





Ref:	hs-g	n-78
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BAM Construction

1.0 Scope

This document has been prepared to assist subcontractors in complying with BAM Construction Ltd's company-specific requirements, where they go beyond legal requirements and industry accepted practice.

BAM is a member of Build UK, and requirements from Build UK that are relevant to subcontractors are included in this guide.

If subcontractors require additional information about BAM H&S procedures we will make it available on request.

There may also be project or region-specific requirements, which go beyond the standards stated in this document. These will be communicated by BAM to the subcontractor separately at tender stage.

BAM H&S Policy can be referred to in Appendix 1.

This procedure is in line with the requirements of the BAM UK & Ireland Division Common Standard OHS C01: Personal Protective Equipment.

2.0 Your Safety is My Safety

In June 2018, Royal BAM Group launched the Your Safety is My Safety programme, which includes all BAM operating companies, including BAM Construct UK.







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3.0 PART 1: Before work starts on site

3.1 Pre-qualification & Project Information

Subcontractors must be Constructionline Gold Verified Status at the time of BAM placing a sub-contract order with them. The only exception will be if the Regional Commercial Director and Supply Chain Manager agree that the Health and Safety Questionnaire (180-008) can be used. This is known as the 'exception protocol'.

The following questionnaires are required to be completed by the subcontractor and signed off by BAM as a prerequisite of an order:

- Designer's H&S Competence (153-34) (where applicable)
- Temporary Works Questionnaire (220-21) (where applicable)

In compliance with CDM Regulations (2015), BAM will issue the subcontractor with the Construction Phase Plan (Sections 1 & 2 of the Project Management Plan (300-01) for their information when planning work. A copy will also be available to be viewed on site. Where a subcontractor has designer duties on a project, BAM will also issue them a copy of BAM's guidance document, Designer's Guide to CDM Regulations (des-gn-11), for information at tender stage.

An Initial Subcontractor H&S meeting (180-046) will be held between BAM and the subcontractor, below are some of the topics for discussion:

- The method of construction, sequence and duration of the works
- The level of resource needed to deliver the work e.g. is an onsite manager required, will there be a non-working supervisor
- Any additional resource required e.g. out of hours work
- The overall ratio of supervisor to operatives e.g. 1:6, 1:10
- The competence of the operatives delivering the works
- The competence of supervisors

Risk Assessment and Method Statement (RAMS), Lift Plans and any other assessment in relation to health and safety for a planned activity should be issued to BAM site team, via the method agreed at the Initial Subcontractor H&S Meeting.

3.2 Risk Assessments and Method Statements

BAM Key Risks

The Key Risks (Appendix 2) have been identified by BAM senior managers and directors as risks that should be given particular focus on BAM projects.

The subcontractor should take the Key Risks into account when planning their work activity.

Timescale to Submit High Risk Activity RAMS

The RAMS should be submitted a minimum of 21 days prior to operations starting on site. No work can commence until the Project Safety Manager is satisfied that the proposed method of work satisfies BAM requirements and that the RAMS Review Form (180-042) has been completed and signed off.





Health and Safety Standards for Subcontractors

COSHH Assessment

Subcontractors must avoid using hazardous substances on construction sites. When this cannot be avoided, they must comply with the COSHH hierarchy of control measures. A COSHH substance can only be brought onto site with:

- Completed COSHH Risk Assessment
- Supporting Manufacturers Safety Data Sheet
- RAMS Review Form (180-042) completed by BAM at status A (see section 1.2.11)

Where dust cannot be eliminated, it must be minimised and controlled. Where on-tool extraction is used for wood dust or silica dust, the unit should be an M Class or H Class unit (see <u>HSE guidance CIS 69</u>). Water or on-tool extraction may not always be appropriate or they might not reduce exposure enough. Often respiratory protection (RPE) has to be provided as well (see <u>HSE guidance CIS 36</u>).

A Thorough Examination and Test (TExT) is required to be carried for on-tool extraction equipment, at least every 14 months (see HSE guidance CIS 69).

Noise or Vibration assessment

Subcontractors should indicate in their RAMS if their work activity is likely to create noise or vibration at or above the Lower Exposure Action Value (LEAV) or Exposure Action Value (EAV) respectively and document the appropriate controls.

Assessments should include the expected decibel level of the work activity (for noise), and the calculated 'Trigger Time' (for vibration).

Deliveries and Off-Loading risk assessment

Subcontractors should produce a specific risk assessment for deliveries and off-loading. This should include fall protection if access to the back of a vehicle is required.

If reversing of vehicles cannot be avoided then an adequately trained Banksman should be in attendance. The exception to this would be if a vehicle is reversing into an area where pedestrians are excluded, there is no risk to property or the vehicle, and there is adequate visibility.

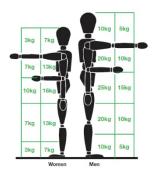


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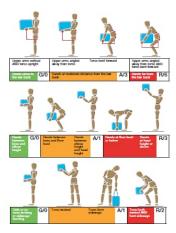
Manual Handling assessment

Subcontractors should follow the HSE's 3 levels approach (<u>L23 Appendix page 51</u>) to decide how detailed their task specific manual handling risk assessment should be:

• Initial – Lifting and lowering risk filter chart



Intermediate – MAC or RAPP tools



Detailed <u>Manual Handling Risk Assessment</u>

Lift Plan

A documented lift plan is required for use of tower cranes, mobile cranes, lorry loaders (when used to place loads or in the construction process), excavators used as cranes, and telehandlers static lifting a suspended load (telehandlers travelling with a suspended load is prohibited on BAM projects). Reference should be made to Minimum Standards hs-16 MS01, MS02 and MS03 in appendix 6, Detailed Guidance for MS03 'Hands Off, Step Away, Safe Space and BAM Lifting Best Practice hs-gn-16A. In accordance with MS03 'Hands Off, Stand Back' Schedules of Lifts should identify which loads can be lifted safely in accordance with the rules and which require 'Hands On' and therefore further risk assessment.

First Aid

Specialist high risk subcontract activities will require additional first aid equipment and expertise as identified in their risk assessment (e.g. hot work on roofs – first aid for burns).

Young Persons

Where subcontractors are employing young persons, less than 18 years of age, they should submit a risk assessment to BAM. The assessment must take into account the young person's physical and psychological capabilities.



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Non-English Speaking Workers

Subcontractors should inform BAM of the anticipated number of non-English speaking workers who will be working for them on site. The subcontractor should ensure that there are an adequate number of English-speaking supervisors who can communicate in the required languages. The subcontractor should consider the number of non-English speaking workers, the distance between their work areas, and the practicality of supervisor putting them to work and enforcing the site rules and compliance with their RAMS.

The subcontractor should ensure that a suitable interpreter is provided to interpret and deliver Safety, Health and Environmental information/messages and to consult with non-English speaking workers. The interpreter can be the Supervisor or another person if they are competent to carry out this role.

RAMS Review BAM comments - Status A or C

The BAM site team will complete a RAMS Review Form (180-042) for RAMS issued to them and award a status. They will then return the form to the subcontractor, along with any comments they may have, with a status that has one of the following 2 meanings:

- A = Review complete Subcontractor to satisfy themselves that works are safe to commence.
- C = Amendments required, work cannot proceed It remains the responsibility of the subcontractor to ensure the assessment is suitable and sufficient for the activity undertaken and that the hazards, risks and control measures are identified.

| Contractor | Province | Provinc

3.3 Training and Skill Cards

General H&S Training

Manager, Supervisor and Worker H&S Training (Build UK)

BAM requires that everybody working on their sites is able to demonstrate that they have the necessary knowledge and skills. The <u>Build UK H&S Training Standard</u> outlines the training that Build UK members have agreed should be held by those directing, managing, supervising or undertaking operations on construction sites, for instance:

- Directors CITB Site Safety Plus Directors Role for Health and Safety Course (1 day)
- Managers CITB Site Safety Plus Site Management Safety Training Scheme (SMSTS) (5 days)
- Supervisors CITB Site Safety Plus Site Supervisors Safety Training Scheme (SSSTS) (2 days)
- Workers CITB Site Safety Plus Health and Safety Awareness (1 day)





Health and Safety Standards for Subcontractors

The requirement for individuals to be able to demonstrate formal H&S training is *in addition* to a demonstration of competency via the <u>Build UK accepted record scheme</u> (i.e. CSCS cards). Individuals are required to hold the relevant skill card for their occupation (e.g. a supervisor should hold a supervisor skill card).

The Build UK H&S Training Standard lists industry courses that have been mapped as equivalent to the CITB Site Safety Plus H&S Awareness Course (minimum requirement for construction workers). These will also be accepted by BAM, please see the Build UK Training Standard.

Supervisor Training

Supervisors should have received some form of training in the effective delivery of toolbox talks.

Supervisor Workshop

The Project Safety Manager should ensure that each supervisor receives the BAM supervisor workshop before they start work on a BAM project.

Each supervisor will be issued a certificate of attendance and this will remain valid for 24 months. Following that date a refresher supervisor workshop will be required.





Health and Safety Standards for Subcontractors

Specific H&S Training

Asbestos Training

Adequate information, instruction and training must be given to all persons who are likely to be exposed to asbestos. Training must be provided at regular intervals. All asbestos training should be UKATA approved.

Asbestos awareness training is for those persons who are liable to disturb asbestos while carrying out their normal everyday work (e.g. general maintenance staff, electricians, plumbers, gas fitters, painter and decorators, joiners, plasterers, demolition workers, roofers, heating and ventilation engineers, fire and burglar alarm installers, computer installers) or who may influence how work is carried out (architects, building surveyors and other such professionals). This training only applies where there is a likelihood of asbestos being present.

Personnel carrying out non-licensable asbestos removal must have training for non-licensable asbestos work (including Notifiable Non-Licensed Work (NNLW), or training for licensable work with asbestos, as appropriate to their work.

Refresher training should be given at least every year and should be appropriate to the role undertaken.

Any person carrying out air sampling and clearance testing of asbestos should have achieved BIOH P404 or S301 and be able to prove an acceptable level of experience.

Copies of all training certificates must be held on site.

Work at Height Training

Subcontractors must ensure that everyone involved in work at height is competent (or, if being trained is supervised by a competent person). This includes involvement in the organisation, planning and supervision of work at height and also the supply and maintenance of equipment.

Where other precautions do not entirely eliminate the risk of a fall occurring, then persons must be trained in working at height as well as in how to avoid or minimise injury to themselves should they fall.

All those involved in scaffolding operations should wear and use fall arrest equipment in compliance with NASC Guidance Note SG4, and have received recognised training in the use, inspection and maintenance of such equipment.

MEWP Training

Operators should be in possession of a valid operator's card to the standards of CPCS (Construction Plant Certification Scheme), NPORS (National Plant Operators Registration Scheme) or IPAF (International Powered Access Association).

Users of Push Around Vertical MEWPs (PAVs) should have undertaken the IPAF PAV training (if they don't already hold a Static or Mobile Vertical (1a or 3a) IPAF card).

Mobile Tower Training

Mobile towers should be erected by a competent person, who has PASMA (Prefabricated Access Suppliers and Manufacturers Association) training, and be used in accordance with the manufacturer's instructions.

Safety Net Training

All operatives involved in the erection of safety nets on site should be in possession of a Fall Arrest Safety Equipment Training (FASET) Safety Net Rigger card.

Familiarisation (Plant)

Familiarisation training is to be provided to all plant operators for each specific item of plant that they are operating. Written evidence should be obtained and held on record, unless there is documented evidence of their experience with that item of plant (e.g. completed IPAF log book).





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Skill Cards

CSCS Cards

In line with Build UK, BAM require individuals to hold a card that is affiliated to the CSCS scheme.



Plant Operator Skill Cards

BAM requires that operators of mobile work equipment hold a recognised certificate of training from CPCS or NPORS for the category for which they have been trained and tested.

Where a specific type of plant is not covered by the CPCS scheme then the operator should have the nearest possible accreditation, and have undergone additional training in accordance with the manufacturer's instructions (i.e. if dumpers with elevating/tipping skips were not covered, then the operator should at least be in possession of a CPCS card for dumpers, and should receive further specific training for that type of machine.)

Lifting Skill Cards

For more detail on lifting skill cards, a copy of BAM procedure on Lifting Operations (hs-16) can be provided to subcontractors on request.

Basic telehandler operator training does not include static lifting with suspended loads. If this task is to be carried out the subcontractor must ensure that the operator is suitably trained (refer to BAM procedure hs-16) and assessed as competent.

The Association of Lorry Loader Manufacturers and Importers (ALLMI) has an accreditation scheme for operators of lorry loaders. This is an acceptable alternative scheme. Distinction is made between different types of attachment, capacity of the loader, remote controlled loaders and various specialist applications. They are categorised due to the individual skill requirements needed to operate these types of loader crane safely and efficiently.

Scaffolding Skills Cards

The scaffold contractor should comply with the CITB Registration Scaffold Scheme and ensure that only suitably qualified scaffolders are employed i.e. scaffolders should carry the Construction Industry Scaffolders Record Scheme (CISRS) card relevant to their role.

3.4 Drug and Alcohol Policy

No personnel should come to work under the influence of drugs or alcohol, or bring such items to site.

BAM has a drug and alcohol testing policy. This is communicated to subcontractors at tender stage and at induction.

The purpose of the BAM drug and alcohol testing policy is to prevent accidents and incidents as a result of impaired performance due to the use of drugs or alcohol.

This procedure applies to all BAM Construct UK sponsored personnel.

BAM Construct UK sponsored personnel are BAM employees, subcontractors and anyone working on, or visiting any BAM Construct UK office, site, premises, work place or while on company business. This will also include work experience students, who will be advised of this procedure as part of their placement arrangements.

The procedure will provide for 5% of total personnel to whom this procedure applies, being subject to random drugs and alcohol testing every twelve months.





Health and Safety Standards for Subcontractors

BAM Construct UK sponsored personnel

The following is a summary of the responsibilities under this procedure, for BAM Construct UK sponsored personnel.

BAM Construct UK sponsored personnel will:

- Not attend work if under the influence of drugs or alcohol.
- Consent to random and for cause testing without prior warning.
- Co-operate with their line manager and testing staff if called upon to undertake a reasonable suspicion or for cause test.
- Bring to the attention of their line manager any person they suspect of drugs and alcohol abuse.
- Inform their line manager of any over the counter or prescription drugs being taken or administered on form 180-072.
- Comply with restrictions put in place on completed form 180-072.
- Ensure that all visitors to them are made aware of the scope and detail of the procedure in so far as it applies to them whilst visiting BAM Construct UK.

3.5 Safety Critical Workers

A 'Safety Critical Worker' is a person carrying out an activity that can place workers at risk, unless the person has full unimpaired control of their physical and mental capabilities. The table in Appendix 4 shows Fitness For Task health checks required for those deemed by BAM to be Safety Critical Workers.

Subcontractors should use an Occupational Health Service Provider to carry out the necessary health checks for any Safety Critical Workers who work for the subcontractor. All clinical records should be held by the designated Occupational Health Service Provider or an organisation with equivalent controls. All health records should be held securely by the subcontractor.

The Appendix 4 table is not exhaustive and additional health checks may be deemed necessary by risk assessment, by BAM or by a subcontractor in other specific cases.



Health and Safety Standards for Subcontractors

3.6 PPE

Where a project or region has its own PPE requirements, those should be followed over and above the requirements given below.

Employees should be encouraged to sign for all PPE issued. Legs must be covered e.g. by trousers. No shorts or skirts with bare legs.

To help to establish ready engagement amongst the workforce, managers and visitors BAM encourage the use of company branded PPE and name labels on helmets.

Head Protection

Where head protection is required, the following applies:

- All industrial safety helmets must meet BS EN 397/ EN50365 Class 0
- The wearing of secondary head gear (e.g., hoods, woollen hats etc.) under safety hats is not permitted unless it is produced by the same manufacturer as the helmet and therefore designed to interact, so as not to contravene the BS/EN standard.
- The following are required to wear a 4-point harness chin strap:
 - Slinger/signallers
 - Scaffolders
- All other personnel should carry out a risk assessment to determine if chin straps should be worn. (i.e., in high winds, tasks requiring vigorous movement).
- Bump Caps are not appropriate in the construction environment. If considered elsewhere this must be verified by risk assessment.

Light Eye Protection

- The wearing of LEP is mandatory unless a risk assessment has been conducted by BAM to identify specific areas of the site where it would not be required with clear reasoning for the decision
- For outdoor work the LEP should have UV protection.
- Eye protection must meet optical class standard 1 for continuous work.

Foot Protection

As a minimum safety requirement, all persons on site should wear suitable footwear with toecap and mid sole protection.

- Safety footwear must have suitable ankle support in relation to the activity and working environment.
- There are circumstances where rigger boots may be deemed acceptable, such as where there is a risk of falling into water due to the ease of removal when in water, (Standard EN ISO 20345:2011 S3 SRC) or after task specific risk assessment.
- Wellington boots (standard EN345-1SBPE) are worn by those involved in concreting operations as they provide protection from concrete burns and dermatitis. If wellington boots are provided they must have a steel toe cap and mid-sole.



Health and Safety Standards for Subcontractors

Respiratory Protection

Records of face-fit testing should be readily available on site for those who are required to wear tight-fitting respirators. The subcontractor should retain a copy.

Those wearing tight-fitting RPE should be clean-shaven. Those without a face fit record, or those who are not clean-shaven, will require a loose fitting airflow mask/helmet.

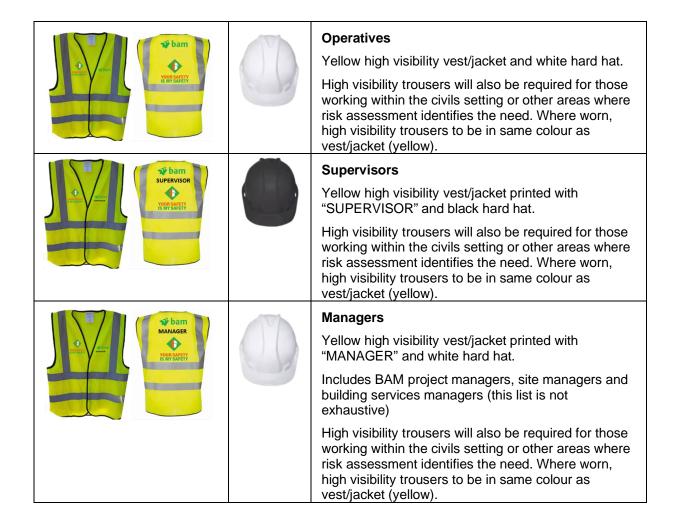
Hand Protection

BAM's requirements are that hand protection should be worn on site, including site management and visitors. Hand protection must be determined by risk assessment to be appropriate and suited to the task to be carried out. This is not a 'one glove fits all' policy.

The only circumstances in which gloves are not to be worn is when equipment with rotating parts is being used and the manufacturers operator's manual advises against the use of gloves due to the risk of being drawn into the equipment. Where gloves are not to be worn this is to be recorded in the risk assessment.

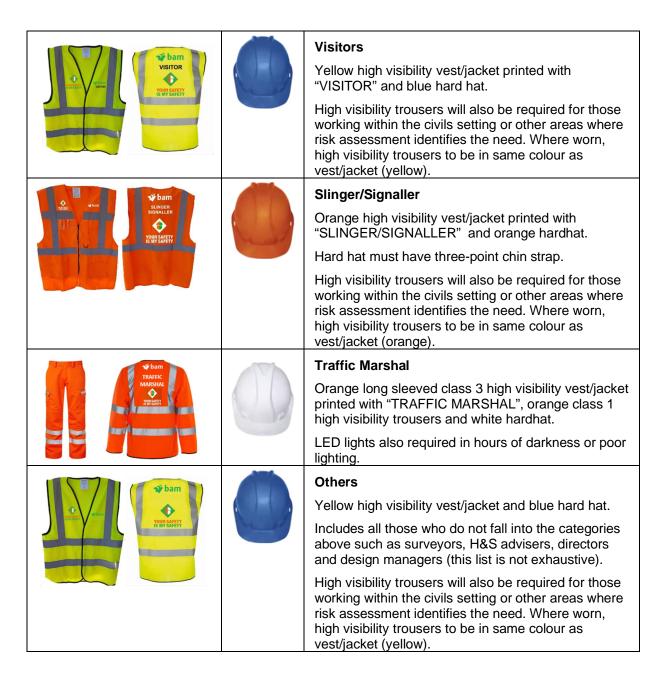
PPE Colour Coding

The following PPE colour coding must be adhered to on all projects, unless written authorisation is given by the relevant Regional Director (for example, to comply with client branding requirements).





Health and Safety Standards for Subcontractors







Health and Safety Standards for Subcontractors

4.0 PART 2: On Site

4.1 Induction

BAM will advise subcontractors of the site-specific arrangements for induction including preenrolment on access control software (if applicable), time and location. This will include a check of the inductee's skill card by BAM.

Health Information

The Induction Health Information (180-051) will be issued at induction, and BAM will explain it to all new workers. Workers are advised to report any concerns to their supervisor or manager. The Induction Health Information is to raise awareness and raise the profile of health risks in the construction industry, as well as encouraging early reporting of any symptoms from workers to their supervisors. It is *not* 'Health Surveillance' or a 'Fitness For Task' assessment.



BAM Safety Rules

All inductees will be asked to agree to work in line with the 10 Rules of Conduct (see Appendix 5).

4.2 Health and Safety Meetings

Each subcontractor will be expected to involve their own workforce and subcontractors on matters of Health and Safety. Every worker has a right to stop work if he or she feels at risk. No punitive action will be taken against any worker who raises a health and safety concern.







Health and Safety Standards for Subcontractors

H&S Action Group (worker consultation meeting)

On each BAM project there will be a H&S Action Group made up of worker representatives from each subcontractor. The representative should consult employees prior to the meeting and obtain their views regarding current health & safety standards and/or problems currently being experienced on site.

The representatives will meet regularly (once a month as a minimum) to agree actions that improve health and safety.

A senior member of the BAM construction management team will chair the meetings to demonstrate the significant importance placed on health and safety.

The formation, structure and exact functions of these Action Groups will be for the members to decide. They are likely to be subject to ongoing review to ensure there is a dynamic approach adopted which best reflects the changing nature and needs of the site.

The size of each Action Group and frequency of meetings should be determined by the members themselves and will reflect the number of personnel and range of activities on site. An appropriate record of these Health and Safety Action Group meetings will be kept. These will be prominently shared with site workers.

Safety Review Meeting (supervisors)

Safety Review Meetings will be convened at a frequency of not less than once a month, having regard for the nature and complexity of the project. A representative from each subcontractor on site is required to attend this meeting. The person who attends this meeting is usually the subcontractor supervisor or manager.

At the review meeting current and forthcoming site activities will be discussed. Subcontractors are expected to participate in a positive manner, share knowledge and cooperate with others.

Coordination meetings (site-specific)

Arrangements for coordination meetings are site-specific and will be communicated to subcontractors at the Initial Subcontractor H&S meeting.

4.3 Permit to Work

BAM use permit to work systems for the following operations:

- Hot working (180-031)
- Working in a confined space (180-032)
- Excavate or penetrate the ground (180-033)
- Working on or near live electrical equipment (180-034)
- Demolition (180-035)
- Permit to Load/Unload/Strike/Dismantle (300-40)

The BAM project team may also implement a site-specific permit to work system based on risk assessment (e.g. roof work). This will be communicated to subcontractors at the Initial Subcontractor H&S Meeting, or during their time on site.



Health and Safety Standards for Subcontractors

Hot Work

As with all arrangements to prevent or control fire, hot works should be in line with 'LPC Joint Code of Practice Fire Prevention on Construction Sites' (JCOP).

The requirements include:

- Hot works should only be carried out by trained personnel and frequent training should be provided to personnel to ensure their understanding of the risks associated with hot works. Where hot works are being carried out two additional appropriate fire extinguishers are required. Provision should include as a minimum at least one water based or foam unit with a minimum 13A rating (these extinguishers should be provided by the subcontractor carrying out the hot work and not borrowed from fire points). Those undertaking the hot work activity, including fire watch, should be trained and competent in their use.
- In all cases a continuous fire watch should be maintained for at least 60 minutes after the
 hot work is completed with further checks at regular intervals of no more than 20
 minutes, up to 120 minutes after completion before the permit is signed off.
- A fire watch should be undertaken continuously during the hot works period by a dedicated individual where the risk assessment indicates the potential for hot work impacts to be more widely spread (for example if the work area is particularly large, multi-level and/or congested; or an opening or thermally conductive assembly extends through a wall). Ideally photographs of the immediate vicinity, adjacent voids, and vulnerable spaces should be taken and appended to the hot works permit and available for review as part of the sign off process. Thermographic cameras should be used routinely before during and after the work as part of the fire watch

Permit to Excavate or Penetrate the Ground

Once the services and their locations have been identified a Permit to Excavate or Penetrate the Ground (180-033) should be issued to the sub-contractor involved in the work. The permit provides management control over any operation where specific control measures are required to avoid striking the underground service.

Before work commences the subcontractor should ensure that their method statement has been accepted by BAM and they have a Permit to Excavate or Penetrate the Ground. No material, vehicles, plant or equipment will be placed or moved near an excavation where it is likely to cause collapse. Open excavations will have a physical barrier to stop people or vehicles falling in.

4.4 Incident Reporting

On the day of the incident all incidents should be:

- Reported to BAM staff
- Recorded on a subcontractor incident form
- Reported to the subcontractors H&S adviser

The near miss reporting system on each site will be communicated to all personnel at site induction.

Where any substance is found that looks like or is thought to be asbestos then all work is to cease and the matter brought to the attention of the Project Safety Manager immediately.

Subcontractors should report any interaction with the HSE or other enforcing authority to the most Senior person from BAM on site. Subcontractors should cooperate with the HSE and with BAM.





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In the case of more serious or potentially serious incidents the following documents must be provided promptly to BAM:

- A copy of the notification report of the incident to the HSE under RIDDOR (not just the report number)
- Statements from the injured person and any other witnesses who may have observed the incident or the lead up to the incident
- The subcontractors own incident investigation report, including recommendations and action to prevent a recurrence
- Medical confirmation of injuries sustained e.g. doctors/hospital note
- A brief resume of the injured persons training record
- Confirmation of the hospital visited and length of stay
- Date of proposed return to work

The above information should be provided promptly as available but in any event no later than 7 days from the date of the incident.

4.5 Directors Safety Tours

BAM operate a programme of Directors' Safety Tours. Where possible these will include and involve Directors from the supply chain. Those undertaking a Directors' Safety Tour will ensure that, at the least, there is some informal discussion on relevant health and safety matters with members of the workforce during the visit.

4.6 Rewards and Recognition

Subcontractors are encouraged to develop an appropriate reward and recognition scheme that reinforces positive behaviours and involvement of their workforce. BAM often have sitewide initiatives where subcontractors participate.



Health and Safety Standards for Subcontractors

4.7 Documentation to be provided	to BAM			
BAM requires access to a copy of the following documentation. The exact arrangements for each project will be discussed and agreed at the Initial Subcontractor H&S Meeting. To be issued to BAM: As required				
	Copies of RAMS briefings should be issued to BAM.			
Work Activity Safety Plan (WASP)	The primary document for managing risk on site is the subcontractors risk assessment.			
Work Activity Safety Plans (MASP) Topic	The WASP may be used to supplement the primary risk assessment if circumstances change. In this case:			
	 The subcontractor supervisor will complete the WASP 			
	All persons present should sign the WASP			
	 A BAM Manager will acknowledge the WASP by signature 			
	A copy of the WASP is to be retained with the original risk assessment for record purposes and a copy should remain readily available whilst the activity is undertaken			
Lifting Equipment Safety Record (180-007)	A BAM form to be completed with each piece of lifting equipment or lifting accessory brought to site, and to be signed off by BAM Lifting Coordinator.			
Thorough Examination of Lifting Equipment (or accessories)	The certificate of examination of each piece of lifting equipment or lifting accessory, completed by			

a competent person.





Health and Safety Standards for Subcontractors

To be issued to BAM: Weekly		
Safe2start	The main aim of Safe2Start is for the 'work gang' or individual to assess the working environment prior to starting work <i>each shift</i> and additionally before starting <i>each work activity</i> during that day. The Safe2Start is an opportunity for the Supervisor to consult with his workers. Safe2Start is:	
	Involvement of the workforce	
	 An opportunity for workers to seek improvements ahead of commencing work activities 	
	 A means of pausing to re-evaluate hazards, risks and control measures 	
	A means of reinforcing original RAMS	
	 Part of a wider safety improvement programme 	
	Subcontractors may use their own format if it is effective and allows the "work gang" to pause, assess, check, act and communicate. Or if preferred, subcontractors may use one of BAM's Safe2Start forms (180-058 or 180-059), which can be requested at the Initial Subcontractor H&S meeting. The Safe2start should be facilitated and lead by the supervisor or other manager in charge of the 'work gang'.	
Toolbox talks	All subcontractors should undertake regular toolbox talks and provide records of the attendees, dates and subjects covered, to BAM. These talks should be relevant to the current work, or activities that are about to start shortly.	
	Any site-specific requirements for frequency or type of toolbox talks will be agreed at the Initial Subcontractor H&S Meeting.	
Inspection Requirements		
Inspections of Lifting Equipment (or accessories) or Work Equipment Inspections of Working Platforms,	BAM requires that the inspection should be carried out in periods not exceeding 7 days. BAM requires that these inspections are carried	
Fall Prevention and Arrest Systems, and Ladders	out in periods not exceeding 7 days (as well as before first use, and after any event that might affect its stability).	
Inspections of Excavations	These inspections are required to be carried out in periods not exceeding 7 days (as well as before first use, and after any event that might affect its stability).	



Health and Safety Standards for Subcontractors

To be issued to BAM: Monthly		
H&S Adviser Inspection report	BAM requires subcontractors to receive H&S inspections from their own H&S adviser. Commonly this is once a month, but site-specific arrangements will be agreed at the Initial Subcontractor H&S meeting.	

4.8 Monthly Performance Monitoring

The health and safety performance monitoring of each subcontractor will be recorded by BAM at the end of each calendar month. The project team will provide the subcontractor with the monitoring criteria at the Initial Subcontractor H&S meeting.

The monitoring will be published on site in a table (see example in Appendix 3), with copies distributed to the subcontractor's:

- Director responsible for the project
- Contracts Manager
- Health and Safety Advisor
- Supervisor

4.9 Task-specific requirements

BAM Minimum Standards

BAM minimum standards are pictorial procedures that show the minimum standards required for certain items on BAM sites. Refer to minimum standards at appendix 6.

Asbestos

Where asbestos, requiring a license for removal as been identified and removal is included as part of the contract, the asbestos must be removed by a licensed asbestos removal contractor who preferably has a full membership of the <u>Asbestos Removal Contractors Association</u> (ARCA), or a full membership of the <u>Asbestos Control and Abatement Division</u> (ACAD).

Repeat face fit testing is to be carried out on an annual basis.

Work at Height

All scaffolds and working platforms constitute temporary works and must be properly designed and constructed to provide a safe and adequate working space in compliance with the Work at Height Regulations 2005 and relevant British Standards and Codes of Practices, including BS EN 12811 and in the case of tube and fitting scaffolds, TG20.

Unprotected Openings

Unfenced openings, e.g. service risers, redundant ladder accesses etc. must be provided with guard-rails, mid-rails and toe boards or covered with a substantial fixed cover marked with a suitable warning sign e.g. 'Hole Below', unless already fitted with adequate and suitable permanent guarding.





Ref: hs-gn-78

Scaffold

Scaffolds may only be erected on BAM sites by companies who are full members of the NASC. This applies to scaffolders contracted directly or through the supply chain. This requirement applies to system scaffolds but not to 'Compliance Sheet' scaffolds



(not requiring a design) up to 2 lifts high, prefabricated mobile towers and podiums.

Under no circumstances must anyone other than a CISRS card carrying scaffolder erect, alter, adjust or dismantle scaffolding.



Scaffold inspections must be carried out in accordance with the Work at Height Regulations 2005 by a suitably trained and experienced BAM manager (in conjunction with an Advanced Scaffolder, where necessary). Where an inspection has been carried out a written report must be made, using the Working Platform Inspection form (180-021).

'Ladder gates' or 'ladder hatches' should be installed where there is a break in the edge protection handrail to allow access onto a ladder. The requirement to duck under a single handrail to access a ladder should be avoided.

Mobile Tower Scaffolds

A visible tag system on the mobile tower scaffold (which can be updated each time a check is carried out) should be used to supplement inspection records. The tag should include the name of the person who inspected the tower, and the name of the company that own/hires the tower.

The tag insert can be removed to clearly indicate towers that are incomplete and not safe to use (i.e. during erection and dismantling).



Lightweight staging and trestle scaffolds

The only authorised trestle system for use on BAM construction sites is <u>'SafeStand Access Systems</u>'.

This can only be used up to a maximum platform height of 2210mm. Persons erecting SafeStand systems must have evidence of training by SafeStand.





Health and Safety Standards for Subcontractors

Podiums

Podiums should be considered before ladders or stepladders.

Ladders and Stepladders

Where work at height cannot be avoided BAM's approach is that ladders and step ladder must not be used if a safer alternative could be used to carry out work at height. The risk assessment must demonstrate that other options have been considered and that the use of a ladder or stepladder is the most suitable. It should take into account the nature of the task, the duration of the work and the hierarchy of controls.

Where a stepladder is used it should be of the type that has handrails and a standing platform commonly referred to as a 'platform stepladder'. Platform stepladders are readily available in many sizes and heights. If there is no safer alternative, and a 'platform stepladder' cannot fit in the space available, then a regular stepladder can be used, subject to risk assessment and issue of a permit to work.

Any ladder used for access to the workplace must be subject to risk assessment as in many instances a staircase will be a safer option.



Lifting Operations BAM Lifting Best Practice

The BAM Lifting Best Practice (hs-gn-16a) is a pictorial guide to best practice in lifting operations. This can be made available to subcontractors on request.



Hands Off, Step Away, Safe Space

In accordance with an industry campaign led by Industry Lifting Lead AP Group, BAM have implemented the "Hands Off, Step Away, Safe Space" (HOSASS) Minimum Standard (see Appendix 6). This is intended to reduce the risk of loads striking personnel due to unexpected load movement. All lifting operation Lift Plans and Risk Assessments should embed HOSASS and if 'hands on' control is absolutely necessary this must be risk assessed by the AP. The MS is supported with a detailed guidance document available on request.



Appointed person

A CPCS Appointed Person is required to plan lifting operations with: tower cranes, mobile cranes, lorry loaders, excavators used as cranes and telehandlers with suspended load attachments for static lifting.

In order to implement the safe system of work effectively, one person must be appointed to have overall responsibility for organising and planning of the lifting operation.

Lift Supervisor

This is the person who controls the lifting operation, and ensures that it is carried out in accordance with the appointed person's safe system of work.



Health and Safety Standards for Subcontractors

Slinger/Signaller

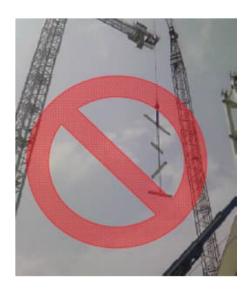
The practice of allowing an untrained slinger/signaller to attach/detach loads or signal whilst under the supervision of a trained slinger/signaller is prohibited on BAM sites.

Tower Cranes

The following are *prohibited* on BAM sites:

- The use of inertia reel systems to prevent persons falling from height attached to tower crane hook blocks.
- 'Chandelier' style lifts





Bale Arm Skips

Bale arm skips present a risk of crushing/entrapment if the bale arm is free to drop/swing down. Where possible, concrete skips that require bale arms to be secured with a safety chain should not be used. If this is not possible then permission to use must be sought from a BAM Construction Director, in writing. Where possible, these types of concrete skip should be used:

- Bale arm type with lugs that restrict the bale arm from dropping into a horizontal position
- Non-bale arm types that use a two-leg chain system to lift or lay flat the skip

Steel Erection

A minimum of two leg chains slinging technique must be adopted whenever practicable. Single beam lifting clamps must not be used.

Where a tandem lift is required this must be under the strict control of an appointed competent person and steel erection supervisor.

It is best practice to use positive lifting for steel erection.

The steel erection supervisor should not be an erecting foreman unless the works are of a minor nature and effective supervision and control can be exercised over the erection operation.



Health and Safety Standards for Subcontractors

Forklifts/Telehandlers

BAM deems that static lifting a suspended load is a complex lift and will require a specific risk assessment and lift plan approved by the Appointed Person, Lifting Co-ordinator and Project Safety Manager.

Travelling with a suspended load or with the boom raised is prohibited on BAM sites.



Signage should be located on telehandlers stating that telehandlers should not travel with a suspended load or with the boom raised. This signage should be visible to both the operator and personnel nearby.



Lorry Mounted Cranes (Hiab)

Using a lorry loader to place loads or in the construction process (e.g. cabin installation) on a BAM site will be deemed as either an intermediate or complex lift and be subject to the requirements of a specific risk assessment and lift plan reviewed by the BAM Lifting Coordinator and Appointed Person.

Hoists

No attempt should be made to travel a passenger or goods hoist with the cage or trapdoor left open to permit the protrusion of long loads, except where an appropriate vertical extension to the hoist has been supplied and fitted in accordance with the hoist manufacturer's instructions.

Mobile Elevated Working Platforms (MEWPs)

Anti-entrapment devices should be fitted to all telescopic boom MEWPs used on BAM projects unless it can be clearly demonstrated by risk assessment that there is no risk of entrapment e.g. cleaning windows on a building with no overhanging elements.

Subcontractors should check charging requirements are compatible with any guidance from the MEWP manufacturer (e.g. length of lead) and state the requirements in their RAMS.



Health and Safety Standards for Subcontractors



Electricity

All temporary supplies to hand-powered tools and lighting will be transformed down to 110 volts. Cables for carrying voltage in excess of 110 volts must be armoured. All site cables will be:

- removed when not required
- kept to minimum runs
- re-routed away from working areas/pedestrian
- lifted up
- or covered over.

Operatives are to carry out a visual inspection of their equipment before first use and inspected and certificated at least every three months. Damaged cables must be removed from site.

Under no circumstances are BAM temporary electrical installations to be adapted, changed or interfered without the express permission of BAM management. The charging of battery-operated equipment should only be undertaken in office locations and under the strict control of site management.

Reel extension leads should be treated with caution and should not be used unless they are the most suitable equipment.

Dual connection leads must not be used.



Temporary Works

BAM operates procedures in respect of the management and control of temporary works (ts-02), the preparation of temporary works design briefs (ts-25) and the design, and design checking of temporary works (ts-26).

Health and Safety Standards for Subcontractors

Temporary Works include:

- Falsework
- Formwork
- Excavations
- Hoardings
- Piling mats
- Plant working platforms
- Scaffolds

This list is not exhaustive.

Each subcontractor carrying out or managing temporary works will be required to appoint, to the satisfaction of the responsible BAM Designated Individual or responsible Construction Director, a competent Temporary Works Supervisor(s) to supervise the subcontractor's temporary works and to assist BAM's Temporary Works Co-ordinator. Each Temporary Works Supervisor is responsible for the supervision and management of the temporary works provided by their subcontractor to ensure that the temporary works comply in all respects with good engineering and construction practice and with the approved:

- Temporary works designs
- Method statements
- Safe systems of work

Work Equipment

Workbenches should be fully compliant with the Provision and Use of Work Equipment (PUWER) regulations in that they are suitable for the purpose for which they will be used. Proprietary workbenches should be used, or if a workbench is to be constructed on site then evidence needs to be provided in the form of a design to show that it is suitable for purpose under PUWER. BAM deems workbenches to be work equipment under PUWER, but not temporary works.

Fire

Work on BAM projects should be compliant with the 'LPC Joint Code of Practice Fire Prevention on Construction Sites' (JCOP).

The subcontractor must co-operate with all matters relating to fire safety i.e. maintenance of fire exits, drills, storage of materials, use of hot-work permits, temporary protective coverings etc. Any person suspected of tampering with fire safety equipment or signage will be dismissed from site.

Temporary covering materials

Where the internal finished surfaces or fittings incorporated into a building are to be temporarily protected by flexible covering materials these should conform to the requirements of Loss Prevention Standard LPS 1207.

Where flexible materials ('Monarflex') are incorporated into a scaffold system then this should conform to LPS 1215 where buildings are closer than 6m from the structure. This requirement must be subject to a risk assessment.

Where sheeted scaffolds form part of the escape route sheeting should conform to LPS 1215 and should be incomplete in the vicinity of escape ladders and stairs so that smoke can escape and the fire and rescue service can gain access.

Where scaffolds are to be partly or fully sheeted with flexible or rigid sheeting, the scaffold must have been designed and specified accordingly.



Health and Safety Standards for Subcontractors

Temporary Buildings

Where a subcontractor is providing their own temporary site cabins they should liaise with BAM site team for the requirements for temporary buildings.

Highly Flammable Liquids

Highly flammable liquids and Liquefied Petroleum Gases (LPG) must be used and stored in line with HSE guidance and JCOP requirements.

Acetylene

Acetylene gas is unstable, especially when pressurised, giving rise to a potential explosion and fire risk. The use of oxy-acetylene welding and cutting is not therefore permitted on BAM sites where alternative methods (e.g. fold cutting, arc based cutting and welding) or off-site manufacture are viable.

Where this is not practical the subcontractor should discuss with BAM Project Safety Manager, and if agreed, include it in their RAMS, before any acetylene is brought to site. Typical controls measures will include minimum amount required for the shift and bottles stored off site.

Roadworks

Before starting any work on the carriageway or footway, there are specific notice periods for informing the Highway/Street Authority (or in Scotland, Road Authority) of the intent to start work. Specific licenses should be obtained from the authorities. In the event of this work, subcontractors should liaise and cooperate with BAM to ensure all requirements are met. No work should be carried out on the carriageway or footway if it has not been authorised by BAM.

Un-Banding of Materials

Risk assessments should cover the hazards and risks of stacking and storage activities. This should include the risk of materials falling when they are un-banded, or otherwise released.

Statutory safety signage should be fixed to banded materials to warn workers of the risk of falling materials when the banding is removed.







Ref: hs-gn-78

Appendices:



Appendix 1: BAM H&S Policy (statement)

Policy Statement



BAM UK & Ireland

Health, Safety and Wellbeing Policy Statement

BAM UK & Ireland is an operating division of Royal BAM Group n.v. and consists of four business segments: BAM Construction, BAM Nuttall, BAM Ventures and BAM Ireland.

This policy is applicable to all BAM UK & Ireland activities. Every employee is obliged to take reasonable care for their own safety and wellbeing and for that of others who may be affected by their acts or omissions. They are also obliged to co-operate with their employer in respect of matters concerning health, safety and wellbeing. To achieve this, we:

- drive a culture of positive behaviours throughout all BAM personnel and within our supply chain
- assess the competence of our employees and supply chain
- provide information, instruction, training and supervision as necessary
- provide definition of roles and responsibilities within all role profiles
- provide a working environment and systems of works which are safe 'by design', ensuring our resources such as plant, equipment and facilities are maintained to the highest standards
- provide adequate facilities and arrangements for engaging with the workforce and consult and involve workers and their representatives about measures to improve safety and wellbeing
- enable employees and contractors to raise issues relative to occupational health, safety and wellbeing
- appoint sufficient and suitable resources necessary for implementation of this policy
- provide appropriate welfare facilities
- identify hazards, assess risks and, where reasonably practicable, eliminate or reduce risk to an acceptable level
- promote and encourage mutual respect for people involved in our work activities and also in the communities in which we work
- accommodate Joint Venture and Client requirements without lowering of BAM standards
- provide training awareness and support to improve people's wellbeing
- increase awareness of the risks from poor mental health and wellbeing
- provide an employee assistance programme and wellbeing champions for those in need

This policy is achieved by effective operation of our integrated management systems together with the active leadership, participation, professionalism and commitment of all personnel. The management systems aim to meet the requirements of the division, our clients and other interested parties.

The Divisional Leadership Team regards the responsibility of management in implementing this policy statement to be fundamental to BAM UK & Ireland Division meeting its standards and commitments.

Executive Directors are responsible for ensuring the implementation of this policy within their area of control.

Our approach provides the framework to set and monitor objectives with key focus on:

Management systems

 continually improve the health, safety and wellbeing management systems to strengthen controls, reduce risk, improve effectiveness and enhance lives

People

- upskill people in health, safety and wellbeing to continually improve understanding and competence
- · involve our people in determining key objectives

Culture

- drive a collaborative, inclusive culture of health, safety and wellbeing
- promote 'Everyone Safe and Well Everyday' ethos

Knowledge

- facilitate the sharing of knowledge and lessons learned, both internally and externally
- · drive current best practice awareness and adoption

The COO for UK & Ireland has appointed a Director to represent health and safety for each of the segments and a Head of Workplace Health and Wellbeing for the Division to ensure awareness of this policy is promoted throughout the Division, the effectiveness is monitored and areas for continual improvement identified and implemented.

This policy statement has been approved electronically. Proof of approval can be seen upon request

John Wilkinson Chief Operating Officer BAM UK and Ireland











Revised date: 18 Jan 2024

Last review date: Jan 2024



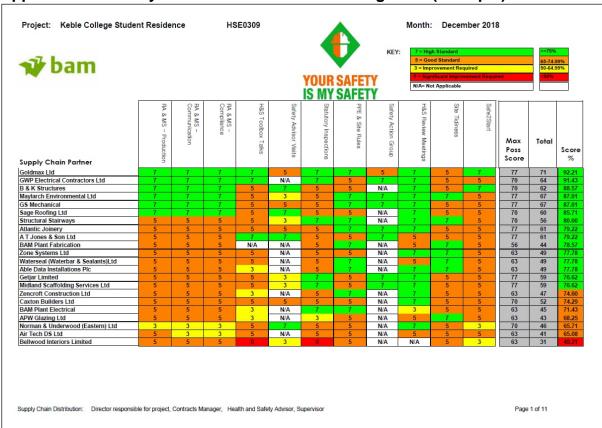
Appendix 2: BAM National Key Risks







Appendix 3: Monthly H&S Performance Monitoring table (example)







Appendix 4: Safety Critical Workers - Health Checks table

Occupation/Activity	Reason for Health Checks	Nature of Health Checks expected (minimum)			
Fitness For Task (FFT) health checks for Safety Critical Workers (based on roles BAM deem as 'Safety Critical') All FFT health checks are to be repeated every 3 years.					
Crane operator:	Deemed to be Safety Critical Worker by BAM Strategic Forum Plant Safety Group (SFPSG) Medical Fitness for Plant Operators	Health check on eyesight and hearing. Fitness For Task health assessment.			
Crane slinger/signaller:	Deemed to be Safety Critical Worker by BAM and CBH	Health check on eyesight and hearing.			

For a subcontractor worker, BAM will not request personal health information beyond confirmation that health checks have been carried out, or that Safety Critical Workers are 'Fit For Task'. It is the subcontractor's responsibility to ensure health risks are managed.

As part of receiving their risk assessment briefing, workers are asked to report any health concerns relevant to that activity to their supervisor, so that their work can be adapted or additional controls put in place.

Eyesight test

In line with CBH, BAM ask for a 'Visual Acuity' test with results of 6/9 in better or 6/12 in the other eye. Also uncorrected acuity should be at least 3/60 (Industry Standards, CBH). This can be tested by a nurse or an eye care professional using a Snellen Chart (letters on a white chart).

Hearing test

In line with CBH, BAM ask for hearing loss not exceeding 30dB averaged over frequencies of 0.5, 1 and 2 kHz in either ear. And no evidence of a health condition likely to cause a sudden or unpredictable change in hearing. Provided this standard is met without the use of a hearing aid, a hearing aid may be used to improve hearing further (Industry Standards, CBH).



Appendix 5: BAM Safety Rules

BAM SAFETY RULES



I understand my job, and I am aware of the associated risks. If anything is unclear, I will ask for additional information.



I call other people to account about unsafe behaviour, and I accept that others can also call me to account about unsafe behaviour.



I exclusively give safe instructions and exclusively follow safe instructions.



I work with approved materials and equipment and only if I am authorised to use it.



I only start with my work after I have been instructed correctly (formally). I follow these instructions.



I use my compulsory personal protection equipment.



I keep my workplace clean, safe and tidy.



I do not work when I am under the influence of drugs, medication or alcohol.



I do not walk or stand under suspended loads.



l do not work with installations or cables that are charged, unless I am authorised to do so.









Appendix 6: BAM Minimum Standards





Minimum Standard | Temporary Ramps

Temporary Ramps

This minimum standard describes the requirements for the provision of temporary ramps on BAM projects.

These requirements apply whether the ramps are installed by BAM or by a contractor. BAM is to approve all temporary ramps to be used on site.

Temporary Ramps

The provision of temporary ramps around site should be planned to ensure it is suitable for the purpose, e.g. pedestrian access route and /or for moving materials.

Each temporary ramp should:

- Be strong enough to support the anticipated uses and loads
- Be strong enough so that it doesn't deflect when in use
- Be secure so it will not move during use
- Have a chamfered edge at the low end
- Be highlighted in yellow (whole ramp or all edges)
- Have a slip resistant surface suitable for wet conditions
- Be wide enough for the intended use

Where a ramp is constructed, the slip resistant surface should be made with a product from either:

- Suregrip or
- <u>Duracomposites</u> or
- A proprietary product made to the same specification.

The manufacturer should be consulted to determine the exact type of board required, depending on the application.

Suregrip and Duracomposite boards are available to buy from BAM Plant or regional buyers.





Improvised ramps like the examples below are not permitted on BAM projects.







Consideration should be given to proprietary products designed for this purpose, especially where ramps will be in place for a significant period of time.







Inspection and maintenance regimes are to be put in place by BAM and the requirements recorded within the PMP Section 2.0.





Minimum Standard | Temporary Steps

Temporary Steps

This minimum standard describes the requirements for the provision of temporary steps on BAM projects.

These requirements apply whether the steps are installed by BAM or by a contractor. BAM is to approve all temporary steps to be used on site.

Temporary Steps

The scope of this standard is for small changes of level and does not apply to temporary staircases such as those provided for access to cabins/scaffolds and similar.

The provision of temporary steps around site should be planned to ensure it is suitable for the purpose, e.g. frequency of use etc.

Each set of temporary steps should:

- Be strong enough to support the loads applied in its use
- Be secure so it will not move during use
- Have as a minimum the top and bottom tread edges highlighted in yellow
- Have a slip resistant surface suitable for wet conditions
- Have treads of equal width and risers of equal height
- Have handrails where there is more than one riser

Where a step is constructed, the slip resistant surface should be made with a product from either:

- Suregrip or
- <u>Duracomposites</u> or
- A proprietary product made to the same specification.

The manufacturer should be consulted to determine the exact type of board required, depending on the application.

Suregrip and Duracomposite boards are available to buy from BAM Plant or regional buyers.





Improvised temporary steps are not permitted on BAM projects.

Inspection and maintenance regimes are to be put in place by BAM and the requirements recorded within the PMP Section 2.0.







Minimum Standard | Reinforcement tying wire

Reinforcement tying wire

This minimum standard describes the requirements for the of reinforcement tying wire on BAM projects. These requirements apply whether the wire is being used by BAM or by a contractor.

Trip hazards can be caused by lengths and tangles of loose tie wire associated with traditional coils of reinforcement tying wire.







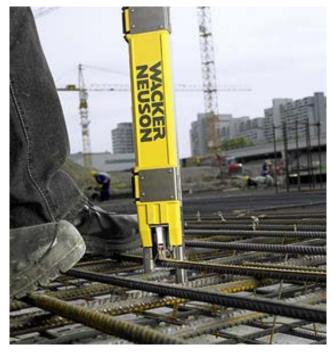


There are various ways to avoid the use of traditional coils of loose wire:

- Tying wire dispensing systems (e.g. Reelfix)
- wind on spools
- · using pre-cut wire
- rebar tying guns

To reduce risks of trip hazards associated with tying wire, the use of loose tying wire is not permitted on BAM projects











Minimum Standard | Temporary Manhole Protection

Temporary Manhole Protection

Scope

This minimum standard describes the requirements for the temporary protection of manholes and inspection chambers in external areas on BAM projects.

Barriers

Where a manhole/inspection chamber will not be traversed, but needs to remain open, a physical barrier will be required. The type of barrier will be dictated by the type of traffic i.e., members of the public, pedestrians or vehicles.





BAM site solutions offer a manhole protector, the 'Hepworth plastic manhole cover'. The cone is a visible warning and the plug inserts into the manhole.



Covers

Permanent covers can be installed early to protect openings, but they may need to be bolted down. If this is not possible and a manhole will be traversed, it will need to be temporarily covered and the type of material used for the cover will need to support the weight of the anticipated traffic.



Project teams should risk assess what types of plant/vehicles could access the area and ensure that covers selected are strong enough to accommodate the anticipated point loads from MEWP wheels etc. considering the size of the manhole opening and the point loads potentially imposed by vehicles. Technical Services can provide support where required. Temporary covers that will be loaded should be recorded on the project temporary works register.



Standard road plate for vehicle access areas









Cold rolled asphalt infill, footpath covers and tanged plates for pedestrian routes

In all cases BAM Construction retains responsibility for ground conditions and bearing pressure.

Do not use plywood or pallets to cover manholes, inspection chambers etc.

Manholes should never be left open – even in restricted areas





Minimum Standard | Hook Cameras on Crawler Cranes

Hook Cameras on Crawler Cranes

This minimum standard describes the requirement for hook cameras on crawler cranes on BAM projects. It is not a definitive guide to the safe use, maintenance and inspection of this equipment. Always refer to the manufacturers / suppliers instructions for full guidance.

It is BAM policy that all crawler cranes on BAM projects will have hook cameras fitted, irrespective of the type and nature of the lifting operation taking place. The hook camera is required even if there is no 'blind lifting' involved.



Hook cameras

The hook camera is attached to the hook block of the crawler crane to relay an image to a display screen in the cab of the crawler crane.





This information is an aid to the operator and does not replace the verbal or visual instructions he / she receives from their slinger / signaller about how to manoeuvre the load safely.

Requirements

There is no BAM requirement for an office link from the BlokCam on crawler cranes.

Crawler cranes do not include compact cranes (e.g. spider cranes).

Risk Assessment

The appointed person who is planning the lifting operations on behalf of the subcontractor should take the hook camera into account when carrying out their lift plan and associated risk assessment.

Hook Camera Suppliers

Subcontractors who are using a crawler crane on BAM projects should go directly to the supplier to hire a hook camera. BAM's preferred supplier is BlokCam, but subcontractors can use other suppliers if they wish. Another alternative supplier is HoistCam.

Where cranes operate an auxiliary hoist rope please contact BAM Site Solutions Lifting department for further advice on what type of camera is suitable for this application.

If a subcontractor is unable to hire a hook camera, BAM Site Solutions may be able to hire one. In this instance the BAM site team should contact BAM Site Solutions Site Services.

Depending on stock levels it can take 3-4 weeks to get a hook camera following making the order for the system.

The BlokCam M3 system has been designed for the crawler / mobile crane market in particular. The M3 system can be installed and removed by BlokCam within 10 minutes.

Support

The hook camera supplier is available to provide support by phone or by arranging a site visit if required.

Information and Training

The hook camera supplier should be asked to provide training to the crane operator about how to use the system, on the day of installation. This training should be recorded and a copy of the training record issued to BAM.





Minimum Standard | Lifting Cages

Use of lifting cages on BAM projects

This minimum standard describes the requirements for the use of lifting cages on BAM projects. It is not a definitive guide to the safe use, maintenance and inspection of this equipment. Always refer to the manufactures/suppliers instructions for full guidance.

Goods lifting cages and scaffold tube lifting cages should be used on BAM projects.

All projects should consider ways to reduce the risk of falling objects, and carefully planned and managed lifting operations is one of the key ways to minimise risk to the workforce and public affected by our works.

BAM Plant offers advice and equipment to assist site teams in ensuring safety during lifting operations.

Goods Lifting Cages

A goods lifting cage should be used on BAM projects for lifting loads at height such as pallets, stillages or loose loads. Appointed Persons should assess the lift schedule for loads to be lifted in this way and select appropriate size and SWL of cage.

Consideration of loading bay dimensions and structural strength, and site logistics, must be considered at planning stage to ensure that this equipment is suitable.



These good cages can also be used when lifting materials with a tele-handler.

Use of brick forks accessories is not the preferred method for lifting palletised materials on BAM sites.

The British Standard BS7121-5:2019 Code of practice for Safe Use of Tower Cranes (section 12.3) states that cages should be selected and load-resistant nets avoided.

Scaffold Tube Lifting Cages

To reduce the significant risks involved when lifting scaffold tubes at height, BAM Plant has developed specific cages for lifting of scaffold tubes. These should be used whenever lifting scaffold tubes at height on all BAM projects. Scaffold contractors should be advised of this requirement during preconstruction stage.



Refer to hs-gn-16A Lifting Best Practice or contact BAM Plant for advice when selecting lifting equipment and accessories.











Minimum Standard | Hands off, Step Away, Safe Space

Lifting Operations – Hands Off, Step Away, Safe Space



I do not walk or stand under suspended loads.

BAM's basic safety rules include not walking or standing under a suspended load. This includes all those involved in lifting operations, and requires that everyone remains in a safe place should any unintentional load movement or lifting failure occur.

The Hands Off, Step Away, Safe Space rule is intended to reduce the risk of loads striking personnel due to unexpected load movement. The following steps are a hierarchy of control and should be followed as such.

Take HANDS OFF the load and STEP AWAY until the load is freely suspended, steady and stable

- During the picking up of loads, personnel must take their hands off the load and stay clear at least 5 paces.
- Only when everyone is clear 5 paces should the lifting equipment operator be directed to start lifting up the load.
- They must remain clear until the load is freely suspended, steady, and stable.

Once the load is freely suspended, steady, and stable, it may be acceptable for authorised, competent personnel to approach the load for guiding and positioning where it is reasonable for them to do so, and it has been approved through the lift plan and risk assessment.

It may be necessary to be further away than 5 paces to account for any load failure or part of the load falling, e.g. from a muck skip; in which case a suitable exclusion zone should be created with physical barriers and/or marshals.

If Step Away 5 paces is not practical, agree with the lift supervisor where is a Safe Space to stand while the load is being picked up. The lift supervisor is to observe the pick up.

If Hands On direct load control is required, this must be subject to risk assessment by the Appointed Person

Note – only trained, competent and authorised slinger signallers are permitted to handle, attach or

release loads or signal to the lifting equipment operator.

Direct load control guidance and safety

Hands on control only where absolutely necessary and only when specifically approved in the Lift Plan and Risk Assessment. Remain conscious of the potential for movement of the load and safe access / retreat positions.





Fig 2 – Hands on direct load control



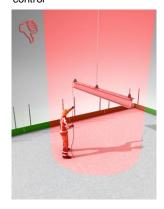
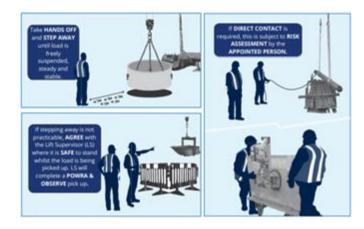


Fig 3 - Correct use of tag line

Fig 4 – Unsafe positioning for use of tagline



More guidance is available, see <u>BAM Lifting</u>
<u>Operations - Hands Off, Step Away, Safe Space</u>
<u>Detailed Guidance, Poster and Lifting Best Practice.</u>
Also see industry guidance at ILLAPG website



Minimum Standard | Manual Pallet Trucks

Use of manual pallet trucks on BAM projects

This minimum standard describes the requirements for the use of manual pallet trucks on BAM projects. It is not a definitive guide to the safe use, maintenance and inspection of this equipment. Always refer to the manufactures/suppliers instructions for full guidance.

Powered and semi-powered pallet trucks are readily available and these are the preferred option on BAM projects.



Powered pallet truck

Semi-powered pallet truck



Semi-powered pallet truck

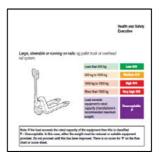
Requirements

The majority of circumstances will allow a semi or powered pallet truck to be used. Where a manual pallet truck has been selected the following requirements apply:

- The equipment selection must be justified in writing via a risk assessment and be reviewed by BAM Project Team using the RAMS review form.
- The use of manual pallet trucks must be supported by a Manual Handling assessment for pushing and pulling using the HSE RAPP tool.

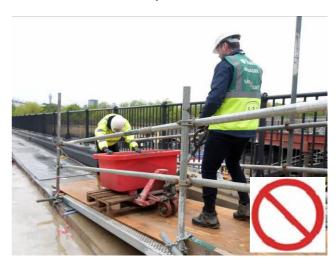
Task Risk Assessment

HSE guidance instructs employers, whose employees are carrying out tasks that require pushing & pulling, to carry out a manual handling risk assessment. To assist employers in carryout this duty the HSE have produced RAPP, a risk assessment for pushing & pulling.





 Manual pallet trucks must only to be used on substantially firm, smooth and levelled surfaces – no movement via ramps



 It must be able to be used comfortably by one operative. If more than one operative is required to use and manoeuvre a pallet truck then the wrong equipment has been selected.







Minimum Standard | Handling glass

Handling glass on BAM projects

This minimum standard describes the requirements for the handling of glazing units, glass balustrades and similar items on BAM projects. It is not a definitive guide to developing safe systems of work and current HSE guidance and industry best practice should always be taken into account.

The HSE MAC tool indicates that a two-person team handling loads greater than 50kg results in a high level of risk in that it may expose a significant proportion of the working population to a risk of injury.

The Manual Handling Operations Regulations 1992 place a duty on employers to: 'so far as is reasonably practicable, avoid the need for his employees to undertake any manual handling operations at work which involve a risk of their being injured.'



The manual handling of glazing units should be the exception rather than the norm, and should only be used in situations where the weight of the glazing units are deemed to be low risk following completion of a manual handling risk assessment. HSE guidance indicates that this is less than 50kg (for two people team handling).

Each Curtain Wall or Glazing Subcontractor should clearly demonstrate through risk assessment and method statement how they will handle glass and prevent individual units falling from a stillage or packing case.

Loads weighing 50kg or more should not be manually handled even as part of a team lift.

Alternatives to manual handling





















Minimum Standard | Forward tipping dumpers

Selection and use of forward tipping dumpers on BAM Projects

This minimum standard describes the requirements for the selection and use of forward tipping dumpers on BAM projects. Forward tipping dumpers includes the 'side tipping' variety.

General requirements for all dumpers:

BAM has adopted the requirements of the document published by the Construction Plant-hire Association (CPA) as the minimum standard on all our construction projects.

The full guidance document is available on the Health and Safety section of BAM Connect.



We have a number of established procedures that are to be complied with and therefore are not repeated within this document i.e. hs-18, hs-30 and hs-35

In addition:

- Only be used for free-flowing materials such as earth, broken concrete, blacktop, sand and gravel over short distances
- Must not be loaded above rim level
- No equipment or materials to be carried either across or protruding above the top of the skip
- Must only be travelled/driven on stockpiles after a suitable and sufficient risk assessment has been developed and temporary works requirements have been satisfied.



Dumpers with a payload capacity up to 3 tonnes (3000kg):

- FT Dumper checklist (Form 180-50) must be completed
- Permit to use FT dumper (Form 180-49) must be completed
- Additionally, when used where any pedestrian is present in vicinity i.e. unless dumper is operating within an exclusion zone- they must have sensor/camera technology fitted to cover the area in front of the load bucket.

Dumpers with a payload capacity over 3 tonnes (3000kg):

- Must be the 'dual view' cab variety
- FT Dumper checklist (Form 180-50) must be completed
- Must have sensor/camera technology to cover the area in front of the load bucket

Dual view dumper

The dual view dumper is designed to enhance the operator's visibility and eliminate blind spots. Drivers are able to face the direction of travel, whether going backwards or forwards, by rotating the driving console.







Minimum Standard | Temporary Staircases

Use of temporary staircases on BAM projects

This minimum standard describes the requirements for the use of temporary staircases on BAM projects. It is not a definitive guide to the safe installation, use, maintenance and inspection of this equipment. Always refer to the manufacturers/suppliers instructions for full guidance.

Temporary staircases are readily available and are to be used in place of ladders for access/egress wherever there is room to do so.

This standard is applicable for BAM and subcontractors providing temporary access.







Any staircase used for access to the workplace must:

- Be erected by a competent person
- Have handrails with gaps no greater than 470mm height
- Have sufficient lighting
- Non-defective
- Placed on a firm footing with the base equally supported
- Positioned at an angle as advised in the manufacturer's instructions
- Sufficiently secured to prevent the staircase slipping or falling

Any staircase must be maintained during use, including:

- A regular inspection to be carried out and recorded by a competent person
- Be kept clean
- Be kept free of obstructions or materials

For more information about temporary staircases available, contact BAM Plant Hire Operations.





Minimum Standard | Traffic Marshal Training & PPE

Traffic Marshal Training and PPE

This minimum standard describes the requirements for training and PPE for traffic marshals on BAM construction projects. This includes both BAM and supply chain traffic marshals.

It is not a definitive guide to the safe management of vehicle movements on site. Refer to BAM procedures on Traffic Management (hs-30) and PPE (hs-20) for further guidance.

The <u>HSE defines a traffic marshal</u> as: operatives trained to direct vehicle movement on or around site.

Training requirements

Traffic marshals are required to be trained and competent, with experience in the type of traffic marshalling they are required to carry out.

From 1 January 2020, the following training is required on new BAM projects. From 31 March 2020, this training is also required on all existing BAM projects.

Traffic marshals on BAM construction projects are required to be trained to NPORS standard (N403 Vehicle Marshal course).



CPCS is also acceptable (A73 Plant and vehicle marshaller course).

PPE requirements

Traffic marshals on BAM construction projects are required to wear:

- A full sleeved class 3 orange high visibility top / jacket
- Class 1 orange high visibility trousers

In hours of darkness or poor lighting and additional control of LED lights is also required (from April 2020).



This PPE is available from BAM Plant.





bam Minimum Standard | Stilts

Use of Stilts on BAM projects

Stilts are not the preferred option for work at height. If stilts are selected as the most appropriate method following the work at height hierarchy, then all the requirements in this standard must be satisfied. The risk assessment must also be evaluated and signed off by the Construction Director responsible for the project.

User Requirements

- Stilts will only be permissible for light duty tasks where the height of the foot plate of the stilts is no more than 600mm.
- The stilts are supplied from a recognised industry supplier, have been visually checked prior to mounting, are in good condition and have been maintained in accordance with the supplier's instructions.
- Details of the training and experience of the users of stilts must be provided.
- Only hand held tools without leads are to be used by operative on stilts.
- The task on stilts will take less than 2 hours (or the task broken down into 2 hour blocks) with no more than 6 hours wearing stilts per day.
- The proposed activity and movement is permitted by the manufacturer's instruction manual.
- Stilts are to be individually identifiable and inspections of the stilts as work equipment must be completed and records not less than every 7 days.

Stilts are at the lowest level of the work at height hierarchy and significant harm can be suffered as a result of a fall from height. The vast majority of construction work can be completed without resorting to the use of stilts, and their use should be seen as a last resort.

PPE Requirements

Stilts users are required to wear the following additional PPE when using stilts:

- Safety helmet with 3-point safety harness ('chin strap') fastened
- Elbow pads
- Knee pads

Environment Requirements

- The area where the stilts are to be used must be segregated to prevent access to persons other than the contractors using the stilts.
- A rigid platform equal to or greater than the height of the stilts must be available for use in mounting/ dismounting the stilts.

- The use of stilts will not be permissible within areas that have unguarded stairwells, landings, risers, unprotected window openings or atrium areas where a risk of falls over adjacent edge protection is possible.
- Floor areas must be flat, level, solid & kept clear of all
 potential trip and slip hazards (an operative working at
 floor level must be in attendance to operatives wearing
 stilts to clear away arising's promptly).
- Changes in level, apertures, channels or similar must be protected.
- The height that materials are stored at (ceiling grid, ceiling tiles, plaster spot boards etc) will need to be stored at a height that eliminates the need for operatives using the stilts to bend too low (i.e. below knee level).
- The task can be completed without the stilt worker overreaching sideways.
- Lighting cables (from ceilings and walls) must be secured.
- Electric leads (including those to working lights) are clear of the work area.
- The work area is to be checked by the Supervisor of the stilts users and recorded at the Safe2start, before each new work activity using stilts.







Minimum Standard | Tool Tethers

Use of Tool Tethers on BAM Projects

This minimum standard describes the requirements for the use of tool tethers on BAM projects. It is not a definitive guide to the safe use, maintenance and inspection of this equipment. Always refer to the manufacturers / suppliers instructions for full guidance.

The requirement for use of tool tethers will be agreed at the planning stage of each project based on risk assessment. This may be for high risk elevations / areas or high risk operations, rather than a blanket rule. It may also extend to tethering certain materials.

The tool tether requirement will be written into the site rules in the Project Management Plan, and communicated to all contractors at tender stage.

User Requirements

Tool tether requirements must be clearly stated in risk assessments, including arrangements for:

- · Which tools are to be tethered
- Tether point



Lanyard type



Anchor point



The RAMS should include arrangements for:

- Inspection
- Storage
- Maintenance

Components of tool tethering should be:

- CE marked
- Marked with a serial number
- 3rd party tested

Where a tool tether is attached to the body, the weight of the tool should not exceed:

1.5 kg on the wrist



2.5 kg on the waist / body



 Any tool weighing above 2.5 kg should attached to a fixed anchor point



There is a range of tool tether solutions on the market, and users are more likely to work with them effectively if the users are consulted on which type of tool tether they want to use. Manufacturers and suppliers are available to present their range of products and this should be encouraged to increase understanding about tool tethers.











Minimum Standard | Exclusion zone alarm

Exclusion zone alarm

This minimum standard describes the requirements for use of the exclusion zone alarm on BAM projects.

The exclusion zone alarm is a red flashing beacon that can be activated remotely to indicate when an exclusion zone is operating. It is supplementary to barriers and statutory signage which may also be required. The exclusion zone alarm should only be activated when the risk is present.

The exclusion zone alarm is most effective when the exclusion zone is:

- Intermittent throughout the working day
- Located away from the person who is controlling the work activity e.g. on another level, or some distance away with multiple possible access points

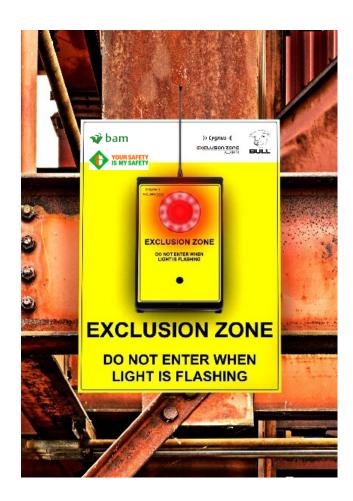
Work activities

Use of the exclusion zone alarm should be considered for the following activities on BAM projects:

- Lifting operations over varying levels that could be accessed by personnel (e.g. area below a cantideck, lifting into an opening in a basement, lifting over an atrium with passenger hoists etc)
- Delivery and off-loading area where there is lifting operations or plant movement
- Telehandler operating inside a building
- Demolition drop zone
- Work at height where there is a residual risk of objects falling, and the exclusion zone is either intermittent or a distance away from the person who is controlling the exclusion zone

How to hire exclusion zone alarm

The exclusion zone alarm is available from BAM Site Solutions Site Services. For contact details click <u>here</u>.







Minimum Standard | Exclusion Zones

Exclusion Zones and Restricted Zones

This minimum standard describes the requirements for the management of 'Exclusion Zones' and 'Restricted Zones' on BAM projects.

Definitions

Exclusion Zone – An area on site where **no person** will be allowed to enter under any circumstances.

(NB this means **absolutely no person**. If any person is permitted to enter, then the zone must become a restricted zone instead).

The company and contact name are provided in case there is a problem with the exclusion zone. This information is **not** there for access permission to be granted.



Restricted Zone – an area defined on site where there is authorised access for defined personnel only.

The company and contact name are provided in case a person wants to request access. Permission to access can only be granted by the person in control of that restricted zone.



Requirements

Project teams must prioritise the removal of risk before exclusion zones or restricted zones are chosen to be used.

Where an exclusion zone or restricted zone is a requirement, the arrangements for these zones needs to be clearly defined in the risk assessment.

Both types of zones are to be used in line with following principles:

- Be denoted by physical barriers (NB tape is **not** appropriate to denote an exclusion zone or a restricted zone)
- The physical barriers are to be continuous
- · The physical barriers are not to be easily bypassed
- Signs are to be displayed and maintained at intervals so that they are clearly visible to anyone in the vicinity
- The use of the zone is to be communicated to BAM and other contractors on site (e.g. at the coordination meeting)

Requirements for an Exclusion Zone

The risk assessment should cover the following points:

- The purpose of the exclusion zone, and the scope of activities it is needed to cover
- What signage will be in provided (i.e. statutory prohibition signage and company / contact name)
- · Size of the area required
- Details of how access to anyone is to be prevented
- Details of how the exclusion zone is to be monitored
- How works are to be coordinated with other contractors
- Safe2Start requirements
- · When and how the exclusion zone will be removed
- · Actions in the event of an emergency

Requirements for a Restricted Zone

The risk assessment should cover the following points:

- The purpose of the restricted zone, and the scope of activities it is needed to cover
- Who specifically will be permitted to enter the restricted zone
- What signage will be in provided (i.e. statutory warning signage and company / contact name)
- Size of the area required
- Details of how access to unauthorised persons is to be prevented
- Details of how the restricted zone is to be monitored
- How works are to be coordinated with other contractors
- Safe2Start requirements
- When and how the restricted zone will be removed
- Actions in the event of an emergency

Statutory signage can be ordered from BAM Site Solutions Accommodation department.

