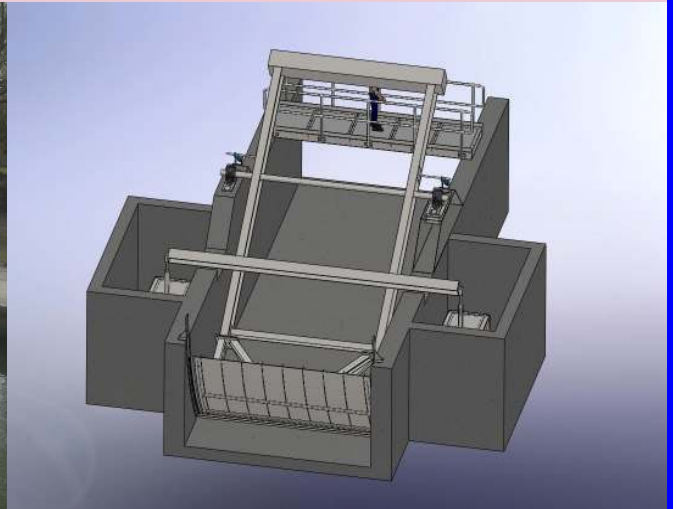


HUNTON ENGINEERING DESIGN LTD

SPRING 2010 NEWS....



HUNTONS HAVE BEEN WORKING ON A VARIETY OF PROJECTS OVER THE COLDER PERIOD BOTH SHOP AND SITE BASED. PROJECTS INCLUDE THE MANUFACTURE OF A NEW SET OF LOCK GATES AT SHIPLAKE LOCK ON THE THAMES. FURTHER WE ARE ALSO IN THE PROCESS OF DESIGNING A NEW RADIAL GATE PROPOSED FOR THE RIVER MEDWAY. WE WERE CONTRACTED BY A MAJOR ENGINEERING CONSULTANCY TO UNDERTAKE THE MECHANICAL AND FABRICATION DESIGN FOR A NEW RADIAL GATE ON THE MEDWAY UTILISING OUR SPECIALIST GATE EXPERIENCE, 3D MODELLING CAPABILITY AND FINITE ELEMENT ANALYSIS SOFTWARE.



WINNER

Innovation and Technical Merit

PORTER'S LOCK COMBINED
CANOE / FISH PASS

Environment Agency Team
Southern Waterways
Southern Fisheries

Framework Consultant
Halcrow Group Ltd

Framework Contractor
Hunton Engineering
Breheny Civil Engineering

Regional Managing Director,
Birse

Board Director for
Royal Haskoning

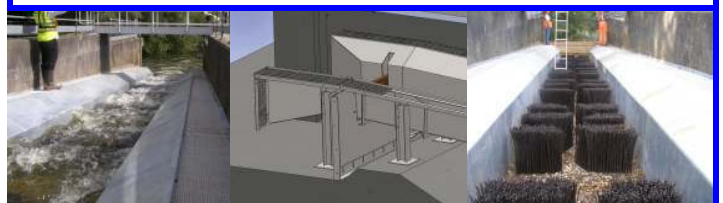
Director of Flood and Coastal
Risk Management

President of the Institution of Civil
Engineers

Head of National Capital
Programme Management Service
Environment Agency

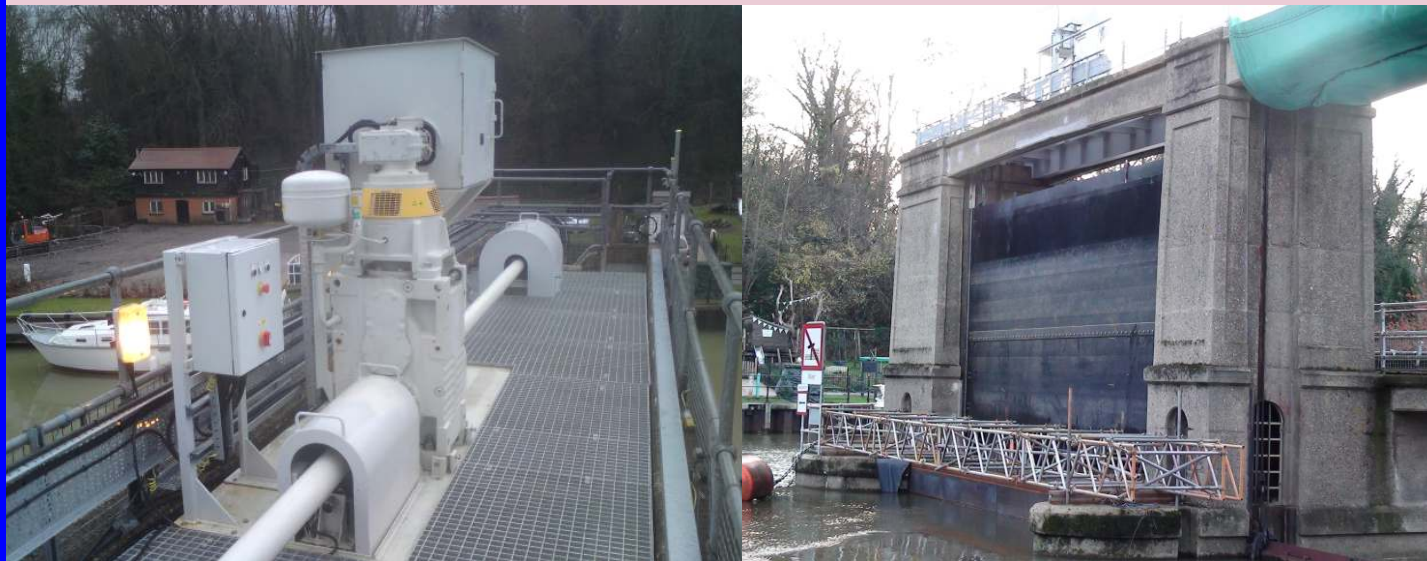


WE ARE ALSO PLEASED TO ANNOUNCE THAT A PROJECT COMPLETED LAST YEAR, NAMELY PORTERS LOCK COMBINED FISH AND CANOE PASS HAS NOW RECEIVED THE EA PROJECT AWARD 2009 FOR INNOVATION AND TECHNICAL MERIT. IT HAS ALSO RECEIVED A COMMENDATION AND RUNNER UP PRIZE IN 2 CATERGORIES AT THE WATERWAYS RENAISSANCE AWARDS 2010



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OUR INVOLVEMENT IN ALLINGTON SLUICE REFURBISH PROJECT CONTINUES WITH THE COMMISSIONING OF GATE 1 AND FULL HANDOVER THE THE EA. ABOVE RIGHT WE HAVE THE GATE SHOWN FULLY RAISED. THE GATE ITSELF WEIGHS 10 TONNES AND MEASURES 9.5 x 4.6 MTS RETAINING A 4.3 MT HEAD UNDER NORMAL FLOW CONDITIONS. ABOVE LEFT SHOWS THE DRIVE SYSTEM INCORPORATION A 7250:1 RATIO HELICAL BEVEL BOX ALLOWING JUST A 1.1KW MOTOR TO LIFT THE 10 TONNE LOAD.



AS MENTIONED ABOVE BY USING A HELICAL BEVEL DRIVE THE GATE THERE ARISES THE POTENTIAL TO BACKDRIVE THE SYSTEM, ESPECIALLY UNDER HANDWIND CONTROL (THE ORIGINAL 1937 INSTALLATION WAS COUNTERWEIGHTED). FOR THIS REASON HUNTONS DEVELOPED THE ABOVE HYDRAULIC RETARDER SYSTEM USING A HYDRAULIC MOTOR COUPLED TO THE DRIVE LINKED THROUGH A LIMITED FLOW CIRCUIT. THIS ENABLES US TO ALLOW THE DRIVE TO ROTATE AT JUST OVER MOTOR SPEED IN THE EVENT OF BRAKE FAILURE OR ACCIDENT.

FURTHER, TO ENSURE TOTALLY SAFE OPERATION THE HANDWIND INPUT (WHICH IS INFACHT AN ELECTRIC ACTUATOR DUE TO THE VERY HIGH RATIO DRIVE) IS FULLY INTERLOCKED WITH A CASTELL KEY SYSTEM TO ENSURE IT CANNOT BE USED OR THE BRAKE CANNOT BE DISABLED WITHOUT USING THIS DEVICE.

