

ALUN GRIFFITHS (CONTRACTORS) LIMITED

PROJECT: Menai Shellfish

METHOD STATEMENT NO. AGMS 057 Rev1

SUBJECT: Scour Protection Works

Originated by: Reuben Smith Date: 03/04/2025	Construction Approval: Date:	Environmental Approval: Date:	General Foreman Approval: Date:							
P.M. Acceptance: Date:		Work to commence Approval: Date:								
Revision	Date	Change	Revision	Date	Change					
0	03.04.25	First Issue	1	04.04.25	Input from H&S and Environmental advisors					
2	28.04.25		3	06.06.25	Update with new design					
	AGCL		Clients (Representative)		Other					
Distribution:	Project Manager	Site Agent	General Foreman	Site Copy	Project Manager.	Supervisor		H & S File		

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1.0 Introduction

This document provides the procedure and methodology that is to be followed whilst carrying out any works associated with the scour protection between the existing revetment and newly installed sheet piles

2.0 Responsibilities

Project Team Member			Method Statement [MS] Responsibilities
Name	Role	Mobile	
Owain Thomas	Regional Director (AGCL)	07966318184	Allocation of appropriate resources Appointment of suitable Subcontractors Delegation of supervision Monitoring progress and KPI
Joe Pritchard	Project Manager (AGCL)	07966387813	Allocation of appropriate resources Appointment of suitable Subcontractors Delegation of supervision Monitoring progress and KPI
Reuben Smith	Site Agent (AGCL)	07795099628	Procurement of materials. Supervision of works, including Safety, Quality, CEMP & management of subcontractors Site inductions
Barry Evans	Foreman (AGCL)	07812003083	Planning & use of resources Allocation and overall supervision of works Issue Work Permits Monitor safety & other aspects of the project IMP
Rowan Connolly	Site Engineer (AGCL)	07989412582	Setting out Assisting Site Agent Compilation of all records ITP/ QA
Peter Roberts	SHEQ Advisor (AGCL)	07812249479	Review Methods of Work & give advice Site inductions Audit works: safety, quality & CEMP

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3.0 Method/Procedure.

Prior to commencing the works:

- Site induction of all personnel associated with the works.
- Carry out a briefing to all employees associated with the work.
- AGC engineer to shall confirm the extent of the rock revetment works on site as well as the extent of the existing concrete Armourflex revetment in the vicinity of the SPS, as well as their interface, from the new topographic survey of the area.
- AGC to carry out topographic survey of area prior to excavating.
- CAT scan area of excavation. Clearly marking out all existing services, (above and below ground) providing protection as necessary. Permit where identified.
- Carry out trial holes to identify all existing underground services in area of excavation.
- AGCL engineer to issue permit to excavate/proceed clearly explaining locations of all services present.
- Ensure all plant/equipment to be used, uses bio-fuels and that daily plant/equipment checks are complete and that any defects on plant to be used is reported to a supervisor immediately to ensure repair/replacement prior to works commencing.
- Carry out method explanation to all employees associated with the work.

Tidal and beach working procedures:

When working on a tidal beach with excavators and large dump trucks, it's crucial to implement several mitigation measures to ensure safety, environmental protection, and operational efficiency. Here's a breakdown of what we will have in place as mitigation measures:

- Emergency Rescue Plan: Procedures for dealing with people or equipment getting stuck or stranded by the tide, including quick evacuation routes and safe zones.
- Environmental Incident Response plan: Procedure for all significant environmental incidents to be reported and recorded in accordance with the incident reporting standard HS.S.49
- Rescue Equipment: Equip the site with life-saving equipment like life vests, ropes, flotation devices, and potentially towing equipment if the risk of water exposure is significant.
- First Aid Kits: Ensure that well-stocked first aid kits are readily available, along with personnel trained in first aid.
- Communication: Establish a communication system (radios, mobile phones) with backups to maintain contact with all operators and crew, especially those working near the waterline.
- Tidal Charts: Display up-to-date tidal charts prominently, and ensure all workers are aware of tidal schedules with shift by shift daily briefings
- Tide Monitors: Assign personnel to monitor tide changes especially spring tides and weather conditions, with authority to halt operations if the tide becomes hazardous
- Training: Provide specific training to all operators on the risks associated with tides, quicksand, and the potential for rapid water level changes to include Spill response awareness training
- Inspection: Regularly inspect vehicles and machinery for proper functioning, especially brakes and emergency systems.

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- Movement Plans: Develop a movement plan as part of the site traffic management plan that outlines safe operating zones for vehicles, avoiding areas prone to flooding or unstable ground.
- Anchoring: In areas prone to soft sand or mud, have a plan to secure machinery against sinking or tipping over.
- Minimize Disturbance: Limit the footprint of the work area and avoid disturbing natural vegetation as much as possible.
- Vehicle Wash-Down: Implement wash-down facilities for vehicles leaving the site to prevent the spread of non-native invasive species and minimize offsite sediment transport.
- Spill Kits: Place spill response kits near all working areas to handle any oil, fuel, chemicals or hydraulic fluid spills quickly.
- Containment: Use drip trays or containment areas under stationary machinery to catch leaks.
- Waste Management: Implement a waste management plan that includes segregation and proper disposal of all debris and potential pollutants.
- Wildlife Monitoring: Have environmental monitors assess and document any local wildlife, especially sensitive species.
- Work During Low Tide: Schedule heavy machinery operations during low tide periods to minimize the risk of flooding and provide a stable work surface.
- Weather Considerations: Continuously monitor weather forecasts for storms or high waves that could affect the safety and stability of the working area.
- Access Routes: Design and mark safe segregated access routes for vehicles and personnel, ensuring they are above the high-tide line and avoid environmentally sensitive areas.
- Ensure use of bio fuels

Scour Protection Construction:

- All armour stone and will be loaded into the FTD at the loading area and transported across the beach and tipped into the material laydown area as highlighted in figure 2, the transportation of the material will be below the MHWS.
- The FTD will travel along the designated route from the ramp onto the beach at Beach Road East car park to the works area as seen in Fig 4.
- **HOLD POINT - During construction, the armour stone used for the scour protection works will be cleaned and jet washed prior to install to reduce the risk of any residual silt entering the sea.**
- Begin by excavating the marked out granular material from the work area to the specified depth (TBC with final design) and remove material via FTD off beach to be stockpiled in designated area, the transportation of the material will be below the MHWS.
- Continue by raising the ground level up to the specified level using the core ground material (exact material TBC by final design)
- As seen in figure 3, there are 2 sizes of rock to form the scour protection with the underlayer rock material being DN50,u=0.4m and the primary layer of rock being Dn50,u=0.62m.
- Before installing the rock, ensure that the HPS5 geotextile (or similar) has been laid out on top of the beach material.
- Begin by carefully placing the underlayer of rock using the grab attachment on the excavator into position and do so in 2 layers

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- Repeat the above process with the primary layer of rock until the whole area has been covered.
- Once the Scour Protection system has been constructed, carefully reinstate the surrounding beach material to the original level and to the original state prior to works being carried out using the stockpiled material.

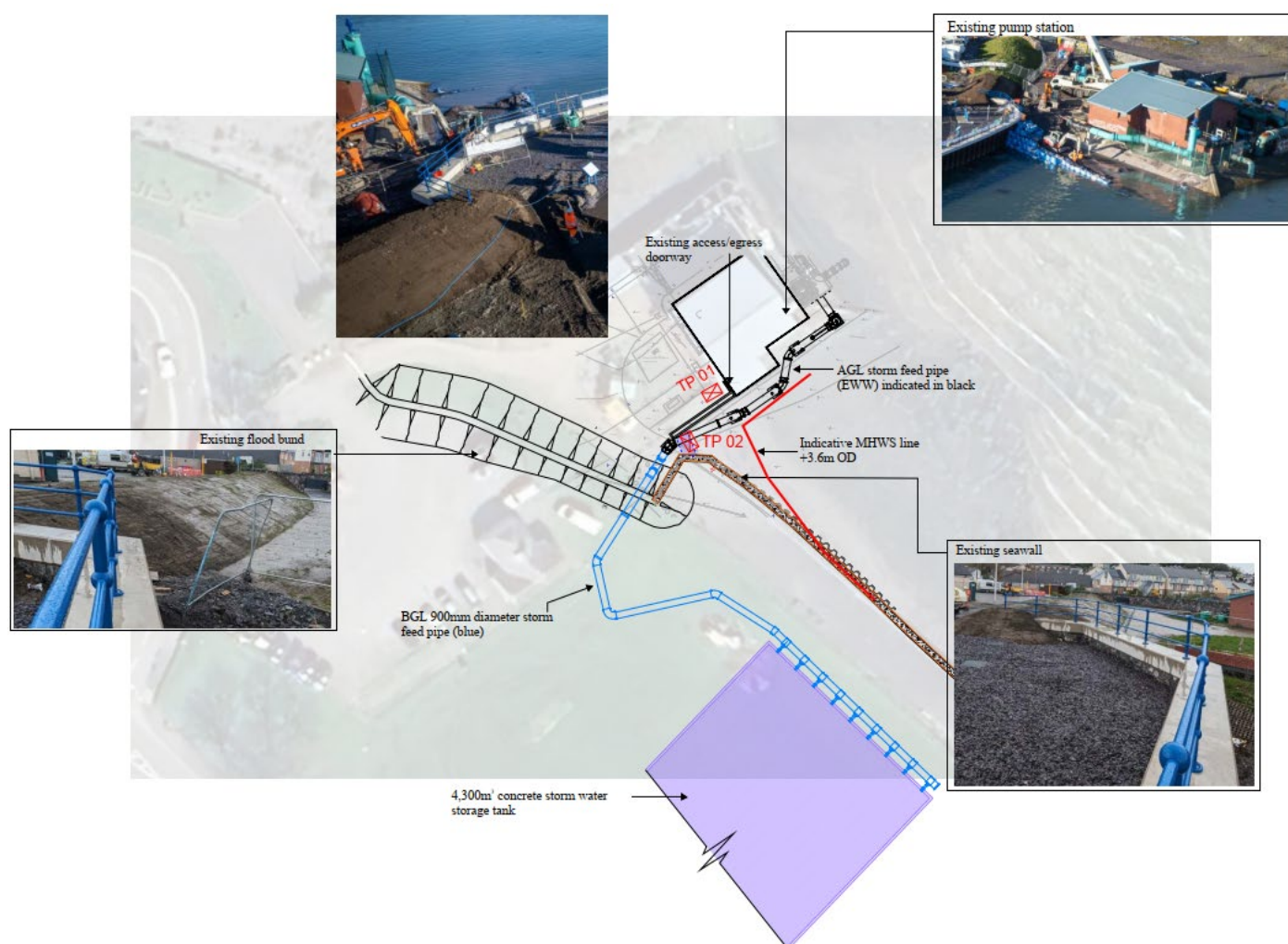


Figure 1, Showing the location plan of the scour protection works

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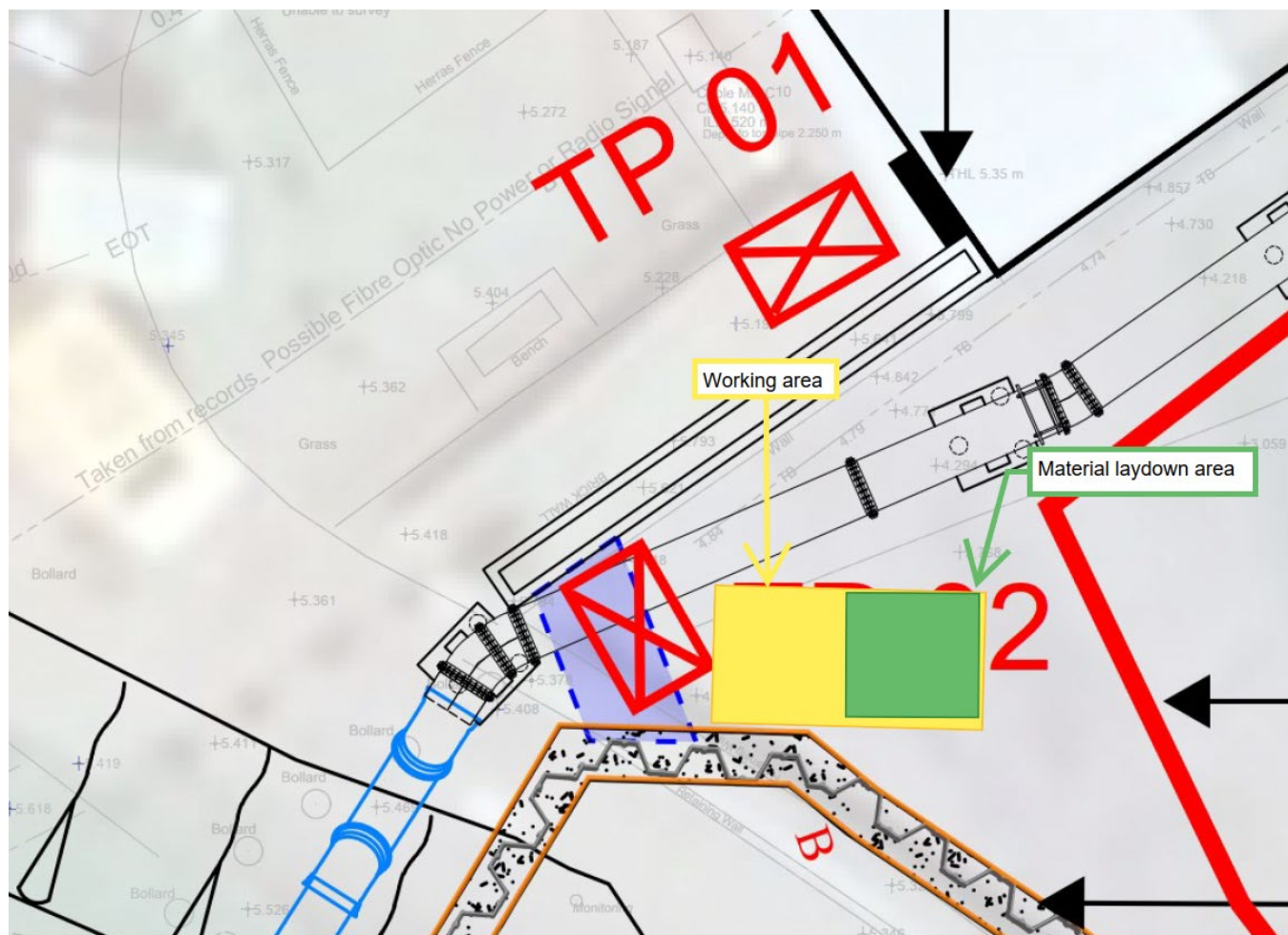


Figure 2, Zoomed in location plan of the scour protection works with working area marked up

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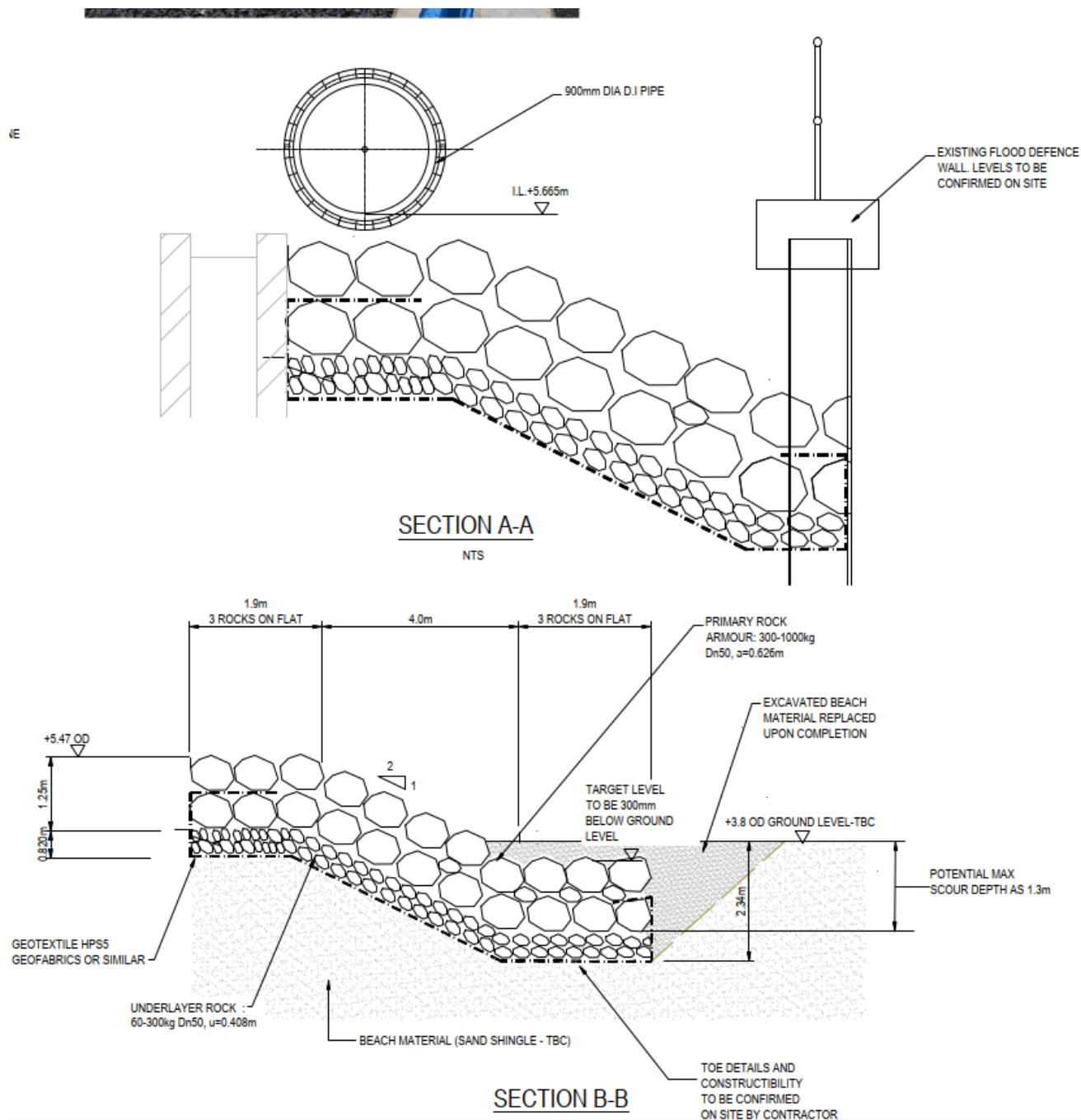


Figure 3, Design showing cross sections of the scour protection to be constructed

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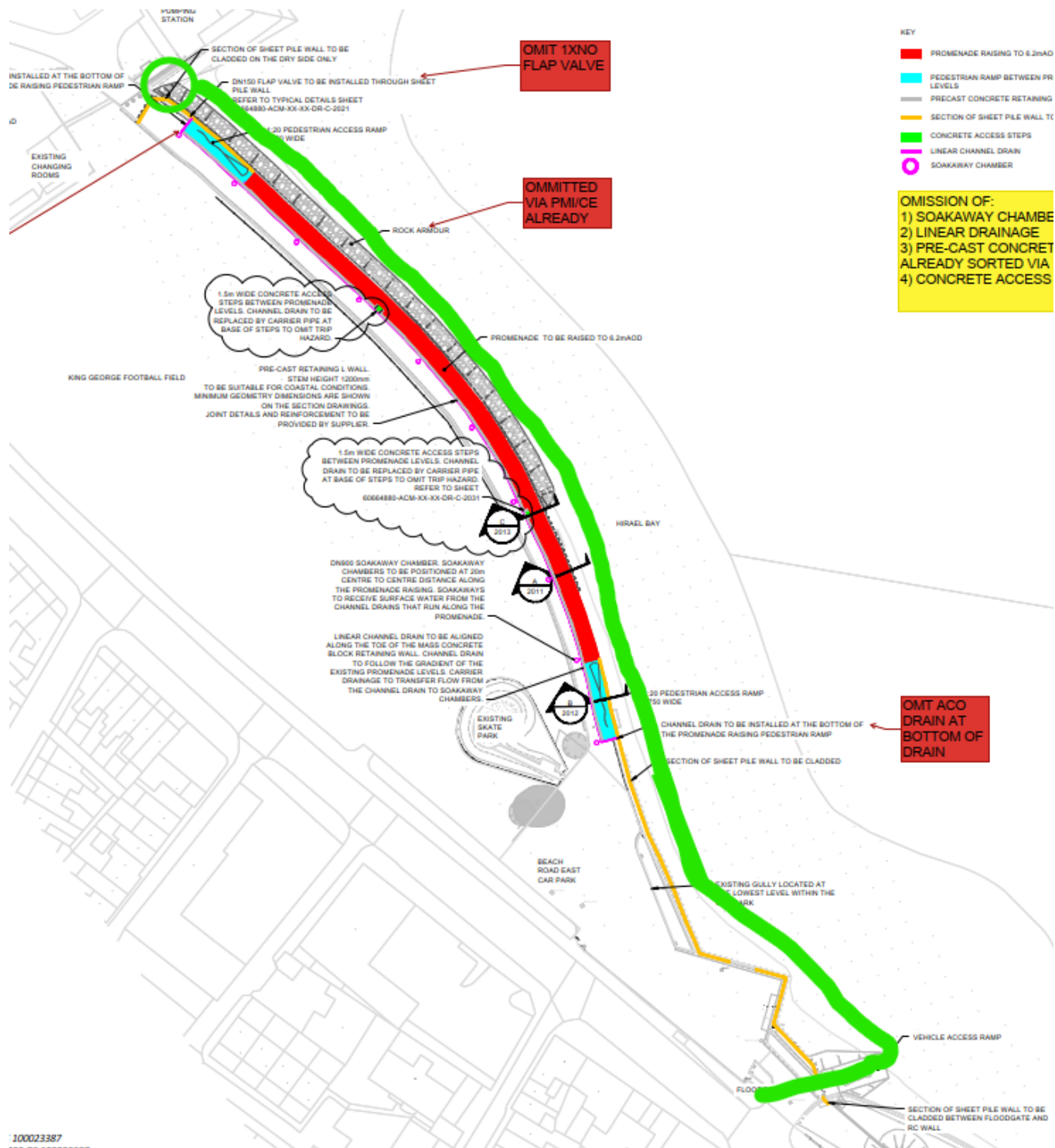


Figure 4, Showing the route to transport materials from Beach Road East Car Park to work area in green

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4.0 Equipment

A list of required plant is listed below, other plant and equipment may become apparent as the scheme progress.

- CAT and Genny
- Insulated hand tools
- Compound welfare units COSHH and stores facility,
- Emergency response items (i.e., spill kits, plant nappies, first aid kits, fire stations and extinguishers etc.).
- Confined space emergency response kit(as stated in the rescue plan)
- Heras fencing and all associated clips and feet etc.
- Tracked Excavator with demolition cab
- Forward Tipping Dumper

5.0 COSHH

- Diesel/Petrol & oil
- Grease
- Concrete
- Toilet effluent.
- Spray Paint
- Mould Oil

6.0 ENVIRONMENTAL

- All excavated material to be stored in the main site compound away from the work area
- Disposal of Surplus Materials and waste to be in conformance to the Site Waste Management Plan
Noise levels shall be minimized where possible and all works will be within the site daytime working hours
Cleaning down and jet washing of armor stone prior to use
- Refueling of plant to be carried out in accordance with the most recent approved procedures and 30m away from any water course.
- Spill kits will be positioned on site and an incident response plan put in place.
- All fuel will be stored in a secure, double bunded container (110% capacity) and all equipment containing fuel shall be stored on a plant nappy.
- Any spills will be reported immediately by the works supervisor to the Environment Advisor in line with the site environmental incident response plan
- Waste management will be conducted in accordance with the Site Waste Management Plan.

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7.0 PPE Requirements

Mandatory PPE Requirements		
☒ Safety Helmet: (Mandatory) EN397 or EN12492.	☒ Safety Footwear: (Mandatory) EN345.	☒ Hi Visibility Clothing – long sleeve shirt/jacket & trousers (Mandatory) EN471:2003 Class 2 & GO/RT 3279, EN471:2003 Class 1.
☒ Safety Glasses: (Mandatory) EN 166:2001.	☒ Work Gloves: (Mandatory) EN388.	
Task Specific PPE Requirements		
☒ Hearing Protection: Task: working near plant	☒ Harness: Full Body Harness with a D Buckle Task: Working in Confined Space	☐ Fire retardant overalls: Task: Breaking ground
☒ Respiratory Protection/Masks: Escape Sets, Gas Monitors Task: Working in Confined Space	Lighting: Head Torch	

8.0 Emergency Procedures

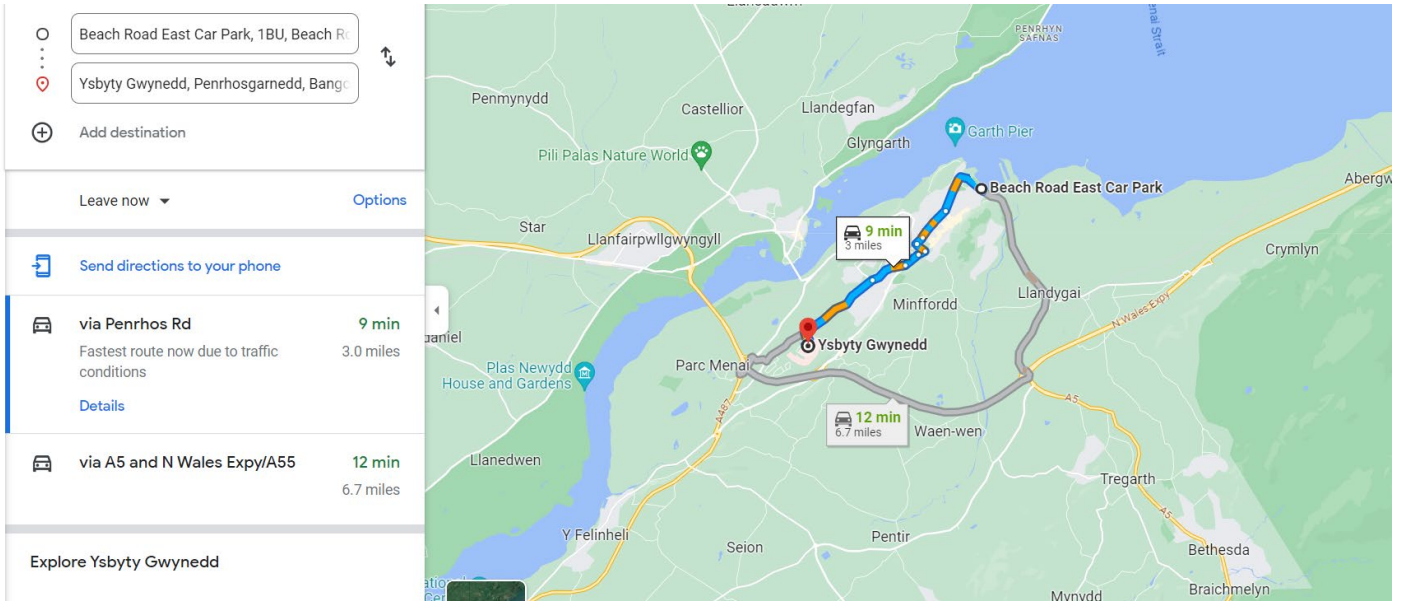
Refer to Rescue Plan HS.F.115

Any accidents or near misses must be reported to the Site Supervisor. Emergency contact numbers are listed above. Site address - Beach Road East Car Park, Beach Rd, Bangor LL57 1DG

In the event of a serious incident, site staff shall contact emergency services on 999 and provide location information as outlined above.

Nearest A & E - Ysbyty Gwynedd, Penrhosgarnedd, Bangor LL57 2PW

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9.0 Appendices

Appendix A: Risk Assessment.
 Appendix B: Method Statement Briefing

APPENDIX A

RISK ASSESSMENT

Contract Name:	Menai Shellfish	Sheet No.	12
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Assessment Details

Site Name & No.	Menai Shellfish – 100429	Assessor Name	Reuben Smith
Reference	RAMS 057	Assessment Team Members	TBC
Is this Confidential	No	Assessment Date	03/04/2025
Activity Description	Scour protection works on beach		
Activity / Task		Number of People Exposed	4
Project	Menai Shellfish	List those at Risk	Operatives
Description		Is this an Acceptable Risk?	Yes
Precise Location	Between the existing pumping station revetment and the sheet piles	Review Date	
Date Record Created	11/03/2025	Reviewed By	

15 +	Red Risk	Unacceptable level of Risk works do not commence. Employ stringent controls and reassess risk until reduced to an acceptable level.
5 - 12	Amber Risk	Risk must be mitigated with controls. Works are permitted to commence if stringent controls are in place.
1 - 4	Green Risk	Acceptable level of Risk for work to commence, however still investigate to employ further controls when reasonably practicable.

Severity Rating	Likelihood Rating				
	1	2	3	4	5
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5

Hazard Identification	Who is at Risk	Initial potential for harm			Action Required (Y/N)	Control Measures	Residual potential for harm		
		L	S	R			L	S	R
Slips, Trips and Falls	Employees	3	2	6	Y	- Ensure all walkways and work areas are free from trip hazards. - All personnel to wear laced safety footwear - No walking on batters, use designated access routes. Keep access routes clear. - Good housekeeping to be maintained at all times - Park vehicles at suitable location to welfare facility. - Provide suitable fencing, signing and guarding to the working area as necessary. - Use designated/ proper access to enter and exit plant. - Provide edge protection to vertical sides when working at height above or below ground. - Work area to demarcated and appropriately signed - Attend Daily Briefing - POWRA to be carried out	1	2	2
Manual Handling Injuries	Employees	3	3	9	Y	- Use a mechanical aid where possible - Split/share loads where possible - Only lift what is comfortable for you as an individual - Employ manual handling practices and wearing of gloves - Do not place limbs/digits on crush/pinch zones/line of fire	1	3	3
Use of hand tools causing: Cuts or piercing the skin	Employees	4	3	12	Y	- Follow manufacturer's instructions - Apply task specific PPE as required (Level 5 Cut Rated Gloves) - Do not use damaged/faulty equipment	1	3	3

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						Keep hands clear of sharp/moving components			
Lifting Operations	Employees	3	3	9	Y	- Ensure that the lifting equipment is correctly inspected and correctly rated to be used with the load. - In date LOLER Certification - Lift plan - Plant checks - Training	1	3	3
Contaminating water course/marine environment/ soil						- Careful excavation in good weather / low tide conditions - Consider where digging is done in rock revetment area and refer to GI information - Soil sampling and testing to be conducted - Frequent Vehicle and plant maintenance and cleaning regime - Noise mitigation methods employed as required. Noise monitoring - Cleaning down and jet washing Armour stone prior to installation. Regular Inspection to ensure clean and absence of any INNS.			
Emission of noxious gases									
Emission of sediment plumes									
Emission of noise	Public.								
Use of fossil fuels	Employees.	4	4	16	Y	- Consideration of use of silt curtains / bubble curtains in marine / water side of stone to prevent water pollution of marine environment - Refuel at least 30m away from watercourse - All fuel bowsters to carry adequate spill kit and granules, and funnels. - Biofuels to be used in all pieces of plan/equipment - Refuelling only to be carried out by designated person. - Observe Traffic Management Plan, Dust management, observe agreed working hours - Establish any exclusion zones / mitigation from shadow Habitat regulations assessment findings conducted by ecologist	1	4	4
Increased noise, traffic, dust, mud, light, working hours	Environmental.								
Any risk to nearby habitats / species. Any impact on birds, marine mammals, and nearby shellfish/mussel areas in the area of works									
Potential for INNS									

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						Application of any controls featured in Water Framework Directive Assessment findings			
Movement of Heavy Plant/Machinery resulting in: - Plant Collision - Crush of personnel	Employees	3	5	12	Y	- All plant only to be operated by trained and competent personnel (CPSC/NPORS card required) - Full PPE to be worn including high visibility full sleeve and trousers. - All plant to hold all necessary test certificates (check on arrival to site). - All plant to be fitted with and use warning lights on top of their vehicle. - All plant to be fitted with and use audible reversing alarm. - Seat belts to be worn at all times. - Ganger/ Supervisor will agree position for the operation during the activity. Personnel to remain in 'line of sight' of the plant operator at all times. Plant operator must stop immediately when he is not visible at the Safety Zone. - Pre use inspection completed by operative. - Do not use plant if broken or faulty. - Use designated haul roads. - Establish exclusion zone and place pedestrian barriers around zone. - Site speed limit of 5mph adhered to at all times - Banksman/Slinger to remain in eye contact with driver at all times.	1	5	5
Transportation of materials/equipment resulting in: - Overturning of plant - Dust Pollution	Employees	4	5	20	Y	- All plant to be operated by trained and competent personnel only (CPCS/NPORS) - All plant to be checked on arrival to site and to hold all necessary test certificates. - Always travel with skip in horizontal position. - Seat belt to be worn at all times.	1	5	5

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						• All plant to be fitted with warning lights on top of their vehicle. • Dust suppression to be used during periods of dry weather. • Site speed limit of 5mph to be adopted • Suitable well maintained haul roads to be constructed between each working area. • Designated route to be used during transportation of material. • Plant to be used within their capabilities when travelling / working on uneven or steep ground.			
Open Excavations Collapsing	Employees	4	5	20	Y	• All excavations to be battered or stepped back (When exceeding 1.2m or if conditional demand) • If not possible to batter or step back the excavation, shoring method to be used. • Never enter excavation if possibility of sides to collapse. • Excavation to be inspected prior to entry and periodically in accordance with site procedures • Ensure suitable access and egress. • Ensure open excavations are covered to prevent ingress of species • Install edge protection in form of fencing to prevent vehicles driving into ditch. • Ensure that site perimeter fencing is in place to prevent unauthorised personnel onto site. • Safe working distance for excavator to be agreed with supervisor • Use of trench boxes for excavation of sewer diversion	2	5	10

PERSONAL PROTECTIVE EQUIPMENT

The following PPE will be required for the work activities stated. Ensure that the correct type of PPE is selected.

Head Protection	X	Eye Protection	X	Hi-visibility clothing	X	Fall Arrest	X	Full Body Harness	X
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PERSONAL PROTECTIVE EQUIPMENT

The following PPE will be required for the work activities stated. Ensure that the correct type of PPE is selected.

Foot Protection	☒	Eyewear	☒	Gloves	☒	High Visibility clothing	☒		
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Review and Monitoring

This assessment will be reviewed in the light of further information becoming available or a change in conditions and/or circumstances to render it no longer relevant. In any event this assessment will be reviewed after 12 months to ensure that it remains valid.

Information to be Provided to Employees

- Information contained in this assessment.

The following persons have received and understand the information contained in this assessment.

Name	Signature	Date	Name	Signature	Date

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APPENDIX B

METHOD STATEMENT BRIEFING RECORD

METHOD STATEMENT EXPLANATION FORM

Method statement	Scour Protection Works
Method Statement No.	AGMS 057
Date of explanation	
Explanation given by	
Topics covered:	Method statement explanation including toolbox talks on:

No.	Attendee	Signature	No.	Attendee	Signature
1			14		
2			15		
3			16		
4			17		
5			18		
6			19		
7			20		
8			21		
9			22		
10			23		
11			24		
12			25		
13			26		

Signature of person giving explanation:

Signature of attendee confirms understanding of explanation given