

AtkinsRéalis



Construction Environmental Management Plan

Pembrokeshire County Council

November 2025

WESTFIELD PILL BRIDGE REFURBISHMENT

Notice

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Client signoff

Client	Pembrokeshire County Council
Project	Westfield Pill Bridge Refurbishment
Job number	
Client signature/date	



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1. Introduction

1.1 Purpose of the document

The purpose of this Construction Environmental Management Plan (CEMP) is to ensure that environmental and social impacts are managed throughout the project. The CEMP provides a framework through which the project's aims and objectives will be managed and achieved and identifies the measures that will be implemented to mitigate against the significant environmental aspects of the project.

A CEMP is the first stage in project risk assessment and planning to identify the significant hazards for which appropriate controls are necessary to reduce risk. This site-specific CEMP has been developed to avoid, minimise and/or mitigate any construction effects on the environment and the surrounding community from the Westfield Pill Bridge Refurbishment works.

All site activities must be undertaken in compliance with the CEMP. This document is required to support the discharge of condition 3.20 of NRW marine licence CML2534.

1.2 Project Description

The Westfield Pill Road bridge is a 7-span, simply supported concrete structure that carries the A477 highway over the Cleddau Ddu inlet at Neyland in Pembrokeshire, Wales. The bridge runs at a height of over 30m over the habitat's underneath, which comprise the Westfield Pill River, intertidal mudflats and sandbanks and wooded riverbanks.

Following a Principal Inspection in 2022, several defects were identified that would adversely affect the durability of the structure in the long term. As a Highway Authority, Pembrokeshire County Council (PCC) has a statutory duty to maintain the highway and has engaged AtkinsRéalis to manage the required refurbishment of the bridge.

The refurbishment works involve:

- the replacement of the eastbound and westbound bridge parapets
- the replacement of the expansion joints
- the resurfacing of the bridge deck carriageway.

The works are proposed to start in January 2026 (subject to the issuing of the NRW Marine Licence) and last for approximately three months. All works will be undertaken from the bridge deck, without the need for any works in the water or the clearance of any nearby vegetation under the bridge.

1.3 Site Location and Plan

The location of the Site is shown in Figure 1-1; it is centred at Ordnance Survey National Grid Reference (OSNGR) SM 96774 06041.

The Site comprises entirely of hardstanding, i.e. the road deck of the A477 Westfield Pill Road bridge over the Cleddau Ddu at Neyland, Milford Haven. The Site is approximately 215m in length and 12m wide, which is the length of the bridge between the abutments and across the two single road lanes, including the pavements.



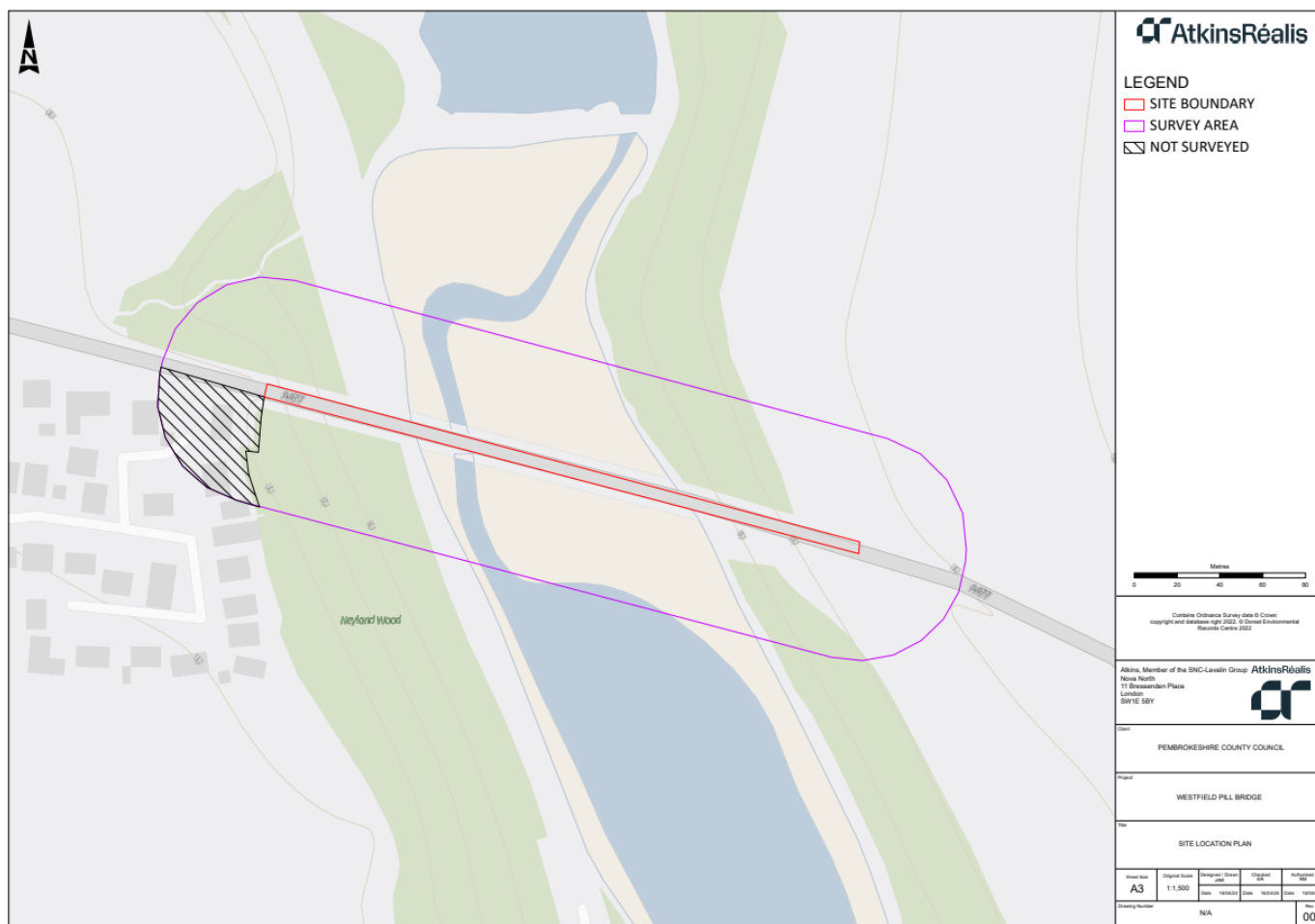


Figure 1-1 - Location of Westfield Pill Bridge

The Site sits above the Cleddau Ddu waterway, which leads to the Milford Haven waterway. The bridge itself sits over 30m above the Cleddau Ddu. Immediately adjacent to the abutments of the bridge, the river corridor is heavily wooded with a small marina, Neyland Yacht Haven, present on the river downstream of the bridge. Habitats to the south-west of the bridge comprise a localised urban housing estate. Habitats to the north-west, north-east and south-east of the bridge comprise agricultural fields.

1.3.1 Site Access and compound area

Access to and from the site will be via the A477 carriageway. The site compound, also to be used as a storage and laydown area, will be situated approximately 500m beyond the western edge of the Westfield Pill bridge, as illustrated in Figure 1-2. Shared welfare facilities will be provided by the main contractor and will be powered and self-sufficient and shared by all contractors.

1.3.2 Site working hours

The works will mainly be undertaken during the daytime but those to the expansion joints will be undertaken at night under a full road closure. Works to the parapet and resurfacing will be done during daytime shifts using lane and road closures respectively, between January – April 2026. The work to replace the expansion joint is the only element where working at night is required. This is primarily a mitigation measure to avoid disturbance to roosting Lesser horseshoe bats as part of S094579-2 European Protected Species (EPS) licence.

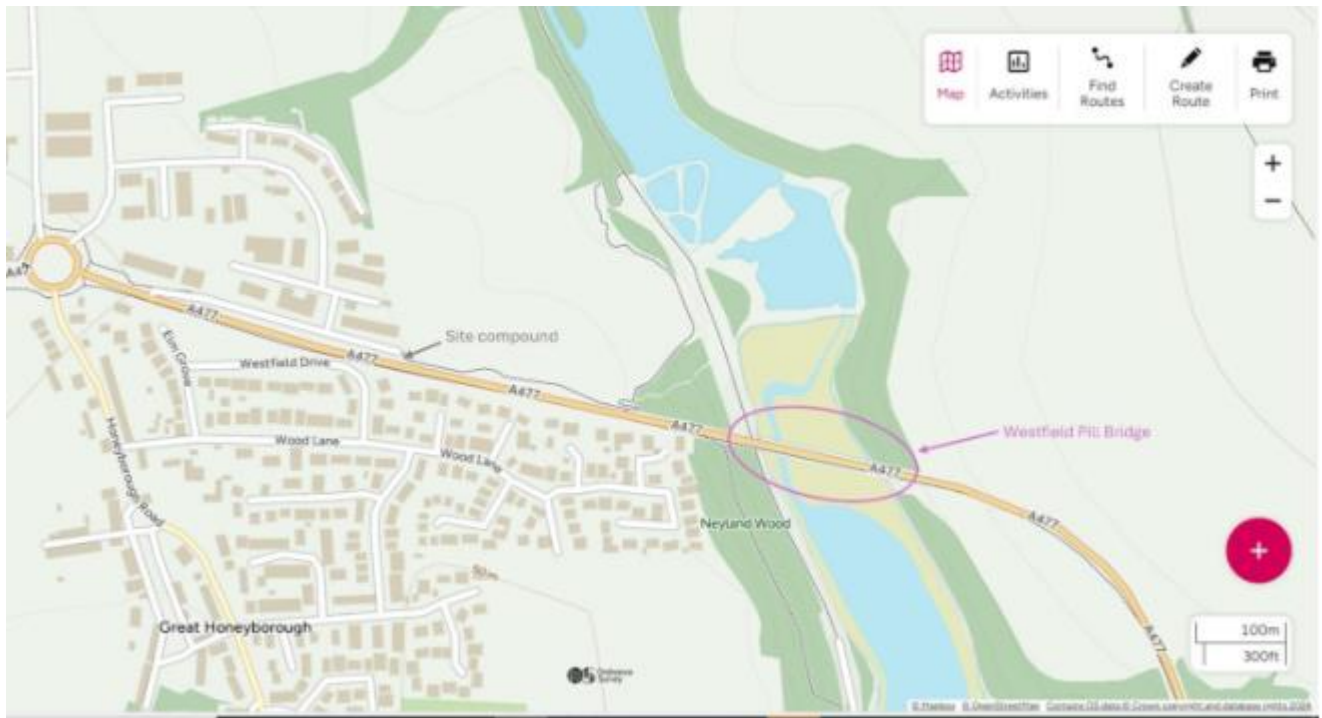


Figure 1-2 - Location of site compound in relation to bridge works.

1.3.3 Equipment and plant

Equipment and plant used for the project is specified below, with information provided by the specialist sub-contractors, and divided into the three different maintenance activities:

Saferoad – Bridge Parapet Contractor

- Petrol Disc cutter
- 3-5Kva Generator with Nappy Matt
- 110v Paddle mixer and mixing tub
- 110v drill
- 110v angle grinder
- Battery operated small tools
- Small hand tools
- Diamond drill
- Water vessel
- 35mm coring bit.

BridgeCare – Installation of Transflex Expansion Joints

- Installation vehicle with on-board LPG storage, compressor, and resin boilers
- Compressor hose and whip checks
- Hot air lance, heavy duty and/or medium weight road breakers
- Floor saw, abrasive wheel saw with water suppression and angle grinder
- Generator
- Decanting buckets
- Portable water container
- Pistol Drill with Gate Paddle.



Gwendraeth Valley Tarmacadam – resurfacing

- Insulated Tarmac Lorry/tipper truck
- Paving machine
- Static/vibrating/tandem rollers
- Compactor plate/Hand Stamper
- Shovels
- Wheelbarrows
- Rakes and associated hand tools to undertake task of surfacing works.

1.3.4 Environmental Risk Assessment Summary

An Aspects and Impacts Register has been compiled to identify the potential environmental impacts of the project construction and mitigation measures to be adopted to reduce/eliminate the risks. The Aspects and Impacts Register is summarised below in Table 1.1.

Table 1-1 - Impact Register

Risk	Impact
Noise, dust, vibration	• Disturbance to residents • Disturbance to marine protected sites and species
Night time lighting	• Night time working primarily a mitigation measure to avoid disturbance to roosting Lesser horseshoe bats but can cause disturbance to other species.
Litter	• Disturbance to residents/business • Ecology damage (habitats and species)
Highway and PROW closures	• Disturbance to local residents/business and statutory nuisance
Sediment/chemical/fuel run off	• Pollution of surface water/groundwater/ marine environment
Ground disturbance	• Mobilisation of contamination/pollution • Spread of non-native invasive species (INNS)
Chemical/fuel spills	• Ground and water contamination
Disturbance of protected plant and animal species in water course below	• Ecological damage
Spread of Invasive Non-Native Species	• Ecological damage



2. Environmental Risks and Mitigation Measures

The Proposed Scheme will take place with strict adherence to the Guidance for Pollution Prevention 5 (GPP 5)¹ and the Intrusive Investigations Industry Research and Information Association (CIRIA) guidance² on the control of water pollution from sites undergoing intrusive investigations.

General environmental mitigation measures for the entire site are outlined below. Activity-specific mitigation measures can be found in Appendices A to D, within each subcontractor's Risk Assessment and Method Statement, as provided.

2.1 General Environmental Actions

2.1.1 Materials storage and handling

Machinery will be stored in the site compound away from the bridge and outside the boundary of any designated site. Biodegradable fluid will be used in plant where possible. Appropriate bunding and interception measures will be used during any refuelling or plant maintenance by qualified operatives. Refuelling of plant will be carried out in accordance with approved procedures set out by the relevant specialist sub-contractors.

2.1.2 Lighting management

Night time work is required to replace the expansion joints and, therefore, lighting is needed. The following mitigation measures will be put in place:

- for any work that does take place in hours of darkness, lighting will be limited and directional; and
- hoods will be used to focus necessary illumination onto the carriageway, within the confines of the bridge, and avoid any spill beyond that.

Lighting will also follow the Bat Conservation Trust and Institute of Lighting Professionals Guidance GN08/23.

2.1.3 General water management

The following measures will be used to minimise the risk to the marine environment:

- Edge protection shall be installed before the removal of the redundant parapet, with the working area to be kept clear of parts, fixings and debris to avoid anything falling from the bridge deck area.
- Material will be removed within a highly controlled environment and taken to a licensed disposal facility, with minimal risk of any debris escaping to the surrounding environment or over the side into the river or habitats below.
- Works to remove the existing infrastructure will be undertaken using an appropriate excavator, with the works confined to the bridge deck. As such, the material will be removed within a highly controlled environment and taken to a licensed disposal facility, with minimal risk of any debris escaping to the surrounding environment or over the side into the river or habitats below.



- Bolt hole sealant will be used in accordance with product specification and data sheet to prevent any dripping or accidental discharge over the side of the bridge.
- Vehicles to be controlled by a nominated banksman at all times.

2.2 Pollution prevention management

Standard pollution prevention and dust control measures will be implemented during construction works. The control measures will ensure that indirect impacts on statutory designated sites, including Pembrokeshire Marine Special Area of Conservation (SAC) and Milford Haven Waterway Site of Special Scientific Interest (SSSI) are avoided. The measures will follow the GPP5: Works and maintenance in or near water and are outlined below.

Additional subcontractor-specific information for pollution prevention management is available in Appendices A, B, C and D.

2.2.1 Drainage plan

The following drainage measures will be used to minimise the risk to the marine environment:

- Works associated with grouting, although taking place c. 30m above the Cleddau Dhu inlet, should be undertaken during dry weather conditions to prevent any risk of washout adversely impacting the physico-chemical status of the waterbody.

2.2.2 Spill kits

It is the responsibility of the Site Manager to retain an adequate supply of appropriate spill kits for deployment to site and for the restocking of used spill kit materials.

Plant leakage is to be cleaned up immediately using spill kits, which will be maintained in all site vehicles. Absorbent mats will be placed under generators to ensure any leaks of liquid are contained. All used spill kits will be disposed of in spill kit bins in the Main Contractor's compound, in line with COSHH requirements.

As part of CML2534, the following conditions have been added to the marine licence:

- The Licence Holder must employ bunding, storage facilities and spill kits to contain and prevent the release of fuel, oils and chemicals associated with the plant, refuelling and construction equipment into the marine environment. Secondary containment must be used with a capacity of no less than 110% of the container's storage capacity.

2.2.3 Refuelling measures

The following refuelling measures will be followed to minimise the risk of pollution to the marine environment when refuelling:

- Mobile plant refuelling to be done away from watercourses and drainage routes, and absorbent Nappy Mats will be placed under generators to ensure leaks of any liquids are contained.



- If there is a risk that any spilled substances may enter a watercourse, the Principal Contractor will be informed prior to commencing work. The Site Manager and Principal Contractor will be notified immediately of any spills.

2.2.4 Oil & fuel storage

The following oil and fuel storage measures will be followed:

- Store all fuel/chemicals securely in double bunded containers.
- Store away from drains.
- Use biodiesel and biodegradable oils/lubricants
- Maintain adequate supply of spill kits.
- Concrete washout to be at least 10m away from marine environment and carefully controlled.

2.2.5 Control of Substances Hazardous to Health

All waste materials are to be disposed of using the correct skips, in line with the relevant Control of Substances Hazardous to Health (COSHH) assessment and the site rules. No waste materials are to be allowed to enter water courses.

2.2.6 Dust

Dust extraction attachment for the core driller is to be utilised during drilling operations in order to minimise the risk of water pollution caused by concrete dust and small pieces of concrete debris. Dust suppression for all construction works is to be implemented through the application of water during periods of dry weather. The quantity of water applied is to be carefully managed to prevent excess water from entering a watercourse. Temporary dust barriers will be utilised, if required, during carriageway planning works to provide increased containment of dust and construction debris.

2.2.7 Concrete washout

As part of CML2534, the following conditions have been added to the licence:

- The Licence Holder must ensure that no waste concrete slurry or wash water from the use of concrete or cement are discharged into the marine environment. Concrete and cement mixing and washing areas should be contained and sited at least 10 metres from any watercourse or surface water drain to minimise the risk of runoff entering a watercourse.
- The Licence Holder must ensure materials used are suitable for use in the marine environment and works should be timed to ensure maximum concrete cure time, reducing the risk of concrete washout.

2.2.8 Invasive Non-Native Species (INNS)

Use the Check, Clean and Dry method on all equipment to ensure biosecurity and prevent the transport of Invasive, Non-Native Species (e.g. Himalayan Balsam or Japanese Knotweed) to, or around, the site. We do not anticipate the introduction of any marine INNS as there will be no works or equipment in the water or coming to the site from another marine area where INNS, e.g. *Didemnum vexillum*, are present.

As part of CML2534, the following conditions have been added to the licence:



- The Licence Holder must ensure that equipment, machinery and PPE are washed with freshwater and/or thoroughly air-dried before deployment and before moving between locations.

2.2.9 Waste management

Waste management to be carefully controlled by the TJR as main contractor and will be liable for site activities of the sub-contractor as per their contract with the client, including the segregation whenever possible of waste into separate groups depending on their recyclability.

All waste materials are to be disposed of using the correct skips in line with the relevant COSHH assessment and the site rules. No waste materials are to be allowed to enter watercourses.

2.2.10 Additional mitigation

A dam will be installed on the bridge, behind the drilling position, and extra care will be taken when grouting. Any leaks will be highlighted to the Site Management Team, and instant corrective action will be taken to stop any grout from reaching the watercourse below.

2.3 Pollution responses

The marine licence must be adhered to at all times.

Any incidents must be reported to the Licensing Authority, Natural Resources Wales, as soon as possible using the hotline number 0300 065 3000.

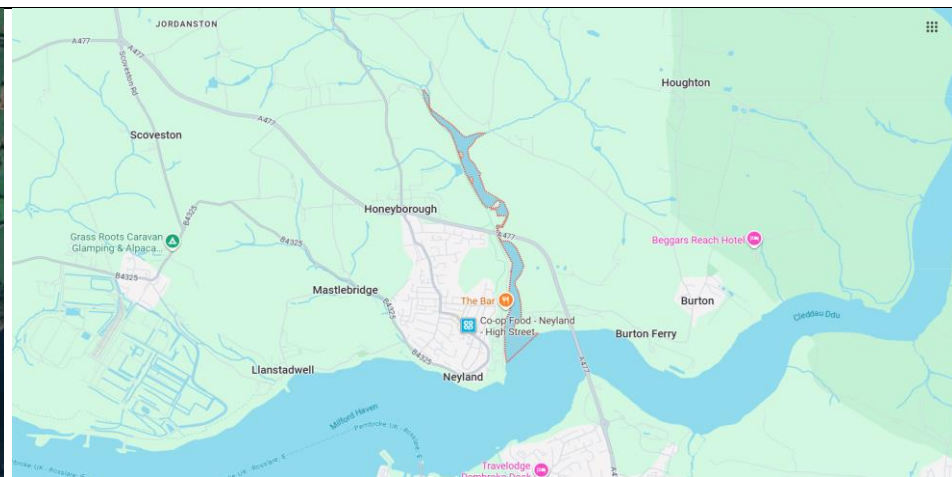
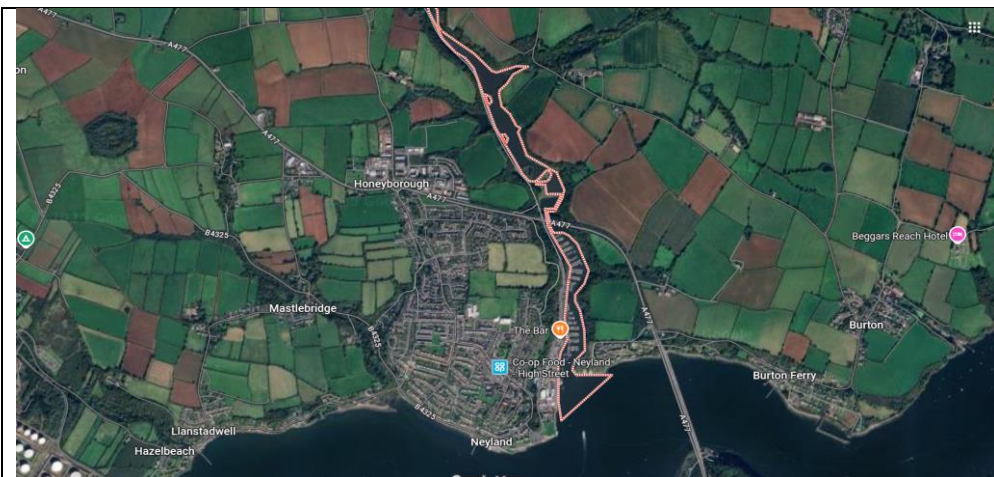


Appendix A. TRJ Limited (Main Contractor)



CONSTRUCTION PHASE PLAN WITH METHOD STATEMENT & RISK ASSESSMENT

1. DESCRIPTION OF WORKS TO BE CARRIED OUT						
Project:	Repair works to the Westfield Pill bridge Pembrokeshire, Wales, United Kingdom			Works Safe to Proceed	YES	MS/R A No: 2306
Start/ Completion Date:	20/10/2025 - 31/10/2025		Date of Issue	13/10/25	Doc. Reference	TRJ/25/C/2579
✓ <u>Construction (Design and Management) Regulations 2015 – Construction Phase Plan</u>						
Description of the Project:						
The work scope will generally cover repair works to be done to the Westfield Pill bridge Pembrokeshire, Wales, United Kingdom, the bridge carries the A477 from Neyland to Pembroke Dock over the Westfield Pill Creek and Nature Reserve. It is important to note that the work scope involves working in the marine licensable area therefore required permits has been requested and granted. This minor works CPP however will focus on the enabling works that will be done by the principal contractor in readiness for the main works to come later. Details of the works to be carried out in in line with the design drawings will include but not limited to: • Replacement of the eastbound and westbound parapets, • Replacement of the expansion joints and • Resurfacing of the bridge deck carriageway,						
Project Location and Maps						
Pembrokeshire, Wales, United						



Details of Key Members of the Project:	
Client: Pembrokeshire County Council 3 Beachcliff The Esplanade Penarth CF64 3AS Contact Person: Neil Morgan	Principal Contractor : T Richard Jones (Betws) Ltd, Foundry Road, Ammanford, SA18 2LS Telephone : 01269 598819 E-Mail: owainjones@trjltd.co.uk Contact Person : Owain Jones

Email: neil.morgan@pembrokeshire.gov.uk

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Telephone: 0117 235 6357, +44(0)141 220 2388 Mob: +44(0)7785 517597

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SA18 2LS

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E Mail: simonrees@trjltd.co.uk

Contact Person : Simon Rees

TRJ Site Manager:

T Richard Jones (Betws) Ltd,

Foundry Road, Ammanford,

SA18 2LS

Contact Person : Gareth Rees

E Mail: garethrees@trjltd.co.uk

Tel: 07968 510389

Health and Safety Executive:

Government Buildings

Phase 1

Ty Glas

Llanishen, Cardiff

CF14 5SH

Fax: 02920 263120

Tel: 01267244230

Web: www.hse.gov.uk

Accident and Emergency Department Closest to Site:

Nearest Accident and Emergency department for minor injuries:

Minor Injuries Unit

Withybush General Hospital,

Fishguard Rd,

Haverfordwest SA61 2PZ

	Tel: 01437 764545 <i>Nearest Accident and Emergency department for acute and major injuries:</i> Minor Injuries Unit Withybush General Hospital, Fishguard Rd, Haverfordwest SA61 2PZ Tel: 01437 764545
Sub Contractor (TBC) : • Saferoad UK (Bridge Parapet Contractor) • Bridgecare (Expansion Joints) • Gwendraeth Valley Tarmac (Surfacing).	
Management of Work: Mr. Owain Jones is the Project Director who will have overall responsibility for safety issues covered by the RAMS contained in this CPP and specific to the project, all RAMS shall be communicated to the workers involve in the task during a pre-job meeting and records of this shall be documented, review shall be done whenever there is a significant changes to the RAMS. TRJ Contracts Manager will have the overall responsibility to make arrangements for the control of risk on company sites, programme the works in the most appropriate order and method of working and provide adequate and suitable equipment for the safe execution of the works. The Contracts Manager and the Project Manager Andrew Passmore will be responsible along with the Site Manager Gareth Rees for the progress of the works. The Site Managers will ensure that the project is progressing well, that all personnel on site are fully trained and competent to carry out all the elements of the works. The Site Managers will also ensure that the environmental performance is adhered to by all personnel on site along with the relevant documentation which is needed on the location to allow the job to proceed. The Site Manager will ensure that the project is progressing well, that all personnel on site are fully trained and competent to carry out all the elements of the works. The Site Manager will also ensure that the environmental performance is adhered to by all personnel on site along with the relevant documentation which is needed at the location to allow the job to proceed.	Health and Safety Aims: The Health and Safety objective is to complete the project on time and as specified with due regard to the welfare of staff and without putting people's Health and Safety at significant risk. The Health & Safety goals for the project set by T. Richard Jones (Betws) Ltd are as follows: a) To have zero reportable accidents and/or dangerous occurrences on the project;

Mr. John Jones is the Director responsible for Health and Safety and is assisted by Mr. Alan Prothero (Health & Safety Manager) in undertaking the measures needed to comply with relevant statutory provisions (primary and secondary). Mr. John Jones will ensure co-ordination of company safety measures with other contractors, subcontractors, clients and safety representatives on the same project. Mr Roy Jones (BDS Wales) will audit compliance with the Company Health & Safety Policy and be fully conversant with statutory Health & Safety Regulations. The Site Manager will ensure all employees and new starters work to the content of the construction phase plan. Mr. Dafydd Jones is responsible for waste management and coordination of the environmental measures on the sites. Selection of subcontractors by TRJ has been done through a series of processes which include tender, use of pre-qualification questionnaires to select preferred bidder as well as records of past working experience with principal contractor. Supervision and control during work engagement is continually monitored on site, the safe system of work of subcontractors are also received, reviewed and approved before commencement of work and also checked its compliance during work. TRJ has a pool of approved contractor/ supplier list from which contractors for this work scope has been selected based on competency and track records.	b) To achieve at least 75% CSCS card holders or equivalent on site and where contractor fall below this level then 3 months will be given to achieve this target. c) To achieve the goals set by the client.
Site Rules: To be read in conjunction with the various subcontractors that will be working on the project making references to the subcontractor RAMS (Appendix 5). All areas of all sites controlled by T. Richard Jones (Betws) Ltd are mandatory Safety Helmet, Safety Footwear, and High Visibility clothing areas. The only exceptions are site offices, welfare facilities and the cabs of vehicles/ plant which afford suitable protection. All TRJ operatives will comply with Principal Contractors site rules, which are to be relayed at time of induction: The permitted hours of work when noise can be audible at a construction site boundary in accordance with current legislation (The Control of Pollution Act 1974 and Environmental Protection Act 1990) are; Monday – Friday 07:30 – 17:00 (or alternative hours to be confirmed and authorised by client) 1. All visitors to the site must report to the site office. 2. Visible and/or audible reversing alarms must be fitted to all vehicles delivering to or collecting from the site. All reversing activities must be controlled by an appointed vehicle marshal. 3. Speed restriction on site 5mph unless otherwise stated. 4. The use of radios and MP3 players is not allowed under any circumstances. 5. No personnel will be allowed on site without being either being inducted or accompanied by an appointed site representative.	

6. Safety Helmets, Hi-Vis clothing and Safety footwear minimum site PPE requirements.
7. All deliveries or collections of loose materials must be covered with safety sheeting/netting.
8. Strictly follow all the agreed method statements.
9. Stop working if instructed to by their supervisor.
10. Stop working if you judge the area in which you work is unsafe or unhealthy and notify your supervisor immediately.
11. Those suspected of bringing onto the site or being under the influence of drugs or alcohol will be immediately removed from the site.
12. Site workers using prescribed or non-prescribed medication that may affect their ability to work safely must notify their employer and T.Richard Jones (Betws) Ltd.
13. Smoking is not permitted on site and only in the designated areas off-site.
14. Food and drink may only be consumed in the canteen.
15. Persons found to be responsible for defacing or vandalising anything on the site, particularly the welfare facilities, plant, and equipment, will be removed from the site immediately.
16. Persons found to be fighting or fooling around (horseplay) will be removed from the site.
17. Workers found tampering with anything provided in the interest of Health & Safety e.g. scaffolding, guardrails, extinguishers, etc will be removed from the site immediately.
18. At all times, workers are to immediately notify T.Richard Jones (Betws) Ltd if they feel their workplace is unsafe or unhealthy.

Arrangements to ensure Cooperation between Project Team Members and Coordination of their Work:

The Contract Manager who is in charge of the project, will be responsible for calling and chairing periodical meetings to discuss safety aspects and to ensure that they are achieved.

Operatives will be informed that they can feel free to discuss and present their views to the representative of the Principal Contractor on site and/or follow the company Health and Safety consultation procedure (**HSP26**).

Methods of consultation:

- Site Meetings;
- Induction
- Toolbox Talks
- Method Statement Briefings
- Suggestion Boxes
- Online Suggestion/Reporting portal:

The suggestion/reporting form is available at the following internet address:

- <http://www.trjltd.co.uk/healthandsafety>

The Principal Contractor will liaise with all designers to ensure that the process is carried out in accordance with 9 and 10 of the Construction (Design & Management) Regulations 2015 and that the information is subsequently passed to all involved parties.

That the Project Manager shall be notified immediately of any significant design change and foreseeable risk.

All domestic subcontractors will be selected from an approved list which is reviewed on past performance; they will be fully informed of the requirements and implications of the regulations.

All suppliers of materials will be asked to provide C.O.S.H.H. Data Sheets relating to any hazards which may occur by the use of their products; this information will be channelled through to the site to the end user.

The site will be secured, so far as is reasonably practicable, to prevent unauthorised access and to create a physical barrier between activities on site and persons not involved in the work going about their lawful business.

The Principal Contractor will conduct induction training for all persons working on or visiting the site. This will be carried out by means of a briefing being given to all persons who will then be required to sign the induction form (**TRJ HS 43**) stating that they have understood the briefing. The induction session also allows the employees to voice any concern regarding the existing Health, Safety and Welfare arrangements and propose any improvements that could be implemented.

Effective communication and coordination are essential in ensuring a safe and efficient construction site. Engaging the workforce on health and safety matters involves consulting them on potential hazards and dangerous occurrences through multiple channels. Notice boards prominently display important safety updates and reminders, while employee surveys provide direct feedback on concerns and suggestions. Toolbox talks and site inductions allow for in-person discussions of safety protocols, risks, and responsibilities. Regular risk assessment review meetings help identify new hazards, and pre-job briefing sessions ensure that workers are aware of site-specific risks before starting tasks. Additionally, feedback suggestion boxes on-site offer a platform for employees to voice safety-related concerns or ideas anonymously, fostering a proactive safety culture.

The site will carry out both daily and weekly site inspection which will involve the workers on site contributions and giving feedbacks on observations around the site. There will also be monthly progress meeting and also monthly Health and Safety inspection on site which will be rounded off with a debriefing meeting with the workers to get their feedback on the actions raised. Tool box talk meeting with workers will also hold every month in line with TRJ HSE Management system schedule for ToolBox talk while some special Tool Box meeting will be based on needs on site.

The vast majority of equipment used on the project will be owned and maintained by the subcontractors and the Principal Contractor. All operators employed by the company have been attending safety awareness courses and hold current certificates of competence for the item of plant they will be operating. Training requirements, in general, are covered in the Company Training Plan which is under constant review. The Training Plan can be viewed (by arrangement) at the offices of the Principal Contractor in Ammanford.

Welfare facilities in accordance with the requirements of the Construction (Design & Management) Regulations 2015 (Schedule 2 – sanitary conveniences, washing facilities, drinking water & facilities for rest) will be provided by the principal contractor to serve every personnel working on site including the subcontractors. The welfare unit will be powered and self-sufficient, with electric heating and lighting provided for the cabin. This unit can provide facilities for the number of personnel to work on site and is fitted with seating, tables and separate toilet facilities, including a wash hand basin as standard. The welfare facility will also contain the necessary consumables required for the works to be undertaken. This will include barrier cream, soap, wet wipes, paper towels and disposable towels.

First Aid & Emergency

Nearest Accident and Emergency department for minor injuries:

Minor Injuries Unit
Withybush General Hospital,
Fishguard Rd,
Haverfordwest SA61 2PZ
Tel: 01437 764545

Nearest Accident and Emergency department for acute and major injuries:

Minor Injuries Unit
Withybush General Hospital,
Fishguard Rd,
Haverfordwest SA61 2PZ
Tel: 01437 764545

A First Aid kit is available within the site welfare unit. The first aid kit contents will be inspected monthly and recorded (Form TRJ HS 07). The minimum contents for this project will be as follows:

First aid guidance leaflet (1)	Scissors (1)	Moist wipes (10)
Sterile eye pads with bandages (2)	Triangular bandages (2)	Safety pins (6)

Sterile medium size dressings with pad (6)	Sterile large dressings with pad (2)	Sterile large dressings with pad (2)
Sterile wash proof plasters (20)	Disposable gloves (3)	Eyewash bottles (2)
Mouthpiece (2)		

In addition, all TRJ vehicles carry a First Aid kit which is available for use.

An “Emergency Information” Notice (**Appendix 1**) will be on display in the site welfare facilities.

The reporting of injuries, diseases, and dangerous occurrences will be carried out in accordance with the RIDDOR Regulations 2013 and any other guidance given by H.S.E. Furthermore, all accidents, near misses, acts of violence and aggression, service strikes, work-related illness, vehicle incidents, and statutory visits must be reported to Carmarthenshire County Council using the on-line Info-Exchange domain. In addition, the Client and the Clients Project Manager will also be notified.

All accidents, dangerous occurrences, and near misses are to be reported to the T. Richard Jones (Betws) Ltd Site Manager. Once reported the Company Health, Safety, and Environment officer will attend site as soon as is reasonably practicable for recording and investigation as appropriate.

Fire

A Fire Safety Plan for the project is attached.

The Site Supervisor will be appointed as the designated emergency Officer for the construction project.

The following must be carried out:

- Fire Risk Assessment (**Appendix 2**);
- Fire Protection Arrangements;
- Fire Alarm Inspection & Testing (**Form TRJ HS 05**).
- Fire Evacuation (**Form TRJ HS 06**) ;
- Hot Work Permits (to be issued in line with TRJ PTW Management system and **Form TRJ HS 10**);

An “Emergency Information” Notice (**Appendix 1**) will be on display in the Site Office.



Specific Risks (please tick) – Regulation 12(2) – Schedule 3

- ☐ Work which puts workers at risk of burial under earthfalls, engulfment in swampland or falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site.
- ☐ Work which puts workers at risk from chemical or biological substances constituting a particular danger to the safety or health of workers or involving a legal requirement for health monitoring.
- ☐ Work with ionizing radiation requiring the designation of controlled or supervised areas under regulation 16 of the Ionising Radiations Regulations 1999.

- ☐ Work near high voltage power lines.
- ☐ Work exposing workers to the risk of drowning.
- ☐ Work on wells, underground earthworks and tunnels.
- ☐ Work carried out by divers having a system of air supply.
- ☐ Work carried out by workers in caissons with a compressed air atmosphere.
- ☐ Work involving the use of explosives.
- ☐ Work involving the assembly or dismantling of heavy prefabricated components.

Significant Risks Identified

Hazard	Risk level	Who is affected?	Precautionary measures
Construction Activities Above Water Channel	High	Public, staff	Install secure guardrails, toe boards, and safety nets to prevent falls from height and into the water. Conduct a thorough risk assessment and site induction before work begins, identifying hazards such as unstable structures, strong currents, or slippery surfaces. Provide safe access routes and stable working platforms or scaffolding designed for work over water. Implement emergency rescue and evacuation procedures, including having lifebuoys, rescue boats, and trained rescue personnel on standby. Monitor weather and water conditions continuously, suspending work during storms, high winds, or rising water levels. Ensure electrical tools and equipment are properly insulated and protected against water exposure to prevent electrocution risks. Ensure all workers use appropriate personal protective equipment (PPE), including life jackets, helmets, safety harnesses, and non-slip footwear.

Dust and noise affecting existing users	High	Public, staff	Dust minimisation measures to be undertaken where possible, to include, but not be restricted to, suppression and extract at source. Noise suppression equipment to be used where possible. Consultation prior to works commencing. Appropriate and Task Specific PPE to be worn to mandatory site PPE.
Vibration from works affecting users	High	Public, staff	Use of low vibration tools for tasks. HAVS assessment Rotating workers and setting time limits to reduce prolonged vibration exposure in compliance to the HAVS assessment done for each tools. Ensuring equipment is well-maintained to minimize excessive vibration. Adequate HAVS training for all the personnel. Ensure tools are stored appropriately. Provision and use of adequate PPE.
Unauthorised access to works area	Med	Public, Hospital Employees and Staff	Works are to be segregated by means of temporary and permanent barriers including pedestrian barriers and signage.

Specific Safety Hazards

Hazard	Risk level	Who is affected?	Precautionary measures
Vehicular access to sites for accommodation, deliveries and offloading is restricted; around the bridge area also in operation/occupied throughout works. (See Site Access/Layout Plan attached)	High	Public, Contractors	Principal Contractor to take appropriate precautionary measures to safeguard car park and bridge users during the works. Works involving significant noise and vibration to be undertaken only between agreed hours. Spoil/waste and stored materials not to be stockpiled in operational/public areas. All skips, materials & vehicles to be cleared from site as soon as practicable. See Principal Contractor Site Traffic Plan for information

Works taking place around the bridge vicinity and car parks, etc	High	Service users, Staff, Contractors	Principal Contractor to liaise closely with local managers/stakeholders/client to determine any special arrangements, timing or sequencing of the works. Segregation arrangements to be agreed with other manager and implemented prior to commencement of work. All operatives tools to be securely locked away when not in use and materials to be brought to point of use only when required.
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Specific Health Hazards

Hazard	Risk level	Who is affected?	Precautionary measures
Covid 19	Med/Low	Contractor	Appropriate PPE to be worn; personal hygiene, with suitable wash facilities, to be maintained on site. See TRJ Covid Procedure Document

Specific Site Information

- The adjacent existing, occupied areas around the bridge proximity will remain operational during the construction works. Precise arrangements for access and egress of operatives will be agreed with the Principal Contractor Site Supervisor and local occupiers as and when required, or deemed necessary. Particular attention will be paid to ensuring the security of the adjacent areas.
- Access for deliveries and areas for offloading will be agreed as part of the site set up strategy. Deliveries of materials, etc. for the works are to be timed to avoid peak times for the bridge users/departments.
- Parking of vehicles on site is limited and restricted to the carparks around the Bridge as agreed with the Client.

Specific Site Requirements

- The safety and welfare of the bridge users is paramount and, in conjunction with the Principal Contractor Site Supervisor and local managers, all necessary steps are to be taken to ensure that users are not adversely affected by works to be undertaken on site.
- All necessary phasing/sequencing/timing of the construction works, including provision of temporary barriers, hoardings, fences and walkways shall be agreed with the Client, Principal Contractor Site Supervisor and the local managers.
- Working hours shall generally be 07:30 to 17:00 Monday to Friday (**Note : Weekend works by agreement only**)
- Maintain access for fire appliances at all times day.

- Maintain clear fire escape routes from the facility – liaise with the Campus manager to agree temporary fire escape provisions during construction works if required.
- Maintain unobstructed access for delivery & collection vehicles to adjacent areas.
- Access for the bridge users and local departments is to be maintained at all times.
- Works will take place around the bridge – the Principal Contractor is to ensure that all construction activities take place in a manner that minimises noise, dust and disruption.

Description of Task and Location

Work Content:

The work scope will generally cover repair works to be done to the Westfield Pill bridge Pembrokeshire, Wales, United Kingdom, the bridge carries the A477 from Neyland to Pembroke Dock over the Westfield Pill Creek and Nature Reserve. It is important to note that the work scope involves working in the marine licensable area therefore required permits has been requested and granted. This minor works CPP however will focus on the enabling works that will be done by the principal contractor in readiness for the main works to come later. Details of the works to be carried out in in line with the design drawings will include but not limited to:

- Replacement of the eastbound and westbound parapets,
- Replacement of the expansion joints and
- Resurfacing of the bridge deck carriageway,

Supervision

- Gareth Rees - 07968 510389

Safety on site will be monitored and controlled by TRJ's site manager, who will carry out inspections and make recommendations to improve safety. The site managers are responsible for ceasing working practices if the works cannot be undertaken in compliance with Health and Safety legislation/regulations.

All personnel involved in the works will be provided with a site induction from TRJ, and included in all relevant task-specific risk assessment briefings. All operatives must wear approved PPE throughout the duration of the works, as outlined in site rules.

Only persons that have the appropriate training and are able to present competency will be permitted to operate on site.

All plant operatives will be trained to CPCS standard. Plant must be inspected by their operatives prior to, and throughout the period of their use, with checklists for each individual item of machinery completed and recorded daily.

A point of works risk assessment specific to this task has been carried out by the various subcontractors who will be working with TRJ on this project.

Site Housekeeping Arrangements

- Principal Contractor will protect all paved areas and highways to prevent damaged during the construction work.
- Principal Contractor will adhere to the work areas and not stray into other areas of the site.
- All areas will be left in a clean and tidy condition on completion.
- The work areas will be cordoned off to prevent unauthorised access whilst the works are in progress.

Site Security Arrangements

- All contractors and visitors are to sign in on the site register located in site office.
- All site vehicles are to adhere to access route.
- All delivery vehicles to be made aware of access route.
- Barriers will be erected around the construction site to restrict access to authorized personnel only.

Method of work

Method to Be Used to Move Materials on Site or Vertically Lift to Lift:

1. Using on site craneage / forklift or manual handling.
2. Chaining from person to person.

Method to be used to segregate the work area

1. Work area to be segregated by physical barriers, warning signs will be displayed at prominent locations.
2. Where the scaffold is incomplete warning signage shall be displayed at prominent locations until the scaffold is complete and handed over to client.
3. Warning signs shall be replaced during any modifications and dismantling.
4. Where scaffold is erected on a shared site it will be the responsibility of the client to control other contractors access to EIS work areas.
5. Where Subcontractor is the only contractor on site it will be their responsibility to control the risk to the public by use of physical barriers & warning signs

Emergency Procedures

1. Subcontractor will comply with the site emergency procedures as detailed in the clients health and safety plan including access / egress routes
2. In the event of fall involving a safety harness, refer to the site specific fall recovery plan.

3. TRJ will provide first aid personnel and facilities on site.
4. Operatives will initially report any incident/accident to their immediate Supervisor, the site representative and Subcontractor QSHE within 60 Minutes.

Environmental Impact

1. All Subcontractor materials will be removed from site on completion of works and reused, recycled or enter the closed loop cycle process.
2. Scaffold boards will be FSC certified (sustainable source), other timber will be certified subject to specific contract conditions.
3. Packaging materials will be segregated into the appropriate site disposal bins or be removed from site.
4. Noise, may be an issue if work is outside of the agreed site working hours.
5. Where plant or equipment is serviced or fueled on site, COSHH assessments will be available for the substances in use.
6. Plant refueling will be undertaken in agreed areas, spill kits will be available.
7. No other substances that are subject to the COSHH regulations will be used on site.

Work Method / Procedure for Erection including Setting to Work

1. Operatives will receive a setting to work brief at the point of work and the relevant hazards and control measures will be explained and recorded on the Job Specific Risk Assessment (JSRA) and signed as confirmation by workforce..
2. NO work is to proceed until the surface on which the scaffold is to be constructed on has been inspected by the client and accepted as being 'fit for purpose' and capable of withstanding the loads to be placed upon it. Subcontractor reserve the right to postpone commencement of the erection until the client has provided sufficient assurances on the stability of the supporting ground. Operatives will work with due care and consideration of the surroundings. Subsequent instruction to proceed would signify this process compliant.
3. All material will be inspected on an item for item basis and will only be used once serviced and passed fit for use.
4. Setting out shall be the responsibility of the supervisor / chargehand scaffolder with datum lines or measurements given by the client.
5. Construction of any structure shall at all times be carried out STRICTLY in accordance with NASC document SG4 (Latest Edition). This guidance shows the methods of work that comply with the requirements of the Work at Height Regulations 2005 and to comply with guidance on COLLECTIVE SAFETY.
6. For structures of more than one lift then operatives will use a SCAFFOLDERS STEP (or similar) or erect a 1 meter lift to fix the guardrail in place prior to accessing the next lift.
7. Each lift shall be completed as works proceeds and will be fitted with a single guardrail to offer the operatives a safe working area known as the SCAFFOLDERS SAFE ZONE.

8. As soon as possible after commencement of erection of scaffold, a scaffold INCOMPLETE sign is to be placed on the scaffold in a prominent position and clearly visible. This sign will remain in place until the scaffold has been completed.
9. Ladders will be fitted, tied as required and left in place for safe access throughout the works.
10. For structures such as safety edge protection or laydowns, subcontractor operatives must work within a safe zone or must ensure the use of safety fall arrest equipment that is suitable for the job.
 - a) When the work is completed to the satisfaction of the supervisor / chargehand scaffolder the following will be carried out.
 - b) A full and final inspection by the foreman or designated competent person to ensure all spare materials are cleared and placed back in the agreed
 - c) A Scaffold Tag (scafftag) will be completed and fitted adjacent to the access point and will record that the scaffold complies with the specification: and / or.
 - d) A handover certificate will be completed (countersigned by the user) and a copy to the end user / customer.
11. A point of Work Risk Assessment (PoWRA) will be carried out, communicated and signed by the team for variations and / or works not defined within the Sevron Risk Assessment / Method Statement.
12. Where a scaffold has a requirement for restraining ties, tie tags shall be attached as;
 - a. Proof of Pull test having been conducted.
 - b. A 'DO NOT REMOVE' warning

Personnel / Qualifications

1. All scaffold squads engaged in this work activity will contain a balance of qualified and competent operatives in accordance with the type of scaffolding required. Scaffold operatives are to carry their CISRS Cards at the workplace and ensure they can be presented for inspection (Electronic copies of all employed operatives are held at the the main office, and copies are available to the project upon request).
2. CISRS card numbers and grade, a copy of which is held in the branch and registered on the CISRS Compliance.
3. Scaffold Inspector hold an appropriate scaffold inspection qualification dependent on the scaffold structure being erected and be able to demonstrate via qualification card / certificate.
4. Plant operators (where applicable) will hold relevant qualifications for the particular item of plant to be used and will carry their card with them for inspection. (either CPCS or similar).
5. All personnel will attend the site specific health & safety induction(s) prior to commencing work and evidence retained by the client and Subcontractor.
6. Scaffold Labourers are only allowed to work at ground level or with safe access to a fully boarded and double guard railed section of scaffold platform. Scaffold Labourers will NOT be issued with any form of Fall Protection Equipment and /or scaffold tools (EIS-IND-03-MP-13.01 Scaffold Specification Management Guide Chapter 3.2.1 Scaffold Labourers refers).

Equipment to be Used and Conformity Requirements

1. The scaffold will be constructed of scaffold tube, scaffold fittings, scaffold boards, ladders and ancillary equipment.
2. All materials will be in accordance with a relevant British Standard or its equivalent i.e. scaffold tube to BS EN 39, scaffold boards BS2482 (MG), scaffold fittings BS EN 74, Ladders BS1129, BS2037 or BS EN 131 etc.
3. Materials will be inspected in accordance with Subcontractor TI20000 Technical Guidance & Quality Assurance and issued free from visual damage that will foreseeably affect its performance whilst in use.
4. Materials are visually inspected prior to issue from the branch / depot.
5. will be visually inspected prior to use by the operative, defective materials will be segregated to prevent use and recorded on a Quality Incident Form, downloaded from Sevron. The Form should then be submitted to line management and QSHE.
6. System materials will be used strictly in compliance with manufacturers recommendations.

Personal Protective Equipment (PPE) Requirements

1. Standard Personal Protective Equipment (PPE) is detailed in the PPE Section and all in line with current British standards and our risk and use discussions with operative where appropriate. Subcontractor IS employ a colour coded hard hat system to indicate the role of the wearer:
 - Black - Manager / Supervisor
 - White - Scaffolders
 - Blue - Trainee/Apprentice
 - Yellow - Labourer
2. Additional items of PPE will be determined by the point of work risk assessment process or by client requirement.
3. Recorded inspections of all fall protection equipment on a three monthly basis.
4. All PPE must be inspected regularly and fit for purpose.
5. Any defective / damaged PPE MUST be reported and replaced prior to commencing the work activity.

Work areas / storage / Loading / Unloading of Materials and Movement of materials

1. Materials will be delivered and collected using designated traffic routes, at dates and times to be agreed with the customer.
2. Materials will be delivered and collected utilising Rigid, Trailer unit or similar HGV lorry. Where materials used are Tube & Fitting the delivery and collection shall be undertaken using a de-mountable platform bed, transported on a HGV lorry.
3. Materials will be unloaded and loaded in an agreed area on site, to be provided by the client. This area should be no more than 10 metres From the work face. Where the distance to the work face exceeds 10 metres the client shall make a forklift available to conduct on-site distribution of materials.
4. Where it is necessary to leave the trailer unit on site, it will be left in a designated area on site.
5. Material storage will be subject to good housekeeping and barrier separation if required.
6. Do NOT access vehicle flatbeds unless tethered with fall protection equipment or vehicle handrails are in place to prevent falls.

Lifting Operations/ Unloading and Loading Arrangements

Principal contractor will ensure that all lifting operations on site are properly planned, adequate and proper lifting arrangements are in place during the construction phase to guarantee the safety of all personnel. This includes the use of appropriate lifting equipment, properly trained and competent personnel, and adherence to relevant safety standards and regulations. The contractor will also ensure that risk assessments are conducted for all lifting operations, and that clear procedures are followed to prevent accidents or injuries related to lifting activities on site.

Operators licences/ training certificates and slings/strops/chain identification/inspection data to be provided to customer in advance of arrival to site. Materials will be unloaded/loaded utilising the following methods (tick or place a X for those applicable):

1. Site forklift or telehandler
2. Dismountable platform bed
3. Manual handling

Working above water

The Proposed Scheme will take place with strict adherence to the Guidance for Pollution Prevention 5 (GPP 5) and the Intrusive Investigations Industry Research and Information Association (CIRIA) guidance on the control of water pollution from sites undergoing intrusive investigations.

The appropriate advice includes:

- Machinery and materials will be stored in an agreed site compound away from the bridge and outside the boundary of any designated site. Biodegradable fluid will be used in plant where possible. Appropriate bunding and interception measures will be used during any refuelling or plant maintenance by qualified operatives. Refuelling of plant will be carried out in accordance with approved procedures set out by the relevant specialist sub-contractors.
- Mobile plant refuelling will be done away from watercourses and drainage routes from the bridge. If there is a risk that any spilled substances may enter a watercourse, the Principal Contractor will be informed prior to commencing work. The Site Manager and Principal Contractor will be notified immediately of any spills.
- Plant leakage is to be cleaned up immediately using spill kits, which will be maintained in all site vehicles. Absorbent mats will be placed under generators to ensure any leaks of liquid are contained. All used spill kits will be disposed of in spill kit bins in the Principal Contractor's compound, in line with COSHH requirements.
- Dust extraction attachment for the core driller is to be utilised during drilling operations in order to minimise the risk of water pollution caused by concrete dust and small pieces of concrete debris falling from the bridge. Dust suppression for all construction works is to be implemented through the application of water during periods of dry weather. The quantity of water applied is to be carefully managed to prevent excess water from entering a watercourse. Temporary dust barriers will be

utilised, if required, during carriageway planning works to provide increased dust and construction debris containment.

- All waste materials are to be disposed of using the correct skips in line with the relevant COSHH assessment and the site rules. No waste materials are to be allowed to enter watercourses.
- A dam will be installed behind the drilling position and extra care will be taken when grouting. Any leaks will be highlighted, and instant corrective action will be taken to stop any grout from reaching watercourse below.
- Use the Check, Clean and Dry method on all equipment to ensure biosecurity and prevent the transport of Invasive, Non-Native Species (e.g. Himalayan Balsam or Japanese Knotweed).

Asbestos Management

Principal contractor will ensure that the site is managed in compliance with the Control of Asbestos Regulations 2012. The Principal Contractor will ensure that all employees or sub-contractors engaged to work on this project have received an appropriate level of asbestos training as detailed in regulation 10 of Control of Asbestos at Work Regulation 2012.

If during the course of the works, suspect Asbestos materials are discovered which have not been identified in the survey or should there be an accidental exposure we will immediately suspend works and contact the Clients Representative for further instruction and recommendations.

Site Supervisor Comments:

Section 2 & 3 are completed on the job (at point of work).

2. IDENTIFICATION OF THOSE AFFECT AND DURATION

Number of Operatives Involved	<5	Other Site Operatives Effected (Tick)		General Public Effected (Tick)		Duration: (Months)	2 weeks	Start Date:	13/10/2025
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3. IDENTIFICATION OF RISKS (Tick)

Scaffolding		Mobile Access Towers		Ladders		Work at Height		Falls of Material/Tools	
Noise		HAVS		Dust		Manual Handling		Excavations	
Buried Services		Overhead Services		Plant and Equipment		Power Tools		Lifting	

Electricity		COSHH Materials		Creating Heat/Sparks		Slips/Trips and Falls		Fire/Explosion		
Biological Hazards		Works in occupied/public areas		Works on/near vehicle/plant routes		Restricted Access/Egress		Produce Hazardous Waste		
Fuels/Oils		Others(s):	Works above water (Refer also to subcontractor RAMS)							
3. CONTROL MEASURES IMPLEMENTED (Tick) Remember Hierarchy of control 1. Eliminate the Hazard 2. Separate Persons from the Hazard 3. Change the work methods 4. Use Personal Protective Equipment *Additional to Hard Hat/Steel Toe Cap Boots/Hi-Visibility Clothing - Detail in Risk Assessment*										
Respiratory PE		PPE*/#		Excavations Batter/Bench		Excavations Shored		Spill Kit(s)		
COSHH Assessment (Attached)		Safety Signage#		All movements under control of Banksman		Out of hours working		Edge Protection /Guard Rails		
Isolation of Plant/Equipment		Alteration of pedestrian / vehicle routes		Safety barriers, fence, isolate/enclose restrict access/flying debris		Permits required**: Excavation, Hot Works, Ladder Permit		Certification# CPCS/IPAF PASMA etc		
Special First Aid Provision		Supervision		Liaison with Third parties		Storage of Materials		Disposal of waste(s)		
Continue in section 4) use additional sheets if necessary										
4. Risk Assessment (Develop/expand on measures detailed in section 3)										
Hazard	L	S	RR	Control Measure				I	S	RR
<u>Plant & Equipment</u>	3	4	12	All plant and equipment are to be systematically inspected, maintained and repaired. The plant's test certificate must be in date and issued to the site manager prior to works commencing. The plant must be examined by its operator on a daily basis, and the results entered into TRJ's daily plant inspection forms. Plant operators must be over 18 years old and trained to CPCS standard. Plant must be isolated when not in use, with keys removed from ignitions.				1	4	4

<u>Lifting Operations</u>	3	4	12	The safe working load of lifting machinery will be greater than the foreseeable weight of loads to be lifted. The machine will be on a firm, level base during every lifting operation, with appropriate slings and adapters used (tested, certified and not exceeding the safe working loads). A banksman will be used where the driver's vision is impaired, and operatives will be prohibited from working within the excavator's radius through use of Chapter 8 barriers. Lifting will be supervised and the stability of the machine and load will be regularly assessed.	1	4	4
<u>Slips, Trips & Falls</u>	2	4	8	Storage of materials, when not in use, must be stored in a tidy and easy-to-access manner within the site storage area. A telehandler must be used at all possible times to transport and place materials as close as possible to the working area. All surplus/broken materials must be removed from the working areas and disposed of in the appropriate waste skip, to reduce the presence of slip/trip/fall hazards. Waste skips to be placed in a designated area agreed by the client and its disposal shall be organised by principal contractor in a timely manner.	2	2	4
<u>Noise</u>	3	3	9	Well maintained plant. Switch off Engines when not in use. Site Generators/Compressors kept away from general areas. Train Workers via Toolbox Talks. Provide Hearing Protection. Specify noise reducing plant and use silencers and mufflers.	2	3	6
<u>Scaffolding, Ladders & Working at Height</u>	3	3	9	Scaffolding will be erected by trained and certified operatives from a certified scaffolding company. The completed scaffold must never be altered by any unauthorised persons. Should alterations be required due to restricted access, the contracted scaffold company must return to site to make amendments. Scaffolding will be inspected every 7 days by TRJ's site manager. If any part of the scaffold structure is deemed incomplete or incorrectly erected, warning notices and ladder guards will be erected to prevent access to the scaffold.	2	3	6

<u>Manual Handling</u>	3	3	9	All operatives involved in the task will be physically fit and capable of the work. . Wherever possible, mechanical means of transport of these materials must be used to reduce the manual handling requirements. Up-to-date manual handling training is desirable, although if not previously achieved then a Toolbox Talk regarding the risks of manual handling will be carried out by TRJ's site manager.	2	3	6
<u>Fire</u>	3	5	15	Site planning and safety rules will include fire detection provisions, supply and maintenance of firefighting equipment, control of hot work, emergency procedures in the event of fire, control of smoking on site as needed and prevention of the build-up of flammable materials such as in waste skips. Adequate means of escape and access for emergency vehicles will be allowed for during all stages of construction. Fire emergency exit routes will be established adequately signed and kept free of obstruction. Security measures will be taken as practicable to restrict access to the site work areas, especially out of working hours. Smoking restrictions will be enforced, adequately notified to contractors and signed, where flammable materials are, or are likely to be, present. Hot work and use of naked flame appliances will be controlled as necessary, including the use of permit to work systems as necessary. Temporary electrical systems will comply with legal standards. Changes in electrical systems made necessary by contract conditions or practical requirements will be reviewed by a competent person to ensure that necessary precautions have been taken to accommodate changes, by way of design review where necessary and the provision of adequate fire arrangements. Temporary electrical systems will conform to legal standards. An emergency fire and evacuation procedure will be produced for every contract, which will be continuously reviewed and updated as required, and practised. Exit routes will be clear of obstructions. Hot work will be strictly controlled, and work areas inspected 30 minutes after completion of the work to check for possible fire hazard. All work areas will be inspected on completion of works for potential fire hazards. Quantities of highly flammable liquids and LPG within work areas will be restricted and suitable storage facilities provided. Records will be maintained of routine fire inspections and the maintenance and testing of firefighting equipment.	2	4	8
<u>Work in/adjacent to</u>	3	3	9	Will include exchange of information with owner/occupier to ensure full reciprocal knowledge of existing hazards, demarcation of areas of responsibility and work hazards. Access equipment will be provided to ensure maximum safety of worker and occupants.	2	3	6

<u>Occupied Premises</u>				Details of existing services will be obtained before the start of works. COSHH and noise assessments will be available for materials and tools to be used. Physical barriers and notices will be installed to isolate work from occupants and members of the public. Fire exit routes will be kept free from obstruction, or alternate routes will be clearly signed. Hot work will be controlled and extinguishers will be on hand. Where work at height is to be done, the public will be protected. Flammable and hazardous materials will be correctly controlled and stored. Supervisors will monitor to include initial checks to ensure safe systems of work are in place before work begins, and that areas are left safe at the end of each work period. Regular liaison will take place with occupants to co-ordinate work and eliminate hazards to them. Use of PPE and ventilation equipment will be monitored to ensure compliance with COSHH assessments. Induction training will include any hazards and necessary precautions required for the workplace. Operative training will include safe systems of work and precautions designed to prevent injury to third parties. Supervisory management will be trained in site safety supervision.			
<u>General Labouring Duties</u>	2	4	8	When working at heights, don't take shortcuts, and follow all instructions given by TRJ site supervisor/management and included on Risk Assessments. Report all known hazards to T.R.J site supervisor/management as soon as possible. Be-aware of operations going on above and around you. Ensure you stack materials in a workman-like manner, especially at heights. Safety helmets will be worn at all times on site. When handling materials and substances ensure protective equipment is worn. Use the correct tools for all jobs. Check hand tools before use. Safety boots to be worn at all times - strong impervious gloves when required. Follow all instructions given by supervision and Risk Assessment. Goggles/eye protection will be issued and must be worn when required. Do not attempt to lift or move anything which you suspect is too heavy or bulky. Seek further advice from TRJ site supervisor/management. You must not operate any item of plant or machinery unless specifically instructed from T.R.J site supervisor/management and the Risk Assessment for the item of plant/machine been given to you, and you have received the appropriate training. Follow all instructions given to you by from T.R.J site supervisor/management. Ear plugs/muffs will be issued and worn when required. Noise assessment will be displayed. You must follow instruction given to you when using substances which may damage your health. See COSHH assessments for substances being used. Keep all work and access ways areas clear and tidy.	1	4	4

<u>Storage of materials on site</u>	3	3	9	Gloves must be worn. High visibility clothing to be worn. Steel toe capped boots to be worn. Head protection to be worn. Site operatives should be instructed of the need for good housekeeping standards and in maintaining a tidy well organised storage area. Operatives should be informed that all chemicals are potentially hazardous and should be handled with care – reference should also be made to the appropriate COSHH assessment before use. Ensure adequate supervision is provided and that control measures remain valid for the duration of the work. Sufficient space should be provided for the safe storage of all materials. All areas to be regularly inspected to ensure the stability and safety of such areas. Perishable goods should be stored within lockable containers. Follow manufacturers/suppliers storage recommendations in all cases. Avoid stacking any materials more than 2m high. All chemicals and fuels shall be stored within bunded areas to reduce the risk of contamination.	2	3	6
<u>Work Above Water</u>	3	3	9	Install secure guardrails, toe boards, and safety nets to prevent falls from height and into the water. Conduct a thorough risk assessment and site induction before work begins, identifying hazards such as unstable structures, strong currents, or slippery surfaces. Provide safe access routes and stable working platforms or scaffolding designed for work over water. Implement emergency rescue and evacuation procedures, including having lifebuoys, rescue boats, and trained rescue personnel on standby. Monitor weather and water conditions continuously, suspending work during storms, high winds, or rising water levels. Ensure electrical tools and equipment are properly insulated and protected against water exposure to prevent electrocution risks. Ensure all workers use appropriate personal protective equipment (PPE), including life jackets, helmets, safety harnesses, and non-slip footwear.	2	3	6

Level	Descriptor	Probability	Description
5	Almost Certain	80% - 100%	The event is expected to occur in most circumstances.
4	Likely	50% - 80%	The event will probably occur in most circumstances.
3	Possible	20% - 50%	The event might occur at some time.
2	Unlikely	10% - 20%	The event could occur at some time.
1	Rare/Remote	0% - 10%	The event may occur only in exceptional circumstances.

Level	Description	Example detail description
1	Insignificant	Work-related recordable injury/illness including medical treatment and modified/restricted duty. Negligible injury effect. Negligible health effect not affecting work or causing disability.
2	Minor	Work-related lost time injury/illness. Minor Injury or minor Illness/ short term reversible health effect affecting work performance resulting from 's activities. Multiple recordable injuries/illnesses.
3	Moderate	Significant injury with work absence. Partial permanent disability/illness resulting from a work-related activity. Injury to a member of the public requiring hospitalisation from activities. Multiple lost time injuries/illnesses. Significant but reversible health effects with work absence.
4	Major	Single-fatality. Permanent disabilities and/or irreversible health effects. Injury to a member of the public leading to permanent disablement resulting from 's activities.
5	Catastrophic	Multiple fatalities Multiple permanent disabilities and/or irreversible health effects. One or more fatalities to a member of the public resulting from 's activities.

Key Description/Risk	Action
Insignificant – Low	Routine acceptance of the risk, no action required.
Minor – Low/Medium	Consider if any action plan needs to be developed.
Moderate – Medium	Develop an action plan to reduce exposure.
Major – Medium/High	Immediately initiate action plan to reduce exposure.
Catastrophic – High	Immediately initiate action plan to reduce exposure

		Impact →				
		Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood ↑	Almost Certain	Low Med	Medium	Med Hi	High	High
	Likely	Low	Low Med	Medium	Med Hi	High
	Possible	Low	Low Med	Medium	Med Hi	Med Hi
	Unlikely	Low	Low Med	Low Med	Medium	Med Hi
	Rare/Remote	Low	Low	Low Med	Medium	Medium

References

Legislation, (1999), The Management of Health and Safety at Work Regulations 1999, [online], Available from:
<http://www.legislation.gov.uk/ukxi/1999/3242/contents/made> [Accessed 04 October 2022]

APPENDIX 1 – Emergency Information Notice



EMERGENCY INFORMATION

Site Address	Repair works to the Westfield Pill bridge Pembrokeshire, Wales, United Kingdom
Site Coordinator	Gareth Rees - 07968 510389
First Aid Appointed Persons	Gareth Rees - 07968 510389
Fire Wardens	Gareth Rees - 07968 510389
Site Supervisor	Gareth Rees - 07968 510389
Contracts Manager	Simon Rees – 01269598808
Health, Safety Director	Mr. John Jones – Tel: 07968 510382
H.S.E. Address	Health and Safety Executive: Government Buildings Phase 1 Ty Glas Llanishen, Cardiff CF14 5SH Fax: 02920 263120 Tel: 01267244230 Web: www.hse.gov.uk
Police Station	Tel: Non-Emergency number 101 Tel: Emergency number 999
Fire Station	Tel: Non-Emergency number 0370 6060699 Tel: Emergency number 999
Hospital	Accident and Emergency Department Closest to Site: Nearest Accident and Emergency department for minor injuries: Minor Injuries Unit Withybush General Hospital, Fishguard Rd, Haverfordwest SA61 2PZ Tel: 01437 764545 Nearest Accident and Emergency department for acute and major injuries: Minor Injuries Unit Withybush General Hospital, Fishguard Rd, Haverfordwest SA61 2PZ Tel: 01437 764545
Statutory Providers	Western Power – Tel: 01792 784324 Wales and West Utilities – Tel: 0870 1650597

	Welsh Water – Tel: 01792 841012 BT – Tel: 01792 638504
Client	Pembrokeshire County Council 3 Beachcliff The Esplanade Penarth CF64 3AS Contact Person: Neil Morgan Telephone: Email:
Principal Contractor	T Richard Jones (Betws) Ltd, Foundry Road, Ammanford, SA18 2LS Contact Person : Simon Rees Telephone No : 01269598808 E Mail: andrewpassmore@trjltd.co.uk

APPENDIX 2 – Fire Risk Assessment

Contract name & location:	Repair works to the Westfield Pill bridge Pembrokeshire, Wales, United Kingdom		
Risk Assessment number:	TRJRA38	Date:	13/10/2025

Work/operation/task/activity covered: Fire safety

Significant hazards: (the potential to cause harm)		H	M	L	I
- Consider the severity of the outcome and the likelihood of the hazard occurring to determine the risk rating. - H = High - M = Medium - L = Low - I = Insignificant	Arson			X	
	Discarded cigarettes/matches		X		
	Hot works – welding and cutting (inc. disc cutters)	X			
	Use of LPG (space heaters)		X		
	Electrical short circuits/overloaded sockets			X	
	Contact with hot exhausts			X	
	Diesel & flammable substances	X			
	Combustible materials	X			

Who might be affected:		Y	N
- Consider the effects of the hazards on any person who may become exposed to them. - How many could be affected	Employees (including young person's) -	X	
	Sub contractors (including young person's) -	X	
	Official visitors -	X	
	General public -	X	
	Others – (please specify) – Occupied facilities within close proximity	X	

Control measures:	
- Outline the measures to be taken to adequately control the risk and consider the following... - Eliminate the hazard	Personal Protective Equipment Requirements: <i>(In the event of a fire)</i> Hearing Protection Gloves High Visibility Clothing Eye Protection Boots Head Protection
	Information/Instruction/Training: All persons to be trained in emergency fire procedures including what to do if the alarm is raised, how to raise the alarm and general evacuation procedures.

• Use lower risk products and operations • Provide information and training • Restrict access to the area • Specify any necessary PPE • Is a method statement required	All operatives to be informed of the risks from fire and the precautions taken to control and reduce the risk of fire, including the safe storage of flammable materials, site tidiness and the requirement for hot work permits. Key operatives to be trained in the selection and use of fire extinguishers.
	Managerial Controls: Ensure adequate supervision is provided and that control measures remain valid for the duration of the work. Ensure a suitable and sufficient fire plan is established and that adequate means of escape are provided. Ensure a suitable means of raising the alarm is provided and that appropriate fire extinguishers are located around the site. Ensure that adequate access is provided to all areas of the site for the fire and other emergency services. Ensure all electrical installations comply with BS7671.
	Physical Controls: All hot works to be strictly controlled with a Hot Works Permit. No hot works to be undertaken within 1 hour of the site closing. Fire extinguishers to be provided whenever hot works are undertaken.
	Procedural Controls: Restrict smoking to designated areas. Do not allow waste to build up on site. Ensure all machinery and electrical equipment is inspected and regularly checked to avoid the risk of fire from faulty equipment.
	H.S.E. & Other Guidance: HSG168 Fire Safety in Construction.

Evaluation of risks:		H	M	L	I
• Consider the likelihood of the hazard occurring to determine the risk rating. • H = High • M = Medium • L = Low • I = Insignificant	Fire occurring			X	
	Risk to persons in offices ➤ Storage of combustible materials ➤ Electrical equipment	X			
	Risks to persons on working on site ➤ Storage and use of combustible materials ➤ Storage and use of flammable substances	X			
	Risks to surrounding facilities, occupants, visitors and general public			X	

Evaluation of risks:	
• Remove • Reduce	Removal / reduction of hazards by: ➤ Mandatory PAT testing of all electrical equipment; ➤ All electrical equipment to be switched off when not in use;

• Protect	➤ Storage of combustible materials and flammable substances in suitable storage containers and only in small manageable quantities; ➤ Good housekeeping regime to be implemented.
	Removal / reduction of risk from fire by: ➤ Signage to be installed throughout the site displaying approved fire escape routes, fire fighting aids etc; ➤ Appointment of suitably trained/competent fire wardens; ➤ Construction works undertaken with sufficient ventilation throughout and limited confined areas.

Recording, planning, information, instruction and training:

General:

- Fire plan created, displayed in prominent locations and up-dated during the construction works.
- Regular fire evacuations of the construction site and recorded on the appropriate form.
- Audit and inspections of processes to ensure suitability.

Information, instruction and training:

- Site induction detailing emergency fire plan;
- Regular up-dates to operatives on the fire plan, any changes or restrictions of use via a toolbox talk environment;
- Regular training for fire wardens and appointed persons.

Completed by:	Signature:	Review date: (if applicable)
John Jones		

Assessment review upon substantial changes to the plan or at least every 6 months.

Completed by:	Signature:	Review date: (if applicable)

Appendix 3 – Traffic Management/ Site Set Up

The construction site is located on the Welsh marine licensable area of the Westfield Pill bridge in Pembrokeshire, Wales, United Kingdom, near the town of Neyland. A477 road is the access road that leads to the construction site. The area outside of the construction site will be Marine areas, Vegetations, some residential areas not in far distance, public facilities and other facilities, members of the public and visitors on a daily basis will be in use of the bridge throughout the duration of the construction works. The construction works will impose an increase in the quantity of vehicles on the surrounding A477 section of the road, therefore, it is necessary to introduce controls in order to minimise the impact of the additional traffic, hence the purpose of this traffic management plan.



The construction site will be properly managed using an effective traffic management plan that will include information display/ boards, adequate road signs, soft barriers and other segregation system and notices to the public.

Objectives

The aim is to safely plan deliveries, collections and vehicle movements on and around the site so as to prevent traffic congestion within the confines of the construction site and the main highway. This will be achieved by providing a minimum of 24 hours' notice to local residents and adjacent commercial/ leisure premises that are likely to be directly affected by the traffic (HGV's) which will require access to the construction site and may cause a disturbance. The Principal Contractor will ensure that construction site traffic is managed throughout the project duration. The plan will be regularly reviewed and amended by the Project Management Team in order to incorporate the modifications to the construction site environment affecting the vehicle and/or pedestrian traffic.

Traffic affected

The groups that site operations traffic could affect are:-

- Road users of A477.
- Local traffic using (as above);

- Members of the public using the businesses in the vicinity
- Residents of the streets around, vehicles and vehicles belonging to the general public;
- Contractors vehicles.

Persons at risk

The persons that can be affected or put at risk by the traffic on and off site are:-

- Principal contractor staff, operatives, including sub-contractors;
- members of the public, children and visitors;

Site working hours and access times

The Principal Contractor site working hours are 07:30 to 17:00 on Monday to Friday with no noisy works undertaken on weekends/out of hours unless with prior agreement. The Principal contractor will be working days only on site unless otherwise agreed. Vehicle movements on the site shall be coordinated to avoid any peak hours. Suppliers are to provide advance warning to the Principal Contractor of such deliveries to enable compliance with this obligation.

Signage

The site signboard will be located at both site entrances (main and emergency) and at the site welfare area. Signage used on site will either be text or pictorial, as necessary and may be multi-lingual appropriate to the current workforce. These signs will be situated around the site where deemed necessary.

Road transport

Construction traffic will be routed using the A477 road. It is considered that the impact associated with a temporary increase in construction traffic from the construction project can be mitigated by means of vehicles arriving and departing at staggered intervals during the day in order to reduce congestion and delays on the local road network (avoiding peak times). These conditions can be firmed up later after consultation with the relevant parties and will form part of the subcontractor agreements.

Vehicles arriving on site

Vehicles arriving on the site will approach via the designated site entrance as agreed with the client, and will park up and await further instruction from the Site Manager. Delivery and collection vehicles will report initially to the Site Manager prior to being authorised to enter the site. The Site Manager may assign a vehicle Marshall to coordinate and manage controlled access and unloading of vehicles depending on the circumstance.

There is strictly no allowance for parking that will obstruct the flow of traffic. Parking is strictly in the designated areas which has been agreed with client on site for loading and unloading purposes.

The construction traffic management plan will be available in the site office and will be relayed to all appropriate personnel via site induction. Toolbox talks will be used to communicate changes in the construction traffic management plan. The Principal Contractor shall be responsible for organising the compound to include materials storage, unloading areas, parking etc. Any contractors' vehicles which cannot be accommodated within the site compound shall park off site or to use local pay and display parking.

Contractors will park in the designated area and walk to the construction site compound with the appropriate PPE etc. The above-mentioned parking arrangement will be controlled as much as possible by Site Manager and designated vehicle Marshall.

Site pedestrian access

Pedestrian access from the welfare leading to the car parking area will be available on the construction site. This will be demarcated by the use of barriers. Any person, other than a temporary visitor, will be diverted via the site office to receive an induction (if not already inducted). Visitors will be issued with a 'Visitor' high visibility jacket and head protection (PPE) on a temporary basis following a brief induction by authorised personnel. They will be accompanied at all times (ratio 2:1) while on site and will return the PPE to the site office upon leaving.

Vehicle access to the site works

Vehicles access into the contractors compound will require the permission of the Site Manager.

Storage areas

Storage of materials will be in designated areas only. All storage materials will be at height of 2.0m or less.

Material handling equipment

This works will involve the use of construction plant such as Telehandlers, MEWPS etc

Cleanliness controls off-site

The surrounding routes must be kept clean and clear and will be regularly inspected. No vehicles will be allowed to reverse onto the public highway or site roads when leaving the site. If for any reason, this has to be done then it will only be allowed under controlled conditions, e.g. strictly managed by the vehicle marshal. Signage to direct personnel to the construction site will remain the responsibility of TRJ. TRJ will emphasise prohibitions at induction and will administer controls.

Information, instruction, and training

As the construction traffic management plan affects all personnel on site, they will be initially briefed as part of the safety induction and later informed of any changes via Toolbox talks. All persons who have a responsibility under the construction traffic management plan, e.g. Site Management team, vehicle operators, contractors, vehicle marshals or new employees, will have training in order to carry out their duties safely.

All suppliers delivering to the site will be made aware of the "Site rules for delivery drivers", by the Procurement Department prior to being directed to the site. This demonstrates our commitment to enforcing the site rules to our subcontractors and suppliers. A copy of these rules is included herewith that will form part of any order and should be briefed to drivers by each supplier prior to travelling to site.

Inspection & monitoring

As part of the duties of the Site Manager, regular site inspections will be carried out within the construction area as well as outside of the site boundaries as required.

During these inspections, they will, amongst other points, check that all access routes both for pedestrians and vehicles remain safe for use.

Information with Order

We include below, the sample site information sheet that will be included with the orders that TRJ will place with our sub-contractors and suppliers.

Definitions:

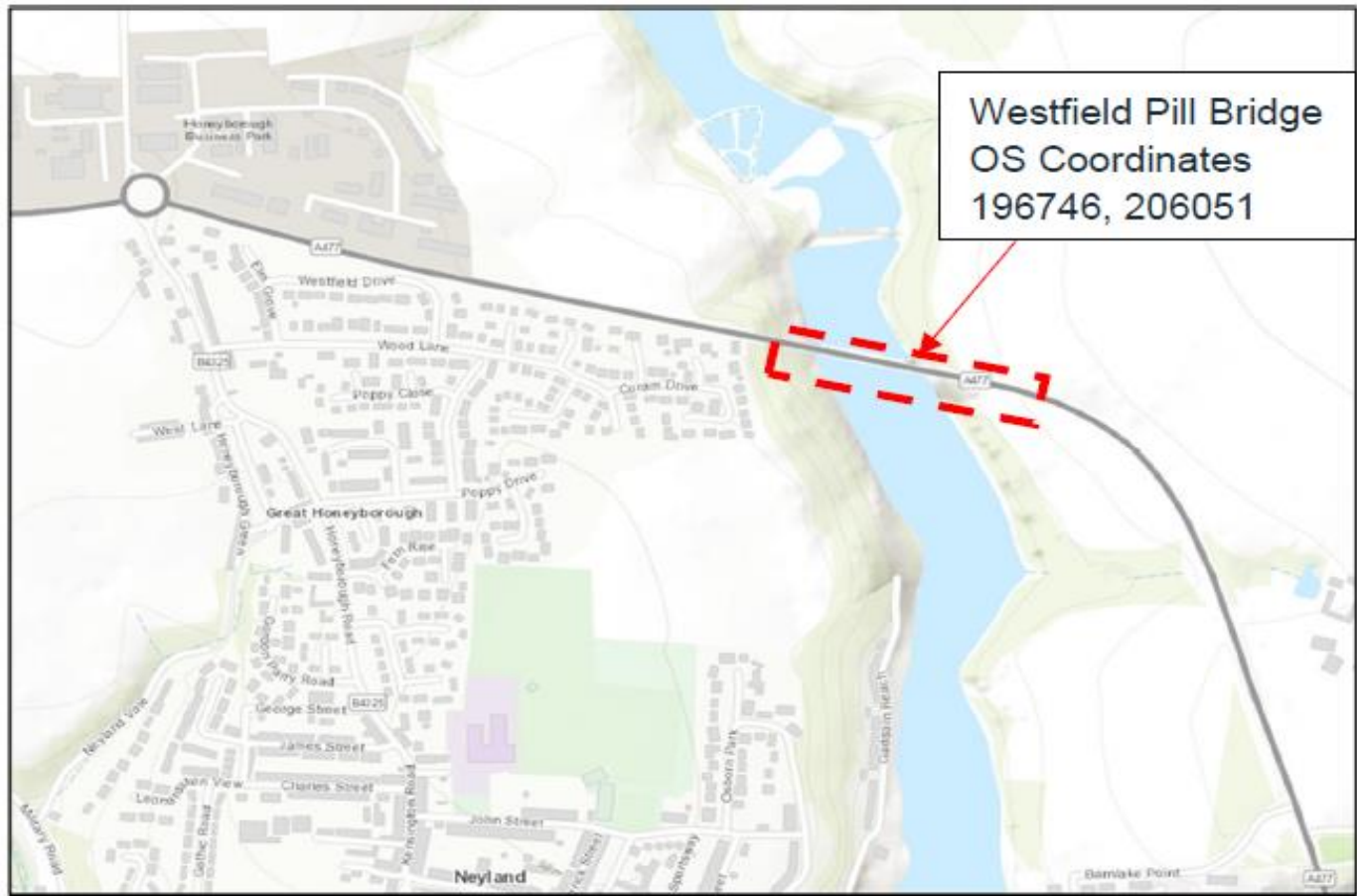
- Traffic Marshall – directs traffic on and around site by word and action. Sometimes referred to as a vehicle banksman.
- Banksman – directs crane movements giving signals and instructions to the crane operator. May also be responsible for slinging loads. Sometimes referred to as a slinger / signaller.

Rules:

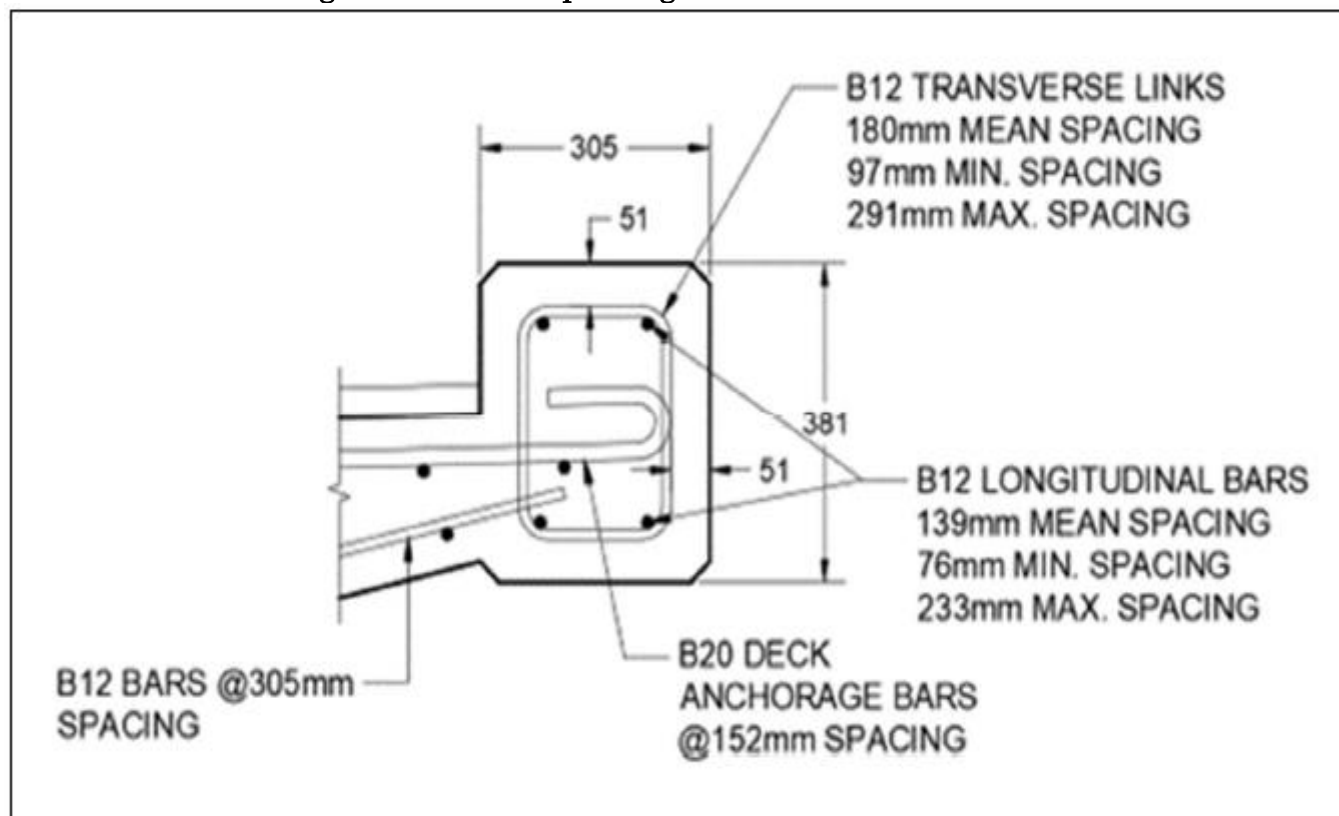
- To observe, and abide by, road traffic controls, restrictions, signage and directions.
- Give way to Emergency vehicles.
- No parking / waiting in unauthorised areas.
- Do not attempt to deliver if not pre-booked

Appendix 4 – Drawings

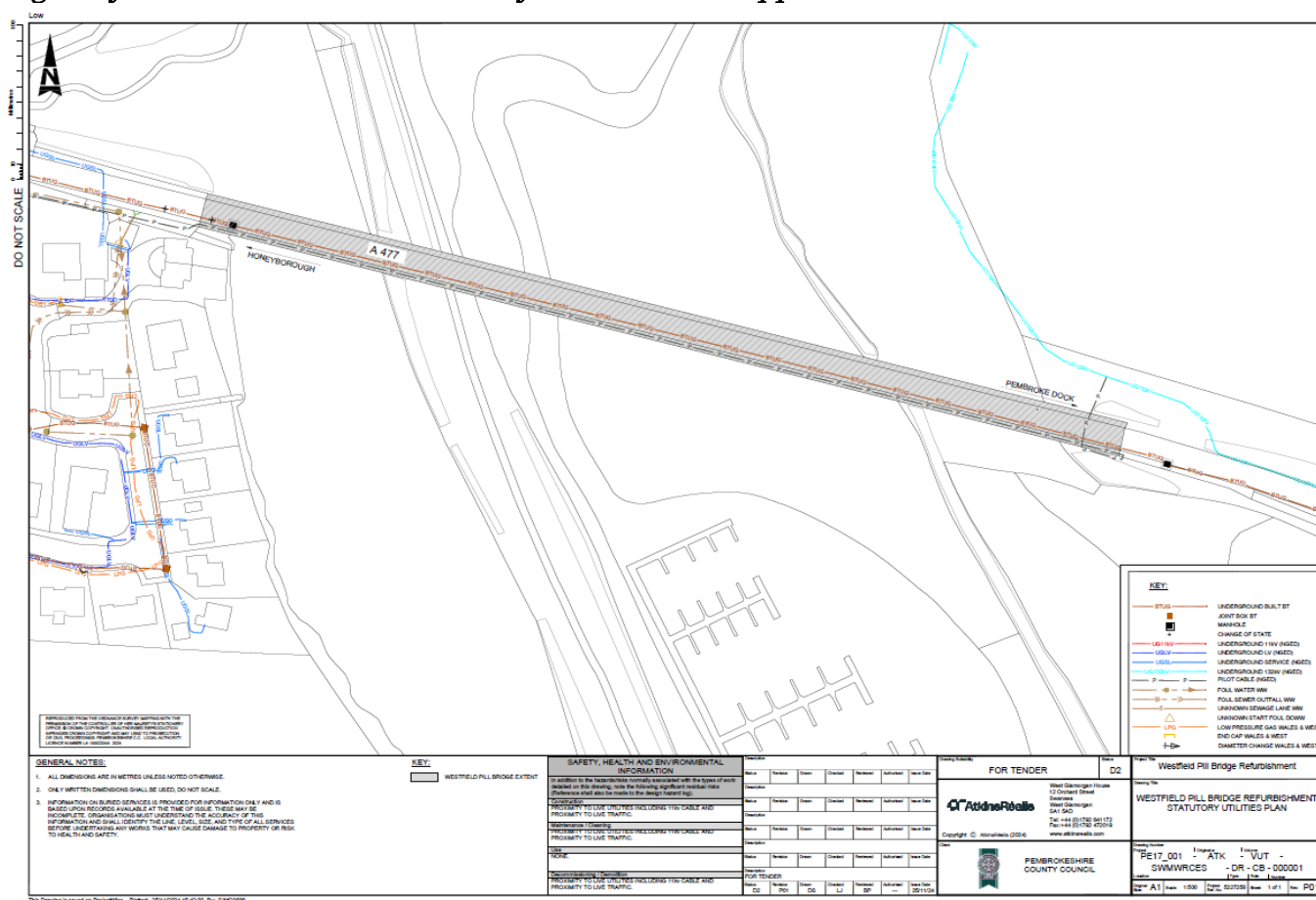
Site Location:



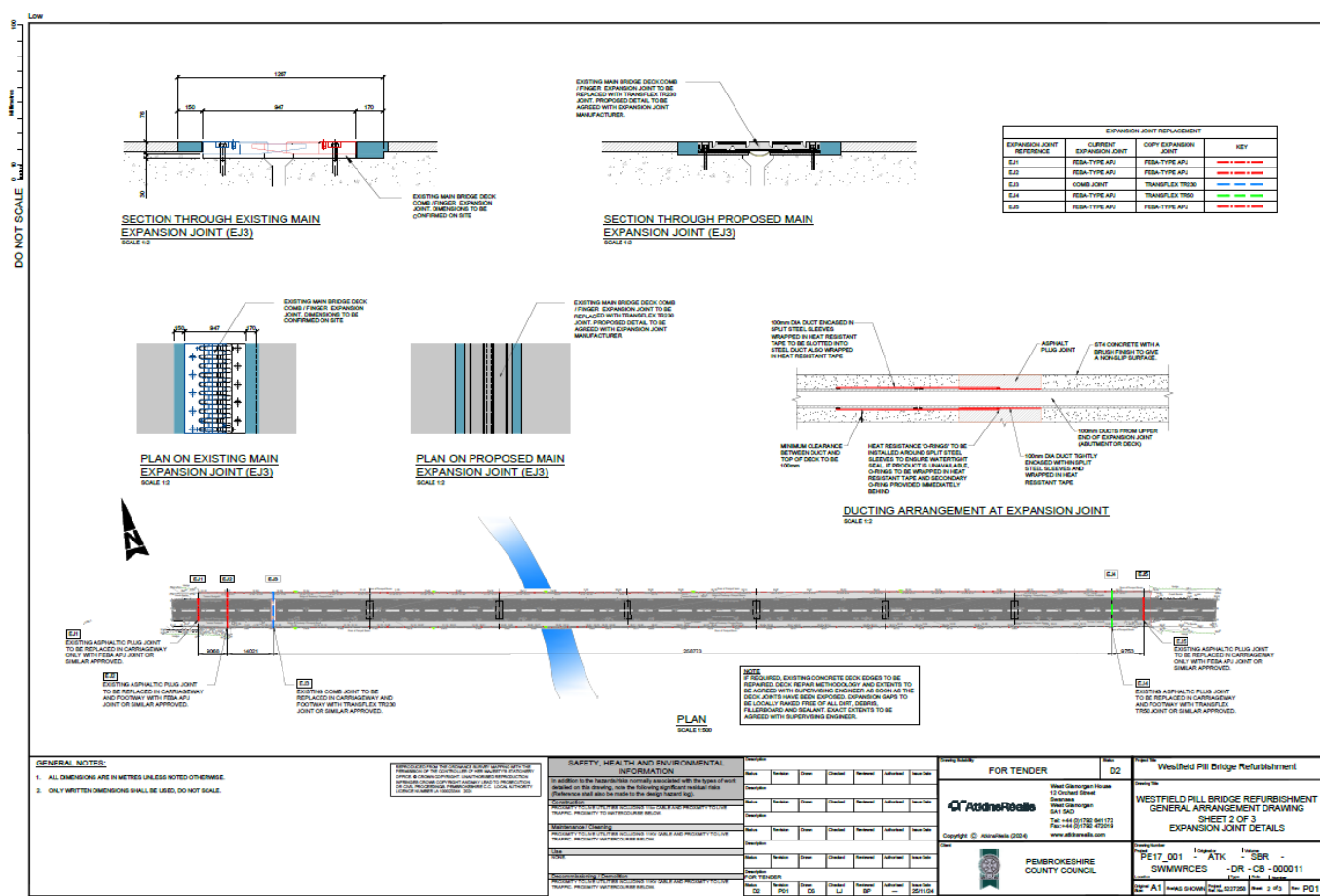
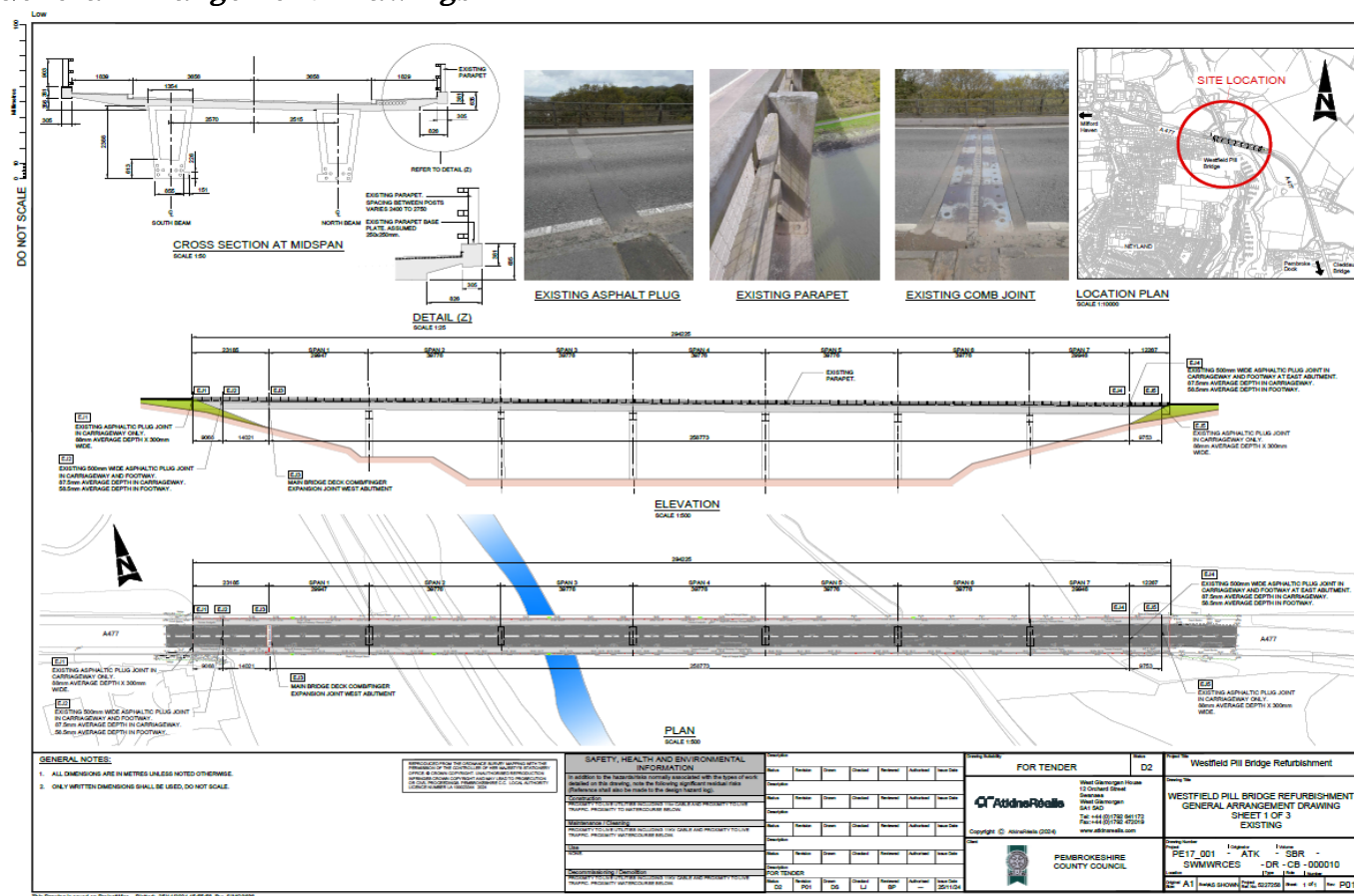
Reinforcement Arrangements in Parapet Edge Beam:

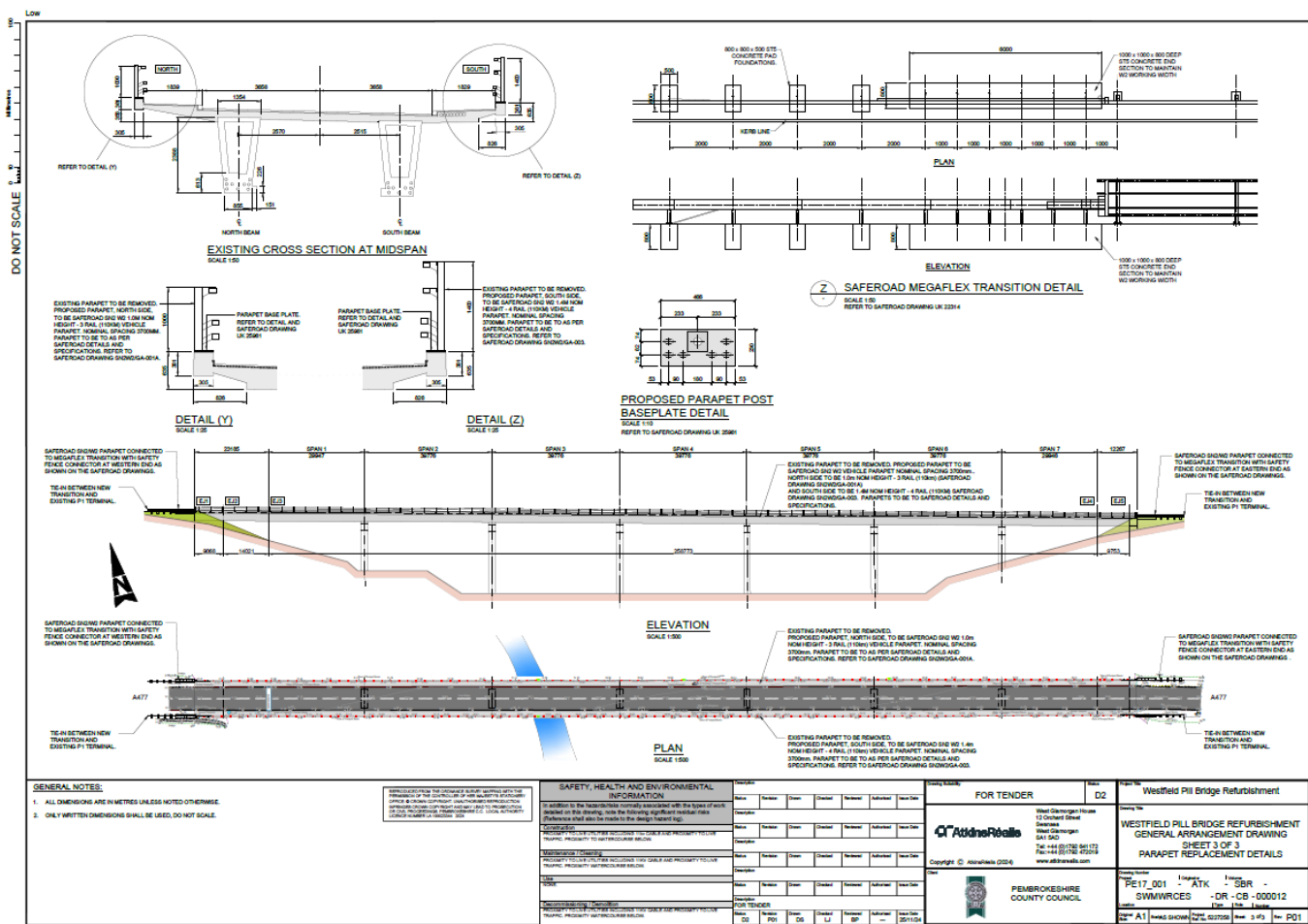


Highways Information and Statutory Undertakers Apparatus:

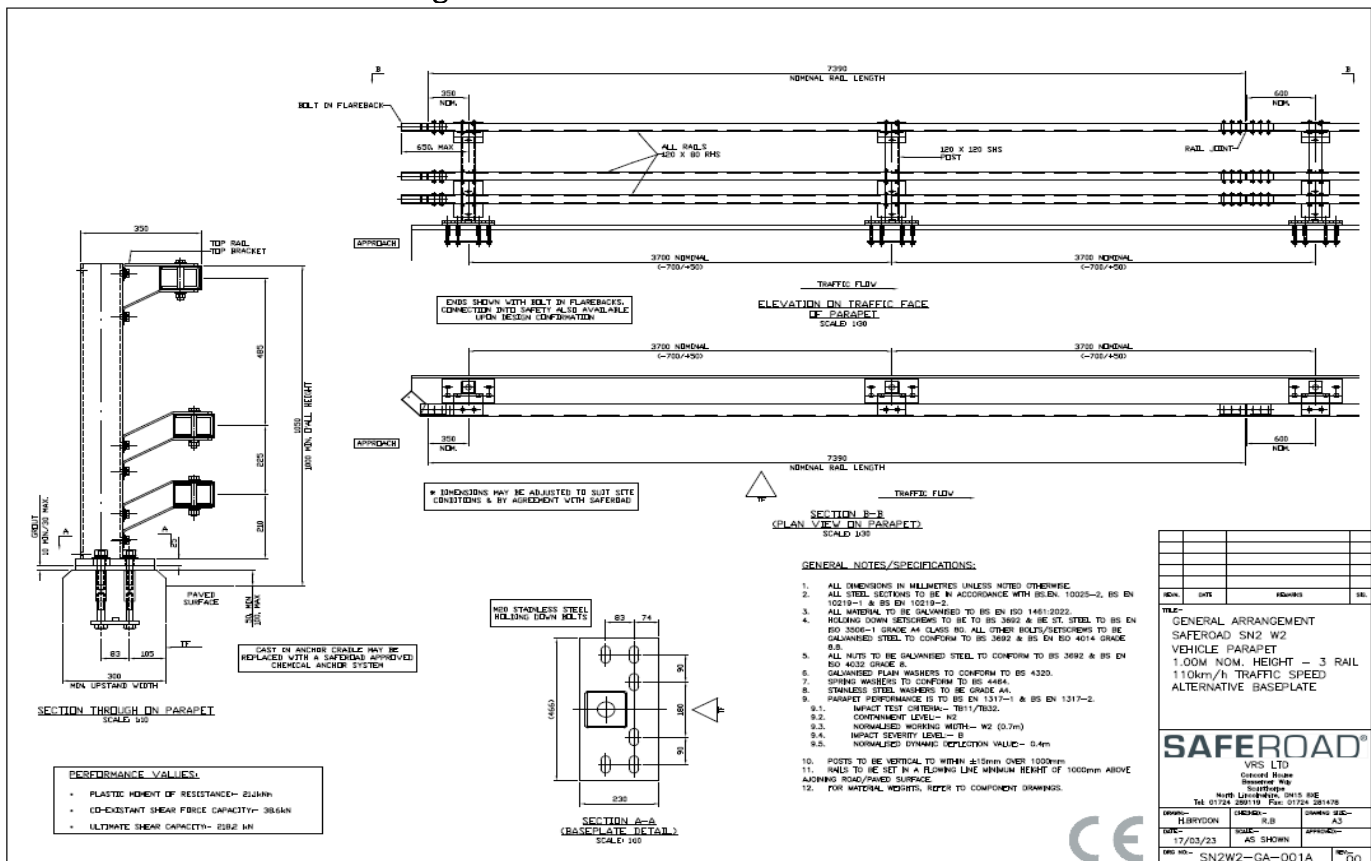


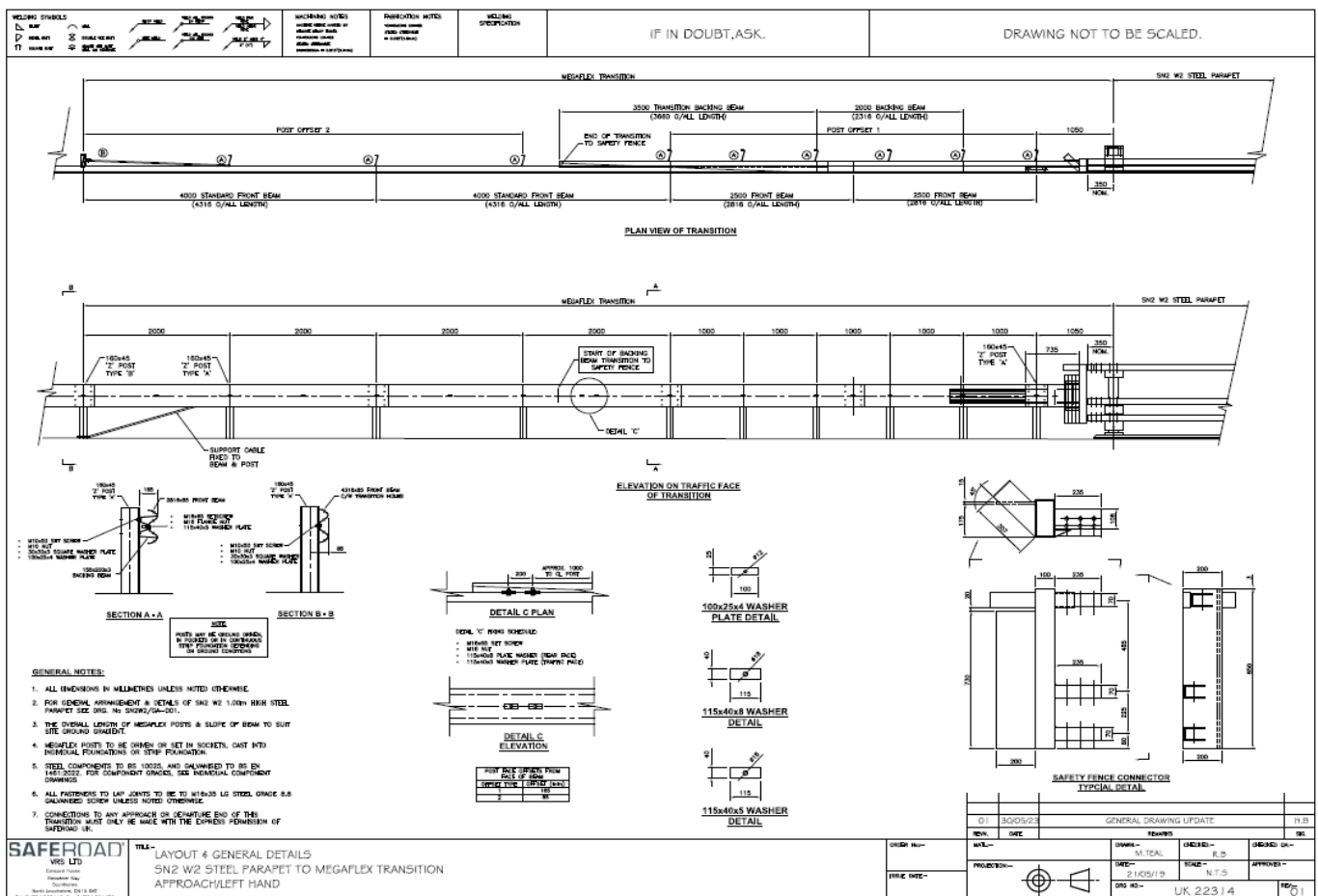
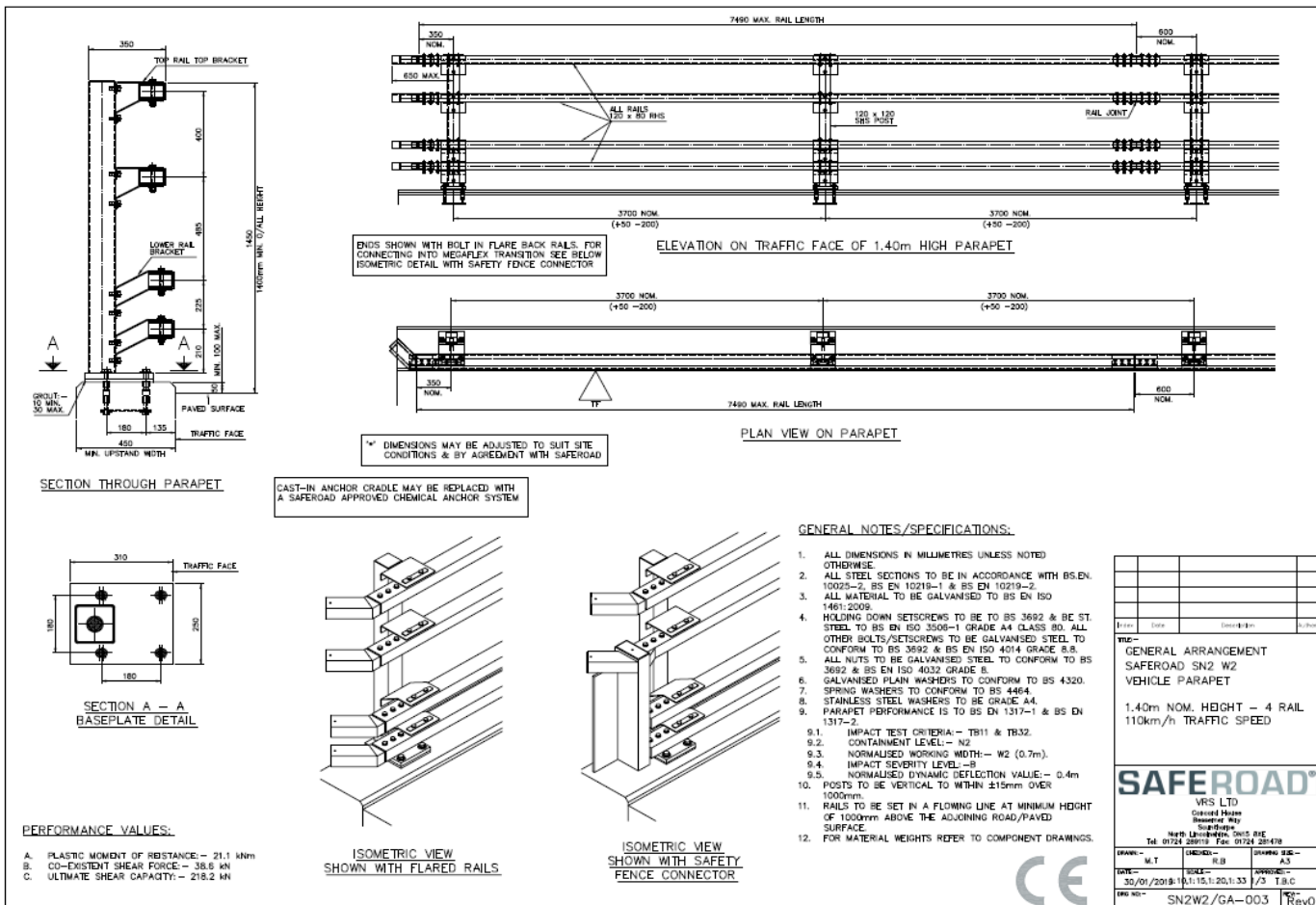
General Arrangement Drawings:

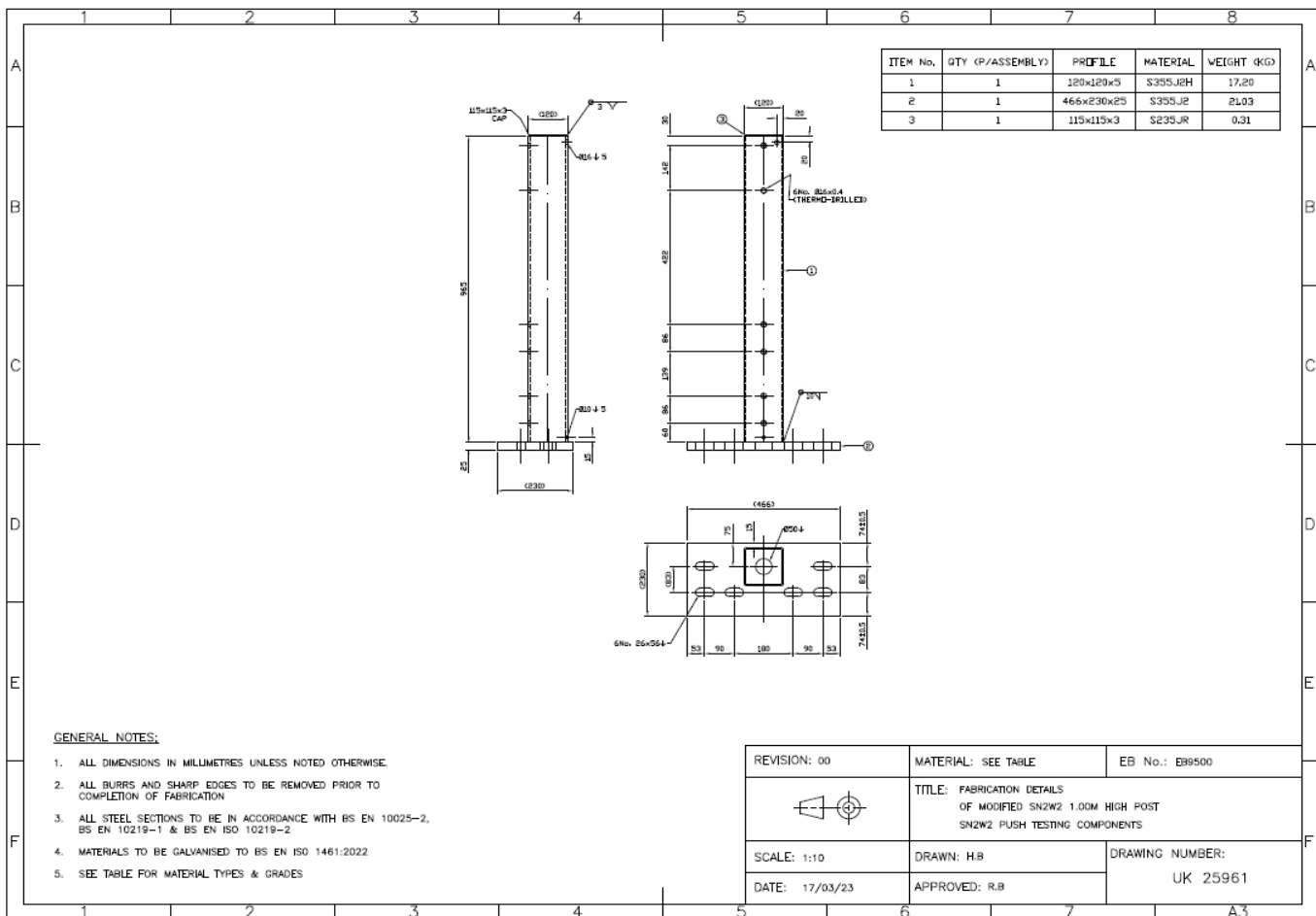




Product Data Sheets/ Drawings:









SSR Limited

SSR-100 Series Technical Support

○ SSR-I20 Vehicle Restraint Anchor

The **SSR I20** is a drilled in, bonded anchor system which uses the proven **SSR-VDI** internally threaded chemical anchor socket manufactured from high strength corrosion resistant stainless steel materials. The system can be installed using either **SSR-CM25** site mixed free flow resin grout or **SSR-VDP** glass capsule chemical anchors depending on the nature of the application and the level of performance required.

SSR-CM25 grout is suitable for installation into a vertical drill hole where a number of anchors can be installed at the same time using traditional site techniques. The alternative system where the pourable grout is replaced by **SSR-VDP** glass capsules can provide performance and installation advantages if needed. For example;

- Higher performance in drill holes of the same dimensions.
- Fixing into vertical surfaces where a poured grout is not practical.

The **SSR-I20** anchor enables replacement of existing road restraint systems on concrete structures which no longer meet safety standards, to be carried out efficiently. Work to remove and replace damaged sections of parapet or safety fence can also be completed with much reduced lane closure times and expensive traffic flow delays.

The **SSR-I20** anchor is designed and manufactured to conform to the latest British and European standards and codes. The system meets the stringent requirements stipulated in the following documents.

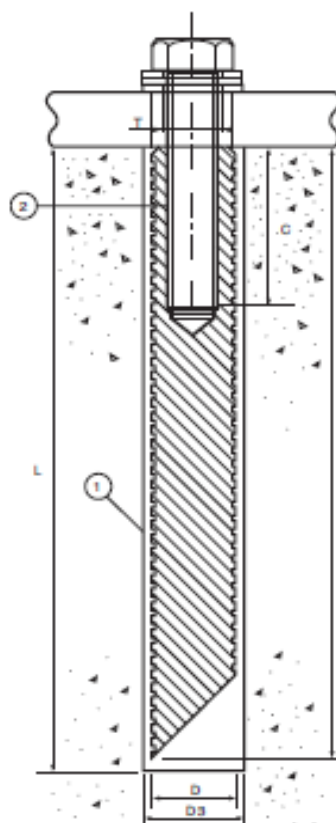
U.K. Highways Agency Publications

- 'Manual of Contract Documents for Highway Works'; Volumes 1 and 2; Series 400 – Road Restraint Systems.
- The 'Design Manual for Roads and Bridges: Volume 2: Highways Structures Design' Includes the following specifications and guidelines.
 1. Section 2 – Special Structures: Part 8: TD 19/06 Requirement for Road Restraint Systems.
 2. Interim Advice Note IAN 104/07: The anchorage of reinforcement and fixings in hardened concrete.
 3. IAN 97/07: Assessment and upgrading of existing vehicle parapets.
- BS 5080-1: Structural fixings in concrete and masonry, Method of testing for tensile loading.
- National Highways Sector Schemes for Quality Management in Highway Works – Scheme 5B for the Installation of Parapets for Road restraint Systems.

European Standards and Approvals

- ETAG 001: Guideline for the European technical Approval of Metal Anchors for Use in Concrete – Part 1: Anchors in General and Part 9: Bonded Anchors.
- BS EN 1317: Parts 1, 2, 4, and 5 – Road restraint systems.

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SSR-120 VEHICLE RESTRAINT ANCHOR

Stainless Steel Civil Engineering Solutions



SSR Limited, Unit C, Burntcommon, London Road, Send, Woking, Surrey GU23 7LN
Tel: +44 (0) 1483 226420 Fax: +44 (0) 1483 226421 Email: sales@ssrlimited.co.uk





Anchorage Properties

The performance data is based on a series of in depth test programmes including procedures carried out by a leading NAMAS approved testing authority. The stated loads are designed to limit state principles detailed in ETAG 001 and included as a design concept in TD 19/06. It is recommended that the design resistance must be at least 1.8 times greater than the design action or nominal load transmitted at the collapse of a metal VRS post. This loading should be provided by the manufacturer or promoter of the system. It is the responsibility of the design organisation to ensure that the structure is capable of meeting all loads that the VRS may transmit without damage. Failure may occur in the attachment unit, e.g. holding down bolt but not to the anchorage component within the structure. The **SSR-120** anchor fulfils these criteria when correct design principles are used.

The anchor centres and centre to edge data quoted are the minimum dimensions required to achieve the full load resistance stated in the table. Where these dimensions are less than those in the table please contact our technical advice section for assistance.

Table 1 Performance Data

Type	Drill Hole Dimensions		Design Resistance (kN)					
	Diameter mm (D3)	Depth mm (L1)	Characteristic resistance R _{yk} (kN)	Uncracked reinforced concrete Rd (1)	Cracked concrete Rd (2)	Minimum thread engagement (mm) (5)	Anchor centres (mm)	Centre to edge (mm)
CM25	35	225	250.5	167	119	21	380	190
VDP	35	225	289.6	185	132	21	380	190

(1) In un-cracked reinforced concrete having a characteristic strength of f_{ck} = 30 N/mm²

(2) For cracked concrete a reduction factor of 1.4 has been applied.

(3) Proving tests were carried out in diamond core drill holes which were thoroughly cleaned but received no additional roughening of the sides of the hole. The anchors were installed whilst the holes were still damp to simulate actual site conditions. Anchors can be fitted into percussion drilled holes without loss of performance as long as the drill hole dimensions given in table 1 are strictly adhered to.

(4) Tolerance +5mm/-0mm.

(5) For class A4-80 holding down bolt.

Table 2 Specification

Item No.	Code No.	Description	Material Specification
1	?	SSR-120 VDI Socket only	30mm diameter SSR 550 grades 1.4401, 1.4436 or 1.4362 (duplex) stainless steel to BS EN 10088-1: 2005
2	?	SSR 120 VDI Socket assembled with bolts sets (table 3)	Ditto
3	?	SSR-CM25 pourable resin grout - 2.5 litre tubs	Free flow polyester resin grout
4	?	SSR-VDP 24 x 210 glass capsule chemical anchor	Polyester resin with graded quartz aggregate

SSR 550 stainless steel bar is a high strength material with excellent resistance to corrosion which was developed by us for critical anchoring applications.

SSR 550 Mechanical Properties: Minimum 0.2% proof stress = 550 N/mm²

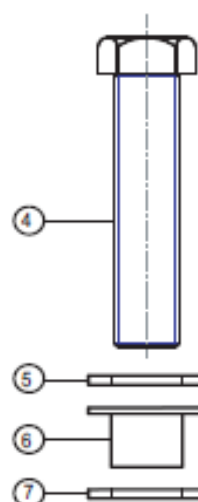
Minimum ultimate tensile strength = 650 N/mm²

SSR-170 Holding Down Bolts

The holding down bolts for vehicle restraint system installations on concrete structures on trunk roads must be A4-80 classification to conform to series 400 of the Manual of Contract Documents for Highway Works. Fixing Centre supply prepacked bolt sets including all the required components to meet the specification (see table 3). **SSR-120** anchors can be supplied as a complete assembly, including the bolt sets or unassembled with the socket and **SSR-CM25** grout only.

Table 3 - SSR-170 Bolt Sets

Item No.	Code No.	Description	Material Specification
4	Various	M20 x suitable length hexagon head set bolts	Stainless Steel Class A4-80 to BS EN ISO 3506-1:1998
5	8151-1668	M20 x 37mm x 3mm Washer to BS6320.	A4 Stainless Steel Form A to BS 4320: 1968
6	740-2260	M20 Nylon Top Hat Isolation washer	Nylon 66
7	497-1020	Galvanised Washer, M22 x 50mm x 4mm	Washers to BS 4320 Galvanised to BS EN ISO 1461



Stainless Steel Civil Engineering Solutions



SSR Limited, Unit C, Burntcommon, London Road, Send, Woking, Surrey GU23 7LN
Tel: +44 (0) 1483 226420 Fax: +44 (0) 1483 226421 Email: sales@ssrlimited.co.uk

SSR-120 VEHICLE RESTRAINT ANCHOR



SSR Limited

SSR-100 Series Technical Support

SSR-120 Installation Procedures

Series 400 requires that installers of parapets must be able to provide a certificate of compliance with Sector Scheme 58. This confirms that operatives have been properly trained to install the anchorage and ensures that the high performance required in critical safety applications is not negated by shoddy and unsupervised site practice. Fixing Centre can advise on training requirements or recommend approved and experienced installers. The **SSR-120** system must be installed strictly in accordance with the printed instruction supplied with each consignment. Drill holes should always be clean and free of drill spoil. **SSR-120** anchors can be fitted in damp holes as long as surplus water has been removed.

Testing of Anchors

It is the contractors' responsibility to ensure that site installed drilled in anchors are tested to verify that correct installation has been achieved. The tests must be carried out to BS 5080-1 standard by a competent organisation. The test load required is set at 10% above the serviceability limit state loading supplied by the system promoter and the frequency of testing should be agreed with the project engineer following the guidance in series 400. Fixing Centre approved installers are trained to carry out these tests and have the necessary fully calibrated equipment.



Where to use the SSR-120-VDI-CM25 Anchor

- Fitting of replacement vehicle restraint systems to existing structures
- Upgrading of existing anchorage systems which no longer meet specification
- Fitting of vehicle restraint systems to new concrete structures where post drilling is preferred
- Applications where it is not possible to fit more than four anchors in a restricted time period

The **SSR-120** is suitable for all types of metal vehicle restraint system where the assessed value of the design resistance (see table 1) is adequate for the application.

The high performance of the **SSR-120** anchor allows it to be used for many other applications where a reliable and durable system is essential. Examples of other uses of the anchor include, lighting columns, permanent signage and CCTV masts. Please contact our technical department to discuss any application.

SSR-100 Series Special Anchors and Technical Design Support

On occasion the design of an existing concrete plinth on which a replacement parapet fence has to be fixed is not suitable for installing the **SSR-120** anchorage. At Fixing Centre we have considerable experience in the design and manufacture of special anchors which comply with the Highways Agency specification.

SSR-100 Series Other Applications

- | | |
|--|--|
| <ul style="list-style-type: none"> ● Safety Fences
 SSR-125 and SSR-80A Chemical Anchor Sockets
 SSR-170 Cast-In Cradle Anchors
 SSR-CASS Chemical Anchor Studs ● Pedestrian Parapets and Handrailing
 SSR-VDI Chemical Anchor Sockets
 SSR-170 Cast-In Cradle Anchors, M16 thread size
 SSR-CASS Chemical Anchor Studs | <ul style="list-style-type: none"> ● Lighting Columns, Sign Gantries, Environmental Barriers
 SSR-170 Cast-In Cradle Anchors with Independent Consultants Design Certificates
 SSR-VDI Chemical Anchor Sockets, M20 - M42 internal thread
 SSR-CASS Chemical Anchor Studs, M12 - M56 thread
 SSR-800 - Class A4-80 Stainless Steel Stud Anchors, M12 - M56 thread. |
|--|--|

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Stainless Steel Civil Engineering Solutions



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SSR-120 VEHICLE RESTRAINT ANCHOR

Appendix B. Saferoad UK (Bridge Parapet Contractor)



Contract: Westfield Pill Bridge**Contract no. 5569****Client: TRJ Limited**

	Name:	Signature:	Date:
Prepared by:	Pete Smillie		4/11/25
Checked by:	Steve Birkwood	<i>S.Birkwood</i>	4/11/25

Contracts Manager - Parapets	Steve Birkwood	07980 015767
Site Manager	Pete Smillie	07779 566268
Site Supervisor	Danny Meehan	07951 200614
	Ashley Meehan	07548 283220
	Richard Thompson	07961 528034
	Dan Shaw	07538 783834
	Andy Bennett	07903 112772
	Mick Edwards	07722 129615
HSEQ Manager	Jay Bennett	07976 810539

TASKS

Refurb welded steel parapet for SN2W2

Install K Guard edge protection

Drill and Fix anchorages at new post centers

Grout base plates

Repair redundant anchorages with grout pads

Work Locations

Westfield Pill Bridge, Neyland Pembroke
W3W///available.possibly.deed

Local Hospital – Withybush General Hospital, Fishguard Road, Haverfordwest **SA61 2PZ**



Labour/Plant/Tool Requirements

Petrol Disc cutter
3-5Kva Generator with Nappy matt
110v Paddle mixer and mixing tub.
110v drill.
110v angle grinder
Battery operated small tools
Small hand tools.
Diamond drill
Water vessel
35mm coring bit

Materials Needed

Parapet components as per contract specification.
Fastenings
Sundry items
Silicone sealant (COSHH Sheet 054 Supplied)
Nufins Nugrout reinstatement to baseplate pads (COSHH Sheet 002 Supplied)
High creep resistant grease (copper grease) (COSHH Sheet 080 Supplied)
25-40mm deep Timber Baseplate shutter
Water
Chalk
SSR 120 x 225
B-BTEC Glass Capsules

Welfare

Shared welfare will be provided by Main Contractor

Hazards/Precautions

Working at Height

K Guard edge protection shall be installed prior to the removal of the redundant parapet. All materials will be secured at the end of each shift to prevent items blowing off the bridge deck. Lead operative shall be trained and competent to install K Guard and shall install as per manufacturers instructions. Operatives will not tamper with the panel/posts and will not gain access to the rear of the structure. A weekly inspection shall be carried out and recorded on the K Guard inspection sheet.

In new post locations, plumbers socks shall be secured to the K Guard with tie wraps to stop slurry from the diamond drilling from entering the water course for the Marina below.

Working Adjacent to Live Traffic

Before the parapets can be remove a Varioguard system (or similar concrete/steel) **MUST** be in place, covering the entirety of the works. Operatives **MUST** access and egress through access and egress points within the site layout, ensuring beacon is visible.

Public Safety

Where public interaction will occur traffic management as described below will be supplied by Main Contractor. If any members of the public enter site either on foot or in a vehicle TSCO representative will be immediately notified. If the public enter your working area work will stop and not recommenced until they are taken to a place of safety.

Loading and Unloading Materials

Materials will be unloaded by hand from site van at each location where possible. Where required the lorry loader crane will be used, Lorry loader crane to have an approved lift plan and all the operatives involved in the lifting operation will be briefed and signed onto the lift plan.

An in-date certificate of thorough examination **MUST** be available within the lift for the lorry loader crane and all the lifting accessories, if these are not available then the lifting operation **MUST** not take place.

All lifting accessories must be visually inspected for signs of damage before each lifting operation and removed from service if excessive wear is noted.

Materials will be stored in designated areas. At end of each shift, loose materials will be removed from the work area.

Manual Handling

Operatives undertaking manual handling tasks are to be trained in manual handling. Operatives are to assess each load before attempting to lift. Operatives are only to lift what they are comfortable with, Loads are to be broken down in size and weight as far as possible, if this is not possible then a team lift **MUST** be used with one person taking control and issuing instructions to others. When undertaking manual handling task operatives are to ensure that the works location is free from debris to reduce the risk of Slips, Trips & Falls.

Working Area

Each Saferoad working area will be segregated to prevent unauthorised access to the workplace, An agreed barrier will be erected at the approach and departure ends of each work area and access controlled by Saferoad personnel, in accordance with the site procedures. Access will be restricted to personnel involved in the works only, should anyone enter the area then works will cease immediately and will not recommence until the area is clear of all non-essential personnel.

Good housekeeping policy to be maintained at all times, keeping the working area clear of parts, fixings and

debris.

Hot Works

If there is a requirement to carry out any cutting or grinding works, there **MUST** be a Hot Works permit in place. If the main contractor does not have a requirement for a hot work permit, then Saferoad's hot work permit **MUST** be used. Operatives must install suitable protection to screen operatives, public and assets from sparks generated whilst undertaking the hot works. Personnel must ensure an in-date fire extinguisher is present and be aware of the project procedures for incidents. All works are to cease by the time stipulated on the hot works permit, and a 1-hour fire check must be completed before the permit is signed off.

For all hot works additional PPE above the standard is required, this includes flame retardant overalls, hearing protection, Impact resistant goggles or full-face shield. When cutting painted or Cementous materials then a face fitted dust mask is required as a minimum this must be P3 rated.

Special requirements

Main Contractor is to make Saferoad aware of any special requirements required for the contract for example environmental, Health and Safety and archaeological issues. Saferoad personnel will ensure they comply with any special requirements at all times whilst working on site.

Environmental

- Mobile plant refuelling to be away from watercourses and drainage, If there is a risk that any spilled substances may enter a watercourse inform Main Contractor prior to commencing work.
- Saferoad Site Supervisor and Main Contractors Management and Environmental Team to be notified of any spillage immediately.
- Plant leakage is to be cleaned up immediately using Spill kits, these will be maintained in all SafeRoad site vehicles.
- Absorbent Nappy Mats will be placed under generators to ensure any leaks of liquid are contained.
- All used spill kits will be disposed of in spill kit bins in Main Contractors compound in line with COSHH requirements.
- Grouting of posts must only be carried out when rain is not forecasted to prevent flooding of grout boxes and contamination falling into the estuary below.

Safety

RAMS will be submitted for approval by the main contractor prior to any works commencing. All personnel will receive a site-specific safety induction by the Main Contractor. Saferoad manager or Supervisor will brief all personnel on the agreed and approved Safe System Of Works, all operatives will then sign the Method Statement and Risk Assessment to confirm their understanding and acceptance of the safe system of work. All operatives are to be briefed by the Saferoad manager or supervisor to highlight the work activities to be undertaken. Additionally, a Point of Works Risk Assessment shall be completed at the work face to identify any residual hazards and identify the required controls.

All personnel will be trained and competent to carry out the works required.

All operatives **MUST** have appropriate certification such as CSCS, CPCS and IPAF cards. These must be always carried on their person whilst on site and produced for inspection when requested by either Saferoad or the main contractor.

Daily pre use checks for all plant including site vehicles are to be completed and recorded using the EasyBOP smart form or the relevant inspection book.

COSHH Assessments for all substances that may be used shall be present onsite at all times within the RAMS package. Operatives will be briefed on their use and will sign this method statement to confirm they have copies of the relevant assessments and their understanding of them.

The site will be kept clean and tidy at all times to minimize the risk of slips and trip hazards

Personal Protective Equipment (PPE)

PPE to be worn as a minimum on site is

Hard hat with chin strap fastened that complies with BSEN12492 and BSEN 397

Hi-visibility long sleeve vest or jacket and trousers in the correct colour specified by the site

Safety boots with metatarsal, mid sole and ankle protection which will be laced up correctly at all times

Gloves consummate with task

Safety glasses

If site rules demand more than this, then they will be complied with.

Additional task specific PPE to be worn as and when required i.e. fall restraint harness and lanyard systems, full face shields, Impact goggles, hearing protection, P3 face fitted dust masks and fire-retardant overalls.

All PPE must be kept in good condition, fit for purpose, fall restraint equipment must have a current in date examination certificate on site at all times and only used by trained personnel.

First Aid/Accident Reporting

First aiders are identified on the daily Point of Works Risk Assessment

First Aid boxes will be maintained in each site vehicle and will be available at all times. Emergency information including the location of the nearest hospital, the Main Contractor first aiders, site medical facilities and emergency procedures will be covered during the site induction.

All accidents and incidents will be reported to the site management team and Saferoad within 12 hours for minor incidents i.e. small cuts and grazes.

Serious incidents must be reported immediately.

In the event of an emergency, stop works immediately, ensure that you are not in immediate danger and follow the site emergency procedure as detailed at the site induction.

Disposal Requirement

Scrap metal will be taken by either an external licensed waste carrier or by Saferoad vehicle to either the Saferoad warehouse facility or an Authorised merchant and receipt obtained. All waste collected from site must be accompanied by a waste transfer note and a copy retained by Saferoad.

If there is a requirement to dispose of COSHH waste, the above will apply and a consignment note must be retained by Saferoad.

General waste, packaging etc will be taken to Main Contractors compound and disposed of using the correct skips.

Install edge protection

1. Refer to edge protection layout drawings for drilling positions of edge protection anchors.
2. Starting at one end of structure, with the aid of chalk, template and tape measure, mark drilling positions of edge protection anchors at a maximum of 2.4m centres.
3. Set up Hilti Drill with a 18mm drill bit. To achieve drilling and fixing of the anchors, operatives will be required to pass the drill over the existing parapet rails.
4. Commence drilling hole until a depth of 125mm is achieved. If steel is encountered, drilling will be stopped and drilling positions adjusted slightly to one side.
5. Continue across structure until all holes are drilled to depth. All abandoned holes will be cleaned and grout filled.
6. Clean holes of dust etc with 110v vac or Hilti puffer bottle.
7. M16 st/steel anchor bars will be delivered in sealed bags, degreased at source.
8. At first location insert 1no VDP M16 glass capsule into drilled hole.
9. Set up 110v drill complete with setting tool.
10. Sit anchor on top of glass capsule, using drill (secured on capture cord) and setting tool drive anchor into hole, until fully to depth. Note, stop drill when fully to depth, over spinning of anchor will cause loss of resin.
11. Repeat above operations to install all other anchors. Allow resin to cure, refer to data sheet provided to confirm curing times in relation to temperature.
12. Tidy works area
13. Layout KGuard extension plates c/w with post sockets at each anchor location. KGuard is to be anchored to the parapet when lifted into position.
14. Sit plates onto threaded bar anchors, securing with M16 st/steel nuts and washers. Adjust plates to correct position on slot. Tighten nuts.
15. Place posts into sockets ensuring fully home.
16. Starting at one end of the parapet, lift edge protection panels into position onto posts. Continue across the parapet until all panels have been installed and each panels locking clips fitted/secured.

17. Drape the edge protection panels with debris netting and secure with tie wraps.
18. Mark out new post locations with chalk and tape measure to mark the plinth.
19. In these location secure plumbers socks to close the gap at the bottom of the edge protecting. In turn this will stop slurry from reaching the watercourse below.

Remove existing steel parapet

Note: All scrap parapet posts and rails will be placed on pallets and materials banded awaiting collection and disposal at a licenced tip. Smaller items will be placed in debris sacks and disposed of as above.

1. With a Disc cutter, cut through the parapet rails either side of posts, neatly stack in piles ready for collection.
Note: the disc cutter is only to be used for vertical cuts.
2. Using $\frac{3}{4}$ " ratchet handle and 30mm socket remove 4 no holding down fixings per post in turn, until all bolts have been removed.
3. Rock the parapet post loose from the grout pad.
4. Place parapet post on pallet.
5. Continue across structure until all posts have been removed.
6. Stack in piles ready for collection by Saferoad, to take to a scrap metal merchant.
7. Remove existing grout pads with hammer and chisel, sweep up and bag all debris. Place at end of structure not causing an obstruction, along with all other scrap parapet materials.
8. Using wet vac and screwdriver remove detritus from existing anchor sockets.
9. Cap off existing anchor sockets with stainless steel dome head bolts and silicon sealant.
10. Scrap materials and debris will be loaded on next delivery wagon for return to Saferoad yard and disposal at licensed tip.

Install resin bonded anchorages

1. Refer to replacement parapet layout drawing for fixing positions of new anchors.
2. Using a tape measure and chalk, mark out post centres on concrete plinth.

3. Using a wooden anchor template and marker spray, mark each individual anchor position.
4. Set up diamond drilling rig with 35mm bit, connect to water vessel and 110v site generator.
5. Place dam behind drilling position to prevent drilling residue running down rear face of concrete up stand and 2nd operative used to operate wet vac ensuring all residue is removed instantly from wet drilling operation.
6. At first anchor position commence drilling ensuring the drill is kept vertically upright at all. Extract drill complete with concrete core once a depth of 265mm has been achieved.
7. Continue across structure until all holes have been drilled to depth and cleared of cores. Bag up all debris.
8. Clean drilled holes, with clean water and bottle brushes, dry out with compressed air.
9. New anchors will be delivered in sealed bags. Anchors have been degreased at source.
10. Seat B-Btec glass capsule into drilled hole.
11. Place M20 setting tool into the anchor.
12. Use the base of the anchor to smash the glass exterior.
13. Use impact wrench with 30mm socket to twist the anchor to mix in with the resin.
14. Continue until flush with the plinth.
15. Allow to cure less than 10 mins dependant on temperatures.
16. Remove setting tool with impact wrench.
17. Continue process 10-16 until all anchors have been set.
18. Tidy works area.

Test newly cast anchors

Note: 10% of all anchors installed shall be tested

1. Ensure Client's Representative is present to witness testing.
2. Select anchor to be tested at first post location, ensure concrete is clear of debris. Test anchor to be marked on fabrication drawing for as built records.
3. Set up rig above anchor, level rig with adjustable screwed legs.
4. Insert stainless steel bolt through test adaptor into parapet anchor.
5. Pump jack to take up slack in rig.
6. Place finger gauge onto head of bolt, set gauge to zero.
7. Load anchor @ 10kn for 30 seconds and record reading on DTI.
8. Repeat this procedure @ 20, 30, 40, 50, 60 and 70kn, record readings.
9. At 80kn lock of the hydraulic jack and hold the pressure for 5 minutes, record the reading.
10. During this last test monitor the reading on the force gauge, should it drop below 80kn, pump up as required.
11. If the anchor moves more than 1mm it has failed.
12. Slowly release pump pressure and record the return reading on the DTI.
13. Remove test rig and advance to next anchor to be tested.
14. Ensure a test record sheet is completed for each anchor and test post marked on fabrication drawing for as built records. and a copy is handed over to Client.
15. Should any anchor fail it will require over coring and retesting.

Installation of SN2W2 parapet

1. Parapet materials will be delivered to the structure and unloaded in the required positions IAW the Lift Plan.
2. When moving materials to the bridge, all materials are to be stacked neatly and safely on timber bearers.
3. Remove all M20 temporary bolts from newly cast cradles, bag up and dispose of in the correct onsite skips.
4. Assemble holding down bolts complete with washers and isolation top hats. Coat holding down bolt threads with high creep resistant grease.
5. The posts are placed at the anchor positions on a central packer of 25mm and bolted down plumb with fixings identified on the parts list.
6. Fit hanging brackets to posts using fixings identified on parts list and tighten.
7. Refer to parapet layout drawing to identify fixing positions of parapet rails.
8. Layout parapet rails in front of posts relevant to their fixing positions.
9. Starting at one end of the parapet offer the first lower rail up to posts.
10. Secure rail to post brackets with M16 fixings ensuring restrictor plates are fitted.
11. Fit other rails of the same set in the same manner
12. Insert rail joints into open end of rails and secure with relevant fixings.
13. Lift next set of rails into place sliding onto joints of previous rails; adjust to achieve correct joint gaps.
14. Continue along structure in the same manner until all rails are erected.

15. Once all rails are erected, tighten all the fixings along the whole structure and double check
16. Line and level the parapet by inserting and removing shims from under the base plates as required with a pry bar. **Check the bolt engagement into anchor sockets, min 21mm**
17. Clear site of all debris and surplus materials, seek main contractors approval of line and level prior to grouting.

Grout Posts/Repair Anchorages

To prevent wash out of the grout boxes and contamination of the estuary, grouting must only be carried out when rain is not forecasted.

1. Ensure string course is clean and free of dust.
2. Fit shutters around post base plates/ redundant anchor clusters. Shutter oversized by 40mm on highest side of post base plate to allow grout installation.
3. Seal to concrete with a bead of clear silicon
4. Fill shutter with clean water and allow to soak for 2 hours
5. Remove excess water after the 2hr soaking period using a 110v wet vac.
6. Mix Kilsaran grout to specification in accordance with provided material data and COSHH sheets. Eye protection, gloves and face fitted masks will be worn whilst mixing.
7. Decant into watering can.
8. Fill shutters from highest side of posts until level of grout is just above bottom of base plate.
9. Allow grout to cure, in accordance with periods on material data sheet. Protect from elements with polythene and Hessian as required
10. Once grout has cured carefully remove shutters and inspect pads, remove sealant and grout from concrete and bag up all debris
11. Final tighten of all holding down fixings, 70nm. Tidy working area. Place all debris and surplus materials in van for return to Saferoad warehouse facility or Main Contractors skips.

Appendix C. Bridgecare (Expansion Joints Contractor)



METHOD STATEMENT			
Contract/Project & Reference:	Westfield Pill Bridge		
Title/Operation	Installation of Transflex Expansion Joints		
MS Ref No:	BC-MS002	Revision:	01
Prepared by:	Barry Lister		
Approved by:	Craig Dixon		
Date:	31/10/2025		

Client	Principal Contractor	Site Name	Contract No
		Westfield Pill Bridge	1256
Other	Construction Manager	Site Manager/Supervisor	Date
			31/10/2025

Revision

Rev No	Revision Description	Reviewed by:	Revision Date

1. Scope of Works

BridgeCare have been tasked with the following:

EJ3

Remove existing expansion joint then supply and install Transflex TR230 expansion joint of length 10.982 metres

Levelling screed: 308mm wide x 35mm deep each side

Transition strip dimensions: 150mm wide x 100mm deep each side

EJ4

Remove existing expansion joint then supply and install Transflex TR50 expansion joint of length 10.982 metres

Levelling screed: 100mm wide x 70mm deep each side

Transition strip dimensions: 100mm wide x 100mm deep each side

The task is to be carried out with the site working hours being (TBC) Monday - Friday.

2. Personnel/Roles & Responsibilities

BridgeCare Director Mr Simon Paxton carries' overall responsibility for this contract.

The Contracts Site Manager/Supervisor is (TBC) who is responsible for day-to-day operations and answers direct to the Projects Manager.

Each crew has a nominated Supervisor/Foreman/Charge Hand as listed below, whose duty it is to ensure that all on site works are undertaken in a safe manner and in accordance with the approved schedule.

The total workforce/operatives on site will be a maximum of X at any one time. All relevant competences for the operatives will be forwarded onto the Client prior to arrival on site.

All Operatives are to read & understand this method statement & then sign this document in serial 13. This is to be briefed every two weeks as a minimum. A Point of Work Safety Brief is to be delivered daily & documented.

The following personnel will also give support to the project/task:

Name	Position	Telephone	Competency/Training Certs Held
Project Personnel			
Barry Lister	Project Manager	07979920569	NVQ6/CSCS/A61 AP
TBC	Supervisor/Foreman		SMSTS/CSCS
Support Personnel (Off Site)			
Simon Paxton	Contracts Director	07788435283	
Paul Charles	Head of contracts	07793589281	SMSTS/CSCS
Craig Dixon	Head of QEST	07525118577	NEBOSH Construction/CSCS

3. Interface with Others / General Public

All works to be carried out under a road closure.

BridgeCare crew foreman shall monitor the work site to ensure that persons do not enter the work area during periods of high-risk activities. During these activities no unauthorised person should be within the immediate work zone.

BridgeCare are to be informed by the client reference any potential interaction with other contractors at their work area. Ongoing liaison is to be maintained to ensure that no unauthorised personnel enter our

work areas. Regular meetings will ensure that progress and the closure of areas are well communicated throughout the works.

BridgeCare crew foreman shall establish if there is any potential hazard of materials falling directly below road joint. The condition of any existing exposed road joints/air gaps is to be checked and any potential pedestrian pathways below which may need to be barriered off during installation.

4. Access/Egress

Access to the work location shall be provided by the Principal Contractor.

The access arrangements shall be capable of accepting our standard installation vehicle of 9m in length.

Access to and from the work area shall be via purpose designed entry points within the Traffic Management. Under no circumstances should the TM be altered, cones moved etc to form an unauthorised access or egress point.

Access on to the site shall not take place until the Client or the TSCO has given clear authorisation to do so.

Access should not be undertaken whilst TM is still being installed as this places the TM employees, BridgeCare employees and other road users at risk.

When entering the work area through purpose designed access points within the traffic management vehicle must do so at reduced speed having engaged the vehicles roof beacons when approaching the works to pre warn other road users.

On entering the works zone/area the driver must establish that no member of the public as followed his in. If this has occurred, then the driver must pull over safely and inform the member of the public of his error and then he or the TSCO must escort the member of the public out by driving through the work zone/area to exit at the authorised point. Under no circumstances should the member of the public be allowed to drive through the site unaccompanied

5. Working Environment Considerations

The works are to take place on a **full road closure** with all appropriate TM/Signage etc. being provided by the client.

Varioguard temporary traffic barrier system which will be installed prior to removal of parapets

Existing services overhead and underground – In accordance with our standard form of contract prior to our site attendance the client or his representative must establish by utility drawings and cable location techniques the likelihood of underground services. Then issue BridgeCare with clearance to undertake excavation works.

BridgeCare's installation works involves the use of hot working techniques and products which would seriously affect PVC ducts, cables etc. and work will not continue if such services are within our work zone until the services are repositioned or metal shrouds installed.

Adjacent structures including buildings, roads, railways, and waterways – BridgeCare operatives are briefed on working on live carriageways and the hazards associated with such work. Unless the Concrete block or Steel barriers design is used, temporary traffic management in the form of cones segregating the work area from the live carriageways. This may be breached; therefore, employees are instructed to position their works vehicle between them and oncoming traffic wherever possible.

BridgeCare work activities does not affect the area below the structure, on the removal of the existing expansion joint close cell foam caulking rope or polystyrene would be installed into the air gap as temporary works acting as an expansion gap filler. This is then removed during the joint installation activity.

Refuelling – If required on site. The use of drip trays/absorbent pads & funnel is to be implemented.

Housekeeping – Ongoing throughout the task.

Storage – All proprietary materials are to be stored and handled in accordance with the manufacturer's instructions and located in the BridgeCare's work vehicles.

Work Area/Exclusion Zones – BridgeCare crew foreman shall monitor the work site to ensure that persons due not enter the work area during periods of high-risk activities such as when undertaking surface drying by thermic lance and filling the joint with hot materials. During these activities no unauthorised person should be within the immediate work zone.

Lighting – Specialist installation vehicle equipped with directional task lighting; head torches & additional lighting will be supplied as required.

Confined space entry – N-A

Permits – All relevant permits are to be produced & implemented by the Client and/or BridgeCare

Asbestos – If asbestos containing materials (ACM) are found during construction, all works shall stop immediately, and the area is to be isolated from the workforce. The Client is to be informed immediately who will then implement the necessary emergency response procedures in line with the Company policy. Under no circumstances will BridgeCare attempt to remove any ACM.

Other – Each work location shall be assessed by the Contract Supervisor and/or the BridgeCare Crew Supervisor/Foreman/Charge Hand prior to commencing work activities. Following this assessment additional safety measures or amendments to the programmed method of work may be required due to the individual site hazards. Such amendments will be produced an approved before undertaking additional work activities.

FR trousers and vests must conform to EN1162

Site Location

West Pill Bridge

6. Working at Height

NA

7. Plant and Equipment

Plant – All plant and equipment in use whether owned or hired is to be inspected in accordance with the manufacturer's instructions and/or BridgeCare maintenance programme.

Vehicles fitted with tail or side lifts shall have a LOLER inspection every six months by an independent tester. The "Thorough Examination" certificates are held at Head Office.

Installation trucks are subject to a 12 weekly safety check. It shall be the responsibility of the Transport Manager to notify the contracts department of the test date. It shall be the responsibility of the Contracts Manager and/or the Contracts Supervisor to ensure that the vehicle is presented for inspection when required.

Light plant and tools are maintained by our in-house fitters and a register maintained.

It shall be the responsibility of the user to undertake a pre-use check prior to use which will include insuring that each tool has an equipment tag attached and is in date. They are to report any effects on the defect report sheet back to the fitters.

The Crew Supervisor/Foreman shall oversee visual inspection of plant and equipment and ensure defects are brought to the attention of management.

Site based vehicles display high visibility livery in accordance with Chapter 8. This includes rear chevron marking, side and door edge high visibility markings/tape.

Each vehicle shall display a Highway or Motorway Maintenance sign as appropriate.

Installation trucks are fitted with reversing alarms and cameras. It is the driver's responsibility to ensure that these are in working order before undertaking any reversing manoeuvres. In any case of doubt, reversing shall only be undertaken with the aid of a banksman.

Equipment – The following equipment will be required to carry out these works:

- Installation vehicle with on-board LPG storage, compressor, and resin boilers.
- Compressor hose and whip checks.
- Hot air lance, heavy duty and/or medium weight road breakers.
- Floor saw, abrasive wheel saw with water suppression and angle grinder.
- Generator.
- Decanting buckets.
- Portable water container.
- Pistol Drill with Gate Paddle

Hand Power Tools – All personnel are to ensure that prior to any use of hand power tools the following is adhered to:

- (1) All operatives have been instructed on the use of each individual power tool – Instruction to be delivered by team Supervisor/Foreman/Lead Hand.
- (2) Only use the hand power tools if you feel confident/competent to operate in a safe controlled manor.
- (3) Prior to the use of any hand power tools ensure you carry conduct a visual check for any obvious damage/defects.
- (4) Ensure that the hand power tool is displaying the "Tool ID Tag" and the inspection date is in date.
- (5) Make sure all vibration magnitudes & noise levels are adhered too.
- (6) If during the operation of the hand power tool you experience any fault/defect, then stop using the tool and report it to your Supervisor/Foreman/Lead Hand.
- (7) If for any reason you do not feel confident/competent to operate any hand power tool, then **DON'T OPERATE!!!** Speak to your Supervisor/Foreman/Lead Hand.

8. Personal Protective Equipment and Welfare

ITEM DISCRIPTION	MINIMUM STANDARD
Hard Hat	BS EN 397
High Visibility Jacket & Trouser (flame retardant)	BS EN 471 Class 3 & 1
Flame Retardant trousers and vests	EN1162
Goggles to Grade 1 impact (when mixing & pouring resins)	BS EN 166b (Grade 1)
Safety Spectacles	BS EN 166a
Ear Defenders	BS EN 352-1 & 352-3
Kevlar Gloves with Kevlar lower arm sleeve	BS EN 388
Work Gloves	BS EN 388 CE Cat 1
Safety Boots	BS EN 345
Half-Mask Respiratory Protection Equipment	BS EN 149 & 405

COSHH Assessments provide more specific information on the types of PPE, RPE and EN Classifications for the materials and products in use during the works.

Where RPE is required, the operatives shall have undergone Face Fit Testing, with facial hair being kept to an absolute minimum to ensure that the masks continue to function correctly.

Dust suppression will be implemented to control the risk of airborne contaminants, but as this cannot be eliminated entirely RPE will be provided to BridgeCare personnel deemed to be at risk. Areas where a risk of airborne contaminates exists must be isolated and the access of unauthorised personnel be prevented using barriers, fencing and signage.

9. Welfare Arrangements

Welfare Arrangements – Hygiene and hot water facilities are available on the BridgeCare installation vehicles. Additional toilet/washroom facilities (if required) shall be provided by the client in accordance with conditions of contact utilizing specialist welfare unit.

10. Emergency, Fire and First Aid Procedures

Emergency Protocol - In the event of any emergency/fire evacuation all personnel are to make their way to the nearest muster point. If no Client site specific muster point is established within BridgeCare working area, then all personnel are to move at least 20m away from the fire/incident as directed by the site supervisor/foreman. The supervisor/foreman is to assess the situation, gather as much information then inform the clients contact. Any additional emergency protocol received by the client during induction is to be adhered to.

All accidents & incidents are to be reported to your line manager immediately, whether the incident involves yourself or you are a witness. The "Incident/Accident Information Form" is to be completed by the site Supervisor/Foreman in charge.

First Aiders – The nominated first aiders for this contract will be confirmed prior to commencement of work during project induction / safety briefing.

In the event of personal injury, the actions taken would be in line with the main contractor's site induction procedures and if required Emergency services will be contacted.

Mental Health First Aiders (not site based) – (Craig Dixon).

Location of first aid kits - Each vehicle carries a first aid kit. The joint installation truck carries a 1-to-10-person first aid kit with a burns kit or Ice Cool skin coolant aerosol. The truck also carries a 25litre container of portable water. The water is for general use as well as emergency eye wash usage and should not drop below 10 litres. The water is changed every third day if not before.

Nearest hospital/walk in centre – TBC at clients site induction.

Emergency contact telephone numbers – For emergency services call 999 unless instructed different during site induction.

Fire Precautions – Each Installation truck carries a minimum of 2 number fire extinguishers as depicted under the ADR Regulations. It is the responsibility of the driver and Crew Supervisor/Foreman to ensure that these extinguishers are always charged and accessible. Minimum 2x6Kg dry powder fire extinguishers will be on site.

In the event of a fire breaking out each Installation unit has on board 2 no 9kg fire extinguishers to attempt to control small fires if safe to do so. If required, the Emergency services will be contacted to deal with the fire.

Assembly point location - If no site-specific muster point established all personnel will move at least 20m up from any fire/incident as directed by the site supervisor/foreman.

Environmental spillage kit location - Located in the BridgeCare wagon.

In the event of an uncontrolled spillage each installation units carry spill kits which is to be used to control the spillage. If this is not achievable then the Emergency services will be contacted.

Plant nappies / drip trays are to be used under mobile equipment where there is a risk of spillage.

Location of first aid kits - BridgeCare installation Wagon.

Emergency contact telephone numbers – For emergency services call 999 unless instructed different during site induction.

Fire Precautions – Hot works permit.

Assembly point location – TBC at POWB

9. Manual Handling

Manual Handling – Employees have been trained in manual handling techniques. Resin tins are of a size which limits the risks to manual handling. Bulk handling is undertaken by lift truck and then employees utilizing manual handling techniques (as trained) to lift the resin tins and deposit in the on-board boilers. **Always ensure that the lid is locked shut before operating the boiler. Flame Retardant trousers and vests must conform to EN1162.**

- **Subcontracted Elements** – None associated with this method of work. However, should extensively diamond drilling be required an approved specialist sub-contractor may be engaged to assist with this operation.

10. Waste Management and Hazardous Waste/Materials

Waste disposal shall be in accordance with our condition of contract/client.

Disposal of Waste – taken to a licensed disposal facility.

Recyclable tins will be returned to our manufacturing unit for reuse.
BridgeCare carriers licence number: CBDU497946

11. COSHH

Hazardous Materials – The resin products used within the joint are deemed hazardous under the CoSHH regulations. Safety Data Sheets/CoSHH Assessments will be available in the Site File for reference. All stored within the site wagon.
All Employees' safety awareness of these products is in use.

12. Fatigue

Supervisor is to ensure that all relevant breaks are implemented. Shift hours are to be adhered to (no additional working hours). Avoid keeping workers permanently on night shift. If any workers are feeling fatigued, then they are to inform their line manager ASAP.

13. Monitoring Arrangements

The Contracts Supervisor/Foreman shall undertake briefing employees prior to the contract indicating both the method of work, additional safety measures if appropriate and the client's site-specific requirements.

Operatives shall attend a Clients Safety Induction on arrival on site.

Works activities will be monitored for compliance with the method of work and clients' requirements by the Contract Supervisor, Project/Site Manager, and the SHE Advisor during their site visits.

Daily the Crew Foreman is responsible for monitoring work activities, on-site safety performance and for liaison with the client's representative

14. Summary of High-Risk Activities Identified in Risk Assessment

Drawings

15. Method of Work

Installation of the Transflex Expansion Joint System.

1. Traffic Management to be supplied, erected, maintained, and removed by the client and/or his representative.
2. BridgeCare vehicle access and egress will be by the previously authorised routes only within the TM.
3. Prior to joint installation the client shall have undertaken cable location and given clearance by permit to work to BridgeCare to undertake excavation works.
4. Operative wearing high visibility clothing and additional PPE including gloves, ear and eye protection shall then saw cut along the setting out lines to the depth as specified in the contract and joint design details using a motorised floor saw.
5. Wet cutting shall take place to reduce the foreseeable hazards attributed to airborne dust. Using motorised floor saw with water – fed dust suppression/wet vacuum.
6. The existing Expansion joint anchor bolts shall be removed using impact wrench.
7. Utilising mechanical lifting aids in accordance with the none crane lift plan; operatives shall remove unbolted sections and place in a dedicated holding area prior to removal off site.
8. The joint media/asphalt consisting of the existing joint material or laid asphalt shall then be removed. Works to remove the existing infrastructure will be undertaken using an appropriate excavator, with the works confined to the bridge deck. As such, the material will be removed within a highly controlled environment and taken to a licensed disposal facility, with minimal risk of any debris escaping to the surrounding environment or over the side into the river or habitats below.
9. Excavated materials shall be placed to one side for later transfer by the client to a skip . All waste materials shall be totally removed from the joint installation site at the end of each work shift.

Hold Point 1 - On media removal the joint shall be visually inspected by the BridgeCare Supervisor/Foreman/Chargehand for any defects which may prevent the task proceeding. If all is OK then the decision to proceed with the task will be passed onto the works force.

Hold Point 2 – If any defects are detected during the visual inspection this needs to be brought to the attention of the Client or the Principal Contractor's Engineer/Supervisor. Confirmation to proceed with the task needs to be delivered/agreed by the Client or the Principal Contractor's Engineer/Supervisor.

8. Operative wearing high visibility Flame retardant clothing and additional PPE including gloves, ear and eye protection shall then using a pole scabbler, scabble the exposed joint surface to form a suitable key.
9. The operative taking into consideration the presence of the public, those within the work area and wearing standard PPE including hand, ear and eye protection shall then clean and dry the joint area using a hot/air lance fed direct from the installation vehicle.
10. Operative wearing standard PPE including gloves shall place polystyrene sheets within the structural airgap to form a temporary shutter using a template to confirm the required line and level.
11. Operative wearing PPE including gloves and eye protection shall lay modified levelling screed observing the product specification and allow to fully cure.
12. Utilising mechanical lifting aids in accordance with the none crane lift plan; operatives shall locate the bridge joint modules to utilise as templates to mark out the positions of the securing bolts.
13. Pilot holes shall be drilled through transflex module anchor pockets using percussion drills.
14. Operatives using manual handling techniques shall place levers below the existing joint module and rise slightly. Wedges shall be placed below the joint to maintain the front edge slightly off the ground. Levers shall be repositioned to remove modules. Removal by mechanical lifting aids
15. Forklift truck will then be positioned and the modules lifted out and transported to a holding area ready for permanent installation.
16. Operative wearing standard PPE including hand, ear and eye protection shall drill holes to required depth for holding down anchor bolts by percussion drilling and if required diamond core drilling at the locations previously marked.
17. Operatives wearing the appropriate PPE including full face and eye protection shall clean out drilled holes using water and compressed air.
18. All exposed surfaces shall be thoroughly dried using hot/air lance fed from installation vehicle and visually inspected prior to continuing.
19. Install the *securing* /holding down bolts using chemical resin anchor capsules and allow to cure in accordance with the manufacture's specifications.
20. Uniflex epoxy adhesive is then mixed using an 110v electric paddle drill and spread evenly over the levelling screed.
21. Uniflex single laminated membrane is then rolled out over the adhesive applying firm downward pressure cutting around the fixing studs and ensuring that there are no trapped air pockets
22. Drainage outlet is installed within the secondary membrane and discharged within bearing shelf drainage.
23. Operatives wearing the appropriate PPE shall apply a one-part polysulphide sealant around each bolt and bolt hole and in a continuous ribbon between the bolt's holes.

24. Utilising mechanical lifting aids operatives shall re-locate the bridge joint modules, then by undertaking manual handling techniques shall with pinch bars position and align the module ready for securing.
25. The Transflex joint module shall be placed back into its original position, lined, levelled, and secured by the two fixed end bolts.
26. The securing nuts are then finger tightened onto the clipped plate washer.
27. A check is undertaken on the line and level prior to tightening the securing nuts to the required torque.
- Hold Point 3** – The client representative invited to check the level and line prior to proceeding
28. Operative wearing standard PPE including safety goggles, Kevlar gloves with lower arm protection and respiratory protection shall then mix the Britflex resin using a pistol drill with gate paddle, consisting of two resin components, in a dedicated oil jacketed LPG resin heater to form the primer coat. Operatives are to place a lid over the top of the mixing tin as far as reasonably practicable to mitigate any potential splashes of the resin caused by the mixing.
29. On reaching the specified temperature, 60-85°C, subject to specification. Operative wearing standard PPE including eye/faced protection, Kevlar gloves with lower arm protection and disposable respiratory protection shall then decant the resin into a purpose designed spouted pouring bucket.
30. The resin is transferred to the joint, where an operative wearing standard PPE including Kevlar hand and lower arm protection, eye and respiratory protection shall then pour into the transition area between the module and road surfacing.
31. The resin mortar will continue to be placed into the transition trench until the correct line and levels are achieved.
32. Resin coated calcined bauxite is then liberally broadcast over the upper surface of the resin mortar transition strip.
33. Any masking tape is then removed.
34. Bolt hole sealant shall be applied in accordance with product specification and data sheet to prevent any dripping or accidental discharge over side.
34. The joint is then allowed to totally cure.
35. On completion the joint is visually inspected, and all waste materials removed to a dedicated disposal point.
36. Plant and surplus materials shall be returned to the installation vehicle and the site inspected and handed back to the client. Personal Protective Clothing shall only be removed when all tasks are completed and immediately leaving site.

The individuals undersigned below have been instructed in and understand the method and control measures contained within this Method Statement

[illegible]

Start of Shift Brief/Point of Work Safety Brief (POWSB)			
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The **Start of Shift Brief/POWSB** provides the opportunity for the Supervisor/Forman/ Chargehand to assess the specific SHE risks associated with the task, prior to putting operatives to work. When assessing the risks at the point of work consideration should be given to:

Work Environment Hazards: General housekeeping; Waste; slips/trips; traffic movements; visibility & lighting levels; public interfaces; working at height; existing equipment; nearby chemical storage; pressurised water/steam/air; airborne particles; excavations; noise & vibration; access and egress; Fire hazards – Feba Boiler: Pre-Warming; Refuelling; Storage of fuels.

Mechanical Hazards: Moving parts; buried or underground services; use of pneumatic/hydraulic/electric tools; lifting operations

Occupational Health Hazards: Exposure to substances, noise, vibration; manual handling
Environment Hazards: Working next to drains; Noisy operations in the public highway/streets; Working next to streams or other natural watercourse; waste management been considered, environmental incidents, spills etc

The Start of Shift Brief/POWSB is to be delivered at the beginning of every shift & documented

Date	Person delivering briefing and signature	Briefing subject/main hazards	Operatives Name/Signature
Date	Person delivering briefing and signature	Briefing subject/main hazards	Operatives Name/Signature
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HAVS, EAV, ELV AND VIBRATION MAGNITUDE TABLE					
Tool	TIME TO REACH EAV	TIME TO REACH ELV	Vibration magnitude (m/s ²) - 2020		Noise (db)
Alfra Paddle Mixer - EHR23 / 2.2	8 h	> 24h	2.5		
BEF 320	9h 9m	> 24h	2.3		
BEF 200 Scarifier (White Line Removal)	16m	1hr 6 m	13.5		
Belle Mixer (whilst transporting)	3h 42m	14h 46m	3.7		
Blastrac 250	13h 25m	> 24h	1.9		

Bosch GBH 2-26 DRE Drill (SDS & Fitting) drill	1h 1m	4h 4m	7		
Bosch GBH 2-26 DRE Drill (SDS & Fitting) hammer	14m	56m	14.6		
Bosch GBH 2-26 DRE Drill (SDS & Fitting) hammer & drill	14m	58m	14.4		
Bosch Pencil Grinder GGS 28 LC - GRINDING <25mm	1h 23m	5h 33m	6		
Bosch Pencil Grinder GGS 28 LC - GRINDING <50mm	15m	1hr 1m	14		
Bosch GSB13 RE - METAL DRILLING	5h 33m	22h 13m	3		
Bosch GSB13 RE - IMPACT DRILLING	4m	18m	26		
Bosch GSB16 RE - METAL DRILLING	6h 52m	>24h	2.7		
Bosch GSB16 RE - IMPACT DRILLING	6m	23m	23		
Bosch GWS19 - 2RE - METAL DRILLING	5h 33m	22h 13m	3		
Bosch GSB19 - 2RE - IMPACT DRILLING	13m	53m	15		
Bosch GWS9 - 115 - GRINDING	53m	3h 33m	7.5		
Bosch GWS9 - 115 - SANDING	53m	3h 33m	7.5		
Bosch GWS11 - 125 - GRINDING	2h	8h	5		
Bosch GWS11 - 125 - SANDING	12h 30m	> 24h	2		
Bosch GWS20 - 230H - GRINDING	53m	3h 33m	7.5		
Bosch GWS20 - 230 H - SANDING	4h 5m	16h 20m	3.5		
Bosch GBH 4-32 DFR	22m	1h29m	11.6		
Bosch GSB 21-2 Drill	14m	57m	14.5		
Bosch GSB 21-2 RE Drill, Hammer	20m	1h 18m	12.4		
Bosch GWS 20-230 H (9" Grinder) Grinding without dust cowl	53m	3h 33m	7.5		
Bosch GWS 20-230 H (9" Grinder) - Cutting Concrete cw dust cowl	25m	1h 39m	11		
Bosch GWS 20-230 H (9" Grinder) - Cutting Steel cw dust cowl	40m	2h 39m	8.7		
Bosch GWS 20-230 H (9" Grinder) - Grinding Concrete cw dust cowl	15m	1h 1m	14		
Bosch 4-32 DFR Drill	21m	1h 23m	12		
Chicago Pneumatic 1260 SVR	53m	3h 33m	7.5		
Clipper Floor Saw C99	2h 28m	9h 53m	4.5		
Clipper Floor Saw CS451	6h 23 m	>24 h	2.8		
DeWalt D25404 Drill, drill	4h 15m	17h	3.4		
DeWalt D25404 Drill, hammer	14m	54m	14.9		
DeWalt D25404 Drill, Hammer + Drill	27m	1h 49m	10.5		

DeWalt Electric Impact Wrench DW294	2h	8h	5		
Hilti AG125-A22 - CUTTING	3h 28m	13h 51m	3.8		
Hilti DD1.5 - Diamond Drill Rig	22h 13 m	>24 h	1.5		
Hilti DD120 - Diamond Drill Rig	22h 13 m	>24 h	1.5		
Hilti DD150 / U - Diamond Drill Rig	22h 13 m	>24 h	1.5		
Hilti 5" Grinder DCG 125	2h 22m	9h 27m	4.6		
Hilti 9 " Grinder DCG 230	2h	8h	5		
Hilti Breaker / Drill TE 1000	53m	3h 33m	7.5		
Hilti TE 7-C - Impact Drill	10 m	42 m	17		
Hilti TE 80 - ATC/AVR Hammer drill / SDS Max	53 m	3h 33m	7.5		
Hilti TE 30 / AVR Hammer drill / SDS Max	35 m	2h 19 m	9.3		
Hilti Breaker TE 40	26m	1h 45m	10.7		
Hilti Breaker TE 60	37 m	2h 28 m	9		
Hilti SDS Max, hammer	20m	1h 21m	12.2		
Hilti SDS Max, hammer drill	11m	46m	16.2		
Husqvarna K760 Saw	2h 42m	10h 49m	4.3		
MacDonald Single Pole Scabbler	56m	3h 45m	7.3		
MacDonald 3-Head Pole Scabbler	3h 51m	15h 26m	3.6		
MBX Electric	>24 h	>24 h	0.8		
Makita Nut Runner - 6906 - TIGHTENING FASTENERS	11 m	44 m	16.5		
Makita 5" Grinder (diamond cut disc)	7m	26m	21.4		
Makita 9" Grinder (diamond cut disc)	8m	32m	19.4		
Makita GA5021 (5" Grinder)	16m	1h 6m	13.5		
Makita HR4001C (chiselling with side grip)	20m	2h	10		
Makita HR4001C (hammer drill into conc)	15m	1h	12.5		
Makita HR4010C (chiselling with side grip)	20m	3h	8		
Makita HR4010C (hammer drill into conc)	16m	2h 15m	9		
Makita HR4011C (chiselling with side grip)	45m	4.5h	6.5		
Makita HR4011C (hammer drill into conc)	30m	3h 15m	7.5		
Makita Breaker HR4013C (Breaking Concrete)	1h 39m	6h 37m	5.5		
Makita SDS Max, Hammer	51m	3h 23m	7.7		

Makita SDS Max, Hammer Drill	27m	1h 27m	10.6		
Makita Sander 9032	8h	>24h	2.5		
Metabo WEF Quick Flat Head angle grinder	1h 39m	6h 37m	5.5		99 dB(a)
Redband 200 Scarifier	40m	2h 41m	8.6		
Refina Mega Mixer (hand held, not mixing)	18h 35m	>24h	1.6		
Tec Jack Hammer 280, Yellow (elephant's foot)	51m	3h 23m	7.7		
Thermic Lance	>24h	>24h	1		
Trelawny TFP 200 Scarrier (Floor Scabbler)	9m	35m	18.6		
Trelawny Double Headed Floor Grinder*Anti Vibration Bars*	13h 17m	>24h	1.94		
Trelawny TCG250 (Floor Grinder)*Anti Vibration Bars*	12h 30m	>24h	2		
Trelawny Single Headed Floor Grinder	13h 17m	>24h	1.94		
Trelawny TCG500 Floor Grinder) *Anti Vibration Bars*	9h 27m	>24h	2.3		
Trelawny Single Pole Scabbler	52m	3h 27m	7.61		
Tyrolit WP109 - Diamond Drill Rig	22h 13m	>24 h	1.5		
Wacker Poker IRFU65	2h	8h	4		
Wacker Vibration Plate	34m	2h 17m	9.3		
Exposure Action Value of 2.5 m/s ² likely to be exceeded - The EAV is a daily amount of vibration exposure above which employers are required to take action to control exposure. The greater the exposure level, the greater the risk and the more action employers will need to take to reduce the risk					
Exposure Limit Value of 5 m/s ² likely to be exceeded - The ELV is the maximum amount of vibration and employee may be exposed to on a single day.					
Not likely to be exceeded.					

RISK ASSESSMENT		
Contract/Project Number	Westfield Pill Bridge	
Operation/Activity	Transflex Joint Installation	
Prepared By/Author	Craig Dixon	
Risk Assessment No:	RA- 002A	Revision
Method Statement:	MS-002	
Date:	31/10/2025	

No	Hazards (potential for harm)	Who may be harmed	Initial Risk: likely result if hazard is realised	Initial Potential for Harm			Control Measures <i>Can the hazard be removed?</i>	Residual Potential for Harm		
				Likelihood	Impact	Risk Rating		Likelihood	Impact	Risk Rating
1	Loss of Communication of Key Hazards and failure to implement control measures	BridgeCare Operatives/other contractors	Various ranging from minor injury to fatality	2	4	8	Diligent attention and commitment to briefing process by all parties. Query any apparent failed identification of hazard or required controlled measure. Think Safety First. All operatives to sign all SSoW documentation to say they understand & comply with the work process, PPE, and any equipment to be used. Specific TBT's to be conducted each week or as project progress dictates. Refresher training as required. Operatives check all equipment and PPE for the task.	1	4	4
2	Site access and egress from live traffic lane.	Locals, road users. BridgeCare operatives & contractors	Vehicle impacts / collisions	3	4	12	Dedicated access and egress point built into traffic management. Vehicles at reduced speed to gain access and egress through purpose designed points within traffic management.	2	4	8

3	Interaction with other Construction works/workers	BridgeCare Operatives/other contractors	Various ranging from minor injury to fatality	2	4	8	Pre-Contract meeting to discuss access and interaction. Employee toolbox/pre contract talk on site specific safety requirements. Site demarcation/handover from client or client representative. Additional cones and or barriers and signage subject to on-site assessment.	1	4	4
4	Other contractors on site.	BridgeCare Operatives/other contractors	Various ranging from minor injury to fatality	2	4	8	Programmed work to reduce interaction with other workers on the sites. Restrict access to work are during hot works by Crew Foreman/banksman or cease operations until Client/TM Employees/Visitor/or others have withdrawn to a safe area.	1	4	4
5	Compressed gases (LPG) safe storage and use to avoid foreseeable explosion risk.	BridgeCare Operatives/other contractors	Explosions / fire / personal injury & vehicle-property damage	2	4	8	Installation vehicles fitted with purpose build storage bays, fitted with open grill lockable gates, and securing straps. Fixed steel and armoured flexible hose plumbing with appropriate regulators, flame failure safety devices.	1	4	4
6	Working with Hazardous Substances	BridgeCare Operatives	Dermatitis / burns / sickness	3	3	9	Employee awareness. CoSHH data sheets. ADR training for crews. PPE to be always worn. Storage on vehicle or secure compound storage.	1	3	3
7	Hot work / Mixing Resin product details.	BridgeCare Operatives	personal injury	3	4	12	COSHH information sheet held on-site in safety pack. Employee product awareness and personal issue PPE. Kevlar Gloves and Kevlar lower arm sleeves. Disposable respiratory protection Eye/Face visor protection. Hot works permit if applicable to site rules.	1	4	4
8	Manual handling.	BridgeCare Operatives	Musculoskeletal disorders, abrasions	3	3	9	Operatives are Manual Handling trained. Every lift should consider TILE : the nature of the T ask, the capabilities of the I ndividual performing it, the characteristics of the L oad and the layout of the E nvironment. Restrict lifting to 20 kg loads per worker where practicable. Use lifting aids / Team lifts for bulky, outsized, or overweight objects.	1	3	3

9	Loading Aggregate mixers. Bagged aggregate.	BridgeCare Operatives	Musculoskeletal disorders, abrasions	3	3	9	Employee awareness. Using manual handling techniques bagged materials are lifted from the vehicle and transferred to the mixing point. Where the mixing point is a greater distance from the vehicle mechanical aids are used to transfer the bags. Aggregate in 22 kg bags, the bag is split at the top by the operative cutting away from his body. Using manual handling techniques, the bag is then lifted and placed on the rim of the mixer. The operative readjusts his lifting position and then empties the bagged material into the mixer. The product is pre-washed by the suppliers and therefore dust during transfer from the bag to the mixer is low. Correct PPE including disposable dust masks are to be worn. CoSHH data sheets.	1	3	3
10	Pre-Heating aggregate Fumes	BridgeCare Operatives	Nuisance / long term health issues	3	3	9	Employee awareness. Hot air lance stands available. Respiratory protection available if required	1	3	3
11	Decanting Resin	BridgeCare Operatives	personal injury	2	4	8	Operative equipped with all PPE including face and hand/arm protection. Hand protection in the form of Kevlar gloves and Kevlar lower arm sleeves. Product decanted into spouted pouring buckets; the product is then directly transferred to the aggregate batch mixer and slowly added to the pre-warmed aggregate. Restricted access to boiler/mixing area. Good working practices.	1	4	4
12	Burns/slashes.	BridgeCare Operatives	Personal injury / burns	2	3	6	Operative equipped with all PPE including face and hand protection. Hand protection in the form of Kevlar gloves with Kevlar lower arm sleeves. Employee system of work training. Safe Working Procedures. Burns kit/Aerosol and/or supply of water. First aid training covers treatment of burns.	1	3	3

13	Slips, Trips and Falls	BridgeCare Operatives	Cuts, abrasions, bruises, impact injuries	3	3	9	Work area kept clear of obstacles and debris. Any spills must be cleaned up immediately. Suitable task lighting in place if required. Maintain excellent housekeeping throughout works. Plant and equipment placed in suitable working locations. Air lines must be cleared way once used.	1	3	3
14	Noise.	BridgeCare Operatives/other contractors	Minor injury / long term hearing loss	3	3	9	Noise levels are to be entered on the tool tag & visible to read. Silencers/muffle jackets fitted to machinery where possible. Hearing protection will be offered where noise levels are above 80dB in form of earmuffs or plugs. Where noise levels exceed 85dB hearing protection is mandatory and MUST be worn. Health surveillance - Annual test for two years then 3 yearly unless advised by Occupational Health Professional	1	3	3
15	Working near line traffic lanes.	BridgeCare Operatives/other contractors	Vehicle impacts / collisions	2	5	10	Traffic and pedestrian management installed in accordance with regulations by competent persons by the client. Speed reduction measures as traffic pass work area as an additional safety measure. High visibility clothing, jacket and trousers worn by BridgeCare operatives and supervisor and management visitors. Employee site induction and safety awareness. Specialised installation vehicles, purpose built for task fitted with rear high visibility amber lights and signage. Light vehicles fitted with roof mounted amber flashing beacons. Slip Road Closure by TM with reduced speed restrictions in place.	1	5	5
16	Lighting of work area to ensure safe working environment.	BridgeCare Operatives	Various injuries	3	3	9	Specialist installation vehicle equipped with directional task lighting. Head torches.	1	3	3
17	Protection of pedestrians and road users during installation works.	Locals, road users. BridgeCare operatives & contractors	Various injuries	2	4	8	Existing segregation by TM. Cones with signage. Temporary barrier/screen during, cutting, welding/burning operations to prevent sparks etc entering live traffic lanes.	1	4	4

18	Loading and replenishment of installation vehicle.	BridgeCare Operatives	Various injuries including musculoskeletal disorders & abrasions	3	3	9	Goods palletised at depot and lifted on via lift truck. Installation vehicles fitted with hydraulic side lifts and/or lifting arm. Light plant and tools to be lifted on using mechanical aid or manual handling techniques and using two people lift when applicable. Gas cylinders, storage cage at low level, two-man lift.	1	3	3
19	Working with Hand Tools/Power Tools (electrical & pneumatic)	BridgeCare Operatives	Electrical shocks / burns	3	4	12	Employee awareness training/information. Safe working procedure. Ensure all tools are in good order and well maintained with visual inspections being undertaken before each use. Where guards and handles are provided ensure, they are fitted and used correctly. All electrical power tools must be PAT tested. Ensure that whip leads are provided and used with pneumatic tools and air hoses. Ensure that No Go Zones at least 1 meter are provided around tools in use. Pre-user checks. PPE including eye, ear glove & respiratory protection. Water spray units for dust suppression.	1	4	4
20	Dust/fumes	BridgeCare Operatives	Nuisance / long term health issues	3	3	9	PPE including eye, ear, and respiratory protection. All to be face fit tested & clean shaven when wearing RPE. Water spray/mist-dampening procedure to reduce dust production as applicable to work area and contamination levels. Health surveillance to be carried out.	1	3	3
21	Flying objects	BridgeCare Operatives	Lacerations, eye injury	3	4	12	PPE including eye, ear, and respiratory protection. Water spray/mist-dampening procedure to reduce dust production as applicable to work area and contamination levels.	1	4	4
22	Grinding/cutting HDG steel rails (using oxy propane, using angle grinders/Stihl saws)	BridgeCare Operatives	Arc eye, electric shock, burns & inhalation of toxic particulates/fumes	3	4	12	Authorised Welder. Method of work procedure. Full welder PPE/RPE/gloves/eye protection/face protection. Work to be carried conducted outside in well-ventilated areas. Clean contaminated clothing after use. Follow all safety procedures during task. Do not eat, drink, or smoke when carrying out work. Screening as applicable to work area and adjacent pedestrian movement.	1	4	4

23	Welding/cutting HDG rails using oxy & propane	BridgeCare Operatives	Arc eye, electric shock, burns & inhalation of toxic gases/particulates/fumes	3	4	12	Provision of suitable fresh air/ventilation if possible (LEV). Minimal RPE requirement (3M 4255 half mask) for short term exposure. Suitable RPE required based on task specific RA & the provision of natural free flowing ventilation &/or LEV. Sundstrom head unit & fresh air battery pack SR584/SR580 preferred for longer duration works with multiple gases & fumes exposure dependant on task. Wear protective gloves/clothing/eye protection/face protection. Clean contaminated clothing after use. Follow all safety procedures during task. Do not eat, drink, or smoke when carrying out work task.	1	4	4
24	Safe access and egress to vehicle.	BridgeCare Operatives/other contractors	Various injuries including fractures	4	4	16	Employee instructed on the need to access and egress vehicles in a safe manner. i.e., never jump from a vehicle, always use the side steps, and get down backwards maintaining good hand and feet grip. Installation vehicles fitted with side ladders.	1	4	4
25	Use of road saws and abrasive wheel angle grinders.	BridgeCare Operatives/other contractors	Personal injury including cuts / abrasions / impact	3	3	9	Employee training and authorisation. Pre-user checks Safe Working Procedure PPE including Eye protection, gloves, and respiratory protection. Purchasing policy for replacement of blades from reputable supplier. Water spray units for dust suppression.	1	3	3
26	Vibration	BridgeCare Operatives	Long term health issues	3	3	9	Operatives are to ensure they have read the HAVs Tool Timetable which illustrates the EAV & ELV for all tools. Each tool will also have a tool tag which displays the VM which is to input into the HAVI metre. If the individual reaches 100 points (EAV) then they are to take an enforced break of 20 mins. This is repeated until they reach 400 points (ELV) when they then stop using vibration tools. Employee rotation to avoid excessive time on vibration activities. Periodic on-site monitoring of trigger times to ensure compliance with method of work/time exposure. Hands to be kept warm and Dry.	1	3	3

27	Burns using hot air lance	BridgeCare Operatives	Serious burns	3	4	12	Segregated working with visitors and other being prevented entry during hot ire works by a BridgeCare lookout. Competent user of hot air lance only. Restricted access during works. Use of long handled lance's placing heated head away from the user. The hot air flame is of such an intensity that the wearing of flame retardant overalls would not give any additional protection. This high-risk activity is governed to acceptable risk using strict working methods and competent users.	1	4	4
28	Fire	BridgeCare Operatives/other contractors	Various injuries including death	3	5	15	Fire extinguishers installed on each installation vehicle. Flash back/flame failure safety devises on boilers. Periodic safety checks on equipment and maintenance in accordance with manufacturer's instructions. Good house-keeping implemented, no build-up of flammable rubbish.	1	5	5
29	Movement of plant /tele-handler Striking/ trapping personnel. Coliding with other vehicles and materials	BridgeCare operatives	Multiple injuries ie fractures, lacerations, fatality & damage to vehicles	4	4	16	All plant/ tele-handler operators to be qualified, CPCS Vehicle/plant daily checks to be conducted and documented. Ensure a Thorough Examination Cert is held. For the tele-handler Trained Banksman to be used at all times. Care & Vigilance to be maintained throughout use. Speed limits to be adhered to at all times, walking speed when carrying a load. Area to be free from personnel not involved in the operation. All loads are to be positioned correctly & stable. Correctly fitted & certified lifting appliances to be used with the forks	1	5	5

Appendix D. Gwendraeth Valley Tarmac (Surfacing contractor)



CLIENT: Mr Simon Rees – TRJ
LOCATION: Westfield Pill Bridge, Neyland

Date: 17th September 2025

RISK ASSESSMENT						CHECK LIST		
OPERATION / ACTIVITY – Supply and machine lay surface course as per quotation number 2025-065						HAZARDS	Y	N
						Delivery Trucks	X	
						Paving Machine	x	
HAZARDS Traffic sensitive						STEPPING ON/STRIKING AGAINST	X	
COMPLETE HAZARDS CHECKLIST: Any electrical or cabled services are the responsibility of the Main contractor/client. Notification should be given in advance of any obstructions. Underground cables etc, should also be identified by the main contractor/client prior to commencement of surfacing operation. Gwendraeth Valley Tarmacadam will not accept any liability to damage if caused						MANUAL HANDLING	X	
OTHERS:						HAND TOOLS MECHANICAL	X	
OBVIOUS CONTROL OR PROTECTIVE MEASURES WHICH WILL BE USED COMPLETE EQUIPMENT, PPE & TOOLS/MATERIALS CHECKLIST:						HAND TOOLS NON-MECHANICAL	X	
						EXCAVATIONS		X
• Activities on the bridge deck restricted to areas by cordons, as appropriate and instructed by TRJ Ltd. - Material is always delivered in clean trucks to ensure no cross contamination of material, and is always covered until required to be used which is industry practice to ensure the heat remains constant. - Banks man for GVT surfacing will be in situ. - Activities on the bridge deck restricted to areas by cordons, as advised and guided by Main Contractor when on site. GVT will follow the directions provided by TRJ site agent whilst surfacing works are being implemented.						LIFT EQUIPMENT		X
						MACHINERY	X	
						FALL ON FLAT	X	
						FALL HOLES EXPOSED EDGES	X	
						FALLS OF MATERIAL		X
						FALLS OTHER (PLEASE SPECIFY)		
POTENTIAL SEVERITY OF INJURY OR ILLNESS (TICK BOX)						3 RD PARTY (PUBLIC/CONTRACTOR) (PLEASE SPECIFY):		
1	2	3	4	5				
	x							
1, First Aid 2, Reportable 3, Permanent Disablement 4, Fatal 5, Multiple Fatal						ELECTRICAL		X
						COSHH	X	
NUMBER OF WORKERS EXPOSED TO HAZARD (1-1) (2-2 TO 5)(3-6 TO 20)(4-21-100)(5-100+)						NOISE	X	
						OTHERS:		
PROBABILITY OF INJURY OR ILLNESS (Tick Box)						EQUIPMENT NECESSARY (PLEASE SPECIFY OTHERS NOT ON LIST)		
X								
1, Happens rarely, 2, Happens each year, 3, Happens on most jobs, 4, Happens regularly on most jobs, 5, Certain to happen.						LIFTING EQUIPMENT (PLEASE SPECIFY)		
EXTRA CONTROL MEASURES, PROTECTION OR SUPERVISION NEED IN VIEW OF RISK								
REVIEW CHECK LIST						Y	N	
						PERSONAL PROTECTIVE EQUIPMENT (PPE)		
						HARD HAT	X	
WARNING SIGNS DISPLAYED – Main contractor responsibility						x	PROTECTIVE FOOTWEAR	X
BARRIERS PROVIDED – Main contractor responsibility						x	EYE PROTECTION (NOT REQUIRED)	x
COMPLY WITH PERMIT SYSTEM – Main contractor to notify 48 hrs in advance						X no	FACE VISOR	X
SUPERVISOR CHECK AREA						X	GLOVES	x
SPECIAL TRAINING						X	OVERALLS	X

COMPETENCY CERTIFICATED	X		HEARING PROTECTION	X	
CLEAR AND SAFE ACCESS – to be maintained by Main Contractor	X		SECURING POINTS		X
SAFETY MAN/ASSISTANT for GVT	X				
OTHERS:			OTHER :		
RISK ASSESSMENT CONFIRMATION CERTIFICATE					
I CERTIFY THAT THIS RISK ASSESSMENT HAS BEEN RAISED OR RE-AFFIRMED FOR THE ABOVE STATED OPERATION/ACTIVITY					
SIGNED ON BEHALF OF GVT: Eirian Rees			Ammended 31 st October 2025 – as request by Mr Simon Rees – TRJ -		
NAME (PRINT) Eirian Rees					
POSITION: Director					

		Subject: General Site Risks – Mr Simon Rees – TRJ - Westfield Pill Bridge, Neyland, Pembrokeshire.	
		Assessed By:	Eirian Rees
		Date Assessed:	17 th September 2025
		Ammended 31 st October 2025 Key Responsible Persons: Site Foreman / GVT Ops Manager	

Index	Activity	Hazard	Pre-Control			Control Measures	Post-Control			Comment
			P	S	RF		P	S	RF	
01	General Site Activities	Noise	4	3	12	Employees have been provided with suitable ear protection and instructed how to use it. Guidance is given to reduce noise.	1	3	3	In the course of providing services to customers, GVT operatives routinely work on sites outside of the company's control. All GVT staff are trained in basic site safety and equipped with appropriate PPE to protect them from routine site hazards. We have carried out an assessment, over a considerable period of time, concerning the wearing of eye protection goggles by our operatives, and have concluded that particularly during damp or wet conditions they pose an increased risk to the safety of our personnel. All other ppe is supplied to our workforce and its use is monitored throughout our surfacing operations. .
		Dust, Gas, Vapour or Fumes	3	4	12	The company's activities give rise to dust and vehicle emissions. Measures are in place to minimize or reduce the hazard. Refer to specific Risk Assessments and Method Statements for details of controls.	1	4	4	GVT's Health & Safety system includes risk assessments, method statements and guidelines covering all activities its workers are expected to engage in.
		Chemicals, Fuels & Oils	3	4	12	A limited number of hazardous substances are routinely used by the company. Data sheets and COSHH assessments are available, and operatives have been provided with training and appropriate PPE.	1	4	4	The company is aware that construction sites are inherently dangerous places. Employees will be trained to have an appreciation of the dangers and how to avoid them. They will be provided with suitable protective equipment and instructed how to use it.
		Falls from Height.	2	4	8	Operatives are trained to have an appreciation of the dangers of working at height and to avoid doing so whenever possible. All plant has manufacturer's steps and handrails in good working order.	1	3	3	Notification received on the 15 th Sept 2025 – that project is to commence in January 2026 –
		Working on Dangerous Machinery	2	4	8	Operatives are trained and competent to work on their machines safely. Specific risk assessments detail appropriate control measures.	1	1	1	Supply and machine lay surface course as per quotation number 2025-065.
		Collisions with People, Vehicles & Obstacles	2	4	8	Maneuvering of plant and vehicles on site is the riskiest activity undertaken by the company. Accordingly, vehicles are equipped with camera, mirrors, beacons, sensors and reversing alarms. See specific Risk Assessments for complete control measures.	1	4	4	Please read this General Site Risk assessment alongside the Method Statement for Machine lay works and Risk Assessment.
									GVT confirms it will follow the instructions from TRJ Site Agent into the safe access and egress to the Bridge	



[Gwendraeth Valley Tarmacadam Limited](#)

Frood Vale Garage
Pontyates
Llanelli
Carmarthenshire SA15 5UF

TELEPHONE NUMBER: 01269 860496

GENERIC METHOD STATEMENT MACHINE LAY WORKS

NAME OF CLIENT: Mr Simon Rees – TRJ

SITE LOCATION :- Westfield Pill Bridge, Neyland, Pembrokeshire

DATE :- 17th Sept 2025 (amended 31st October 2025 – as requested by Mr Simon Rees)

PROPOSED DATE FOR WORK TO BE CARRIED OUT: To be confirmed – email received from TRJ confirming that they are planning to commence project in January 2026.

INFORMATION IN RELATION TO LOCATION OF WORKS :-

Traffic management if required will be the responsibility of the Main Contractor.
Signage and barriers if required will be the responsibility of the Main Contractor.
Safe access and egress to site will need to be maintained by the Main Contractor for the duration of the surfacing works. Failure to do so could result in Machine laying operatives and plant being removed from Site.
Site induction if required will be carried out by the Main Contractor or Client. –
NO notice of any specific traffic issues have been issued by main contractor.

SEQUENCE OF WORKS:-

Prior to arrival on site, main contractor responsible for removing any obstruction that could cause issues to surfacing operation. Main contractor responsible for setting the levels out correctly and all preparation works to enable surface course to be machine laid as per quotation number 2025-065 dated the 3rd April 2025.

MACHINE LAYING OPERATION: -

Area to be identified and inspected to received machine laying operation of surfacing works.

Paving machine to be set-up to receive bituminous material which will be discharged directly into hopper from insulated tipper trucks/lorries. Hot bituminous materials to be delivered to the required location in clean, insulated vehicles and covered during transit and whilst awaiting tipping onto the bridge deck. Main Contractor will be responsible for the activities on the bridge deck – and GVT Ltd will adhere to the notices and restrictions implement by TRJ Ltd. All GVT vehicles will be subjected to Banksman for the purpose of surfacing works.

The material will be evenly distributed and lightly compacted by the paving machine. Full compaction will follow immediately by self-propelled vibrating rollers.

Programme of works will be carried out as per order received.

Surfacing equipment to be removed at the end of the surfacing operation and returned to vans/trailers/low loaders etc.

Full walk through to check standard of operation to by undertaken by Gwendraeth Valley Tarmacadam supervisor on site in order to hand over to Main Contractor/client.

EQUIPMENT TO BE USED/BROUGHT TO SITE:

Insulated Tarmac Lorry/tipper truck

Paving machine

Rollers: Static/vibrating/tandem rollers

Compactor Plate/ Hand Stamper

Shovels

Wheel barrows

Rakes and associated hand tools to undertake task of surfacing works.

SIGNED ON BEHALF OF GWENDRAETH VALLEY TARMACADAM:-

*Eirian Rees. Ammended 31st October 2025 as requested by Mr
Simon Rees TRJ*

Tarmacadam and Haulage Contractor / Tarmacwir Cwm Gwendraeth

Directors: Eirian Rees / Tomos Rees/ Rhian Thomas

Company Number: 14102329

Vat No: 124661973

Risk Assessment Asphalt Paver – Gwendraeth Valley Tarmacadam

Site:	Simon Rees – TRJ – Westfield Pill Bridge Neyland			Contract Number:	01269 860496
Assessed by:	Name: Signed:	Eirian Rees Eirian Rees	Position:	Director	Date: 17 th Sept 2025
Description Of Work:	Use of Asphalt Paver – Supply and lay asphalt surfacing as per quotation number 2025- 065 dated the 3 rd April 2025				
Task / Job Component	Hazard	Persons at risk	Risk Rating L/M/H	Controls / Precautions to Reduce Risk	Residual Risk Rating L/M/H
Operation of Paver	Entrapment	Plant operators	H	1. Ensure all emergency stop buttons are working before use. 2. Only competent and trained operators to drive paver. 3. Only competent and trained persons to operate screed/side plate. 4. Do not attempt to clear blockages when auger is operating.	L
Operation of Paver	Fire	Plant operators, Civils operatives	H	1. Ensure burner controls are functioning correctly prior to use. 2. Check all gas hoses and connections for damage prior to use. 3. Ensure fire extinguisher is in place before use.	L
Operation of Paver	Collision with pedestrians/other vehicles	Plant operators, Civils operatives, other contractors, visitors	M	1. Only competent and trained operators to drive paver. 2. Operator to have appropriate driving licence to drive on public roads. 3. Site/road speed limits to be adhered to at all times. 4. Driver must have clear forward/rear field of vision at all times.	L
Operation of Paver	Unauthorised use	Plant operators, Civils operatives, other contractors, visitors	M	1. When not in use, paver must be parked with handbrake applied and keys removed in site compound or other secure area.	L
Operation of Paver	Noise	Plant operators, Civils operatives	M	1. Operatives to wear hearing protection when paver is operating -	L
Operation of Paver	Interaction with public/traffic	Plant operators, Civils operatives, other contractors, visitors	M	1. Flashing beacons to be switched on at all times. 2. Banksman to be in attendance when paver is in use.	L

Risk Assessment Asphalt Paver – Gwendraeth Valley Tarmacadam

Likelihood
How often could the hazard occur? Consider the task, frequency, duration, method of work, employees involved.

Severity
How serious would the hazard's effects be if realised? Consider the type of hazard, biological, ergonomic, physical and chemical.

Risk = Likelihood x Severity
E.g. Likelihood (4) X Severity (3) = 12 **HIGH RISK**

	HAZARD SEVERITY (S)				
	1	2	3	4	5
RISK RATING = Likelihood (L) x Severity (S)	Negligible Negligible injury, no absence from work	Slight Minor injury requiring first aid treatment	Moderate Injury leading to a lost time accident	High Involving a single persons serious injury/death	Very High Multiple serious injuries/death
1 Very Unlikely A freak combination of factors would be required for an incident / accident to result	LOW	LOW	LOW	LOW	LOW
2 Unlikely A rare combination of factors would be required for an incident / accident to result	LOW	LOW	LOW	MEDIUM	MEDIUM
3 Possible Could happen when accidental factors are present but otherwise unlikely	LOW	LOW	MEDIUM	HIGH	HIGH
4 Likely Not certain to happen but an additional factor may result in an incident/accident	LOW	MEDIUM	HIGH	HIGH	HIGH
5 Very Likely Almost inevitable that an incident / accident would result	LOW	MEDIUM	HIGH	HIGH	HIGH
LOW RISK (Score 1-6)	May be acceptable, however, review task to see if risk can be reduced further				
MEDIUM RISK (Score 8-10)	Task should only proceed with appropriate consultation with specialist personnel and HS&E team. Where possible the task should be refined to take account of the hazards involved or the risks should be reduced further prior to task commencement				
HIGH RISK (Score 12-25)	Task must not proceed. It should be redefined further control measures put in place to reduce risk. The controls should be reassessed for adequacy prior to work commencement.				

SAFETY INFORMATION

ASPHALT

1. IDENTIFICATION OF SUBSTANCE/ PREPARATION & COMPANY/UNDERTAKING

SUBSTANCE NAME - ASPHALT

This Safety Datasheet is not applicable to Deferred-Set Asphalt and Coloured Asphalt, which are covered by separate Safety Datasheets.

For further details of the specification refer to the relevant Technical Data Sheet.

1.1 COMPANY DETAILS

Tarmac Limited Portland House Bickenhill Lane
 Solihull Birmingham B37 7BQ
 0800 1 218 218
 Emergency 0800 1 218 218 (during office hours)
enquiries@tarmac.com

2. HAZARD IDENTIFICATION

NOT classified as dangerous in accordance with Directive 67/548/EEC or EC 1272/2008.

The main hazards presented by Asphalt relate to the temperature of the material.

The following hazards may apply:

- Hot materials may burn the skin.
- Fumes from Asphalt are unlikely to be hazardous when laid in open air situations, but there may be a risk to health by continuous inhalation of high vapour concentrations which might arise in poorly ventilated, confined or semi-confined spaces.
- Asphalt is not a dusty material, but respirable dust may be released by cutting, drilling or planing hardened asphalt. If inhaled in excessive quantities over a prolonged period or extended period, respirable dust can constitute a long term health hazard.

- Dusts containing Respirable Crystalline Silica* (quartz) present a greater hazard. Long-term exposure to respirable dust can lead to respiratory system damage and disease. Respirable crystalline silica* has been associated with the lung disease silicosis.
- The quartz content of the product will vary, and is related to the type of aggregate used in the production of the asphalt. Advice on the quartz content and other chemical information is available from the supplying unit.

*Any references to respirable silica only apply if hardened asphalt is cut, drilled, milled or planed.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Asphalts are mixtures of aggregates and bitumen. Bitumen is a hydrocarbon derived from the distillation of petroleum crude oil, but may be synthetic or modified by the use of polymers and other chemicals. Bitumen content is typically <10%. Other materials such as cellulose fibres, latex and other additives may be added to the product.

Aggregates used in asphalt may be naturally occurring (eg.limestone, gritstone, granite, sand etc), artificial (e.g. slag aggregates) or recycled (e.g. road planings, inert construction and demolition waste, glass etc).

Hazardous Ingredients				
Substance Name	EC No	%	DSD Classification	CLP Classification
Crystalline Silica*	238-878-4	Variable	Xn; R48/20	H372; STOT RE1

4. FIRST AID MEASURES

Inhalation:

Immediately remove to fresh air. If breathing difficulties are experienced, seek medical attention. If breathing has stopped, commence artificial resuscitation and seek medical attention immediately.

Skin Contact:

Burns caused by contact with hot material should be cooled by immediately flushing with large amounts of cold water. Do not attempt to remove anything from the burn area unless required to allow breathing. Seek medical attention. Bitumen may be removed under medical supervision.

Eye Contact:

If material is hot, apply the same measures as 'skin contact' above. If the material is cold, immediately and thoroughly irrigate with eye wash solution or clean water. If symptoms develop or persist, seek medical attention.

Ingestion: Remove to fresh air. If person is conscious, rinse out mouth and give water to drink. Seek medical advice.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Dry powder, foam.

Unsuitable Extinguishing Media:

Do not use water. CO₂ is also not suitable.

Special Exposure Hazards in Fire:

Hydrocarbon fumes may be released, along with other hazardous combustion products including smoke.

Special Protective Equipment for Fire Fighters:

Proper protective equipment including suitable respirators or breathing apparatus must be worn.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear overalls, heat resistant safety boots and heat resistant, impervious gloves. Wear suitable respiratory protection in poorly ventilated or enclosed areas. Keep away from ignition sources. See Section 8 for guidance on personal protective equipment. See Section 7 for guidance on handling the product.

Environmental Precautions:

Prevent asphalt from entering watercourses, ditches and drains.

Methods for Cleaning:

Scrape up using suitable mechanical methods. Bitumen may be removed from tools and machinery with a proprietary bitumen remover, but ensure you refer to the suppliers safety data sheet before using.

7. HANDLING AND STORAGE

Handling: Skin contact with the product should be avoided. Inhalation of fumes should be avoided as far as is reasonably practicable. If the formation of vapours is a risk, then additional ventilation should be provided. Handle away from sources of ignition and heat. Do not smoke, eat or drink during use.

Storage: No special requirements. Asphalt is normally used upon receipt. Refer to the relevant Technical Data Sheet for the specific product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Take Measures to Prevent:

- (a) Inhalation of vapours/fumes.
- (b) Inhalation of excessive quantities of dust during cutting, drilling, planing or surface treatment of hardened asphalt.

Exposure Control Limits / Source				
(a) Asphalt Fumes	W.E.L.	5mg/m ³	8hrs	T.W.A.
	W.E.L.	10mg/m ³	15 min	T.W.A.
(b) Total Dust -	W.E.L.	10mg/m ³	8hrs	T.W.A.
Respirable Dust -	W.E.L.	4mg/m ³	8hrs	T.W.A.
Respirable Quartz - (Crystalline Silica* SiO ₂)	W.E.L.	0.1mg/m ³	8hrs	T.W.A.

W.E.L. = Workplace Exposure Limit

T.W.A. = Time Weighted Average

Control Measures:

Dust caused by cutting or planing hardened asphalt should be controlled by containment, suppression and extraction/ filtration where possible.

Asphalt should only be laid in well ventilated areas.

Inhalation: Use only in well-ventilated areas.

Eyes, Skin & Hands: Wear suitable protective clothing, gloves and eye / face protection.



Respiratory Protection: Always ensure adequate ventilation and avoid breathing vapour/ fumes. Suitable respiratory protection should be used if required to ensure exposure is below the Workplace Exposure Levels given at the start of this section.



Hand Protection: Impermeable, heat resistant gloves should be worn.



Eye Protection: Goggles should be worn if there is a risk of product entering the eyes (including dust).

Skin Protection: Overalls and/or long-sleeved jackets and full length trousers should be worn to protect skin from burns. Cleanoveralls as necessary to prevent bitumen permeating to clothing or skin underneath. Heat resistant safety boots should be worn to protect feet. The use of skin barrier cream is also recommended. Hands should be washed thoroughly before handling or eating food or drink.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black, granular solid
Odour:	Strong, characteristic
pH:	Neutral
Boiling Point / Range:	Not applicable
Melting Point / Range:	90 - 100°C
Flash Point:	Above 200 °C
Auto Flammability:	Above 230°C
Flammability:	Not determined
Explosive Properties:	Not determined
Oxidising Properties:	Not determined
Vapour Pressure:	Not applicable
Relative Density:	Above 2.0
Water Solubility:	Insoluble
Fat Solubility:	Not determined

10. STABILITY AND REACTIVITY

Conditions to Avoid:

Sources of ignition and temperatures above 200°C.

Materials to Avoid:

Strong oxidising agents, e.g. chlorates which may be used in agriculture.

Hazardous Decomposition Products:

The substances arising from the thermal decomposition of the bitumen binder in asphalt will largely depend on the particular conditions but may contain the following: Hydrogen Sulphide, Carbon Dioxide, Carbon Monoxide, Water, Particulate Matter, Sulphur Oxides, Polycyclic Aromatic Hydrocarbons, Unburnt Hydrocarbons, Nitrogen Oxides, Vanadium Pentoxide.

11. TOXICOLOGICAL INFORMATION

Inhalation:

Inhalation of respirable dust from aggregate contained in asphalt whilst cutting or planing hardened asphalt can lead to respiratory system damage and disease. Inhalation of fumes over a prolonged period may cause irritation of the respiratory system.

Bitumen used in asphalt may release small amounts of hydrogen sulphide gas. With good general ventilation, this is not likely to cause any problems, but in poorly ventilated enclosed spaces, concentrations may build up to hazardous levels.

Skin Contact:

Contact with hot asphalt may cause burns. Prolonged skin contact may cause dermatitis and malignant warts.

Eye Contact:

Contact with hot asphalt may cause burns. Product entering the eyes may cause irritation.

Ingestion:

Ingestion is very unlikely. Seek medical attention.

12. ECOLOGICAL INFORMATION

Environmental Assessment:

When used and disposed of as intended, no environmental effects are foreseen, and asphalt should not pose an ecological hazard.

Mobility:

Low mobility. Will sink in water and form a solid layer on the surface of the ground.

Persistence and Degradability:

Resistant to degradation and will persist in the environment.

Ecotoxicity:

Not expected to be toxic to aquatic organisms.

13. DISPOSAL CONSIDERATION

Safe Handling of Residues / Waste Product:

Asphalt made with bitumen is classed as 'non-hazardous' but should be disposed of in accordance with local and national legal requirements. Hardened asphalt can be readily recycled.

14. TRANSPORT INFORMATION

Special Carriage Requirements:

Not classified as dangerous for transport. Product should be kept covered. Flammable materials, and containers that do or may become pressurised should be kept away from hot asphalt to avoid the risk of fire and explosion.

15. REGULATORY INFORMATION

Classification: Not classified as dangerous.
However, consideration of the following risk
& safety phrases is recommended.

67/548/EEC

Risk Phrases:

R34 - May cause burns.

R36/37 - Irritating to eyes and respiratory system.

Safety Phrases:

S36/ 37/ 39 - Wear suitable protective clothing,
gloves and eye/face protection.

S51 - Use in well ventilated areas.

EC1272/2008

Hazard Statements:

H317 - May cause skin irritation

H335 - May cause respiratory irritation

H372 - Causes damage to organs through prolonged or
repeated exposure (relates possible lung damage if
exposed to respirable silica* that may be released if
hardened asphalt is cut, drilled, milled or planed.)

Precautionary Statements:

P261 - Avoid breathing dust/fume/vapours.

P271 - Use only outdoors or in a well ventilated area.

P281 - Use personal protective equipment
as required (see Section 8)

16. OTHER INFORMATION

Training Advice:

Wear and use of PPE.

Recommended Uses and Applications:

Industrial and construction applications.

Further Information:

Contact Product Technical Support at Tarmac
Limited using the details given in Section 1.

HSE Guidance Note EH40/2007

PPE Regulations 1992

COSHH Regulations 2002

Environmental Protection Act 1990

HSE Crystalline Silica EH59

Dangerous Substances Directive (DSD) 67/548/EEC

Classification, Labelling and Packaging

Regulations (CLP) EC1272/2008

Further copies of this Safety Data Sheet may
be obtained from Tarmac Limited.

Prepared in accordance with Annex II of the
REACH Regulation (EC) 1907/2006

LEGAL NOTICE

The information in this Safety Data Sheet was believed to be
correct at the time of issue. However, no warranty is made or
implied as to the accuracy or completeness of this information.

If you have purchased this product for supply to a third
party for use at work, it is your duty to take all necessary
steps to ensure that any person handling or using the
product is provided with the information in this sheet.
If you are an employer, it is your duty to tell your employees
and others who may be affected of any hazards described in
this sheet and any of the precautions which should be taken.

This Safety Data Sheet does not constitute the
user's own assessment of workplace risk, and it is
the user's sole responsibility to take all necessary
precautions when using this product.

AtkinsRéalis



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