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BUSINESS UPDATE

WALDECK GOES FROM STRENGTH TO STRENGTH WITH PROMOTIONS ANNOUNCEMENT

Waldeck are pleased to announce that over the past year we have gradually re-aligned our business model to become focused on delivering project solutions by professional discipline rather than by geographical location. The conclusion of this process is even more gratifying when the new heads of these disciplines are high performing internal candidates from within Waldeck.

Congratulations to Tim Leach, Mark Greatrix and Scott Harrison who have joined Andy Inkson and Graham Wright to head up Waldeck's Operations Board.

Andy Inkson, Director of Mechanical, Electrical & Low Carbon (MELC) and Graham Wright, Director of Commercial have been joined by newly appointed Directors:

- Tim Leach Director of Civil & Structural Engineering and
 Project Controls
- Mark Greatrix Director of Digital & Technologies
- Scott Harrison Director of Architectural Design

Sue Wright, Managing Director at Waldeck shared: "In recognition of their relentless dedication and excellence in their roles, I am delighted to be able to congratulate Tim, Mark and Scott on their promotions.

"By positioning ourselves as a disciplineled consultancy we continue to strengthen our project delivery by streamlining processes, ensuring common standards, and enhancing knowledge sharing across all teams. This in turn creates huge value for our clients by increasing operational efficiencies and delivering consistent best practice throughout their programmes."

MEET THE TEAM



TIM LEACH Director of Civil & Structural Engineering and Project Controls

Tim began his career at Waldeck 16 years ago as a CAD Technician, before taking on roles such as Project Manager, Civil & Structural Engineering Lead and Key Account Director. Tim has led multi-disciplinary teams through complex design programmes, focusing specifically upon large scale infrastructure, ports, multi-modal logistics and energy programmes.

Tim has valuable experience across civil engineering, structural engineering and project controls and is committed to an open, communicative and commercial approach; maintaining an effective dialogue with clients' and the wider project team to minimise risk by identifying and solving issues early on in the design process.

Key projects include:

- Kilbride Group: West Midlands Interchange
- 2. Peel Ports: Various Programmes

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MARK GREATRIX
Director of Digital &
Technologies

Mark has over 20 years' experience in the engineering industry and began his journey at Waldeck in 2013, before completing his BIM Management Course (MSc) at Middlesex University which was the first of its kind in the world when it began in 2013.

Mark has worked with industry leading bluechip clients in the nuclear, rail, logistics, energy and heavy manufacturing sectors to successfully deliver whole lifecycle value from concept design through to facilities management.

Mark's commercially aware approach, allied with his knowledge of BIM and digital technologies enhances his ability to develop and maintain vital lines of communication, creating certainty for clients.

Key projects include:

- EDF Hinkley Point C: Nuclear Power Station
- Horizon Nuclear Power: Wylfa Newydd Nuclear Power Station
- Jaguar Land Rover: Information Management Strategy



SCOTT HARRISON Director of Architectural Design

Scott joined Waldeck in 2015 and has over 18 years' of architectural design experience, covering a diverse range of sectors for both public and private clients, including main contractors. During his career, he has worked extensively in retail, leisure, logistics, manufacturing, rail, aviation and commercial sectors on both new build and refurbishment schemes, ranging from feasibility and concept design stage through to detailed design and implementation.

More recently Scott has focussed on the integration and establishment of architectural services within the existing Waldeck multi-disciplinary offering, with a key focus on delivering turnkey projects across manufacturing, logistics, rail and retail sectors for blue chip clients.

Key projects include:

- Jaguar Land Rover: New Range Rover Evoque Lines
- 2. Network Rail: Doncaster Delivery Unit
- Abellio Greater Anglia: Norwich Crown Point Depot Refurbishment



ANDY INKSON Director of Mechanical, Electrical & Low Carbon (MELC)

Andy joined Waldeck in 2012 and has been running the Mechanical, Electrical and Low Carbon (MELC) division of the business since 2014. Andy is responsible for the team undertaking a vast range of building design services on flag-ship projects and programmes across sectors to include manufacturing, defence, security, buildings, and energy.

Andy possesses a detailed working knowledge of energy efficient design and is fully committed to renewable and sustainable energy solutions, having specialised in the feasibility, design and implementation of energy and carbon footprint reduction solutions on an extensive range of schemes and environments.

Key projects include:

- IKEA: New Greenwich Flagship Retail Store
- 2. Jaguar Land Rover: Halewood Site Refurbishment
- 3. SES: Margam Green Wood to Waste Energy Plant



GRAHAM WRIGHT Director of Commercial

Graham joined Waldeck in 2017 and has spent over 15 years in industry. He is an experienced business leader, specialising in the buildings and development sectors, including affordable housing, private housing, retirement living, extra care and more recently student accommodation, secondary education and retail.

Graham's career has seen him lead teams carrying out roles such as Employer's Agent, Quantity Surveying, Clerk of Works, Building Surveying and CDM services on large-scale programmes of work.

Graham's added value is in his reputation and experience across the sectors and his relationships with stakeholders and end user clients, securing repeat business and working closely with clients to ensure they deliver their business objectives.

Key projects include:

- Orbit Homes Framework: On-going Programme of Works
- 2. Wrekin Housing Trust: On-going Programme of Works
- 3. WCS Care: Programme Management

PAUL WALDECK: THREE WAYS 1+1 REALLY CAN EQUAL 3

As Waldeck's capabilities, relationships and expertise continue to grow from strength to strength, Founding Director, Paul Waldeck, who is focussed on strategic synergies for growth post-acquisition by Morson Group, reflects on how the Waldeck business has evolved over the years, and what now lies ahead.

Paul begins by quoting Aristotle; 'the whole is greater than the sum of its parts' before sharing:

This concept will drive the recently enlarged consultancy business which now has 800 professionals and an extensive client base in the heavy engineering and high-end, exclusive sectors.

The important thought to take from this phrase is that the individual parts of something, if organised and deployed together well, can make the bigger picture entity, or task, or mission, much stronger and greater than if those individual parts, elements or components simply function in isolation.

As Waldeck has evolved and now, post-acquisition, with the addition of many new capabilities, specialisms and services, it has become ever clearer on just how 'we', the consultancy arm of the group, can add value to our clients' and their business objectives through three key routes.

1. Working closely with clients, collaborating with other industrial partners and academia to create integrated solutions

Waldeck have a decade of our own Research and Development (R&D) investments, an established network of leading global digital industry partners, and academic alliances with progressive technology focussed Universities. This positions Waldeck uniquely, to be able to provide clients with an award-winning, best-in-class, integrated approach to digital and technology levered engineering solutions.

Often, from the conceptual stage of a project, we work closely with clients to understand their business, their concerns, risks and asset or facility performance requirements at both preand post- project stage. We seek to establish and define lifecycle data requirements and delivery strategies which align and leverage the many benefits of an integrated approach, which is a fundamental to projects being delivered on-time and on-budget; or assets performing and functioning safely and efficiently to the required output levels, for as long as possible.

Taking a holistic view of Waldeck's services, we have been able to realise the huge potential which a well-defined integrated services strategy can offer. Looking at the many interdependencies of engineering and technologies at project level has enabled Waldeck to align and establish end-to-end project and built asset solutions which span beyond project hand-over, into the operations and facility management phase of a client's project, asset or facility.

Data rich deliverables that are set in a competent Common Data Environment (CDE) can, with other facilitators, create intelligent 'Digital Twins' with huge benefits for plant, facility and system owners and managers, enabling operational efficiencies and informed and even predictive decision making during the entire lifecycle.

2. Enhancing project delivery and the lifecycle performance of assets through an alignment of engineering and technologies

Is it common practice across many industries that engineering and digital technologies are often delivered as two separate solutions, mostly in isolation to one another and with little consideration given to how wider lifecycle benefits can be derived through the integration of the two. This is further exacerbated when one considers that the operations team are often disparate and not involved with a project delivery team until the final stages of a project. The ongoing debate of CapEx vs OpEx, and the differing views of 'internal clients' and project delivery teams can drive a culture where end-to-end solutions and strategies are not applied, which creates risks for: schedule, cost over-runs, quality, operational out-put performance or potential regulatory issues.

Over the years, Waldeck have learned from their diverse client base across the sectors, in understanding such issues but also how to lever 'smart tools' to mitigate risk and enhance successful outcomes. We possess the necessary experience and capabilities to take a cradle-to-grave view on our client's projects and enhance their associated lifecycle performance around Digital Twin, Internet of Things (IoT) and Machine Learning solutions

Without the initial communication of a digital project and asset strategy requirements, project completion hand-overs can result in nothing much more than graphical representations of the asset, often in the form of 'as-built' drawings or specifications. In the immensely competitive 21st Century, clients and competitors are continually challenged to 'squeeze the pips', and such traditional attitudes to project delivery models, commissioning, operations and maintenance are simply not going to be good enough in the future.

Integrating engineering and digital technologies to develop and set a data driven delivery strategy at the outset can ensure a lean but successful project delivery model. The right, data rich deliverables which are intelligently suitable are then able to drive asset / facility performance and predictability in operational use. This is what we are already doing for some of our clients, and is clearly the way forward.

3. Utilising the combined synergies of other Morson Group businesses

Following the recent acquisition of Waldeck by Morson Group, Waldeck are now one of the largest mid-sized engineering consultancies in the market, still privately owned whilst part of a group which has 14,500 people on its payroll.

This combination means that Waldeck is uniquely able to be flexible and agile as a business, maintaining excellent internal communications and high levels of staff engagement at all levels, creating that friendly feel of a smaller company, whilst also possessing the strength and capability to deliver as the global players do in the market, if and when we chose to.

Paul concludes:

Waldeck have a strong brand reputation in the market as a trusted strategic advisor and a provider of excellence in engineering and technology solutions, but now by adding the consultancy parts of Morson Group and Morson Projects, together, we are much stronger and more capable than we were previously, prior to the deal. We are able to do much more, and to add more value for our mutual clients.

Hopefully, together these three points demonstrate that the 1+1 equation really can stack up to 3, when looking at the bigger picture.

"Waldeck are now one of the largest mid-sized engineering consultancies in the market..."



WORK HAS BEGUN ON BOMBER COUNTY GATEWAY TRUST MEMORIAL PROJECT

Waldeck are delighted to be supporting The Bomber County Gateway Trust in the construction and installation of an iconic landmark on the county border of Nottinghamshire and Lincolnshire.

The site team have started to dig land in order for the construction phase of the project to begin, with an aim for the project to be completed by summer 2019.

The installation is in a prominent position so that the sculpture will be seen by more than 30,000 drivers every day from the A46, A1 and other major road networks; similar to other counties and cities in the UK which feature landmark sights such as the Angel of the North, the Horses in Falkirk, Sheffield's proposed Man of Steel, the Kent Horse and the Wrexham Dragon.

Warren Monks, Principal Designer at Waldeck shared: "I am delighted to be involved in this exciting project, which is a unique memorial to the Bomber Command's extraordinary contribution and sacrifice.

"Waldeck are privileged to be working on such a project, especially in Lincolnshire, where Waldeck was founded, due to its inextricable link to aviation and in particular its home to the RAF in the Second World War.

"The Bomber County Gateway Trust aims to provide a link to this heritage, right on the county border. The structure will be a full-sized representation of an Avro Lancaster Mk1 Bomber, constructed from a steel frame, mounted on a steel support structure to give the impression that it is in flight on the horizon."

Following support from Waldeck, Jessup Brothers and BSP Consulting, The Bomber County Gateway Trust still requires over £100,000 to complete the project, if you or your business is able to donate time and expertise to this distinctive project, please contact Ken Sadler.





WORK STARTS ON NETWORK RAIL DELIVERY UNIT AT HOLBECK

"As increasing numbers of Network Rail staff are using this facility, it is important to provide a modern, fit for purpose Delivery Unit. The new buildings are part of a consolidation project to join a number of dilapidated buildings and modular temporary buildings into a sustainable and very well-designed facility.

Similar to the Doncaster Delivery Unit which Waldeck are also working on, the project will involve a complex phasing and demolition strategy to avoid operational disruption to the main site."

Alison Doubell Director of Rail, Waldeck

Waldeck have been appointed as Lead
Designers on the construction of a new twostorey office and storage building at Network
Rail's existing Maintenance Delivery Unit
(MDU) in Holbeck.

Appointed by Buckingham Group Contracting Limited, Waldeck will provide a full multi-disciplinary design service for the project, including:

- Industrial Architecture
- Civil and Structural Engineering
- Principal Designer

Project overview

The aim of the project is to increase the capacity and efficiency of the Holbeck DU site and provide a more consolidated and modern facility for the Network Rail operational staff in the Leeds area.

The scheme includes:

- Retrofitting of the existing ~60m x
 29m Victorian engine shed to provide accommodation and stores.
- New space provision including office space, mess areas, showers, locker rooms, plant room, meeting rooms, break out space, control rooms, walkways and stores facilities.
- The construction of a mezzanine floor within the existing engine shed as well as subdivision of the existing space along with total refurbishment.

Waldeck will be collaborating closely with our client, Buckingham Group Contracting Limited and others across the supply chain, to see the project through to completion in 2019.

CLARA OSUNA

Knowledge Transfer Partnership has fast-tracked my career



Digital Capture and BIM Integration Specialist, Clara Osuna reflects on her first year at Waldeck, as part of the Knowledge Transfer Partnership (KTP) project in partnership with the University of Huddersfield.

Before beginning her KTP, Clara studied at the University of Grenada, in Spain, where she undertook her undergraduate degree in Civil Engineering. She then completed an MSc in Civil Engineering, at Swansea University, where she graduated with distinction.

Clara, tell us about your KTP...

I work within the Digital Technology team at Waldeck. The goal of the project I am involved with through the KTP is to develop practical solutions, utilising specialist technologies, which capture progressive on-site data and enable comparisons during the construction of an asset against retrospective 3D Building Information Modelling (BIM).

In parallel, we are developing an intelligent asset management solution, which aggregates a range of different data into an intelligent dashboard interface.

What have you achieved, to date?

It is coming up to a year since my KTP started and we already have a proof of concept level intelligent dashboard that is ready to demonstrate to clients. We have also made significant progress towards the development of a semi-automated workflow. The most important achievement has been to successfully carry out research alongside the University, in order to find practical solutions to the challenges that have arisen along the journey.

What is the best thing about being a KTP Associate?

It is very exciting and rewarding undertaking research where your findings are going to have a tangible impact on the company.

Another significant benefit is the dedicated budget for your personal and professional development, enabling you to build on your existing range of skills, whilst creating something that will have such a positive influence for clients within the industry.

What advice would you give to anyone considering a KTP?

Take the opportunity to fast-track and enhance your career prospects. KTP is a unique way to start your professional development whilst being supported, by the University, to develop the most innovative projects.

Working with Waldeck and the University of Huddersfield has given me a unique opportunity to align my academic studies and research with the practical delivery of a project, to deliver a solution for blue-chip clients, which will enhance the way they manage their assets.

THOUGHT PIECE: KEY CONSIDERATIONS OF DIGITAL TRANSFORMATION

Digital transformation entails the digitalisation of services and operations to improve upon and, at times, re-invent traditional means of working through the integration of digital technology.

Following the recent successful implementation by Waldeck of a Digital Transformation Strategy for one of the UK's largest automotive manufacturers, Director of Digital and Technologies, Mark Greatrix shares his thoughts on the key considerations all businesses should be thinking about, when it comes to digital transformation.

1. Digital, what does it mean to your organisation?

Consider what 'digital' means to your organisation. It shouldn't simply be that everyone has the latest PC's, processors and monitors. It runs far deeper than having shiny tech, it should be the backbone of your service offerings, your client experiences and the driving force for your organisational efficiencies.

2. Define outcomes and align them with your organisational strategy

From the outset, if you can't determine and define how digital initiatives will lead to better organisational outcomes, you're already at risk of implementing something for the sake of having to have the latest technology on offer. Looking at, and improving the fundamental and basic aspects of day to day working is a key stepping stone to enable an organisation to define a roadmap outlining outcomes.

3. Prioritise digital initiatives and identify the quick wins

Quick wins will enable your businesses digital transformation to build momentum and generate recognition and all-important buy in from stakeholders within the organisation. Following on from this growing wave of momentum, the tackling of higher impact and longer term initiatives which take considerably more effort will be better supported, in-turn improving their success rate.

4. Establish your KPI's

Without an end goal, you don't have a plan. To ensure and measure the success of your business objectives you will also need to define some Key Performance Indicators (KPI's). These will be the means of understanding the effectiveness of the digital transformation, also guiding organisations on the refinement of the initiative as well as future decision making and direction.

5. Evolve, evolve, evolve!

Digital technology is moving at considerable pace and continues to offer organisations ways and means of optimising their services and client experiences. Market conditions are already dictating the need for optimisation and efficiencies within all organisations, this continual pressure should be embraced as something that can only make us better. Organisations who therefore continue to evolve, transform and improve will place themselves at the forefront of their chosen markets.

Conclusion

To conclude, whilst digital transformations are never easy, they are far more than simply implementing all of the latest technologies within your organisation. Understanding organisational objectives which are driven by the organisational strategy will focus which digital technologies will provide the desired efficiencies and outcomes.

It's also vital to consider organisational culture, to ensure new technologies are embraced as part of the organisational ecosystem. Finally, the fostering of innovation for the continued improvement of the organisations future success is an imperative part of evolution.

CIBSE BUILD2PERFORM LIVE 2018: ENERGY INDEPENDENCE

Senior Mechanical Engineer, Luke Mitchell, recently chaired a technical session on Energy Independence at the Chartered Institution of Building Service Engineers (CIBSE) Build2Perform Live 2018.

CIBSE's Build2Perform Live 2018 is held at the London Olympia and claims to be the UK's the most informative, varied and interesting building performance event in the calendar, boasting 80+hours of CIBSE approved CPD, 90+ speakers, 2000 attendees and 60 exhibitors.

The event was dedicated to helping built environment professionals and the wider supply chain improve efficiency and save money through effective building services, with specialist speakers invited from across the built environment. Chairing the session on Energy Independence, Luke shared:

"Following the recent near miss on gas supply shortage, it is now time for engineers to take a lead role in making changes to our building systems and designs, to actively create energy independence, and future proof our economy.

"Moreover, the effects of future changes in fuel prices will largely depend on the electricity generation mix. The Government has stated that it does not want to be over reliant on one technology and this push towards a diverse portfolio is part of our industries responsibility to try and make this happen.

"Overall, the Build2Perform event was an engrossing two days highlighting insight into better performing buildings, there was a focus on occupant well-being and why we need to challenge conventional thinking on building design and use. There was some fascinating research and case studies being showcased highlighting that meeting design standards does not necessarily mean performance in use.

"Additionally, there was a good balance of diverse exhibitors, seminars and CPD sessions. The event helps our industry professionals generate inspired design ideas and avenues of exploration, energised by the creativity and passion here for improving the built environment."

CLIMATE BASED DAYLIGHT MODELLING METRICS IN SCHOOL DESIGN

Rachel Shaw, Waldeck's Principal Electrical & Lighting Engineer, will present the findings of her recent MSc dissertation research at the SLL & CIBSE South West Technical Seminar this February.

Rachel's research focusses on the impact of the Education and Skills Funding Agency's (ESFA) move to using climate based daylight modelling metrics in school design, answering the question: "Are current daylight recommendations, based upon Climate Based Daylight Modelling, providing the users' daylight needs for teaching and learning spaces in new schools?"

Synopsis

In 2013, the Education and Skills Funding Agency included a mandatory requirement for climate-based daylight modelling as part of the design of all their new schools, under their Priority Schools Building Programme (PSBP). Until this was implemented, the industry standard method of daylight prediction was the average daylight factor method.

Now that the schools designed under the PSBP have been built and are occupied, it is the ideal time to review the daylight performance.

Past studies that have been carried out, mainly focus on the' numbers' to verify the daylight levels and measured in-use levels, whereas the focus of Rachel's study looks at the users' needs to determine how classrooms do or don't make best use of light.

Rachel shared: "I am honoured to be invited by the Society of Light and Lighting to share this topic with the South West CIBSE members.

"I am really looking forward to sharing my dissertation findings and also my insights from numerous projects I have been involved with where daylight prediction is important, and where I have obtained an understanding of the users' needs in order to advise the design teams in order to deliver lightoptimised designs."



WALDECK YOUNG ACHIEVER SHORTLISTED FOR CONSTRUCTION AND PROPERTY AWARDS



We are proud to share that Digital Capture Specialist/ Engineering BIM Technician, Sophie Harwood, has been shortlisted in the 'Young Achiever of the Year' award category for the Greater Lincolnshire Construction and Property Awards 2019.

Sophie joined Waldeck in 2014 as part of our BIM Academy, and since then her role has continually evolved to meet the needs of the business, whilst allowing her to develop and progress her own career.

Sophie currently takes on 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 shares an insight into her story so far.

'The journey'

Walking through the door to the Waldeck BIM academy as a Trainee CAD technician over four and half years ago, with no experience within the construction or civil engineering industry was just the very beginning of my journey.

This was a time when I knew that I had a passion for the industry; all I wanted was to be successful, just as anyone else would want to be in their career. But looking back on that day I never thought I would be where I am today, having achieved as much as I have done in such a short time.

'Always giving 110%'

Throughout my BTEC and NVQ College courses, as well as my Remote Pilot training with RUSTA, I have always put 110% into my assignments, reports and

evidence that I have needed to provide in order to achieve the highest grades, whilst balancing my studies with my full time role at Waldeck.

My attitude towards my qualifications is mirrored in the work I do for clients, whether it be a drawing, a model, or answering a question they may have.

'Embracing it!'

The construction and engineering industry is changing, and so is technology. To be given the chance to embrace it and utilise it, whilst advocating to others that it can help our industry become more efficient in time, cost, quality and health and safety and not to fear new technology, has been a great opportunity within my career.

Through my UAV training, and as a result of my dedication and commitment to the drone industry I have been able to achieve my 'Gold Wings' from RUSTA, whilst also working on new ways to deliver solutions to clients.

'Added extras'

Alongside my core roles at Waldeck, I am also a member of Waldeck's Health and Safety Committee. I chose to take on the role as Office Health and Safety Champion for our head office, as to me Health and Safety is an immensely important consideration within the construction industry; whether it be in an office, on-site or when using a drone.

I have helped to implement initiatives across the company helping others to better understand the importance of Health and Safety, and as a result, I received the award for British Safety Council Young Health and Safety Champion 2017.

'My inspiration'

Looking at what other people are doing within the industry, projects that are being worked on and new technology and innovations that are happening daily, there are so many barrier-breaking projects and knowledgeable people that inspire me.

Seeing successes of colleagues and friends within the business and across the industry, and catching a glimpse of where they are and what they are doing within their careers due to their hard work and determination is what drives me.

'Why me?'

Being from a small village in Lincolnshire, and having spent my career working in the Head Office of a business founded in Lincolnshire, this award would be an accumulation of everything I have achieved to date.

I want to be an inspiration to others whether they are already in the industry or looking to start a career in construction. It doesn't matter if you have no knowledge or experience within the industry, but by putting in hard work, commitment and dedicating yourself to something you are passionate about, you will be rewarded.

Also, I cannot forget to mention that all of my achievements to date would not have been possible without the support and opportunities provided from Waldeck. Thank you!



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