Work Package Plan

Prepared by:

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05/10/2022

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RAF Pembrey,

Tidal flap Survey & Inspection Works- Ancala Water

Start Date: TBC

Finish Date: TBC

Work Package Plan Number:
22-0036-WPP-001

Revision Number

01

The responsibility for the health, safety and environmental management of the works outlined in this documents rests fully and unreservedly with the Principal Contractor or Contractor. The acceptance of a SSOW on behalf of the client and involvement in Studies or Audits does not in any way absolve the Principal Contractor or Contractor from that accountability and responsibility, nor is it intended to confirm or suggest that the Principal Contractor or Contractor fully meets the statutory requirements.

DISTRIBUTION LIST

ISSUED TO:	ORGANISATION	VERSION
James Lee	Ancala Water	01

VERSION CONTROL

VERSION NUMBER	SUMMARY OF CHANGES
Rev 01	First draft by Robert Nicholas for review
Rev 02	SPM Comments Amended

CONTENTS

1 INTRODUCTION

1.1 Brief outline of work methodology

The works described in this WPP are to carry out the enabling and inspections works at RAF Pembrey. All works to be carried out by Robert Nicholas Ltd.

The scope of works the Robert Nicholas (RN) will undertake within this WPP includes the site set up and exclusion zone around worksite. The first task will be to install a silt curtain to contain any silt during the de silting of the riverbed. The de silting will be carried out with an excavator and excavated material spread locally. Temporary dams will be installed and diesel-powered 6" & 4" pumps (24hrs) to over pump the water from between the two dams. Once the water has been removed a detailed survey of the tidal flap can be carried out.

On arrival to site Ancala Site Manager will brief all operatives on access to the worksite via the airfield and either issue an air side pass or escort the RN operatives to and from the work site at all times.

Permitted working hours will be 07:30-17:00 Monday to Friday, with access to the work area being as directed by the client. Due to the Proximity of the site to local residences, no machine work will take place prior to 08:00 (excluding 24 hour pumping)

1.2 Location of works

Picture 1 - Location Plan

Picture 2 – Temporary Dams & Pumping arrangements

1.3 Competency assessment and Training

Project, Construction and Site Managers are expected to identify the ongoing training needs of the workforce and instigate the training in a timely manner. RN will ensure that it brings to the notice of the client, any training opportunities which it can provide to others. The client shall also notify RN of any specific competencies required for the project. All workforces training records will be held on site in site file.

Role	Minimum Competency
Site Manager/Supervisor	SMSTS/SSSTS
General Labour	CSCS
First Aider	Full 3-day first aid at work, CSCS
Plant Operator	CPCS

All directly employed operatives will be listed on the RN training matrix. The training matrix will prompt training updates as and when required to ensure adequate refresher training and identify upskilling opportunities. All training certificates will be provided upon request.

Planned tasks involved in this package of work are detailed below:

Reference	Task Briefing Sheet Title	Activity start date
TB01	Mobilisation/ De mob	TBC
TB02	Desilting Riverbed	TBC
TB03	Installation of Temporary Dams, Pumps & Dewatering	TBC
TB04	Inspection of the tidal flap valve	TBC

1.3.1 Task 01 – Mobilisation/ Site Setup

Electrical Isolation: N/A

Permits: Permit to Dig/ Airside Pass/ Authorisation TBC

Training: CSCS

1. Once all briefings, competency checks & inductions have been completed authorisation to start work will be confirmed by the Robert Nicholas Site Manager / Supervisor who will also ensure that all risk control measures are in place.
2. All plant & materials etc will be delivered to the base via road, on arrival to the air base authorisation must be given by Ancala Water that they can access the worksite via the airfield.
3. Only trained and competent persons are allowed to operate plant and equipment.
4. All operatives and site visitors must sign the visitors log and wear full PPE.
5. Operatives following safe manual handling procedures will load all plant and equipment into a 9t dumper and transport to the worksite under the supervision of a vehicle banksman.
6. They will then using hand tools and insulated digging tools erect Hears fencing will be erected around the worksite and along the sea wall to create an exclusion zone ensuring the panels are level and double clipped.
7. Access gates must be kept shut at all times and locked during break times and when RN are not on site.
8. All plant and equipment must be stored correctly when not in use with drip tray/ nappie mats below plant.
9. Spill kits must also be available and adjacent to all re fuelling activities
10. A welfare van will be provided with toilet & hand washing facilities.
11. The demob will follow the same safe procedures as above and performed in reverse.
12. Once worksite has been cleared the Ancala Water site manager will be invited to inspect the area.

1.3.2 Task 02 – Desilting Riverbed

Electrical Isolation: N/A

Permits: Permit to Dig

Training: CPCS, CSCS

The 14t long reach excavator will desilt a small area of 4m x 6m to allow the installation of the temporary dams:

1. Once all briefings, competency checks & inductions have been completed authorisation to start work will be confirmed by the Robert Nicholas Site Manager / Supervisor who will also ensure that all risk control measures are in place.
2. Once the worksite has been fully set up the de silting works can commence with a silt curtain being installed downstream.
3. The RN supervisor will check the buried services drawings if available and carry out a full scan of the area using a cable avoidance tool and issue a Permit to Dig
4. Only trained and competent persons are allowed to operate plant and equipment.
5. Working from the airside of the sea wall a long reach excavator will then begin to carefully excavate the silt from the riverbed under the supervision of a banksman, the depth of excavation will be determined on site during the works.
6. All excavated spoil/ debris will be spread locally as agreed with the Acala Site Manager ensuring the soil does not cause a hazard to pedestrians or airbase staff.

1.3.3 Task 03 – Installation of Temporary Dams, Pumps & Dewatering/Over pumping

Electrical Isolation: **N/A**

Permits: **N/A**

Training: **CSCS**

24-hour pumping will be utilised to maximise efficiency.

1. The operatives working in the river will be wearing a Dry suit, hard hat & thermal gloves. While an operative is working in the water there will be banksman with a throw line at all times.
2. Carry out Dynamic Risk Assessment on the watercourse.
3. Installation procedure as per Appendix C
4. Install 1 No. 4m dam EUR150 dam upstream & 1 No. 4m dam EUR180 dam downstream of tidal flap gate. As shown in picture 1.
5. Place the sheets and weigh down with the chain tie. Tie the sheet into the banks
6. Install pumps in area to be dewatered, ensuring discharge hoses are place such to not cause damage to nearby infrastructure/ landscaping. The pumps will be towed into position using the dumper.
7. A ramp will be set up to allow pedestrians to pass over the over pumping arrangement.
8. Turn pumps on, monitoring and inspecting at 30-minute intervals during site operating hours. To ensure that this is adequate to be left overnight.
9. The water will be over pumped and discharged downstream of the temporary dam and discharged into a silt curtain.
10. Ensure all hose connections are clamped, sealed & not leaking, with equipment is running as required at the end of each shift between weekend inspections.
11. All fuel bowsers will be self-bunded and drip trays/ nappy mates placed under generators
12. Spill kits will also be available at each re fuelling point
13. When the inspection work is completed, the equipment will be removed from the watercourse.

1.3.4 Task 04 – Inspection of the tidal flap

Electrical Isolation: **N/A**

Permits: **N/A**

Training: **CSCS**

Inspection of the tidal flap:

1. Once the area has been dewatered RN supervisor will confirm it is safe for the survey/ inspection of the tidal flap.
2. Access tidal flap using ladders into the dewatered area
3. Operatives will be wearing full PPE including gloves at all times when accessing the riverbed.
4. Anything obstructing the tidal flap will be removed and cleaned for the survey using hand tools
5. Ensure operatives wash hands thoroughly after to reduce the risk of Weil's disease.
6. In-depth visual survey of the structure and tidal flap valve.

1.4 Briefing and Reporting

Works will be carried out under the supervision of a Robert Nicholas Site Supervisor.

The RN supervisor will check all training and competencies. All personnel involved in the works will receive a Project induction prior to arrival to site. Site operatives will report to the Supervisor daily and sign into the Robert Nicholas Site Register

Task briefings will be given by the RN Supervisor, and all personnel will sign briefing acknowledgment sheet on at the end of this document to confirm their understanding and acceptance of the briefing.

Authorisation to start work will be confirmed by the Robert Nicholas Supervisor who will ensure that all risk control measures are in place. A point of work risk assessment (POWRA) will be completed by the supervisor at the start of the shift and throughout shift if any changes occur with records held in the site file for future reference.

All site personnel will sign out at the end of the shift.

1.5 Changes to planned methodology

Where the defined process cannot be followed in ways that fundamentally describes the safe working method or could affect the safety of the workforce or third party, work will be suspended until a change to the can be made and reapproved by RN if required. Minor changes can be authorised by the RN Site Supervisor but must be recorded and re-briefed to all operatives via means of a toolbox talk with a signed record sheet of the briefing.

1.6 Robert Nicholas delivery organisation

The following individuals from Robert Nicholas will form the managing project team:

Role	Name	Contact Number
Director	*Rob Thallon*	*0792 0194 533*
Contracts Manager	*Stephen Clark*	*07513 726 004*
Senior Project Manager	*Adam Duggan*	*0756 2685 156*
Project Manager	*Robert Smallshaw*	*07769 228 305*
Engineering Manager	*Dave Robson*	*07706348469*
Quantity Surveyor	*Jonathan Watch*	*07706 348 771*
Estimator	*Liliana Udrea*	*07706 311817*
Office Manager	*David Larrett*	*07470 894 737*

1.7 Resources

The following resources will be used for this work package:

1.7.1 People

Company	Role	Number	Minimum Competency required	Task
Robert Nicholas	*Site Supervisor*	*1*	*SSSTS, CSCS, First Aid*	*Task 01-04*
Robert Nicholas	*General Operative*	*1*	*CSCS*	*Task 01-04*
Robert Nicholas	*Plant Operator*	*2*	*CPCS*	*Task 03-04*

1.7.2 Plant, Equipment, and tools

All plant, equipment and tools used will comply with the Provision and Use of Work Equipment Regulations 1998 (PUWER). They must be suitable for use, well-maintained by the users. The operatives must check all equipment, plant, and tools before they use them and report any fault and damage if found. A maintenance regime for all of them will be in place on their merits.

A brief list of plant, equipment and tools used in the job will include but is not limited to:

Quantity of Plant, Equipment and Tools	Number	Competency required	Task
Welfare Van	*1*	*N/A*	*N/A*
Pumping Equipment	*1*	*CSCS*	*All*
14T Long reach Excavator	*1*	*CPCS*	*All*
Dumper	*1*	*CPCS*	*All*
Diesel Bowser	*1*	*N/A*	*All*
Insulated hand tools	*1*	*CSCS*	*All*
Cable Avoidance tool	*1*	*CAT & GENNY Training*	*Task 1&2*

Quantity of Plant, Equipment and Tools	Number	Competency required	Task
Hears Fencing	*Various*	*N/A*	*All*
EUR150 Geodesign Temporary Works Barrier	*4m*	*EUSR*	*All*
EUR180 Geodesign Temporary Works Barrier	*4m*	*EUSR*	*All*

1.7.3 Materials

Materials	Size	Number	Task
Silt curtain	*8m x 4m*	*1*	*All*
Diesel			*All*

2 WORKING TOGETHER

2.1 On-site communication

All general site communications will be verbal, or hand signals. Only use a mobile phone when in a place of safety.

The mobile phone coverage has been checked and is sufficient for the works and in case of emergency

2.2 Project Contact details

The following are the main contacts for this work package:

Name	Role	Organisation	Contact details
Stephen Clark	*Contracts Manager*	*Robert Nicholas*	*Stephen.Clark@RobertNicholas.com*
Adam Duggan	*Senior Project Manager*	*Robert Nicholas*	*Adam.Duggan@RobertNicholas.com*
Robert Smallshaw	*Project Manager*	*Robert Nicholas*	*Robert.Smallshaw@RobertNicholas.com*
Jonathon Watch	*Quantity Surveyor*	*Robert Nicholas*	*Jonathan.Watch@RobertNicholas.com*

2.3 Emergency contact details

Name / Role	Contact details	Comments
Police / Ambulance / Fire	*999 (112)*	
British Transport Police	*999 (112)*	
Explosive Ordinance	*999 (112)*	

Natural Resources Wales	*0300 065 3000 (incident hotline)*	
Floodline	*0345 988 1188*	
Pollution hotline	*0800 807060*	
Utility - Gas	*0800 111 999*	
EDF Electricity	*0800 028 0247*	
HSE	*0207 717 6807*	

2.4 Other parties involved with the package of work (interfaces details)

The following working arrangements will apply with all parties / organisations that have been identified with this work package:

Interfacing Organisation	Interface Point for:	Point of Contact and contact details
Ancala Water	*Client Queries / Reporting*	*James Lee* *079383 777995*

3 HAZARD MANAGEMENT

3.1 Risk Assessment Methodology

Risk Matrix

Severity / Likelihood	1 – Slight	2 – Serious	3 – Major
1– Low	1 = Low	2 = Low	3 = Low
2 – Medium	2 = Low	4 = Med	6 = Med
3 – High	3 = Low	6 = Med	9 = High

Risk = Severity x Likelihood

6 -9 Unacceptable **4 - 6 Tolerable (Look to Improve)**

3 - 4 Adequate **1 – 3 Acceptable**

Methodology

Step 1

Using the risk matrix, carry out an initial assessment to determine the risk rating of hazards(s) of the work activity (note this is without any control measures).

Step 2

Using the matrix results from step 1 if the risk rating is (a) High (H) then the hazard must be eliminated and / or work activity prohibited of the risk rating is (b) Medium (M) then additional safety control are required.

Step 3

Following the results from step 2 if the risk rating remains medium then you must provide alternatives and or additional safety controls until the risk rating enters into the low category.

Step 4

The safety control measures should be numbered and recorded against the particular hazard as indicated in the box below.

3.2 Risk Assessment

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
1.0	**Environmental Factors**												

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
1.1	Weather - Wind / Water State	Injury (Severe & Minor) during access/egress.	ALL	3	2	6	• Supervisor monitor forecasts, review on site, prior to operations • Obtain real time information for site office, if available. • NEVER exceed parameters for safe access/egress from waterside		3	1	3		
1.2	Temperature – Air & Water	Physical effects of Exposure; Hypothermia.	ALL	3	2	6	• Drysuits to be worn and must be fit for purpose. • As site condition dictates Neoprene gloves worn. • Appropriate protective clothing whilst working on the waterside. • Welfare facilities and Drying room available on site. • Surveyor to communicate at all times if they become cold/hot during the survey.		2	1	2		
1.3	Water Quality	Physical effects of Exposure; contamination; sediments; dirty water; infection	ALL	2	3	6	• Drysuits to be worn and must be fit for purpose. • Protective gloves worn at ALL times. • Adopt good hygiene procedures • All surveyors advised to have inoculations for tetanus, polio and Hep-A • All operatives to be briefed on the risks of Weil's Disease and Leptospirosis. • Cuts / grazes covered/ protection cream		2	1	2		
1.4	Fuel/ Oil Leaks	Contamination to Land/ Water	ALL	3	3	9	• Ensure environmental spill kit is available and that fuel spillages are contained and cleaned up immediately. • Ensure that refuelling is adequately supervised and that the operative is aware of the emergency procedures		3	1	3		
1.5	Noise	Nuisance noise to local residents, wildlife	All	3	2	6	• Machines should be switched off when not in use, to reduce the levels of nuisance noise and conserve fuel.		3	1	3		
1.6	Exhaust Fumes	Air Pollution	All	3	2	6	• Machines should be switched off when not in use, to reduce the levels of nuisance noise and conserve fuel.		3	1	3		
2.0	**Site Hazards**												
2.1	Work on, under or near water.	Drowning. Infection by Leptospirosis.	ALL	2	3	6	• Work at low flow rates. Buoyancy aids and rescue throw lines will be provided. • Barriers and guardrails used where possible. • Where applicable, operatives will be given information regarding Leptospirosis and issued with an advisory card. Advice on immunisation for other diseases will be provided.		2	1	2		

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
							• Good hygiene to be maintained (wash hands before eating, drinking or smoking) • Use disinfectant hand wipes following contact with water, or wet materials and tools. • Task specific PPE must be worn at all times. • No food to be consumed on site – eating is only permitted in designated areas. • Ensure open wounds or sores are covered with a waterproof dressing. • Tools and equipment to be cleaned after use and returned to stores, not left on site.						
2.2	Underwater Obstructions. Nets, lines, other debris	Surveyor caught in obstruction Injury (Serious or Minor)	Surveyor	2	3	6	• Move with caution and continually asses the bed conditions. • Use a ranging rod to check bed in advance of foot placement. • Avoid obstacles, such as branches and hidden debris and report location to the customer • Wear correct PPE, to include buoyancy aid • Lifesaving equipment to be made readily available at the work location at all times: throw lines etc.		2	1	2		
2.3	Leptospirosis-Weil's Disease & other Biological Hazards	High temperature, Headache, Sickness Aching Muscles and Joints	ALL	2	3	6	• Wash your hand regularly. • Avoid touching objects that may be contaminated. • If you have symptoms see a doctor.		1	3	3		
2.4	Poor lifting techniques	Back/ Neck injury	ALL	2	3	6	• Training in lifting techniques during induction and toolbox talk. • Prior to lifting any object assess the weight shape and size involved. Ask for assistance if the item is too heavy or awkward to handle. • Use mechanical assistance / lifting aids where practicable, do not attempt lift if unsafe. • Unloading of materials/deliveries to take place as close to usage/storage point as possible. • All persons should be medically fit to carry out manual handling.		1	3	3		

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
2.5	Access & Egress from the watercourse.	Lost Time Injury (Severe & Minor)	ALL	3	2	6	• Surveyor to enter/ exit the water at the lowest part of the bank, using ladder/steps where available. • Bank team to assist surveyors at all times when entering and exiting the water		3	1	3		
2.6	Sharps and needles.	Puncture wounds, cuts and infection	Surveyor	3	2	6	• Look for sharps before commencing work, particularly in manhole, waste, and vegetation. • Do not "rummage around" in rubbish or undergrowth with hands, use shovel or bar to search. • In water use drysuits with steel toe and midsole boots and 1000 denier Cordura layer over the knee and shin area to reduce risk of puncture.PPE • Ensure that information, instruction, and training are provided to employees, (advise of immunisations). • Maintain personal hygiene procedures. • Warn others where sharps are encountered.		3	1	3		
3.0	**Operational Hazards**												
3.1	Slips, trips, falls from height.	Traps, abrasions, cuts and bruising		2	3	6	• Good housekeeping to be maintained. • Keep access routes clear. • Care when moving in watercourse. • Plan and agree access and egress routes to the watercourse before entry. • Use appropriate PPE		1	2	3		
3.2	Excavations	Entrapment, collapse, fall from height	ALL	3	3	6	• Exclusion zone to be erected around work site • Warning signs to be displayed • Follow temporary works design drawings • Shoring to be used if required • Do not leave open excavations unfenced • Suitable edge protection erected on site • PPE shall be always worn		1	3	3		
3.3	Plant/ Equipment Items close to water edge	Items possibly fall over edge of quay / platform / vessel; Injury (Severe & Minor)	ALL	2	3	6	• Establish suitable edge protection. • Only competent person to operate plant. • All equipment set up according to the deck plan and sea fastened correctly. • PPE shall be worn at all times, including HARD HAT.		1	3	3		

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
3.4	Activities Over Head – Lifting; materials & equipment delivery	Falling Items; Failing Lift Equipment; Impact; Installer crushed or Injured (Serious or Minor). Drowning.	ALL	2	3	6	• Competent Banksmen will be responsible for the connecting of all loads. • Trial lift will be completed on initial lift, before continuing to final lift. • Installers will be removed clear for the lift zone, controlled by supervisor. • No loads to be cradled. Loads to be choked by chains or slings. Tag lines used where possible • Do not use any item of lifting equipment that does not have a tag detailing safe working load. • Supervisor to ensure good communications throughout.		1	3	3		
3.5	Works Equipment & Hand Tools	Injury (Severe & Minor)	ALL	2	2	6	• Only competent persons to operate specialist tools and equipment. • All equipment maintained and inspected prior to use.		1	2	2		
3.6	Installer Fatigue	Injured (Serious or Minor) Drowning.	ALL	2	3	6	• Supervisor to monitor installers and receive oral communication on their condition. • Installers to inform supervisor when cold, exerted. • All installers are to be medically fit. • Supervisor to limit in-water time and not over exert the installers.		1	3	3		
3.7	Untrained personnel operating equipment	Untrained operators Plant / Vehicles Operators Injured (Serious or Minor)	ALL	3	3	9	• Only trained, competent and responsible persons will be permitted to operate construction plant or vessels. • Only persons holding relevant driving qualification will be permitted to drive vehicles. • All drivers to be checked against insurance requirements for RN vehicles before driving. • All persons must be physically fit with no medical reasons to operate plant and equipment.		1	3	3		
3.8	Lifting and moving Rigid flume pipes	Back injury, strain, trapped nerves, rupture, hernia, limb disorder. Entrapment or fracture of foot or hand, WRULD	ALL	2	3	6	• Gloves to be worn always when handling equipment. • Steel toe cap boots to be worn always when handling equipment. • Use lifting equipment where available. • Size and lengths of pipes used will be determined during a site survey taking into account access for lifting machinery • Assess the length and weight of pipe to determine manual handling requirement in terms of numbers.		2	2	4		

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
							• Use strap supports for moving pipes in water letting buoyancy assist. • The size of the solid pipe may need to be cut down to a suitable size and weight per application. 1050mm ID pipe weighs 50kg per m. 2m section 6 man lift. • Operatives trained in kinetic handling training together with training/instruction on any mechanical lifting aids used. • Check for poor and possibly slippery conditions under foot. • When in the water the solid pipe is semi buoyant and can be floated in the water with reduced effort. Operatives will be placed at the front and the rear of the pipe in order to move into position. Straps will be placed around the front of the pipe to aid lifting the front out of the water, reducing drag.						
3.9	Heavy manual handling	Fall of heavy items onto persons ie twin wall pipe RSI (Repetitive strain injury) & WRULD's (work related upper limb disorders) due to sustained manual handling activity). Traps, abrasions, cuts and bruising	ALL	2	3	6	• Manual handling training given to all operatives. • Gloves to be worn always when handling equipment. • All operatives to be briefed on common pinch points and made aware of moving parts likely to trap fingers. • Steel toe cap boots to be worn always when handling equipment. • Use lifting equipment where available. • For frame size EUR150 and above consider 2-man lift where safe to do so. • Use the frame cart where possible to reduce manual handling • Only one frame at a time will be carried, using both hands, ensuring frame is correctly balanced • Manual handling operations to be shared and rotated within the team taking frequent short breaks. • Ensure good communication between team members. • Report and treat symptoms of RSI & WRULD's as soon as operative becomes aware. • Ensure that the lay down/storage area is tidy and the route through to the water access is free from obstructions.		1	3	3		

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
							• For larger frames use the floats/pontoon sections to move the frames within the water to keep manual handling to a minimum.						
3.10	**Excavators/ Dumpers** Overturning, Operator Blind Spots, Inadequate Lighting, Vehicle falling into excavations, Working on inclines, Fuel/Oil Leaks, Noise, Vibration	Fatality/Serious personal injury Collision with plant/operatives Crush, track over Entrapment, damage to vehicle Noise induced hearing loss Whole body vibration	ALL	3	3	9	• Ensure all operatives are trained and competent. • Ensure all equipment is regularly serviced and inspected by a competent person and the daily inspection is recorded on the daily check sheet. • Ensure all operatives wear suitable PPE, i.e. safety footwear, safety gloves, hard hat and ear defenders. • Ensure mirrors are fitted to eliminate blind spots. • Ensure traffic routes around the site are clearly defined. • Only work in or alongside the watercourse when a correctly set silt curtain is in place. • Ensure the use of a banksman throughout operations, particularly when crossing pedestrian routes. • Do not overload dumper hoppers • Always ensure that the operator adheres to safe loading and unloading practices. • Avoid loading or unloading on gradients or beneath overhead power lines. • Never carry passengers. • Ensure that the vehicle is immobilised whenever it is to be left unattended. • Ensure that re-fuelling is adequately supervised and that the operative is aware of the emergency procedures. • Machines should be switched off when not in use, to reduce the levels of nuisance noise and conserve fuel. • Ensure environmental spill kit is available and that fuel spillages are contained and cleaned up immediately		3	1	3		
3.11	Access/ Egress Ladders Falling, Slipping,	Hand feet slipping due to wet surface. Physical fatigue as a result of work or poor personal fitness. Distractions while climbing.	ALL	2	3	6	• Ladders to be checked and secure. • Use steps or angled ladder if available. • Ladder must be a minimum of 1.2mtr above ground level		1	3	3		

No.	Hazard	Consequence	Persons Affected	Initial Risk			Control Measures	Ref	Residual Risk			Person Responsible for Control & Monitoring	Applicable Task Briefing Numbers
				S	L	R			S	L	R		
	physical fatigue.	Ladder failing.											
4.0	**Other Hazards**												
4.1	COVID 19	Coronavirus transmission between staff and customers staff	ALL	2	3	6	Follow the advice laid out in the COVID 19 Policy document Observe Social distancing of 2m where possible Where not possible to risk assess, use appropriate PPE as specified in the policy document.		1	3	3		

4 EMERGENCY ARRANGEMENTS

4.1 Evacuation arrangements – General

If the fire alarm sounds all personnel need to stop work immediately if safe to do so or make the area safe as far as reasonably practicable before assembling at the Assembly Point as dictated by the PC

4.2 Security arrangements

All personnel must notify Robert Nicholas prior to any visit to site. All access points to site are to remain locked when not in use.

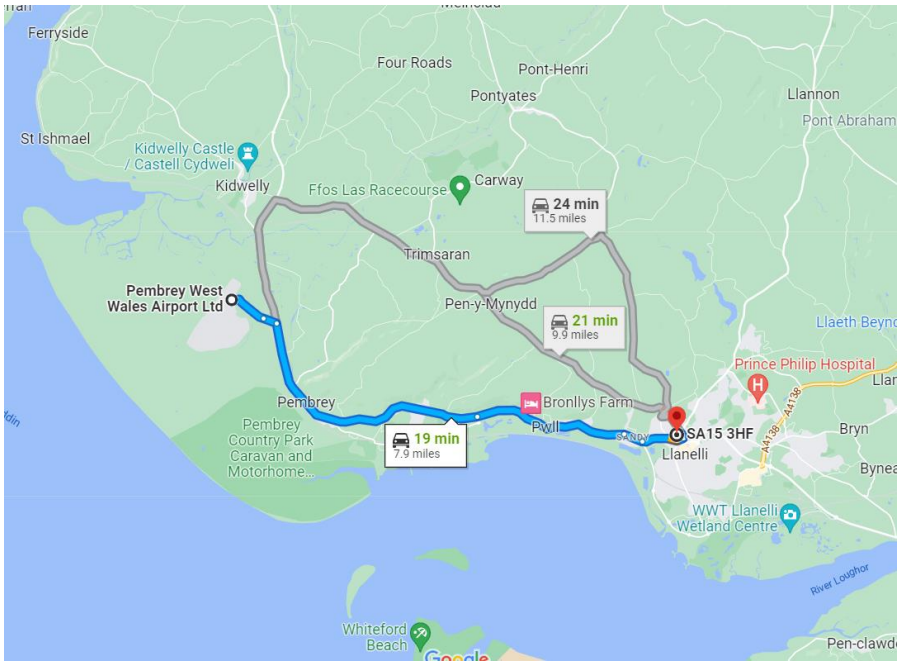
4.3 Summoning emergency services

In the event of an Emergency requiring the emergency services, personnel shall dial 999 /112 and ask for the appropriate service (Fire and/or Ambulance)

The person should report that there is a casualty giving the following information:

- Give their Name, position, and company details.
- Their contact details
- The location of the emergency (Road name /Landmark)
- Provide basic information of the incident.

Emergency Contact Numbers	
Emergency Service	**Telephone Number**
Incident reporting line (IRL)	***0800 092 5995***
British Transport Police Reporting Line	***08004 050 40***
Police, Fire and Ambulance Services	***999***

A & E Hospital Details:	
	
Brynmair Clinic Day Hospital	***Brynmair Clinic Day Hospital*** ***11 Goring Road*** ***Llanelli*** ***SA15 3HF*** ***01554 772768***

5 Work Package Arrangements

5.1 Access and Egress

Access to the site is via Airport. No access allowed until contact has been with Ancala Water

5.2 PPE

RN operatives' PPE shall be as noted as minimum:

Mandatory PPE
Orange Hi-Vi jacket/vest (Compliant with BS EN 471)
Orange Hi-Vis Trousers (Compliant with BS EN 471)
Hard Hats (Compliant with BS EN 397)
Steel toe-capped boots and mid-sole protection (Compliant with BS EN 345)
Hand protection. (BS EN 420)
Eye protection. (BS EN 166).

5.3 COSHH

COSHH product	MSDS	COSHH Assessment
Fuel (Petrol & Diesel)	Yes	Yes

The table above is not extensive. All items requiring a COSHH assessment will be indexed including relevant COSHH assessment.

6 APPENDICES – SUPPORTING INFORMATION

6.1 Appendix A- Robert Nicholas Policy Plans Guidance Forms

6.2 Appendix B – Supporting Documents

- Robert Nicholas EUR150 Geodesign Barrier Data Sheet (compressed)
- EUR150-C60 Technical Drawings 1
- EUR125-150 Corner Arrangement

6.3 Appendix C – Geodesign Barrier: Further Information & Installation Notes

Loading:

- Check the integrity of all equipment prior to setting off to the work site, load equipment onto vehicle in readiness for transportation to the site.
- Equipment to be loaded into vehicles with attention to the GVW of the vehicle.

Arrival at Site:

- After arrival on site, all vehicles are to be parked in a safe area. Orange beacons will be activated, and the site staff must don all task specific and agreed PPE prior to any work activity commencing.
- Team to undertake client's site induction.
- Agree off-loading plan and storage area for the Geodesign barrier equipment.
- A Dynamic Risk Assessment is carried out first thing before anyone can enter the water.

Unloading:

- Equipment to be unloaded on the bank adjacent to the agreed site of the dam, the senior installer and his assistants to assemble the equipment.
- Equipment to be off loaded using 2 man lifts where required (EUR150 frames) and the equipment to be set down in a safe location.
- Where onward movement of equipment is required by trolley or manual handling, operatives will use their manual handling training to ensure safe carrying and where using cart/trolley will ensure that it is safely loaded and secured.

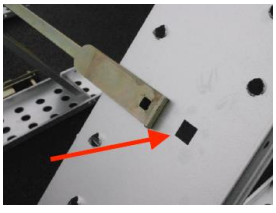
Frame connecting:

- The frames will be built up on the bank.
- No operatives to go within 2m of the edge of the water unless wearing a Drysuit or Bouyancy aid.
- Gloves to be worn by the bank staff and in water team if not wearing neoprene gloves.

1. Stainless steel bar passed thought the base plate and back beam.

2. The Stainless-steel bar is secured using the 'R' clip fixing to prevent it from sliding out.

3. The Stainless-steel bar is secured using the 'R' clip fixing to prevent it from sliding out.



4. The connection rod lugs must be positioned thought the top and bottom holes on each frame.

5. The connection rod lugs are secured thought the face of the support with a snap lock pin.

6. Overview of the EUR125 with 4.0m woven PVC membrane and sash chains

7. Installed barrier with anchor pins visible to prevent the structure sliding on slick beds.

Water entry:

- The senior installer and operatives will don their dry suits and enter the water at the agreed location.
- Equipment to be lowered down to the installers who will maintain a safe distance during the operation.

Geodesign Barrier Deployment

- Only trained Robert Nicholas personnel must be allowed onto or downstream of a Geodesign Barrier during deployment.
- The barrier A-frames should be erected on the bank before being placed in the water.
- All A-frame fixings and connections must be checked and tested prior to lowering into the watercourse.
- It is essential that all A-frame sections are founded on level ground and stand upright.
- The Geodesign Barrier A-frames must be linked by cross-members and secured by the supplied pins. All bars must be connected to the A-frames for the dams to achieve the stated load performance.
- Use the bars at either end of the dam to secure the cofferdam to the surrounding banks and stabilise the A-frames.
- Once the A-frames are linked and secured in place the shields are to be placed onto the cross members. Shields and plates should, where possible, contour the bed as closely as possible whilst maintaining an overlap with each other.
- The geotextile curtain is to be laid in a single section, ensure there is sufficient curtain to allow overlap on to the channel walls.
- Where possible geotextile clips should be attached to the top edge of the dam ready for deployment of the geotextile curtain.
- Sandbags may be used to hold the leading edge of the curtain to the bed and side walls during dewatering and before full hydrostatic load is affected. All sandbags are to be removed from the watercourse on completion of the works.
- The leading edge of the geotextile (chained) must be kept clear of the water whilst the top edge is secured to the top of the dam with the supplied clips.
- At this point pumps used for dewatering should be started, to ensure there is no disruption in the watercourse flow.
- The natural fall on the watercourse will create differential in flow assist in the setting of the curtain.

- The Deployment Leader will control the dropping of the leading edge of the geotextile curtain to the bed and the sealing of the dam.
- Once the curtain has achieved an initial set it can be secured to the surrounding watercourse banks.
- Ensure that the curtain extends along the banks above the crest height of the barrier. This will ensure the curtain stays in place if the barrier over-tops.
- On completion of the installation an Installation Check Sheet (QAF 015) must be completed and retained in the Site File.

Over Pumping and Dewatering

- On commencement of dewatering:
- Check that pumps necessary for dewatering are connected and running correctly prior to positioning next to the watercourse.
- Check intake and discharge pipework and seals for signs of damage.
- Ensure that pumps have a suitable discharge and sediment control system in place.

Working in the Dewatered Area

- When working in the dewatered area:
- All personnel must be reminded daily of their response to the agreed evacuation signal and the Maximum Controlled Depth (MCD) for the Geodesign Barrier in use
- Controlled Water Depth must be less than MCD for each Geodesign Barrier. If the MCD is exceeded an ALARM SIGNAL must be sounded and the work area EVACUATED
- A restricted plant and personnel zone around the external edge of the Geodesign Barrier, to guard against accidental damage to the Geodesign Barrier during the works. The contractor should also not leave plant & equipment unattended in the drained area
- Excavations must not be made within 1m of the Geodesign Barrier to prevent ground shearing or slippage.
- When using vibrating plant, breakers etc, monitor the position of the barrier and check for signs of movement

Sign-off and Handover

- RN supervisor will carry out a check to ensure that the installation has been carried out and the dam is is safe to work behind.
- A toolbox talk and handover document will be delivered to the clients site team.
- A copy of the inspection check form and handover document will be issued to the client.
- Details of call out procedures.

Dam Removal

On completion of the works:

- Removal must be carried out by trained Geodesign barrier personnel.
- Robert Nicholas shall inspect the dewatered area to ensure that it is cleared of plant and materials arising from the works.
- Pumping equipment will be removed from the dewatered area allowing it to refill, where possible, to a level equivalent to the retained water depth external to the structure.
- Once levels inside and outside of the dam are equalised the geotextile membrane can be removed. Sealer clips should be removed from the top edge of the dam and the fabric lifted to ensure that it is not caught on the face plated.
- The curtain should then be lifted from the upstream section first, slowly raising the chain edge from the bed and allowing water to flow underneath the curtain. This will make the curtain neutrally buoyant and allow it to be moved to the nearest bank edge for removal.

- Ensure that care is taken when removing the curtain in fast flowing waters, ensure that all staff remain on the upstream face to reduce the risk of them becoming caught in the curtain.
- Once the curtain is removed from the watercourse it should be laid out and left to partially dry before rolling and removal from site.
- Face shields are to be removed from the structure downstream first to prevent them from catching in the canal flow.
- Frame sections are to be disconnected and cleared of any debris which may have caught on them during the installation.
- Once all elements are removed from the watercourse RN will inspect the bed both upstream and downstream of the works to ensure that no material or pollutants have been left.

Completion

- Once the watercourse is clean of frames the team will carry out any 'make good' repair work
- The equipment will be moved to and loaded onto the waiting vehicles or container.
- The vehicles will be loaded with the dam frames, scaffold and fabric.
- Once the site has been evacuated of equipment and personnel, checks will be made to ensure it is safe and tidy.
- The appropriate Client Supervisor/Manager will be notified that the demobilisation task has been completed.

WPP BRIEFING RECORD

Work Package Plan Number: 22-0036-WPP-001 Revision Number 01

RAF Pembrey Airbase

Tidal flap Survey & Inspection Works

Briefing given by:

Name	Position	Signature

By signing the below I confirm that I have received and understood the briefing for this WPP.

Print Name	Signature	Date & Time