# ColkerWessels UK

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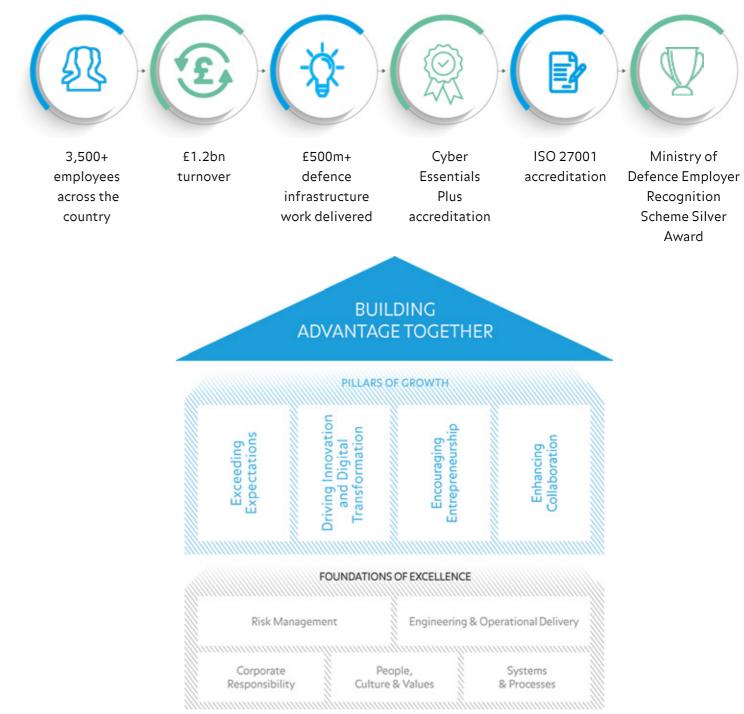
Defence

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## **COMPANY OVERVIEW**

VolkerWessels UK is a leading multidisciplinary contractor with a significant portfolio of engineering and construction projects in the defence sector. By focussing on our specialisms and core capabilities we have established a reputation for collaboratively delivering major, complex projects in highly regulated sectors.

We are a trusted strategic partner to operators of nationally important infrastructure, known for our reliability in delivering critical infrastructure and our capability in designing, constructing and refurbishing marine and airfield assets.



## **OUR DEFENCE CAPABILITY**



## MARINE AND PORT **INFRASTRUCTURE:**

Docks, off-loading facilities, jetties, quay walls, dolphins, breakwaters, flood protection measures, submerged tunnels, outfalls and lock gates.

## LAND:

Heavy civils, remediation, maintenance depots, logistics facilities, accommodation blocks, offices and training facilities.

### ASSET MANAGEMENT:

Substations, EHV cabling, horizontal directional drilling, specialist MEICA equipment and utilities packages.

Our long and successful history of building and refurbishing the Defence Estate has enabled us to grow an extensive resource pool of experienced and qualified experts that know and understand the intricacies of operating on critical infrastructure in live operational environments.

At HMNB Portsmouth, we rebuilt the naval base infrastructure to allow the Royal Navy's two new aircraft carriers to berth securely and safely and constructed an offshore ammunitions facility in the harbour to serve T45 Destroyers. Our specialist aviation teams have delivered airside improvement works at RAF bases across the UK including resurfacing the runways at RAF

Lossiemouth in advance of the arrival of nine P-8A Poseidon Maritime Patrol Aircraft. We hold a position on the Defence Infrastructure Organisation's Next Generation Estate Contracts and Clyde Commercial Frameworks and the Crown Commercial Services Construction Works and Associated Services Framework.

Our portfolio of defence sector work is not restricted to the British Isles; our work to improve critical infrastructure at Mare Harbour on the Falkland Islands won International Project of the Year at the Construction News Awards. We have also carried out airfield improvements at the RAF base on Ascension Island in the mid-Atlantic.



# SPECIALIST CAPABLITY MARINE

The defence sector has become a key focus for our marine specialists over the past decade. We have the right skills, experiences and processes to understand and overcome the key challenges the sector provides, such as working within live operational bases, securely handling classified information, and meeting non-negotiable programme targets as part of wider defence programmes.

We are one of the UK's leading marine engineering contractors. For more than 85 years, we have honed our engineering skills whilst delivering heavy civils work at civilian and defence ports all around the UK's coastlines. In recent years we have upgraded berths at Southampton and Felixstowe to allow the new generation of huge container ships to berth safely. We delivered £140m of work at the Port of Dover's Western Docks to construct two new container berths, a new marina and a 550m-long pier. We have installed the country's first new tidal barrier in nearly 40 years at Ipswich, and installed huge pier protection structures in the deep navigation channel of the River Tay, protecting the road bridge above from vessel strikes.

Our engineers and construction experts have helped to deliver new and improved assets at Naval Bases around the UK and overseas. At HMNB Portsmouth, we have constructed £75m of jetty and infrastructure upgrades to create a home berth for the Royal Navy's flagship Queen Elizabeth Class Aircraft Carriers. We have also constructing a new ammunitioning jetty, sized for the new carriers, at Glen Mallan in the west of Scotland.

The defence sector will be a key focus for our marine teams for many years to come. We hold a place on the ten-year, £1.3bn Clyde Commercial Framework, which will ensure that personnel responsible for delivering the UK's continuous at sea nuclear deterrent are able to live, work and train in safe, state of the art facilities. Through the framework, we have aligned our systems, processes and behaviours with our client, the Defence Infrastructure Organisation, and Base stakeholders.



**HMNB DEVONPORT** 

£45m project including a new jetty at Thanckes with adjacent fuel loading and fire fighting facilities.



### HMNB PORTSMOUTH

£75m of port infrastructure upgrades to accommodate the new QEC Aircraft Carriers.



## NORTHERN AMMUNITION JETTY, GLEN MALLAN

£65m project to upgrade a jetty and cranes to support re-arming of the QEC Aircraft Carriers.



"This jetty lies at the very heart of the preparations for the arrival of HMS Queen Elizabeth and the wider development of the Base for this century. It is tangible evidence of how close we are to the dawn of the QEC era and I am proud of the way the Royal Navy, DIO and VolkerStevin have been able to work together on this challenging project to get us ready for today."

ROYAL NAVY CAPTAIN IAIN GREENLEES, THE QEC INFRASTRUCTURE DIRECTOR (AT THE POINT WHEN HMS QUEEN ELIZABETH FIRST ARRIVED)

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## **SPECIALIST CAPABLITY** AIRFIELDS

"The completion of the runway work here at RAF Lossiemouth represents the first major upgrade to be delivered by the Development Programme and to have such a complex project delivered some three months early in the challenging context of 2020 cannot be under-estimated. My congratulations must go to both DIO and VolkerFitzpatrick in achieving this milestone."

WING COMMANDER PETE BECKETT, DIRECTOR OF THE LOSSIEMOUTH DEVELOPMENT PROGRAMME Our history of working at military and civilian airports dates back almost 80 years, when we began constructing wartime airfields. Our portfolio of work includes frameworks at Gatwick and Stansted Airports, and runway improvements and infrastructure upgrades at RAF Lakenheath, RAF Mildenhall, RAF Fairford and RAF Lossiemouth.

At Lossiemouth, home of the UK's Quick Reaction Force, we completed significant runway resurfacing works as part of a £75m contract with the Defence Infrastructure Organisation to prepare it for the arrival of nine P-8A Poseidon Maritime Patrol Aircraft. Other improvements included accommodation for personnel, a new air traffic control tower, upgrades to drainage and electrical supplies, and upgraded facilities for the IX (Bomber) Squadron that moved to RAF Lossiemouth shortly beforehand. Given its role in protecting UK airspace from hostile aircraft, it was critical that the base remained operational at all times and flight activities were not adversely affected by our construction programme.

Our teams are experienced in providing the engineering skills and technologies necessary to deliver both airside and landside support facilities. We understand the need for maximum safety and security within live airside environments. We provide a complete solution to military airfield and campus infrastructure requirements.

At RAF Lakenheath we are delivering complex infrastructure and building works to accommodate the F35, the world's most advanced fighter jet. Our work includes the construction of squadron and flight simulator buildings as well as upgrades to PAS shelters and other facilities. This requires us to work airside with rigorous safety, security and logistics procedures commensurate with operating on a live military airfield.

We are well resourced, with a wealth of long-standing experience and peak expertise to tackle the largest and most demanding projects as well as minor refurbishment, surfacing or concrete rehabilitation works. Our portfolio also includes the delivery of bespoke perimeter security solutions, including those which serve to demarcate MOD licensed sites.

Much of our work is repeat business, based on a record of successfully delivered contracts - on time and to budget. Over the last ten years we have laid over two million metres of pavement quality concrete at airfields. Utilising our own batching plants and pavers, we work within tight timeframes, minimising lead times to reduce the impact of our works on customers.



**RAF LOSSIEMOUTH** We completed £75m runway resurfacing project despite constraints imposed by the COVID-19 pandemic.



### **RAF LAKENHEATH**

We are delivering around £250m of new infrastructure in joint venture to ready the base as the first permanent home in Europe for the US Air Force's F-35 Fighter Jet.





## SPECIALIST CAPABLITY NUCLEAR

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VolkerStevin has been delivering projects in the nuclear sector for the past 30 years. We employ a significant number suitably qualified and experienced personnel who have worked on nuclear licensed sites (as regulated by the Office for Nuclear Regulation (ONR) under the Nuclear Installations Act 1965) and sites operated under authorisation from the MOD Defence Nuclear Safety Regulator (DNSR). Our workforce includes >100 security cleared personnel and our systems have been approved to handle and store documents up to OFFICIAL SENSITIVE level.

In 2018, we were appointed to HMNB Clyde's £1.3bn, ten-year framework to refit the MOD's nuclear submarine base at the Faslane and Coulport nuclear licensed sites and maintain continuous at sea deterrent.

Through a rigorous, multi-stage procurement process, we demonstrated the capability, systems, processes, and resources to manage the regulatory environment, and proposals to return work areas to operational status at short notice.

We are delivering a broad scope of civils, building, and specialist mechanical and electrical installations and upgrades. We are also providing ECI advice to Babcock in relation to the programme of major infrastructure upgrades planned at HMNB Devonport.





## **SPECIALIST CAPABLITY** LAND





## **HMNB PORTSMOUTH SUBSTATION**

We built the 50m x 20m structure within the busy and high security base. It provides a dedicated power supply to the aircraft carriers when in berth, so they can switch off their carbon-intensive generators.

The impressive category A and category B fit out of the building includes a central, glazed atrium, double-height reception area, and 100-seat lecture auditorium.

Whether it be building, road construction, utility or drainage installations, earthworks, land remediation, security fencing, or specialist mechanical and electrical installations, Volker has the specialist in-house engineering and construction skills and resources to meet your defence customers' needs.

We carry out a wide array of building work and heavy and specialist engineering on land for our defence clients and other organisations such as Highways England, Network Rail, utility companies, local authorities, and the Environment Agency.

Our building division has a strong track record of delivering demanding, high-quality projects, often to fast-track programmes and in live environments. We hold a place on the Defence Infrastructure Organisation's Next Generation Estate Contracts (NGEC) regional capital works frameworks in the South East and South West.

"This is truly a momentous time for the team at Portsdown Technology Park (PTP) and more than six years in the making. Construction has not been easy, especially in the last six months with COVID measures in place to keep everyone working on site safe. Throughout the construction period, the team at PTP continued to deliver to the Royal Navy. We have created a centre of excellence for Maritime Systems to inspire our current and future generations and deliver mission-led innovation for our customers."

> STEVE FITZ-GERALD, GROUP MANAGING DIRECTOR OF **QINETIQ MARITIME AND LAND DIVISION**



## **GULFSTREAM HANGAR**, **FARNBOROUGH AIRPORT**

A £34m purpose-built aircraft hangar for Gulfstream Aerospace Corporation. The 220,060sq.ft. structure will be used to house and maintain 16 Gulfstream business jets.

Our extensive programme of work to prepare HMNB Portsmouth as the home base of the new QEC aircraft carriers included multi-disciplinary landside elements to complement the heavy marine engineering.

We built a new 50m x 20m substation away from the water's edge within the base which houses bespoke rotary frequency convertors. We installed two and a half miles of cable through Portsmouth's streets with minimal disruption to connect the substation to the national grid.

Also at Portsmouth, we built the new £20m National Maritime Systems Centre for the Royal Navy on behalf of our client, QinetiQ. The BREEAM 'Excellent' fourstorey reinforced concrete frame building features offices, laboratories and ancillary accommodation.

## SPECIALIST CAPABLITY MEICA AND ASSET MANAGEMENT

As defence assets become 'smarter' and more digitally linked our clients' ambitions to become experts in estate asset management increases. We collaborate with clients, their customers, and end-users to optimise performance, cost and risk across their estates.

We get involved in projects at the earliest possible stage and engage with key stakeholders to design, plan, install and commission assets that meet end-user needs. This includes upgrades to communications infrastructure and installation of sensors, data platforms and analytical software that enables our clients to gain insights into how their infrastructure is used and make more informed decisions on infrastructure planning, maintenance and operations.

We have extensive experience of installing utilities infrastructure at military facilities and have overseen complex installation of specialist mechanical, electrical, instrumentation, control and automation (MEICA) equipment across the defence estate. We have installed substations, cabling, pipelines, drainage, cranes, navigation systems and electrical infrastructure at naval bases. We have installed airfield lighting, drainage, flight simulators and control rooms at RAF bases. We are delivering a broad scope of civils and MEICA installations and upgrades at HMNB Clyde, including refurbishing several critical systems within the two nuclear licenced bases.

We provide a full turnkey civil engineering and MEICA service for both clean water and effluent treatment. We are able to provide, install and maintain smart infrastructure, including electric vehicle charging points, variable message signs, CCTV and central management systems.

In addition to military facilities, we carry out extensive and varied work across the energy and utilities infrastructure sectors. We hold positions on major frameworks with National Grid, Network Rail, United Utilities, Severn Trent Water, the Environment Agency, and Highways England. Through these collaborative frameworks we deliver civil engineering, MEICA and hard facilities management services to maintain, renew, refurbish, upgrade and extend the lives of critical assets such as the Thames Barrier.

We are also one of the leading EHV cabling contractors in the UK, offering in-house technical expertise in the areas of near-shore and landside EHV cable systems design, installation, jointing and commissioning. Our VolkerTrenchless Solutions business is a market leader in advanced trenchless techniques, particularly horizontal directional drilling (HDD), and operates one of the largest fleets of HDD rigs in Europe. We have a strong technical team which includes geologists, drilling experts and equipment specialists, thereby enabling us to recommend the most appropriate trenchless method and apply this successfully in a broad range of ground conditions.

"This has been a complex project due to the nature of the requirement, the environment and additional levels of regulation required for explosives facilities. The fact that the UHAF has been completed on time and within budget is testament to the excellent collaborative approach taken between the VolkerWessels companies, DIO and naval base staff."

DEFENCE INFRASTRUCTURE ORGANISATION'S PROJECT MANAGER, PAUL SIMMONDS

VolkerWessels UK

# COLLABORATIVE WORKING

Our skilled, and collaborative teams are agile and capable of accommodating the evolving demands of the defence estate whilst staying focused on achieving key project outcomes. Collaboration is one of our core values. The concept is embedded in our everyday working practices and our business ethos, people and culture.

Our management systems are ISO 44001 Collaborative Business Relationships accredited. We have the right framework, documents, and tools to collaborate with clients, suppliers, stakeholders and end users to deliver greater innovation, competitiveness and successful outcomes.

We have experience working on Project 13 early adopter projects. We have longterm contracts in place with the Defence Infrastructure Organisation, National Grid, Anglian Water and the Environment Agency and are supporting their journey towards collaborative enterprise models.

We help clients identify the right procurement mechanisms to share investment, risk and benefits. Our vast experience of working under various



commercial models, including NEC, enables us to work alongside client partners to identify and agree the best value commercial model for projects with equitable sharing of risk and reward.

We offer maximum benefit when engaged on an Early Contractor Involvement (ECI) basis. The earlier our experts are involved the greater their impact. We build detailed understanding of client, end user and stakeholder needs, form realistic logistic strategies and work with design partners to develop safe and efficient construction solutions with reduced risk, costs and better outcomes.

We understand and accommodate military operational considerations. Our disciplined and transparent approach to collaboration is vital to managing the complex logistical interface and operational requirements when working in military facilities. We ensure our works do not compromise day-to-day operations and build contingencies into our plans to accommodate operational requirements.

"The legacy of the project team's delivery has set a new benchmark for future collaborative working on complex Defence Maritime projects."

ROYAL NAVY CAPTAIN IAIN GREENLESS, QEC INFRASTRUCTURE DIRECTOR

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# DELIVERING LONG TERM PROGRAMMES AND MAJOR FRAMEWORKS

Our high calibre delivery teams have the right skills and experience to deliver multi-disciplined construction programmes. Our staff are experienced in developing innovative technical solutions within constrained and highly regulated operational environments and hold appropriate security clearances to work on the defence estate.



We have developed an excellent reputation in delivering major, complex programmes in highly regulated sectors. We hold long-term framework agreements with clients such as the Ministry of Defence, EDF Energy, National Grid, Highways England, Environment Agency and Network Rail. These operators trust us to deliver critical engineering and construction services on their nationally important infrastructure and assets.



RAF LAKENHEATH: £160m of new infrastructure to ready RAF Lakenheath as home of the US Air Force F-35 Fighter Jet.



HMNB CLYDE: 10-year, £1.3bn programme at HMNB Clyde (Faslane and Coulport) to sustain the UK's continuous at sea nuclear deterrent.



CCS CONSTRUCTION WORKS AND ASSOCIATED SERVICES FRAMEWORK (RM6088): Lots 2.2 (£3-10m, South), 3.2 (£10-30m, South), 8 (Maritime) and 9 (Airfields).



CCS CONSTRUCTION WORKS AND ASSOCIATED SERVICES 2 FRAMEWORK (RM6267): Lots 4 (Airfields) and 5

Lots 4 (Airfields) and 5 (>£80m, National).

## UNITED STATES AIRFORCE FRAMEWORK:

Multi-year framework with US Air Force to repair and construct roads, paving, runways and taxiways at a number of military sites across the UK.

## HS2 CHILTERNS TUNNELS AND COLNE

VALLEY VIADUCT: £965m programme for a key section of the HS2 high-speed rail network between London and Birmingham.



## NETWORK RAIL CP6 FRAMEWORKS:

Incumbent on various NR CP6 frameworks which will run between 2019-24, including the major share of signalling frameworks.

# ENVIRONMENT AGENCY

COLLABORATIVE DELIVERY

## FRAMEWORK (CDF):

Asset Delivery Partner in our fourth iteration of the framework to support the EA to deliver £2.6bn of flood and coastal improvements.

## DOVER WESTERN DOCKS REVIVAL:

£140m of marine construction work as part of one of the UK's largest port development projects.

### LUTON AIRPORT DART:

£225m construction of a state-of-the-art fast Direct Air-Rail Transit (DART) system linking London Luton Airport with Luton Airport Parkway railway station.



### HIGHWAYS ENGLAND DELIVERY INTEGRATION PARTNERSHIP FRAMEWORK:

Lot 2 of the £8.7 billion framework, worth £350 million split between two contractors covering packages in the South East and East of England.

## UNITED UTILITIES AMP6/7 FRAMEWORK:

Construction partner responsible for delivering circa £750m of construction work between 2015 and 2026.

**VolkerWessels UK** 

# SUPPLY CHAIN AND PROCUREMENT

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We have over 5,200 approved suppliers across the UK. Our network includes defence sector specialists that understand the unique operating environment, physical and cyber security controls required, and the exacting quality standards needed for work on defence-related assets. Volker's group buying power and reputation in the defence sector gives us access to the industry's most suitably gualified and experienced partners. Over many years, we have built long-term relationships with key suppliers that know and share our collaborative culture and safety, sustainability and quality standards.

We call on suppliers to provide specialist services such as mechanical and electrical installations, specialist plant and equipment, ammunitioning cranes, airfield lighting systems, and offshore navigation systems as appropriate. We bring suppliers into our early contractor involvement and design teams so that we can capitalise on their expert advice in terms of constructability, plant and equipment, and risk management to shape safe, efficient and sustainable solutions and engage with stakeholders and regulators.

Whilst national and international specialists play a big role in our defence projects, our procurement experts also identify, assess and onboard local small or medium sized enterprises to supplement our in-house resources. This gives us greater flexibility to work around operational constraints and meet

programme objectives, whilst helping to meet local employment targets and leaving a legacy of skills locally that can help to maintain and improve defence assets in the future. Our project teams and procurement managers work closely with suppliers to oversee performance and advise on any improvements, helping them to grow and secure future opportunities.

VolkerStevin recognised the need to engage the local suppliers and forged strong links with them in advance. With those connections in place, the delivery team could draw on local knowledge to fix equipment quickly, saving the project from weeks of potential lost time.

DAVID GRAHAM, DEPUTY HEAD OF **PROGRAMME AND PROJECT DELIVERY** DEFENCE INFRASTRUCTURE ORGANISATION

## DIGITAL CONSTRUCTION

Digital tools have transformed the way we design and build assets for our clients across all sectors in the last few years. Our Construction News Talent Award winning digital team keeps us at the forefront of digital construction and innovation. We use BIM (ISO 19650 certified); robotics; 3D printing; virtual and augmented reality; modular/offsite construction; the Internet of Things; and digital twins to build digitally before we construct on site. This helps us to build more efficiently and identify and resolve clashes and risks before construction commences.

Our vision is to be a data driven company, harnessing technology to help us work more efficiently, making the right decisions at the right time and creating more time to innovate. We use a mix of industry best practice software and bespoke in-house developed

Our Tomorrow Now digital transformation and innovation programme creates an environment that empowers our people to think and act differently by inspiring them to adopt the technology available to them. VolkerWessels UK is a company built around people, and we believe digital is more about people than technology. Our goal is to create a business which is powered by data, driven by people.





Apps and Power BI dashboards to record, store and process information from across our business. This data-driven approach allows us to continually improve the efficiency, safety, sustainability, and quality of our service to clients.

Our information managers set up our framework and project teams in clients' preferred common data environments and ensure we store information securely to ISO 27001 standards and in line with our Cyber Essentials Plus accreditation.



# SOCIAL VALUE AND

Volker has put social value and sustainability at the centre of how we do business. Our Sustainability Framework sets out how the 2020s will be our 'decade of action', structured around the three pillars of People, Planet and Purpose. Through a series of targeted and measured strategies, we aim to become leaders in sustainable construction and help our clients meet their own sustainability goals, such as those set out in the Sustainable MOD Strategy.

## PEOPLE

Volker is a place where talented and motivated people want to work. Our people are the foundation of our business so their safety and wellbeing will remain our priority, as will our desire to ensure our workplace is an inclusive and inspiring place to be. We will continue to support our staff in ensuring their physical and mental wellbeing through our Safety Ripple behavioural programme, occupational health service and engagement initiatives, and our network of mental health and equality, diversity and inclusion champions.

## PLANET

Each of our projects is unique and, as such, the environmental risks and opportunities that they present to us are unique. Our ability to address these risks professionally, combined with creatively assessing the opportunities available to us to deliver no net loss or, better still, net positive solutions, will ensure we act responsibly and proactively. We are exceeding our target to reduce carbon emissions by 5% year-on-year. By 2030, all of our energy will come from renewable sources, we will send no waste to landfill (currently less than 5%), and 90% of our projects will actively enhance biodiversity.

## PURPOSE

Making responsible and forward-thinking choices about the way our projects are executed, and how they will deliver social value, supports our overall vision to be the contractor of choice and a good neighbour in the communities in which we work. We support businesses and jobs in the communities in which we work – 60% of our procurement spend is with SMEs. We have extensive and ever-growing apprenticeship, graduate and 'return to work' programmes. We give every employee one day's paid leave to volunteer in their community, and our project teams raise funds for charities that mean the most to our clients and the people they serve.



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"The judges thought the QEC was a remarkable project and one which is of very high importance to defence. The project demonstrated sustainable construction in a variety of ways and there was broad evidence of the sustainable benefits achieved. The highly innovative delivery was particularly praised, which minimised the impact upon the ecological and heritage value of the berths."

RICHARD NUGEE, LIEUTENANT GENERAL (SPEAKING AT THE SANCTUARY AWARDS WHERE WE WON THE SUSTAINABLE BUSINESS AWARD AND THE SUSTAINABLE CONSTRUCTION AWARD FOR OUR WORK ON THE QEC BASE PORTING INFRASTRUCTURE PROJECTS AT HMNB PORTSMOUTH)





