

# METHOD STATEMENT

Sea Defences Section 19C&D Main Works approx MP93 – 94.75

<b>Method Statement</b>	<b>MS ID: Coleraine to Derry Sea Defences 19C&amp;D Main Works</b>	<b>Rev: 0</b>	<b>Issue Date: 29/05/2026</b>
<b>Project</b>	Sea Defence Repairs		
<b>Title</b>	<b>Method Statement for sea defence repair</b>		
<b>Description of project</b>	Sea Defence Repairs		
<b>Works to be undertaken within this method statement</b>	<ul style="list-style-type: none"> <li>• Mobilisation</li> <li>• Stockpiling of materials</li> <li>• Travel to site</li> <li>• Devegetation</li> <li>• Clear existing area/failed defences</li> <li>• Re-grade embankment slope</li> <li>• Installation of new rock armour sea defences</li> <li>• Demobilisation</li> </ul>		
<b>References</b>	<ul style="list-style-type: none"> <li>• NIR Rule Book</li> <li>• NIR Working Timetable</li> <li>• NIR Working Operating Notice and Supplementary</li> <li>• NIR T2/Redzone Document</li> <li>• NIR Access Register</li> <li>• Subcontractor RAMS</li> <li>• Tide Times</li> <li>• PEA document</li> <li>• BS EN 13383-1-2013 Armour Stone</li> <li>• Construction Drawings</li> </ul> <p>Refer to NIR Safety Hub for latest versions of reference documentation</p>		
<b>Lead Responsibility</b>	Project Manager:		
<b>Contractors Personnel on site</b>	<b>Site Manager</b>	<b>Emergency Contact Number</b>	
	Dayshift Site Manager/Foreman		
	Nightshift Site Manager/Foreman		
	PICOP ES/s EO TSC/s Skilled Operative/s Plant Operator/s Safety Boat Crew RRVO/s RRVC/s Engineer/s Ecologist/ECOW		
<b>Hierarchy of Safety</b>	<p><b>Off-track working &gt;3m from the line:</b> Works in the compound with lineside fencing</p> <p><b>T3 track possession:</b> All works to take place under T3 protection</p> <p><b>T2 track possession:</b> T2s can be used during dayshifts for inspection purposes</p> <p><b>Red zone working:</b> N/A</p>		
<b>Site Rules</b>	<ul style="list-style-type: none"> <li>• NIR Rule book to be adhered to at all times and is to take precedence over any details within this document.</li> <li>• Where works are deemed unsafe by anyone on the team, all activities must cease immediately and these will be reassessed, with approval by the site foreman/ lead responsibility, before they can recommence.</li> </ul>		

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Limits of Site	<ul style="list-style-type: none"><li>• From access point to structure and within NIR boundaries and public areas.</li><li>• Additional Storage area at compound to be agreed between NIR &amp; Landowner for temporary use.</li></ul>
Site Conditions	<ul style="list-style-type: none"><li>• The TSC will inspect each location/site of works. From this inspection they will note all factors affecting condition of the site and access to and from the works area, in order to create the safe system of works.</li><li>• The TSC must then chose the correct safe system of works to use for this location.</li><li>• This information must be relayed to the remaining personnel through the TSC briefing which is to be carried out onsite.</li></ul>

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Plant & Equipment	<ul style="list-style-type: none"> <li>• Drip Trays</li> <li>• Easi Blocs</li> <li>• ES Kit</li> <li>• Excavator Grab</li> <li>• Excavator Mounted Compaction Plate</li> <li>• First aid kit</li> <li>• Fuel Bowser</li> <li>• Harnesses and Fall Arrest Lanyards</li> <li>• Hedgecutter</li> <li>• Heras Fencing</li> <li>• Lifejackets</li> <li>• Life Ring &amp; Grab Rope</li> <li>• Lifting Chains/Slings</li> <li>• Menzi (Excavator)</li> <li>• PICOP Kit</li> <li>• Plant Nappies</li> <li>• RRV w/trailer &amp; box</li> <li>• Safety Boat</li> <li>• Spill Kits inc Floating Booms</li> <li>• Strimmer</li> <li>• Telehandler</li> <li>• TSC kits</li> <li>• Tilt Rotator Hitch</li> <li>• Tower Lights</li> <li>• Vibrating Plate</li> <li>• Water Bowser</li> <li>• Welfare Van</li> </ul>
Materials	<ul style="list-style-type: none"> <li>• Geofabrics HPS4 Coastal</li> <li>• LMA 30/600 Armour Stone</li> <li>• Type 3 Granular Fill</li> <li>• Railway Ballast</li> <li>• Diesel/Oil/Petrol</li> <li>• Silt Fence</li> <li>• Stainless Steel Fixing Pins</li> <li>• Terram</li> </ul>
Regular Inspections	<ul style="list-style-type: none"> <li>• Tools and equipment are to be checked on a daily basis.</li> <li>• TSC to inspect the Safe Systems of Works to ensure it still works.</li> <li>• SHE inspections, with FPM Project Manager visits.</li> </ul>
Equipment Inspections	<ul style="list-style-type: none"> <li>• Equipment to be inspected at the start of each period of use for defects by the competent operator who will use it. If any defects are found the equipment is to be quarantined and they must reported it to the foreman who will inform Rail office staff who will arrange repair.</li> <li>• Agreement to abide by this process is by signature on this method statement.</li> </ul>

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Proposed Working Hours / Special Considerations	<ul style="list-style-type: none"> <li>• Delivery works to the site compound are to take place during Dayshift working hours.</li> <li>• On Track works to be completed during nightshift T3 possessions.</li> <li>• All site visitors and inspectors must phone the supervisor in advance of attending site to ensure safe working procedures can be maintained at all times.</li> </ul>
Programme	Works programmed from September 2026
Public Nuisance	<ul style="list-style-type: none"> <li>• Staff and personnel to be courteous and polite to members of the public at all times.</li> <li>• Responsible parking of vans in the designated area during the works is required to ensure that public nuisance is minimised and access to properties is respected.</li> <li>• Parking is available at the locations stated within the site-specific section below, specific parking spots cannot be guaranteed.</li> </ul>
Safety of Public	<ul style="list-style-type: none"> <li>• Access point access gates to be shut and locked once passed through.</li> <li>• Keep contact with the public to a minimum.</li> </ul>
Noise and Vibration	<ul style="list-style-type: none"> <li>• See HSE HAV calculation sheet for details.</li> </ul>
Risk Assessments	<p>The following risk assessments apply to this activity;</p> <p>See appendix risk assessment document at rear</p>
Emergency Plan	<p>In the event of an emergency notify the supervisor and proceed to one of the muster points as follows:</p>  <p>A fire warden and first aider will be designated during each site briefing.</p>
COSHH Assessments	<ul style="list-style-type: none"> <li>• Petrol/Diesel/Oil</li> <li>• Cleaning Products</li> <li>• Natural Aggregates</li> </ul>
Environmental controls	<p>Wildlife Impact Considerations -</p> <ul style="list-style-type: none"> <li>• Works areas with the potential for nesting/roosting must be checked a maximum of 48h before works to ensure they are clear.</li> <li>• If nesting birds are identified works must remain undisturbed until any fledgeling birds have left and the nest is no longer in use.</li> </ul>

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- Where required a licence must be obtained if working around wildlife during periods identified by the ecologist such as nesting season.
- Any excavations which are open between shifts must be covered to prevent access by wildlife.
- Soil mounds should be minimised or walled off to prevent badgers accessing and starting setts within them.
- Lighting must be directed to the site of works and where required lighting hoods should be installed to prevent spillage of light disrupting animals schedules.
- Schedule 6 and Section 48 permits must be in place prior to commencement of works and any stipulations advised therein are to be adhered to.
- Should protective species be found on site works are to cease until reviewed by an ecologist and the Project Manager.
- ECoW to be present for works as specified by the Principal Designer.
- Where possible transit of personnel and equipment should be limited to those times outside of peak bat activity, such as sunrise/sunset.
- Environmental Toolbox talks relating to the site and works to be carried out will be specified by the Site Agent.

#### Control of invasive species -

- See invasive species sections

#### Prevention of pollution -

- Designated refuelling area to be setup in the main compound and will have drip trays, spill kits and plant nappies located in this area.
- Equipment on site will use biodegradable hydraulic oil.
- All litter and waste arising from works will be collected and bagged for disposal off site.
- Any contaminated material removed from site will be disposed of in the appropriate licenced waste facility.
- Floating Boom/s deployed in the river in advance of works to capture any oils etc.
- Use of a clamshell bucket for excavation in and around the waters edge and any other areas where appropriate to reduce the chance of sediment entering the river.
- All fuels and chemicals stored on site must be stored in a secure bunded area greater than 10m from a watercourse with a spill kit present at the location.

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Invasive Species

## Japanese Knotweed



### How to Identify Japanese Knotweed:

- Green, heart-shaped leaves.
- Japanese Knotweed grows to 2-3m high.
- Bamboo like stems with dark red or purple speckles. Mature Japanese Knotweed canes are hollow, resemble bamboo stems and can be snapped easily.
- Zig-zag leaf pattern due to the leaves growing from the stems. Leaves are usually light green with red or purple flecks.
- Cream, white cluster of flowers. The flowers will usually bloom very late summer (August/September).

### Actions relating to Japanese Knotweed:

- If Knotweed is found stop work immediately within 7m of the plant and inform your line manager and TSC.
- Do not excavate or move soil within 7m of the plant
- Do not track plant or vehicles over the area.
- Do not stockpile potential contaminated soil/material within 10m of a watercourse.
- It is a criminal offence to directly or indirectly promote the spread of Knotweed. This includes cutting or disturbing roots.

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## Himalayan Balsam



### How to identify Himalayan Balsam;

- Large, pink flowers shaped like a bonnet; these are followed by hanging, green seed pods.
- Flowers from July to October
- Height: up to 2m

### Actions relating to Himalayan Balsam:

- Immediately stop work on site if Himalayan Balsam is suspected in the area and inform your line manager and TSC.
- Don't disturb the seed pods.
- Don't move soil which may contain the seeds of the plant unless specifically instructed to do so.

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## Giant Hogweed



### How to identify Giant Hogweed:

- Giant Hogweed will grow to 4 metres tall or more before flowering.
- Common hogweed prefers roadsides to riversides, but it will grow almost anywhere. Giant Hogweed is almost exclusively a riverside plant.
- Giant Hogweed will have 50 or more flower stems on each flower umbel. The number of stems on each flower of common hogweed will normally not get to more than 21.
- The main stem of giant hogweed is reasonably smooth in comparison to common hogweed, except at the leaf joints which are markedly more hairy than the rest of the stem.
- The leaves of Giant Hogweed are larger, shinier, more sharply serrated and more importantly, hairless

### Actions relating to Giant Hogweed:

- Immediately stop work on site if Hogweed is suspected and inform your line manager and TSC.
- Seek medical advice if you have come into contact with the plant. The danger with Giant Hogweed is not poisoning, but in the way that its sap reacts with your skin. If you get the sap on you then it will react with the melanin in your skin and removes any protection that patch has from UV light.
- If the hairs or sap come into contact with your eyes they can cause blindness. The furocoumarins that cause this effect are present in all parts of the plant.
- Wear protective clothing prior to touching the plant.
- Don't touch the plant unless directed to do so.
- Never move soil which may contain seeds unless specifically advised to do so.

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<p>Personal Protective Equipment</p>	<p>The following items of PPE are to be worn within the site boundaries:</p> <ul style="list-style-type: none"> <li>• Full orange NIR certified PPE high visibility coat and trousers</li> <li>• Protective non-slip footwear, with ankle protection</li> <li>• Hard hat (not yellow, red or green)</li> <li>• Protective gloves</li> <li>• Goggles / eye protection</li> <li>• Lifejackets to be worn by operatives working on the sloped embankment into the river.</li> <li>• Harnesses and lanyards to be used when workers are operating on the slope during high tide.</li> </ul> <p>Supplementary PPE such as masks, goggles and ear defenders must be worn in accordance with the risk assessments.</p> <p>All PPE must conform to the Translink Infrastructure Workwear Policy.</p>
<p>First Aid Provisions</p>	<ul style="list-style-type: none"> <li>• A first aid kit is held in the works van for these works. First aid kits will also be available on site.</li> <li>• The nominated first aider is: Site Manager/TSC</li> <li>• The location of the onsite first Aid kits and the nominated first aider will be briefed to the working group at the start of each shift, during the TSC/POWP briefings.</li> </ul>
<p>Training requirements</p>	<ul style="list-style-type: none"> <li>• All site operatives/personnel accessing the track must hold, as a minimum, NIR PTS accreditation. Appropriate competency cards must be held (in date) for all other track competencies required for the works. All track competency cards must be carried at all times when working on or near the line and be produced on request by an authorised official.</li> <li>• Task specific competencies for each site will be covered by a suitable person detailed to the role by FPM management.</li> </ul>
<p>Permits to work</p>	<ul style="list-style-type: none"> <li>• TSC Briefing prior to track access</li> <li>• PEM Form</li> <li>• Permit to Dig</li> <li>• Translink to confirm requirements for Forms 1-5</li> </ul>
<p>Emergency Contacts &amp; Procedures</p>	<p>In the event of an emergency, notify your supervisor immediately. Tell them the specific location and nature of the incident plus anything else you can ascertain. A copy of emergency contact numbers will be held in each of the Site Transportation Vehicles, the location of which will be at the access point stated in the site-specific information below.</p> <p>For all works On or Near the Line, the following procedure must be carried out by the TSC, and in his absence the site Supervisor.</p> <p><b>In the case of an emergency On or Near the Line, or that could impact upon the railway, contact:</b></p> <p><b><u>NIR Signal Cabin:</u></b></p> <p style="background-color: black; color: black;">[REDACTED]</p> <ol style="list-style-type: none"> <li>1. First, state "THIS IS AN EMERGENCY CALL".</li> <li>2. Give your name, grade, and your location.</li> <li>3. State the nature of the incident, and where it happened (use signal numbers and mile posts references where possible).</li> <li>4. State the emergency service support you require.</li> <li>5. Give your telephone or radio number.</li> <li>6. Ask for the entire message to be repeated.</li> <li>7. Stay in contact until nothing further is required.</li> </ol>

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### Pre-Works

- The Foreman/Supervisor/TSC and will visit the site of works to conduct an assessment of the works location.
- The Foreman/Supervisor will complete their Point Of Work Plan.
- The above should be completed onsite and not in advance of the visit.
- The Foreman/Supervisor will brief the team on the POWP
- NO WORKS TO COMMENCE UNTIL POWP HAS BEEN COMPLETED AND BRIEFED TO ALL WORK PARTY MEMBERS ON SITE.
- Foreman to make it known that, site welfare arrangements will be via welfare van/portaloo. Additional hand wipes sanitiser and first aid kit to be held in the van.

### Safe System of Works Procedure

- From the information and assessments made above the TSC will deduce their safe system of works in accordance with their training and the NIR Rule Book.
- Once the PICOP has granted possession of the line the ES will setup the worksite and authorise the TSCs when this has been setup.
- Where accessing through gates, doors and fences please ensure gloves are worn.
- Operatives to ensure all gates/ doors are closed behind them.
- Note: it is every persons responsibility to ensure that all tools and equipment they take onto the track are placed safely for the passage of trains and then removed when they leave the track.
- PEM sheet must be completed prior to accessing and when leaving the track.

### Coleraine Sea Defences Section 19C&D approx MP93 – 94.75

Site Limits:	MP63.00-MP64.75
NIR Access Point:	AL93 01 - Foyle Bridge Access Point
Road Name & Postcode:	Foyle Bridge BT47 6TF – Access gained through hospital grounds

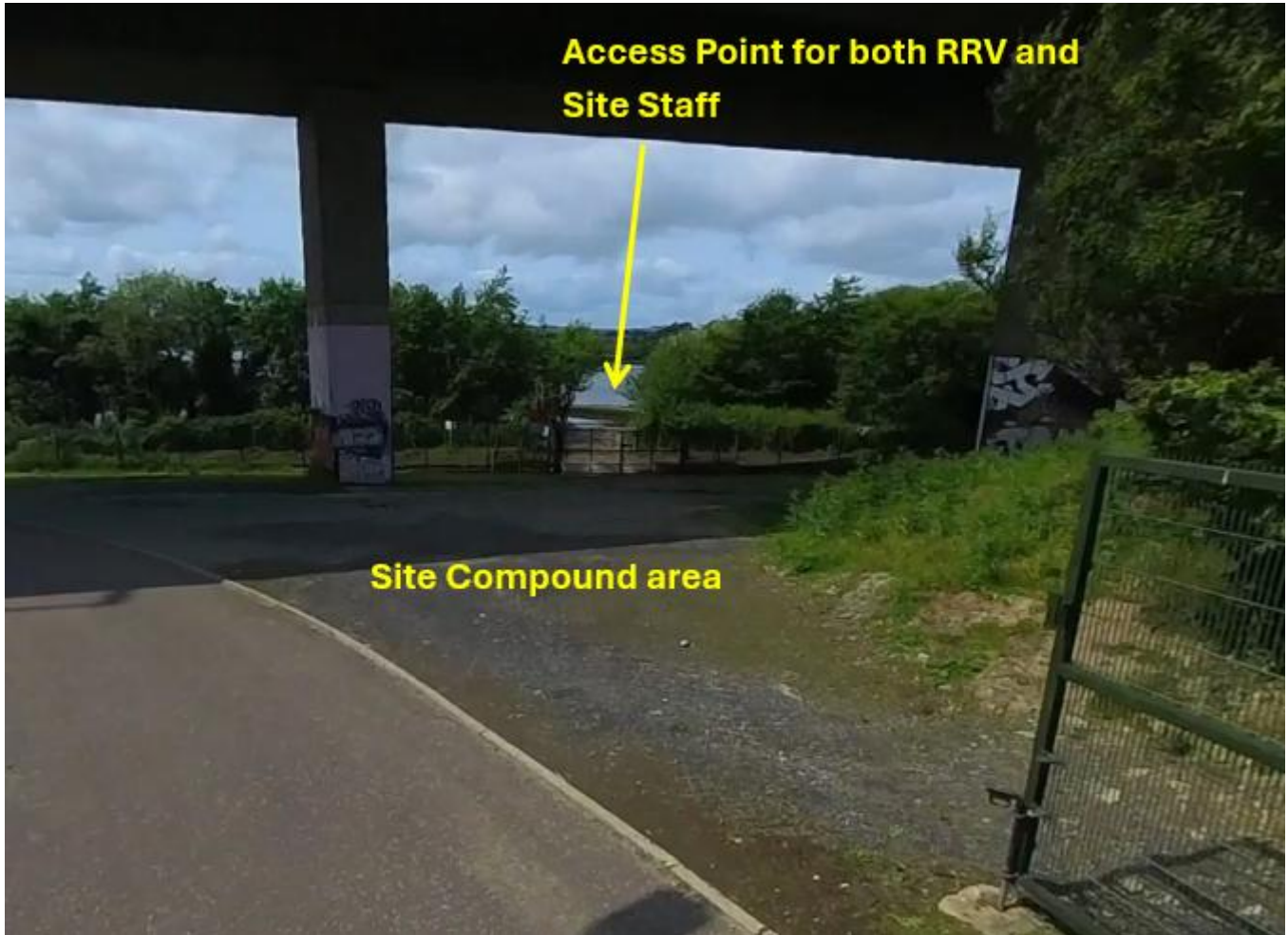


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RRV and Site Staff Access Point:	AL93 01 - Foyle Bridge Access Point
Road Name & Postcode:	Walkway beside Lakeview Hospital BT476YZ – 02871 345171
Nearest Hospital:	Altnagelvin Hospital BT47 6SB
Safe System of Works:	Off track, T2, T3
Landowner Details:	NIR/NITHCO



## Methodology:

- **Site deliveries to AI193 01 Foyle Bridge MP63.00:**
- All briefings and permits must be completed prior to starting work.
- A TSC will be appointed to manage the compound in respect to train movements and the NIR rulebook.
- Storage will be away from track and public walkways.
- Telehandler and Excavator will be delivered to site to offload fencing panels, Easiblocs, materials etc. All plant will have a banksman to co-ordinate movements inside the compound with the TSC.
- All excavation and installation of posts or items into the ground must follow safe digging procedures whereby the permit to dig will be completed and the area scanned for services using a CAT & Genny.
- Temporary lineside fencing is to be erected first, this must be >3m from the track, this compound is currently not fenced and is directly open to the line from the entry point.
- Heras fencing will be used for temporary lineside fencing and this must be double clipped with feet and stabilisers.
- Temporary lineside Heras fence gates will be locked between shifts using a chain and padlock.
- Easiblocs are to be set at spacing of 4m c/c to act as stop blocks for vehicles and the heras fencing is to be linked to the blocks by ratchet straps as an additional precaution against storms.
- A welfare area is to be formed near the entrance, plant storage area and a materials set down area will also be designated as per site plan:

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- All temporary fencing will be added to the Temporary works register and checking frequency is to be the start and end of each shift.
- Portaloo/cabins to be setup for site welfare. A demarcated area will be setup using wooden fence posts and blue rope with reflective tape added at intervals to provide a 1m buffer zone around the welfare to prevent users coming directly out into site traffic.
- 2m high posts will be erected 3m from the location of any watercourses within the field to demarcate the area, the posts will have the tops sprayed white to make them easier to see. A silt fence is to be installed behind these posts to prevent any run off of sediment into the stream.
- The full compound area will be reviewed for soft spots and these are to be stoned up as necessary using type 3 granular material compacted in layers (6 passes per layer MCHW S600) using a vibrating plate until the site engineer/manager is satisfied the ground is suitable for delivery lorries to travel it.
- The materials storage area is to have a light geotextile (eg Terram) ran across it as areas are needed and will be used for storage of imported stone and geotextiles. Storage area must maintain an access route for delivery vehicles and plant. Areas of unweighted geotextile must be lifted and put into storage or have stone added to prevent blowing onto the track.
- All deliveries must be logged and quantities included in the end of shift report.
- Plant and equipment storage will have a geotextile layer placed over the ground and drip trays/bunds placed under items stored between shifts.
- An area is to be setup at the edge of the plant and equipment storage area to include fire extinguishers, spill kits and small drip trays and will have posts labelled with these items to denote their position. An instruction note is to be installed on each post regarding the procedure of their use and replacement if used. Fuel and chemical storage must be banded.
- Deliveries of materials will stop at the site access gate to receive instructions from the TSC/Site Manager. The lorry will then travel to the location instructed and will be guided there by a banksman until it has completed the delivery and left site.
- Stockpiles of granular fill and soils must be fenced off with bottom boards added to the fencing to deter animals from accessing the mounds and tunnelling into them, if tunnelling is noticed an ecologist should be called to determine the presence of any animals within site materials.
- At the end of each shift the site will be secured before leaving and the gates will be locked.
- **Materials transport to site 19C&D and pre works:**
- All briefings and permits must be completed prior to starting work.
- No access is permitted to the line until the T3 possession has been granted by the PICOP. Access permission will be notified by the TSC/s.
- All works will have prior consent from an ecologist before being allowed to proceed. Refer to Environmental controls section above for details.
- Work party on foot will access the track under instruction from the TSC at AI93 01 Foyle Bridge access point. Location is approx. 900m from the access point walking towards low mileage.

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- RRVs and associated operators will work out of AI93 01 Foyle Bridge compound and RRVs will on track at this location. Travel is approx. 900m towards high mileage estimated RRV duration for a single transit to site is 10mins.
- RRVs attended by their RRVCs will be on track at Foyle Bridge with two trailers each. The trailers will be set on the line and connected to the RRVs.
- Telehandlers/Excavators will load the RRV trailers with the materials required for that shift.

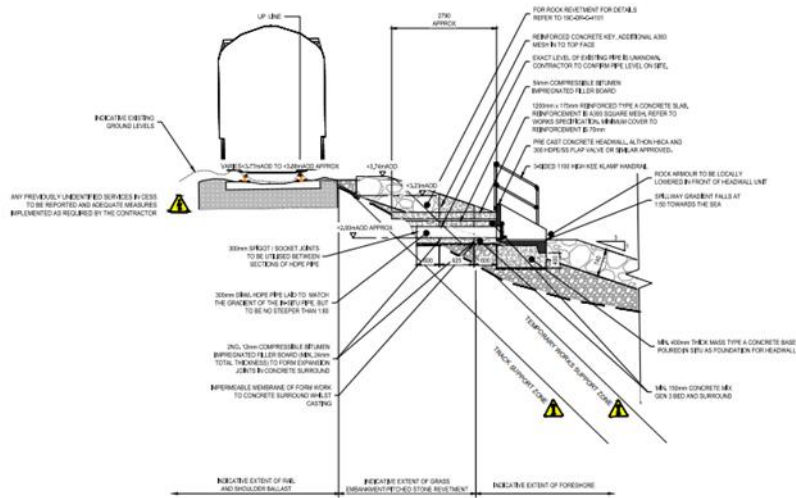
- Material set down areas near site will be designated by the site manager/engineer. These areas will be cleared of vegetation using strimmers, hedgecutters and hand tools. Arisings are to be left in the cess vegetation areas. A layer geotextile and then of granular fill (approx. 100mm thickness) will be laid over the set down area by the RRV and be compacted using a vibrating plate (6 passes).
- Delivered material will be deposited into the set down areas. All stockpiles must be >3m from the nearest running rail and may be no higher than 1.5m.
- Stockpiles must not be mixed.
- An initial section of the rock armour defences will be completed and following this rock armour may be placed onto the rock armour section to be used for construction of the next section. The machine banksman will ensure that placed rock armour is not removed from its position by the excavator and may use marker spray if required to denote new deliveries.
- Following each return run of materials the site manager will determine whether enough time exists within the shift to complete another run and will instruct the RRVCs accordingly.
- Quantity and type of material moved to site storage areas must be recorded in the end of shift report.
- At the end of each shift all personnel and equipment will be removed back to their access points. All work parties will ensure everything has been removed from their works area and the TSC will double check this has been cleared and record as such in their PEM sheet.
- Site must be left tidy, safe and clear for the passage of trains.

- **Main works 19C&D:**
- All briefings and permits must be completed prior to starting work.
- A safety boat should be in place for the duration of the blockade works.
- No access is permitted to the line until the T3 possession has been granted by the PICOP. Access permission will be notified by the TSC/s.
- All excavations and embedment into the ground will be have a permit to dig completed and the area scanned using CAT and Genny to verify it is clear of services. If services are found a trial hole will be dug to locate and verify the position and line of services and the services will be protected using split ducting or beams.
- Work party on foot will access the track under instruction from the TSC at AL 93 01 access point. Location is approx. 900m from the access point walking towards low mileage.
- RRVs and associated operators will work out of AL93 01 Foyle Bridge compound and RRVs will on track at this location. Travel is approx. 900m towards low mileage estimated RRV duration for a single transit to site is 10mins.
- RRVs attended by their RRVCs will on track at Foyle Bridge with two trailers each. The trailers will be set on the line and connected to the RRVs.
- Excavators will be loaded onto a flatbed trailer at Foyle Bridge and delivered to the site location by RRV.
- Any operatives working on the embankment or toe of the slope during high tide must wear a life jacket.
- Guide ropes will be tied to the sleepers at the extents of the section works and the rope ran down the embankment.
- The life ring and grab rope will be positioned at the top of the embankment where the guide rope has been placed. In the event of a person falling into the water operatives may, if safe to do so, use the guide rope to descend the embankment and throw the life ring and grab rope to the person in the water until they can be recovered by the safety boat or pulled back to shore.
- At the discretion of the Site Manager and operatives harnesses and fall arrest systems may be used, these may be fixed to points such as sleepers or around the trunk of large trees nearby.
- Floating booms will be let out from the edges of the embankment and tied off to a fixed structure or post at the edge of the extents.
- The Excavator will offload from the flatbed trailer and access the embankment slope.
- Flat plates will be placed over the ballast where the Excavator is accessing and used to protect any S&T services if present.
- The excavator will make access platforms at mid height of the embankment by scraping some of the ground and building up the embankment using stone to suit site contours.
- Example: Hitachi 130 depth reach 5m below @ 4m distance

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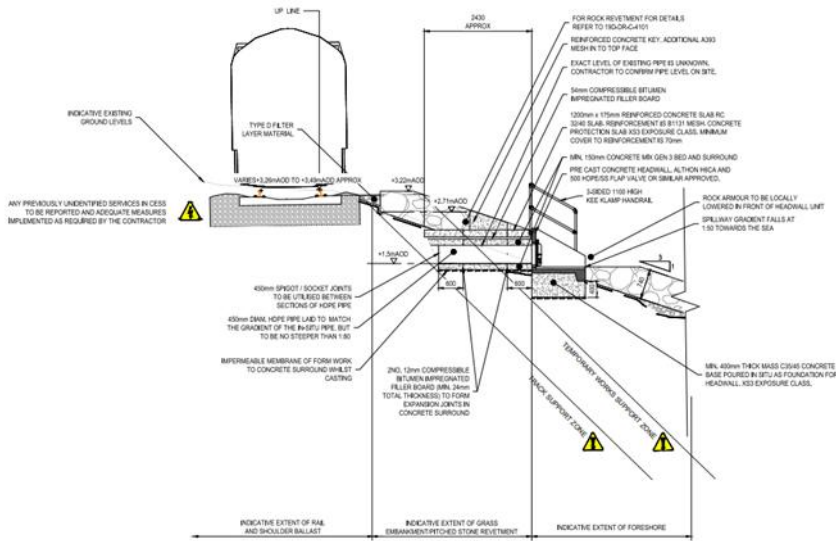
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**A-A CROSS SECTION AT CULVERT**  
(SEE DRAWING NO. TSD-JBAU-00-19C-DR-C-4001-General\_Arrangement\_Detailed\_Design)  
Scale 1:50

Section A-A Cross Section – 19C



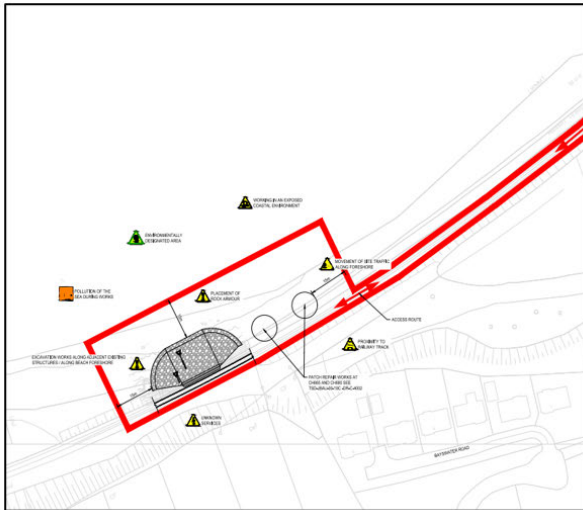
**A-A CROSS SECTION AT CULVERT**  
(SEE DRAWING NO. TSD-JBAU-00-19D-DR-C-4001-General\_Arrangement\_Detailed\_Design)  
Scale 1:50

Section A-A Cross Section – 19D

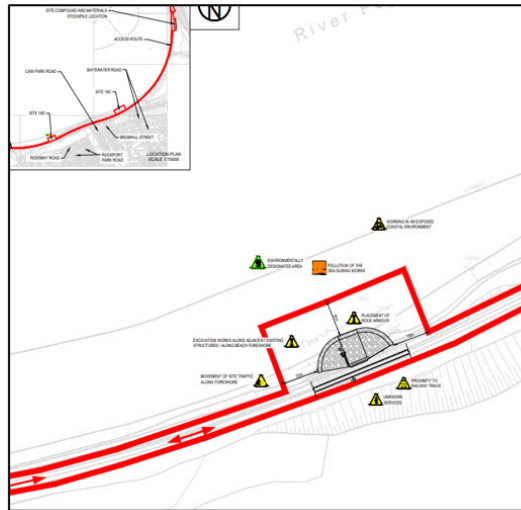
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19C Location and Access Plan



19D Location and Access Plan

- Excavator to scrape off existing embankment (approx. 150mm depth) and deposit the arisings into the opposite cess area or into the RRV trailer for removal from site, the bank is to be re-profiled as per drawing. Where possible the direction of excavation should be such as to prevent or reduce any soils transmittal to the watercourse. This may include excavating from a higher ground level.
- For excavation of the toe or within areas interfaced directly with the river a clamshell bucket may be used to excavate material and hold it until it can be placed in the spoil heap or trailer to be removed from site as a mitigation measure to prevent sediment being issued to the river.
- A layer of Geofabrics HSP4 Coastal is to be ran across the length of the embankment and pinned in place as per manufacturers instructions. The geofabric must be placed during low tide as it will float in water due to entrapped air pockets in the fabric. If required some rock armour stones may be placed as ballast onto the geofabric by the Menzi using its grab attachment to ballast the area in the water.
- Sections of geofabric to be cut and rolled out from the top of the embankment, each longitudinal section is to have a 1000mm overlap. The toe of the geofabric should be wrapped back on itself with approx. 1000mm lap.
- Estimated section lengths required are approx. 40m and 32m inc toe wrap.
- Stainless steel pins may be used at the discretion of the site manager accounting for on site conditions to aid in holding the Geofabric in place until rock armour has been positioned.
- Where required to provide a continuous profile to the embankment, depressions should be filled with type 3 granular material which will be compacted using an excavator mounted compactor (3 passes per layer), with the acceptable shape confirmed by the on site engineer.
- Rock armour stones to be placed by Excavator using the grab.
- Larger HMA 300/1000 rock armour stones will be used as toe stones and for tying into the sides and top of the section.
- Rock armour to be placed up the bank at a slope of 1:2. Stones to be placed to interlock with other adjacent stones. The stones will be lightly pushed by the excavator to ensure they are properly seated.
- The toe stones must be placed first and completed prior to the tide coming back in. The embankment toe shall be formed by a double layer of rock armour minimum of 790mm depth and 1640mm width across the length of the repair section.
- Positioning may be checked using a GPS and any variance agreed onsite with the engineer.
- When the toe armour is in place the Excavator will start at one edge and work to place additional rock armour at a grade of 1:2. Larger stones are to be used for the edges of the section. The rock armour layer should maintain a minimum thickness of 750mm throughout the rise, up to the top of the slope.
- Crest of the section is to be a min 820mm width and be made up of the larger armour stones. Smaller armour stone to be used to infill behind the crest to shape into the existing ground.
- Once the rock armour sections have been completed all equipment and materials remaining will be recovered to the compound. Floating booms to be recovered and grab ropes removed.

The on-line version is the only approved version of this document.

Hard copies must be validated against the revision level of the on-line version.

# METHOD STATEMENT

Sea Defences Section 19C&D Main Works approx MP93 – 94.75

- An RRV will restore the ballast shoulder using its profiling bucket once works are complete at the end of the blockade.
- Demobilisation to take place following all works completed and signed off. Removal of equipment from the compound to be carried out during dayshifts with a TSC present controlling the site.
- All waste must be removed and disposed of at an appropriate facility.

Notes:

