Inland and Coastal Marina Systems	**ICMS Marina Method Statement**	**QR089**
		Rev.01

Project No.	**S2115**		
Project Name	**BAE Systems Pontoon Installation**		
RAMS Title	**Installation of Breakwaters, Pontoons and Fingers**		
Rev.	**Date**	**Version Details**	**Revised by**
00	14/02/22	Draft	Kevin Reid
Acceptance / Approvals	**Name**	**Signature**	**Date**
Originator	Kevin Reid		14/02/22
Reviewed by			

Contents

1 Description of the Works

1.1 Work Involved

The scope of works for the contract involves the following:

- Installation of 6nr pontons 9 to 12m long, 2.0 width (to form 4m total width), moored on 3nr H-piles fixed to the quay wall
- Installation of 28x1.2m galvanised gangway, delivered to site in 2nr 14m lengths

It is envisaged that the works will require the use a crane to unload pontoon and gangway sections from delivery vehicles and lift units from the land into the water. A crane will also be required to unload the H-Piles and shore platform from delivery vehicles and lift into position for fixing.

1.2 Site Address	BAE Systems Glasgow Scotstoun South Street Scotstoun G14 0XN Glascoed, Glasgow
1.3 Duration of Works/Project	2 weeks on site (Approximately)
1.4 Proposed Start Date	TBC

2 Construction Methodology

2.1 Work Site Set Up

1. ICMS have been employed as a contractor for and will be working on a site controlled by BAE Systems. ICMS must therefore adhere to all site induction, management arrangements for the lift, use of welfare etc. The site induction must be undertaken before work commences.
2. All staff/operatives will be briefed on the extent and nature of the works and any special safety requirements identified within the body of this document upon arrival on site by the ICMS Site Supervisor
3. Each Operative/Supervisor will have read and signed this method statement. All workers will be made aware of the particular issues involved in this project.
4. ICMS will take control of a section of the area to complete the works. The work area will be cordoned off/manned to ensure that there will be no interference from the public. All operatives to wear life jackets while working over or next to water.

5. All personnel to wear life jackets when working close to and/or over water. No operatives to work on their own over the water.

2.2 Access Requirements

1. All pontoon work to take place at the site with pontoon units being unloaded using a mobile crane. A Lift Plan will be supplied.

2. All material will be loaded at ICMS manufacturing base in Ireland. Prior to departing the load will be securely stowed and strapped to the lorry, lorries will be loaded in a predetermined schedule to be delivered to site as required so as to limit the amount of storage on site.

2.3 Sequence of Works

1. The area on the land where the installation work is being undertaken is to be cordoned off and an exclusion zone set up. Signage is to be strategically posted warning of dangers associated with unauthorised persons entering the area.

2. The area on the waterside where the installation work is being undertaken is to be cordoned off with buoys and an exclusion zone set up.

3. A safety boat will be located in the water. This boat will be positioned using the mobile crane.

4. Each operative, supervisor, or manager shall be fully site inducted in strict accordance with agreed site-specific induction procedures prior to commencement of any works or role on site.

5. Offloading the pontoons will take place on site in Scotstoun.

2.4 Craneage of Pontons & Gangway

1. A 50T crane will be used to unload the pontoons and gangway etc. The area where the installation work is being undertaken is to be cordoned off and an exclusion zone set up.

2. The crane driver is responsible for the safe setting up and operation of the crane as per the manufacturer's instructions. A thorough inspection will be undertaken by the crane supplier prior to putting into use (A copy of this has to be available on site at all times). The crane driver must operate the crane within its duties, should the crane driver require the trailers to be repositioned he must contact the relevant ICMS crew foreman.

3. The Crane Operator is responsible for ensuring that the appropriate lifting equipment is used for the required lifts.

4. The condition of lifting equipment must me continuously monitored by all ICMS Operatives and any concerns should be reported immediately to the relevant ICMS Forman, Safety Officer or Project Coordinator.

5. Generally, communication between the Slinger/signaller (Identifiable by Orange Hi Vis Vest) should be by way of hand signals, when this is not practical or appropriate hand-held radios will be used.

6. All lifting activities must cease in high winds. Crane Operator to advise on this.

2.5 Deliveries

1. The driver is responsible for the safety of the load until it arrives to site.

2. Prior to departure from ICMS yard the driver must check the load and report any non-conformity to the loading supervisor.

3. The driver has the authority to refuse to move the load if not satisfied the load is safe.

4. It is the responsibility of the driver to fix securing chains or straps and ensure they are properly tensioned.

5. When securing the load, the driver must ensure that the units are adequately protected to prevent damage. Chain Guards may be used.

6. It will be the responsibility of the ICMS Supervisor to direct the loads to the appropriate location on the site.

7. On arrival to site, it is responsibility of the driver to ensure safe access is available and to position the load in accordance with the Installation crew supervisor's direction.

8. The driver has the authority to refuse to position his vehicle in any location, which he deems to be unsafe. When in position the driver will remove the security chains or straps and responsibility for the load passes at that time to the ICMS Crew Foreman.

2.6 Offloading Pontoons & Gangway

1. A visual inspection will be carried out by the ICMS Foreman to check for any defects before unloading each unit.

2. Offloading is carried out under the supervision of the ICMS Site Foreman.

3. The area will be barriered off/manned where the units are being offloaded.

4. A 2ton sling is to be attached to the crane hook. This will keep the inertia reel below the hook and clear of lifting chains etc. The inertia reel is then attached to the sling via a carabiner. A Tag Line is then connected to the inertia reel. This will all happen on ground level.

5. The crane driver will then bring the crane hook over the delivery vehicle.

6. To prevent the crane hook from being moved the crane driver must apply the slew brake on the crane. The Slinger signaller must also be at all times be in verbal communication with the crane driver. The crane driver is only to receive instructions from the slinger / signaller.

7. The slinger / signaller will then pull the Tag Line towards him and will connect the inertial reel to his harness.

8. The slinger / signaller will then remove the Tag Line so it does not present a tripping hazard.

9. The slinger /signaller then climbs onto the bed of trailer via the access ladder.

10. The fall arrest system is attached to the crane hook for all of the time that the slinger / signaller is on the trailer.

11. The slinger / signaller then connects the lifting chains to the items being lifted.

12. The slinger /signaller then comes down the ladder from the trailer and will disconnect from the inertia reel.

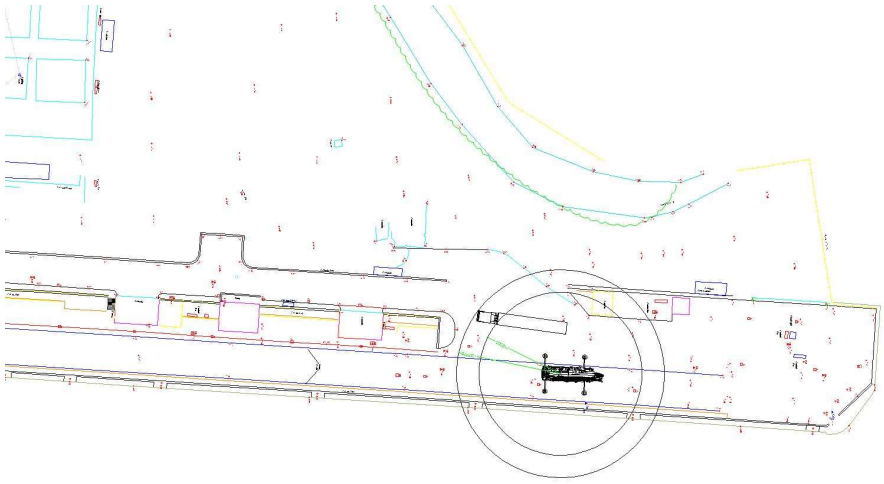
13. He will then connect the Tag Line to the crane hook.

14. The lift can them commence.

15. Units may be offloaded only by certified chains and lifting equipment.

16. The slinger/signaller must ensure that the safety clip is closed on the hook before any lifting takes place.
17. The slinger/ signaller attaching the lifting attachment must signal to the crane driver to proceed with the lift when the lifting attachment has been securely attached. Where the crane driver has restricted view banking will be by two-way radio.
18. The slinger/ signaller must ensure that nobody is walking or working underneath the path of the unit during the lift.
19. No one must ride on the units during the lift.
20. The slinger/signaller must be safely down from the trailer before the load can be lifted.
21. Tag lines are to be used to guide/control the loads while off-loading.
22. Some of the pontoons maybe unloaded along the quay wall to get the trailers off loaded and allow them leave site.

A proposal for location of setting up the mobile crane is illustrated below.



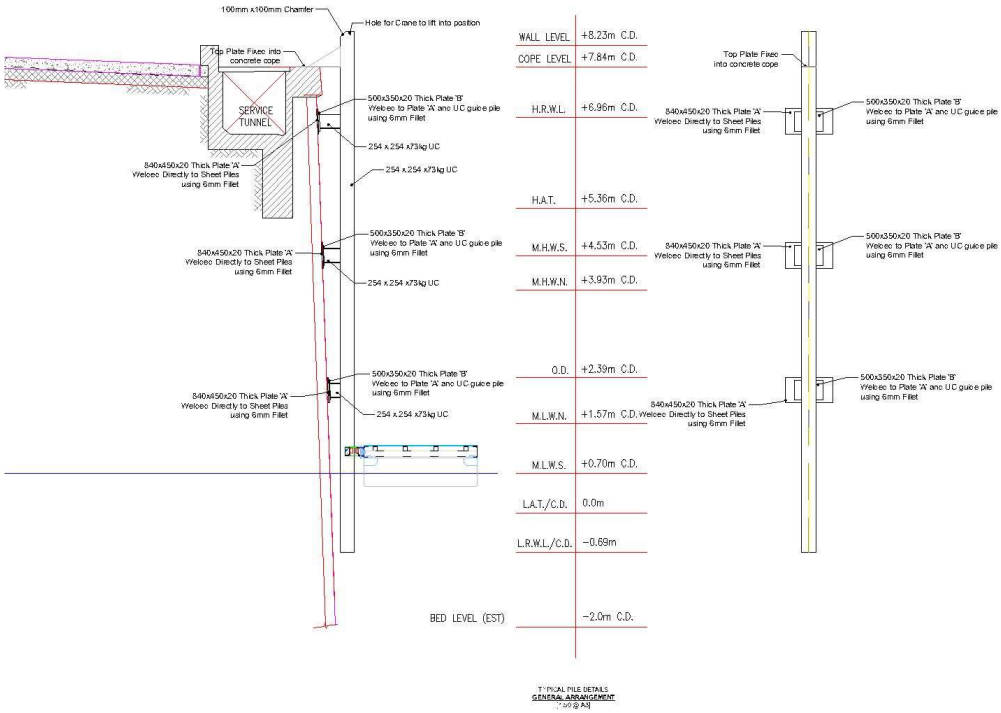
2.7 Installation of Piles

1. Pile lifted by the `head of the pile, with tag line connected.
2. With use of banks man suspended pile to be positioned on quay wall.
3. Top vertical fixings holes to be drilled with reciprocating hammer drill.
4. Once holes drilled, hole to be cleaned by way of air `puffer`
5. Expansion bolts placed in holes and tightened till secure.
6. Crane removed from head of pile.
7. Piles to be positioned in the vertical position with use of spirit level in both planes.

8. 3 no brackets to be welded to the sheet pile wall as per diagram below.

9. Steel to be ground back to clean steel prior to welding.

10. On completion of welding welds and exposed steel to be painted with suitable anti corrosion paint such as Zinc coating.

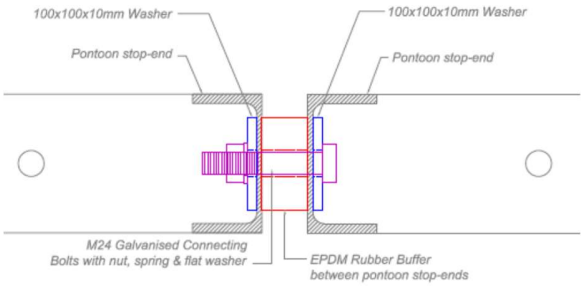


2.8 Installation of Pontoons

1. Pontoon frames and the floats are delivered pre-assembled. Similarly Finger frames and the floats are delivered to the site pre-assembled. Both Pontoon units and fingers are delivered to site on articulated Lorries with 40ft trailers.

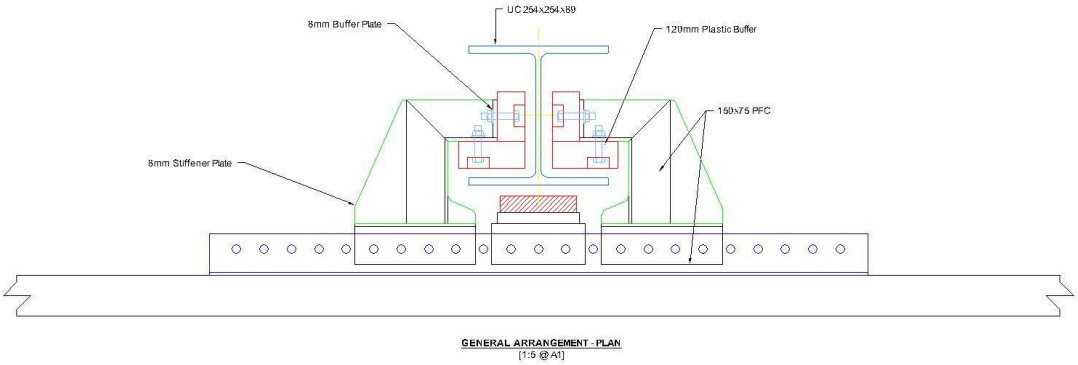
2. A number of pre-assembled pontoons are lifted into the water with slings or chains, using the mobile crane, and then unhooked from the crane in the water at each stage.

3. When units are in the water, they are then connected to the other units using our standard connector system, comprising M24 galvanised bolts with locknuts, through 50mm Ø rubber buffers. All connectors are checked to make sure they are tightened. The completed walkway unit is now ready to be towed into position using the workboat and anchored to the piles via a galvanized pile bracket and hard plastic buffers.



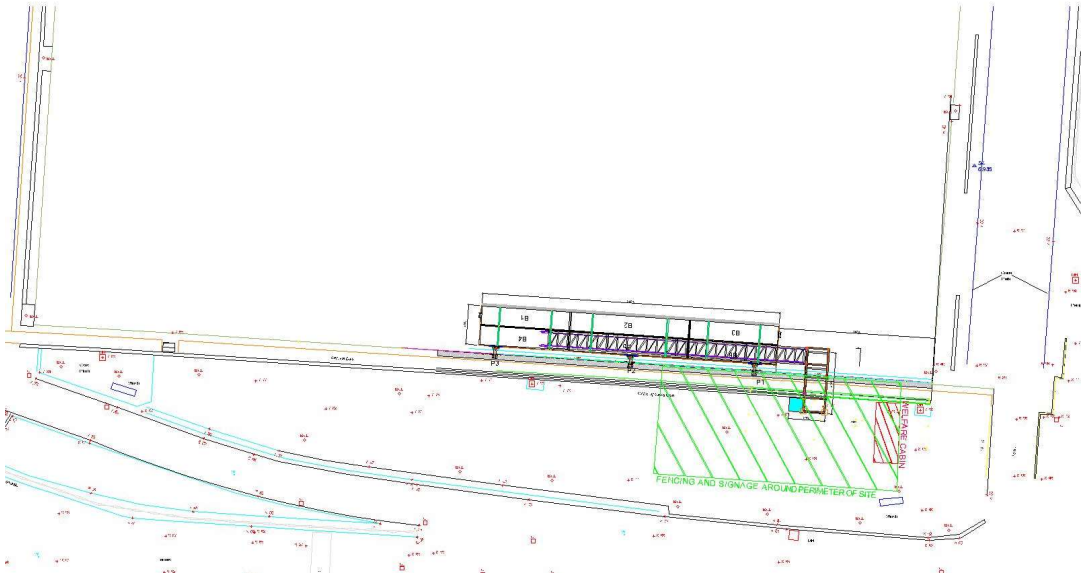
4. Once the pontoons are all connected, they will be towed from the unloading site to the installation site and into position.

5. They will be secured to the installed piles using our pile guides.



6. All deck fixtures, including safety ladders and mooring cleats are fitted at this stage using galvanised bolts.

7. The final layout of the pontoons to be as below.



2.9 Installation of the Gangway

1. The 28m x 1.2m steel Access Gangway will be delivered to site in two pieces.

2. The gangway will be lifted from the delivery vehicles and placed on the existing quay structure for assembly. The sections will be bolted together using M24 galvanised bolts and locknuts. Once fully assembled, the gangway is then lifted into place using the mobile crane. The Gangway is then bolted onto the shore side plinth on the land end using suitable chemical/mechanical anchor bolts, and allowed to roll on the pontoon end.

3. When finished the work area will be tidied and any waste removed from site

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3 Project Personnel

Title	Name	Contact No.
Project Manager	Brian Curley	+353 87 981 6689
Operations Manager	Michael Conneely	+353 87 415 9104
Safety Officer (In house)	Shannon Mc Dermott	+353 057 9153963
Project Engineer	Kevin Reid	[redacted]

Installation Crew

Title	Name	Company
ICMS Supervisor	TBC	
ICMS Operative	TBC	
ICMS Operative	TBC	

Note: Site Supervisor to cross out any ICMS personnel not present on site

3.1 Competence and Training Requirements

All ICMS Marina staff before work commences will have required adequate training to carry out their daily duties in a safe manner. As the project develops additional training maybe required for certain tasks to be carried out in a safe manner.

All ICMS staff have undergone the following training where applicable:

- ICMS Ltd Induction
- Manual Handling
- Abrasive Wheels
- Working at Heights/Safety Harness Training
- Forklift Training
- Ladder Safety
- Powerboat Cert. – ISA
- Open Water Diving - PADI
- Safe Pass Course – SOLAS
- Telescopic Handler - SOLAS
- Slinger / Signaller – SOLAS
- Mobile Access Tower – SOLAS
- MEWP – IPAF or C&G
- Occupational First Aid
- Slinger / Signaller - CPCS
- Crane Supervisor - CPCS

4 Plant & Equipment

All equipment and tools on site will be of sound construction and will meet the statutory requirements applicable to those tools or equipment. Refer to risk assessment specific control measures for tools and equipment.

All lifting gear is to be certified. Copies of the certificates are to be made available for inspection and forwarded to ICMS before entering the site. Operators of all the plant will fill in weekly inspection sheets detailing any defects if any.

The following is a list of tools and equipment that will be required on site:

ICMS Van	Hand Tools	Electrical Tools
Mobile Crane		

4.1 Chemical Use – MSDS

The following chemicals maybe used in the duration of the works: (See Section 9 for a copy of the MSDS)

5 Personal Protective Equipment (PPE)

All ICMS Marina staff are to wear the PPE as described in this section. All life jackets, safety harnesses, lanyards and inertia reels to be used for the necessary tasks. The life jackets are to be certified annually and the safety harnesses, lanyards and inertia reels are to be tested every six months. A documented inspection form is to be filled in every week for any faults if any. The users will carry out a visual inspection each time they are been used.

All ICMS operatives will be issued with, but not limited to, the following standard PPE:

Hard hat – BS EN 397	Gloves (Task specific) BS EN 388	
Hi Vis Vest – BS EN 471	Safety Glasses – BS EN 166	
Safety Boots – BS EN 388	Life Jackets – EN 396/1993	
Also available for task specific working:		
Ear Plugs / Defenders	Inertia Reel	Dust Masks
Harness	Lanyard	

6 Emergency Plan

If an emergency does arrive, the ICMS Supervisor shall contact the following persons:

- *Emergency Services, on 999 or 112 and request Fire Brigade or Ambulance Services*
- *Project Manager*

All accidents/incidents, near misses, unsafe acts, unsafe conditions and NCRs are be reported to ICMS and Safety Officer.
All incidents will be investigated as per Q 040 Incident Investigation and documented on QR 049 Incident Investigation Report.
NCRs will be dealt with as per Q 016 Non-Conformance & Continuous Improvement and documented on QR 020 NC & CI Record.

6.1 Emergency Numbers

Emergency	Number	Information
Fire Brigade, Ambulance & Police	999/112	Ask for the emergency service you require (Ambulance, Fire Brigade or Police)

ICMS First Aider (On Site)		TBC
ICMS Office	+353 57 915 3963	Queen St. Banagher, Co. Offaly.
ICMS Safety Officer	+353 057 9153963	Shannon Mc Dermott
ICMS Operations Manager	+353 87 415 9104	Michael Conneely
Hospital	0141 201 1100	Queen Elizabeth University Hospital 1345 Govan Rd, Glasgow G51 4TF
Garda Station	999	923 Helen St, Glasgow G52 1EE

6.2 Recovering someone from water

- Never jump into the water to save someone
- First reach for the person, be sure to hold onto someone or something stable while you are reaching. Do not lean over the water while you are trying to save someone. Crouch or lie down to avoid being pulled into the water.
- If you cannot reach throw out a life ring with floating throwing rope to the person, such lifebuoys will be available on the pier.
- If you cannot reach or throw, use the safety boat to access the person if it is safe to do so. Approach the victim slowly with no wake. Help the victim aboard the vessel.
- Call emergency services if you cannot reach, throw or access the person by safety boat
- If the person can be recovered from the water, keep the casualty warm and get medical attention as soon as possible.

7 Tide Tables

TBC when dates Installation Dates confirmed

8 Method Statement Briefing Sheet

Description of the Work	BAE Systems Pontoon Installation
Location	BAE Systems, Scotstoun, Glasgow
Date	

This method statement, for the works and location described above, has been briefed to me, and I fully understand what is required of me.

Name	Signature	Company