Marine, energy, water and environmental infrastructure

VolkerWessels UK goes from strength to strength, building on our well-earned reputation across the marine, energy, water, and environmental structure sectors.

2017 saw continued growth in the extensive and varied work we deliver on behalf of central government departments, blue chip clients, major water utility companies and private sector companies.

From flood risk management, to a full range of marine engineering projects, energy solutions and the delivery of clean and wastewater infrastructure and non-infrastructure projects, this is a demanding sector with strict legislative compliance.

VolkerStevin is widely regarded as one of the UK's top maritime civil engineering contractors and undertakes a full range of marine engineering works including jetties, port and harbour infrastructure, marinas, quay walls, linkspans, and floating structures. Several high-profile projects are currently underway at some of the largest commercial ports and naval bases in the country.

VolkerStevin has significant experience in the construction of flood defence projects throughout the UK in both urban and rural areas.

We are one of three companies on National Grid's Substation Flood Defence Framework which involves designing and constructing flood defences to its most critical assets across the UK.

VolkerFitzpatrick's main focus in this area is civil engineering and enabling works for waste recovery centres that provide usable energy from household waste.

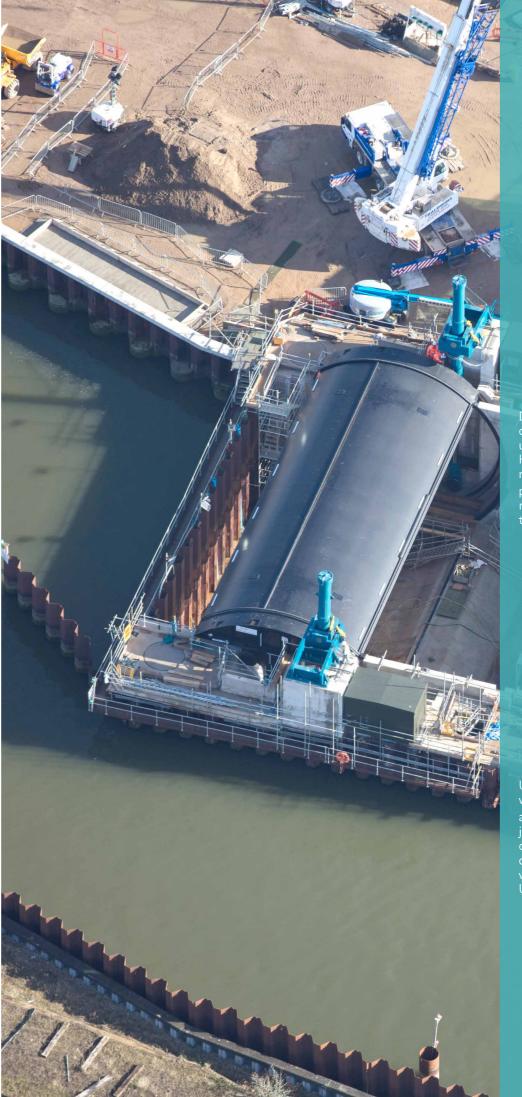
VolkerInfra and VolkerTrenchless Solutions operating as separate divisions of VolkerStevin work across the energy sector providing specialist onshore extra high voltage cable systems, switchgear and grid connection works and horizontal directional drilling.

VolkerGround Engineering and VolkerBrooks, also operating as VolkerStevin divisions, provide specialist piling and plant services through internal collaboration and external partners.

During 2017 VolkerStevin worked on a number of water sector projects including flagship schemes at Oswestry WwTW in Cheshire, Anchorsholme Park on the Fylde coast, Morecambe WwTW in Lancashire and the Thames Tideway Tunnel.

We intend to continue our development in this sector and build on our extensive framework experience. We also apply our wide range of engineering and business capabilities and technical skills to the challenge of the reclamation, remediation and regeneration of derelict and contaminated land.

ColkerStevin ColkerFitzpatrick VolkerLaser





over the design and build contract to reconstruct a jetty at Her Majesty's Naval Base Portsmouth carrier

Designed and constructed the upgrade to the Mare part of a 10-year regeneration plan in the Falklands



£100m of marine enabling works on behalf of Thames Water in advance of construction of the

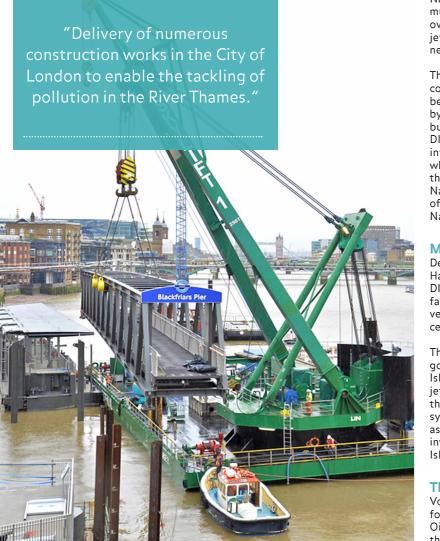
as C2V⁺, a joint venture collaboration, to deliver the AMP6 water framework for United Utilities



0... ..O

constructed and installed a 20m wide tidal barrier the Environment

Annual review 2017 | 37



A long association with the Defence Infrastructure Organisation (DIO) and the Royal Navy to provide critical infrastructure solutions on multiple projects.

VolkerStevin has a successful pedigree in the defence sector and a long association with the Defence Infrastructure Organisation (DIO) and the Royal Navy, providing critical infrastructure solutions on multiple projects. In 2017, we successfully handed over the design and build contract to construct a jetty at Her Majesty's Naval Base, Portsmouth for the new Queen Elizabeth aircraft carrier.

The construction of the new secure tidal berth comprised upgrading the existing jetty to withstand berthing, mooring and operational forces exerted by the new carriers and included all civils, M&E and buildings. Following our strong performance, the DIO awarded us the contract to deliver significant infrastructure improvements on the adjacent quay which will be the new berth for HMS Prince of Wales. the second of the two carriers built for the Royal Navy. Construction will start mid-2018. Our portfolio of work with the DIO, particularly with the Royal Navy, is seeing steady growth.

Mare Harbour, the Falkland Islands

Design and construction of the upgrade to Mare Harbour roll-on roll-off jetty in the Falklands for the DIO has been completed by VolkerStevin. The new facility will enable larger 20,000-tonne Point Class vessels to berth in the harbour, delivering up to 85 per cent of the military supplies needed on the Islands.

The new berthing facilities on the jetty will also allow goods to safely roll on and roll off from the Falkland Islands Resupply Ships (FIRS). In addition to the jetty, VolkerStevin also replaced walkways along the berth, lighting improvements, capstans and a PA system. Firefighting capabilities have been upgraded as well. This contract is part of a £180m overall investment by the DIO to improve facilities on the Islands over the next 10 years.

Thanckes Oil Fuel Jetty, Plymouth

VolkerStevin was awarded the contract by the DIO for the construction of a new jetty at the Thanckes Oil Fuel depot which provides fuelling facilities to the Royal Navy at Devonport Naval Base in Plymouth. The scheme will deliver a jetty complete with fuel loading and fire-fighting facilities. The jetty will be constructed within a Special Area of Conservation on the River Tamar, and must comply with stringent environmental regulations. This is the first in a number of projects to modernise Oil Fuel Depots in Devonport and Portsmouth to service the fuelling of the Naval Fleet in both ports, set to be operational in November 2019.

Ipswich Tidal Barrier VolkerStevin is delivering a range of multidisciplinary services including design, project management, construction, testing, VBA - a joint venture between VolkerStevin, Boskalis Westminster commissioning and maintenance of water and wastewater treatment and Atkins - is delivering a scheme to provide a new tidal barrier works, pipelines, pumping stations, reservoirs and mechanical and gate which will prevent surge tide effects and allow control of electrical installations to sites in Oswestry, Chorley, Anchorsholme, fluvial flow. The project involves the design, construction and Carnforth, Hesketh Bank, Preston outfall and Allonby, helping to installation of a 20m-wide tidal barrier gate, construction of piled deliver a cost-effective water system in the North West for years to flood defence walls on either side of the barrier, a MEICA control building, the installation of mechanical and electrical equipment, come. flood gates on the east and west banks within the flood walls, Under AMP6, major improvements at a wastewater treatment works scour protection and landscaping works.

The main gate structure is founded on bearing piles which are up to 50m long to toe into the underlying chalk. Foundation tubes were delivered by sea to the Port of Ipswich where they were loaded on to a barge for transport to site.

VolkerStevin is delivering the scheme in collaboration with its specialist divisions VolkerGround Engineering and VolkerBrooks. Once complete, VolkerStevin will maintain the tidal barrier for a further two years.

AMP6 CDP Water Framework

VolkerStevin is currently working with Jacobs as C2V⁺, a joint venture collaboration, delivering the AMP6 Construction Delivery Partner (CDP) water framework for United Utilities. It is a design and construct framework covering the full spectrum of works for both water and waste water across the North West, where United Utilities has responsibility.



in Morecambe Bay are being delivered. The works are part of a £70m upgrade of United Utilities' Schola Green Wastewater Pumping Station (WwPS).

The scheme sees the construction of two large storm water storage tanks and new pumps at the Schola Green Pumping Station, upgrading of Morecambe wastewater treatment works at Middleton and laying a 7km sewer pipe between the two sites. The project started in March 2017 with completion scheduled for 2020.

Thames Tideway Tunnel

VolkerStevin has been heavily involved with enabling works associated with the planned Thames Tideway Tunnel (TTT). New floating piers at Blackfriars and Victoria Embankment were officially opened to the public facilitating access onto the Thames Clipper water taxi service. Meanwhile, progress has continued on the tunnel's east section, where we have been constructing temporary works that reclaim areas of the river to accommodate the reception and drive pits for the tunnel sites. The works, principally along the river front at Chambers Wharf and King Edward Memorial Park Foreshore, Wapping, involve heavy civil engineering in the river to allow access for the main construction works to follow.

Environment Agency's WEM Framework

VBA, a joint venture comprising VolkerStevin, Boskalis Westminster and Atkins, is in its third term as a framework contractor to the Environment Agency and demonstrates our industry-leading position in the flood and coastal sector. We currently have numerous projects on the ground from feasibility studies through to construction and in 2017 we were awarded the Lincolnshire Lakes flood defence scheme for North Lincolnshire Council. The project is being undertaken to increase flood defence protection and improve existing barriers to defend homes in the Isle of Axholme areas. Work, forming part of the council's £1.2bn plans to build six new villages to the east of the River Trent, is taking place on site to reinforce the existing earth embankment and install 3.5km of sheet piles along the east bank of the river Trent from the M180 to Keadby Bridge.

Dover Western Docks Revival

VolkerStevin is at the forefront of one of the largest port development projects to be constructed in the UK. VSBW, a joint venture between VolkerStevin and Boskalis Westminster, is responsible for the delivery of the £115 million marine structures and bridge contract for the Port of Dover's flagship Dover Western Docks Revival (DWDR) stages 1 and 2.

The project, which is due for completion in December 2018, includes the design and construction of two new berths, including quay walls and land reclamation as well as a new marina pier, the marina curve, navigation channel and new lock gates, bascule bridge and capital dredging work. VolkerFitzpatrick was appointed by the Port of Dover to deliver the paving, utilities and infrastructure contract for the DWDR development. The programme is a mix of heavy-duty port paving, interconnecting roads, power and lighting, landscaping, street furniture, reefer gantries, fencing and access gates and border control facilities to approximately 10 hectares of the Western Docks.

DWDR will deliver long-term capacity for this key international gateway, handling trade to the value of £119bn and representing up to 17 per cent of UK trade in goods. DWDR is the single biggest investment ever undertaken by the Port of Dover.

East Anglian One

VolkerTrenchless Solutions, a new division of VolkerStevin, was recently awarded a contract by Scottish PowerRenewables to deliver land-based horizontal directional drilling solutions as part of the East Anglian One wind farm project off the coast of Suffolk. The electricity generated from the wind farm which is located some 30 miles off the coast, along a 37km route between Bawdsey and Bramford, will cross under waterways and other infrastructure at 21 locations, and will power around 600,000 homes.

Moray East wind farm

VolkerInfra, VolkerStevin's specialist high voltage cable installation division, was appointed by Siemens to design, supply and install the onshore cables for the Moray East wind farm project in Scotland. The works include geotechnical surveys to establish the route and the development of key design features to support applications for local and statutory authority permissions.

Further growth across the marine, energy, water, and environmental structure sectors is expected in 2018 and beyond.



40 | VolkerWessels UK



"Dover Western Docks Revival (DWDR): A substantial part of the single biggest investment ever undertaken by the Port."