



Network Rail Project No:

AMCO Contract No: IS0xxxx

WPP Revision: 0

Revision Date: 17/03/2021

Work Package Plan

CD 200/564 Burntisland
CD 200/494 Burntisland

ECN2 18m 0050yds to
19m 0630yds

Start Date: 5/07/2021

Finish Date: 31/11/2021

Work Package Plan
Number:

WPP002: Burntisland CD

Controlled Copy Number
Burntisland CD/WPP002/001

Construction Phase Plan
Number

Burntisland CD/CP/001

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17/03/21

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.....Date

(Print Name)

(Signature)

Contracts Manager

(Job Title)

Civils

(CRE Discipline *(as stated in the CPP)*)

Accepted on behalf of Network Rail / Client:

(Print Name)

.....Date

(Signature)

Project Manager.
 (Job Title)



Always be sure the required plans and permits are in place, before you start a job or go on or near the line.



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Document Control Master			

VERSION CONTROL

REVISION NUMBER	SUMMARY OF CHANGES
Draft	
01	
02	

Supporting guidance



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1	Introduction	4
1.1	Brief outline of work methodology	4
1.2	AMCO’s delivery organisation	8
1.3	Resources	9
2	Working Together	10
2.1	At site communication	10
2.2	Contact details	11
2.3	Other parties involved with the package of work (interfaces details)	11
3	Hazard Management	12
3.1	Work involving particular risks	12
3.2	Significant railway and construction risks	14
3.3	Lifesaving rules and High Risk Areas	21
4	Environmental and Waste Management Arrangements	22
4.1	Environmental management arrangements	22
4.2	Waste management arrangements	23
5	Emergency Arrangements	23
5.1	Site emergency arrangements	23
5.1.1	First aid arrangements	23
5.1.2	Evacuation arrangements	28
5.1.3	Fire safety arrangements	29
5.1.4	Security arrangements	29
5.1.5	Environmental Emergencies	24
5.1.6	Summoning emergency services	24
5.1.7	Railway emergency (trains and electrical)	25
5.1.8	Asbestos	25
5.1.9	Utilities	26
6	Work Package Arrangements	26
6.1	Site Layout	26
6.2	Access and Egress	26
6.3	Welfare	26
6.4	Rail Traffic Management	26
6.5	Road Traffic Management	26
7	Hand Over and Hand Back Arrangements	27
7.1	Hand over and hand back arrangements	27
	APPENDICES – Supporting information	28
	Appendix 1 – Risk Assessment	Error! Bookmark not defined.
	Appendix 2 – Drawings	37
	Appendix 3 – Site Layout Plan	40
	Appendix 4 – Spare	41

3 of 41	Proforma uncontrolled when printed	RFM-HS-006-04
Parent Procedure:	HS52: Planning and Managing Rail Construction Work	



1 Introduction

1.1 Brief outline of work methodology

1.1.1 200/494 Burntisland 3 - Sea Defence 200/494 is situated to the west of Burntisland Town Centre, ECN2 19 miles 210 yards to 19 miles 630 yards. The defence consists of approximately 40 yards of reclaimed demolition concrete protection, 310 yards of undefended natural slope, 20 yards of concrete bag seawall and 60 yards of masonry revetment. The defence fronts directly onto the foreshore which consists of boulders, cobbles and along one section a large rock outcrop.

200/564 Burntisland 4 - Coastal defence 200/564 is situated to the north west of the town of Aberdour, in Fife at an ELR and mileage of ECN2, 18m 0050yds respectively. It protects double tracked, non-electrified railway along a distance of 1725yds. It can be accessed from Silver Sands beach which is signposted from the A921 road which passes through Aberdour. The defence itself is comprised of 1250 yards of masonry revetment, 465 yards of natural rock outcrop and 70 yards of natural beach

AMCOGiffens brief is to carry out

- Masonry and concrete revetment repairs to with particular attention to be made where defence is in its poorest condition including previous repairs which have deteriorated.
- Placement of rock or concrete armour at the toe of the defence.
- Provision of edge protection for track workers.
- Expose and unblock all piped outlets to allow for free flowing of water and remediation to small embankment slips.
- De-vegetation of structure and 5m surrounding envelope, roots to be treated to prevent regrowth, including treatment of any invasive species.

Note: Retaining wall to the lower slope and the overhanging rock section are different assets and are not part of this remit.

1.1.2 The following tasks support this Work Package Plan:

Reference & Prepared by:	Task Briefing Sheet Title	Activity Start Date
WPP002	Burntisland Coastal Defence Repairs	11/07/21
WPP002/TBS001	Concrete and Masonry Repairs	11/07/21
WPP002/TBS002	Rock Armour Reinstatement	11/07/21
WPP002/TBS003	De-vegetation	11/07/21
WPP002/TBS004	Pipe Jetting	11/07/21



General

- All operatives will receive the site safety induction and sign the site safety induction log
- All personnel on the site will receive a task briefing to cover the methodology and health, safety and environmental risks associated with the activities.
- A daily white board briefing will be carried out each day which all site personnel will attend. Any new hazards will be identified at this point.
- A point of work risk assessment and daily briefing will be carried out each day which all operatives will sign to show they have understood the methodology and hazards. Any new hazards will be identified at this point.
- All suppliers to be notified of Traffic Management plan prior to commencement of works.
- A dilapidation photo survey shall be carried out before any works commence.
- All refuelling shall occur in a dedicated area at least 10m away from the watercourse
- All heavy plant operating in or within 10m of the watercourse will run using hydraulic Bio oil.
- All static plant shall be sat over a drip tray which can contain 110% of the fuel tank capacity. This plant shall be positioned at least 10m away from the water
- All waste shall be managed in accordance with the Site Waste Management Plan.
- Clean, check and dry process to be in place and briefed to all personnel and all plant to be cleaned down before coming to site.
- Nesting bird survey to be carried out prior to works commencing.
- All works shall comply with the requirements of the ecology report, Marine Scotland licence.

IMPORTANT INFORMATION REGARDING TIDAL WORKING

- No lone working is permitted at any time in or around the water course.
- Works are in a tidal area and therefore works will be planned accordingly. Any machine works to be carried out with machine in the coast footprint are only permitted 3 hours either side of low tide. At all other times, it is expected to be high tide and therefore no machine works are permitted Site supervisors should familiarise themselves with an approved Tide Times information service. These times will dictate working hours and limitations.

POSSESSION WORK

- Delivery of RRVs and Materials to AMCO site compound, Lammerslaw Road, Burntillsand, KY39BS adjacent to rail vehicle access point ECN2 19m 1030yds
- Delivery of Plant and Materials to site using RRVs in possessions accessing at Burnt Island RRAP ECN2 19m 1030yds
- Unloading excavator, dumper, rock armour and relevant materials
- All materials will be placed in a position of safety

TB001 – Revetment Repairs

- Marine Licence to be issued prior to AMCOGiffen entering the work area.
- Permit to work near the water to be issued prior to working.
- All permit requirements to be adhered to for duration of the below activity.
- A water monitoring kit shall be obtained from the AMCO Environmental Department and a sample shall be taken and recorded (photographed) by the Site Supervisor.
- Local emergency services, including the coastguard and lifeboat will be advised of the operations.
- All operatives must wear lifejacket and be fully briefed on activities risk and control measures along with the rescue plan.
- Upon completion of the main works, the above methods will be removed in opposite sequence with extra care taken to ensure no sediment is disturbed.



- Visual Inspections will be carried out before, during and after all proposed concrete works including masonry repairs and any issues highlighted to AMCO Site Management and works suspended.

Masonry Repairs

- Masonry repairs will be carried out as detailed on the Form003 drawings and repair schedules.
- Access to repairs will be gained from ground level.
- Access at higher level will be accessed using Alloy towers built, moved and dismantled by or under the supervision of a competent PASMA trained operative. This work will be carried out during periods of low tide only.
- Dilapidation Photos must be taken prior to any works commencing.
- The ecology report shall be referred to and nesting bird check undertaken prior to works commencing
- Pointing and filling is to be carried out in accordance with NR/CIV/SD/101.
- Operatives will use hand tools such as rake/hammer/chisel/scotch (and lightweight 110v breakers if required) to remove all loose mortar from the masonry courses to a required depth to provide a key for the new mortar installation. If a depth of 20mm or more mechanical tools to be used.
- Operatives to check to ensure that a depth of at least 25mm has been achieved by the raking of old joints, using a suitably proportioned depth gauge for 25mm
- A lime mortar mix as per the design specification detailed on NR/CIV/SD/101 will then be dry mixed in the main compound before being transported round to the work area.
- A measured amount of water will then be added to the mix in the bucket to form the mortar, which will then be applied to the re-formed mortar beds before being struck flush.
- Utilising hand tools (trowel & pointing key), sweep mortar into the exposed joint area
- After the mortar has hardened (but before it goes off); all joints will be given a brushed finish. The mortar will be brushed with a soft brush to expose the course aggregate.
- Mortar Mix to be M6.

Concrete Repairs

- As above concrete repairs will be carried out as per repair schedules
- This will consist of pointing to rock revetments or reinstating concrete wall sections
- If excavation is required the area will be CAT scanned and a permit to dig issued, before any excavation works commence.
- An excavator working under the supervision of a banksman and within an exclusion zone will excavate to a level set by AMCO's site engineer. Casting all excavated material into a tracked dumper which will be transported to an allocated safe area for later removal from site by an approved waste carrier.
- A min 50mm concrete blinding will be poured to form a clean and level base to set shutters on, and pinned at bottom to stop shutter failure during concrete pour of the invert blinding, the concrete will be brought to site.
- If access is suitable concrete will be placed using the excavator.
- Once blinding has cured shutters will be erected to give minimum 300mm base & 1200mm wall, the shutters will be transported where the joiners will fix and set shutter to correct line and level set by site engineer, shutters will be erected and shored.
- Fast set concrete will be either be brought to site premixed or hand batched from dry mixed 25kg bags
- Concrete will be poured at the start of low tide to allow adequate curing time.



TB002 – Rock Armour Installation

- All work will be carried out under the control of a permit to work within a watercourse.
- Rock armour will be loaded into dumper and transported to the work site. It will be stockpiled in this location for placement by excavator.
- All plant working within the vicinity of the coastal defence will be fitted with bio oil.
- Watercourse monitoring will be carried out throughout the duration of the task.
- All plant (Excavators / Dumpers) will be delivered by low loader to the beach access point and off loaded.
- All plant will be fuelled within this site compound via mobile bowser (No fuelled stored on site – To be brought in as and when required). A spill kit facility will be available at all times. The machines will be stored at site compound at the beach access point overnight or out of site hours.
- An additional Welfare van will be at the main point works by agreement to provide facilities closer to the point of work.
- AT ALL TIMES DURING THE EXECUTION OF THESE WORKS DUE COGNISANCE WILL BE TAKEN WITH RESPECT TO PREVAILING WEATHER CONDITIONS TIDE TIMES AND HEIGHTS
- A suitably sized excavator will be located at the beach access point and tipping point of the imported rounded boulders.
- The imported rounded cobbles will be delivered to site via tipper wagons and tipped ready for loading by the excavator in the awaiting dumpers.
- Rock armour stone that meets the specification requirements will be delivered and stockpiled within the site compound.
- Rock armour will be visually inspected to check minimum, maximum and average stone sizes.
- A banksman will always be in attendance whilst the vehicles are reversing and to also direct members of the public who may require access to the beach whilst the works are being undertaken.
- Two number dumpers (Wheeled) will transport the imported cobbles along the beach, above the mean high tide point to the point of works. The cobbles will be tipped as directed by the second excavator located at the main point of works (sea defences). The site speed limit will be 5 mph.
- DUE COGNISANCE WILL BE TAKEN AT ALL TIMES WITH RESPECT TO MEMBERS OF THE PUBLIC WHO MAY BE ON THE BEACH WHILST THE WORKS ARE BEING UNDERTAKEN. PEDESTRIAN WILL HAVE RIGHT OF WAY.
- A second excavator will be located at the point of works (Sea defences). This machine will undertake the initial preparation works, removal of beach sand at the toe o to uncover the existing cobbles up to circa 2m from the toe of the existing sea defences, placing the sand or debris to one side.
- The cobbles will be tipped into this prepared are and shaped by excavator, followed by the reinstating of the excavated beach sand over the placed cobbles.
- This will be repeated over the area required, working from the southern end back toward the access point over the required area.
- On completion of the cobble placing the haul route will be reinstated along with any other areas disturbed as a result of the works.
- Following an inspection by the Site Supervisor or Agent and /or representative and an agreement the work has been satisfactorily completed, demobilisation will commence.



TB003 De-vegetation

- As part of the works at Cairnie Burn there will be a requirement to remove trees and vegetation to allow access.
- This work will be carried out by certified operatives.
- Where vegetation clearance (during bird nesting season) is required a bird survey will be carried out prior to the removal of trees. This will be carried out by a qualified ecologist.
- A bat specialist has previously checked the trees in this area within the NR boundary for bats/bat roost potential and found none.
- The AMCO supervisor will mark out the extent of the site to be cleared.
- All tree felling work will be carried out by NPTC/Lantra certificated operatives.
- Safety exclusion zones will be set using barrier fencing.
- Full PPE including helmet with visor and ear defenders, boots and gloves to be worn at all times.
- Road traffic management may be utilised where tree removal is required in the vicinity of the road.
- Tree removal will commence at a location agreed location with chainsaw certificated operatives who will directionally cut trees to stump level away from themselves using chainsaws within the site boundary.
- If required, all vegetation and small trees will be processed using chippers. The chips will be discharged to an allocated area and levelled.
- The personnel carrying out these duties must be a trained and competent person.

TB004 CCTV & Jetting Works

- Noted on repair schedules is a requirement to unblock existing storm drainage pipes which outlet at the costal defence location. This work will be carried out by a rail mounted jetting unit working from the adjacent track. This work will be carried out under possessions accessing at Burnt Island RRAP ECN2 19m 1030yds
- All personnel attending site will receive site induction, task briefing, whiteboard briefing, POWRA briefing & SWL1 briefing & any relevant permits to work will be issued prior to commencement of works.
- Engineering Supervisor will set up work site.
- COSS will sign in with Engineering Supervisor and give work force a site specific Safe System of Work briefings
- On arrival at the worksite 110v lighting or portable lights are to be erected, this fully illuminating the works area
- Under the supervision of a trained & competent CC the RRV will access at the RRAP on the Down line
- Jet Vac units under the supervisor of the CC will then travel from the RRAP access point on the down line to the work location
- Operatives will lift off existing catch pit covers and clean out the catch pit base
- Jetting operatives will then begin to jet from catch Pit – downstream to the outlet.
- Operatives operating the CCTV unit will then commence carrying out a full CCTV survey to establish the full condition of the existing drainage
- This process will continue until all drainage been jetted & CCTV Survey carried out.
- All plant and excess materials will be removed from line side to safe storage location in site compound
- Form 005 confirming the track is fit for the passage of trains will then be issued by Amco-Giffen nominated person

- Engineering Supervisor along with the COSS will have a visual inspection of worksite and track and confirm the worksite is clear for the passage of trains hand back worksite

1.2 AMCO's delivery organisation

- 1.2.1 The following individuals from the AMCO's organisation will be involved during this work package:

Role	Name	Contact Number
Regional Director	Scott Kernachan	
Regional Manager	Daniel Harkins	
Contracts Manager	Phil Tait	
Senior Site Agent	Charlie Robertson	
General Foreman	David Findlay	
Contractors Engineering Manager	Daniel Harkins	
Contractors Responsible Engineer (Civils)	Phil Tait	
Contractors Responsible Engineer (Civils)	Ross McCaffer	
ALO Responsible Manager	Phil Tait	
ALO Planner / Coordinator	Charlie Robertson	
ALO Planner / Coordinator	David Findlay	
Temporary Works Co-Ordinator	Phil Tait	
Temporary Works Supervisor	Charlie Robertson	
H&S Advisor	Thomas McStay	
H&S Advisor	Neil Dunlop	
Sustainability & Assurance Advisor	Mike McDermott	
Material & Plant Procurement	Barnsley	

- 1.2.2 The following companies, specialist contractors and/or individuals will be involved during this work package as defined in the CPP:

Name of company, specialist contractor or individual, etc.	Work activity / Specialism	Point of contact details	
		Name	Mobile
Whitcher Wildlife Ltd	Ecology Survey	Derek Whitcher	

1.3 Resources

- 1.3.1 The following resources will be used for this work package:

Relevant Design Documents

A copy of any drawings and other design documentation relevant to this task can be found in Appendix 2



Document Ref	Document Title	Rev
138174-6000	CD200-494 Location Plan	00
138173-6000	CD200-564 Location Plan	00

People

Number of People and their competence associated with this WPP		Task
Competence	No of People	TBS Ref
Agent – SMSTS, First Aid, CSCS	1	1,2,3 &4
General Foreman – SMSS, First Aid, CSCS	1	1,2,3 &4
General Operative – CSCS, First Aid, Plant Operators, PASMA, Dumper/Roller, Slinger/Signaller, Banksman	3	1,2,3 &4
Machine Operator	2	1,2,3 &4
Delivery Drivers – HIAB*if required	various	1,2,3 &4
De-vegetation Team *if required	2	3
Banksman/Vehicle Marshall	2	1,2,3 &4
Jetting Op	5	4

Plant, Equipment and Tools

Quantity of Plant, Equipment and Tools associated with this WPP		Task
Plant item	No	TBS Ref
Hand Tools	Various	1, 2 & 3
Welfare	Various	1, 2 & 3
Power tools	Various	1, 2 & 3
Devegetation equipment	Various	3
Excavator	2	1 & 2
Dumpers	2	1 & 2
Tipper wagons (Road Going)	2	1 & 2
Hiab's	Various	1, 2 & 3
Pickup(s)	1	1, 2 & 3
Heras Fencing	Various	1, 2 & 3
Red & White Barriers	various	1, 2 & 3
Alloy Tower	2	1
Jetting Unit	1	4
Spill Kits	Tbc	1, 2 & 3

Materials

Quantity of Materials		Task
Material	Quantity	TBS Ref
Concrete	Various	1
Stone	Various	1
Rock Armour (for permanent works)	60t	2
Masonry Repair Materials	Various	1

2 Working Together

2.1 At site communication

- 2.1.1 Communication on site will be via phone and email between all parties involved within the contract. Any accidents or incidents that occur on site should be reported to AMCOGiffen on call manager and then after Network Rail's PM. All relevant details can be found within the CPP and WPP. Calls to emergency services will be made by mobile telephone.



2.2 Contact details

2.2.1 The following are the main contacts for this work package:

NR Project Team

Name	Role	Contact details	Tick to confirm number works and has been tested
Nicky Ferguson	NR PM		✓
Lesley Percy	NR SPM		✓
Rod Hendry	NR CM		✓
Craig Robertson	NR Project Engineer		✓
Chris Lyall	HSEA Specialist		✓

Regulators

Organisation	Contact details	Tick to confirm number works and has been tested
Emergency Services	Emergency – 112 / Non Emergency 101	✓
British Transport Police	0800 405040	✓
HSE	Fatalities and Major Injuries - 0845 3009923. Other - http://www.hse.gov.uk/riddor/report.htm	✓
ORR	020 7282 2000	✓
EA/SEPA/NRW	0800 807060	✓
Flood line	0345 9881188	✓
Local Authority	Highland Council - 01349 886 606	✓
Spill clean up	0800 592827	✓

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

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

Interfacing Organisation	Interface Point for:	Point of Contact and contact details	Interface arrangements
Land Owner	Land Access	TBC (correspondence through Network Rail)	tbc
Marine Scotland	Marine Licence	Marine Scotland 0300 244 5046	tbc



3 Hazard Management

3.1 Work involving particular risks

3.1.1 The work in this package involves the following particular risk(s), as detailed in Regulation 12 (2), (Schedule 3) of the CDM Regulations 2015:

Risk	When and where will the risk be present?	Permits Required	How will this risk be controlled?
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.	Excavation	Permit to Dig	Follow good digging practices and guidance described in the methodology. All excavation sides to be battered back to reduce the risk of collapse. Personnel only to enter excavations if safe to do so and under the guidance of the banksman. Stop blocks, water filled barriers to be used to prevent accidental incursion by plant/personnel onto the track. Regular inspections of excavation carried out by site supervisors. Weather forecasts to be monitored and periods of high tide levels to be identified and works within the dry working area avoided if possible during this time. Ensure rescue equipment and lifesaving PPE is on site and utilised during this time. All works to be carried out with Fall Prevention Equipment in place. No working next to a leading edge unless personnel are wearing a harness with lanyard "clipped on" to a suitable fixed anchor point. Exclusion zone to be set up, signed and maintained below all works at height including deliveries. Banksman to control all plant movements and exclusion zones. Any access to the back of a flatbed van or HGV must only be completed once a safety rail system has been installed. All works at the top of embankments to be carried out with banksman in a position of safety. Only authorised personnel involved in the works to enter the exclusion zone under the control of the banksman. Ensure equipment is certified and checked prior to each and every use. Exclusion zone to be identified, barriers and warning signs to be erected.
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.	During all refuelling activities. Working with imported aggregates. Working with concrete.		MSDS and COSHH assessments to be communicated to workforce with all control measures detailed in the assessment adhered to. Suitable PPE / RPE as detailed in the COSHH assessment to be used whilst working with substances hazardous to health. Gloves to be worn should be rubber coated completely as appose to rubber palm coating only. During periods of excessive dry warm weather water suppression will be sprayed over aggregate to prevent dust. Face masks of FFP3 variety should be worn. Face masks to be worn during working with dry dusty material operations. During concrete operations, all personnel should ensure bare skin is covered with an appropriate barrier against concrete splashes. Footwear should prevent ingress of cementitious liquid through to skin.



			Gloves should be PVC with the ability to block liquids reaching skin.
Work which puts workers at risk of 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.	During all deliveries and working next to an edge. Masonry repairs carried out from alloy tower.	Permit to work at height.	All works to be carried out with Fall Prevention Equipment in place. No working next to a leading edge unless personnel are wearing a harness with lanyard "clipped on" to a suitable fixed anchor point. Exclusion zone to be set up, signed and maintained below all works at height including deliveries. Banksman to control all plant movements and exclusion zones. Any access to the back of a flatbed van or HGV must only be completed once a safety rail system has been installed. All works at the top of embankments to be carried out with banksman in a position of safety. Only authorised personnel involved in the works to enter the exclusion zone under the control of the banksman. Ensure equipment is certified and checked prior to each and every use. Exclusion zone to be identified, barriers and warning signs to be erected. PASMA towers only permitted to be constructed, maintained and dismantled by or under the supervision of a trained and competent PASMA trained operative.
Work exposing workers to the risk of drowning.	All works within the shoreline.	Permit to work near water.	Weather conditions, Tidal flow to be monitored before commencing works adjacent to or in the water. Life jackets to be worn during periods of increased water levels and rescue buoys and life lines to be positioned on the banks adjacent to the work site. Working area to be established for works within the river. Due to the tidal nature of the works, shift plans to take cognisance of the tidal times and machine works only authorised during periods of low tide or approx. 3 hours either side of low tide point.. Rescue boat employed if assessed as required. Wear approved PPE. Whistle to be worn to raise alarm in case of emergency. No lone working in or around water.
Work carried out by divers having a system of air supply	All diving operations.	Permit to work near water	Employ suitably trained and competent subcontractor with suitably trained and competent dive team. Rescue boat on site and local emergency services to be informed of the work. Safe system to be set up for the diving operations. Inspect and check all plant and equipment prior to first entry into the water. Welfare facilities to be provided and maintained on site for divers to have rest breaks and also store/dry/maintain plant and equipment.
Work involving the assembly or dismantling of heavy prefabricated components.	During all deliveries and collections	Permit to Lift.	All lifting operations to be planned and assessed and lift plan produced. All lifting equipment to be checked and records kept on site. All lifting to be controlled by banksman/signaller. Banksman/slinger to control all plant movements if installed using kill switch. All lifting to take place from a failsafe position. Exclusion zones to be established and maintained around all lifting operations. These are to be fenced off using heras type fencing. Fall/edge protection must be in place for any personnel having to access either the back of an HGV or pick up.



3.2 Significant railway and construction risks

3.2.1 The following are the significant railway and construction safety and health risks that apply during this work package. A copy of the risk assessments associated with this WPP can be found in **Appendix 1**

What are the main risks (including health) during this Work Package?	When and where will the risk be present?	Permits Required	How will the risk be controlled
Change Management	Throughout the lifetime of this package of works.		Adhere to the following: If you haven't been briefed on a certain task, don't do it. If the work activity differs from what you have been briefed on, stop. If you become unsure how to progress your works, stop. If in doubt, speak to your line manager or supervisor. Undertake a POWRA detailing the change control measures, consult with the supervisor and proceed if safe to do so. Do not restart works until you have been re-briefed on the task. At all times, CHANGE = STOP
Working in/adjacent to watercourse	Masonry Repairs and Rock Armour Installation.	Permit to Work Near Water	Static plant to be sited minimum 10m from water with suitable plant nappy to prevent oil/diesel spillage. Awareness of hazardous flora and fauna. Correct PPE. Adherence to Weill's Disease procedures. Prevent contact with water. Minimise working in river bed prior to dry working area being set up to prevent spread of silt. Rescue point to be set up at prior to the works commencing and to contain as a minimum. Life Ring and Life Line. Operatives to be conversant with the Rescue Procedure and a "Dummy" rescue carried out. Marine Licence to be in place and conditions adhered to. Tidal times to be monitored at regular intervals and shift plans adjusted to suit working only around low tide until dive working area is in place. Ensure that all non-essential plant, unsecured equipment and unsecured materials are removed from the worksite prior to high tide. All personnel involved in the works to be competent. Suitable PPE to be provided for operatives including good quality Waterproof jacket and trousers. Waterproof welly boots to be used for when working within the low tide working area as a minimum. No lone working at any time within the Working Area. Silt levels to be monitored up and down stream of the works, before during and after the works are complete to identify the potential for any issues and allow for mitigation measures to be implemented. All plant working in river to be fitted with Bio Oil. All operatives working in and around river to wear life jackets.
COVID 19 - Travel	Throughout the lifetime of the project		Wherever possible workers should travel to site alone using their own transport and sites need to consider: • Parking arrangements for additional cars and bicycles



			<ul style="list-style-type: none"> • Other means of transport to avoid public transport e.g. cycling • Providing hand cleaning facilities at entrances and exits. This should be soap and water wherever possible or hand sanitiser if water is not available • How someone taken ill would get home
COVID 19 – Site Setup			<ul style="list-style-type: none"> • Stop all non-essential visitors • Introduce staggered start and finish times to reduce congestion and contact at all times • Monitor site access points to enable social distancing – you may need to change the number of access points, either increase to reduce congestion or decrease to enable monitoring • Require all workers to wash or clean their hands before entering or leaving the site • Allow plenty of space (two metres) between people waiting to enter site • Regularly clean common contact surfaces in reception, office, access control and delivery areas e.g. scanners, turnstiles, screens, telephone handsets, desks, particularly during peak flow times • Reduce the number of people in attendance at site inductions and consider holding them outdoors wherever possible • Drivers should remain in their vehicles if the load will allow it and must wash or clean their hands before unloading goods and materials.
COVID 19 – Contact with Persons.			<ul style="list-style-type: none"> • Review all activities to be carried out – are these critical or non-essential? • Non-essential physical work that requires close contact between workers should not be carried out • Work requiring skin to skin contact should not be carried out • Plan all other work to minimise contact between workers • Re-usable PPE should be thoroughly cleaned after use and not shared between workers • Single use PPE should be disposed of so that it cannot be reused • RPE – should not be reused unless designed for purpose. • Stairs should be used in preference to lifts or hoists • Where lifts or hoists must be used: <ul style="list-style-type: none"> <input type="checkbox"/> Lower their capacity to reduce congestion and contact at all times <input type="checkbox"/> Regularly clean touchpoints, doors, buttons etc. • Increase ventilation in enclosed spaces • Regularly clean the inside of vehicle cabs and between use by different operators.
COVID 19 - Welfare			<ul style="list-style-type: none"> • Dedicated eating areas should be identified on site to reduce food waste and contamination • Break times should be staggered to reduce congestion and contact at all times • Hand cleaning facilities or hand sanitiser should be available at the entrance of any room where people eat and should be used by workers when entering and leaving the area • The workforce should be asked to bring pre-prepared meals and refillable drinking bottles from home



			<ul style="list-style-type: none"> Workers should sit 2 metres apart from each other whilst eating and avoid all contact Payments should be taken by contactless card wherever possible Crockery, eating utensils, cups etc. should not be used Drinking water should be provided with enhanced cleaning measures of the tap mechanism introduced Tables should be cleaned between each use All rubbish should be put straight in the bin and not left for someone else to clear up All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles, vending machines and payment devices.
Excavations and breaking ground	All excavation works.	Permit to break ground	<p>Ensure excavations are carried out using a permit to dig. All areas for excavation to be CAT scanned and service drawings checked before work commences. All services to be marked on the ground, Positions of disconnections to be marked up. Check exactions at the beginning and end of each shift and record on appropriate Phoenix form. Backfill excavations as soon as possible. Fence off excavation if they have to be left unattended. Do not leave excavations within the watercourse open overnight. Operatives excavating within the area of a known live service must wear flame retardant overalls, gauntlets and hard hat with visor. Installation of sheet piling will take place around tides. Ensure initial inspection of previously installed piles is carried out each shift start.</p>
Stability of Excavations	During all excavation and fill works.	Permit to excavate. F91 excavation register.	<p>Site supervisor to carryout daily inspections of all excavations prior to shift start and throughout the shift. These are to be recorded in a site excavations inspection file and held on site. Exclusion zone managed by banksman to prevent unauthorised personnel from entering excavation. Banksman to maintain a safe position at all times during the works. Excavations at tie ins to be excavated to a maximum gradient of 1:2 to a maximum depth of 1800mm. Centre sections excavated to 800mm square to the abutments. Upon completion of the excavation, Permit to Proceed to be completed by the TWS prior to commence filling operation. Excavation to be monitored during the filling operation as above with permit to proceed completed upon completion of the filling operation.</p>
Buried Services	All Excavation & Fill Operations.	Permit to Break Ground.	<p>All areas of disturbed ground to be scanned with CAT and Genny, this to include areas for roadway and compound installation. Services drawings checked prior to excavation. Hand dig to locate services. Permit to dig to be in place and briefed to all personnel. No mechanical excavation within 1.2m of known buried service without director's approval. Operatives excavating within the area of a known live service must wear flame retardant overalls, gauntlets and hard hat with visor. Follow the guidance of AMCO procedure HS33. Temporary works and setting up of delivery HIAB jacks to take cognisance of underground services.</p>



ALO	Excavation and fill works.	ALO Plan and Daily Checklist	<p>ALO plan must be produced, approved and briefed to all operatives involved in the works. Works will be below the level of the track however the excavator will be working in a position where it will be feasible to breach the ALO. In addition to the above all excavators are to be fitted with Kill Switch preventing excavator leaving predefined exclusion zone. Banksman to receive briefing on Kill Switch working. Prior to any excavator movements, Kill Switch to be checked each shift using mock test to ensure fit for purpose. This will involve turning on excavator and hitting the kill switch to ensure it is fully functional. Banksman and operator to maintain communications utilising Dect Comms at all times. Banksman and machine op to ensure that banksman is in a position of safety outwith the slew/reach of the machine. If the banksman requires to enter the dig, the machine operator should idle the machine and ensure the machine is unable to be moved until the banksman regains a position of safety.</p>
Plant Movements	During the lifetime of the site activities.		<p>Only Trained and authorised personnel to use plant. Plant not to be overloaded and load not to restrict drivers view. Reversing horns to be working on mobile plant at all times whilst reversing. Banksman with machine at all times whilst working or travelling. Exclusion zones to be established around working / manoeuvring plant. Site records to document adherence to this. Use of VCAS system on dumpers. Exclusion zones around all operating plant. All Excavators to be fitted with Kill Switches. Banksman to assist with these movements where possible. No parking off site due to the narrow of road. Ensure entry gate is set back to allow for the safe locking and unlocking of the gate.</p>
Lifting operations	Deliveries		<p>All lifting to be planned and assessed with a lift plan. All members of the lifting team to sign the lift plan. All lifting equipment to be checked & records kept. All lifting to be controlled by a banksman/signaller. All lifting from a failsafe position. Exclusion zones to be established around all lifting operations.</p>
Environmental interface	Throughout Entirety of Project		<p>Consult with Authorities. Ecology survey has been carried out. 24hr spill response team on standby. Trained and competent staff and personnel. Well informed personnel. Fuelling over plant nappies and static plant to be set on nappies. Chemical and fuel spill kits to be positioned adjacent to the point of potential spill i.e. next to fuel bowser and flamebank. All static plant to have plant nappies underneath. All spills reported and dealt with accordingly. No refuelling or storing of COSHH materials within 10m of the river. Nesting bird survey to be carried out prior to start. Water sampling to be carried out throughout works. No fuelling operations or fuel storage within 10m of water. Do not create soil bunds adjacent to the watercourse where run off could enter the watercourse. Use of bio oil in machinery working in or adjacent to watercourse. embankment and not directly into the river. Oil booms and spill kits to be available adjacent to the worksite. Marine Licence to be in place and conditions adhered to. Site will maintain</p>



			communications with fisheries during the lifetime of the project. Also all work to be carried out at low tide.
Hazardous substances	During the lifetime of all site activities.		COSHH Assessments. Methodology defined in WPP. Correct PPE and RPE. FFP3 masks to be worn when spreading stone during dry dusty conditions if required, additional water suppression is to be put in place. Suitable welfare facilities. Full rubber gloves to be worn when working with liquid materials to protect back of hands. Cover skin when mixing or working with grout or concrete. Ensure additional breaks and water is available if working in warm weather. Ensure hazardous materials are stored more than 10m away from the shore
Manual Handling	During the lifetime of all site activities.		All personnel to have received Manual Handling Training. Restriction of weight. Restriction of distance carried. Eliminate twisting when loading. Use of additional personnel. Use mechanical means where possible.
Use of small tools/hand tools/power tools	During the lifetime of all site activities.		Use of battery powered tools. Low voltage equipment (110v). Regular circuit test/PAT. HAVS assessments to be undertaken and briefed. Noise assessments to be undertaken. Ensure you complete the HAVS register at the end of each shift.
Noise	During the lifetime of all site activities.		Noise levels to be monitored and hearing protection worn if required. When noise levels reach 85db hearing protection shall be mandatory. When using any hand held power tools or near or with machinery hearing protection shall be mandatory. Letter Drop local residents before works begin.
Dust	During all drilling, cutting and working with dusty materials.		Use water suppression methods at all times if dry conditions are causing dusty atmosphere. Wear FFP3 dust masks at all times during filling operations on dry dusty days. Carry out occupational health assessments. FFP3 masks to be used when cutting pipes or stone work. Ensure water bottles available with cut off saws. Monitor condition of Unamed Road and organise road sweeper if required to reduce mud/dust on surrounding roads. Haul Road to be kept clean and washed as required to reduce slips, trips and falls.
HAVS	Throughout the lifetime of all works.		Use low vibration tools. Where appropriate use anti vibration handles. HAVS monitoring to be completed daily. Ensure ELV's are not breached and actions are taken when EAV are reached. Rotate personnel Be aware of your permitted trigger times prior to starting work. Do not exceed trigger times. Note trigger times may differ to operation times. Trigger times for tools in use for these operations are whacker plate (greater than 24hrs to EAV), cut off saw (789mins to EAV), cordless drill (245mins to EAV), TE30ATC (99mins to EAV), TE40ATC (105mins to EAV). Trigger times noted within the HAVS file. Ensure you are familiar with times prior to starting an operation. If the tool to be used isn't listed stop and speak to a supervisor to acquire the required data.
Weil's Disease	Throughout Entirety of Project.		Identify locations and eliminate where possible. Carry Information card. Be aware of symptoms. Protect cuts and damaged skin. Wear appropriate PPE. Do not ingest. Personal hygiene. Inform GP if reporting 'flu symptoms



Vehicle Movements	Throughout the lifetime of this package of works.		Vehicle marshals to be used at all times on site to monitor and control plant/vehicle movements. Segregated walking routes to be formed within the compound. Gates at the compound and the main site to be closed and locked at all times. Do not leave gates open at any time. Warning notification signage to be erected on approach roads advising members of the public of the presence of Construction traffic and the site entrance. All suppliers to be notified of the Traffic Management Plan for the site including the requirement to notify/book in deliveries to allow for AMCO attendance at the gate and remove the requirement for Signage to be erected advising contact numbers for access for any suppliers who fail to notify of a delivery time. Site traffic to be advised site speed limit of 5mph. Vehicles exiting the site to give priority to vehicles entering the site to prevent a coming together. Banksman to assist with these movements where possible. Ensure site gate is set back from the main carriageway to allow for the safe locking and unlocking of the gate. Banksman and machine operators to ensure the use of Dect Comms during all plant movements.
Sharps	Throughout the lifetime of this package of works.		Identify possible locations. If discovered, fence off and advise site management who in turn will inform NR control. Do not touch or remove the sharp. Instruction on procedure in event of cutting / puncture. Encourage the wound to bleed, prevent further contamination. Report to hospital, taking offending sharp with patient. Inform NR control on 0141 335 2020. Due to remote location, no expectation to find needles on this site however vigilance is key.
Theft or vandalism	Throughout the lifetime of this package of works.		All sites are adequately signed and demarcated with suitable and sufficient barriers. Areas to be secured at all times outside normal working hours. Remove all valuables and potential hazards when out of use. No dangerous plant or materials to be left accessible when unattended. Remote CCTV guarding on site from Black Diamond during all periods when AMCO has no attendance on site. During busy shifts with multiple persons/contractors, store man to be used to monitor comings and goings from stores.
Fire	Welding operations, refuelling operations and cutting of anchors.		Avoidance of accumulation of combustible material. Correct storage of gasses and highly flammable liquids. Control of sources of ignition. Firefighting equipment to be readily available, serviced and maintained. No smoking to be permitted on site. Electrical appliances and small tools to be inspected. Hot works permit. Ensure welding operations carried out by a trained and competent welder. Exclusion zone around welding operations to be set up and maintained. Fire point to be set up, one at the compound and one at the bridge. Both to contain a first aid kit, fire extinguisher set and signage advising types of fire for each extinguisher.
Public Interface (Local residents)	Throughout the lifetime of this		Ensure that good communication and correspondence is kept between AMCO, Network Rail and the local Council. Always ensure the area is clean and tidy. Always give public right of way and



	package of works.		be polite and courteous at all times. Site manager to ensure no vehicles park on the unnamed road at any times without TM in place. Letter drop to be completed prior to works commencing to residents within a 200m boundary of the worksite, road closure and compound. Ensure walking route is kept clear, tidy and away from overhead services where possible. Site hazard warning signage to be erected throughout the works site. Assist vehicles entering/exiting the site onto local roads to minimise nuisance to local residents.
Eye Injuries	Throughout the lifetime of this package of works.		Standard safety glasses to be worn for general site work and impact resistant goggles for powered tools. Impact resistant visors and goggles to be to EN1661B standard. High Impact goggles to be worn during all cutting/drilling tasks. If wearing the Bolle tracker type glasses for high impact work, the head band must be worn to achieve high impact status.
Environmental Spillages (Site activities)	Throughout the lifetime of the project.		Use drip trays and nappies with static plant. A&A Environmental to be on 24hr call out. Spillage granules and spill kits are to be available on site. Ensure refuelling point and storage is set up 10m (minimum) away from a known gully or watercourse. Ensure oil booms are positioned alongside the silt curtain to prevent any risk of oil from the machine entering the water course.
Fuel spillage from compound generator	Throughout the lifetime of the project.		Secure-set generator to be used (containerised, with built in fuel tank and bund to 110% capacity). Nappies to be used during refuelling. Spill kits and granules to be available on site. A&A Environmental to be on 24hr call out.
Working in inclement weather	Throughout the lifetime of this package of works.		Adequate Safety Footwear to be worn at all times. Lace up boots at all times unless wet weather working or carrying out a task with water. Remove trip obstructions. Remove signs from temporary fencing during forecast periods of high winds. Water suppression in periods of excessive heat/dry weather. Regular breaks when working in and around water. Site team to monitor the longer range forecasts daily and identify periods of concern. Where possible works to take into consideration periods of severe weather. Site to monitor water levels at periods going into and during high tide. If any concern, clear the dry working area or personnel/equipment and stop works until safe to do so. At start of the works, monitor high tide levels over a few days to identify the average height of water. During wet weather ensure drying facilities are operational and wet weather clothing is available to all. Weather station to be set up to monitor for high winds etc. Monitor long and short range weather/tide forecasts for periods of concern.
Working in a remote location.	Throughout the lifetime of this package of works.		Works are in a remote location. Signal has been checked at compound and is sufficient for raising emergency help and also making contact with head office/management. In the event of failure of phone signal, local residences to be asked for assistance. Radios to be used if required for communications between the work parties.



3.3 Lifesaving rules and High Risk Areas

3.3.1 The following table highlights those Life Saving Rules applicable to this WPP

Always		Never	
	✓ or X		✓ or X
	✓		✓
	✓		✓
	X		✓
	✓		✓
	✓		✓

3.3.2 The following table highlights those HRA's applicable to this WPP

Breaking Ground	Change Management	Confined Spaces	Electrical & Stored Energy	Fire & Hot Work
Yes	Yes	No	No	Yes
Lifting Activities	People & Plant	Railway Operations	Working at Height	Work Related Road Risk
Yes	Yes	Yes	Yes	Yes



4 Environmental and Waste Management Arrangements

4.1 Environmental management arrangements

4.1.1 The following environmental issues are applicable to this WPP

Environmental Issues	Project Control Measures	Environmental Consents and Permits
Management of oils and chemicals	<ul style="list-style-type: none"> All tanks shall be bunded in accordance with the oil storage regulations. Storage facilities shall be positioned at least 10m away from a watercourse Drip trays shall be used whilst refuelling. Containers shall be fit for purpose, labelled and have proper fitting lids. Containers and tanks shall be made secure against vandalism or theft Refuelling and concrete washout shall take place in a dedicated area at least 10m away from a watercourse Spill kits shall be kept on site in high risk areas and shall be appropriate to the risk and amount of oils and chemicals present 	
Management of silt	<ul style="list-style-type: none"> Consideration shall be given to the silt hierarchy where potential for silt/soil pollution on site, this will be controlled by creation of a dry working area and overpump assisted by the below: Sediment Filtration Bags 	Marine Licence and Permit to Work near Water
Dust, Noise, Odour	<ul style="list-style-type: none"> Dust from cutting or grinding to be suppressed using water Stockpiles of soil to be battered back Noise hierarchy to be followed in accordance with BS5228 – Eliminate, Substitute, Isolate, Control Hybrid or battery operated technology to be utilised Silenced plant to be used Screening to be used . 	•
Works affecting flora or fauna	<ul style="list-style-type: none"> Ecology survey to be undertaken and recommendations complied with Work to stop if protected species or nesting birds found and advice sought. 	•
Flood Risk Management	<ul style="list-style-type: none"> Monitoring of compliance with any permit / licence / consent affecting watercourses and flood risk Daily completion of the Permit to Work Within, Over, and Adjacent to a Watercourse (HS131) Review and communication of weather forecast, flood information and tide times. Use of national flood warning services: https://flood-warning-information.service.gov.uk/warnings Checking of any temporary works to ensure that they suitable and sufficient to cope with seasonal weather / river flows Measures to be established to prevent debris entering the watercourse which may pose a flood risk. 	•



	<ul style="list-style-type: none"> Where possible, materials, plant and other items shall be stored at least 10m from the watercourse edge or, preferably, off the flood plain altogether. 	
Nesting birds	<ul style="list-style-type: none"> Nesting bird survey to be carried out prior to works commencing 	
Potential for otters	<ul style="list-style-type: none"> Carry out works during daytime hours to prevent disturbance to foraging/commuting otters. If habitat is discovered then stop works and consult specialist ecologist. Install pipe through dry working area to allow for passage of otters and other wildlife/aquatic life 	

4.2 Waste management arrangements

4.2.1 The following waste management arrangements are applicable to this WPP. All waste shall be reused or recycled in accordance with the Site Waste management Plan.

Waste type	How will it be stored?	Testing required prior to disposal	Waste classification	Reuse (R) onsite / Disposal off site (D)
Mixed Waste	Skip	No	Non-Haz	D
Excavated material	Loose	Yes	Non-Haz	D

5 Emergency Arrangements

5.1 Site emergency arrangements

5.1.1 First aid arrangements

5.1.1.1 *The first aid arrangements for this package of work are*

first aiders	Name	Qualifications
	Charlie Robertson	British Red Cross Trained
	David Findlay	St Andrews Ambulance Trained
Likely injuries associated with this work package	Minor Injuries, Falls From Height, knocked down, drowning.	
First aid equipment provision	Equipment	Location
	First Aid Boxes, rescue equipment, accident book. Life ring and safety line set up downstream and upstream of the works. Operatives entering the watercourse or working within close proximity to the water course to have life jackets issued along with waders. Only enter water course during low tide times.	Supervisor's vehicle + Site vehicles + site offices + First Aid Points + life ring point.

A first Aid risk assessment can be found in Appendix 5 of the CPP.

5.1.2 Evacuation arrangements

5.1.2.1 Evacuation arrangements can be found in Appendix 6 of the CPP

5.1.3 Fire safety arrangements

5.1.3.1 A Fire Risk assessment can be found in Appendix 6 of the CPP.

5.1.4 Security arrangements

5.1.4.1 No plant or materials will be left unsecured on site at any time – only remaining items that will be left on site are site fencing and locked/secured plant. CCTV active out with working times. Return all plant and materials to the compound for storing overnight. All loose plant & materials to be removed from dry working area outwith operational hours.

5.1.5 Environmental Emergencies

5.1.5.1 Oil Spill: Adopt the following procedure where safe to do so: STOP the source of the spill. CONTAIN the spill using available spill equipment. NOTIFY your Site Manager. CLEAN UP the spill and dispose of waste materials as a hazardous waste. If the spill is beyond your control, contact the 24hr emergency response contractor on 0800 592827.

5.1.5.3 Silt Incident: Adopt the following procedure where safe to do so: STOP the source of the silt disturbance where possible. CONTAIN the silt using resources on site (e.g., straw bales, sedimats, and creation of diversion drains). NOTIFY your Site Manager. CLEAN UP any silty water held and remove used silt mitigation measures once water quality has returned to normal.

5.1.6 Summoning emergency services

This will be via mobile phone. The compound will be given as the site location and this can be found within the WPP. On arrival the emergency services will be met by the nominated person (Site Supervisor)

5.1.7 Railway emergency (trains and electrical)

5.1.6.1

	Contact Details
ECO	N/A
Signal box	TBC
Protection Signals Ref	See SSOW Pack

In the event of an emergency affecting the safety of the railway the following actions will be undertaken.

1. Do not place yourself or the safety of others in danger
2. The lead communicator on site will be one of the following people and in this order – PICOP > Route Setting Agent > Protection Controller > COSS or SWL or IWA.
3. In an emergency a train can be stopped by raising both arms in the air or at night by waving a light vigorously
4. In an emergency the signaller / ECO shall be contacted immediately via mobile phone or using the nearest signal post telephone.
The lead communicator shall state (*using the phonetic alphabet to communicate any difficult words*) :
 - 'This is an emergency call'
 - Confirm who you are speaking to the right person *ie usually the signaller or Electrical Control Operator (ECO)*
 - Tell them
 - who you are (*Joe bloggs*),
 - what you do (*ie COSS*); and
 - your location (for example *Shapton East Junction or near to SH20 (sierra, hotel, two, zero) signal*
 - Describe the problem and what part of the railway is affected *ie Down Main xx or Level crossing at yy*
 - Tell them what action needs to be taken *ie any emergency service required*
 - Ask the person to 'repeat back' the information
 - The Signaller or ECO shall end the conversation.

Access to the track shall be via the following rail access point - tbc

5.1.8 Asbestos

5.1.7.1 N/A

7 Hand Over and Hand Back Arrangements

7.1 Hand over and hand back arrangements

- 7.1.1 Certificate of Completion will be sought from Network Rail on completion of the works. Handback file will be produced by AMCOGiffen and submitted to Network Rail.

APPENDICES – Supporting information

Appendix 1 – Site Specific Risk Assessment

RISK ASSESSMENT

AMCO-GIFFEN

Contract Name: 200/494 & 565 Burntisland
 Contract Number: IS00XXXX
 Work Activity: WPP002 Coastal Defence Works

Note for the Risk Assessor

1. Use guidance table below.
2. Where the residual risk is **high** or **medium** then further control measures to reduce the risk should be considered.

SEVERITY		PROBABILITY		RISK	
LOW SLIGHT - FIRST AID TREATMENT MODERATE - OVER 3 DAYS INJURY HIGH - MAJOR INJURY / DEATH VERY HIGH - MULTIPLE DEATH	1	NOT LIKELY	1	LOW	1 TO 6
	2	POSSIBLE - OTHER FACTORS NEEDED BUT NOT LIKELY	2	MEDIUM	7 TO 15
	3	QUITE POSSIBLE - OTHER FACTORS NEEDED - LIKELY	3	HIGH	16 TO 25
	4	LIKELY - OTHER FACTORS THEN WILL HAPPEN	4		
	5	VERY LIKELY - WAITING TO HAPPEN	5		



RISK ASSESSMENT

Hazard	Hazard Outcome	Initial			Site Hazards / Risks					Procedures	Residual		
		Severity	Probability	Risk	Severity	Probability	Risk	Severity	Probability		Risk		
Operational Railway – Working on or near the infrastructure	➤ Persons struck by trains.	5	4	20	<ul style="list-style-type: none">Separated green zone to be in place using double clipped heras fencing and stabilised using concrete sleepers in accordance to sketches in WPP & TB's.SSWOP's Pack, COSS Brief, PTS trained operatives.All works to comply with rule book GE/RT8000.ALO Responsible Manager, Planner & Co-ordinatorCompetent Driver operators with a Competent Banksman in attendanceSelective excavator boom range Machine tracks parallel with face of rock armour, not reach to within 3m of running railFencing to be erected as shown in WPP to allow a delivery pull in point at Ynyslas Yard where they can then await assistance from the site manager.All deliveries to be supervised by a nominated vehicle marshal.Permit to work in watercourse to be issued by the Amco representative.Only suitably experienced personnel to work on project. Lifejackets or dry to be worn by all personnel while on riverbanks or working on or near the river.Ensure time is given for allowance of machinery to not be overcome by tidal conditions	HS66	5	1	5				
	➤ Damage to the infrastructure.												
	➤ Persons struck by trains.	5	4	20		HS66	5	1	5				
Operational Railway – ALO Working	➤ Damage to the infrastructure.	5	4	20	<ul style="list-style-type: none">ALO Responsible Manager, Planner & Co-ordinatorCompetent Driver operators with a Competent Banksman in attendanceSelective excavator boom range Machine tracks parallel with face of rock armour, not reach to within 3m of running railFencing to be erected as shown in WPP to allow a delivery pull in point at Ynyslas Yard where they can then await assistance from the site manager.All deliveries to be supervised by a nominated vehicle marshal.Permit to work in watercourse to be issued by the Amco representative.Only suitably experienced personnel to work on project. Lifejackets or dry to be worn by all personnel while on riverbanks or working on or near the river.Ensure time is given for allowance of machinery to not be overcome by tidal conditions	HS66	5	1	5				
	➤ Damage to plant or equipment												
	➤ Persons struck by trains.	5	4	20		HS66	5	1	5				
Deliveries to site – Lorries turning, disturbance with vehicles on B4353	➤ Congestion on B453	4	4	16	<ul style="list-style-type: none">Fencing to be erected as shown in WPP to allow a delivery pull in point at Ynyslas Yard where they can then await assistance from the site manager.All deliveries to be supervised by a nominated vehicle marshal.Permit to work in watercourse to be issued by the Amco representative.Only suitably experienced personnel to work on project. Lifejackets or dry to be worn by all personnel while on riverbanks or working on or near the river.Ensure time is given for allowance of machinery to not be overcome by tidal conditions	HS31	4	1	4				
	➤ Close proximity to level crossing												
	➤												
Working within Watercourse – personal injury, damage or flooding to plant	➤ Falls into watercourse	5	4	20	<ul style="list-style-type: none">Permit to work in watercourse to be issued by the Amco representative.Only suitably experienced personnel to work on project. Lifejackets or dry to be worn by all personnel while on riverbanks or working on or near the river.Ensure time is given for allowance of machinery to not be overcome by tidal conditions	HS52	5	1	5				
	➤ Flooding					HS44							
	➤ Drowning					HS57							
	➤ Unsafe conditions for machine access around the water course												



RISK ASSESSMENT

Hazard	Hazard Outcome	Initial			Risk Control and Minimisation Measures	Procedures	Residual		
		Severity	Probability	Risk			Severity	Probability	Risk
Working within Watercourse – Environmental	<ul style="list-style-type: none"> Pollution to a main river, sea or SSSI Site Harm to wildlife 	4	4	16	<ul style="list-style-type: none"> Life rings and life lines to be in place and personnel briefed on using them in emergencies River flows to be monitored at all times during the works by the subcontractors supervisor & Amco representative, particular attention given to ensure incoming river does not affect safe operation of personnel or plant. Unsafe conditions due to rising in river flows etc will be ceased. All plant and machinery to be inspected for oil leaks prior to use. Any defects to be reported to Amco/external plant hire. Bio-degradable oil to be used for all plant working in or near river. All re fuelling to be carried out at the site compound over plant nappies Temporary works to be in place as per EA consent to prevent contamination caused by permanent works. Suitably sized spill kits to be in place on the work area when operating plant etc 	HS52 HS44	1	4	4
Services – Buried and surface	<ul style="list-style-type: none"> Damage to buried utility services. Damage to buried/surface. Railway/Station services. Workforce injury (Burns) Disruption to operational infrastructure. 	4	4	16	<ul style="list-style-type: none"> Desk top study of buried service report. CAT scanning to be carried out by certified personnel. Hand dig in areas within the regions of buried services have been identified. 	HS33	4	1	4



RISK ASSESSMENT

Hazard	Hazard Outcome	Initial			Risk Control and Minimisation Measures	Procedures	Residual		
		Severity	Probability	Risk			Severity	Probability	Risk
	➤ Damage to plant and equipment.				<ul style="list-style-type: none"> Bulk timbers / plywood utilised to navigate heavy machinery / past trough routes and surface cables. 				
Working at Height	➤ Falls from height. ➤ Workforce injury.	3	4	12	<ul style="list-style-type: none"> Working at height justification check sheet to be complete. Permit to work at height to be complete and signed off. All working at height equipment to be certified. Letter drop to advise of times working in close proximity to properties. 	HS49	3	1	3
Private residential properties	➤ Nuisance to residents.	2	4	8		HS54	2	1	2
Overhead services (Power/Telecoms)	➤ Striking service. ➤ Damage to plant and equipment. ➤ Damage to infrastructure.	4	2	8	<ul style="list-style-type: none"> Awareness of cable routes / ducting affixed to structures (if necessary). All services to be located and briefed in the site induction prior to works commencing. 	HS33	4	1	4
Sharps / Needles on site	➤ Contamination. ➤ Workforce injury (needle puncture). ➤ Illness.	3	3	9	<ul style="list-style-type: none"> Workforce awareness. If large amounts are identified, a specialist contractor will be brought in to remove from site and dispose of in a licensed facility. 	HS30	3	1	3
Access / egress – to/from access point	➤ Contact with pedestrians. ➤ Contact with road traffic.	4	3	12	<ul style="list-style-type: none"> Attention to be paid and workforce awareness of pedestrians and road traffic within station area. Vehicle marshal to escort large Lorries for deliveries of plant and materials to site. Exclusion zones to be in place to segregate the vehicles from pedestrians. 	HS30	3	1	3
Access / egress – between access point and worksite	➤ S, T, F's. ➤ Workforce injury.	3	3	9	<ul style="list-style-type: none"> Along pre determined routes from authorised access points as given to you in the site induction. 	HS30	3	1	3



RISK ASSESSMENT

Hazard	Hazard Outcome	Initial			Risk Control and Minimisation Measures	Procedures	Residual		
		Severity	Probability	Risk			Severity	Probability	Risk
Possible discovery of 'Protected species, fauna or invasive species'.	<p>➤ Contamination.</p> <p>➤ Impact on protected species/fauna.</p>	3	3	9	<ul style="list-style-type: none"> All access / egress routes will be pre-determined and accessed, any tripping hazards with be marked or removed. Exclusion zones to be in place to segregate the plant from pedestrians. Site to be kept safe clean and tidy at all times. 	HS30	3	1	3
Infestation of rodents, vermin and other wildlife	<p>➤ Leptospirosis / Weil's disease.</p> <p>➤ Illness</p>	3	3	9	<ul style="list-style-type: none"> Appropriate PPE to be worn and open wounds covered. Staff trained in problems such as Weils Disease and associated hygiene requirements. Be aware of symptoms. Protect cuts and damaged skin. Leptospirosis cards to be carried out by staff. Hand washing prior to eating to be briefed in the site induction. 	HS30	3	1	3
Exposure to High winds	<p>➤ Unstable conditions</p> <p>➤ Contact between Timber Piles and Pontoon</p> <p>➤ Falls From Height</p>	4	3	12	<ul style="list-style-type: none"> Wind to be monitored on a regular basis and if supervisor states that it is not safe for working works will be ceased. Ensure no works are carried out at height such as from aluminium towers when high winds are forecasted. 	HS30 HS49	4	1	4



RISK ASSESSMENT

Hazard	Hazard Outcome	Initial			Risk Control and Minimisation Measures	Procedures	Residual						
		Severity	Probability	Risk			Severity	Probability	Risk				
Activity Hazards / Risks													
Use of plant and equipment – <ul style="list-style-type: none">MechanicalLifting operationsWorkforceStability on Uneven grounds	➤ Workforce injury (crushing).	4	4	16	<ul style="list-style-type: none">Certified plant and equipment.Only fully trained/authorised personnel are permitted to use machinery.Exclusion zones to be in place for loading/unloading area.Physical bunds to be in place to prevent runaway plant when working on slope.Suitable loading/unloading point identified at access point.Banks man in attendance for all machine movements.Ground conditions checked by a competent person.Lift plans to be produced and signed for all lifting operations specific to each task.	HS41 HS57	4	1	4				
	➤ Damage to plant and equipment.												
	➤ Damage to infrastructure.												
Use of On Track Plant – RRV's	➤ Plant & People Interface	5	4	20	<ul style="list-style-type: none">RRV Plant & Associated equipment procured from single approved supplier with RPOLCompetent Crane/Machine controller to be appointed to control on/off tracking and on track plant movements by maintaining exclusion zones round plant whilst positioned in a Position of SafetyPlant shall only be operated by competent authorised operators (CPCS/NCCA certs)Plant shall only be used for lifting when a lift plan has been prepared by a competent lift planner and all operational checks have been carried out	HS41 HS57	5	2	10				
	➤ Runaway Plant												
	➤ Lifting Operations												



RISK ASSESSMENT

Hazard	Hazard Outcome	Initial			Risk Control and Minimisation Measures	Procedures	Residual		
		Severity	Probability	Risk			Severity	Probability	Risk
					<ul style="list-style-type: none"> Lifting shall only take place on level firm ground Plant and trailer braking systems shall be checked before on tracking Plant movements will take place at walking pace (3-5mph) 				
Use of plant and equipment – Working with noise	➤ Loss reduction of hearing function.	3	4	12	<ul style="list-style-type: none"> Fit for use plant under PUWER regulations. Use noise reduced plant (if necessary). Use of hearing protection and correct PPE for the task. Rotation of the workforce using plant to reduce exposure times. 	HS41 HS57 HS37	2	1	2
Use of plant and equipment – Working with vibration	➤ HAV injuries.	3	4	12	<ul style="list-style-type: none"> Complete a HAV register for each operative; ensuring maximum exposure times are not exceeded. Use hand tools that have low HAV characteristics. Wearing of normal work gloves and correct PPE for the task. Rotation of workforce using tools to reduce exposure times. 	HS41 HS57 HS40	3	1	3
Dust	➤ Loss of respiratory function. ➤ Illness.	3	4	12	<ul style="list-style-type: none"> Dust masks to be worn at all times whilst mixing of cutting and trimming of greenheart timber. 	HS57	3	1	3
Use of plant and equipment – Polluting of working area	➤ Spillages. ➤ Contamination.	3	4	12	<ul style="list-style-type: none"> Inspect all plant and machinery for leaking parts prior to use. Refuelling of plant in designated areas only. Adequate numbers of spill kits on site. 	HS30	3	1	3



RISK ASSESSMENT

Hazard	Hazard Outcome	Initial			Risk Control and Minimisation Measures	Procedures	Residual		
		Severity	Probability	Risk			Severity	Probability	Risk
					<ul style="list-style-type: none"> Small fuel containers and hand held plant to be stored on drip trays. 	HS39 HS57	3	1	3
COSSH substances – Diesel, petrol & hydraulic oil.	<ul style="list-style-type: none"> Illness / injury Dermatitis type injuries. Ground Contamination 	3	4	12	<ul style="list-style-type: none"> All machinery to be checked for leaks prior to use. Gloves and goggles to be worn at all times during refuelling and mixing of cement. Fit for purpose PPE used in accordance with COSSH assessments. COSSH data sheets briefed and on site. 				
Sources of ignition	<ul style="list-style-type: none"> Fire. Workforce injury (Burns) Damage to plant and equipment. Damage to infrastructure. 	3	4	12	<ul style="list-style-type: none"> Adequate numbers of in date fire extinguishers on site (Do not use water fire extinguishers). Must point to be inducted to each personnel. Only refuel plant once it has been turned off. Designated refuelling point. All fuel to be stored in fire safe lock box. 	HS30	3	1	3
Manual handling of small plant/equipment and materials	<ul style="list-style-type: none"> Musculoskeletal injuries. 	3	4	12	<ul style="list-style-type: none"> Use mechanical means where possible. Kinetic lifting. No more than 20kg per man. Correct P.E. to be worn. Regular tool box talks on manual handling. Manual handling assessments to be produced for awkward or repetitive manual handling tasks and briefed to operatives. 	HS57 HS38	3	1	3
Accidents	<ul style="list-style-type: none"> Workforce injury. Damage to plant and equipment. Damage to infrastructure. 	4	3	12	<ul style="list-style-type: none"> Adequate numbers of trained first aiders and first aid boxes on site. Accident reporting forms on site. Emergency and accident reporting plans in place. 	HS57 HS15 HS69 HS32	4	1	4



RISK ASSESSMENT

		Initial				Residual		
		Risk	Probability	Severity		Risk	Probability	Severity
Hazard	Hazard Outcome				Risk Control and Minimisation Measures			
Personal Injury	<ul style="list-style-type: none"> Safety of operational railway. Work force injury. 	9	3	3	<ul style="list-style-type: none"> All personnel and visitors to wear the minimum requirement for PPE including: hard hat, safety boots, hi visibility waist coat or jacket, hi visibility trousers and gloves. 	3	1	3
					Procedures			HS57



Appendix 2 – Site Layout Plan

200/564 Burntisland (Sections 1-3)





200/564 Burntisland (Sections 4-10)



<p><u>Section 6</u> 18.1030-18.1145</p> <p>Natural rock outcrop approx. 2m high and vegetated slope 2-4m high.</p> <p><u>Section 5</u> 18.0870-18.1030</p> <p>Masonry revetment 2-3m and vegetated slope approx. 4m high with masonry retaining wall.</p>	<p><u>Section 8</u> 18.1215-18.16545</p> <p>Masonry revetment 2-4m high and 2m high vegetated slope.</p> <p><u>Section 7</u> 18.1145-18.1215</p> <p>Natural earth/beach</p>	<p><u>Section 10</u> 18.1680-18.1745</p> <p>Masonry revetment 2-2.5m high and 5m high vegetated slope.</p> <p><u>Section 9</u> 18.1645-18.1650</p> <p>Natural rock outcrop 2m high with beach foreshore.</p>
<p><u>Section 4</u> 18.0830-18.0870</p> <p>Natural rock outcrop 2-4m high and vegetated slope 2m high with masonry retaining wall.</p>		

Sections 1 and 2

In poor condition; to be repaired.

CD200/494
OS REF
NT 21866 85947
NT 22207 86064

Area out with scope

Fife Coastal Path

Fife Coastal Railway

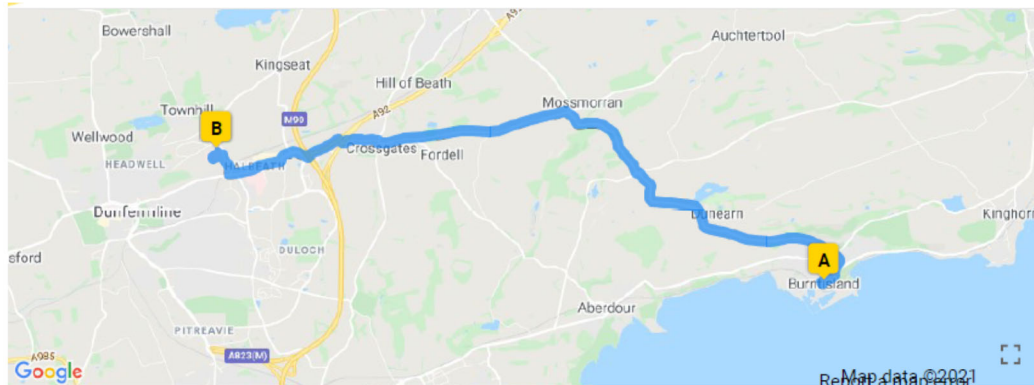
Firth of Forth

Removal of vegetation
and installation of rock
armour along length



Appendix 3 – Route to Hospital

Queen Margaret Hospital
Whitefield Road
Dunfermline
KY12 0SU
01383 623 623



From: Burntisland, UK

To: Queen Margaret Hospital, Whitefield Road, Dunfermline, UK

Distance: 9.7 miles

Time: 21 mins

Distance	Directions	Total
Start:	Burntisland, UK	
0.0	Head north-west on Kirkgate	0.0
0.0	At the roundabout, take the 2nd exit onto High St	0.0
0.2	At the roundabout, take the 1st exit onto Cromwell Rd/A921	0.2
0.3	At the roundabout, continue straight onto Cowdenbeath Rd/A909 Continue to follow A909	0.5
2.9	Turn left to stay on A909	3.4
0.0	Turn right to stay on A909	3.5
1.2	At the roundabout, take the 1st exit onto B925	4.7
2.4	Turn right onto Main St/B981	7.1
0.0	Turn left onto Dunfermline Rd/B925	7.1
0.4	At the roundabout, take the 2nd exit onto A92	7.5
0.5	At Halbeath Junction , take the 3rd exit onto A907 Go through 1 roundabout	8.0
0.5	At the roundabout, take the 3rd exit onto Halbeath Rd/A907	8.5
0.3	At the roundabout, take the 2nd exit and stay on Halbeath Rd/A907	8.7
0.4	Turn right onto Whitefield Rd/B912	9.2
0.3	Turn left	9.4
0.1	At the roundabout, take the 2nd exit onto Access Rd 3 Destination will be on the left	9.6
0.1	Arrive: Queen Margaret Hospital, Whitefield Road, Dunfermline, UK	9.7

Section time: 21 mins 17 s, Total time: 21 mins 17 s

Appendix 4 – Spare