activities, in service support and shop floor/build line support. The project is Brough-lead, with the team stretching across the Yeovil and Bristol office.

The team also work collaboratively with an analysis team based in our Manchester office and the clients' on site teams. Part of the team are also currently supporting the Venari Group, on site, assisting with their To find out more about how our Brough office could support your next project, please get in touch with

development of a new, bespoke, emergency ambulance design for the NHS.

We also have a team of engineers continuing to support BAE Systems with their ongoing, new and emerging aerospace projects.

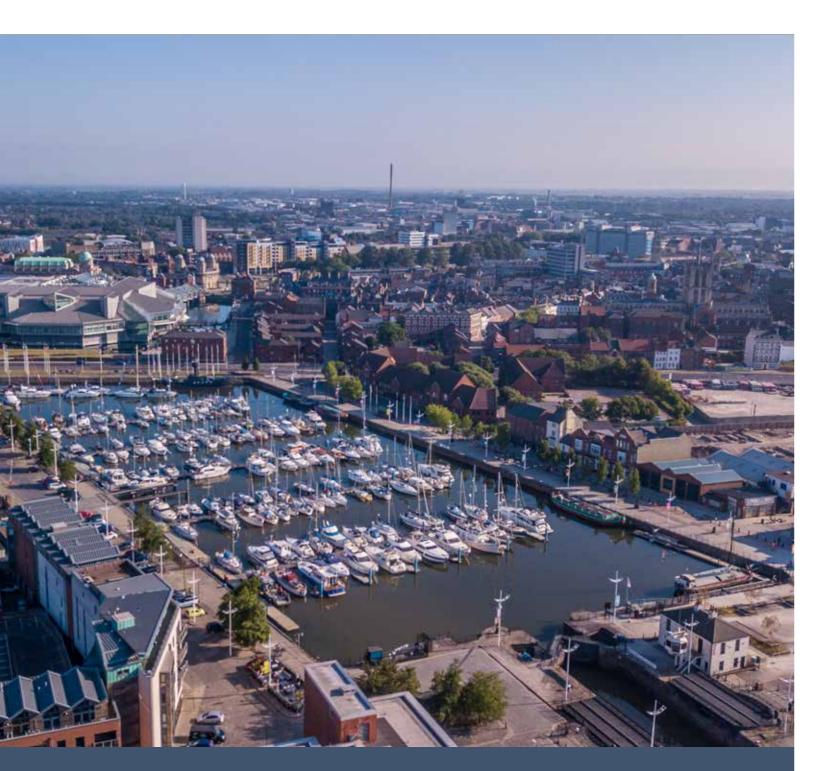
The Brough team are working closely with colleagues at our Bristol, Yeovil and Manchester offices to provide:

- Initial Design Layouts & Stress Evaluation
- Production Design & Stress Analysis
- Manufacture and in-service support
- Certification Reports

#### What's next for the Brough team?

The Brough team are dedicated to providing high quality and tailored services to the client and deliver continued support to our existing client base. We are also excited to work on new projects for existing and new clients in the near future.

The team are also actively involved in the development of new, upcoming engineers within the company, and team, but also inspiring the next generation of engineers in our local community.



"The Brough team are mechanical design engineers by trade, with experience not just in aerospace, but manufacturing, automotive and rail. Although the industry requirements differ, the fundamentals are the same; design for manufacture, concept design, manufacturing processes and considerations."

## **JORDAN KNAPP** JOINS HULL & EAST YORKSHIRE **NETWORKING GROUP**

We are delighted to share that Lead Aerospace Design Engineer, Jordan Knapp, has joined the BNI Global Kingstown Bevan Networking group, representing the Morson Projects business across Hull and East Yorkshire. We caught up with Jordan to find out more about him, what his plans are as part of the BNI and what Morson Projects can offer to the local area.

#### Hi Jordan, great news on joining the BNI. Tell us a bit about your role?

I've been at Morson Projects for over ten years now, having started out as a Junior Aerospace Design Engineer.

My role has evolved significantly over the past few years, and I now manage a team of 8 engineers at our office here in Brough.

Although my title is 'Lead Aerospace Design Engineer' as a lot of my experience lays within this sector, I am a Mechanical Engineer by trade and support the delivery of projects across other sectors such as manufacturing, automotive and rail too.

#### What's your favourite part of your role?

I love the variety! Constant changes between all the different aspects of my role definitely keep things interesting.

I'm also really passionate about growing our own talent and supporting the development of the young talent that comes into the business. I'm currently spearheading the development of our internal graduate development programme, which is making really good progress at the moment.

#### What are your main areas for focus when designing and delivering a project?

Every project we work on is so different, as our customers requirements are very bespoke. That being said, there are always core elements which we focus on; weight, aerodynamics, strength, structures, environment, costs and manufacturability; we wear all of these different caps and consider all of these elements to create the best overall solution possible.

### Why did you join the BNI?

I have a reasonably good network locally and am always looking for ways to help people connect. The BNI has given me a new platform and opportunity to meet lots more local businesses and support the BNI's aim of creating growth across the Hull and East Yorkshire region.

We have a strong local team, who deliver projects all across the UK but not often on our doorstep, so I am keen to explore what opportunities there are more locally, particularly within the manufacturing and engineering landscape as Morson Projects have a lot of skills that can be utilised within these industries.

As a naturally out-going person, I'm driven by building relationships, meeting new people, hearing people's stories and I saw the BNI as a great opportunity to get the Morson Projects name out in our local area whilst also helping other businesses and joining up the dots through connections I have.

#### What does Morson Projects bring to East Yorkshire?

We have a team of 8 locally, who work closely with our wider 900+ multi-disciplinary team. What this offers clients is a local point of contact with a huge skills pool behind them. We can react quickly but can also tap into experts in other disciplines if required.

The Brough team are mechanical design engineers by trade, with experience not just in aerospace, but manufacturing, automotive and rail. Although the industry requirements differ, the fundamentals are the same; design for manufacture, concept design, manufacturing processes and considerations.

As well as the project delivery side of things, we also hope to continue to build meaningful relationships with local schools and colleges. The past 18 months has been made difficult due to Covid, but I did get to present to Siemen's HNC Engineering students at Hull College in May which was great and something I look forward to doing more of in the future.

## **MORSON PROJECTS** WIN TOOLING WORK **THROUGH GTMA MEMBERSHIP**

Morson Projects have been members of UK-based trade association, the Gauge and Tool Makers Association (GTMA) since 2018.



The GTMA represents leading companies in precision engineering, rapid product development, toolmaking, tooling technologies, metrology and other critical manufacturing related products and services. With over 75 years' experience, the GTMA provides essential links within the supply chain.

Through our membership with the Association, Morson Projects have been able to showcase our capability to key operators within the industry.

Morson Projects' Associate Director, Andy Hassall shared: "As a supplier to OEMs and Tier 1 businesses across a range of markets, being a member of the GTMA has created opportunities for us to be recognised as a trusted source of technical and engineering support through their approved Supplier Directory.

"Having joined the GTMA in 2018, we have been able to build-up a pipeline of work directly through our membership, including projects with GE Power Conversion.

"Our team have been providing design, analysis and supply of large jigs, fixtures and handling aids to support the build of several significant projects. The suite of jigs and fixtures have been designed by our tooling engineers with the support of our in-house stress analysis team. The manufacture of all the equipment was delivered by our UK supply chain."

David Beattie from the GTMA commented: "The GTMA works hard to deliver the best of UK Gauge, Toolmaking and Precision Machining expertise to the industry as a whole, providing a focal point for technology transfer and benchmarking our members against overseas competition."

"We have a committed strategy to focus on major market sector opportunities, from aerospace and automotive to medical and marine. Our work with OEMs and Tier 1s has seen initiatives to raise standards in our membership base which is now seen as a valuable resource for buyers building manufacturing supply chains."

Thomas Mayer-Maguire, Rotating Stabiliser Lead Engineer from GE Power Conversion commented: "Working in partnership with Morson Projects' tooling expertise and our electrical rotating machines experience in the power industry, we have been able to develop specialist fixturing and handling equipment to help us build some of the most advanced rotating machinery available - supporting higher penetration of renewable sources into the energy market and helping the UK to reach its carbon emission reduction goals.

"Quality tooling has helped us to achieve the best quality standards for our customers and we look forward to working with Morson on future projects."

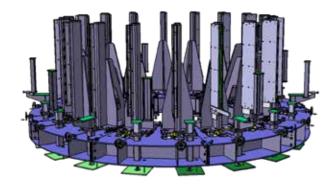
Check out our GTMA profile at: www.gtma.co.uk/suppliers/morson-projects/

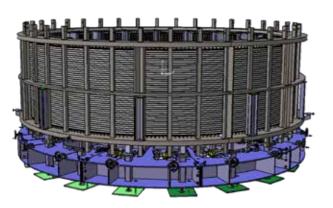
"The GTMA works hard to deliver the best of UK Gauge, **Toolmaking and Precision** Machining expertise to the industry as a whole, providing a focal point for technology transfer and benchmarking our members against overseas competition."



A DESCRIPTION OF A DESC

# **GE POWER** CONVERSION **STABILISER** PROJECT





**MORSON PROJECTS** 

The Tooling team at **Morson Projects have** worked closely with the GE engineering team to design and supply a suite of build critical tools and fixtures for the innovative project.

#### **PROJECT OVERVIEW**

Location: Rugby Start: June 2020 Completion: December 2020

#### **SCOPE OF SERVICES**

Morson Projects were appointed by GE's Power Conversion division to deliver the following services:

- Concept tool and fixture design
- Detail tool and fixture design
- Stress analysis
- Manufacture ٠
- Installation and commissioning

#### **OUR SOLUTION**

As part of the Rotating Stabiliser project, GE Power Conversion designed one of the largest rotor and core sets ever manufactured in their Rugby facility.

To enable them to manufacture the large components, GE engaged Morson Projects to design and supply a suite of assembly and handling tools to allow their engineers to build the components to the tight tolerances required, considering the size and weights involved this was no easy feat.

Throughout the project our tool design engineers worked closely with the team from GE in order to understand the end-to-end process and design the tooling to ease assembly and improve safety for operators.

The suite of tools consisted of welding fixtures, dip tanks, support frames, lifting and handling tools, and the most critical of all: the core build fixture.



#### RESULTS

Bringing tool design experience from a range of different industries, our design team set about integrating the build control features into an efficient and safe to operate Core Build Fixture. With a diameter of over 5m and assembled mass of over 50,000kg, maintaining the build tolerances and structural integrity of the fixture meant our stress analysis team had a challenge to optimise the structure and minimise deflection.

Once the design was finalised, Morson Projects engaged our manufacture supply chain to fabricate, machine, finish, install and set the fixture by laser tracker on site in Rugby. Even our civil engineering team were involved to assess the factory floor to demonstrate by calculation that it could carry the load from the heavy structure.

The final design is unlike any previous core build fixtures and allows GE to efficiently and safely build the huge stabiliser core

James Tetley, Tooling Manager at Morson Projects shared: "For Morson Projects to be involved with a technically advanced project like this which supports renewable energy production in the UK was a fantastic experience, coupled with the enthusiasm and knowledge of the GE team, it was an exciting project to support"

"Our experience in fixture and tool design really showed, introducing easy to use location features, retractable build posts for component removal, and incorporating setting features and adjustment mean that the fixture is well liked by the operators and crucially, it builds the component to within the drawing tolerances, repeatedly."

"It's a great achievement delivered by Morson Projects and we are proud to be supporting UK manufacturing, it's always rewarding to engage on projects where our expertise and the clients product knowledge come together to achieve a considered and efficient solution that improves production."

Thomas Mayer-Maguire, Rotating Stabiliser Lead Engineer from GE Power Conversion commented: "Working in partnership with Morson Projects' tooling expertise and our electrical rotating machines experience in the power industry, we have been able to develop specialist fixturing and handling equipment to help us build some of the most advanced rotating machinery available - supporting higher penetration of renewable sources into the energy market and helping the UK to reach its carbon emission reduction goals. "Quality tooling has helped us to achieve the best quality standards for our customers and we look forward to working with Morson on future projects."

**MORSON PROJECTS** 

# MORSON PROJECTS FREE EEX CALCULATION TOOL

**MORSON PROJECTS** 



**Morson Projects Marine team** have developed a free-to-use tool to calculate your vessel's EEXI value and compare it to the stipulated reference value requirement.

As many across the marine industry will be aware, during 2023 almost all existing ships over 400 Gross Tonnes trading internationally will be required to calculate, document and have verified their Energy Efficiency Design Index (EEXI).

Our experienced Marine team have developed a free-to-use tool, that is independent of any vendors, to calculate your vessel's EEXI value and compare it to the stipulated reference value requirement.

#### How it works:

We are pleased to be able to offer ship owners and managers access to our in-house EEXI calculation tool with a view to helping them with their environmental obligations. To use this tool simply follow the prompts and enter the parameters for your ship:

- Enter your details and that of your vessel into the EEXI Calculator.
- A Pass / Fail result is calculated and presented to you online.
- A summary report will be sent to your email address.

#### What happens next?

Following the initial EEXI calculation, you will be given the option to purchase a detailed Technical File. This can be given to your Recognised Organisation (Flag or Class) who will verify the contents and issue you with an International Energy Efficiency Certificate.

If your vessel does not meet requirements, our specialist consultancy team can review your Technical File and advise on remedial action to allow your vessel to continue trading after 2023.

David Gray, Head of Marine at Morson Projects, shared: "We are delighted to be able to offer this free and easy-to-use online tool to help our clients and other ship owners independently calculate and check their EEXI rating. As well as the initial rating, our team are then able to prepare a technical file based on the information provided.

"If required, our team are primed to advise on technical measures which will help ship owners make the alterations needed to meet the requirements necessary to operate after 2023."

To discuss how Morson Projects can help you with your EEXI assessment or any subsequent requirements, please don't hesitate to contact David via email of by calling 0161 302 9885.

### TRY OUR EEXI CALCULATOR @



## RELIABILITY CENTRED MAINTENANCE

"Working closely with clients, our team reduce the through life costs of assets and equipment by analysing in service data and identifying where changes can be made to reduce perceived maintenance burden."



#### INTRODUCTION

RCM analysis reduces the through life costs by analysing in service data and identifying where changes can be made to reduce perceived maintenance burden.

#### HOW WE CAN HELP

Morson Projects RCM team have a full understanding of the UK Ministry of Defence (MoD) requirements for maintenance schedules for all its platforms to be derived in

accordance with Regulatory Articles (RA) 4203 and 4351 (MAP01 Chapters 5.3 and 8.1.1).

RCM Analysis will develop standardised maintenance schedules, identification of all maintenance safety aspects of the platform, improved processes and the realisation of the full benefits and savings of an optimised schedule.

Specifically, 'A maintenance schedule must be derived using the methodology of Reliability-Centred Maintenance (RCM) analysis, to avoid or reduce the consequences of failure or degradation for every type and mark of aircraft or associated equipment that requires preventative maintenance.

Once in being, a maintenance schedule must be maintained throughout the life of the type and mark of aircraft or equipment to which it refers using RCM.' If appropriately and effectively applied, RCM will produce the optimum maintenance schedule for the current operating context.

#### **BENEFITS**

Our teams expertise creates benefits such as:

- Improved Material Condition at Depth Induction
- Increased Availability/Uptime
- Less Pressure on Logistics Supply
- Less Tasks Less Unnecessary Consequential Accidental Damage
- More Predictable Spares Usage
- **Reduced Cost of Ownership**
- **Reduced Depth Packages**

If you are interested in finding out more about RCM, please get in touch with our experts by calling 0161 707 1516.











