Purpose and Scope

The purpose of this document is to establish a standard approach to fire management within Copperstone Constructions working sites. It further provides a standard template for the contents.

Additionally, you will find here some detailed instructions and guidance on how to use the template.

Instructions to use the template

Print these instruction pages (Page 1 through to Page **Error! Bookmark not defined.**),

Delete these instruction pages

Save the remaining pages in order to create your working template

Follow the instruction / guidance notes

Fire Management Plan Guidance Notes

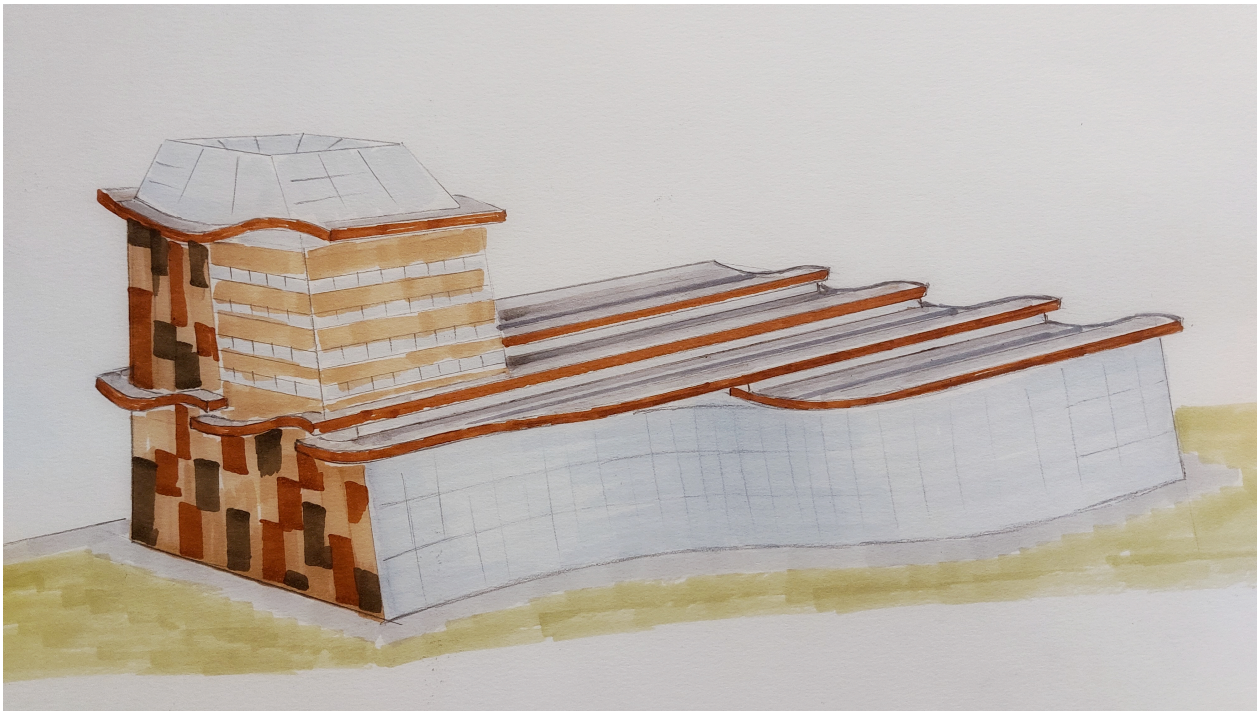
All the chapters and Annexes of this Copperstone Corporate Template are compulsory. They cannot be removed from the final document. They have to be completed or specified in accordance with the organisation and requirements of each site.

Remarks for filling the document.

Please complete all the items marked in RED throughout the document to suit your site requirements.

– END –

SA1 Leisure Centre, Swansea.



ORIGINATOR

COPPERSTONE CONSTRUCTION Ltd.

TITLE

FIRE MANAGEMENT PLAN

	Name	Signature	Date
PREPARED	Joseff Williams		11 06 21
REVIEWED			
ENDORSED			
APPROVED			

NTS	**USE**
SCALE & FORMAT	PROPOSED STATUS
11 06 21	
DATE OF 1ST ISSUE	FILE NAME

SA1	**CPR**	**ALL**	**CD**	**FP**	**FIRE**	**- - - 001**	**A**
PROJECT	ORIGINATOR /ISSUER	VOLUME/ ZONE/AREA	LEVEL/LOCATION	TYPE	DISCIPLINE/ TRADE	SEQUENCE NUMBER	REV.

FIRE MANAGEMENT PLAN
&
FIRE RISK ASSESSMENT

THE FOLLOWING PLAN IS PREPARED IN COMPLIANCE WITH THE CDM REGULATIONS 2007, THE JOINT CODE OF PRACTICE – FIRE PREVENTION ON CONSTRUCTION SITES, HSG168 – FIRE SAFETY IN CONSTRUCTION AND 16 STEPS TO FIRE SAFETY ON TIMBER FRAME CONSTRUCION SITES.

Sa1 Leisure Centre, Swansea.
01792 938938

Maximum period between reviews of this document is 6-months or when site circumstances change.

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1. INTRODUCTION

It is the policy of COPPERSTONE to ensure legal requirements and good standards of fire safety during all aspects of work.

COPPERSTONE recognise that buildings under refurbishment or construction are more vulnerable to the dangers of fire than completed buildings, and this fire management plan is to be adopted alongside the specified requirements of the COPPERSTONE Health and Safety Policy and associated procedures. In particular reference should be made to the Safety Behaviours which outlines expectations from everyone employed by and involved in BECT construction operations.

Reference should be made to specific legislation and approved codes of practice, guidance and requirements from insurers to ensure the design requirements, methodology, risks and their specific control measures are fully implemented throughout the entire design and construction process.

Meeting all the required standards will ensure the necessary levels of protection to the building and its occupants.

The Project Manager will hold responsibility for the development, implementation and ongoing management of the Fire Management plan including liaison with neighbours and those in connected or adjacent buildings such as schools, communal housing, etc.

The Health & Safety team will provide advice and assistance on fire safety matters to those involved in the works and carry out an audit and inspection role to ensure compliance, site monitoring and management of the requirements of this Fire Management Plan. This advice will also include early design advice where sought, and assistance with strategic decisions.

A specific risk assessment shall be carried out by the Project Manager/EiC prior to the development of the Fire Management Plan. This is a live document to be reviewed and amended to address any change in circumstances.
The Fire Risk Assessment must be reviewed at regular intervals and at key stages, as identified during the risk assessment process.

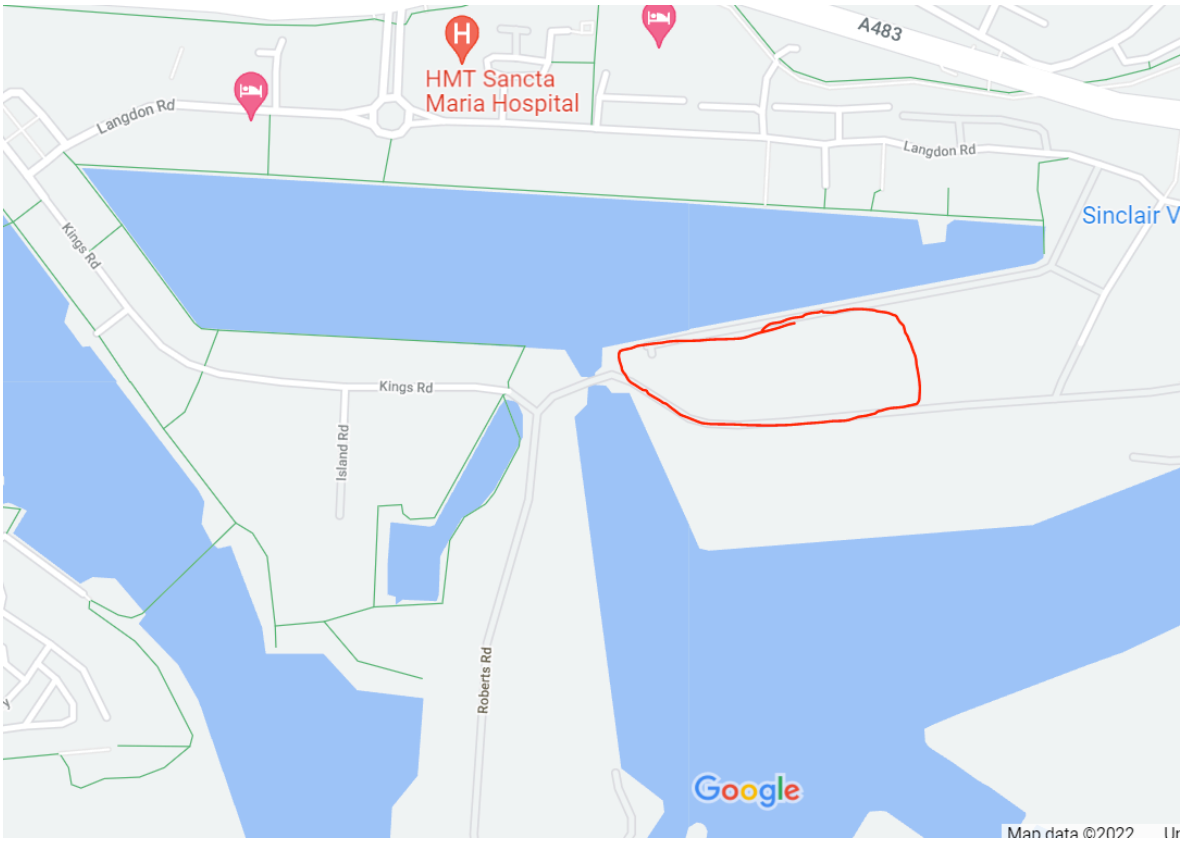
1.1 Description of the Project

The SA1 project comprises ONE buildings, Plot 9 Opposite the Swansea Docks.
A Brand new state of the art leisure centre will be built within the existing footprint of the plot.

- Enabling Works is 6th May 2022 to 21st June 2022.
- Project start date is 23rd Sept 2022.
- Completion date of 28th May 2024.

The project scope will include – Groundworks, Piling earthworks, drainage, attenuation tank works, piling, sub-structure, steel frame superstructure, composite deck floors, envelope, MEP Installation, internal finishes, hard and soft landscaping.

1.1.1 The site location is as follows;



2. SCOPE AND OBJECTIVES

This document primarily details the fire safety systems and procedures to be utilised at the West Gate Hotel scheme to protect both the construction site and site workers and those who maybe affected by our undertakings during the construction phase of the project.

It is intended that this document should provide information and direction to all those involved in the project to promote a fully co-ordinated approach to fire safety management and to achieve the highest levels of protection to the building and its occupants.

This document has been developed following HSE ACOP HSG168 Fires Safety in Construction and taking into account the principles contained within the Joint Code of Practice on the Protection from Fire on Construction Sites and Buildings Undergoing Renovation – **'Fire Prevention on Construction Sites'** and to address the risks identified in the fire risk assessment for the project or site.

The document has also been developed in association with the **UK Timber Frame Association; Health and Safety Code of Practice and 16 Steps to Fire Safety on Timber Frame Construction Sites**. These publications address the specific risks regarding timber frame construction and give recommendations on how they should be managed.
The intention of the following strategy is to reduce to the minimum, the likelihood of a fire causing damage to the property and injury to those within it by providing a means of raising the alarm, initial attack on a fire, escape to a place of safety and informing the emergency services.

The fire strategy is intended to reduce to the minimum, the likelihood and severity of a fire as well as ensuring escape to safety of anyone involved in or affected by fire.

Considerations should be made for staff, workers, members of public, neighbouring properties (i.e. school proximity) and people with specific needs such as mobility impairment.

This plan will be applied to the overall project works and associated premises / accommodation with any changes in the strategy, key milestones, or changes as the project progresses into different stages will prompt a review to ensure suitability. Review of the fire management plan and layout plans will be required as the work progresses, in particular the addition of floors, changes to access routes, partitioning, staircases, scaffolding, external works, and finishing stages.

Fire Marshals

Name:	Joseff Williams		Name:	James Cullen	
Role:	Fire Coordinator & Marshal		Role:	Fire Marshal	
Contact No:	07854061510		Contact No:	07971156002	
Name:			Name:		
Role:			Role:		
Contact No:			Contact No:		

- Day-to-day implementation and monitoring of the fire safety requirements stated within the Fire

3. ORGANISATION & RESPONSIBILITIES FOR FIRE SAFETY

Formal appointments to each role must be made by the project director / manager, referencing the 'Appointed Persons Procedure'.

Fire Coordinator
Joseff Williams

Assessment of the emergency plan needs and the updating of it. Advise Site Manager/EiC and fire marshals on implementation of Plan requirements. Carry out the Site Fire plan Safety inspections. Liaison with the Site Fire marshal(s) and others who may be affected by this plan. Monitoring and reporting on the site Fire Management Plan to the Project SHE Officer & BECT Directors.

Project fire Marshal(s)
James Cullen

Day-to-day implementation and monitoring of the Fire Safety requirements stated within the Fire Management Plan. Induction Training of site operatives. Inspection and maintenance of site first aid fire fighting equipment. Reporting on site fire safety to Site Fire Safety Co-ordinator.

Sub Contract Fire marshals

David Whitecross & Daniel Rowlands

Compliance with the requirements of the Fire Management Plan. Promote Plan to site operatives and encourage safe working. Providing assistance to the site fire marshal as required within the site fire plan.

4. FIRE MANAGEMENT PLAN STRATEGY

Put into place procedures which, should a fire occur, will minimise its impact.

Procedures to be in place for raising the alarm for the outbreak of fire, calling the Fire Service, and carrying out a roll call after evacuation.

Ensure there is a safe means of escaping and a place for all to assemble away from the project/site.

Effect a 'NO SMOKING' policy site with the exception of a dedicated smoking area, which will be enforced by the Site Fire Warden, ALL BECT AND SUBCONTRACTOR MANAGEMENT staff.

Hot works kept to the absolute minimum with a HOT WORK PERMIT system in operation for ALL such works. (SOME PROJECTS WILL REQUIRE A 'NO HOT WORK POLICY')

Temporary and permanent wiring to be to latest edition of the IEE Regulations. Appliance testing carried out at required intervals, (portable - 3 monthly, fixed – 12 monthly).

Lighting should be low energy festoon or and/or fluorescent strip lights with emergency back up batteries providing escape lighting during a power failure.

Halogen lights and incandescent lamps are not permitted to be used as task lighting.

Gas or electric powered heaters, boilers and any high temperature / flame producing equipment must be installed and used by competent persons, in the correct manner, with relevant control measures as specified by the manufacturer and RAMS. Any such equipment will be maintained in accordance with manufacturers requirements and evidence produced.

Ensure arrangements are in place for the safe management of redundant materials and their removal from site.

Storage of materials must be considered to ensure controls are in place to limit combustible material accumulation as well as adequate controls for fire fighting, detection and alarm.

Fire Action Notices and emergency escape layout plans detailing the actions to be taken in the event of fire to be displayed on fire points and at appropriate locations.

Temporary emergency escape signs to be provided to indicate exit routes on all floors and open areas. Green routes will be marked/sprayed on internal floor areas where possible.

Satisfactory means of escape arrangements to be in place using where possible the building's permanent stairs and suitable opening/exits.

Fire extinguishers to be provided at strategic locations for use by competent site operatives for an initial attack on any fire. (One suitable fire extinguisher per 200 m^2 to suit the type of fire that could develop, usually one foam and one water on site or one water and one CO2 in offices).

All site operatives to be given induction training to include good housekeeping, fire safety procedures, and the location of fire points, call points, extinguishers and muster points.

Practical evacuation drills to be carried out on a predetermined basis (at least 6 monthly).

Compliance with the Fire Management Plan requirements will be monitored by the Site Fire Marshal(s) on a daily basis, and the Fire Co-ordinator by regular visits and inspections.

All flammable liquids to be kept in a suitably located and labelled container which is to be kept in a locked bunded store when not in use.

Spill kits and portable absorbing bunds to be available to control spillages.

Any temporary covering material, used to protect finished surfaces, floors, handrails, doors etc must be fire retardant to the LPS1207 standard.

Packaging must be removed from products as soon as possible and removed from site, unless LPS1207 fire resistance approved.

Drip trays to be placed under all plant to collect and control the spread of any oil and/or fuel leakages or spillages.

All drains and water courses will be protected where there is a risk of ingress by accidental spillage or seepage of flammable liquids.

The project will ensure security arrangements exist to prevent unauthorised access, in particular out of hours to prevent arson and horseplay.

NO. OF FIRE MARSHAL(S): 2

GENERAL SITE PRECAUTIONS

4.1 No Smoking Policy

A No Smoking policy will be adopted on site and will be strictly enforced by all site management with the exception of a suitable designated smoking area which will be provided at a prominent point.

E-cigarettes are included in the no smoking policy due to insurance reasons, therefore use must be restricted to designated smoking areas.

Charging of e-cigarettes is not permitted on site or in any site accommodation.

4.2 Hot Works

Traditional Build:

Any hot work will be subject to strict controls, requiring a permit to work system to be used.
Hot work will require a specific risk assessment with controls specified and followed by those undertaking the works.

4.3 Induction

All site operatives to be given specific induction training relating to the fire risk associated with the construction type. This will include good housekeeping, fire safety procedures, the location and use of extinguishers etc.

4.4 Inspections

The fire safety co-ordinator will frequently (weekly or daily) carry out checks, inspections and tests throughout the construction of the building. Written records of all inspections, tests, drills etc. will be maintained.

4.5 Extinguishers

Extinguishers complying with the relevant standards will be positioned at designated fire points throughout the building. (See evacuation plan)
Extinguishers will be identified for their intended use by suitable signs.
Independent extinguishers will be to hand for those carrying out hot works.

See fire extinguisher chart for types and suitability for fire fighting at the end of this plan.

4.6 Storage of Flammable Liquids / Materials

When no in use, all flammable liquids are to be kept in a suitable labelled container within a locked and bunded store. The proposed storage area will be greater than 15m away

4.7 Fire Detection

Fire detection systems must be in place for timber frame and high risk traditional build projects such as high rise. The system should be hard wired, or if wireless must be Class 1 radio CE marked. Only approved suppliers of compliant wireless fire alarm systems are authorised for use. The Copperstone approved systems are 1) WES 2) Biosite. Any other proposed supplier must be approved by the SHE Officer or Director in writing.

Timber frame / high fire risk project will require fire alarm systems to be in place to ensure neighbouring properties are alerted. i.e. fire alarm linked to the client alarm system, and/or an external sounder system to alert nearby domestic premises.

4.8 Warning sounders

Fire points will be situated on each floor as depicted in the evacuation plan. Wired Break glass call points and sounders will be located at strategic positions or Wireless WES Ramtec call point Boxes will be located at fire points so as to allow adequate warning throughout the site.

Linked fire systems with zoning will be required on all Copperstone projects unless specifically approved otherwise by the SHE Officer or Director. Stand alone sounders such as 'Howler' or hand operated bells shall not be used.

Wireless linked fire alarm systems must be Certified to CE standards for fire systems, which must include grade 1 radio standard for life critical systems, such as the Ramtech WES, Bull Cygnus or Biosite who are currently the only Copperstone approved manufacturers.

Site operatives will be shown how to operate the break glass call points/ WES Ramtec boxes as part of the induction training.

4.9 Evacuation plans, showing location of equipment and exit routes

Evacuation plans will be displayed at the fire points, in the site canteen and presented and explained during the site induction.
Layout plans will identify locations of exits, warning sounders, call points, smoke / fire detectors, extinguishers and combustible material stores.

4.10 Fire Stopping

The removal, cutting or breaching of any fire stopping is to be strictly controlled by a permit to work system, with formal inspection and sign off when re-installed.
Any breach in fire stopping must comply with the fire risk assessment for the site and premises, including existing client / premises fire risk assessment when working in occupied buildings. In occupied buildings it is required that approval is sought from the premises/ estates management to ensure appropriate authority to undertake the work has been given, including insurance liability.

4.11 Refuelling of Plant and Equipment

Refuelling of plant and equipment is not permitted inside any building (including podium areas) or temporary accommodation building, or on any temporary structure such as scaffolding or mobile towers.

Refuelling of plant and equipment must only be undertaken while the plant has cooled sufficiently to ensure there is no ignition risk presented by the equipment being refuelled. Examples of equipment requiring to fully cool include all small Petrol powered equipment such as disk cutters, small generators, pumps and compressors. LPG and diesel powered plant should be assessed and where necessary cooling controls implemented.

Designated refuelling area(s) should be provided to ensure:
Proper storage arrangements
Quantity limits are not exceeded (Petrol – no more than ½ one days supply or 50 litres, whichever is the lesser).
Full fire protection controls and alarm
Spill control measures

5. STORAGE OF MATERIALS

5.1 HFL & LPG etc

All HFL & LPG will be stored in compliance with the relevant Regulations within the place indicated on the escape route map. The storage area will be identified as a NO SMOKING (INCLUDING E-CIGARETTES) area. It will be adequately ventilated.

No more than 50 litres of fuel will be stored within any building. HFL & LPG is not to be stored within 5 metres of the project/site boundary.

5.2 COMBUSTIBLE MATERIALS AND PACKAGING

All combustible materials will be stored neatly, in suitable locations, with proper consideration made to minimise and mitigate the risk of ignition and fire loading.

Cardboard, Pallets, Polythene, Polystyrene and any other packaging materials will be removed and placed into the appropriate waste at the earliest opportunity. If large quantities of materials containing combustible packaging must be stored in the building, an additional fire point will be required, located next to the materials.

5.3 Waste control and collection

All combustible site waste increases the risk of fire and severity. The proper control and removal of rubbish and waste is essential to the safety of the site, as well as maintaining clear and unobstructed escape routes.

All waste material will be collected on a regular basis and disposed of in the correct manner. Accumulation of rubbish is not tolerated. Each site will have a site waste management plan/strategy to control this element. Where required, contractors failing to clear their own waste will be subject to a clean up notice system, which will require clearance of waste or BECT will clear and contra charge the contractor for the cost including management and administrative fees.

6. HOT WORK PERMIT

Any activity requiring hot works to be undertaken will be subject to a detailed RAMS, which will incorporate the reason for hot works, controls, competence and any other requirements. All hot works without exception will be subject to a hot works permit.

Hot work includes (but not limited to) works involving: - flame, sparks, arcing and hot air welding, heat guns, welding, grinding, abrasive cutting and any other means of providing combustion.

Prior to any hot work commencing a Hot Work Permit will be obtained from the Bouygues UK dedicated Appointed Person. The controls stated in the permit are to be strictly adhered to.
The stated work area will be confirmed as being suitable before issuing the permit with the authorising engineer physically checking the area and all controls before granting the permit to work.
Hot work will cease 1 hour before finishing the shift. A final check in the hot works area will be made by the holder and issuer of the permit. If the permit it to be handed to another manager to close out, there must be a formal handover, which must be clearly indicated on the permit form, signed by both parties.
A suitable separate fire extinguisher will be available at the hot works location. This will not be one of the dedicated fire point extinguishers.

7. SITE ACCOMMODATION

7.1 Location

As indicated on the evacuation plan, insert diagram / site organisation layout plan.

7.2 Construction

One levels of stacked connected office units providing 1 hour fire resistance. *Fire rated accommodation is required when siting an office within 10 metres of an existing structure, including the building under construction. Refer to the Loss Prevention Code of Practice 'Fire Prevention on Construction Sites'.*

7.3 Maintenance

All electrical office & welfare equipment must be subject to Portable Appliance Testing at periods not exceeding 6 months.
The site electrical installation must be certified by a competent electrical engineer at periods not exceeding 12 months.
Offices and welfare areas must be cleaned daily and inspected weekly, with accumulation of paper and other combustibles kept to a minimum.

Site offices should not be used to store plant, equipment, flammable liquids or any site materials. Heating in offices should be designed to minimise fire through mechanisms such as oil filled radiators. Convection & fan heaters should be provided with physical guards / mesh to prevent direct contact with combustible materials.

Drying room heaters should be tubular under bench type. Fan and convection heaters should be avoided, particularly where a risk of combustible materials entering the heater exists such as paper in office environments. Use of fan and convection heaters require approval from the SHE Officer and control and mitigation factors detailed in the fire risk assessment.

Gas heaters are not permitted in any site accommodation, welfare or storage units for any reason.

Cooking in offices must be limited to kettles / water heaters, toasters and microwaves, any exception must be approved by the H&S Director. All must be subject to Portable Appliance Testing in accordance with the fire risk assessment and electrical safety procedures.

Full kitchen facilities for cooking are only permitted in professional catering canteens, subject to fire risk assessment and authorisation through this fire plan.

8. FIRE ESCAPE & COMMUNICATIONS

8.1 Fire Exits and Escape Routes

All fire exits and emergency escape routes will be kept clear and unobstructed and sufficiently illuminated. Access/emergency lighting (with battery back up) will be required to all escape routes to allow safe evacuation. All routes and exits will be identified by suitable signs. Green routes will be marked/spayed on internal floor areas where possible. (Up to 2nd fix stage/handover stage)

"*Workplaces, wherever possible, should have two separate means of escape in case of fire and, in the case of higher risk buildings, recommends (generally) a maximum distance of 25 m to safety, or to a protected route out of the premises. (Note: The travel distance for low fire risk semi open buildings is greater up to potentially a maximum of 60m)*

Except for small two-storey buildings with travel distances well within the maximum specified, there is normally a need for at least one stairway to be protected against any fire in the main work area affecting it.

Protected stairways will be a feature in many buildings. Therefore, it is a sensible precaution to install these and make them available as early as is practicable in the construction of new structures, before fire risks increase, such as when fitting-out starts. For structures which are more than four storeys above ground, this is considered essential.

Doors giving access to protected stairways should be fitted as early as possible. They need to be fire resistant and fitted with effective proprietary self-closing devices. Where necessary, gaps between doors and their frames should be suitably fitted with intumescent strip and smoke seals. The nominal minimum period of fire resistance considered appropriate for protected stairways is 30 minutes, which the doors and door set should be designed to meet.

If final doors are not available or fitted at the start of the fit out stage, the main stairways will probably provide the primary means of escape and, if this is the case, they will need to be provided with self-closing, fire-resisting doors (temporary if necessary) to protect their integrity."

A selection of commonly used signs can be found at the end of this fire plan.

8.2 Assembly Points

The assembly point(s) is located outside the project in front of the site in Westgate Street as shown on the evacuation plan.

8.3 Evacuation Plan

The evacuation plan will be displayed at the fire points, in the site canteen and presented during induction.

8.4 Contact Emergency Services

The Site Manager (SM)/EiC Jeff Thomas or, in their absence the appointed Fire Coordinator (FC)/Fire Marshal (FM) Gavin Thomas will be responsible for contacting the emergency services.

8.5 Liaison with other parties

In the event of the site fire alarm being activated, the SM/EiC or in their absence FC/FM will summon the fire brigade and contact users of the adjoining buildings and inform them of the situation so as to allow them to carry out their relevant actions. Notification will also be made to the adjoining building via their nominated fire coordinator & fire marshal.

Ensuring safety of people is the primary consideration for anyone involved in the co-ordination of an emergency evacuation.
After confirmation of a successful evacuation, efforts will be made to establish the reason for the alarm being activated (Fire, explosion, smoke, false alarm etc), although it must be clear that no one re-enters the site until the emergency services have confirmed safe to do so.

Note: - Consideration will need to be given to the requirements or arrangements all ready put into place by the client or owner of the building by way of their existing fire plan requirements etc. I.e. in places such as schools, hotels, hospitals, train stations, airports and the like. Any such considerations may also need to be reflected in the Fire Coordinators and Fire Marshals responsibilities. This may include a requirement to interconnect the projects and adjacent systems.

9. FIRE BRIGADE FACILITIES

9.1 Access

Access for all emergency services will be maintained without obstruction at all times, or quickly movable in the case of plant and equipment.

A copy of the evacuation plan, building plan, hydrants, dry risers, asbestos, gas & fuel storage, service isolation points and any other relevant information will be made and kept in a place readily accessible to emergency services 24 hours a day.
The location may be a security cabin if 24 hour manned security is maintained, or attached to the site hoarding in a weatherproof cabinet, secured to ensure easy identification of tampering but not to restrict access.

The pack is intended to be presented and used by the fire and rescue service on their arrival to assist them in finding their way around the building and grounds, understanding relevant hazards quickly.

Given the nature of the pack, and the evolving stages of a construction project, regular reviews and updates will be required to ensure relevance and accuracy. The Fire Co-ordinator will as part of their duties ensure relevance and accuracy of the information contained in the grab pack.

10. TRAINING

10.1 Site Manager/EiC, Fire Coordinator and Fire Marshalls

Specific training will be provided to the SM/EiC, FC and FM(s). Copies of certificates can be found in the Site Management Plan file.

10.2 Site Induction of Operatives

All site operatives and visitors will undergo Induction Training, which is to include the location of the fire points, emergency escape routes, assembly point, details of fire management controls and site rules.

10.3 Fire Drills

Fire drills will be carried out at intervals recommended by the Safety team not exceeding 6 months and planned by the SM/EiC in conjunction with the FC and FM. The findings will be recorded in the Fire Drill Inspection Test Record (Annex 1). Following a drill, the fire co-ordinator will review the fire evacuation and implement further controls or update the fire plans as required.

11. INSPECTIONS

11.1 Emergency lighting system

The emergency lighting system will be inspected fortnightly and recorded during the monthly fire safety inspection form in annex 3.

A Monthly 'flick' test of emergency lighting should be undertaken, with a 3 monthly full 'soak' test.

11.2 Fire alarm system

The fire alarm system will be inspected and tested weekly. Where there is more than one call point box is located the call point boxes will be tested in weekly rotation at an agreed time as stated in the site induction so as to prevent false evacuations and unnecessary concern.
All fire points and alarm system inspections will be recorded on the weekly inspection form found in annex 2 and 3.

11.3 Fire extinguisher (including associated fire points)

Fire extinguisher and fire points will be inspected weekly and recorded using the weekly inspection for in annex 2 and 3.

11.4 Escape routes

Escape routes will be inspected weekly and recorded using the emergency escape route log found at the end of this plan in annex 3.

12. IN THE EVENT OF A FIRE

12.1 Site Managers/EiC responsibilities (Fire Coordinator)

In the event of emergency alarm being sounded, the Site Managers/EiC will, contact the fire brigade and co-ordinate communication with the Fire Marshals to establish:

a. Safe Evacuation of the site
b. Any remaining occupants or missing people
c. Any likely or suspected cause of the emergency alarm (Fire, explosion, chemical spillage, smoke, false alarm etc).
d. Any safety critical information required by the emergency services including fuel storage, hazardous conditions, liaising with the chief fire officer as required.

Only the Fire and Rescue Service can authorise entry back into site once they have been called. The Site Manager / EiC will ensure entry is prohibited until it has been confirmed safe by the Chief Fire Officer (Commander).

12.2 Fire Marshals responsibilities

On hearing the alarm the fire marshal(s) will (providing it is safe to do so) check all persons have left the building and any adjoining scaffolding. They will then make their way to the assembly point and liaise directly with the Fire Coordinator regarding the 4 points above.
The Fire Marshal will remain with the Fire Coordinator and assist as required, including location of the fire grab pack, emergency plans and assisting with access to site for the emergency services, preventing access to site for unauthorised persons.

12.3 Fire actions

Complete to suite the project/site, then copy and laminate for display at the fire points.

IN THE EVENT OF A FIRE

COPPERSTONE CONSTRUCTION

On discovering a fire, sound the alarm and leave the building by the nearest available exit and make your way to the assembly point at the pavement.
DO NOT stop to collect tools or personnel belongings. Only attempt to extinguish a fire if you are competent and trained to do so and your exit is clear. Inform others on you way out. Report the fire to the Site Manager/EiC who will contact the fire brigade

On hearing the alarm, make your way to the assembly point at the pavement.
DO NOT stop to collect tools or personnel belongings.

Do not re-enter the building until told it is safe to do so by the Site Manager/EiC or Fire Marshall.
GET OUT. STAY OUT

13. LIST OF ANNEXES

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ANNEX 01 – FIRE DRILLS / INSTRUCTION / TRAINING

DATE	NATURE OF TRAINING or DRILL	REMARKS	TRAINING RECEIVED BY	SIGNATURE OF INSTRUCTOR

ANNEX 02 – FIRE EXTINGUISHER & EMERGENCY ESCAPE ROUTE

Fire extinguisher & emergency escape route inspection log (to be completed weekly			
Date of inspection Enter date		**In good order, yes/no**	**Action taken by the responsible person to address concerns/defects found.**
Emergency escape routes, Clear of obstruction, trip free, illuminated with direction signs in place, as depicted in the escape route plan. Enter on following page if required.			
Fire point (No.) Extinguishers in good order, evacuation plan displayed, fire point number legible, located in correct location.	**Type of extinguisher**		
Welfare area			
FP 01 *Ground floor* *Welfare area*	*Water*		
	CO2		
	Fire blanket *In site canteen*		
FP 02 *First floor* *Welfare area*	*Water*		
	CO2		
	Fire blanket *In office canteen*		
FP 03 *2nd floor* *Welfare area*	*Water*		
	CO2		
On site			
FP 4 *Ground floor* *as depicted in sketch*	*Water*		
	CO2		

ANNEX 03 – FORTNIGHTLY FIRE SAFETY INSPECTION

DATE	INSPECTED BY	PLAN NUMBERS	COMMENTS

ANNEX 04 – FIRE EXTINGUISHER GUIDANCE

Fire Extinguisher Chart

Extinguisher		Type of Fire					
Colour	Type	Solids (wood, paper, cloth, etc)	Flammable Liquids	Flammable Gasses	Electrical Equipment	Cooking Oils & Fats	Special Notes
	Water	✓ Yes	✗ No	✗ No	✗ No	✗ No	Dangerous if used on 'liquid fires' or live electricity.
	Foam	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes	Not practical for home use.
	Dry Powder	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No	Safe use up to 1000v.
	Carbon Dioxide (CO2)	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes	Safe on high and low voltages.

ANNEX 05 – TYPICAL FIRE EXIT SIGNS

(in luminous rigid plastic **– Diffus**)

450mm



150mm Escape to the right



Escape to the left



Escape straight ahead or up



Escape though an opening or down



Escape this way or through an opening



Fire assembly point



Green route sprayed on floor 150mm wide

Emergency escape signs are to be positioned so that on leaving a room/area a sign can be immediately seen, indicating which way to leave in an emergency. When having reached the sign or on approaching the sign, another should indicate the next direction to take. This procedure is to be repeated until within sight of the assembly point. Signs are to be positioned so all who need to see them can do so. Consult your safety advisor/manager for further advice if need be.

Note:- Within buildings, suspending the signage from the ceiling at a height just below the finished ceiling as opposed to fixing them to walls which can reduce the need to frequently reposition the signage to accommodate wall coatings and finishes. They can also be positioned more easily at areas where change in direction is required and can usually be seen more easily from more positions by more people than if mounted flat onto a wall.

ANNEX 06 – 'ON SITE' FIRE POINT

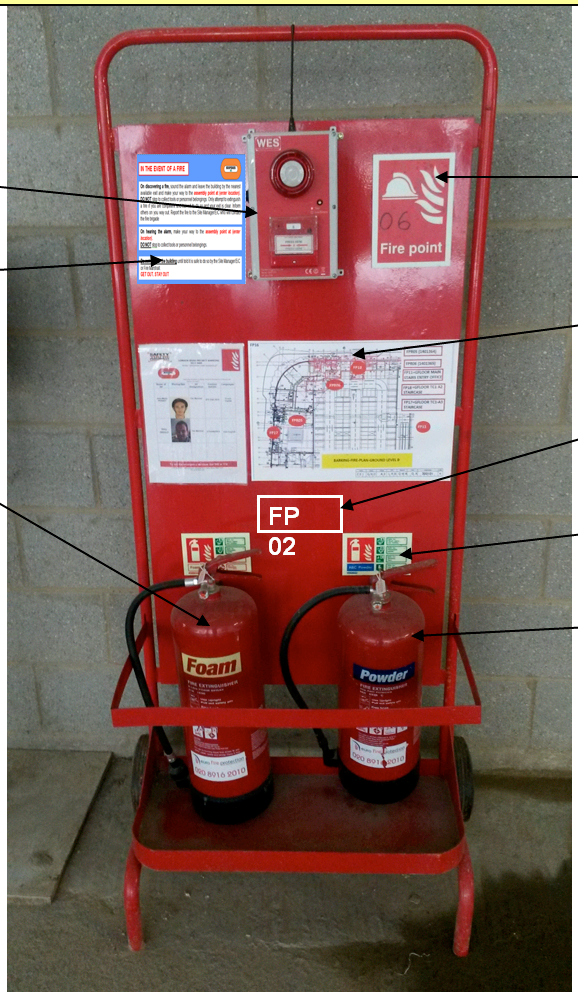
(displaying required items and information)

The cradle unit is from Eurofire, ordered through the Diffus catalogue and comes complete with wheeled cradle, call point unit, fire point sign, extinguisher information labels and 1x Foam and 1x dry powder extinguisher.

These two extinguishers are best suited to the type of fire likely to be encountered on site.

Note - The fire action notice, evacuation map and fire point number are to be created and fitted by the project/site.

Copperstone approved, standard 'on site' fire point



Fire point checklist

Extinguishers - maintained yearly. Inspected weekly.Pins, seals, hoses, Handles and triggers in good condition. instructions/labels in place and legible Pressure gauges (where fitted) undamaged and showing correct readings.

Fire points - Extinguisher information labels, fire action notices, escape route map & fire point number up to date and legible.Fire Alarm Call Point present and in working order.

ANNEX 07 – OFFICE / WELFARE FIRE POINT

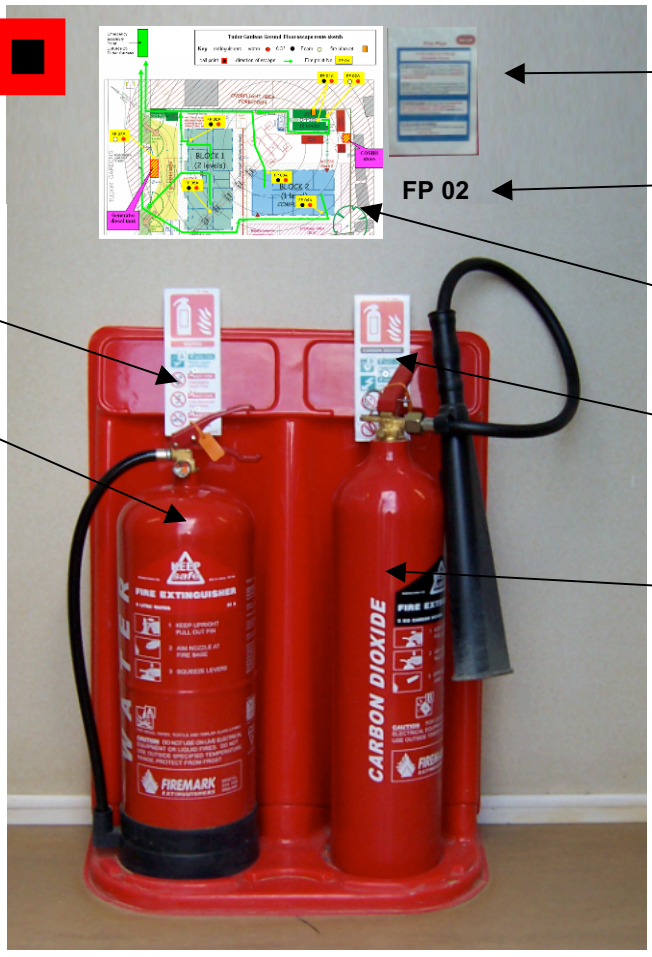
(displaying required items and information).

Double red plastic extinguisher cradle, labels and call point unit (if required) and CO2 & water extinguishers are from Euro fire ordered through the Diffus catalogue.

These two extinguishers are best suited to the type of fire likely to be encountered in an office or welfare units. A fire blanket will also required for canteens/kitchenettes where cooking can take place using conventional or microwave ovens.

Note – the Fire Action notice, evacuation map and fire point numbers are created and fitted by the project/site

Copperstone approved, standard office/welfare fire point



Call point (break glass) As part of office fire alarm system or could be a call point unit in temporary welfare units

Water extinguisher information label

Water Extinguisher (9 litre) Consider antifreeze additive during winter if located outside

Fire action notice

Fire point number (for inspection purposes)

Escape route map

CO2 extinguisher Information label

CO2 Extinguisher (2-5 kg)

Fire point checklist

Extinguishers - maintained yearly. Pins & seals, hoses/ CO2 horns, Handles, triggers in good condition. Instructions/labels in place and legible
Pressure gauges (where fitted) undamaged and showing correct readings.

Fire points - Extinguisher information labels, fire action notices, escape route map & fire point number up to date and legible. Horn /sounder/break glass present and in working order.

Typical fire point, located at the points shown on the fire plan escape route Map.
(On site fire points differ)

ANNEX 08 – FIRE EVACUATION PLAN

Typical evacuation plan formed using power point laid onto methods site logistics drawing or methods can assist.

Note:-

Exits routes must lead directly out of the building.

There should be two escape routes where possible.

Escape routes leading from one building through another are to be avoided whenever possible.

Assembly point is to be situated out side the site/project so that all are away from the possible location of the fire or explosion/blast area.

Extinguishers are placed as near to exits areas as possible (where they can be found easily)

Places that could further fuel a fire or cause explosion are easily identified as the fire brigade will need to know their locations should they have to enter the project/site.

Plan/drawing needed for each level of the building.

Fire points are numbered to allow identification and recording of the relevant fire point on the fire extinguisher inspection log.

COPPERSTONE CONSTRUCTION	**FIRE RISK ASSESSMENT TEMPLATE** *(To be completed in order to identify the hazards and possible risks that may develop as a result of work carried out or the occupations of premises by Copperstone Construction)*	SA1 Leisure Centre, Swansea

Significant Hazard Identified

FIRE

- Sources of ignition:- smoking, ill maintained equipment (including electrical), heating systems, cooking, over loading of electrical supplies/sockets, chemical reactions, uncontrolled naked flame, exposure to radiated or convected heat.
- Fuel: - paper, cardboard, wood, plastic materials, substances (e.g. glues/solvents/cleaning materials), liquid fuels and bottled and natural gases.
- Processes: Drawing and paper copying, heating of food, hot works, unintended or inaccurate mixing of chemicals, unexpected release of liquid fuels or gases, vandalism/ Arson.

Potential outcome: - Fatality or serious injury through burns or smoke/fume inhalation. Irreparable damage to property.

Those at risk: - Employees, staff, visitors and contractors working in or on the building, the site, the project. And those on adjacent land or in adjacent buildings.

Assessed Level of Risk without control measures

Probability of occurrence (1-5) = **3** Severity (1-5) = **5** Total (P x S) = **15 (High Risk)**

Control Measures to reduce the probability for fire occurring

- No smoking on site, including e-cigarettes except in designated smoking area.
- Maintain good housekeeping on a daily basis (including safe rubbish disposal).
- Provide and use correct storage of flammable substances, i.e. solvents, fuels, LPG.
- Ensure all electrical equipment has been serviced and tested (PAT testing). 12 months for fixed equipment, 3 months for portable equipment.
- Quarantine defective electrical equipment awaiting repair.
- Ensure boilers, heating appliances, plant and equipment, etc are serviced and maintained as per the manufactures recommendations.
- Provide fire safety awareness and procedure training to all office/site staff and other permanent occupants.
- Nominate Fire Wardens/Coordinator to check procedures are in place and rules are enforced.
- List requirements to ensure the above is carried out as per the Fire Management plan (see separate document).
- Means of denying unauthorised access to be in place with adequate security, CCTV and hoarding as required.
- Material storage to be in compliance with COPPERSTONE standards, and maintained to a high standard at all times.
- Waste removal arrangements to be adequate to prevent arson and waste build up, secured away from the boundary and buildings.
- Provide designated refuelling area's for plant and equipment with fire fighting equipment call point and spill kits.
- Prevent the refuelling of any plant and equipment outside of the designated refuelling area.

COPPERSTONE CONSTRUCTION	**FIRE RISK ASSESSMENT TEMPLATE** *(To be completed in order to identify the hazards and possible risks that may develop as a result of work carried out or the occupations of premises by Copperstone Construction)*	SA1 Leisure Centre, Swansea

Control measures to reduce the probability of injury to persons or damage to property should a fire or the need to evacuate occur.

- Prohibit the refuelling of small petrol powered equipment such as disk cutters & generators.
- Display plan/sketches showing escape routes and escape route signage showing the direction of escape, exits and Assembly Points.
- Provide battery backup emergency lighting on escape routes where a requirement has been identified.
- Provide maintained escape routes and assembly points.
- Provide early compartmentation of escape routes and refuges where required.
- Provide a means of raising alarm (wireless to be WES Ramtec, Bull Cygnus or Biosite).
- No stand alone alarm systems will be used apart from initial site set up period.
- Provide fire extinguishers at prominent places for an initial attack on the fire and dead end locations.
- Implement signing in/out procedure for all persons entering/leaving the site, project or building in order to be able to confirm who is on site at any given time.
- Provide training on how to use the fire extinguishers and alarms.
- Have drawing and sketches available for issue to the emergency services on arrival at the site to assist them in identifying access routes and areas of risk.
- Carry out evacuation drills in order to check the effectiveness of the fire evacuation procedure.
- Ensure that access for emergency services is always maintained and clear.
- Nominated Fire Wardens/Coordinator to carry out and supervise evacuation procedure.
- Means of detecting the fire and notifying occupants and where required those occupying neighbouring property.
- All temporary covering materials to LPS1207 standard
- Full compliance with HSE ACOP HSG168, Fire Prevention on Construction sites and 16 Steps to Fire Safety on Timber Frame construction sites (Where applicable).

Residual Level of Risk (after implementing control measures)
Probability of occurrence (1-5) = **1** Severity (1-5) = **4** Total (P x S) = **4 (Low Risk)**

(Is this the lowest level, reasonably practicable?)

Responsibilities for Controlling Risk and implementing control measures

See Fire Management Plan

Assessed by

Print name Joseff Williams

Signature J.Williams Position Project Manager Date 11 01 22

Date for next formal review; Should circumstances change (6 months maximum)

Low risk Medium risk High risk		severity				
		1	2	3	4	5
probability of occurrence	1	**1**	**2**	**3**	**4**	**5**
	2	**2**	**4**	**6**	**8**	**10**
	3	**3**	**6**	**9**	**12**	**15**
	4	**4**	**8**	**12**	**16**	**20**
	5	**5**	**10**	**15**	**20**	**25**

Risk Assessment and Method Statement

Scaffolding - General

Project: SA1 Leisure Complex Development

Client: UWTSD Swansea

Activity: Excavating Ground ahead of Foundation / Basement construction

Prepared By	Signed	Date	Checked By	Signed	Date
Joseff Williams	J.Williams	24.04.22	James Cullen	J.Cullen	25.04.22

Issue	Revision	Date	Checked By	Signed	Date
1					

Distribution / Issue list

Client / Engineer / Other	UWTSD	
Copperstone	J Williams, D Rowlands, J Cullen	
Site Engineer (s)		
Works Manager / Site Manage	Joseff Williams	
Site File	File in `Site Safety Register'	

COPPERSTONE
CONSTRUCTION

The following personnel have been briefed in the procedures required to carry out the operations detailed in this method statement / risk assessment. Copy to be returned to site manager.

Name	Job Description	Signature	Employer
John Jones	Scaffolder	J.Jones	CASS
Phillip Stephens	Scaffolder	P.Stephens	CASS
Gavin Thomas	Scaffolder	G.Thomas	CASS

Persons providing site briefing:

Name: **Sign:** **Date:**

Name: **Sign:** **Date:**

Name: **Sign:** **Date:**

Name: **Sign:** **Date:**

COPPERSTONE
CONSTRUCTION

Contents

1.0 CDM 15 Introductions

2.0 Scope of Works

3.0 Guidance for the users of scaffolding

4.0 Specification for works carried out

5.0 Manpower and Competency

6.0 Equipment to be used and Conformity Regulations

7.0 Delivery and collection of kit

8.0 Unloading and Loading Arrangements

9.0 Personal Protective Equipment

10.0 Emergency Procedures

11.0 Handover & Dismantle Proceedure

12.0 Risk Assessment

1.0 CDM 15 Introductions

The scheme is notifiable under the CDM ‘15 HSE under Regulation 6 (1).

The Client is: UWTSD

The Principal Designer is: Copperstone Construction

The Principal Contractors are: Copperstone Construction

The Designers are: Copperstone Construction

The main Sub Contractors Named on the F10 are: N/A

2.0 Scope of Works

All operatives are to read the information contained within this RAMS, operatives MUST sign to agree they have read and understood what is contained in the Risk assessment and Method statement.

Operatives will "sign-in" each day when they attend site. Site access is via the pedestrian site entrance; hours are as follows: Mon – Fri 8am-5pm. However, can work out of these hours if pre-arranged with site security.

- Operatives will then attend the site induction session at 8.00am with a COPY of their CSCS card and a signed COPY of the method statement. Method statement briefing sheets to be issued to site manager at induction and must be signed as read before the commencement of any works by all employees who will be undertaking the work. This will acknowledge that the operatives have read and fully understand the contents of this RAMS and are aware of their responsibilities with regards to the work they are to undertake.

- Materials will be walked into the work area via the loading bay outside.

- A banksman will be present when materials are being taken into the building.

- Appropriate signage in place from client to alert other users of the building that work is proceeding in the area. **Birdcage Scaffold**

- The 1st scaffold operatives will lay out the base plates 1.2-2.1m apart with steel base plates and timber base pads below if required.

- Once the section is marked out with base plates to the correct dimensions the CASS operative will begin to erect 'base out the scaffolding.

- 1st there will be a tube carefully stood up and held into position. This is the inside upright with the base of the tube over the steel plate and double fixed to it at approx. 2m high.

- The scaffold bays will be approx. 2.1m apart, this is where there will be another scaffold standard which will be held in place with another double fixed to it.

- Next the operative will fix the inside ledger to the standards at a height of 2m with temporary rakers diagonally fixed as support down to ground level,

- Next, they will do the same again with the outside standards to make a square then they will connect the inside and outside standards using a ledger/transom bracing depending on the direction of the birdcage, this will then close off the first square of scaffold fixing the tube using a double fitting.

- This process will be repeated along the base of the scaffold to all the required elevations.

- Now that the 1st bay is erected the CASS operatives will put the diagonal rakers in place fixed to the 2 permanent standards and the process will continue on every other bay.

    - Next the 3rd CASS operative will work behind the first two operatives filling on the scaffold with transoms and ledgers for the main working lift of the scaffold ready to take the scaffold boards (if this is a working lift) Doubles for a non-working lift (form work) transoms if a boarded and working lift.

    - There will be a minimum of 5 transoms per board this is along with any plan bracing that is required.

    - Once this is complete, he will then begin to board out the 1st lift ensuring

that this is done from the first working lift or non-working lift level only and ensuring that all advanced guardrails are fixed into place before any operative climbs onto the first scaffold lift.

- They will follow the same process as above for the full length and width to form the birdcage area. (please note gridline for birdcages TBA). Again, ensuring that the advanced guardrails are fixed into place using the scaffolders step system (SG4:15) and that the scaffold is boarded out from below.

- Once the first required section is complete and boarded out with a maximum of 2 inside boards 4 boards inside the standard., the ladder can then be to the first lift for access.

- Next the 1st CASS operative will climb the ladder ready to fix the 2nd guardrail into place and finish off the boarding out of the 1st lift and fix all the toeboards and stop ends into place (only for a working lift) .

- Now that the 1st lift is fully complete the CASS operatives will be passed from below the ledger tubes for the second lift where the process will be repeated as per the 1st lift with the CASS operatives ensuring they use the advanced guardrail method and scaffolders step up system.

- All CASS operatives are to ensure that the boarding out to the 2nd lift is done from 1st lift below with ladder fixed into place.

- CASS operatives are to ensure that the scaffold is tied in from the second lift up or as per design drawings (where applicable)

- CASS operatives must always ensure they are working within the scaffolders ‘safe zone’. Once the stages of scaffold are completed the scaffold will be inspected by our qualified SSSTS/SMSTS operatives/supervisor and handed over using our Hand Over Certificate (HOC). There are 3 copies of HOC, a copy is retained by the client and

the operatives and the 3rd copy returned to head office.

3 .0 Guidance for the users of scaffold

- Users of the scaffold are directly responsible for ensuring the structure is used only for its intended purpose and within its specified loading limits.
- Users must ensure the scaffold is not interfered with e.g. removal of ties, guardrails, or platform boards, overloaded with materials, modified e.g. by sheeting a scaffold that is not suitable for extra wind loading this imposes on the structure.
- Any modifications to the scaffold must be carried out only by our competent trained scaffolders
- Every user of a scaffold must check the structure before use “Regulation 13 The Work at Height Regulations 2005”
- Ensurethatthestatutory7-dayinspectioniscarriedoutandrecorded.
- Any queries or concerns relating to use of this scaffold should be raised with Management.

4.0 Specification for works carried out

All scaffolds will be erected in accordance with: -
a. TheWorkatHeightRegulations2005.
b. NASC TG20:13.
c. Manufacturer's Instructions.

- Operatives will hold a relevant CISRS registration card.
- Operatives will hold PASMA certification.
- Scaffold inspectors will hold the appropriate CISRS registration card that may be supplemented by scaffold inspection certification. (SITS - ASI or BSI)
- Plant operators will hold relevant certification i.e. CPCS or NPORS, subject to what is acceptable on site.

5 .0 Manpower and Operative Competency

- Operatives will hold a relevant CISRS registration card.
- Operatives will hold PASMA certification.
- Scaffold inspectors will hold the appropriate CISRS registration card that may be supplemented by scaffold inspection certification. (SITS - ASI or BSI)
- Plant operators will hold relevant certification i.e. CPCS or NPORS, subject to what is acceptable on site.

6 .0 Equipment and Conformity Regulations

All materials will be in accordance with a relevant british standard or its equivalent i.e. scaffolds tube to S355JOH grade, scaffold boards to BS2484 (MG), Scaffold fittings to BS EN 74, Ladders BS1129, BS2037 or BS EN 131 Etc.

- Materials will be free from visual damage that will foreseeably affect its performance whilst in use.
- Materials are visually inspected prior to issue from the depot
- Materials will be visually inspected prior to operative using them, defective materials will be segregated to prevent use.

7 .0 Delivery and Collection of Kit

- Materials will be delivered and collected using designated site traffic routes, at dates and times to be agreed with the customer.
- Materials will be delivered and collected utilizing a standard flatbed vehicle.
- Wagon will park at front entrance gate; cones will be placed around the wagons footprint until on site.
- Materials will be delivered in packs.
- Material storage will be subject to good housekeeping.
- If required, materials will be confined by barriers.

8 .0 Unloading and Loading Arrangements

Materials will be unloaded/loaded utilizing the following methods:

A. Manual handling. SG6:15. Small items may be removed from the wagon by hand. Bed will be lowered to the floor to pull materials off from this point.
B. Site forklift or telehandler. Materials will be unloaded via the clients fork lift into an agreed area.

9 .0 Personal Protective Equipment

The following PPE will be worn during our activities: -

- SafetyHelmet-EN397–5-pointchinstay
- Safety Boots – SB1
- Safety Harness + lanyard
- Hi-visibility Vest - EN ISO 20471
- Gloves-EN388
- Tool tethers
- Safety glasses–EN166F

10 .0 Emergency Proceedures

- We will comply with the site emergency procedures as detailed in site induction/health and safety plan.
- In the event of fall involving a safety harness, refer to the fall recovery plan accompanying this document.
- CASS Supervisor is First Aid trained.
- First aid consumables will be utilised from the clients First Aid store/facilities on site.
- Operatives will carry a basic travelling first aid kit in their vans.
- Operatives will initially report any incident/accident to their immediate Supervisor, who will relay to site & CASS Management.

11 .0 Handover and Dismantle Procedure

a. Following the completion of the scaffold the Scaffold Inspector will carry out a visual inspection to ensure that the scaffold complies with the specification.

b. On satisfactory completion, the Scaffold Inspector will update the scaffold tag and schedule 7 inspection records.

Dismantle

a. The location where the scaffold is to be dismantled, the method statement and risk assessment will be shown to the operatives by supervision and the relevant hazards and preventive/control measures will be explained.

b. The operatives will sign the method statement to confirm the adequate transfer of information to enable

c. The Charge hand will initially inspect the scaffold to ensure that ties and braces are still intact and that platforms are clear of debris. *Scaffold will not be dismantled unless the it is clear of debris and surplus materials.

12.0 Risk Assessments

Hazard	Hazardous Effect	Risk Factor (Severity x Probability)			Control Measures	Risk Factor (After Controls) (Severity x Probability)		
Work at height whilst erecting scaffolding.	Falls from height/falling materials. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• All work at height to be undertaken in accordance with SG4:15, with the emphasis on creating the scaffolders safe zone as a priority. • Consideration to be given to avoidance of work at height wherever possible. (Example is erection of bridge scaffolds at ground level and lifting them into position by means of a crane) • The wearing of all arrest equipment mandatory for all of those working at height. • Exclusion zones to be set up beneath the work area and lookouts posted where necessary to ensure such zones are not breached. (Where this is not possible – works may need to be undertaken during 'quiet' hours) • Materials to be stored safely when not in use. • 'Danger! Men Working at Height' Signage to be posted in conspicuous areas along pedestrian access routes. • Prior to commencing residential scaffold works,	4	1	**4**
Failure of fall arrest equipment.	Fall from height. (Scaffolding operatives)	4	4	**16**	• Fall arrest equipment to be subject to three monthly documented checks by a competent person. • Fall arrest equipment to be checked prior to each period of use by the user.	4	1	**4**
General work at height (Non-scaffolding)	Falls from height/falling materials. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• All work at height to be undertaken with due consideration given to the Work at Height Regulations 2005. (Avoidance and mitigation etc) • Where no protection exists, a safe system of work must be drawn up and consideration for the protection of those working height. • Use of ladders to be justified by task-specific risk assessment.	4	1	**4**
Casualty suspended by fall arrest equipment.	Harness Suspension. (Scaffolding operatives)	4	2	**8**	• Rescue procedure to be drawn up.	4	1	**4**
Work at height in poor light levels.	Falls from height, falling materials. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• Work at height to be undertaken either in good levels of daylight or with adequate task lighting provided.	4	1	**4**
Erecting scaffold adjacent to plant/machinery that may affect the scaffold's stability.	Falls from height, falling materials, scaffold collapse. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• Steps to be taken to protect the scaffold base from accidental plant/vehicle contact. This may involve the installation of timber baulks or other similar physical barriers or by road closures etc.	4	1	**4**

Third party individuals accessing unsafe parts of scaffold/incomplete scaffolding.	Falls from height. (Third parties)	4	2	**8**	• Access to unsafe scaffold parts to be prevented by fixed barriers supplemented by 'DO NOT USE' signage.	4	1	**4**
Impact Wrench	Couplers not being secured to required torque of 50n/mtr. Failure of scaffold to be secure.	6	2	**12**	• Drill to be fully maintained and serviced to ensure that it operates at its maximum potential. Yearly service records supplied by sub-contractor if using tool. • Operatives erecting with tool to ensure that 5% of couplers are tested after use from the tool, by way of turning with a spanner to the operative's full capability. • Couplers will be turned at random by the scaffold inspector on the weekly check and recorded in the register.	6	1	**6**
Impact Wrench	High noise levels, resulting in Noise induced hearing loss & tinnitus etc.	4	2	**8**	• Drills to be fully maintained and serviced to ensure that it operates at its maximum potential as detailed in the manufacturer's instructions. • SNR showing the DB level for 25-35 being DB of 95-100 rated tool. • Operatives using drills and those working within the working vicinity to wear hearing protection using a tool rated higher than 95. • Operatives using MAKITA wrench rated 94Db require ear protection if working indoors, closed facility.	4	1	**4**
Impact Wrench	High vibration levels, resulting in Hand/arm vibration	4	2	**8**	• Drill to be used for a maximum of 15min trigger time per day.	4	1	**4**

Risk Assessment and Method Statement

Scaffolding – Windows and Glazing

Project: SA1 Leisure Complex Development

Client: UWTSD Swansea

Activity: Excavating Ground ahead of Foundation / Basement construction

Prepared By	Signed	Date	Checked By	Signed	Date
Joseff Williams	J.Williams	24.04.22	James Cullen	J.Cullen	25.04.22

Issue	Revision	Date	Checked By	Signed	Date
1					

Distribution / Issue list

Client / Engineer / Other	UWTSD	
Copperstone	J Williams, D Rowlands, J Cullen	
Site Engineer (s)		
Works Manager / Site Manage	Joseff Williams	
Site File	File in `Site Safety Register'	

COPPERSTONE
CONSTRUCTION

The following personnel have been briefed in the procedures required to carry out the operations detailed in this method statement / risk assessment. Copy to be returned to site manager.

Name	Job Description	Signature	Employer
James Nicholas	Window Fitter	J.Nicholas	DUDLEYS
Lloyd Thomas	Window Fitter	L.Thomas	DUDLEYS
Jack Williams	Window Fitter	J.Williams	DUDLEYS

Persons providing site briefing:

Name: **Sign:** **Date:**

Name: **Sign:** **Date:**

Name: **Sign:** **Date:**

Name: **Sign:** **Date:**

COPPERSTONE
CONSTRUCTION

Contents

1.0 Site Management

2.0 Scope of Works and Method

3.0 Traffic Management

4.0 Working at Height

5.0 Work Equipment

6.0 Mechanical and Manual Handling

7.0 COSHH

8.0 Noise and Vibration

9.0 PPE

10.0 Emergency Procedures

11.0 Risk Assessment

1.0 Site Management

Name	Role	Contact Number	Relevant Qualifications
Bob Bradley	Director responsible for health and safety.	02920 360346	IOSH Managing Safety
Neil John	Senior Contracts Manager	07855 405654	SMSTS
Dave Rees	Installation Manager Visiting	0773 3405017	SMSTS
Matthew Williams	On site SSSTS	07799 655052	SSSTS
SWSC Ltd	External H&S Advisor (Safety, Environment & Fire)	02920 624363	CMIOSH OSHCR MIIRSM

1.1 Our Supervisor will be present on a full-time basis and will be responsible for ensuring that work proceeds in accordance with our standard company procedures.

1.2 Should our Site Supervisor be absent, a competent deputy will be appointed, and his name/details will be added to this document.

1.3 Supervisor to attend coordination briefings, as required.

2.0 Works Method and Sequence

2.1 RAMS Briefing

- Method statement and risks will be communicated to the workforce by the site supervisor and the attendance form will be signed by all site personnel.

2.2 Protection of Work Areas

- Segregation barriers will be erected around Dudley's Work areas to exclude unauthorized entry by other trades or visitors.
- Co-ordination briefings with other trades as required.

2.3 Logistics/Deliveries

- The PC will advise Dudley's of all relevant Logistical requirements for this project.

2.4 Offloading & Material Storage

- Aluminium materials to be delivered on metal stillages or pallets
- All double-glazed units are to be delivered on metal or wooden 'A' frames for off-loading by the PC's telehandler, operated by the PC's driver.
- The telehandler will off-load the materials on to ground,
  no Dudley's workers or delivery driver will access vehicle bed during offloading,
  unless suitable fall prevention measures are provided.
- The materials will then be distributed to the designated safe storage area.
- Materials will then be sorted and checked by Dudley's.
- The materials can then be transported by telehandler to the hoist and lifted to the relevant floors or lifted to the Canti-deck by the PC's tower crane. Materials will be stored on the floor in areas designated by the PC until installation.

2.6.1 Window Installation

1. Access
    - All works will be carried from the inside of the building and from the PC's mast climber and scaffolding.
    - Each work area to be physically closed off with barriers to restrict access by other operatives and trades.
2. The materials will be distributed to the appropriate floor by the PC's hoist/tower crane and manually distributed to the area of work and for stillaged materials by means of pneumatic pallet trucks.

3. The area of work will be checked for safe access and egress with any anomalies reported for action by the PC. Working from floor level, 600mm x 600mm hop-up's and from a NANO SP+ 4.5M Self Propelled Personnel Lift, the structural openings will be checked against Dudley's Aluminium Ltd (DAL) drawings for dimensional accuracy. Once satisfied, the windows will be sorted from the pallets and stored on the floor adjacent to the area of installation.
4. The frame will be prepared by installing EPDM membranes and fixing lugs to the perimeters and then offered into the opening.
   Frames will be centralised and set to the correct height using laser levels from datums provided by the PC.
5. Plugs and stainless-steel screws will be installed through fixing lugs and frame packing shims will be used where necessary.

6. Once fixed, the EPDM membranes will be bonded to the weather board externally by installers working from the mast-climber or fixed scaffolding.
7. Glass packers will be installed into the frame and the relevant glass unit will be selected from the stillage and moved to the area of installation using a glass trolley.
   Glass units weighing up to 50kg will be installed manually by a team lift of 2 installers using hand vacuum lifters
   Glass units weighing over 50kg will be lifted from the stillage using a Big Foot 280/Glass Boy floor crane equipped with a Woods 4-in-line vacuum lifter and placed into the frame.
   The glass will be secured in place using glazing beads and wedge gaskets.

COPPERSTONE
CONSTRUCTION

Curtain Walling Installation

1. The materials will be mechanically handled from the storage area to the area of installation using a pump truck internally and telehandler/tower crane externally.

2. Working from the mast climber or fixed scaffolding access, the first mullion to be sorted will be stood in position, transom to be connected to mullion via factory fitted sheer block and face fitted screws, second mullion to be fitted to transoms and temporarily secured to structure using rope or temporary fixing screws in non-visible areas, other mullions and transoms to be fitted in same way until frame built.

3. Frame to be lined and levelled from initial grid lines and datum lines supplied by PC.

4. Permanent fixings i.e. anchor bolts/TEK/set screws to be fitted through fixing brackets into structure using 110volt power drills and battery powered tools ensuring they are at the correct torque settings using suitable fixings as per Dudley's detailed drawings.

5. Frames to be fitted with glazing gaskets and glass carrier shoes as per Kawneer installation manuals, completed frames to be offered to BECT for sign off at this stage (Hold Point).

6. Glass to be sorted in the storage area and transported on 'A' frames to areas of work by use of Hoist, Tower Crane, Telehandler or Pump Truck.

7. Glass to be lifted from A frames using a mechanical lift procedure offered into frame, packed square and level and secured with temporary stich plates (small pieces of pressure plate).

8. Glass weights, heaviest unit = 400kgs.

3 .0 Traffic Management

3.1 All Dudley's vehicles will adhere to the PC's Traffic Management Plan (TMP).

3.2 On site, all Dudley's employees will comply with the PC's TMP and will use the designated pedestrian routes and crossing

4.0 Working at Height

4.1 Work at height will be minimised wherever possible.

4.2 Our initial assessment of work has identified that work at height is necessary as follows: *(*

- Self-Propelled, Personnel Lift
- Mast Climbers
- Scaffolding
- Working at leading edge
- Aluminium Hop-Ups

5 .0 Work Equipment

Work equipment will be hired from reputable sources.

5.2 All work equipment will be maintained in good order and will be subject to specified inspection/testing procedures (weekly inspections + statutory thorough examinations). Records of inspections will be maintained in our site-based register.

5.3 Work equipment to be used will include:

- NANOSP+ Self-Propelled, Personnel Lift
- Hydraulic Pallet Truck
- Woods 4-in-line Vacuum Lifter
- Big Foot 280/Glass Boy Floor Cranes
- Portable Electrical Equipment
- Glass Trolley
    - Drills
    - Transformer
    -

6 .0 Mechanical and Manual Handling

Mechanical Handling

The majority of materials will be lifted mechanically, using

- Site Telehandler
- Tower Crane
- Hoist

Manual Handling

- Will be limited to items as in above method of work.

7 .0 COSHH

Refer to Dudley's COSHH Assessments, which are provided for:

- Substances that we use
  - Silicone sealant
  - EPDM and glue

- Substances that we could encounter
  - Silica Dust
  - Wood Dust (produced by others)

  Plasterboard dust (produced by others)

8 .0 Noise and Vibration

Assessment of the risk to health and safety created by exposure to noise at the workplace.

- We will take all reasonable measures to reduce noise.
- Noise will be generated as follows:
  - Use of Drill – noise produced is likely to be in the region of 85-90dB(A).

Hearing protection should be worn as follows

9 .0 Personal Protective Equipment

Head Protection (BS EN 397 & EN 12492)	At all times.
Respiratory Protective Equipment (RPE to EN 149 FFP3 OR EN140 WITH P3 FILTERS) ALL MEN HAVE BEEN OR WILL BE FACE-FIT TESTED.	If and where significant quantities of dusts/mists are produced.
Safety footwear (EN ISO 20345:2007)	At all times
Hi visibility clothing (EN 471)	At all times
Gloves (traffic glove or similar)	At all times.
Eye protection	Safety goggles/glasses as risk assessments Safety Glasses – At all times
Hearing Protection	During all noisy operations *Rule of thumb measurement – if you need to shout to be heard, Hearing Protection Must Be Worn!*
Safety Harness, Inertia Reels and Man-Safe Running Lines	When working at the leading edge.

10 .0 Emergency Procedures

- We will comply with the site emergency procedures as detailed in site induction/health and safety plan.
- In the event of fall involving a safety harness, refer to the fall recovery plan accompanying this document.
- First aid consumables will be utilised from the clients First Aid store/facilities on site.
- Operatives will carry a basic travelling first aid kit in their vans.

12.0 Risk Assessments

Hazard	Hazardous Effect	Risk Factor (Severity x Probability)			Control Measures	Risk Factor (After Controls) (Severity x Probability)		
Work at height whilst erecting scaffolding.	Falls from height/falling materials. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• All work at height to be undertaken in accordance with SG4:15, with the emphasis on creating the scaffolders safe zone as a priority. • Consideration to be given to avoidance of work at height wherever possible. (Example is erection of bridge scaffolds at ground level and lifting them into position by means of a crane) • The wearing of all arrest equipment mandatory for all of those working at height. • Exclusion zones to be set up beneath the work area and lookouts posted where necessary to ensure such zones are not breached. (Where this is not possible – works may need to be undertaken during 'quiet' hours) • Materials to be stored safely when not in use. • 'Danger! Men Working at Height' Signage to be posted in conspicuous areas along pedestrian	4	1	**4**
Failure of fall arrest equipment.	Fall from height. (Scaffolding operatives)	4	4	**16**	• Fall arrest equipment to be subject to three monthly documented checks by a competent person. • Fall arrest equipment to be checked prior to each period of use by the user.	4	1	**4**
General work at height (Non-scaffolding)	Falls from height/falling materials. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• All work at height to be undertaken with due consideration given to the Work at Height Regulations 2005. (Avoidance and mitigation etc) • Where no protection exists, a safe system of work must be drawn up and consideration for the protection of those working height. • Use of ladders to be justified by task-specific risk assessment.	4	1	**4**
Casualty suspended by fall arrest equipment.	Harness Suspension. (Scaffolding operatives)	4	2	**8**	• Rescue procedure to be drawn up.	4	1	**4**
Work at height in poor light levels.	Falls from height, falling materials. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• Work at height to be undertaken either in good levels of daylight or with adequate task lighting provided.	4	1	**4**
Erecting scaffold adjacent to plant/machinery that may affect the scaffold's stability.	Falls from height, falling materials, scaffold collapse. (Scaffolding operatives and third parties in the vicinity)	4	2	**8**	• Steps to be taken to protect the scaffold base from accidental plant/vehicle contact. This may involve the installation of timber baulks or other similar physical barriers or by road closures etc.	4	1	**4**

Third party individuals accessing unsafe parts of scaffold/incomplete scaffolding.	Falls from height. (Third parties)	4	2	**8**	• Access to unsafe scaffold parts to be prevented by fixed barriers supplemented by 'DO NOT USE' signage.	4	1	**4**
Impact Wrench	Couplers not being secured to required torque of 50n/mtr. Failure of scaffold to be secure.	6	2	**12**	• Drill to be fully maintained and serviced to ensure that it operates at its maximum potential. Yearly service records supplied by sub-contractor if using tool. • Operatives erecting with tool to ensure that 5% of couplers are tested after use from the tool, by way of turning with a spanner to the operative's full capability. • Couplers will be turned at random by the scaffold inspector on the weekly check and recorded in the register.	6	1	**6**
Impact Wrench	High noise levels, resulting in Noise induced hearing loss & tinnitus etc.	4	2	**8**	• Drills to be fully maintained and serviced to ensure that it operates at its maximum potential as detailed in the manufacturer's instructions. • SNR showing the DB level for 25-35 being DB of 95-100 rated tool. • Operatives using drills and those working within the working vicinity to wear hearing protection using a tool rated higher than 95. • Operatives using MAKITA wrench rated 94Db require ear protection if working indoors, closed facility.	4	1	**4**
Impact Wrench	High vibration levels, resulting in Hand/arm vibration	4	2	**8**	• Drill to be used for a maximum of 15min trigger time per day.	4	1	**4**