Construction phase plan

Project Name	Llancarfen Primary School	Project No.	SWW0054

Client (Name and Address)	Site Address
Jane O'Leary **21st Century Schools Programme Manager** **Learning & Skills / Dysgu a Sgiliau** **Vale of Glamorgan Council / Cyngor Bro Morgannwg** **tel / ffôn: 01446 709828** **mob / sym: 07518054491** **jloleary@valeofglamorgan.gov.uk**	**Llancarfen CIW Primary School** **Rhoose Way** **Rhoose** **CF62 3FD**

Site Telephone No	07909 682590 Mr.Adrian Mills

Authorised By	Job Title	Signature
Ricahrd Skone	**Director Responsible**	
Howard Davies	**Project Lead/Nominated Manager**	
Gary Harsnet	**Health & Safety Advisor/Manager**	

The director responsible for the workstream and Project Health & Safety Manager / Advisor must authorise on first issue, the project lead is required authorise all subsequent revisions.

Revision Record

This document has been reviewed and where necessary updated as detailed below.

If there are no changes to be made records the review as "Reviewed. No changes required". Do not change the revision letter.

Revision	Date	Summary of changes (Enter page and section number and brief details of change.)	Updated By
0			
A	28/08/20	Revised CEMP updated	HD
B	03/09/20	Revised CEMP engrossed with revised drainage	HD

Circulation

Further guidance & information relating to the construction phase plan and CDM requirements is located within the ISG Company Management System (CMS).

A copy of the latest version of this document is to be uploaded on onto the ISG Document control platform, or physically shared with contractors

Issued to:	Company:
ISG Project Team	Shared via Aconex
Client	Shared via Aconex
Principal Designer	Shared via Aconex
Project Managers	Shared via Aconex
Architect	Shared via Aconex
Structural Designer	Shared via Aconex
Mechanical & Electrical Consultants	Shared via Aconex
Client appointed Consultant	Shared via Aconex
Building Control	Shared via Aconex
Appointed trade Contractors	**Refer to Project Directory**

Table of Contents

1. Introduction

This Construction Phase Health and Safety Plan contains the arrangements that will be implemented to ensure the safe execution of the works in compliance with the Construction (Design and Management) Regulations

It has been compiled from information obtained from the pre-construction information pack, issued by the Principal Designer, **Karyn Williams (Stride Treglown)** and from supporting information obtained from site visits, Designers Risk Assessments and drawings and specifications issued by other members of the project team. This is a live document and will be maintained, reviewed and updated by the project team at least monthly.

This project is for **Llancarfen CIW primary School** and is to commence on **9th November 2020** and finishes on **18th October 2021** Works will not commence until this plan has been completed to a satisfactory standard and has been deemed suitable by the Principal Designer. Additionally, the Construction Phase Health & Safety Plan must also be authorised and signed by the appropriate persons of the Project Team. The Scope of works includes:
The design and construction of a two storey steel framed brick/render clad, 1 FE school with associated external works including, drainage, parking soft & hard landscaping. The site is set within a new residential area with roads and infrastructure.The new school will like this;

North Elevation

Plan

Whilst undertaking these works it is our policy to endeavour to:

- Prevent accidents and ill Health to our employees, Client, Contractors, third parties and members of the public
- Provide a place of work that is safe and without risk to the Health, Safety and Welfare to all those involved in the project and third parties
- Create a positive Health and Safety culture and ensure that Health and Safety is our highest priority
- Consult and communicate to all those involved in the project and listen when feedback is given

This Health and Safety plan follows procedures and guidance contained within the ISG Management System and Health and Safety Policy and reference to these will be made throughout this plan.

Project programme dates	
Planned commencement date	**9th November 2020**
Planned completion date	**18th October 2021**
Other key project dates: e.g. – sectional handover / power on (delete / add as required)	!4th September 2020-Site reduced and ready for surveys.

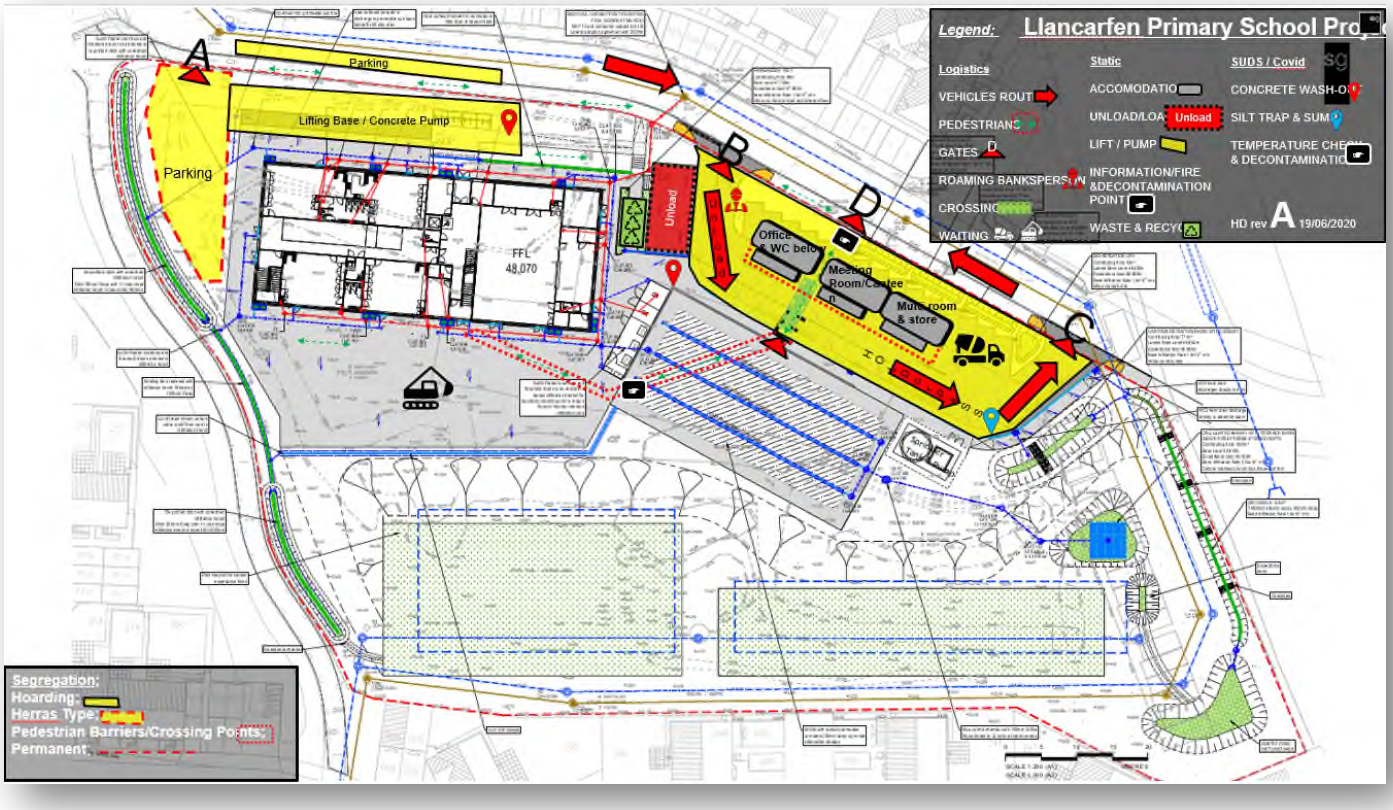
The following existing restrictions have been identified from the Pre-Tender Health and Safety Pack and supporting information, such as Designers Risk Assessments and site visits. These will be taken into account throughout the works:

Existing Structures Site Description
 The site is in the heart of a newly constructed residential area.

Existing Hazard / Consideration / Restriction	Notes / Controls (Provide details or mark as N/A)
Boundaries and Adjacent Land Use	Solid Hoarding, Herras Fencing and intergrated Traffic Management Plan
Adjoining sites	NA
Live Services	Adjacent within the highway; Overhead BT line (voice & data) Electrical supply (buried) Water Supply. On site; Existing SUD's system.
Control of surface water run-off	Adjacent gully pots within adjacent public highway.
Existing Tenants	Adjacent residents
Access to the site	Hard Surfaced access ramp

Existing Health Hazards	
Asbestos	No
Contamination	No
Occupational Health	
Dust	Light to moderate levels of dust from hard surfaces
Vibration	NA
Noise	Low level 50-80dB during normal working day
Waste	NA-All waste is contained with mobile skips

IMPORTANT
CONSTRUCTION WORK SHALL NOT COMMENCE UNTIL THE PRINCIPAL DESIGNER AND CLIENT ARE SATISFIED THAT THIS CONSTRUCTION PHASE PLAN HAS BEEN SATISFACTORILY DEVELOPED – AND HAVE ADVISED US ACCORDINGLY IN WRITING.



The site plan in operational context.

2. Project Team Details & Organisation

Professional Team

Client:

Name	Address	Contact No	
Jane O'leary - 21st Century Schools Programme Manager	Civic Offices Holton Road Barry CF63 4RU	Office	NA
		Mobile	07518054491
		E-Mail	jlo'leary@valeofglamorgan.gov.uk

Principal Designer:

Name	Address	Contact No	
Karyn Williams - Technical Lead	Treglown Court, Dowlais Road, Cardiff CF24 5LQ	Office	02920435660
		Mobile	07748421379
		E-mail	karynwilliams@stridetreglown.com

Project Manager:

Name	Address	Contact No	
Conna Ryan	AECOM 1 Callaghan Square Cardiff CF10 5BT	Office	029 20 674 600
		Mobile	07741545136
		E-mail	conna.ryan@aecom.com

Designer Architect:

Name	Address	Contact No	
Karyn Williams - Technical Lead	Treglown Court, Dowlais Road, Cardiff CF24 5LQ	Office	02920435660
		Mobile	07748421379
		E-mail	karynwilliams@stridetreglown.com

Designer Structural Engineers:

Name	Address	Contact No	
Daniel James-Associate Director	6 Neptune Court Vanguard Way Ocean Park Cardiff CF5 4UJ	Office	029 20461000
		Mobile	07795 544126
		E-mail	daniel.james@rvwconsulting.co.uk

Designer Mechanical and Electrical:

Name	Address	Contact No	
Matthew Williams - Project Diector	McCann and Partners Consulting Engineers	Office	029 2035 2450
		Mobile	07730002759

	Faraday House, Terra Nova Way, Penarth Marina, Cardiff, CF64 1SA	E-mail mw@mccannp.com

Client appointed Consultant:

Name	Address	Contact No
		Office
		Mobile
		E-mail

Building Control:

Name	Address	Contact No
Colin Palmer	Civic Offices Holton Road Barry CF63 4RU	Office (01446) 704648 Mobile NA E-mail BuildingControl@valeofglamorgan.gov.uk

Principal Contractor: ISG

The following people make up the ISG project team for this project:

Name	Position	Contact No
Rob Martin	Regional Manager Director (RMD) / Divisional Managing Director (DMD) (delete as appropriate)	Office: 02920 619569 Mobile: 07721748277 E-mail: Rod.martin@isgltd.com
Richard Skone	Regional Director (RD) / Project Director PD / Cluster Director (CD) (delete as appropriate)	Office: 02920 619569 Mobile: 07774008066 E-mail: Richard.skone@isgltd.com
Gary Harsant	Health and Safety (HS)	Office: NA Mobile: 07870363072 E-mail: Gary.harsant@isgltd.com
Howard Davies	Operations Manager (OM)	Office: 02920 619569 Mobile: 07500043371 E-mail: Howard.davies@isgltd.com
Adrian Mills	Construction Manager	Office: NA Mobile: 07909682590 E-mail: Adrian.mills@isgltd.com

Owain Worsfold	Building Service Manager (TSM)	Office: NA
		Mobile: 07973668265
		E-mail: Owain.worsfold@isgltd.com
Vauhgn Davies	Commercial Manager	Office: NA
		Mobile: 07773 478 056
		E-mail: Vaughan.davies@isgltd.com
Rhodri Davies	Sustainability Manager	Office: NA
		Mobile: 07971103522
		E-mail: Rhodri.Davies@isgplc.com
Sarah McHugh	Document Controller (DC)	Office: NA
		Mobile: 07929025331
		E-mail: Sarah.mchugh@isgltd.com
DW	COSHH Co-ordinator (CC)	Office:
		Mobile:
		E-mail:
TBC	Site Safety Supervisor (SSS)	Office:
		Mobile:
		E-mail:
DW	Fire Safety Co-ordinator (FSC)	Office:
		Mobile:
		E-mail:
DW	Temporary Work Coordinator (TWC)	Office:
		Mobile:
		E-mail:
DW	Lifting Operations Appointed Person (AP)	Office: ———
		Mobile:
		E-mail: ———
OW	Electrical Appointed Person (AP)	Office:
		Mobile:
		E-mail:
Phil Nightingale	Senior Technical Services Manager	Office: NA
		Mobile: 07918 727152
		E-mail: Phil.nightingale@isgltd.com

Contractors

Details of the Contractors working on this project will be maintained on a project directory, a copy can be found in **Appendix 2**. This will be updated when new Contractors or staff members join the team.

Roles and Responsibilities of the ISG Project Team

This must be used as a check list throughout the various stages of the project.

Responsibilities – General	Role
Read and comply with the ISG Health and Safety Policy and Safety Management System.	All members of the Project Team(PT)

Actions / Responsibilities – Pre-Construction	Role
Organise and Chair Project Start up Meeting	HD
Identify significant hazards and read the relevant sections within the Safety Management System. Obtain from the Health and Safety department guidance and advice as required.	PT
Obtain any tender Health & Safety information such as the Pre-tender Health & Safety Pack. Prepare and maintain the Construction Phase Health & Safety Plan	HD
Issue the Construction Phase Health & Safety Plan to project team and all contractors.	HD
Prepare a Site Logistics Plan	HD
Obtain, complete and display a copy of the F10 Addition Notification	HD
Hazardous Waste Notification to Natural Resources Wales	AM
Obtain additional notifications from Local Authority, HSE etc	AM
Obtain and display a copy of the Health and Safety Policy Statement	AM
Obtain and display the current Insurance Certificate.	AM
Contact the service authorities and establish the location of existing services	OW
Prepare a project directory.	HD
Notify third parties e.g. adjacent projects, neighbouring houses, schools, businesses, etc. where necessary.	HD
Plan and arrange Site Welfare Facilities	HD
Plan and Arrange Temporary Services and Electrics	OW
Check that the temporary site building(s) comply with the requirements of the code of practice for fire prevention on construction sites.	AM
Ensure a comprehensive fire risk assessment is carried out.	HD
A fire detection system is installed within the Project Offices	AM

Important: Work shall not commence until the Principal Designer and Client are satisfied that this Health and Safety Plan has been satisfactory completed**.**

Actions / Responsibilities – Safety Planning	Role
Obtain Designers Risk Assessments/develop a Project Specific Risk Assessment and issue to the Contractors –	HD
Display Emergency Telephone Numbers on the site notice boards.	AM
Ensure Contractors have produced Works plans, Method Statements and Risk Assessments prior to any work starting	AM
Ensure all Contractor Works plans, Method Statements and Risk Assessments are reviewed before work starts	AM
Ensure all operatives, staff and members of the Professional team attend the project inductions	AM
Ensure all Contractors have identified Hazardous Substances and issued the associated COSHH Assessment and Material Data Sheets	AM
Review all COSHH Assessments	AM
Ensure areas have been allocated for material storage and that precautions and measures are in place for the storage of any hazardous materials	AM
Ensure adequate PPE is available for visitors	AM
Ensure Transport and Traffic Management Plan implemented and communicated to staff	AM
Ensure Major Incident Plan has been communicated to staff and procedures within implemented	AM
Ensure lifting operations are planned, controlled & supervised at all times. That a project lifting procedure is compiled maintained and reviewed.	AM
Ensure that daily co-ordination and weekly review lifting team meetings are held and recorded.	AM

Actions / Responsibilities – Supervision and Co-ordination	Role
Ensure all Risk Assessments, Method Statements and COSHH Assessments are communicated by the Contractor to their operatives.	AM
Issue requirements for weekly Tool Box Talks to Trade Contractors	AM
Implement Red and Yellow Card System	AM
Implement Monthly Contractor Health and Safety League	AM
Organise, attend and manage the following meetings as detailed in this Health and Safety Plan.	AM
Carry out daily inspections on site to review Contractor compliance with Method Statements and Risk Assessments	Project Team / Trade Contactors
Where necessary issue Improvement Notices or Prohibition Notices to Contractors.	All Site Staff

Actions / Responsibilities – Inspections/Records/Audits (cont)	Role
Ensure all mobile towers, podiums, delta-decks, ladders, step-ladders & podiums have a Suitable Tag (e.g. Scaff Tag, Ladder Tag), recorded on a plant register and that they are inspected: ▪ Every 7 days ▪ Before use ▪ After any event that could have affected stability	AM
Ensure all MEWPS, PECO's & ECO's have a suitable daily inspection tag / sheet attached the plant and a written register maintained: ▪ Every 7 days ▪ Before use After any event that could have affected stability	AM
Ensure all Hoists and lifts are recorded on a plant register and inspected: ▪ Before first use and visual daily check ▪ Weekly by operator ▪ Every 6 months by manufacturer / installer ▪ In accordance with manufacturers recommendations	AM
Ensure that all lifting equipment is identified and recorded onto a register and that inspections are carried out on all lifting equipment i.e. cranes, slings, chains, eye bolts, Fork Lift Trucks, Genie lifts, etc ▪ Before each and every use ▪ At least every 6 months by the appointed competent person ▪ At any other intervals recommended by the supplier	AM
Carry out and record weekly site safety inspections	AM
Carry out inspections on Excavations daily prior to work, and after any event that could have affected stability	AM
Inspect Confined spaces prior to any works	Contractor
Ensure all plant is recorded onto a plant register and that it is inspected ▪ Before use ▪ In accordance with manufacturers recommendations and planned maintenance schedule	AM check done
Ensure all electrical equipment is PAT tested and inspected: ▪ Before use ▪ Every 3 Months	Contractors / CM / SSM
Carry out safety inspections/system checks on the site conditions	AM
Carry out Health and Safety system audits on the implementation of the Safety Management System	GH
Report Health & Safety performance to the Client within the Project Reports and Client Meetings	AM
Provide the Principal Designer with the relevant documentation required for the H&S file. (If the PD is appointed by the client for the duration of the Design and Construction Phases) If PD is not appointed for the Construction Phase then it shall be the duty of the PC to compile and present the H&S file to the client.	AM
Chair the Project Four Weekly Health, Safety & Environmental Review Meeting	AM
Attend the Project Four Weekly Health, Safety & Environmental Review Meeting	ISG Project Team

Roles and Responsibilities of Client -Jane O'Leary

Throughout the project the Client will be responsible for:

- Clients have to ensure that suitable arrangements are made to manage the project safely.
- Clients have to ensure that suitable welfare arrangements are in place prior to and during construction.
- Clients to ensure that designers and contractors are promptly supplied with information relevant to their purposes.
- Clients to ensure that designers and contractors are promptly supplied with information relevant to their purposes.
- Client must ensure that contractors (Principal Contractors on notifiable projects) are informed of the minimum time to be allowed for planning and preparation before construction commences.
- On notifiable projects the Client must appoint in writing a Principal Designer and a Principal Contractor, otherwise he will himself be deemed responsible for the duties assigned to those roles.
- On notifiable projects the Client must ensure that construction does not commence before a Construction Phase Health and Safety Plan is in place.
- In addition to above the ISG will ensure that the client is aware of their responsibility in accordance which the following guidance document

Roles and Responsibilities of the Design Team

The Design Team will be responsible for:

- Not commence work on a project unless the Client is aware of his duties.
- Avoid risk to construction workers, cleaners, maintenance workers, and anyone affected by their activities, together with anyone using the structure if it is designed as a workplace, - (an important new requirement)
- Eliminate hazards, and reduce the risk from remaining hazards, giving priority to collective measures.
- Provide sufficient information regarding the design to assist the Client, Principal Designer, other Designers and Contractors.
- Not carry out design (other than initial design) for a notifiable project unless a Principal Designer has been appointed.
- Provide information regarding a notifiable design promptly so that the Health and Safety File may be prepared and issued on completion of the project.
- Ensure that the design takes into account the Workplace Health, Safety Welfare Regulations.
- In addition to above the ISG will ensure that designers are aware of their responsibility in accordance which the following guidance document

Roles and Responsibilities of the Principal Designer

The Principal Designer is responsible for:

- On notifiable projects the Principal Designer will be required to advise and assist the Client, in addition to his current duties to co-ordinate and to liaise with the Designers and the Principal Contractor. Through this closer relationship with the Client the Principal Designer is expected to have greater influence than hitherto, however, the Principal Designer has not been given authority in his own right and will be dependent on the Client in this respect.
- The Principal Designer will be responsible for ensuring that the information required from the Client is obtained and issued to all who require it. However, the Principal Designer will not be required to prepare a formal Pre-Construction Health and Safety Plan, but information required from the Client, Designers and others must be included in the package issued to the Principal Contractor (Pre-Construction Information Pack).
- Where the Client has appointed a Principal Designer for both the Pre-construction and Construction phases, the Principal Designer is required to prepare the Health and Safety File and pass it on to the Client at the end of the construction phase.
- If the Principal Designer's appointment concludes before the end of the project, the Principal Designer must pass the health and safety file to the Principal Contractor
- In addition to above the ISG will ensure that the Principal Designers is aware of their responsibility in accordance which the following guidance document

Roles and Responsibilities ISG

- For all projects that require a Principal Designer, contractors must not commence work unless they have been provided with the names of the Principal Designer.
- ISG will ensure that every contractor is informed of the minimum time provided for planning and preparing before construction works commences.
- ISG will ensure that every construction worker is provided with suitable site induction training.
- ISG will ensure that their employees have been provided with the necessary information and training, and that other contractors have complied with a similar duty.
- ISG is responsible for planning, managing and monitoring the construction works, and for ensuring that the other contractors carry out their duties.
- ISG is responsible for giving access to the relevant parts of the Construction Phase Health and Safety Plan to the other Contractors, and for consulting with those contractors before finalising the relevant parts of the Plan.
- ISG is required to identify from each contractor the information required for the Health and Safety File, and to ensure that the information is promptly provided to the Principal Designer.
- If the Principal Designer's appointment concludes before the end of the project, ISG will ensure the Health and Safety File is appropriately reviewed, updated and revised from time to time to take account of the work and any changes that have occur

3. Health and Safety Objectives and Standards for the Project

Company Goals

Whilst undertaking these works it is our policy to endeavour to:

- Prevent accidents and ill Health to our employees, Client, Trade Contractors, third parties and members of the public
- Ensure all works are carried out in accordance with all relevant Legislation and Codes of Practice.
- Provide a place of work that is safe and without risk to the Health, Safety and Welfare to all those involved in the project and third parties
- Create a positive Health and Safety culture and ensure that Health and Safety is our highest priority
- Consult and communicate to all those involved in the project and listen when feedback is given
- Reward those who make a positive contribution towards Health and Safety Best Practice
- Cause minimal Environmental Impact and damage

Project Specific Goals

The specific goals for this project are to execute the works with:

- Maintain high standards of Health, Safety and Welfare at all times to always ensure we achieve a company standard project.
- To achieve zero reportable accidents and incidents
- Have no incidents relating to any lifting activities
- Reward High standards of Health and Safety and Best Practice
- Act on all reported un safe acts and conditions
- Minimise disruption and nuisance to other tenants
- Ensure all operatives and visitors wear the correct PPE at all times throughout the project
- Undertake monthly review of these goals
- **Client specific requirement**

4. Information for Contractors

Information from Design Team

All Designers Risk Assessments will be reviewed and issued to the appropriate Contractor, so they can take into account the risks and control measures identified when planning their works.

A register of all drawings prepared by the Design Consultants, and the Contractors will be maintained on site, via the document control system. All drawings and specifications will be reviewed and issued to the relevant Contractor associated with the works, or who may be affected by the works.

Inductions

All personnel (including visitors or the Client's professional team) wishing to access and work on this project must attend the site safety induction. On this project there will be 4 types of Induction (amend as required):

- Full site-specific induction – which everyone **shall** attend
- Site supervisor's induction – which the Contractors Foreman and Site Managers **shall** attend
- Lifting team induction which all members of the project lifting team **shall** attend.
- Visitors induction – which **all** visitors **shall** attendThe full site induction will be given daily at: [insert time and location]

All personnel attending the ISG induction must bring with them relevant training and competency cards or documents. Personnel must also be able to identify who they are employed for on the project.

This informs all operatives, staff and management of the specific risks associated with this project together with the arrangements in place for Health, Safety and Welfare.

The Supervisors induction is specifically addressed to the site management and foreman and is to complement the full Site Induction. This tells the Contractors site management and foreman what we expect from them and how we expect them to behave and act to set a good example to others and in particularly their own operatives.

The supervisor's induction **shall** be given to each supervisor before they commence work on site and shall be signed to indicate acceptance, understanding and compliance before access to site.

The site visitor's induction will be given to every visitor that comes on to this site, including our own staff (no matter how senior), any HSE Inspectors, any person from the client's team etc. This induction highlights specific risks to any visitors Health and Safety whilst they are on this site. The visitor's site induction shall be read by/to each visitor as they sign in at the security / signing in point. Additional information may be given to them as required.

It should be noted that whilst the CSCS card (Construction Skills Certification Scheme) is the accepted standard for operatives on site, there may be instances where this 'card' is not held/inappropriate; in these cases, consultation with ISG will ascertain the standards etc of the required operative. Whilst no unreasonable request shall be refused this does not give Companies the automatic right to introduce non CSCS carded operatives and supervision.

Note: All visitors to site will need to be **accompanied at all times** when they are not in a clearly designated safe route or area.

Non-English-Speaking Personnel

All 'non-English speaking' personnel must be able to receive English spoken and written site communications and instructions.
The standards of safety competence and training requirements required within the contractor's workforce are constant for all personnel regardless of native origin and/or language spoken.
The contractor is fully responsible for all additional resources and associated costs required to affect satisfactory levels of 'competence' and 'communication' within their workforce."

In addition, when companies employ non-English speaking operatives as a substantial part of their site workforce, they are required to ensure that approved copies of Risk Assessments and Method Statements (RAMS) and other relevant 'paperwork' are supplied in the appropriate language(s).

Health and Safety Information Posters

Site health & safety posters and Statutory information will be displayed within the following area: **Canteen**

5. Trade Contractor Selection Procedures

Tendering and Trade Contractor Selection

Tender lists will be prepared of potential Contractors. Contractor's past safety performance will be considered by referring to the ISG Contractor database or by taking up references from other Companies that demonstrate an unsatisfactory safety record will not be invited to tender.

Each potential Contractor should be selected from the Contractor Directory as 'Green Do Use', as this shows that they have passed the Pre-Qualification process and demonstrated their Health & Safety competency. Any potential contractors which are not listed on our Contractor Directory will be asked to submit a Pre-Qualification Questionnaire. The returned questionnaire will be checked by the Health & Safety Department to determine competency.

Potential Contractors will be sent tender documentation, including drawings and specification, a copy of this Health and Safety Plan and associated Health and Safety information. **Also, each potential Trade Contractor will be required to complete a Health and Safety questionnaire which assesses their Health and Safety competency and it requests them to demonstrate their previous experience of similar projects to this one.**

All potential Contractors **shall** be required to attend a post tender interview prior to their appointment to review their procedures/arrangements for managing Health and Safety; this will be the final check to ensure that they have allocated sufficient resources for Health and Safety for this project.

All Trade Contractors to supply up-to-date insurance certification before commencement of any works. (Public liability and Employers liability are mandatory for all contractors on all projects. Professional indemnity is required where the trade contractor has a design responsibility).

Design and Build Projects

For Design and Build Projects the following arrangements are in place for selecting competent designers; PN has approved all consultants for this projects.

6. Co-ordination, Communication and Co-operation

Construction Programme

All works will be carried out in accordance with the Construction Programme(s) as prepared and updated as required. The Construction programme sets a sequence to which all design and works are to be undertaken in a safe and logical approach.

To assist the design team in prioritising the release of design information and associated Designers Risk Assessments, an Information Required Schedule (open items) will be produced. This will link the release of design information to the construction programme and Contractor package procurement. The Designers will be required to follow this schedule in order that each package obtains all the relevant information, including the relevant Designers Risk Assessments at the required time.

Project Meetings

To assist in the smooth running of this project the following project meetings have been implemented to assist in Co-ordination, Communication and Co-operation between all parties involved.

Meeting	Purpose	Parties Involved	Frequency
Design Team Meetings	Co-ordinate design Resolve design issues Monitor information release	TBA Contractors ISG	Weekly
Client Project Meetings	Gives Client an overall picture of the project, including Health and Safety	ISG All member of the Client Project Team	Fortnightly
Contractor Directors Meeting	Review project Health and Safety, progress, and financial issues with the Contractors Directors.	ISG Contractors	Monthly
Contractor Progress Meeting	Review progress against programme Resolve co-ordination issues Discuss key issues including Health and Safety	ISG Contractors	Weekly
Contractor Health and Safety Meetings	Review all aspects of Health and Safety on site with all Trade Contractors supervisors	ISG Contractors	Weekly
Four Weekly Health, Safety, Quality and Environmental Review Meetings	Internal review of the HSQE performance and issues over the past month.	ISG Project Team	Monthly
Contractors Supervisor Walk round	To resolve all co-ordination issues on site. Resolve housekeeping and material storage issues	ISG Trade Contractors	Weekly

Meeting	Purpose	Parties Involved	Frequency
Lifting team weekly review meeting	To ensure co-ordination, communication and update of the project lifting plan.	Daffyd Williams Howard Davies Gary Harsant	Weekly
Lifting team daily co-ordination meeting	To ensure co-ordination of contractors using lifting equipment on the project	**Daffyd Williams**	Daily

Hazard Identification and Communication

Prior to any works on site starting each Contractor **shall** be required to produce and issue Method Statements, Risk Assessments (which shall include Working at Height and Noise Assessments in line with current legislation) and where necessary COSHH Assessments. These will be reviewed by the package manager and maintained within the project office. Where lifting operations are required these items shall be reviewed by the ISG Appointed Person and incorporated within the project lifting plan.

Each Contractor **shall** be required to communicate the contents of all their Method Statements, Risk Assessments and COSHH Assessments to their operatives. Evidence of this must be provided to the Package Manager prior to works starting. Reference should be made of section 4 on non-English speaking personnel.

As design develops through the Construction phase, the Design Team **shall** be required to produce and update Designers Risk Assessments. These will be requested by the Project Manager, and when received will be reviewed and issued to the appropriate Contractors and those that are affected by the findings on the Risk Assessments.

Tool Box Talks

Each Contractor will be required to carry out weekly Tool Box Talks to their operatives to communicate and reinforce Health and Safety issues, and the requirements of Method Statements and Risk Assessments. All Tool Box Talk records will be maintained within the Project Office and can be requested by ISG Management as part of the weekly H &S Returns.

Liaisons with Enforcement Authorities

All visits from an enforcement authority representative or inspectors must be notified to the Head of Health and Safety/ Head of Sustainability and the Divisional Managing Director as soon as they have been completed. The Enforcement Authority Activity Sheet form should be completed.

Co-operation must be given to Enforcement Authority inspectors always and any instructions complied with. All correspondence received from the Enforcement Authority must be copied to the Head of Health and Safety/ Head of sustainability. The head of Safety/Sustainability, the Divisional Managing Director or their designee(s) must approve any proposed reply.

Third Party and Client Considerations

Co-operation and communication with third parties and the Client will be maintained at all times throughout this project. The following third party and Client considerations will be taken into consideration:

Issue	Comment
Noise	**See Working Restrictions**
Access	**Goods required to be booked in with Site Logistics**
Occupied Building Hazard(s)	**Area(s) of Restriction apply to Site Boundaries**
Considerate Constructors & The Public	**Regular harmonisation meetings -Weekly meeting with client representative, the project will be registered with the CCS scheme and target a minimum score of 40. All compliants relating to project should be made in the first instance the site manager by using the suggestion box or verbally on site (by appointment). The complaint will then be followed up by Miss Harriet Wade (Social Value Officer). Wheel washing and road cleaning will be achieved by;** **1.** Road Sweeper **2.** Power Washer located at main gate

7. Project Specific Health and Safety Risks

Construction Phase Hazard Identification and Risk Assessment

Prior to works starting each Contractor **shall** be required to identify significant hazards and prepare Risk Assessments and Method Statements (RAMS) for each work activity. These will be reviewed and authorised by the Package Manager. Copies of all Contractor Risk Assessments and Method Statements will be maintained within the project office.

Specific Project Risks

The specific Risks associated with this project have been detailed in the attached project risk register; these have been identified from the Designers Risk Assessments provided in Appendix 3

Control of Substances Hazardous to Health

Where harmful substances cannot be substituted with less harmful substances, each Contractor will be required to maintain and issue a register containing all harmful substances that they intend to use on this project.

For each hazardous substance or process identified, the Contractor responsible **shall** produce a task specific COSHH Assessments and issue a Material Data Sheet for the substances. These will be maintained within the project office. Each COSHH Assessment and Material Data Sheet **shall** be reviewed by the Package Manager; where possible alternative solutions will be offered to minimise, and reduce the risk to health and the environment.

When using Hazardous substances, the Contractor must provide evidence that the findings of each COSHH Assessment has been communicated to their operatives and those affected by the use. These records will be maintained within the project office.

Special attention and control measures **shall** be given to the use of the following substances / activities to prevent the risk to the Health of third parties and other operatives:

Activity / Substance	Control Measures
All Construction generated Dusts / wood dusts	• Vacuums used in place of brooms wherever possible • Design review to eliminate mechanical cutting where possible • Vacuum extraction complete with M/H class filtration, for mechanical wood cutting operations • Best available suppression system to be used for cutting silica based products • Dedicated cutting and mixing zones to be established remotely from the workforce and other stakeholders. • Minimum FFP3 face masks to worn where highlighted in COSHH assessment. The wearer is to be clean shaven and possess a current valid face fit certificate for the face mask used.
Solvent Glue	Adequate ventilation/PPE
Dosing Chemicals	Certificate to Discharge into water supply will be required
Adhesives	COSHH Assessments/Ventilation
Red Oxide/Galvafroid/Solvent Paints	COSHH Assessments/Ventilation
Soldering/Welding/Gas cutting	COSHH Assessments/Ventilation

Asbestos [delete section if not applicable]

Short statement to say it's a new build or that the building was built after 2000 therefore no ACM's were used in the construction of the building.

Whenever ISG are working in a building that was constructed prior to the year 2000, there is a risk that Asbestos Containing Materials (ACM's) may be present. Information on whether the building contains asbestos can often be found in the Pre-Construction Information provided by the Client and/or Principal Designer in the form of either an asbestos management plan or Refurbishment and Demolition survey report. An asbestos management plan on its own wouldn't be acceptable as sufficient information

If no such information is available, or there is no evidence of a previous asbestos removal being conducted, then you will need to commission a Refurbishment and Demolition survey from a licensed surveying contractor (the contractor must be selected from the ISG data base) if your work disturbs the fabric of the building in any way.

Contractors carrying out the survey, removal and air clearance should be different contractors. It is acceptable however with permission from the Health and Safety department for the survey and air clearance company to be the same, however under no circumstances should the removal company be involved in the survey and/or air clearance

When site teams are in possession of a Refurbishment or Demolition Survey, they will need to compare ISG's scope of works to the asbestos survey report to ensure all areas in which ISG contractors will be undertaking any form of intrusive works are covered by the survey. A project Asbestos Management Plan shall be produced by ISG which shall be available and maintained during the project.

If there is any doubt, or if contractors are to work in areas that have not been surveyed, work must not commence or where work is being undertaken then this must be STOPPED IMMEDIATELY, until an appropriate survey (Refurbishment and Demolition) has been completed. If the scope of work is extended into areas previously un-surveyed, then a further survey shall be undertaken to check for the presence of asbestos.

All ISG project staff will need to have had accredited Asbestos Awareness & Management training, either from UKATA or IATP so they know how to manage the risks. All Sub-contractor personnel must have received asbestos awareness training prior to commencing works on the project. This should be provided by a UKATA registered or similar accredited training provider e.g. IATP (Independent Asbestos Training Provider) and a current (annual) training certificate must be in place. It is essential that the Asbestos procedure is followed in full and that all contractors are fully aware of this procedure

All relevant documentation must be contained within the Asbestos file or kept electronic

Where Asbestos is encountered or has been disturbed on site, please contact a member of the European Asbestos Services Team to arrange an emergency decontamination. The number below operate as a 24/7 hotline		
Darrell Spillane	**London & SE**	**07831476929**
		07831476929
Ben Delacherie	**South West**	**07780957890**

Vibration at Work (Hand Arm Vibration)

Specific activities have greater chance of causing vibration injuries than others on site. It is therefore important that all jobs be 'risk assessed', initially to ensure those with a risk of vibratory injuries are recognised. Any job assessed as having a risk of vibratory injury shall be fully 'risk assessed' by the Contractor involved to ensure a full method of use including a Safe System of Work is fully developed. This system should be developed in such a way that the risk is recognised and 'trigger times' are not over reached, primarily by the rotation of the work through different operatives, or any other way the Contractor decides.

Manual Handling

All Manual Handling activities shall be the subject of a job specific risk assessment and Method Statements as required. These shall be made with a view to eliminating or reducing the manual handling as much as possible with training in Manual Handling techniques frequently carried out in the form of Tool Box Talks etc as required.

Whilst some manual handling cannot be avoided every opportunity should be given to either eliminate or reduce any manual handling by a choice of the following methods:

- Use of wheeled bins
- Flatbed trollies
- Sack trucks
- Pallet trucks
- Stillages
- Other mechanical means

It should be noted that this list is by means exhaustive and other means can and should be utilised as appropriate to reduce manual handling activities as much as possible.

Contractors should be aware of the HSE recommendation of the maximum single person lift of 25 Kgs. However, they should also be aware that this is not an all-encompassing restriction – each person is an individual with their own limitations. There is therefore a requirement for group training to ensure that 'team lifting' is used for the heavier lifts.

It will therefore be a prerequisite for contractors to review construction with available access restrictions to ensure material is able to be fitted with due cognoscente of the Manual Handling Regulations. Specific examples are [add / delete as required]:

- Chilled Beam Installations
- Toilet Pods
- Sliding/Folding Partitions
- Joinery Partitions/Ply Board
- Glass Panelling
- Gypsum Boarding
- Pipe work
- Steel work
- Brick & Block work

Attention should also be given to the ramping of the storage area and the 'run off' from the hoist.

Noise at Work

The Noise at Work Regulations require construction operations to have a 'Noise Risk Assessment' carried out before work commences (to be submitted with the Method Statement for approval by the Package Manager). To conform to these regulations all activities shall be monitored for Noise and standards maintained. ISG Site Management, Contractor Supervisors and Operatives shall be trained as required in the actions to be taken requirements according to each Action Level (especially the 1st level of 80 dB(A) and the 2nd level of 85 dB(A).

Working at Height

All work at height shall be monitored closely as statistics indicate that falls of both personnel and materials are responsible for a large amount of the accidents on Construction Sites. To this end Working at Height Risk Assessments shall be produced for all activities at height, no matter the height to be worked at. Risk Assessments shall be presented for acceptance with the Method Statement required for all activities on site. The risk assessment shall indicate how attempts to avoid work at height have been looked into, and if required, the provision of stable, fenced work platforms, to work from.

The use of step ladders and hop-ups is not permitted on ISG projects. Instances where there is no other viable alternative a justification report is to be produced and submitted to ISG at least 24 hours prior to use. Control measures associated with the use of step ladders will be detailed in the justification report. In the scenario where it is accepted that the use of step ladders is justified, a permit for that operation will be issued.

Any ladder found in breach shall be removed from site.

All Contractors must comply with the ISG Approved Access Equipment Policy - [LINK]
The ISG project team and Contractors will comply with the ISG - [LINK]

Scaffolding - Fixed Scaffolding

All fixed scaffolding provided **shall** be erected, altered or dismantled by trained and experienced persons under competent supervision. All Scaffolders Record Cards will be recorded and maintained on a register kept within the Project Office.

The Scaffolding Company **shall** be required to issue the ISG management a handover certificate, to confirm a competent installation. The handover certificate will be kept on site.
From the day of handover, weekly inspections will then be undertaken and recorded by a competent person (this will be under taken by the installing Scaffolding Company). Records will be maintained on site. The Scaffolding Company **shall** provide the register and this will be kept within the project office.
An inspection will also be undertaken and recorded after the scaffold has been adapted and altered. Only competent persons can alter and adapt scaffolding.

The requirement of Monoflex sheeting shall be reviewed case by case and shall be assessed for whether it's purpose is for weather protection or falling debris protection.

All scaffold works will be undertaken in accordance with ISG scaffolding minimum standard. [LINK]

Working at Height Access Equipment

Mobile Towers

All Contractors bringing Mobile Scaffold Towers onto site **shall** ensure that they are:

- Erected by a trained and competent person (PASMA trained or Equivalent).
- Erected in accordance with the manufacturers' recommendation and Method Statement. The manufacturers' guides are made available.
- Mobile scaffold access towers and podiums shall be inspection following erection and prior to use.
- The inspection shall be undertaken by a suitably competent person.
- Mobile scaffold access towers are to remain static should be further inspected at intervals of no greater duration than every 7 days/or sooner should the scaffold have been damaged or affected by/been subject to extreme weather conditions or any other event that might have compromised its integrity.
- The result of inspections shall be recorded using the 'scaff tag' system and a record of the equipment inspected maintained using the ISG Mobile Scaffold Tower & Podium (Inspection) Register.
- Completed inspection registers shall be forwarded to ISG via the Contractors Weekly Meeting – NB: The completion and maintenance of these register by contractor shall form part of the ISG Contractors Safety League scoring criteria.
- Daily inspections **shall** be undertaken by the ISG Project Lead/Nominated Manager/Site Safety Co-ordinator to ensure compliance.

PECOs, Push Along Vertical (PAV) & MEWPs

PECOs, PAV's and MEWPs are subject to Report of Thorough Examination by a competent person every 6-months under LOLER. Such reports should be retained in contractor folders.

All MEWP's are to be issued with a plant sticker upon receipt of a current Through Examination certificate.

The equipment should also be visually inspected by the operative before use and also on a weekly basis. The daily / weekly inspections should be recorded and submitted each week by the trade contractor.

Persons carrying out daily and weekly checks on such equipment must receive familiarisation training on the equipment as a minimum.

Where MEWPS can be driven or are articulated boom types the operative must be IPAF trained.

The Contractor must brief all operatives on rescue procedures for PECOs and MEWPS.

The Operator must have documented familiarisation training on the make and model, be fit to work and possess the relevant category of PAV, IPAF or CPCS.

Anti-collision controls are to be installed on all MEWPS in accordance with the ISG working at height policy [LINK]

Podiums & Delta-Decks

Any podium used on an ISG Project must be compliant to BS8620 which sets the benchmark for strength, access, stability and rigidity.

Podiums shall only be used where mobile towers, PECOs or MEWPs cannot be reasonably used.

Podiums & Delta-decks must be erected and checked by suitable trained individuals and a scaff tag system used with 7-day inspections.

Podiums must be erected as per manufacturers guidance with outriggers fitted and deployed where applicable.

Podium breaks must be engaged and the gate shut when in use.

Tool Tethering

When undertaking works at height, **all hand tools must be fully tethered** (unless a risk assessment has been undertaken which determines a tether would introduce additional greater risks, with this accepted by the ISG management team), when;

- Working within 3m of an opening or edge of structure,
- When working >3m externally to a structure,
- When working in a situation where a tool could fall a distance of more than one storey (3m>),
- Where there is a risk of tools falling more than one storey within a building e.g. risers, stairwells, shafts, atria and entrance halls,
- Any location where tools could fall in to PPE free zones or a public area, or when persons are working immediately below the work area.
- **<u>If any of these conditions exist, tools MUST be tethered AT ALL TIMES</u>**

Any contractor undertaking any works at height where there is a risk of falling materials must reduce the number of loose items being taken to height wherever possible. This could be achieved through the design process, fixing at ground level or merely limiting loose components at any given time.

Material Storage and Distribution

See Appendix 6 Logistics plan.

LPG – Storage and Use

LPG and highly flammable liquids **shall** be stored in a secure well-ventilated cage, and kept separated from other materials. Additional warning signs will also be put up to warn operatives of the risks.

When not in use LPG Cylinders **shall** be kept in their storage areas, this includes empty cylinders. **The use of LPG will be under strict control and subject to authorise Method Statements and Risk Assessments.**

The use and storage of LPG's will in accordance of the project fire risk assessment and 9th Edition of *the joint Code of Practice on the protection from fire of construction sites and buildings undergoing renovation.*

See Appendix 6 Traffic Management and Logistics plan for further information.

Storage of Fuels, Oils and Chemicals

Fuels, oils and chemicals shall be stored away from drains and watercourses, to prevent them from entering the water table through accidental spillage. They will also be stored in well ventilated areas.

In addition, all fuels, oils and chemicals will be stored in specific bunded areas (110% of the total volume of the contents) or in double skinned containers which are secure and safe from accidental damage and vandalism, and shall have a spill kit located close to them.

Additional control measures are detailed in the Project Sustainability Plan.

See attachment 1 Logistics plan for further information.

Access / Egress Arrangements / Transport and Traffic Management

This site is planned and arranged in such away and has the necessary control measures in place to reduce the risk of an accident involving vehicles and the transportation of materials.

Pedestrians and vehicles have been segregated by means detailed in the project Logistic Plan.

ISG will monitor and review the existing site layout, and the existing environment, including the Risk Assessment and the Logistic Plan on a regular basis.

A Logistic Plan specific to this project has been included as Attachment 1 and defines:

- Security arrangements
- Client occupied areas
- Access/Egress points to the build and site
- Traffic/Pedestrian routes – include one-way systems (if applicable).
- Location of temporary site accommodation (site offices, toilets, drying rooms, canteen etc).
- Safe walkways to the site accommodation (day one only).
- Location of unloading, layout and storage areas
- First Aid Points
- Fire Points
- Emergency exits
- Location of fixed plant, such as Hoists, Scaffold Gantries etc.

Transport and Traffic Management

- Hoist Procedures – which shall be formulated prior to the completed installation of the hoist and before use.

This plan will be updated and re-issued as site conditions change.

Security Arrangements

To prevent unauthorised access to site the following arrangements will be implemented:

Description
1. Reactive guarding using remote cameras and sensor activation systems
2. Local community / campus networks

Plant

The following items of plant have been provided for common use, to assist in material delivery and as means of access and egress:

TBC

These items of plant will only be operated by a trained person i.e. by a person who holds a valid CITB CTA, NPORS card or submits a letter signed by their Employer confirming that they are competent to operate the item of plant.

A record of all items of plant listed above brought onto site, together with details of their operators, will be maintained and evidence of periodic checks from plant hirers that the plant has been adequately maintained, will be obtained and maintained on site.

All plant **shall** be regularly maintained, and an authorised maintenance schedule **shall** be maintained on site.

Common use Plant and Machinery

Machinery and other plant to be supplied for common use, such as hoists, cranes etc will be properly selected, taking into account Safe Working Loads and logistics, correctly used by trained and authorised personal only, and maintained. Training will be provided by the Trade Contractor supplying the equipment. Only authorised competent personnel will be allowed to operate such equipment.

Lifting Equipment and Lifting Operations

All lifting operations will be undertaken in accordance with the ISG Lifting standard LINK

Tests, thorough examinations and inspections **shall** be carried out in accordance with the Lifting Operations and Lifting Equipment Regulations (LOLER) and the relevant ACOP. Crane companies shall provide copies of relevant test certificates prior to their equipment being used on site. These will be maintained within the project office.

All lifting equipment and lifting activities shall be planned, controlled and supervised by the ISG Appointed Person and in accordance with the Project Lifting plan and ISG Lifting Procedure.

A written Method Statement and Risk Assessment **shall** be required prior to implementation for every lifting operation (excluding material deliveries using the hoist), which clearly identifies the measures necessary to control any potential hazards and risks which may arise.

Only those operatives that have had specific training relevant to the task they are under taking will be allowed to participate in any lifting operation.
Temporary Works

All temporary works are to be undertaken in accordance with the Temporary Works procedures.
A temporary works register shall be completed and maintained on site.
All elements of temporary works that will be installed on this Project are detailed in the project Temporary Works Register [LINK]

The design, checking, installation and removal of all elements temporary works will be undertaken in accordance with ISG temporary works procedures [LINK]

Each site shall appoint a Temporary Works Coordinator (TWC) where the temporary works identified are greater than low risk i.e. sites do not need to appoint a TWC where the only temporary works on site are 110v Temporary Electrical System and simple temporary site office and welfare and hoarding.

All designs of temporary works must be retained within the temporary works folder. Where items are rated as Cat 3 they shall be subject to independent 3rd party design checks which shall also be retained in the Temporary Works File.

When any item of temporary works is being erected, amended or struck; a Permit to Erect/Amend/Strike shall be completed and the Temporary Works Register updated. Any temporary means of support e.g. acro props, excavations and hoarding are subject to weekly recorded inspections or more frequently e.g. where adverse weather conditions occur.

Temporary Services

All work on the installation, maintenance and removal of temporary electrical services is to be undertaken in accordance with the ISG Electrical Safety Rules and Procedures

The following temporary services will be provided:

SERVICE	LOCATION
110v power distribution and transformers	As required
415v power supply for welding equipment and flushing equipment	To be determined by the trade contractor
Water supplies	Within the canteen and in the washing area / water shown on the logistics plan

All electrical supply installations **shall** comply with IEE Wiring Regulations and Electricity at Work Regulations. .

Temporary electrical installations are to be installed to a design.

A schematic drawing detailing the layout and loadings should be provided by the installer

All mains powered portable electrical equipment and tools used on this project **shall** be 110v, PAT tested, identified and recorded onto a plant register. A copy of all plant registers will be maintained within the Project Office. The site 110v temporary electrical installation shall be inspected and tested. every 3 months by a competent person.
All Electrical equipment will be subject to planned maintenance and inspections by a competent electrician:

Equipment	User Checks	Formal Visual Inspection	Combined thorough Inspection and Testing
Office equipment such as computers	No	Yes, every 2 years	Yes, up to 5 years
Photocopiers, fax machines	No	Yes, 2 – 4 years	Yes, up to 5 years
Earthed Equipment E.g. Kettles	No	Yes, every 6 months	Yes, every 12 months
Hand held tools	Yes, prior to use	Yes, every 2 – 4 weeks	Yes, every 3 months
Cables / leads	Yes, prior to use	Yes, every 2 – 4 weeks	Yes, every 3 months
Fixed Installations	No	Yes, earth loops and RCD's every 12 months	Yes, every 5 years
RCD's Portable	Daily / Every Shift	Weekly	Before first use on site and then monthly
RCD's Fixed	Daily / Every Shift	Weekly	Before first use on site and then 3 monthly

Suitable and sufficient safety lighting to be provided:

- Every work places
- Every traffic routes
- Every dangerous opening

Provision will also be made for Emergency lighting in case of mains / power failure.

Contractors shall provide task lighting to undertake their works

Note: Halogen lamps **shall not** be used in any form on this contract.

All drainage systems and manhole covers will be identified, blue for surface water and red for foul water system. All waste connections and toilet sewage will be correctly connected to the foul water drainage system (red) and not the surface water system (blue). All foul water connections will be done with permission from the local sewerage undertaker.

Provisions **shall** also be made for disposing of chemicals from activities such as flushing and washing out paintbrushes.

All gas supplies **shall** be installed by a member of the Gas Safety Register.

Permits to Work

Permits will be required for the following work activities

Permit/Activity	Authorised Signatory	Maximum Duration
Hot works	ISG	Daily
Confined space working	ISG	Daily
Demolition	ISG	Prior to commencing demolition
Use of ladder or stepladder or hop-up	ISG	Duration of task
Break ground / excavation	ISG TWC	Designated excavation
Live electrical work	Building services manager/ Approved person / Electrical Duty Holder	
Removal of Void protection	ISG	Daily
Permit to load/ strike	TWC	Per activity

In addition, as indicated in **section 7** Working at Height an ISG permit shall be required for any step ladders required to be used on site.

Further procedures shall be prepared and displayed as required.
These form **part** of a **Safe System of work** and **shall** be complied with at all times. All details and parts of the permits must be completed before they can be authorised.

ISG management will provide Contractors with a coloured armband ensuring that the permit is displayed within it and that the armband is worn by the individual who has signed the permit whilst the permit is live.

A live permit board which allows an A1 site plan to be attached. The board is used to display the location of any live permits; coloured counters are used to differentiate between the different permit types, the counters are also numbered to correspond with the permit number

The electrical installation permits are to be issued in accordance with the ISG electrical rules **link to ISG Electrical Rules to be inserted**

8. Emergency Procedures

Emergency Numbers

Emergency telephone numbers will be prominently displayed on the site notice boards and will be issued to all members of the Project Team. Appendix 7.

The following are the emergency service telephone numbers:

Service	Telephone
Fire	**999**
Ambulance	**999**
Police	**999**
ANTI – TERRORIST HOTLINE	**0800 789 321**
Local Hospital Address: **Coity Rd, Bridgend CF31 1RQ** **01656752752**	 https://www.google.co.uk/maps/place/Princess+Of+Wales+Hospital/@51.5258003,-3.5717884,14.69z/data=!4m5!3m4!1s0x0:0x537c66da0c137344!8m2!3d51.51741!4d-3.5723825

The following ISG personnel can be contacted in the event of an accident/ incident / near miss or emergency:

Role	Contact Name	Mobile Number
Site Manger	Adrian Mills	07909 682590
Health & Safety	Gary Harsant	07870 363072

Major Incident Plan

Detailed procedures for different types of emergencies are to be specified within the ISG Major Incident Plan.

First Aid

The following are qualified first aiders:

Name	Certificate expiry date
Adrian Mill	11/07/2021

The first aiders on site will identify themselves by wearing Hard Hats with a White Cross on a Green background.

All Contractors are to provide suitable and sufficient 'First Aiders' and equipment in accordance with the Health and Safety (First-Aid) Regulations .

The following equipment is located on site, the equipment is inspected week to ensure that it is maintained and fully stocked.

Equipment	Specification	location
First Aid kit no 1	20 Person	Site Office
Decontamination shower	Dowsing shower	Welfare
Defibrillator NO 1	Standard	Site Office
Eye Wash station	Standard	Site Office
Burns kit	Standard	Site Office

Based on risk assessment contractors are to have a fully stocked first aid kit and a fully trained first aider.

A copy of all first aid certificates will be maintained within the project office – only those 'First Aiders' whose certificate copies are lodged in the project office will be deemed suitable 'First Aiders' for this site.

The project team and workforce have access to the following mental health first aiders

Fire Prevention - Refer to Fire Risk Assessment and Plan

9. Accident and Incident Reporting

Accident and Incident reporting

Within ISG there are 7 classifications of accidents / incidents that we record:

1. Any incident involving Plant & Equipment
2. Near misses
3. Dangerous Occurrences
4. Minor injury
5. Lost time (ISG anything over 1 day) 7 day +
6. Major injury
7. Fatality

All accidents / incidents that occur on this site including those that occur to Contractor operatives and visitors shall be recorded immediately on the ISG accident investigation form

All accidents recorded within the Accident Book, to Trade Contractor operatives **shall** also be recorded in their Employers Accident Book as well.

Incidents that have the potential to classified as 3,5,6 or 7 will be reported in accordance with the ISG significant event reporting protocol.

In the event of a Reportable Accident or Dangerous Occurrence the Major Incident Plan **shall** be referred to. This complies with the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations.

- Contractors shall ensure that all accidents are recorded within their own accident book following any injury to their personnel. All accidents shall be recorded in the ISG accident book.
- All accidents and near misses must be reported to ISG Safety Department immediately to allow internal company procedure of accident and dangerous occurrence procedure to be followed.
- ISG and all Contractors SHALL ensure a company director attends site within 48 hours of an employee been involved in a Significant Accident/Incident.
- Reporting of injuries, Diseases and Dangerous Occurrences Regulations.
  (a) accidents causing injuries, fatal and non-fatal
  (b) occupational diseases and
  (c) dangerous occurrences, even when no injury results
- The relevant contractor shall investigate all HSE reportable accidents and a suitable accident report shall be submitted to the Project Lead. The Statutory reports form F2508 used to notify the HSE of such accidents should also be copied to the Project Lead.

Calling for the Emergency Services

- Only personnel from ISG or Security are to call the emergency services unless otherwise directed.
- Security or a designated person will be the entrance to the site to escort the emergency services to the location of the incident.

See section 8 for the near hospital contact details.

Near Miss Reporting

- **All near misses must be reported immediately to ISG on a Near Miss Form**
- **All near misses will be investigated by ISG, who will take the appropriate action**

Welfare Facilities

The following project office, welfare facilities and storage areas **shall** be provided (size and number) by ISG.

Facility	Location (what3words)
Project Office(s)	///marmalade.strain.erase (adjacent Rhoose Way)
Induction Room	///marmalade.strain.erase (adjacent Rhoose Way)
Meeting Room	///marmalade.strain.erase (adjacent Rhoose Way)
Canteen	///marmalade.strain.erase (adjacent Rhoose Way)
Drying /Locker Room	///marmalade.strain.erase (adjacent Rhoose Way)
TOILETS/Washing – MALE	///marmalade.strain.erase (adjacent Rhoose Way)
TOILETS/Washing - FEMALE	///marmalade.strain.erase (adjacent Rhoose Way)
HOT AND COLD DRINKING WATER provided to each sink!	///marmalade.strain.erase (adjacent Rhoose Way)
Electric Supplies	///marmalade.strain.erase (adjacent Rhoose Way)
Water Supplies	///marmalade.strain.erase (adjacent Rhoose Way)

All welfare facilities provided will be in accordance with the Construction (Design and Management) Regulations

Maintenance

All welfare facilities **shall** remain in a good state of repair and cleanliness. A cleaning regime for the site offices and all welfare facilities will be put into place.

Regular daily inspections will be carried out of the toilets, canteen, and drying rooms. The Construction Manager will ensure that the cleaning and routine inspections using the Site Welfare Checklist Form, take place and are displayed within each facility.

11. Information and Training of People on Site

Induction training **shall** be provided to everyone wishing to work and visit this project (see Section 4 of this Health and Safety Plan). Refresher induction training **shall** be provided as site conditions change. Attention should be brought to the requirements of section 4. (CSCS cards, non-English speaking operatives) within this plan.

The following tasks have been identified as requiring specific training:

Task	Training Required
Manual handling	Manual Handling Training Certificate / Tool box talks to operatives
Use of Mobile Elevating Work Platforms (MEWPs) & Push Along Vertical (PAV)	IPAF Appropriate category, complete with familiarisation training
Hot work Permits – Fire Watcher	Competent training
Scaffold erection	CISRS photo I.D. card to be submitted
Work on electrical systems	Recognised electrical qualification – ECA / JIB
Use of hand tools	Cert. of competence recognised training establishment
First aid	Certificate of Training meeting HSE requirements
Hoist Driver	Certificate of achievement / Familiarisation Training
Mounting abrasive wheels	Certificate of competence
Erection and safe use of mobile towers	Certificate of competence (P.A.S.M.A.)
Scaffold inspection	Scaffold Inspection Course / CISRS
Work on gas systems	Gas safety register
Work within confined space	Certificate of training

To reinforce the site rules, the requirements of Method Statements and Risk Assessments and to raise the awareness of specific issues, such as Manual Handling and Hand Arm Vibration, each Contractor **shall** be required to provide their operatives with Tool Box Talks. These **shall** be carried out weekly and recorded. A register of all Tool Box Talks given **shall** be maintained and kept within the project office.

Statutory notices and safety awareness posters **shall** be displayed on the Health and Safety board which is located **in the site accomodation.**

Other training, as required, has been indicated in other areas of this plan.

A copy of this Health and Safety Plan, together with the project specific site safety rules **shall** be formally issued to each Contractor prior to their start on site.

12. Health and Safety Consultation

Induction

All personnel attending site to undertake any works are required to attend the ISG project health and safety induction prior to accessing the site and commencing work activities. Any visitors to site will be required to complete the visitor's induction.

In addition to the ISG induction, sub-contractors are required to undertake their own induction with their workforce which should also include the necessary method statement briefing prior to starting work activities.

Pre-Start / daily briefings

Daily task briefings are to be undertaken by all contractor supervisors with their respective teams to communicate the safe system of work, incorporate any minor changes since the original RAMS briefing (e.g. change in work environment) and provide an opportunity for the workforce to seek clarification, provide feedback and suggest alternative methods.

Workforce consultation meetings

Workforce consultation meetings are to be held on a monthly basis (minimum). ISG management and members of the workforce from each contractor should attend these meetings. These meetings provide an opportunity for the workforce to consult with ISG site management on matters concerning health and safety, to provide both positive and constructive feedback, raise concerns and make suggestions.

The output from these workforce consultation meetings should be communicated to the remainder of the workforce in the form of minutes displayed on a site notice board or in the form of "You Said, We Did" notices / posters displayed in prominent locations across site.

Safety alerts / bulletins / notices

ISG will share all safety alerts and associated information with contractors and the workforce as and when required to ensure key information is made available to the relevant stakeholders.

Green cards

Health and Safety Consultation

At the Site Induction, operatives will be encouraged to make suggestions, report unsafe working practices, near misses and generally communicate their concerns and ideas regarding Health and Safety to the project team throughout this project.
Green Cards are issued by ISG to those individuals who can demonstrate a positive commitment to site health and safety over and above what is routinely expected of them.
The aim is to raise and maintain high standards of health and safety across the board for the duration of the project and beyond.
There is no limit on the number of green cards issued to an individual.

Suggestions

Suggestion, hazard observation and near-miss cards will be provided on site and available for the use of all cards. Suggestion card boxes will be located in the canteen and / or prominent locations across site which all site personnel are encouraged to use if they would like to provide feedback in this manner.

Confidential phone line

ISG have a confidential phone line where site staff can make suggestions for improvement or report site problems confidentially.

The number is 0800 8491424 and shall be posted on the site notice boards.

13. Project Specific Site Rules

PPE Requirements

All Staff, personnel, operatives and visitors to this site **shall** be required to wear the following PPE at all times:

- Safety helmets with 4-point chin strap. the safety helmet must be a safety helmet that is compliant with BS EN 397:2012 and EN12492:2012 with the chin strap clipped always when in the operational areas
- Safety footwear with reinforced toe caps to BS EN 345
- High visibility vests to EN471
- Hand protection in the form of Safety Gloves (to a minimum of 4343 BSEN 388)
- Light Eye protection to EN166 1F or equivalent. (as a minimum, risk assessment may determine a different standard of eye protection).

N.B. "Approved Style" of glove indicates that the style of glove should fit the work involved. This means that 'cutting jobs' using various knives etc might show a cut resistant Kevlar / Dyneema or similar style required. 'Manual handling' jobs would entail the use of riggers gloves, etc. The style of glove required for the separate jobs should be indicated in the relevant Risk Assessment. The incorrect use of a glove could and will lead to both the possibility of injury to the operative and 'a site notification' being issued not only to the operative concerned but also his supervisor and eventually an 'Improvement Notice' to his company. Whilst this may mean changing gloves for different jobs this is preferential to operatives receiving harm to their hands through wrong usage and thus being unable to work for an appreciable length of time, to the detriment of all.

There will be adequate PPE provisions for ISG visitors. PPE designated for visitors will be clearly marked and stored in the ISG office. A record **shall** be kept to whom it is issued to, to ensure that it is returned.
Contractors **shall** be responsible for issuing their own employees with PPE. They **shall** also be responsible for ensuring that their Sub – Contractors and self-employed operatives provide (are provided with) their own PPE. All Trade Contractors working on this site **shall** provide their operatives with Safety Helmets, Safety Footwear, Safety Gloves, Light Eye Protection and High Visibility Vests (unless an approved Risk Assessment states otherwise) to the standards set out above.

Any additional PPE required **shall** be identified on each Contractors Method Statement and Risk Assessment, when this is the case the Contractor **shall** ensure that the additional PPE identified is provided to each operative, used correctly and stored and maintained in accordance with the manufacturer's recommendations.

All PPE zones are clearly identified and areas where PPE will not be required are identified below:

LOCATIONS WHERE PPE IS NOT REQUIRED
SAFE ACCESS / WALKWAYS / OFFICES
SITE WELFARE FACILITIES

Site Hours

The sites normal working hours will be as follows:

Day/Night(s)	Working Hours
Monday - Friday	0730-1730 hrs
Saturday	0800-1300 hrs
Sunday	Closed
Bank Holidays	Closed

The above times will be displayed on the main site notice board.
If instructed or agreed with the ISG Project Manager, we may work different hours to those quoted above.

Additional Project Specific Rules

The project specific site rules contained within **appendix 4 shall** be implemented on this project.

They **shall** be communicated and given to all operatives and personnel at the site induction.

14. Information for the Principal Designer, H&S File

The Project Leader / Nominated Manager will establish what information the Principal Designer requires for the compilation/addition to the Health and Safety File at the early stages of the project; where the Principal Designer is appointed by the client for both the Design and Construction Phases. Where the Principal Designer is appointed only for the Design Phase the PC shall be responsible for producing the Health and Safety File and pass it on to the Client. These requirements will be communicated to each Contractor as soon as they are appointed where practicable.

As a minimum the Principal Designer **shall** be provided with the following information:

- A description of the works carried out
- Residual hazards and how they have been dealt with (for example asbestos, buried services, contaminated land)
- Key structural principals incorporated in the design of the structure (e.g. bracing) and safe working loads for floors and roofs
- Hazards associated with the materials used (e.g. hazardous substances, lead paint etc.)
- Information regarding the removal or dismantling of installed plant and equipment
- Health and Safety information about equipment provided for cleaning or maintaining the structure
- The nature, location and markings of significant services, including fire-fighting services and equipment
- Information and as built drawings of the structure, its plant and equipment

15. Arrangements for Monitoring

Verbal Warning

In cases of Minor breaches of site rules an operative **shall** initially be given a recorded **verbal warning** that he is in breach of site rules and further breaches could lead to the issue of either an ISG Yellow or Red Card.

Red and Yellow Card System

The Red and Yellow card system is a disciplinary tool for warning Contractor operatives if they are working unsafely or in breach of the site rules. It **shall** be used to monitor Contractor performance.

Yellow cards **shall** be issued to operatives as a warning if they break the site rules (e.g. someone found not their safety helmet) or when they are found not to be working safely and not in accordance with their Risk Assessment or Method Statement. A yellow card **shall** also be issued to an operative in breach of permit conditions. For example: carrying out hot works without a fire extinguisher.

Red Cards **shall** be issued to operatives if they are found to be in serious breach of the site rules e.g. smoking on site, working dangerously, putting someone else's health or safety at risk, or by gaining 2 yellow cards. This issue of a red card gets the offender an instant dismissal from site.

Procedure

Any ISG Manager may issue either a Yellow/Red Card, however these are never to be issued lightly. All verbal warnings, yellow cards and red cards are to be recorded and submitted to the regional office.

Yellow Card

The individuals name is taken and passed to their supervisor, who is advised of the situation. The individual will attend an informal meeting to investigate the infringement within one hour of the occurrence. At the meeting the outcome of the supervisor's investigation will be discussed, and a decision made

Red Card

Offenders name is taken as above and passed to supervisor/manager.

In addition, the Project Lead will communicate the results of the league table to the trades at the Contractor's directors meeting and the information **shall** be used to contribute towards the Contractors Safety league

Contractor Health and Safety League

ISG Manager will set up the Trade Contractor Health and Safety league. Contractors will be marked against the ISG scoring criteria [LINK]

The results of the Monthly Contractor award **shall** be included within the Project Report and will be discussed at the Trade Contractors Directors meeting, where the award will be presented to the best performing Trade Contractor. Failure to improve will be escalated to the H&S advisor / manager.

Poor performing Contractors **shall** be informed and requested to improve their performance.

Site Safety Inspections

The following site safety inspections **shall** be carried out to monitor Health and Safety standards on site and monitor Contractor compliance with the site rules and project objectives:

Inspection	Description	Frequency
Site Safety Coordinators Inspection	The Safety Coordinator **shall** carry out an inspection of the site on a daily basis. Any problems or breaches of site rules will be dealt with as found.	Daily
Fire Co-ordinators Check List	The Fire Co-ordinator **shall** carry out an inspection of the firefighting equipment and emergency escape routes using the Fire point inspection sheet located in the SFM- The Fire Co-ordinator will also be tasked to attend client liaison meetings to co-ordinate fire drills and the like.	Once a Week
Scaffold Inspections	A competent person **shall** inspect fixed Scaffolding. That is somebody who is trained and has the relevant experience in scaffold erection and safety, this service can be provided by the Scaffolding company. For further information on Scaffolding please refer to Section 4.8.19 of the SMS. All inspections **shall** be recorded in a written report / log.	• Before use (handover certificate will be issued) • After an alteration • After adverse weather • Every 7 days
Mobile Scaffold Tower Inspections	Contractors who use Mobile Scaffold Towers are responsible for their maintenance, use and inspection. Mobile Scaffold Towers **shall** be recorded on a plant register and **shall** have a scaff tag attached to them that can be reference to the tower.	• After erected and prior to use • Every 7 days • After an event that could affect its strength and stability
Plant Inspections and Registers	A plant register is required from every Contractor detailing their plant. All electrical equipment **shall** be PAT tested at least every 12 months. Specific plant must be inspected and maintained in accordance with the manufacturer recommendations. This **shall** be detailed within each Trade Contractors Method Statement	• When it arrives on site • Before use • In accordance with the specific manufacturers recommendations and planned maintenance schedule. • 110V power tools – every 3 months. • 230v equipment – every 3 months

Health and Safety Audits

Independent inspections and audits of the site **shall** be undertaken, and reports issued by the visiting Health and Safety Advisor and Contractors representatives. The basis of such inspections and audits will be the Health and Safety Plan, Major Incident Plan, compliance with the Safety Management System and relevant legislation. Contractors **shall** fully co-operate with this activity and provide any information that maybe requested. Contractors are to be given copies of reports and **shall** comply with any corrective actions requested

The visiting Health and Safety Advisor for this project is Gary Harsant **,** and he **shall** be carrying out inspections and/or audits. The Health and Safety Advisor will also undertake specific Occupational Health audits throughout the course of the project.

Designated senior managers will undertake regular recorded health and safety tours of the project

The results of such inspections/audits shall be recorded on specific forms. Any resulting instructions are to be passed in writing to the site management and **shall** be complied with by the action date stated.

A file of all such reports **shall** be maintained within the project office.

Prohibition and Improvement Notices

In addition to red and yellow cards which discipline and give warnings to individuals, a Trade Contractor can be stopped working or made to improve their working practice by the issue of a Prohibition Notice or Improvement Notice

A Prohibition Notice stops work completely and prevents the work or activity taking place again. This is only issued in cases of a severe risk being realised.

An Improvement Notice stops the work until satisfactory improvements in the method of working have been implemented to make the activity safer. The Improvement Notice will specify a date by when the improvements have to be made, this time period must be no greater than 21 days.

Health Surveillance

The following activities **shall** require health surveillance:

Activity	Substance	Person Affected	Arrangements for Health Surveillance
Night working		Operator	Risk assessments and observations.
Use Of powered hand tools	-	Operator	Risk assessments to cover exposure levels and maximum periods of use.
Asbestos removal	Asbestos	Operator	Health screening, correct use of PPE by asbestos monitor.

16. APPENDICES

APPENDIX 1 **PROJECT ORGANISATION CHART**

APPENDIX 2 **PROJECT DIRECTORY**

APPENDIX 3 **PROJECT RISK ASSESSMENTS**

APPENDIX 4 **PROJECT RULES**

APPENDIX 5 **SCORING CRITERIA**

APPENDIX 6 **TRAFFIC MANAGEMENT AND LOGESTICS PLAN**

APPENDIX 7 **PROJECT FIRE RISK ASSESSMENT AND PLAN**

APPENDIX 8 **(CEMP) CONSTRUCTION ENGINEERING MANAGEMENT PLAN**

APPENDIX 9 **COVID-TRACK & TRACE**

APPENDIX 10 **NOISE & DUST GUIDE**

Appendix

Appendix 1

Western Vale Primary's

Our Team

Howard Davies Operations Manager						
Commercial	Design / M&E	Planning	Community & Training	HSQE	Operational	
Vaughn Davies Supported by Terry John, Steve Plummer & HD	Phil Nightingale + Owain Worsfold supported by William Hayward & Sarah McHugh & Rhodri Davies	Eunice Williams supported by Team	Harriet wade supported by Team	Gary Harsant supported by Team	**St.Davids** Rob Boyd supported by TBC **Rhoose** Adrian Mills Supported by Daffyd Williams **St.Nicolas TBC** **Dewi Sant Nursery TBC** **Net Carbon Zero Nursery TBC**	

Choose safe Choose health

Appendix 2

Vale of Glamorgan Council
PROJECT DIRECTORY - Western Vale Primary Schools
Date : October 2019
Revision: 02 17/12/19

Personnel	Contact Details	Organisation & Address
Client:		
Vale of Glamorgan		
Jane O'leary - 21st Century Schools Programme	Email: jlo'leary@valeofglamorgan.gov.uk Tel: 07518054491	**Civic Offices** **Holton Road** **Barry**
Matthew Curtis - Project Manager	Email: mrlcurtis@valeofglamorgan.gov.uk Tel: 01446 709828	**CF63 4RU**
Kelly Williams - Project Manager	email: kawilliams@valeofglamorgan.gov.uk	
Chloe Jenkins - Project Manager	email: chloejenkins@valeofglamorgan.gov.uk	
Nathan Slater	npslater@valeofglamorgan.co.uk	
Project Management:		
AECOM		
Ron McLean - Project Manager	Email: ron.mclean@aecom.com Tel: 079 1247 6979	**AECOM** **1 Callaghan Square** **Cardiff**
Jonathan Edwards - Project Manager	Email: jon.edwards2@aecom.com Tel: 029 20 674 681	**CF10 5BT** **Tel: 029 20 674 600**
Conna Ryan - Project Manager	Email: conna.ryan@aecom.com Tel: 029 20 674 639	
Cost Management:		
AECOM		
Peter Baker - Cost Manager	Email: peter.baker@aecom.com Tel: 029 20 674 664	**AECOM** **1 Callaghan Square** **Cardiff**
Adam James - Cost Manager	Email: adam.james@aecom.com Tel: 029 20 674 777	**CF10 5BT** **Tel: 029 20 674 600**
Contractor's Team:		
ISG		**Office Address**
Howard Davies-Operations & Framework Manager	Email: Howard.Davies@isgplc.com Tel: 07500 043 371	**ISG** **1st Floor**
Darren March - Senior Design & Bid Manager	Email: Darren.March@isgplc.com Tel: 07968 785990	**Green Meadow Springs Busines** **Unit 1, 1 Cae Gwyrdd**
Lea Mavroudis Stephens - Senior Planner	Email: Lea.Mavroudis-Stephens@isgplc.com Tel: 07799 587091	**Cardiff** **CF15 7AB**
Phil Nightingale - Senior Technical Services Manager	Email: Phil.Nightingale@isgplc.com Tel: 07918 727152	

Draft update_PGR_28 Sept 2017

Appendix 3

CDM 2015 - Hazard Awareness & Risk Identification (HARI) Checklist

Project Name:	**Llancarfan Primary School**	**Date HARI commenced: Spring 2020**
Stride Project Number:	**152852**	HARI Version at RIBA: Stage3
Principal Designer *(Stride or who?)*:	**Stride Treglown**	*Note 1 - undertake a 'file save as' of this form at the conclusion of each RIBA stage as an audit trail to show risk reduction over time. Strike out stages in the box above that are not applicable leaving only the relevant stage. Note 2 - Add further rows for Designers if required.*
Designer: *(Stride job runner)*:	**James Page / Faye Morrison**	
Designer: *(MEP)*:	**Chris Morgan - McCanns**	
Designer: *(Structures / Civils)*:	**Daniel James / Dave Williams - RVW**	
Designer: *(Landscape)*:	**Claire Symons - STL**	

Instructions for use

This HARI Checklist is the key Stride Treglown CDM Regulations document for recording awareness of hazards and identifying risks on the project. The document is to be maintained as a 'living' document throughout all project stages from RIBA 2 to RIBA 5. At the conclusion of each stage, undertake a 'file save as' of the document in PDF format as an audit trail to demonstrate hazard and risk reduction over time. The checklist is to be completed by a 'Designer' as defined by the CDM Regulations. This will usually be the job architect or the job runner from another Stride Treglown design discipline. The form may be used to record a single discipline's input, e.g. from the architect, or it may be used to record the combined inputs from all the Designer disciplines, e.g. the architect, the structural engineer and the M&E Engineers. In the latter circumstance, take care to ensure each disciplines' inputs are clearly identified as belonging to them in order to avoid potential PII issues. The decision to create a combined checklist needs to be agreed by all the designers and taken at the inception of the HARI process. Work through the checklist from top to bottom completing the RAG list boxes and adding narrative where appropriate in the 'Designers' Mitigation / Control Notes' column.

Note that many items in **Section 1 - '*Hazards to be mitigated and/or controlled which can be anticipated during the Design Phase*'** will not apply to your project. In this case click on the 'N/A' choice in the RAG list drop-down menu box. Note that whilst it is tempting to 'hide' all the rows that are tagged as 'N/A' to make the checklist appear shorter, do not edit the checklist in this way because it is important to demonstrate in the audit trail that every potential hazard has been examined even it has subsequently been discounted. Where a more detailed record and audit trail of the Designer's mitigations and control measures is required than can be sensibly be entered into the text box for any given item, you are advised to complete a separate Design Risk Assessment form for that item.

In **Section 2 - '*Hazards to be mitigated and/or controlled that occur in the Construction Phase*'** - record any opportunities for you as Designers to contribute to reducing risk for the workers constructing the building - you may be surprised how much influence have to mitigate hazards when you really think about how the building is to be constructed. Work through each of the hazards identified and try to envisage the effects of your Designer's specification, design and detailing choices on actual tradespersons and other workers. Where a more detailed record and audit trail of the Designer's mitigations and control measures is required than can be sensibly be entered into the text box for any given item, you are advised to complete a separate Design Risk Assessment form for that item.

Section 3 - *Register of Residual Risks after Handover in the Use, Maintenance and Demolition Phases* - is for creating a record of 'Residual Risks'. These are items that could not be completely eliminated but remain for the building users to manage. For example, a flat roof represents a 'fall from height' hazard but if a parapet or balustrade has been included, then the Residual Risk is a 'managed' and low risk one - a 'green' in the RAG list box. Note that the register of Residual Risks forms part of the information package which the CDM Regulations legally require to be recorded in the Health & Safety File at the end of the project.

Definitions

A '**hazard**' is any source of potential damage, harm or adverse health effect on something or someone under certain conditions at work.

A **'risk'** is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard.

The hazards listed in the tables below are either intrinsic hazards which can cause harm in and of themselves - for example, asbestos or buried explosives - or they are hazards which may arise from a particular site feature, situation or circumstance - for example, proximity to a quayside with deep water or a site with high winds.

RED / AMBER / GREEN colour coding categories

RED...indicates a hazard which should be eliminated if at all possible due to it: a) generating a high risk and: b) the difficulty of mitigating and/or controlling this high risk	
AMBER...indicates a hazard which still ideally should be eliminated but which is able to be mitigated and/or controlled to reduce the risk to an acceptable level	
GREEN...indicates a hazard which presents a low risk from the outset OR is a hazard previously of a higher category which has been mitigated or controlled	
N/A on a white background...indicates a hazard which does not apply on this particular project	**N/A**

ISSUE LOG

Version	Reason for issue	Date	Issued to	From	Checked
P24	First issue	Mar-20	ISG and design team.	JP	JP

Section 1 - Hazards to be mitigated and/or controlled which can be anticipated during the Design Phase

Ref.	Hazard	General Notes & Prompts	Designer's Mitigation / Control Notes	RAG	Ref.
		SITE FEATURE HAZARDS - Reference prefix 'SF'			
SF01	Proximity to an overground railway inc. embankments, cuttings and viaducts	The Office of Rail Regulation and Network Rail will need to be involved at the earliest opportunity as there are comprehensive rules for building close to or over railways.	Not applicable. Note presence of railway line in wider area beyond adjacent housing.		SF01
SF02	Proximity to an underground railway / railway tunnel	The Office of Rail Regulation and Network Rail or alternatively another body such as Transport for London will need to be involved at the earliest opportunity as there are comprehensive rules for building close to or over railways.	Not applicable.	N/A	SF02
SF03	Proximity to a motorway / trunk road inc. embankments, cuttings and viaducts	The Department for Transport may need to be involved at the earliest opportunity.	Not applicable.	N/A	SF03
SF04	Proximity to other roads inc. embankments, cuttings and viaducts	The local or county authority may need to be involved at the earliest opportunity.	Not applicable.	N/A	SF04
SF05	Proximity to a road tunnel	The category of road carried using the tunnel will determine whether it is the Department for Transport or the local / county authority who is responsible.	Not applicable.	N/A	SF05
SF06	Proximity to a canal inc. aqueducts, locks and tunnels	The Canal and River Trust will need to be involved at the earliest opportunity. Drowning is an ever present danger. Canals themselves may be relatively shallow but locks are particularly hazardous installations.	Not applicable.	N/A	SF06
SF07	Proximity to a river	The Environment Agency and/or the Canal and River Trust may need to be involved at the earliest opportunity. Rivers are highly variable environments with tides or high rainfall creating the potential for flooding a site over a short period of time. Drowning is an ever-present danger.	Not applicable.	N/A	SF07
SF08	Proximity to a quayside or dock	Quays and docks have the potential to be dangerous places for a number of reasons including the fact they are adjacent to deep water and often have unguarded edges. Accordingly, drowning is an ever-present danger. There are also hazards arising from dockside installations/activities which can include moving cranes, container-handling equipment, railways and lorries. Ownership of quays and docks may fall under many different types of tenure including the Ministry of Defence, Associated British Ports, other public bodies or private owners.	Not applicable.	N/A	SF08
SF09	Proximity to a large bridge	There will be a variety of issues when working close to high bridges. Falling objects from the bridge is one possibility. Downdraughts is another.	Not applicable.	N/A	SF09
SF10	Proximity to an airport / airfield	Airports and airfields have the potential to be dangerous places for a number of reasons. Particular issues for aviation include FOD (Flying Object Damage) to aircraft or caused by aircraft to the surrounding environment. Interference with avionic / communication equipment is also an issue to consider. Radars give off powerful electromagnetic radiation. Ownership of airports and airfields may fall under many different types of tenure including the Ministry of Defence, Civil Aviation Authority, other public bodies or private owners.	Note presence of airport in wider proximity.		SF10
SF11	Proximity to a hospital / health facility	Hospitals will require constant access for emergency vehicles. Noise from construction sites may present problems to inpatients. Similarly, dust from construction sites can adversely affect vulnerable patients.	Not applicable.	N/A	SF11
SF12	Proximity to a college / school	Schools in particular are vulnerable to compromises in road safety from construction sites. When working within schools, there will be security and safeguarding requirements for contractors to resolve.	Not applicable.	N/A	SF12
SF13	Proximity to a military establishment	Military establishments will have a range of health & safety issues for contractors working in or adjacent to them. Security is one of a number of 'high profile' issues. Some types of establishment may have a legacy of old unexploded ordnance buried in the ground.	Not applicable.	N/A	SF13
SF14	Proximity to high buildings	High buildings will produce high wind speeds at ground level due to downdrafts off the faces of the building. Objects may also fall or be deliberately thrown from high buildings.	Not applicable.	N/A	SF14
SF15	Proximity of historic / listed buildings	There will be a variety of issues including maintaining support of relatively weak structures, the maintenance of historic assets and the presence of obsolete materials such as asbestos.	Not applicable.	N/A	SF15
SF16	Existing building(s) to be incorporated into the project	There will be a wide variety of issues including structural stability and obsolete materials such as asbestos, lead paints etc.	Not applicable.	N/A	SF16
SF17	Unusual topography inc. cliffs / steep slopes / pits	Unusual topography will present a variety challenges. For example cliffs can present the danger of rockfalls and produce high windspeeds at ground level from downdraughts.	Site is currently steep sloping in places, due to the deposited material from adjacent housing development. Further liaison with developer may lead to site being returned to a more gentle gradient - tbc.		SF17
SF18	Proximity to adjacent residences		Main construction activities to take place at the northern side of the site, clear of residences which border the site at the southern end. Contractor RAMS to consider impact of construction activity on adjacent residences. Construction method statement to confirm location for contractor compound - potentially off site.		SF18
SF19	Other hazard - designer to define		placeholder		SF19
SF20	Other hazard - designer to define		placeholder		SF20
		UTILITIES & SERVICES HAZARDS - Reference prefix 'US'			
US01	Proximity to energy generating / transmission facilities	This may include renewable sources such as wind turbines and photovoltaic 'farms'. Wind turbines may produce interference to telecommunications transmitters. PV farms may create dazzling reflections of the sun.	Not applicable.	N/A	US01
US02	Overhead electricity lines	The National Grid governs the major high voltage transmission lines with regional power distribution companies governing installations running at lower voltages. Power lines generate electromagnetic fields although there is debate about how much effect they might have on health. Notwithstanding there may be interference to telecommunications systems from power lines. The ubiquitous hazard is electrocution.	Not applicable.	N/A	US02
US03	Underground electricity lines	Underground lines can also include major high voltage lines.	Utilities plans show nothing within the site, alhtough WPD services are present around the perimeter. Note, no utility survey included within the project briefing pack for this project. Consider full utility survey prior to construction.		US03
US04	Underground gas pipelines	The National Grid governs the high pressure gas distribution network with regional gas distribution companies shipping gas to the final consumer.	No gas recorded within the site by the utility plans. Gas main appears to run outside the site footprint to the east. Note, no utility survey included within the project briefing pack for this project. Consider full utility survey prior to construction.		US04
US05	Other underground pipelines	Other underground pipelines may carry a variety of products and may be in private ownership. There is still a network of 'Government' pipelines which ships aviation fuel for both military and civil users.	Not applicable.	N/A	US05
US06	Proximity to telecommunications facilities	Electromagnetic interference may emanate from or be caused to telecommunications facilities such as radar and microwave transmitters.	Not applicable.	N/A	US06
US07	Overhead telecommunication lines	Overhead telecommunications lines do not present a particular hazard in and of themselves as they run at low voltages however disruption to networks can have serious 'knock-on effects', not necessarily in the immediate vicinity of a construction site.	Not applicable.	N/A	US07
US08	Underground telecommunication lines	The same strictures apply as with overhead lines. Lines may include highly secure installations such as international telecommunications fibre optic lines or Ministry of Defence lines, damage to which can cause widespread disruption.	Utilities plans show nothing within the site, although underground BT lines run outside the perimeter of the site, serving the new housing. Note, no utility survey included within the project briefing pack for this project. Consider full utility survey prior to construction.		US08
US09	Underground water pipelines	Water supply is controlled by regional and local supply/distribution companies. Some companies include water and waste water (sewerage) within their remit and some are water supply only. Disruption to water mains may create issues including flooding, damage to buildings/infrastructure and pollution.	Utilities plans show nothing within the site, although underground DCWW pipes are shown along Rhoose way to the north. Note, no utility survey included within the project briefing pack for this project. Consider full utility survey prior to construction.		US09
US10	Underground drainage culverts / sewers / drains	Such pipelines are likely to present health hazards to those entering into or working on them including the risk of contracting water-borne diseases. Drowning is also an ever-present risk in large/deep tanks and chambers.	Existing drainage attenuation on site. Site layout anticipates this and designs around it. Refer to housing development drainage plans for location.		US10
US11	Other hazard - designer to define		placeholder	N/A	US11
US12	Other hazard - designer to define		placeholder		US12
US13	Other hazard - designer to define		placeholder		US13
		OTHER SITE-WIDE HAZARDS - Reference prefix 'OS'			

OS01	Presence of underground voids and other underground features	Undiscovered / uninvestigated voids can lead to sudden collapses in the ground, especially when new loadings are applied. These can include old mine workings, drainage installations, air raid shelters and the like.	To be reviewed upon receipt of geotechnical report.	N/A	OS01
OS02	Land liable to flooding and inundation	Sites may include land adjacent to the sea, estuaries, rivers and lakes but also adjacent to docks, canals and the like.	Not applicable.	N/A	OS02
OS03	Poor ground in respect of structural bearing	Poor ground can lead to collapses of excavations, trenches, haul roads and site works generally.	To be reviewed upon receipt of interpretive geotechnical report.	N/A	OS03
OS04	Possibility of buried explosives	These may include unexploded wartime bombs and mines as well as 'lost' caches of explosive materials such as shells, grenades and bullets.	To be reviewed upon receipt of interpretive geotechnical report.	N/A	OS04
OS05	Contaminated land	'Brownfield' sites, especially those in former industrial areas, may be heavily contaminated with a wide variety of polluting materials. Sites used for motor trade purposes may have been polluted by petrol, diesel and oils.	To be reviewed upon receipt of interpretive geotechnical report.	N/A	OS05
OS06	Contaminated existing structures inc. presence of asbestos	Crocidolite and amosite asbestos types were banned in 1985. Chrysotile asbestos use was only finally banned in construction in 2000. Always consider that asbestos may be present in buildings constructed before 2000. Building owners have a legal duty to manage asbestos under The Control of Asbestos Regulations.	Not applicable.	N/A	OS06
OS07	Site subject to extreme weather events	These may include sites locally exposed to high winds or surge tides	Not applicable.	N/A	OS07
OS08	High ambient noise levels	High ambient noise levels from neighbouring site activities may cause distraction to construction workers and prevent warning sounds being heard, for example from vehicle/plant horns. Sudden noises such as caused by aircraft overflying the site at low level may also be problematical.	Not applicable.	N/A	OS08
OS09	Hazards arising from the Client's existing site activities	Industrial clients in particular may have a whole range of processes being undertaken in their properties producing, heat, fumes, flames, gases and ash together with liquid toxic wastes	Deposited material present from adjacent housing development - potentially to be removed by developer. Tbc.		OS09
OS10	Potentially dangerous electromagnetic radiation	Be aware of radio, radar and microwave transmitters which require safety stand-off distances. Equipment on existing building roofs may have to be switched off during construction activities.	No known risk.	N/A	OS10
OS11	Poor air quality	This hazard may arise from the client's site activities, from neighbouring site activities or during local air pollution events such as regular 'smogs'.	Not applicable.	N/A	OS11
OS12	Potentially dangerous site flora	This category can include invasive species such as Japanese Knotweed which can damage buildings and pavings and species such as Giant Hogweed, the sap of which causes skin burns.	Not applicable.	N/A	OS12
OS13	Potentially dangerous site fauna	This can include vermin and their products, for example bird droppings. Potentially dangerous animals include gulls. In some locations, both coastal and inland, gulls will 'dive bomb' people and construction operatives working on roofs can be at particular risk if gulls are nesting close by.	Not applicable.	N/A	OS13
OS14	Other hazard - designer to define		placeholder		OS14
OS15	Other hazard - designer to define		placeholder		OS15
OS16	Other hazard - designer to define		placeholder		OS16

Section 2 - Hazards to be mitigated and/or controlled that occur in the Construction Phase - Reference prefix 'CH'

Ref.	Hazard	General Notes & Prompts	Designer's Mitigation / Control Notes	RAG	Ref.

Note - It is the responsibility of the Principal Contractor to plan, co-ordinate and control site activities to eliminate or reduce risks to health and safety for its workers in the construction phase. Notwithstanding, it is also the duty of the Designers to consider the health and safety implications of their designs at all project stages and play a full role in eliminating or reducing risks to health and safety which may occur on the construction site. Review the listed hazards against your design and specification choices and record your contribution to eliminating, mitigating or controlling the risks to health and safety that will occur during the construction phase.

CH01	Drowning	Could your design be modified such that buildings and external works are not immediately adjacent to bodies of deep water or so that workers do not have to work directly over the water?	Sustainable drainage strategy to be finalised. Consideration to be given to timing of swale construction if required. Any water features to be appropriately segregated form the construction site.		CH01
CH02	Other water-related health risks inc. diseases	Could your design be modified such that workers are less exposed to working around bodies of water which could be contaminated with sources of pollution, whether chemical or biological?	Sustainable drainage strategy to be finalised. Consideration to be given to timing of swale construction. Any water features to be appropriately segregated form the construction site.		CH02
CH03	Injury from collapse of ground and/or building substructures	Could your design be modified such that workers are less exposed to working in deep excavations or where the ground conditions are unstable? The civil/structural engineer should also be able to make a contribution to such mitigations.	To be reviewed upon receipt of interpretive geotechnical report.	N/A	CH03
CH04	Injury from collapse of building superstructures	Could your design be modified such that workers are less exposed to collapses? For example, could masonry walls - which can be unstable before being fully tied together or before the mortar has set - be replaced with framed or stud partitions?	Brickwork proposed to ground storey only. Masonry generally limited across the project. Stud partitions proposed throughout.		CH04
CH05	Injury from impact by site vehicles / site plant movements	Could your design be modified such that there is more space around the building on the site to permit safer manoeuvring of vehicles/plant such as lorries, excavators, dumpers, telehandlers, MEWPs and so on? Can you make better use of the site to permit segregation of pedestrians?	Construction Phase Plan to be reviewed upon issue of information by Contractor.		CH05
CH06	Injury related to falling objects	Could your design be modified such that workers are less exposed to falling objects? For example, is prefabrication of cladding and roofing into larger physical units a possibility to reduce the opportunities for smaller components - e.g. roof tiles - to fall?	Masonry only used at lower storey. Lightwieght insulated render and cladding proposed to upper storey. Contractor to undertake all relevant RAMS and safe working proceedures prior to commencement of works.		CH06
CH07	Injury related to falls from height	Could your design be modified such that workers are less exposed to falls from height? For example, can the cladding and roofing design contribute to guarding against falls by means of parapets? Could the permanent stairs be used during construction to obviate use of temporary stairs?	Flat parapet roof not acceptable to the client. ISG to consider early procurement of stairs to limit use of temporary stairs. Contractor to undertake all necessary RAMS and safe working proceedures prior to commencement of works.		CH07
CH08	Injury from chemicals and the like	Could your design be modified such that workers are less exposed to hazardous materials? For example, could liquid coatings such as paints be specified as water-based products rather than solvent-based?	To be considered as detailed specification is developed.	N/A	CH08
CH09	Respiratory injury from site operations inc. cutting concrete and the like	Could your design be modified to reduce concrete cutting/drilling/grinding by better planning and/or specification? For example, ideally all holes through concrete floor slabs for services should be pre-planned and cast insitu to avoid subsequent concrete drilling operations.	To be discussed with contractor as detailed design develops	N/A	CH09
CH10	Injury from exposure to excessive noise	Could your design be modified to reduce exposure to noise? For example, bored piling is a potentially quieter operation than percussive piling. The civil/structural engineer should also be able to make a contribution to such mitigations.	To be discussed with design team as detail develops	N/A	CH10
CH11	Burns / scalds / cuts	Could your design be modified to reduce the occurrences of 'hot works'? For example, can steel components be bolted together rather than welded? Can metal pipework be specified to obviate soldering? The relevant engineers should also be able to contribute to such mitigations.	To be discussed with design team as detail develops	N/A	CH11
CH12	Injury from slips / trips / falls	Could your design be modified such that the site can be more readily kept in a clean, tidy and workmanlike state. For example, large quantities of waste being generated - e.g. timber offcuts, plasterboard - may result in trip hazards if not constantly tidied away to skips.	To be discussed as detail is developed. Contractor to ensure all relevant RAMS and Safe Working Proceedures to be implimented in advance.	N/A	CH12
CH13	Trapping inc. in confined spaces	Could your design be modified to reduce the occurrences of confined spaces? For example could one large service riser be substituted for a number of smaller risers?	To be reviewed as service routes are developed.	N/A	CH13
CH14	Injury from fire	Could your design be modified to reduce opportunities for fires to be started? For example, could a cold-applied roof membrane be specified instead of a 'torch-on' type? Could masonry be substituted for timber-framed construction which has a high fire load before covering in?	To be considered as detailed specification is developed.	N/A	CH14
CH15	Musculo-skeletal injuries form heavy lifting and the like	Could your specification be modified such that workers do not have to repetitively lift heavy weights? For example, can smaller unit sizes of masonry blocks - 'midi blocks' - or concrete paving slabs be specified?	To be considered as detailed specification is developed. Contractor to ensure all relevant RAMS and Safe Working Proceedures to be implimented in advance.	N/A	CH15
CH16	Vibration injuries from vibrating tools	Could your design be modified such that workers do not constantly have to break out concrete or masonry? For example, can service holes in concrete be pre-planned and cast insitu not have to be cut out later?	To be considered as detailed specification is developed. Contractor to ensure all relevant RAMS and Safe Working Proceedures to be implimented in advance.	N/A	CH16
CH17	Other hazard - designer to define		placeholder		CH17
CH18	Other hazard - designer to define		placeholder		CH18
CH19	Other hazard - designer to define		placeholder		CH19

Section 3 - Register of Residual Risks after Handover in the Use, Maintenance and Demolition Phases

Which site-wide issues from the Design and Construction Phases have remained as Residual Risks in the completed building?

Ref.	Residual Risk	General Notes	Designer's Mitigation / Control Notes	RAG	Ref.
	Residual Risk arising from a Site Feature Hazard				
RR01	Open drainage features	Preliminary drainage strategy indicates likelyhood of open drianage features. Depth tbc.	Consideration to be given to appropriate segregation from pupil areas. Access to the area to be managed by the school. No unsupervised pupil access.		RR01
RR02	Item - define		placeholder		RR02
RR03	Item - define		placeholder		RR03
RR04	Item - define		placeholder		RR04
RR05	Item - define		placeholder		RR05
RR06	Item - define		placeholder		RR06
RR07	Item - define		placeholder		RR07
RR08	Item - define		placeholder		RR08
RR09	Item - define		placeholder		RR09
RR10	Item - define		placeholder		RR10
	Residual Risk arising from Utilities & Services				
RR11	Item - define		placeholder		RR11
RR12	Item - define		placeholder		RR12
RR13	Item - define		placeholder		RR13
RR14	Item - define		placeholder		RR14
RR15	Item - define		placeholder		RR15
RR16	Item - define		placeholder		RR16
RR17	Item - define		placeholder		RR17
RR18	Item - define		placeholder		RR18
RR19	Item - define		placeholder		RR19
RR20	Item - define		placeholder		RR20
	Residual Risk arising from Other Site Hazards				
RR21	Item - define		placeholder		RR21
RR22	Item - define		placeholder		RR22
RR23	Item - define		placeholder		RR23
RR24	Item - define		placeholder		RR24
RR25	Item - define		placeholder		RR25
RR26	Item - define		placeholder		RR26
RR27	Item - define		placeholder		RR27
RR28	Item - define		placeholder		RR28
RR29	Item - define		placeholder		RR29
RR30	Item - define		placeholder		RR30

What are the Residual Risks associated with the finished building itself?

Ref.	Residual Risk in the finished building(s)	Notes	Designer's Mitigation / Control Notes	RAG	Ref.
RR31	Risks associated with access to high areas - externally	These are common residual risks and likely to be present	High level access externally is to be generally via MEWP or permanent scaffold. To be agreed with end user and documented in maintenance access strategy document.		RR31
RR32	Risks associated with access to high areas - internally	These are common residual risks and likely to be present	Tower scaffold / MEWP to high level items i.e. clerestory windows and lighting. To be agreed with end user and documented in maintenance access strategy document.		RR32
RR33	Risks associated with cleaning high areas - externally	These are common residual risks and likely to be present	High level access externally for cleaning is to be generally via MEWP or permanent scaffold. To be agreed with end user and documented in maintenance access strategy document.		RR33
RR34	Risks associated with cleaning high areas - internally	These are common residual risks and likely to be present	Tower scaffold / MEWP to clean high level internal items. To be agreed with end user and documented in maintenance access strategy document. Glass cleaning from extending wash pole from ground level where practicable.		RR34
RR35	Risks associated with replacing building fabric - externally	These are common residual risks and likely to be present	Replacement of building fabric externally to be undertaken in accordance with specialist contractor's RAMS. Vehicle grade external surfaces are designed around the building's perimeter to facilitate use of a MEW if required.		RR35
RR36	Risks associated with replacing building fabric - internally	These are common residual risks and likely to be present	Replacement of building fabric internally to be undertaken in accordance with specialist contractor's RAMS.		RR36
RR37	Risks associated with maintaining M&E plant - internally	These are common residual risks and likely to be present	Refer to MEP engineer's risk assessment.		RR37
RR38	Risks associated with maintaining M&E plant - externally	These are common residual risks and likely to be present	Refer to MEP engineer's risk assessment.		RR38
RR39	Risks associated with dismantling / removing M&E plant	These are common residual risks and likely to be present	Refer to MEP engineer's risk assessment.		RR39
RR40	Risks associated with demolishing building structures	These are common residual risks and likely to be present	Refer to structural engineer's risk assessment		RR40
RR41	Risks associated with incorporated building materials	These are common residual risks and likely to be present	To be determined as material specification is developed		RR41
RR42	Item - define		placeholder		RR42
RR43	Item - define		placeholder		RR43
RR44	Item - define		placeholder		RR44
RR45	Item - define		placeholder		RR45
RR46	Item - define		placeholder		RR46
RR47	Item - define		placeholder		RR47
RR48	Item - define		placeholder		RR48
RR49	Item - define		placeholder		RR49
RR50	Item - define		placeholder		RR50
RR51	Item - define		placeholder		RR51

Appendix 4 Project Rules

'ISG' will apply the following site rules and take all measures to ensure that they are observed and complied with by everybody on the project

1. The site shall be kept clean at all times, and waste materials shall be cleared away as soon as possible-You must operate within ISG's Covid guidelines. https://indd.adobe.com/view/894fb1e1-293d-4838-a5e5-e094e76bc426

2. The site app must be distributed to the wider supply chain by appointed contractors prior to any deliveries to site (in fair and reasonable time)

3. No contractor should communicate directly with members of school staff, pupils or parents other than a positive greeting or in an emergency, refer to your supervisor if any queries

4. Safety helmet, safety footwear, light eye protection (No helmet visors) hand protection (gloves minimum requirement 4343) and high visibility clothing must be worn at all times on site, outside the safe areas

5. No safety helmet visors to be worn on site. Unless specific risk assessment is in place and approved by ISG.

6. Personal protective equipment is appropriate to the task being carried out shall be worn at all times – no shorts to be worn on site

7. All personnel shall be properly trained for the work which they are undertaking

8. All personnel to understand the Method Statement and Risk Assessment that applies to the task

9. No personnel, including visitors, to have access to the site without an induction

10. All operatives and personnel, including visitors, to be aware of the Emergency Evacuation Procedures

11. All dust, noise and pollution must be kept to a minimum, and all measures taken to prevent any nuisance arising out of the works

12. No drugs or alcohol shall be allowed on the site, nor any person who is considered to be under the influence of alcohol or drugs

13. No smoking shall be permitted within the site boundary including the scaffold gantry

14. No playing of radios (entertainment receivers), Walkman's, MP3s or similar

15. Mobile telephones/radio transceivers are only to be used in 'safe areas' and in a safe manner

16. Lone working on site is not permitted

17. Strictly no unauthorised access into restricted areas without the correct permit

18. No eating or drinking, with the exception of water, outside the mess area

19. Abusive language, wolf whistling or harassment of any kind [including racist, bullying and sexual] is strictly forbidden. Show considerations for neighbours/general public/building occupants

20. No horseplay or games such as football or golf to be played at any time on any part of the site.


21. All scaffolding (including mobile towers) to be 'Scaff-Tagged' at all times

22. All mains powered electrical power tools to be 110v only, & to be in date Portable Appliance Tested (to include new equipment & leads)

23. All unsafe conditions and practices to be reported to ISG

24. Any person found damaging or vandalising plant, material, welfare facilities or safety equipment will be removed from site

25. No cameras on site without authorisation and no contact with the media

26. Yellow/Red cards, Improvement/Prohibition Notices are in operation for breaches of Health & Safety

27. No loitering outside the entrance to site

28. No works are to be undertaken under the raised floors inside normal working hours. NB areas requiring access are to have a barrier around the affected areas.

29. Tools must be tethered where possible as a control measure and part of ISG's stop the drop campaign.

Appendix 5

Health & Safety Leagues

For projects that are over 3 months in duration the Project Leader/Nominated Manager must set up a Trade Contractor Health and Safety League. Trade Contractors shall be marked in accordance with the following marking scheme criteria to ensure consistency throughout ISG:

The Scoring System is:

5 = Excellent – Proactive and planning well in advance of the work

4 = Good – No infringements recorded

3 = Acceptable – Adequate with some ISG reminding / enforcement

2 = Poor – Constant reminding required and repeat infringements found

1 = Not Acceptable – Disregard and constant enforcing / reminding

0 = Situation must be rectified immediately, Trade Contractor constantly failing to deliver.

N/A = 3 points

NB: Discretion and flexibility should be exercised when applying NA ratings or scoring those contractors who have a very small presence on site and / or are only on site for a very short duration. – They may not be able to achieve similar ratings (due to an obvious short fall of available resources) in certain areas, especially when compared to other contractors who have a significant presence and / or are on site for a longer duration (i.e. such as undertaking weekly safety inspections / tool box talks etc).
In such situations the nature of the contractors' works (i.e. low or high risk) and their overall level of safety performance and 'pro-activeness' whilst on site should be taken onto account. In certain cases it may be more appropriate not to include them in the performance league until they have a more significant presence on site.

Scores should be allocated to each of the following categories:

PPE - Marks shall be awarded for operatives wearing the correct PPE and at the appropriate times, including goggles, gloves etc, as well as for wearing the mandatory PPE correctly and maintaining it in a good condition.

Housekeeping - Marks awarded to each Trade Contractor will depend upon the amount of cleaning we have to do on their behalf, contra charges issued, and the general condition and tidiness of their work areas, storage areas and site offices.

Safe Working Practices - Marks shall be awarded to the Trade Contractors for their general attitude towards working safely. e.g. erecting and using mobile scaffold towers correctly, following correct procedures for Manual Handling, hazardous substances and HAVS etc, and planning the works well in advance.

5 = Forward planning and active innovation

4 = Above average, some forward planning

3 = Adequate

2 = Not working to authorised method statements and safe systems of work

1 = Putting themselves and others at risk

0 = Failure to deliver on agreed actions and commitments, total disregard to the safety of others

Supervision - Marks to be awarded for the Trade Contractors supervision in terms of the level of control over labour and their attitude towards safety and dealing with Health and Safety issues.

5 = Proactive and consistent management of site Health and Safety, and reacts immediately to issues

4 = Above average, reacts to issues and controls labour well

3 = Adequate. Some ISG guidance required

2 = Poor

1 = Not proactive, extremely hard work and lack of priority for Health and Safety

0 = Unacceptable. Total disregard to Health and Safety and doesn't closeout agreed actions or commitments

Tool Box Talks - Trade Contractors shall be marked upon the number of toolbox talks that they present to their operatives. 1 per week will get 5 marks, and then a mark must be deducted for every week that they miss within the month. 0 toolbox talks mean zero marks.

Method Statements and Risk Assessments - Marks shall be awarded as follows:

5 = Method Statements and Risk Assessments issued well in advance of the works starting, minor comments found during the review process, communicated to work force and being adhered to during construction. Amended where site conditions change.

3 / 4 = Method Statement and Risk Assessment issued advance of the works starting. Some comments found during the review process and some evidence provided that the trade is communicating them to their workforce. Not always updated to suit site changes.

1 / 2 = Quality of Method Statements and Risk Assessments poor. Issued with no time for ISG review. Method Statements and Risk Assessments not being adhered to by operatives and no evidence provided that they have been communicated to the work force.

0 = No Method Statement and Risk Assessment issued and as a result works delayed.

Health & Safety Documents (including COSHH / Permits / training certification / registers & other general H&S documentation – excepting RAMS):

5 = All relevant / required Health & Safety Documentation issued promptly / maintained / fully completed and in date or reviewed as required. Where relevant certain H&S documentation requirements seen to be communicated to the work force (i.e. COSHH / Permits) and seen to be adhered to during construction.

3 / 4 = Relevant Health & Safety Documentation issued and complete. Some comments made and / or minor discrepancies found during the review process. Some evidence recorded that where appropriate the trade is ensuring that the relevant H&S documentation requirements are communicated to their workforce. H&S Documentation (registers / logs etc) maintained and reviewed to some extent.

1 / 2 = Required Health & Safety Documentation is incomplete / out of date / not reviewed and / or issued too late to allow ISG sufficient time to review. Evidence recorded that the documentation is not being adhered to / or where relevant not communicated to the work force.

0 = Health & Safety Documentation not issued / not available / not maintained or reviewed. Evident that contractor has no / very limited understanding of the respective H&S documentation requirements relevant to his activities. Works on site may have been delayed as a result of these failings

Safety Reports / Audits / Inspections - These are audits and inspections carried out by the Trade Contractors own site management and visiting their Health & Safety Advisor / Manager.

5 = 3 audits or more per month

4 = 2 audits per month

2 = 1 audit per month

0 = audits – 0

Permits – to be included under Health & Safety Documents:

5 = Fully compliant. Permits submitted in the correct time scale, signed off correctly and all procedures within the permit followed completely.

3 / 4 = Permits requested but some not signed off the same day. Procedures and conditions within the permit not followed entirely.

1 / 2 = Little / some compliance with system, and safety of the operatives at risk.

0 Marks = Permit System totally not adhered to and system ignored.

Yellow / Red Cards - When marking each category the number of red and yellow cards, prohibition and improvement notices issued shall be taken into account.

For example a Trade Contractor should not be awarded a good or perfect in a category where a yellow or red card has been issued against one of their individuals.

It is extremely important that the whole Project Team are involved in this marking process, and once completed the scores for each category should be put into the Trade Contractor Health and Safety Award Table

They should then be totalled and each Trade Contractor's results should be placed into these categories:

40 = EXCELLENT (BLUE)

32 – 39 = GOOD (GREEN)

24 – 31 = AVERAGE (AMBER)

0 – 23 = POOR (RED)

Larger projects with additional resources can produce a graphical representation (bar / line graph) of the Trade Contractors performance, that can be laminated and displayed on site, outside the project office.

Using the totals from the above, a line graph should then be produced showing all the Trade Contractors performance against one another. For assistance with this please contact your Health & Safety Advisor. Once produced the graph should be laminated and displayed on site, outside the project office.

The Trade Contractor with the highest score should then be awarded the monthly Trade Contractor award for Health and Safety. The results of the Monthly Trade Contractor award shall be included within the Project Report (see Project Reports in Project Review & Reporting) and discussed at the Trade Contractors Directors meeting, where the award will be presented to the best performing Trade Contractor.

For Trade Contractors who fall into the poor category, it is important that the Project

Leader/Nominated Manager elevates the issues raised to their Health & Safety Advisor and Divisional Director / Operations Director. Poor performing Trade Contractors shall be informed and requested to improve their performance.

At the end of the project, the Project Leader/Nominated Manager shall put the monthly scores onto the and this should be issued to the Divisional Director / Operations Director who will review each contractors' overall performance. Low scoring Contractors will then be issued with a letter requesting that they improve their performance. Contractors that consistently perform badly will be brought in to meet the relevant DD/OD to demonstrate their commitment on how they are going to improve. https://isgplc.sharepoint.com/sites/CMS/HSQE/Subcontractor%20scoring.docx

Tool Box Talks

Tool box talks play a vital part in providing operatives with information, instruction and training. Each Contractor shall provide their operatives with a tool box talk once a week where practicable. The Project Leader/Nominated Manager shall discuss the requirements and frequency of tool box talks at the Trade Contractor start up meeting (see Trade Contractor Start Up Meetings in **Managing Trade Contractors**).

Trade Contractor Tool Box talks must be relevant to the work being undertaken and specific to site conditions, and could include subjects such as but not limited to:

- Specific Risk Assessments and Method Statements for their works
- Manual Handling
- COSHH – specifically tailored to the substances that the operatives are working with
- Hand Arm Vibration
- Working off step ladders
- Working off and erecting mobile scaffold towers
- Site Emergency procedures
- First Aid
- Occupational diseases such as Weil's Disease
- Dangers of electricity
- Fire Prevention
- House Keeping
- Asbestos Awareness
- Waste Management

All tool box talks that the Contractors carry out shall be recorded onto the **Trade Contractor Tool Box Talk Register.** This must be used to monitor the frequency of tool box talks undertaken and help score the trades when compiling the monthly safety league.

The Contractors shall provide us with evidence that they have carried out the tool box talk and issue us a sign off sheet showing what operatives have received this. These shall be filed within each Trade Contractor's Health and Safety .


Appendix 6

Traffic Management Risk Assessment

Risk	Action to Reduce Risk	Details	Action by (Add company to provide / action)
Striking the public/other vehicles at site entrance/exit.	Provide warning signage to public and delivery drivers.	Indicated on Vehicle Plan Drawing No TMP PP slide 19 (Appendix B)	ISG
	Provide adequate vision to public and delivery drivers via mesh areas in hoarding and mirrors etc.	Indicated on Vehicle Plan Drawing No TMP PP slide 19 **(Appendix B)**	N/A
	No reversing onto roads.	To be included in site, and driver rules – (Appendix C)	Logistics Contractor / ISG
	Implementation the CLOCS standard in conjunction with supply chain.		Logistics Contractor / ISG / Nominated project supply chain.
Mud and debris on roads	Site to have wheel wash – to be used by all vehicles.	Indicated on Vehicle Plan Drawing no TMP PP slide 19 (Appendix B	Access and exit routes concreted to prevent materials being spread across roads.
	Mechanical road sweeper to be employed to regularly clean local roads.		On site when requested by management.
	Open top lorries and skips to be sheeted prior to leaving site.	**Notice to drivers to be posted at exit points**	Checked by banksman.
	Contractors to ensure loads are adequately secured prior to leaving site.	Notice to drivers to be posted at exit points	
Striking Site Operatives and other vehicles	Segregated signed main walkways	By structure or barriers – routes indicated on enclosed drawing No …….(Appendix B) TMP PP slide 13 Typical barriers as indicated in section? of this plan	ISG/ All trade contractors.
	Reversing restrictions	Included in site rules	Y/N
	Drivers rules	Handed to all delivery drivers at entrance Part of site Induction talk to plant operators	Y/ N
	Eliminate/reduce hazards at blind corners	Use of warning signs, mirrors and speed limits as Drawing No…… (Appendix B) TMP PP slide 13	

	Operator training	All plant operators to be CITB certificated or equivalent, and induction trained	All checked before operatives start on site.
	Warning lights and sounders.	All plant to have reversing sounders and flashing lights, to be on all times vehicle is in use. Delivery vehicles to use hazard lights when in motion	All plant on site should have been fitted with these systems.
Striking the structure	Provision of adequate width – entrances, clearly indicated	Opening locations and size to be indicated on enclosed plan No (Appendix B) TMP PP slide 13 Provide width dimension notice boards hazard markings and crash barriers if necessary.	900mm minimum width for pedestrian access.
	Restricted heights to openings identified with hazard boards/goal posts and signed.	Opening locations and size to be indicated on enclosed plan No (Appendix B) TMP PP slide 13 Hazard / height board to be hung at entrance	Y/N
	Temporary structures protruding into vehicle's path – clearly marked.	Only after checking adequate width etc remains any other precautions are put in place.	Y/N
Striking services high level	▪ Where possible vehicles to be excluded from areas with vulnerable HL service ▪ Services to be - protected - clearly signed - height restriction boards placed at appropriate points.	Details to be included on enclosed plan No TMP PP slide 13 (Appendix B)	Y/N
Damage to underground services	▪ Ensure all services are barriered at sufficient depth or protected with road plates etc. ▪ Special checks needed for crane loadings		ISG
Falls into excavations/ excavation collapse	▪ Where possible all vehicles/plant to be kept safe distance from excavations. ▪ Where appropriate excavations to be supported to take vehicle loadings (ISG temp works to check all designs). ▪ Excavations to be clearly signed/indicated to drivers. ▪ Physical vehicle barriers and stop blocks.	All excavations to have barriers and stop blocks in place aswell as adequate signage to warn operatives/drivers of its position.	ISG/ALL

Overload of structure	▪ Engineering checks to ensure suspended slabs can take vehicle loads: ▪ articulated lorries, concrete wagons, muck away vehicles, cranage, fire engines, plant. ▪ Advise all of restrictions Clearly identify restricted areas.	To be checked by ISG TWC before any vehicle/plant moves on to the slab.	ISG
Fall from structures edges	▪ Solid vehicle barriers/stops blocks to open edges.	Stop blocks to be put into place.	ISG/Trade contractor.
Overturning – due to ground conditions a) Ground conditions b) Gradients C) Overloading of plant/vehicles	▪ Ensure ground conditions are adequate to take construction loads and /or adequate spreaders provided. ▪ Clearly identify to drivers loading restrictions. ▪ All ramps to be of adequate shallow gradient, where possible. ▪ Plant/vehicle only to be used on gradient equal or below the maximum specified by manufactures. ▪ Operative/driver training ▪ Gradient signage/warning signs at head and foot of ramp. ▪ Operative/driver training ▪ Drivers to be adequately trained ▪ Weigh bridge on site	All to be checked by ISG TWC.	ISG / Trade contractor.
Fire/Explosion	▪ Adequate maintenance as manufactures recommendations ▪ Dedicated refuelling team.	All plant maintenance to be carried out by the trade contractor, all fuels to be stored in bunded fuel tanks with fire point present at all times.	ISG/ Trade contractor.
Mechanical failure	▪ Regular maintenance as manufacturers recommendations ▪ Thorough examinations/inspections as LOLER.	Records to be issued to ISG prior to use on site Further examination records to be kept on site for auditing	ISG / Crane Sub-Contractor
Maintenance hazards	▪ Trained fitters/maintenance engineers	All certification to be checked before any maintenance is to be done.	ISG / Trade contractors.
Unauthorised use	▪ Unattended plant to have keys removed/immobilised.	All trade contractors to ensure that Keys are removed while machines are not being used.	All
Loading/unloading	▪ Safe loading / unloading techniques	All loading and off loading to be done by trained ops.	All Trade contractors.
Manoeuvring / Reversing (striking of persons)	▪ Reversing to be kept to a minimum ▪ Site layout developed to minimise reversing ▪ Vehicles to be selected appropriate to use, ie degree of all round vision and size of plant relative to working space. ▪ 360-degree vision from cabs or CCTV or banksman when reversing ▪ Banksman to use signals as HSE 144 ▪ Vehicles to have rotating amber lights or flashing hazard lights when moving on site	No vehicles are to be reversed on site unless there is a banksman present at all times while the vehicle is moving. All vehicles and plant on site are to be fitted with flashing/rotating amber lights and must be used while the vehicle is in use.	ISG / All trade contractors.

	▪ Vehicles to have audible reverse warning sounders		

Choose safe Choose health

Western Vale Primary Schools-Llancarfan CIW Traffic Management Plan

Safety Moment

Let’s consider past national accident statistic's during this settlement

Choose safe Choose health

Fact’s for 2018 (source HSE website)

38 workers died in 2018

Deaths in Construction (UK 2018)	Non-Fatal Injuries Construction (UK 2018)
1.Falling from height	1.Slips, trips & falls
2.Trapped by something collapsing	2.Handling, lifting or carrying
3.Struck by and object	3.Falls from height
4.Struck by a vehicle	4.Struck by moving, including flying/falling or moving object
5.Contact with electricity	

58,000 workers suffered injuries in 2018

Background / Scope of Works

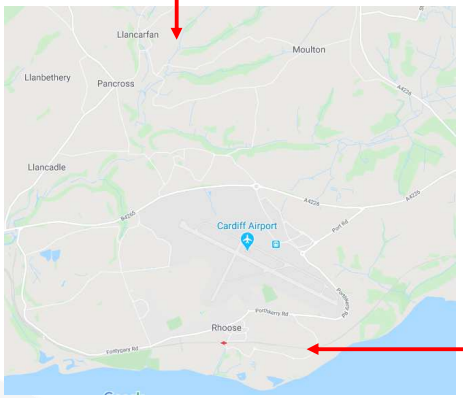
Choose safe Choose health

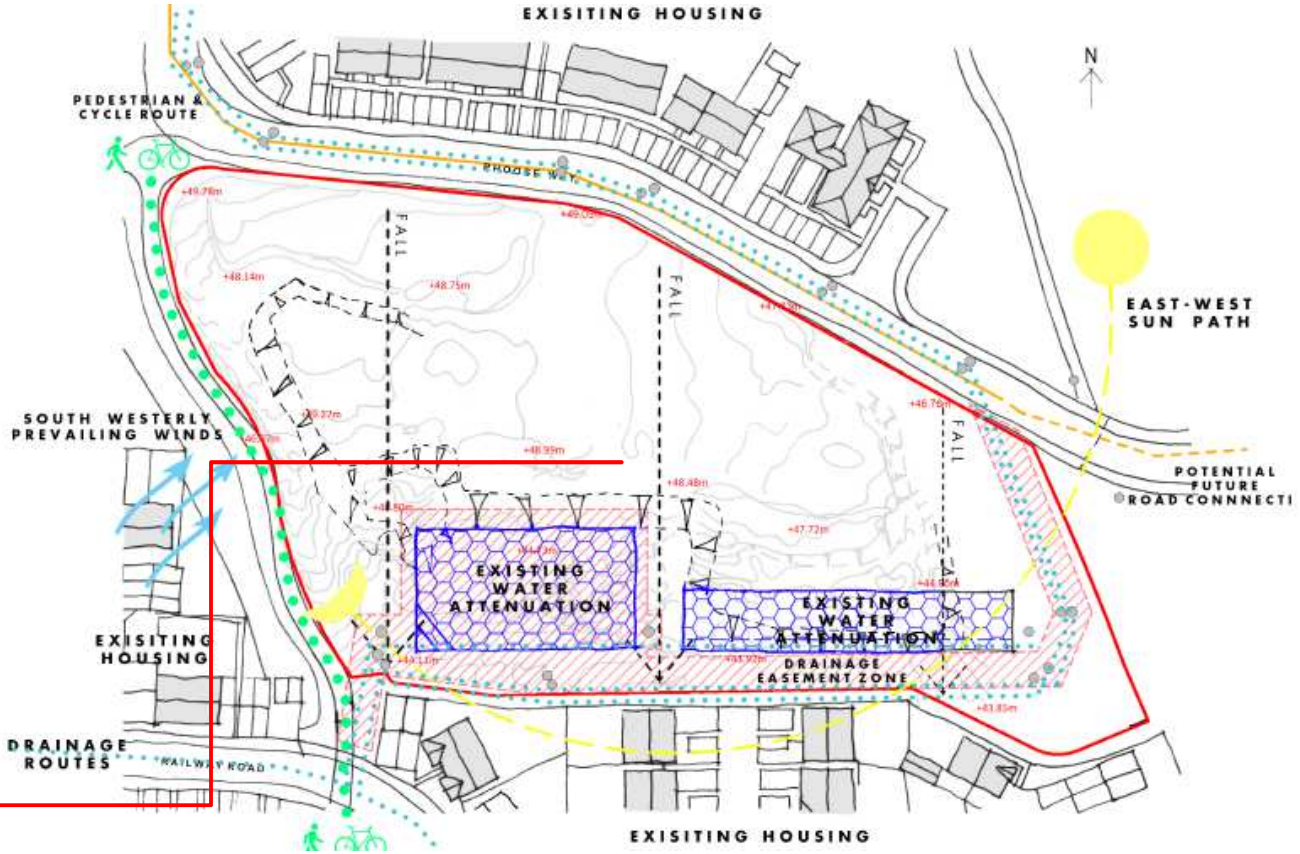
Background / Scope of Works

We are collaborating with VOG to develop and deliver three schools and a nursery under separate contracts in both rural and semi-rural environments within the heart of the Vale of Glamorgan. This presentation focuses on Llancarfan CIW primary school which involves the construction of;

- Two storey, brick/render/clad school
- Two stage SAB / SUD programme of work/application
- Residential Area.
- Adjacent private residential homes with immediate marine & airport backdrop
- Value circa £4.5m
- Ratio of adjacent social housing (Post Covid Lockdown environment)
- ‘ Net carbon Zero’ school

Background / Scope of Works





Proposed site

Background / Scope of Works

Adjacent areas where water management is clearly an issue.

Background / Scope of Works

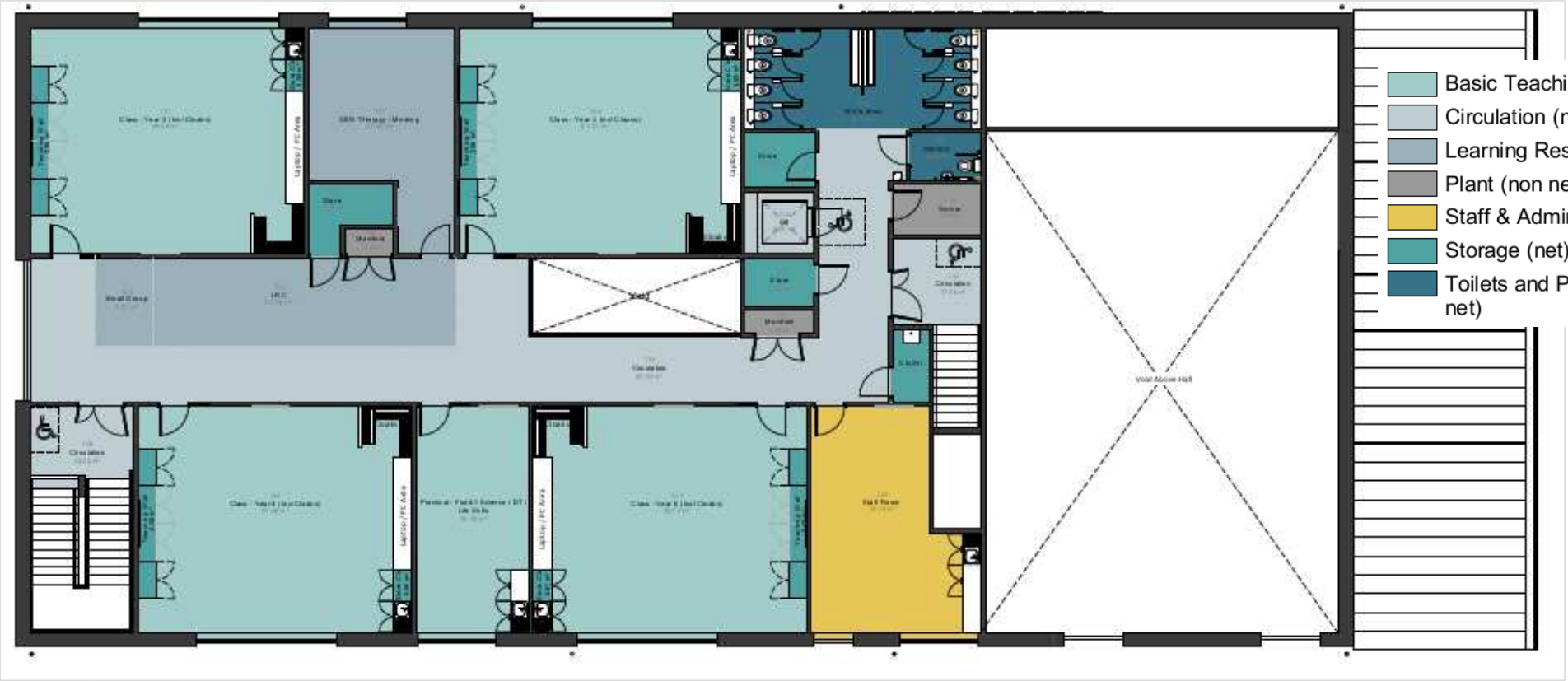
Existing Site in early 2020

Existing photographs of proposed site for development:

1. Panoramic site view looking north east
2. Existing housing bordering the site
3. Middle of the site looking west

Background / Scope of Works Ground Floor

Background / Scope of Works First Floor



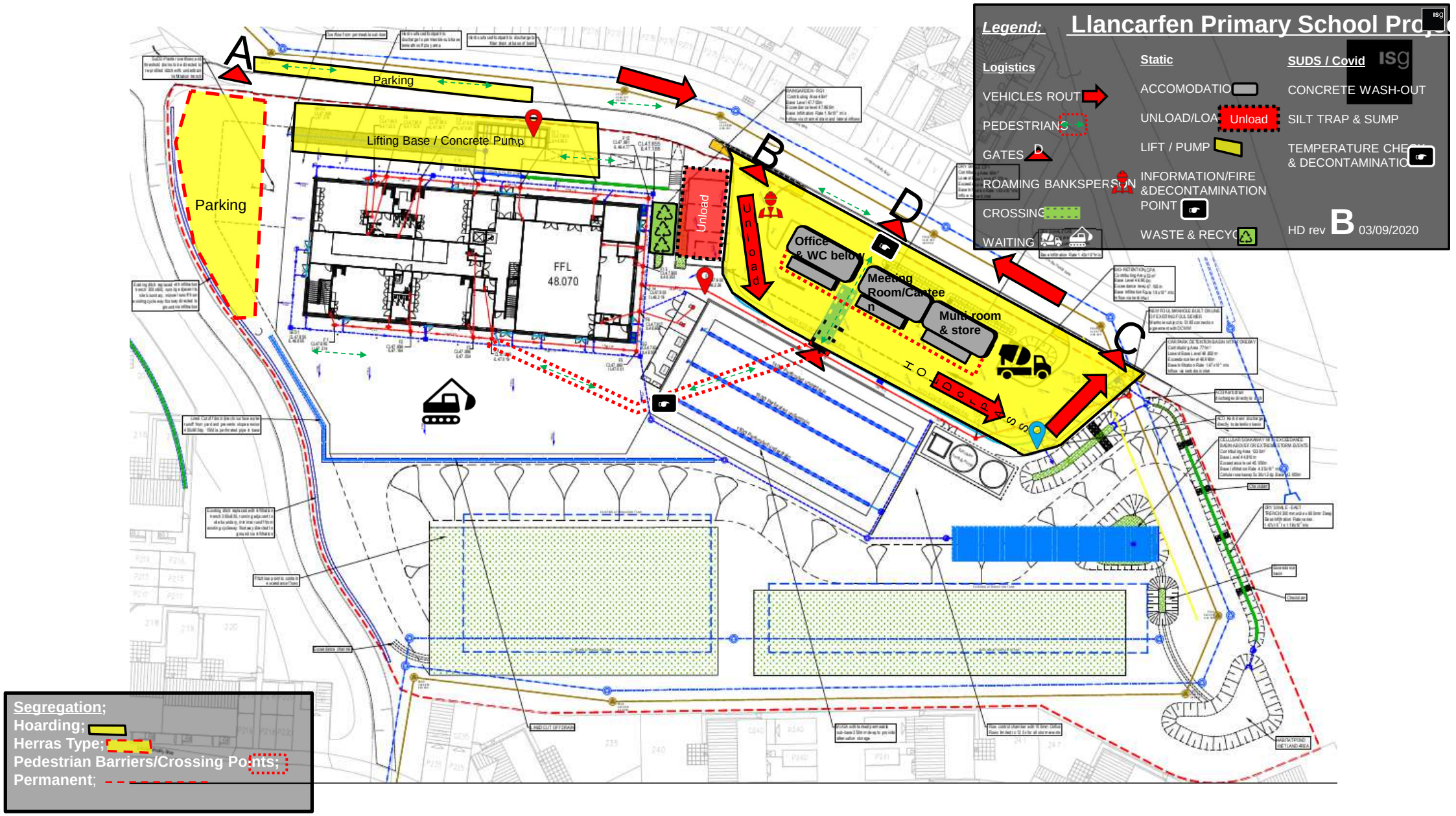
Background / Scope of Works

External works

External works

Site TMP Layouts

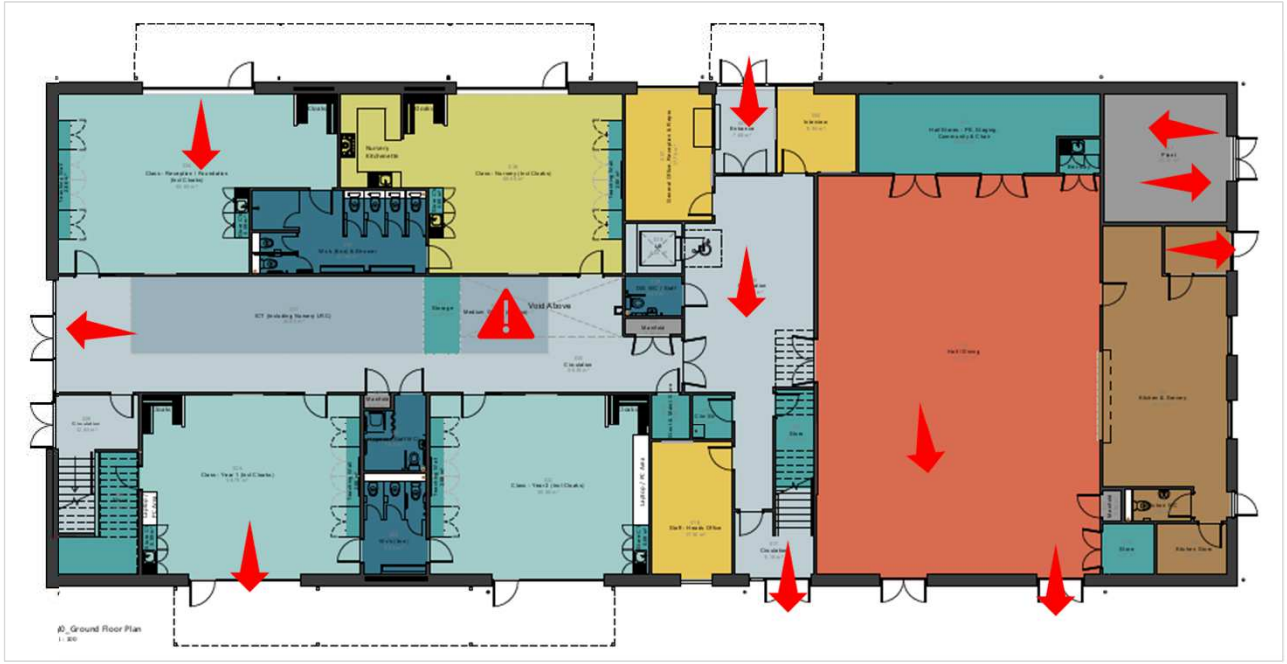
Choose safe Choose health


Legend:
Llancarfen Primary School Proj
Logistics
VEHICLES ROUT
PEDESTRIANS
GATES
ROAMING BANKSPERSON
CROSSING
WAITING
Static
ACCOMODATIO
UNLOAD/LOA
Unload
LIFT / PUMP
INFORMATION/FIRE &DECONTAMINATION POINT
WASTE & RECYC
SUDS / Covid
CONCRETE WASH-OUT
SILT TRAP & SUMP
TEMPERATURE CHE
& DECONTAMINATIO
HD rev B 03/09/2020
A
B
C
D
Parking
Lifting Base / Concrete Pump
Parking
Unload
Unload
FFL
48.070
Office
& WC below
Meeting
Room/Canteen
Multi-room
& store
Segregation;
Hoarding;
Herras Type;
Pedestrian Barriers/Crossing Points;
Permanent;

TMP within the building

Choose safe Choose health

Loading & distribution

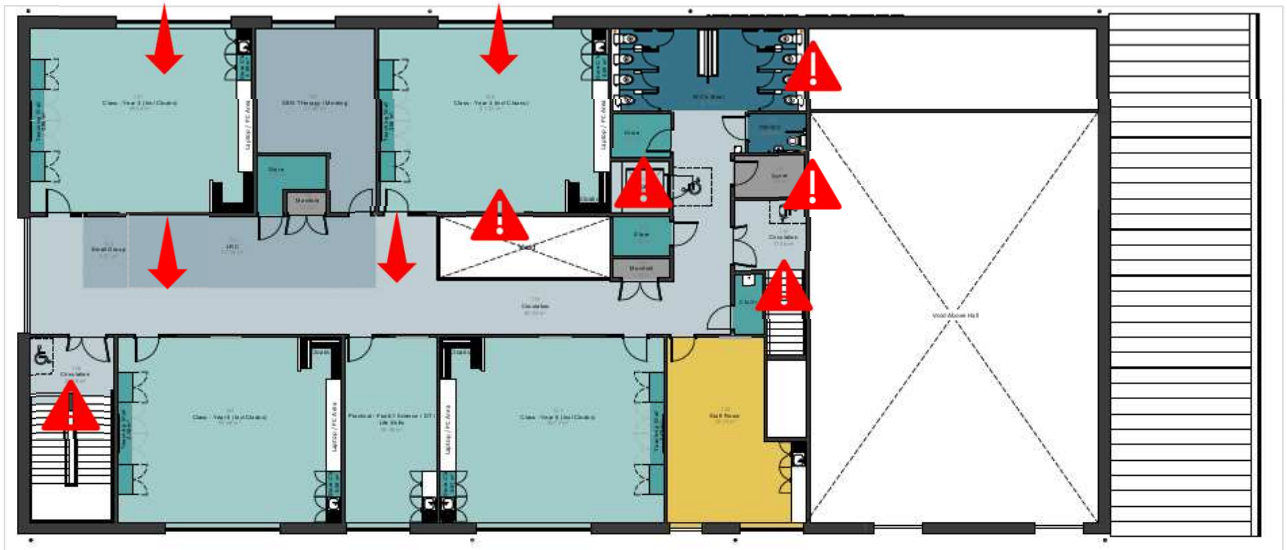


- Basic Teaching (net)
- Circulation (non net)
- Halls (net)
- Kitchen (non net)
- Learning Resources (net)
- Nursery
- Plant (non net)
- Staff & Admin. (net)
- Storage (net)
- Toilets and Personal Care (non net)

Crush /Fall hazard

Route to target Work area

Ground Floor



- Basic Teaching (net)
- Circulation (non net)
- Learning Resources (net)
- Plant (non net)
- Staff & Admin. (net)
- Storage (net)
- Toilets and Personal Care (non net)

First Floor

Appendix 7
Project Fire Plan

Project Name	Llancarfan Primary School	Job No.	SWW 0056
Client (Name and Address)		**Site Address**	
Jane O'Leary **21st Century Schools Programme Manager** **Learning & Skills / Dysgu a Sgiliau** **Vale of Glamorgan Council / Cyngor Bro Morgannwg** **tel / ffôn: 01446 709828** **mob / sym: 07518054491** **jloleary@valeofglamorgan.gov.uk**		**Llancarfen CIW Primary School** **Rhoose Way** **Rhoose** **CF62 3FD**	

AUTHORISED BY	TITLE	SIGNATURE
Richard Skone	**DIRECTOR RESPONSIBLE**	**X**
Howard Davies	**PROJECT LEADER/NOMINATED MANAGER**	**X**
Gary Harsant	**HEALTH AND SAFETY**	**X**

Revision Record

This document has been reviewed and where necessary updated as detailed below.

If there are no changes to be made records the review as "Reviewed. No changes required". Do not change the revision letter.

Revision	Date	Summary of changes (Enter page and section number and brief details of change.)	Updated By
0	**03/08/20**	**Amended Phase layout**	**HD**

CIRCULATION; VIA ACONEX

Issued to:	Company:
Principle Contractor	**ISG**
Client	**VOG**
Principal Designer	**Stride Treglown**
Project Managers	**AECOM**
Architect	**Stride Tregown**
Structural Designer	**RVW**
Mechanical & Electrical Consultants	**McCann**
Client appointed Consultant	**NA**
Building Control	**Colin Palmer VOG (LABC)**
Appointed trade Contractors	**Refer to Project Directory**

All items in red to be completed by site team to create a project specific plan.

CONTENTS

1. FOREWORD

Each year there are numerous major fires on construction sites and buildings undergoing refurbishment. All have serious consequences: people are injured, buildings, including those of historic interest, are destroyed. Plant and equipment is damaged, work is held up and completion dates are not met. The majority of fires can be prevented by designing out risks, taking simple precautions and by adopting safe working practices.

Therefore, all parties involved must work together to ensure that:

(a) adequate detection and prevention measures are incorporated during the design and contract planning stage;

(b) the work on site is undertaken to the highest standard of fire safety, thereby affording the maximum level of protection to the building and its occupants.

2. COMPLIANCE WITH THE CODE

'The Joint Code of Practice on the Protection from Fire of Construction Sites And Building's Undergoing Renovation'

Compliance with the code, which applies to construction sites, including those where demolition, alterations, fitting out, renovations, refurbishment or repair work is being carried out, will minimise the risk of accidental or malicious fires.

N.B Non-compliance with this code by the Construction Industry, by those who procure construction and by construction industry professionals could result in insurance ceasing to be available or being withdrawn resulting a possible breach of construction contracts which require the provision of such insurance.

The JCOP should be read in conjunction with the Construction (Design and Management) Regulations 2015 (The CDM Regulations) and the Regulatory Reform (Fire Safety) Order 2005.

3. INTRODUCTION

Proper planning for fire, safety and health must be an integral part of the overall preparation and budgeting for the efficient running of construction projects. Clear procedures and standards must be laid down at the start and adequate resources in terms of time, materials and money must be committed to the prevention of fires, accidents and ill health by all concerned with the project.

The fire risk assessments undertaken for this project in compliance with the Regulatory Reform (Fire Safety) Order 2005 shall address the fire prevention and protection measures that will ensure the safe completion of this project. These risk assessments must be reviewed periodically due to the rapidly changing nature of the hazards and the project itself to ensure their suitability at all times.

The implementation and management of this plan will ensure the requirements of the code are met.

This Fire Plan has been compiled from information obtained from the pre-construction information pack, issued by the Principal Designer, **Karyn Williams** and from supporting information obtained from site visits, Designers Risk Assessments and drawings and specifications issued by other

members of the project team. This is a live document and shall be maintained, reviewed and updated by the project team throughout the projects duration and at a frequency of at least monthly.

St.Davids CIW Priamry School and is due to commence on 14th September 2020 and is programmed to finish in 2021. Works shall not commence until this plan has been completed to a satisfactory standard and has been deemed suitable and authorised and signed by the appropriate members of the ISG Project Team.

The scope of work for the encompasses: -

This project is for **Llancarfen CIW primary School** and is to commence on **9th November 2020** and finishes on **18th October 2021** Works will not commence until this plan has been completed to a satisfactory standard and has been deemed suitable by the Principal Designer. Additionally, the Construction Phase Health & Safety Plan must also be authorised and signed by the appropriate persons of the Project Team. The Scope of works includes:
The design and construction of a two storey steel framed brick/render clad, 1 FE school with associated external works including, drainage, parking soft & hard landscaping. The site is set within a new residential area with roads and infrastructure.The new school will like this;

North Elevation

4. CONSTRUCTION PHASE

ISG as Principal Contractor shall in accordance with the Regulatory Reform 'Fire Safety' Order 2005 appoint a 'Responsible Person' (ISG Site Fire Safety Co-ordinator) who shall be responsible for assessing the degree of fire risk upon the project and for the formulation and regular up-dating of the Projects Fire Plan, with this detailing;

1. The organisation of and responsibilities for fire safety and arrangements for recording all fire safety training given to site operatives.
2. General site precautions, fire detection and warning alarms, temporary emergency lighting, fire extinguishers and fire points.
3. The need for clear access to the site and buildings to be maintained at all times
4. The need for escape routes within the building, including corridors and stairwells, to be clearly signed and kept clear of obstructions.
5. The locations of designated smoking areas.
6. The requirements of a Hot Work Permit regime where hot work cannot be avoided by other means.
7. Temporary buildings / accommodation, including location, fire protection, construction and maintenance.
8. Fire escape and communications (including an effective evacuation plan and procedures for calling the fire brigade).
9. Fire brigade access, facilities and co-ordination.
10. Instructions given to those on site of the required actions in case of fire.
11. Security measures to minimise the risk of arson.
12. The material storage and waste control regime, with particular reference to flammable and highly flammable materials.
13. The maintenance of temporary electrical installations.
14. The use of fire retardant coverings.
15. Arrangements for plant and vehicles.
16. Measures to prevent fire spread from the site (where appropriate).

The ISG Site Fire Safety Co-ordinator must;

1. Ensure that all procedures, precautionary measures and safety standards as laid down in the Site fire safety plan are clearly understood and complied with by all those on the project
2. Where necessary establish a Hot Work permit system and monitor compliance with'.
3. Ensure the weekly testing of the fire alarm is carried out and that other smoke and heat detectors on site are periodically tested.
4. Ensure that weekly inspections are carried out of escape routes, fire brigade access, fire fighting facilities, temporary lighting, the routing of temporary electrical cables and works areas, with these monitored against the requirements laid out within the Fire Plan.
5. Ensure that liaison is maintained with the local fire service and they are invited to undertake site inspections and familiarisation tours.
6. Liaison with site security personnel where they are employed
7. Maintain a written record of all checks inspection, tests, fire patrols and fire drill procedures during an alarm execute those duties required for the safe evacuation of site and ensure that all staff and visitors report to the assembly points

8 Promote a fire safe working environment at all times.

5. ORGANISATION - FIRE SAFETY TEAM

SITE FIRE SAFETY CO-ORDINATOR **PRIMARY –** Dafydd Williams
DEPUTY - Duty GCO

APPOINTED FIRE WARDENS -

AREA	PRIMARY	DEPUTY
Site Area	**Adrian Mills**	**TBC**
School Area	**Daffyd Williams**	**Duty GCO**

CONTRACTOR APPOINTED FIRE WARDENS

Fire Safety co-ordinator
Responsibilities

1 Ensure the head count is correct in the event of an evacuation
2 Monitoring & maintaining a minimum of 2 emergency escape routes are clear at all times.
3 Monitor the Hot Work Permit system.
4 Liaison with the local fire brigade
5 Maintain and check the fire points on a weekly base
6 Maintain / update / distribute the Fire Plan.
7 Appoint a deputy as appropriate
8 Ensuring that any testing of the systems required is carried out and recorded
9 Ensuring that evacuation drills are undertaken to test arrangements and ensuring that the results are recorded, and improvement actions implemented as necessary.

Appointed fire wardens

Responsibilities

1 Daily check on the emergency escape routes
2 Appoint a deputy as appropriate

All contractors are to nominate a fire warden. The fire warden will be responsible for ensuring that in the event of an evacuation all their operatives have evacuated the site and then report to the ISG Site Safety Co-ordinator that the head count is complete. Each fire warden or a nominated member of staff will collect a placard which will identify each company, from the site security office and take it to the muster point. Each operative on arrival will line up behind their company placard and ensure they report to their fire warden so that the head count can be completed.

The Contractors will ensure relevant fire wardens are provided with an orange hi visibility vest which clearly displays company logo.

6. RESPONSIBILITIES OF FIRE SAFETY TEAM

Ensure that all procedures, precautionary measures and site fire safety standards set out in the fire plan are clearly understood and complied with by all persons on the site.

Ensure that a Hot Work Permit system is established and its use monitored.

Carry out weekly checks of fire fighting equipment and test all alarms/detection equipment installed.
Carry out daily inspection of the Fire Escape routed and signage.
Liaison with site security personnel where they' are employed.
Maintain a written record of all checks, inspections, tests, fire patrols and fire drill procedures.
Regularly monitor and check the detailed arrangements and actual procedures for calling the Fire brigade.
During an alarm, execute those duties required for the safe evacuation of the site, and ensure all staff and visitors report to the muster point

Promote 'a fire safe working environment' at all times.

ISG Fire Warden Duties

1. Ensure all personnel are evacuated from the floor by the fire escape staircases when the evacuation signal sounds (continuous sounding of the alarm)
2. Ensure that all personnel and visitors in each search area are evacuated via the fire exits.
3. Reassure those evacuating that, because the staircases are fire safe areas, the evacuation should be orderly and without delay.
4. Remind personnel to go to the Muster Point.
5. Leave by the nearest fire exit and go to the Muster Point.

Contractor Fire Warden Duties

If the Alert, Evacuation Signal Sounds and or any Instructions from ISG Fire Warden:

1. Fire Warden to make their way to security point using the nearest fire exit.
   Leave site and assemble next to the gates adjacent to the on verge on the verges adjacent to the site
2. Collect fire evacuation board.
3. Go to the Muster Point and form orderly lines.
4. Take an accurate head count.
5. Report to ISG Fire Co-ordinator
6. Report head count is correct or identify any persons not accounted for
7. Remain in the area.
8. Await further instructions from ISG.
9. Contractor fire marshals are to ensure that all staff' return to site and that the site attendance record is an accurate record of all staff that have returned.

Note – In the event of an alarm sounding on any construction floor, ISG will implement a full site evacuation using ISG Fire Wardens.

Visitors Procedures During Evacuation

All visitors will be given a visitors site induction, this will explain the procedures to be followed in the event of a site evacuation.

The fire safety Co-ordinator shall ensure that the visitors signing in book is taken to the muster point so that an effective role call of all visitors on site can be performed.

7. SITE LAYOUT (Appendix 1)

Attached Site layout plans showing the location of:

1. Fire and rescue service access, fire fighting shafts and fire lifts.
2. Dedicated emergency escape routes and staircases
3. Fire points.
4. Position of nearest hydrants.
5. Storage locations of flammable liquids, gases etc.
6. Location of gas mains, electrical risers etc.
7. The muster point.
8. Temporary buildings and accommodation.
9. ~~Wet / dry riser inlets.~~
10. ~~Foam inlets.~~
11. Refuge points.
12. ~~Details of the fire compartments~~

Temporary accommodation will be constructed from non-combustible materials and all walls and doors **shall** achieve 30mins fire resistance. Where food is cooked in a canteen the walls **shall** be built to 1 hour Fire Resistance

Heaters in site offices and welfare facilities must be fixed above floor level have enclosed elements and are fitted with metal guards. Drying racks and coat hooks will be located safely away from heaters.

8. GENERAL PRECAUTIONS

EMERGENCY PROCEDURES

On all ISG projects the means of giving warning of must be established. Certain sites, by their size and nature, may require a temporary hard- wired linked system operated from call points, on other sites klaxons or manually operated sounders may be practical so long as they are clearly audible above background noises in all areas and can be readily identified as being the fire alarm;

- Where manually operated devices are to be used, they should be of a sufficient quantity to ensure that they can be accessed at all times.
- The number of manually operated devices within an enclosed building should be subject of/ included within the projects fire risk assessment as they have the potential to delay the escape of the operator of the alarm.
- For projects using remotely monitored and wireless fire alarm systems, consideration should be given to ensure that the signalling system remains uninterrupted throughout the duration of the works.

'Electronic alarms are ISG's preferred means of alarm over the use of manual operated alarms systems'

'In some instances automatic fire detection may also need to be installed within temporary accommodation and where flammable liquids and gases are to be stored'.

HIERARCHY OF CONTROL FOR ALARM SYSTEMS

Complex/ Multi Storey Buildings/ High Rise Buildings:
Defined within the JCOP as a site where the workforce is at risk by being outside the distance by which the fire and rescue service can affect a rescue by mechanical means (currently 30m reach from the position where a fire appliance may be parked).
As the building extends, it is essential that the fire alarm extends with it so that it is audible (and, where necessary, visible) in all areas of the build at all times.
The fire alarm should be an electrically-operated system throughout the height of the building, comprising of:

- manual activation points, e.g. break glass/ push button (or similar);
- call points and sounders on appropriate levels (it may be possible to install the hard-wired system as the building progresses but radio operated systems can also be considered);
- a link to an occupied office (i.e. Site Office or similar) from where the fire service can be summoned.

In instances where floors under construction are handed over to the client for early occupation, or on projects within occupied buildings, Client/Base Build Hard Wired Inter-linked (existing alarm) is required as first choice, followed by an Interlinked (Radio Operated) System as 2nd choice (to BS 5839 temp alarms).

Important Note: A high proportion of ISG projects fall into this category, and in most instances a Client/Basebuild alarm system will not be present. In these cases, a Temporary Hard Wired Inter-linked Alarm (as part of temp electrical package) must be installed whenever practicable.

Multi-storey office blocks, schools, flats, timber framed structures (excluding standard houses), hospitals, public buildings, leisure centres, factories and retail buildings.
The requirements for alarms are the same as those set out above, however in instances where there is no Client or Base Build Hard Wired Inter-linked (existing alarm) present, then a Temporary Hard Wired Inter-linked Alarm (as part of temp electrical package) must be installed. If this is not practicable, then a stand alone, wireless Radio Linked Options can be considered.

Single storey office block, schools, hospitals, public buildings, leisure centres, factories, timber frame structures and retail buildings.
The requirement for alarms in the above premises is a Temporary Inter-linked Wireless Alarm which can be either hired-in or bought.

Housing Construction Projects and very small simple/ single storey sites
In simple projects such as these Temporary Stand Alone battery/mains Alarms should be used. They can be either hired-in or bought. Examples of simple projects would include: small shop fitting projects or the fitting out of small unoccupied residential properties

Note: Manual bells are not to be operated upon any ISG project.

Written emergency procedures shall be posted by ISG in all prominent locations and at each fire point supplied at points of egress out and away from the project to a place of safety and details of which supplied to each operative attending the project as part of the project induction and regular refresher training/ tool box talks.

TESTING OF DETECTION AND ALARM SYSTEMS

All ISG supplied fire detection and alarm systems shall be tested for effective operation within the first 6 weeks of the projects starting and then at periods not exceeding every 3 months thereafter. Records of these tests and any remedial works undertaken shall be recorded by the Fire Safety Co-ordinator upon the ‘Emergency Evacuation Report’ template.

FIRE EVACUATION PROCEDURE

On hearing the projects fire alarm all operatives must ensure that all equipment is made safe and that they evacuate the building via the nearest emergency escape route.

All personnel evacuating the site are to assemble at the projects designated muster point on the external verges adjacent the site

ISG’s site fire co-ordinator and fire wardens will ensure that their respective areas upon the project are cleared of all personnel.

The security card system/ fire register will identify all operatives that are present on site; this will be issued to each of the contractor designated fire warden/ deputy who will hold a role call at the muster point.

All operatives shall report to their Fire Warden or their deputy to enable the roll call to be taken from the projects fire register.

The contractor’s fire warden or deputy must report to the ISG Fire Co-ordinator to report that all operatives are accounted for, or identify those who are not accounted for.

All personnel are to remain at the muster point until the ISG site fire co-ordinator gives the all clear.

When the all clear is given by the ISG site fire co-ordinator all operatives are to return to the project to be re-registered upon the project.

PORTABLE FIRE EXTINGUISHERS

The following fire protection equipment will be maintained on site

Location	Signage	Water	CO2	Foam	Powder
Site Compound	**Yes**	**Yes / ~~No~~**	**Yes / ~~No~~**	**Yes / ~~No~~**	**Yes / ~~No~~**
Playground	**Yes**	**Yes / ~~No~~**	**Yes / ~~No~~**	**Yes / ~~No~~**	**Yes / ~~No~~**

Fire extinguishers shall be located at fire points. Fire points shall be located within 30 metres of any point in the building and adjacent to all fire exits and in corridors. Each fire point **shall** contain water/ foam and carbon dioxide/ dry powder fire extinguishers as shown in the table above.

Each fire point shall be numbered and identified with a fire point sign along with a marked up laminated floor plan and emergency procedure sign posted adjacent. Each fire extinguisher will also be numbered to correspond with the fire point to which it has been allocated. A missing sign will be placed behind the fire extinguisher trolley, to discourage contractors from moving / using our extinguishers.

Foam or dry powder extinguishers are to be used in all offices and cooking areas.

All Extinguishers shall be maintained and inspected weekly. A record of ALL fire point inspections shall be kept on site.

All fire point locations and fire exits will be clearly identified on laminated site layout plans, and displayed on each floors information board and at the site entrance. The location of the muster point will also be clearly displayed.

Fire point locations, fire exits and the muster location **shall** be given to all operatives at the site induction.

Where there is a canteen on site and hot food is prepared an appropriate extinguisher **shall** be provided and kept within the Kitchen area, together with a fire blanket.
If deep fat frying equipment is in use the kitchen must be equipped with a Wet Chemical fire extinguisher.

As works progress the suitability of the fire equipment provision put in place shall be reviewed as part of the monthly fire risk assessment review sessions.

Any personnel using any of the fire fighting equipment provided on site is to suitably competent and confident in its use.

Note; mechanically propelled site plant should carry an appropriate fire extinguisher where reasonably practicable.

SITE SECURITY AGAINST ARSON

All buildings/ projects under ISG's control are to be suitably protected against theft and deliberate fire raising in line with the findings of the projects fire risk assessment.
The most effective means found by ISG of deterring trespassers as well as helping to prevent the setting of malicious fires is to ensure that the site is fully secured against unauthorised entry, with this best achieved by erecting a suitable and sufficient hoarding around the projects perimeter as a whole and by the securing of all possible access points such as windows, doors in to the project.

Pedestrian access points and vehicle access gates shall be secured with high security close or concealed shackle padlocks and chains of the same quality. A secure perimeter also provides protection against potential injury claims from trespassers on to the project.

Where the building envelope forms the sites perimeter, all accessible openings such as the ground floor windows and doors and vulnerable high level windows shall be fully secured against unauthorised entry on to the project. This will be achieved through the early installation where possible of doors and windows or through the temporary boarding of apertures with 18mm plywood or proprietary steel shuttering. Doors and windows are to be fitted with locks and suitably secured when the building is vacant. Access to the projects upper levels via scaffolding should be prevented.

Flammable liquid stores liquefied petroleum gas cylinder storage and combustible material store must be fenced or otherwise suitably protected against unwanted access/ tampering.

Illumination of the site is an additional deterrent to unauthorised access.

At the end of each working day a fire check shall be undertaken by the ISG team, particularly in areas where hot work has been undertaken. Where 24 hour security is provided by ISG fire checks shall be undertaken throughout the night during the holiday periods and at weekends.

On high fire risk sites the use of remotely monitored CCTV cameras and/ or a permanent security presence shall be considered.

All personnel should be on the alert for fires started maliciously by onsite staff.
In the event of suspension of site works the security/ fire risk assessments shall be reviewed again by the ISG team and any additional precautions taken and agreed with the security team/ provider.

The ISG team are to consider the installation of intruder alarm systems within temporary buildings and temporary accommodation.

TEMPORARY PROTECTIVE COVERING MATERIALS

When finished surfaces or fittings or expensive items of plant or machinery are incorporated into a building these should/ are to be temporarily protected during construction or refurbishment works, preventing any unwanted damage. The ISG team when selecting a protective covering material will pay keen consideration to the relative fire load and the potential for its growth and spread.

Where the internal finished surfaces or fittings incorporated into a building are to be temporarily protected by flexible covering material these must conform to the requirements of LPCB's Loss Prevention Standard LPS 1207: *Fire Requirements for Protection Covering Materials*. The relevant approval mark shall be printed on the material.

When flexible materials are used to clad scaffolding, these materials must conform to the requirements of LPS 1215: *Flammability requirements and test for LPCB approval of scaffolding material* with the materials approved by a third party certification body accredited by UKAS. The relevant approval mark shall be printed on the material.

Where the overprinting of materials with advertising or images occurs the ISG team shall ensure that this does not affect their fire performance, confirmation of which is to be sought through the testing of the printed material by the certification body.

Third party approved temporary protective covering materials must be exclusively used on all parts of the ISG project, including scaffold cladding (Monarflex), containment sheets, temporary roof sheeting and other tarpaulins. 'It is not acceptable to use non-approved materials in different parts of the building.'

Flame retardant coverings can still burn therefore at least one fire escape stairway shall be kept/ maintained free of all protective coverings by ISG.

TEMPORARY BUILDINGS AND TEMPORARY ACCOMMODATION

Temporary buildings/ accommodation are defined as;

Temporary buildings: includes prefabricated cabins, site huts, cargo containers, portable and sectional buildings brought on to site for use as offices, stores, workshops, welfare facilities etc during the course of the projects works.

Temporary Accommodation: a segregated part of the building under construction or undergoing refurbishment and occupied as offices, stores, workshops, welfare facilities etc during the course of the projects works.

ISG shall ensure that **temporary buildings** where possible are separated from the building under construction or refurbishment and other permanent buildings to provide as wide a fire break as reasonably practicable. While ISG will aim to provide a fire break of at least ten meters wide (good practice guidance), it is recognised that this may not all ways possible, so wherever practicable ISG will ensure a fire break of a least six meters wide, with these fire breaks to be kept clear of flammable materials.

Where it is not reasonably practicable to provide a fire break of at least six meters wide, ISG shall construct temporary buildings with materials that do not significantly contribute to the growth/ spread of fire, or the generation of smoke and corrosive/ toxic fumes. Temporary buildings shall be designed and constructed using the following criteria:

- All materials used in their construction are to be flame retardant so far as reasonably practicable.
- All walls and roof built to achieve '30' minutes fire resistance. On projects where a canteen kitchen facility has been provided this shall be built to achieve a '1hr' fire resistance.
- All doors and windows are to achieve '30' minutes fire resistance and be securely closed when the area is unoccupied. All fire doors shall be fitted with self closers.
- Where temporary buildings are to be vertically stacked the roof/ floor assembly and members supporting them should achieve at least '30' minutes fire resistance and comply with the appropriate building regulation requirements.

Where the flooring of a temporary building is raised above ground ISG shall ensure that the space beneath is enclosed to prevent the accumulation of rubbish, whilst still allowing for under floor ventilation.
No combustible materials of any sort should be stored under any temporary building.

ISG shall ensure that **temporary accommodation** shall be constructed with materials that do not significantly contribute to the growth/ spread of fire, or the generation of smoke and corrosive/ toxic fumes. With it being built to/ meeting the following criteria:

- All materials used in their construction are to be flame retardant so far as reasonably practicable.
- It shall be separated from the rest of the building by walls and ceilings which have been built to achieve '30' minutes fire resistance (integrity and insulation).
- All doors and windows are to achieve '30' minutes fire resistance and be securely closed when the area is unoccupied. All fire doors shall be fitted with self closers.

Whenever possible, ISG shall ensure that fire exits from temporary buildings and accommodation leads directly to the open air and away from the structure upon which the work is being undertaken.

Where it is necessary to construct or install temporary accommodation with the building under construction or refurbishment 'prohibited in large timber framed structures' ISG shall ensure that:

- Temporary buildings and accommodation shall be installed following the performance characteristics already mentioned within this section

- Temporary buildings and accommodation shall be erected in locations which provide ease of access for the fire and rescue service and ease of evacuation for personnel.

Temporary buildings or temporary accommodation located:

- Inside the building under construction/ refurbishment.
- Inside another permanent building; or
- Within 10m of such building(s).

Shall be fitted with fire detection systems complying with a recognised category of installation as set out in BS 5839-1: In the case of high fire risk sites, the detection system shall be linked whenever possible to the fire alarm system in the building on which the works are to be carried out and to an alarm receiving centre, unless there is a 24 hour site security presence on site.

Heaters for use in temporary buildings and temporary accommodation must be fixed, above floor level, fitted with securely fixed metal guards and maintained in a good condition.

Coat stands and drying racks must be firmly positioned at a safe distance from heaters, which should be thermostatically controlled and have enclosed elements.

All heaters and cooking appliances must be properly installed and adequate ventilation provided. Only microwave ovens are to be supplied by ISG for the means of cooking or heating food on site.

Automatic fire detection must and shall be installed where flammable liquids and gases are to be stored within temporary buildings or temporary accommodation used for cooking or the drying of clothes.

WASTE MATERIALS

Good housekeeping is essential upon all ISG sites. Waste materials should they be allowed to accumulate, provide an excellent starting point/ fuel for a fire. Therefore the introduction of combustible waste upon the project shall be minimised whenever possible and all waste packing materials, wood, shavings and oily rags must be removed as works progress, at least once a day.

All non-essential combustible wrapping and packaging shall be removed to a safe place away from the works area and be disposed of at the earliest opportunity, as works progress, not less than once a day.

All recycling collection points and other combustible waste materials awaiting disposal must be kept in an area as far as reasonably practicable away from the building under construction, temporary buildings, smoking shelters, stores and equipment.

PLANT AND VEHICLES

Stationary plant powered by internal combustion engines, such as compressors and generators, should be positioned out in the open air or in a well ventilated non-combustible enclosure. These are to be sited so that exhaust pipes and exhaust gases are kept clear of combustible materials and shall wherever practicable be separated from working areas and other buildings.

If plant and vehicles are to be refuelled on site:

- Fuel tanks must not be refuelled whilst engines are running or whilst hot.
- Vehicles should only be refuelled in ISG designated areas.
- Fuels should be stored within a fully bunded, access controlled station.

Compressors should be housed singly away from other plant and within a separate enclosure.

Plant and equipment must be protected against accidental impact/ damage.

Air intakes must be situated so that the air is cool, uncontaminated, and free from flammable gases or vapours.

Where appropriate proprietary non-combustible mineral based absorbing agents (spill kits) shall be provided by the contractor completing the works to absorb drips of fuel or lubricant, with these to be checked regularly

Vehicles:

- As general rule ISG shall not allow the long term parking of vehicles within 10m of the building under construction. Under no circumstances shall ISG allow the long term parking of vehicles within the building without a suitable and sufficient fire risk assessment being undertaken.
- When equipment and materials are being unloaded/ loaded from/ on to trade contractors vehicles, such vehicles may be permitted to park on site within 10m of the building for no longer than the duration of the unloading or loading of the vehicle.

STORED MATERIALS

Whenever reasonably practicable to do so, combustible materials should/ shall be stored outside of the building under construction or undergoing refurbishment, but should not be stored so close to it that fire is able to spread from the materials to the building.

Where combustible materials are stored inside the building, the area used for storage should:

- Have controlled access
- Not be in an area where hot work is being carried out.
- Either be within the area covered by the site fire detection system or be included on the route of regular fire checks, and
- Have fire fighting equipment located close by.

SMOKING

ISG have a ‘no smoking policy’ with this to be established throughout the site, with the exception of an ‘ISG’ designated smoking point where smoking will be allowed, this can be found located the bus stop

ISG’s designated smoking point is to be:

- Included specifically within the projects fire risk assessment
- Constructed of non combustible materials
- Positioned as far as practicable away from any building or structure, but at least 20m away on a high fire risk site where possible.
- Provided with a suitable metal ashtrays and a separate waste bin with a fitted metal lid, and

- Provided with a suitable fire extinguisher.

The immediate area around the shelter and the shelter itself shall be kept clear of combustible materials including windblown debris and vegetation.

Raised, slatted floors or decking are not to be used and concealed or semi-open spaces are to be sealed to ensure combustible debris cannot accumulate beneath the shelter.

The use of combustible curtains, canopies and drapes to protect smokers from the elements are not to be used. Flame retardant materials only are to be used.

In no circumstances should the shelter be constructed/ sited near:

- Windows.
- Ventilation intakes or extracts.
- Entrances and exits from the premises.
- Hazardous materials, including facilities for the storage of flammable liquids and gases.
- Waste storage containers (skips, bins etc).
- Beneath a canopy or low slung eaves.

Where no shelter is to be provided, areas where smoking is permitted shall be kept free of combustible materials and be equipped with a full ISG fire point set up, metal ash trays and a separate metal bin.

ISG shall ensure a vigorous ‘no smoking’ policy is established in outside areas where fire hazards exist. Such areas shall included refuse and storage areas containing combustible materials, flammable liquids, gas cylinders, foam plastics, fibreboard and timber. ‘NO SMOKING’ notices are to be displayed prominently in these areas.

HIGH RISE CONTRUCTION SITES (30m reach from the position where a fire appliance may be parked)

There are a number of projects where construction works progress at heights where normal fire protection measures and means may not be suitable/ applicable:

- The time taken to escape from the upper floors of the building to a place of safety away from the building in an emergency may be excessive.
- Incomplete compartmentation of the structure may lead to an inordinately rapid spread of smoke and flames and threaten escape routes, and
- There may be inadequate water supplies to fight a fire

In these circumstances ISG will undertake a specific fire risk assessment to develop appropriate provisions, primarily to ensure that persons working within the building/ structure can escape safely without undue delay.

This specific risk assessment shall be undertaken by ISG after consultation with the fire and rescue service and before work commences at a height at which mechanical recue by the fire and rescue service is no longer possible.

Fire doors with self- closers shall be fitted to protect the escape stairs in accordance with findings of the fire risk assessment. These must be in place when the building/ structure reach's the criteria for a high rise construction site. (30m reach from the position where a fire appliance may be parked)

At this time ISG will designate one staircase as a fire fighting stair, for the exclusive use of the fire service during the course of an emergency. Any fire fighting lifts included in the design of the building shall be commissioned and brought in to service at the earliest opportunity.

Where practicable the building shall be horizontally fire compartmented at intervals not exceeding ten floors, to prevent the upward or downward spread of smoke or flames. This is to be done at the earliest opportunity after construction of each of the relevant floors, using temporary fire stopping materials having no less than 30 min's fire resistance, until the permanent fire stopping arrangements can be installed.
All holes, shafts and openings should be closed off, including service risers, lift shafts and stairwells. Temporary fire stopping can be removed to allow for construction works in the area to be carried out but must be replaced whenever work stops. This fire stopping is not to be left out of place outside of working hours.

Atriums, stairways, lift shafts and shafts used for crane towers need not be horizontally divided at intervals not exceeding every ten floors provided that all openings to all floors are fitted with doors with self-closers to provide at least 30 minutes fire resistance. All other openings between floors and stairways lift shafts and crane tower shafts should be fire stopped as indicated above.

Risers, shafts, ducts and similar openings between floors should be closed off with doors having '30 minutes' fire resistance, to separate them from the floors, and must be fitted at all levels. Theses doors shall be treated in the same way as temporary fire stopping mentioned above i.e. only opened on any given floor when works are actually in progress inside the shaft at that level

Electrically operated fire alarm systems must/ shall be provided throughout the height of the building, comprising break glass (or similar) call points and sounders on all levels, plus a link to a permanently occupied security office (or similar) from where the fire and rescue service can be summoned, fire fighting system activated and other appropriate actions instigated. Hard wired systems or radio operated systems of proven reliability, performance and coverage are also acceptable. All components or all parts of the system shall be installed with a battery back up to ensure continuity of operation in the event or loss of power supplies.

9. HOT WORKS

Alternative methods to Hot Work should be adopted whenever possible e.g. the use of cold cutting. When there is no alternative to hot work then, if possible, the hot work should be undertaken in a dedicated area away from the area of work or storage of materials.

The completion of all hot works on ISG sites is subject to approval via a 'Hot Works Permit' system.
Hot works permits must only cover specific, identified activities and locations and be signed off at the end of each work period/ shift. 'Blanket' permits covering hot work activities over an extended period or several days shall not be permitted/ accepted. 'ISG are the only ones who issue permits on site'.

Before the application of a hot works permit the area must be cleared of all loose combustible material and checked as being the case by a member of the ISG team, if work is to take place on one side of a wall or partition, the opposite side must be examined to ensure that no combustible materials are ignited by conducted heat.

At least **'TWO'** appropriate fire extinguishers must be at hand and a careful fire watch maintained for the breaking out of fire whilst works are in progress.

Exposed wooden flooring and other items of combustible material which cannot be removed, must be covered with sand or another non-combustible material.

When welding, cutting or grinding the work area must be suitably screened using non-combustible material.

Equipment and hoses used with oxy-acetylene (Blue hose for Oxygen & Red hose for Acetylene) and similar equipment should be in good condition, set up in accordance with manufacturer's instructions and fitted with a flashback arrestor and be subject to a daily visual inspection, before each use (Black hose for all inert gases such as Nitrogen).

The use of Acetylene on ISG sites should be eliminated wherever practicable and alternative methods of cutting or welding are to be adopted. It is ISG's policy that Acetylene should not be used on site.

Where the use of Acetylene is unavoidable, an Acetylene justification report is to be produced by the contractor which will include the required control measures. The use of Acetylene justification report is to be authorised by both the project lead and the relevant health and safety department prior to any Acetylene permitted onto site.

Gas cylinders must be supported/ stored in a vertical position, by securing them upon a purpose built wheeled trolley using straps or chains. ALL cylinders should be fitted with a regulator not more than five years old.

'Welding and cutting works should only be carried out by trained and competent personnel'.
Tar boilers and similar equipment should be placed at ground level wherever possible. A boiler may be placed in another location convenient to the works only if a risk assessment shows that overall it is a greater hazard to have the boiler at ground level.

The following precautions are expected from ISG when using tar boilers on site:

- A non-combustible heat insulating base must be used.
- The equipment must be supervised by an experienced operative who can monitor the bitumen level and temperature, and ensure that the lid remains on the boiler.
- The boiler should be sited where spilled material can be easily controlled.
- All gas cylinders must be kept at least three meters away from the burner, secured in a vertical position and connected by a flexible armoured hose (Orange hose for Propane/ LPG).
- At least 'two' appropriate fire extinguishers must be readily available/ to hand.
- Hazardous materials must be removed from the works location as soon as work has been completed and before the hot work permit is signed off.
- A lit tar boiler should not be left unattended; and
- A tar boiler should not be moved when lit.

Any works area specified upon a hot works area shall be subject to a fire watch:

- In ALL cases a continuous fire watch is to be maintained for at least 30 minutes after Hot Work is completed, with further checks to be made at regular intervals up to 60 minutes after completion before the permit is returned to ISG for closing / sign off.

- Hot Works undertaken in HIGH fire hazard areas are subject to a continuous fire watch for at least 60 minutes upon completion of Hot Works or for specific period determined by a specific Fire Risk Assessment before the permit is returned to ISG for closing / sign off.

- Hot Works undertaken within or adjacent to a timber framed structure are to be subject to a continuous fire watch which should be maintained for at least 60 minutes and the area be carefully inspected at regular intervals for at least '2' hours after the completion of works before the permit is returned to ISG for closing / sign off.

Hot Works Permit Collection Procedure

1. Contractor to inspect works area ensuring that it is clear of loose combustible materials within a 5m radius of the works or where unable to remove those remaining are protected with LPS rated and labelled protection.

2. Contractor to fully complete a Hot Works permit and offer it to ISG for authorisation.

3. ISG nominated manager will then inspect the proposed works area to check that;
    - The area is free from combustible materials or those unable to be moved are suitably protected.
    - The works area is set up correctly, barriered/ segregated from third party ingress.
    - The required **'TWO'** suitable fire extinguishers are in place and fully serviceable.
    - And that the works are safe to proceed.

4. Following the passing of these checks the ISG nominated manager will open the permit, allowing the works to commence.

10. SITE STORAGE OF FLAMMABLE LIQUIDS AND LPG

Flammable liquids and gases to be used and stored on site shall be subject to and part of the projects fire risk assessment and COSHH assessment with these to be reviewed on monthly basis as a minimum by the ISG project team,

Containers of flammable liquids, LPG and other gaseous cylinders should be stored in open compounds which are securely fenced, shaded from the sun and remote pits, drains and low lying areas (LPG and some other gases are heavier than air).Stores of liquid fuels must be surrounded by an imperforate bund sufficient enough to contain the maximum contents of the largest container being stored, plus 10 percent (110% bunding). 'This bund must not be allowed to accumulate water or other waste materials'. Flammable liquids and LPG must not be stored together at any time.

Where it is necessary as a last resort only to store flammable liquids and gases in circumstances other than those mentioned above, the quantity stored shall be the absolute minimum necessary and no more than a day's' supply. These containers must be kept in a store, cupboard or bin which is of a fire- resistant construction.

Storage areas are to be sited as far as reasonably practicable from permanent and temporary buildings and at a minimum of 20m wherever possible in the case of high fire risk sites. Where practical, given the constraints of the site, containers and drums of flammable liquid or gas cylinders must not be stored within 10m of any building or boundary fence/ hoarding (and in no circumstance closer than 4m) unless the boundary is a wall at least 2m high and constructed to provide a minimum of 30 minutes fire resistance. In the latter case, containers and drums should be at least 1m below the top of the wall.

Products which could intensify the fire, such as acetylene or oxygen, or to the toxic hazard in the event of fire, such as chlorine, must not be stored in the same compound as flammable liquids and LPG.

ISG shall ensure that appropriately worded warning signs, e.g. 'HIGHLY FLAMMABLE LIQUIDS', 'NO SMOKING' and 'NO NAKED LIGHTS' are displayed prominently at the entrances to the designated stores.

The floors of flammable liquid or LPG cylinder stores are to be paved or compacted level, with a suitable hard standing provided for the delivery and dispatch of cylinders. The area in question must be kept clear of all combustible materials, weeds and rubbish.

Any electrical fittings, e.g. lights and switches, used with these stores must be suitable for the environment in which they are to be used (i.e. where a flammable or explosive atmosphere may be present) and be selected and installed by competent persons.

The provision of automatic flammable gas detection equipment should be considered for enclosed storage locations.

ISG shall ensure that at all times and adequate number of extinguishers appropriate to the hazard and material(s) being stored are sited at the entrances to the storage areas.

ISG shall ensure that where possible, designated areas for fuelling plant vehicles are supplied. The use of petrol generators in high risk structures is to be avoided.

'A register of Flammable liquids and gases is to be maintained by ISG's site fire co-ordinator'.

11. ACETYLENE

Acetylene is a flammable gas that, at elevated temperatures and pressures, can become unstable and liable to spontaneous decomposition. As a result Acetylene in cylinders, once suspected to be unstable (say after being dropped/ knocked), constitutes a serious fire and explosion hazard.
Should this occur, fire service safe working practices dictate the establishment of a hazard zone of up to 200m around the incident and leaving the cylinders involved undisturbed for up to 24 hours or more prior to the removal from the site. ALL activities in the designated zone have to cease and the area is evacuated (this includes any neighbouring buildings with the 200m zone), with significant implications for ALL, businesses etc operating in the area.

The use of Acetylene on ISG sites should be eliminated wherever practicable and alternative methods of cutting or welding are to be adopted. It is ISG's policy that Acetylene should not be used on site.

Where the use of Acetylene is unavoidable, an Acetylene justification report is to be produced by the contractor which will include the required control measures. The use of Acetylene justification report is to be authorised by both the project lead and the relevant health and safety department prior to any Acetylene permitted onto site.

12. ELECTRICITY AND GAS

All electrical supply installations on ISG projects, both temporary and permanent shall be installed in accordance with the latest edition of BS 7671: *Requirements for electrical installations* and the Electricity at Work Regulations 1989.

Portable electrical equipment used on site is required to carry durable labels which display that it has been inspected and tested and is in a satisfactory condition. ISG testing frequency expectations are;

- 110v plant every 3 months.
- 230 – 240v plant every month.
- 3 phase 415v plant every month.

All electrical works upon ISG projects shall be undertaken by a skilled and competent electrician as defined in BS 7671: *Requirements for electrical installations.*

All installations (especially temporary) must be inspected regularly tested at intervals not exceeding greater than every three months, or when they have been altered, results of which are to be recorded in the projects temporary works folder.

Electrical cabling (especially temporary) should be protected against damage from construction site activities.

Temporary lighting:

- Where portable temporary lights are required, these should be located well away from combustible materials
- Sealed florescent lighting is to be used (ISG preferred), over the use of festoon lighting.
- The use of halogen lights upon all ISG projects is prohibited.

Where possible, ISG expect all main switches – other than those controlling fire protection, security and life safety systems – to be turned off when works on site cease, and all equipment unplugged when not in use.

Where photovoltaic are being installed upon ISG projects, signs must be displayed at the earliest opportunity to warn site staff and fire fighters of the presence of live DC power supplies and the location of the isolators.

Following their installation, photovoltaic panels should be isolated and not be used to produce power for site use during the construction phase.

All permanent gas supplies must be installed by a registered gas installer. The contractor responsible for the works is to check that those operatives carrying out the works are so registered to do so upon their behalf.

Gas supplies to all appliances shall be via fixed piping or armoured flexible tubing. Gas cylinders are to be stored outside the building, secured and protected from unauthorised interference/ use.

LPG connected to an appliance by flexible link should only be installed by a competent person.

13. WEEKEND / OUT OF HOURS WORKING

Due to the nature of this project, ISG will always have on site a Fire Marshall / Co-ordinator available when there are weekend or out of hours works to be completed.

Depending on the number of personnel on site and varied amounts of floors being worked on, a second / third ISG Fire Marshall will be in attendance.
The number of fire marshals must be appropriate to the risk of the works being undertaken.

The arrangements will be put into place on receipt of a weekend/ out of hours working permit 72 hours prior to works wishing commencement.

14. APPENDICES / ATTACHMENTS

APPENDIX 1 **SITE LAYOUT PLANS**

APPENDIX 2 **GENERAL FIRE PRECAUTIONS AND RISK ASSESSMENT**

APPENDIX 3 **MUSTER POINT**

APPENDIX 4 **FIRE ALARM OPERATIONAL PROCEDURES**

APPENDIX 1

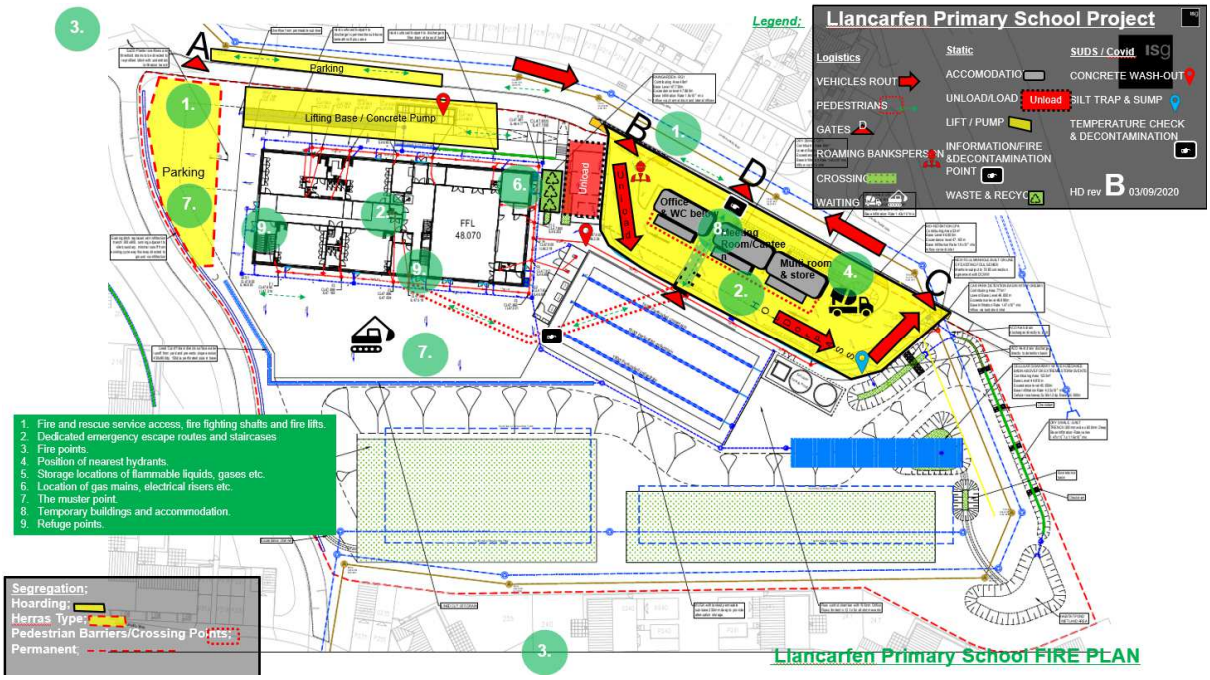
SITE LAYOUT PLANS

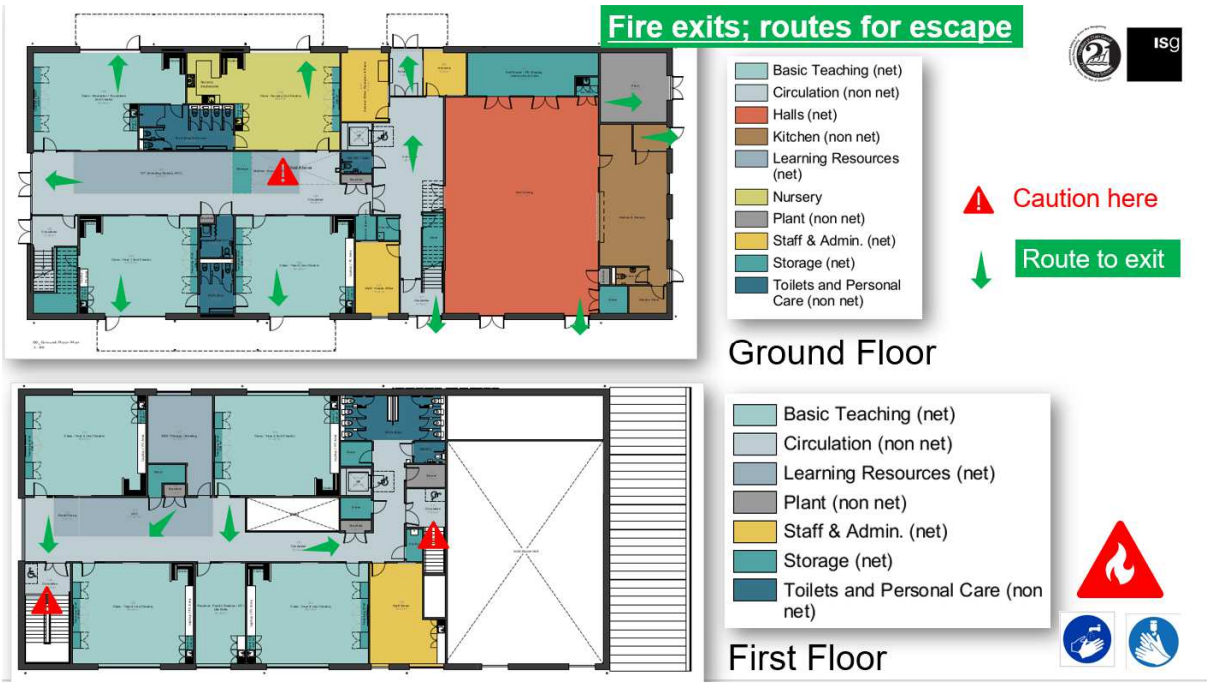
APPENDIX 2

GENERAL FIRE PRECAUTIONS AND RISK ASSESSMENT
To be completed when site is 'set-up'

APPENDIX 3

MUSTER POINT (at '7' below)




Fire exits; routes for escape
Basic Teaching (net)
Circulation (non net)
Halls (net)
Kitchen (non net)
Learning Resources (net)
Nursery
Plant (non net)
Staff & Admin. (net)
Storage (net)
Toilets and Personal Care (non net)
Caution here
Route to exit
Ground Floor
Basic Teaching (net)
Circulation (non net)
Learning Resources (net)
Plant (non net)
Staff & Admin. (net)
Storage (net)
Toilets and Personal Care (non net)
First Floor

APPENDIX 4

FIRE ALARM OPERATIONAL PROCEDURES
To be completed when site is 'set-up'

EVACUATION PROCEDURE FOR SITE OPERATIVES

ON **DISCOVERING** A FIRE

RAISE THE ALARM BY USING THE NEAREST BREAKGLASS AND SHOUT FIRE REPEATEDLY

INFORM ALL PERSON IN THE IMMEDIATE AREA

FOLLOW ANY INSTRUCTION ISSUED BY THE FIRE WARDENS

EVACUATE THE BUILDING VIA NEAREST AVAILABLE EXIT

PROCEED TO THE MUSTER POINT – **VERGE ADJACENT**

REPORT TO YOUR FIRE MARSHALL OR DESIGNATED PERSON, REMAIN IN THE AREA, FOLLOW ANY INSTRUCTION ISSUED BY

- ISG STAFF
- EMERGENCY SERVICES

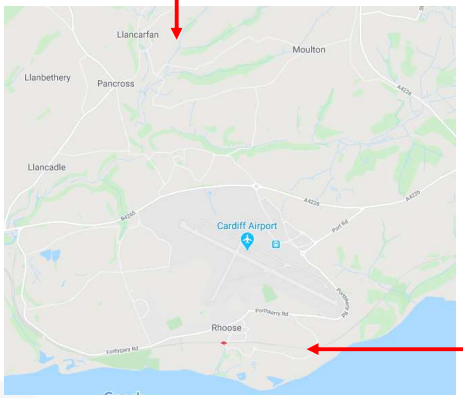
RETURN TO WORK ONLY WHEN DIRECTED TO DO SO

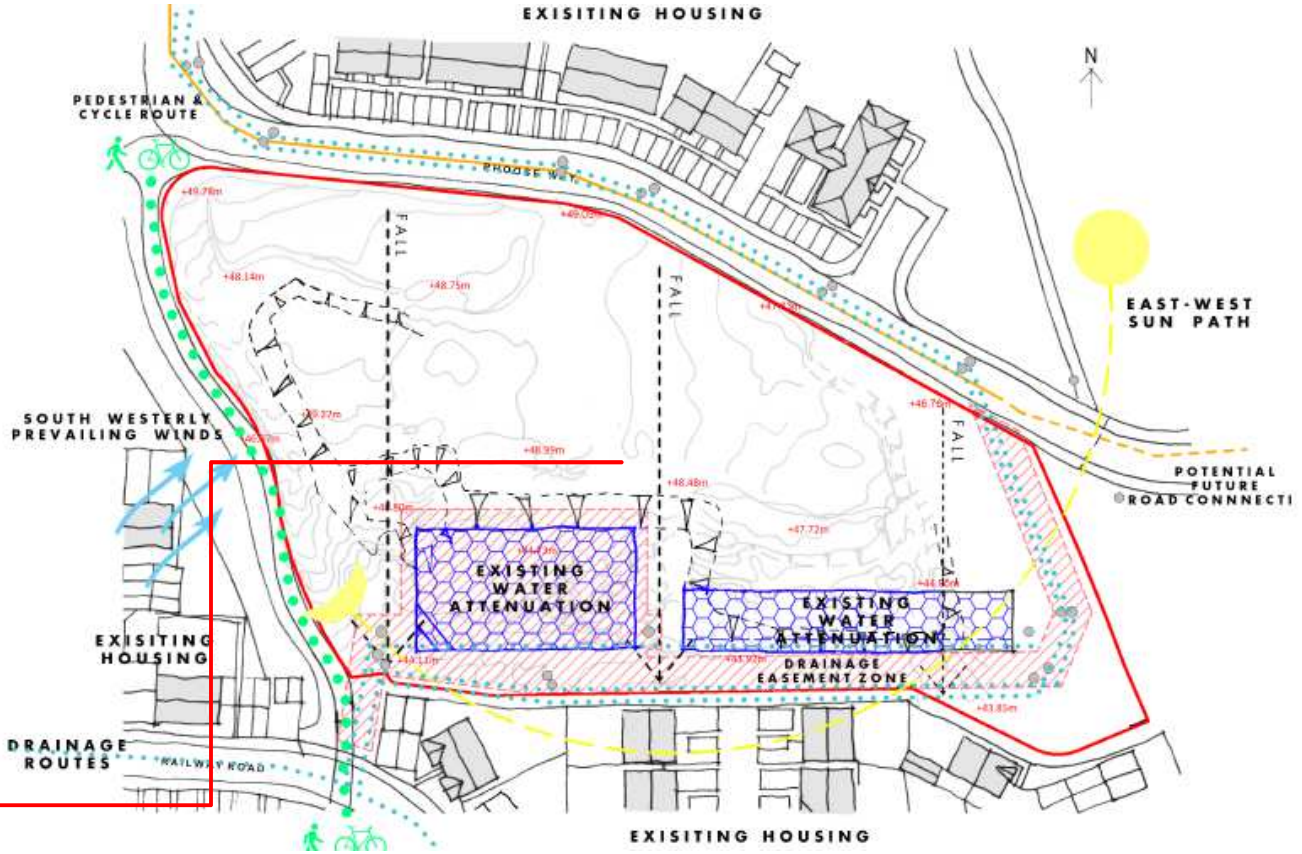
ONLY TACKLE THE FIRE IF YOU ARE TRAINED IN THE USE OF FIRE EXTINGUISHERS AND IT IS SAFE TO DO SO

Choose safe Choose health

Western Vale Primary Schools-Llancarfan CIW Fire Management Plan

Background / Scope of Works

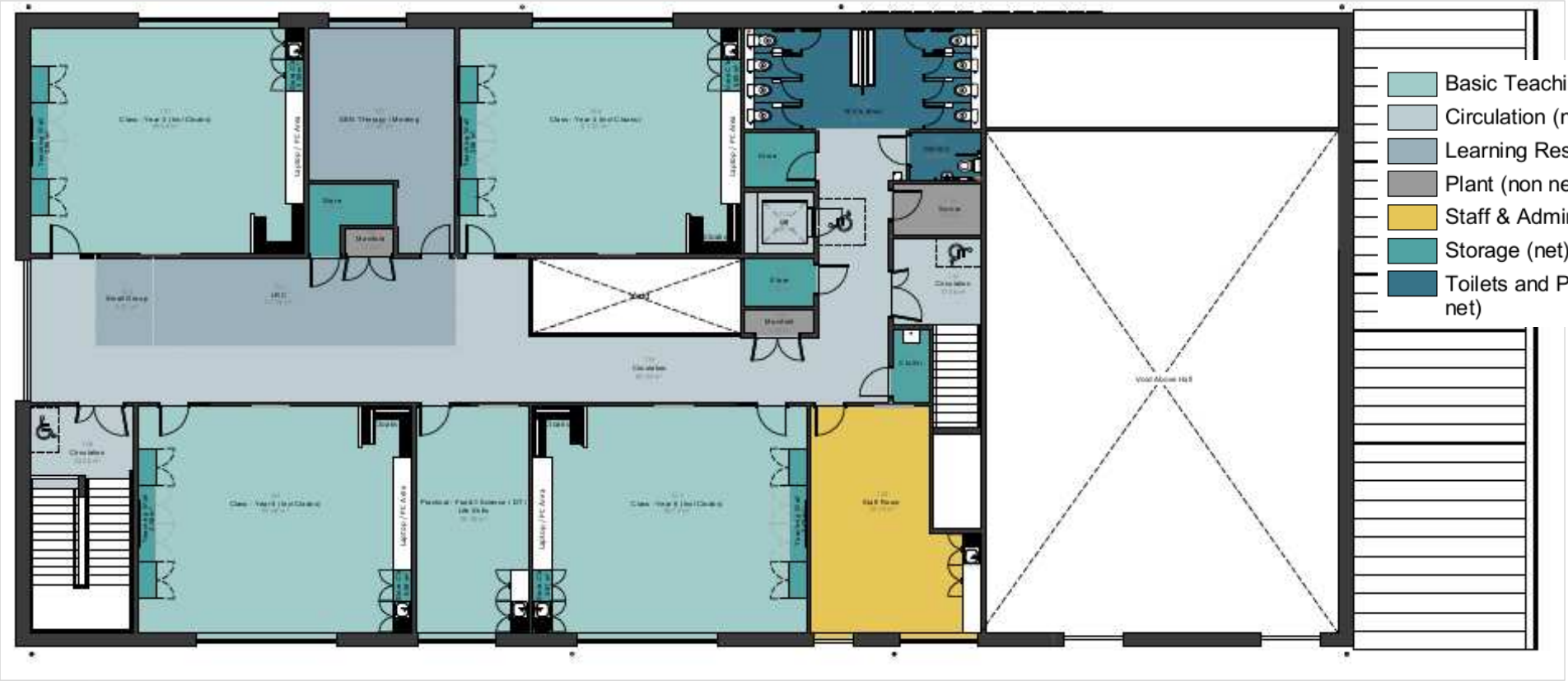




Proposed site

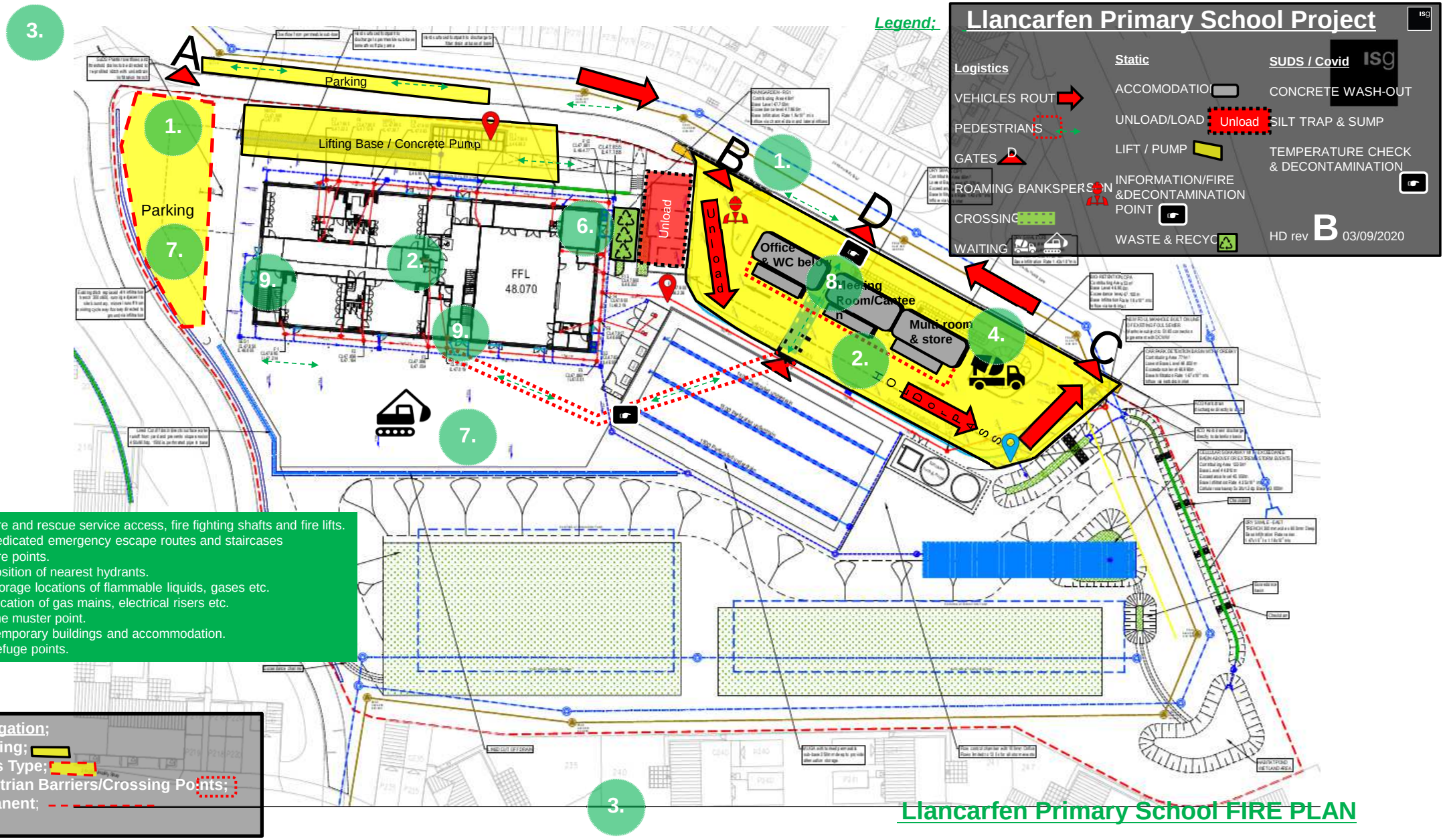
Background / Scope of Works Ground Floor

Background / Scope of Works First Floor



Site Fire Plan Layouts

Choose safe Choose health

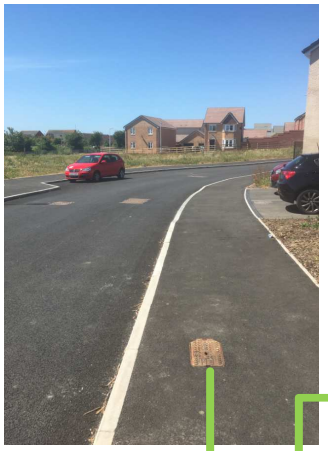

3.
A
Parking
Lifting Base / Concrete Pump
1.
Parking
7.
2.
FFL
48.070
6.
Unload
9.
9.
7.
B
1.
Unload
Office
& WC bel
8.
Meeting
Room/Cantee
n
Multi-room
& store
4.
2.
Unload
D
C
Legend:
Llancarfen Primary School Project
Logistics
VEHICLES ROUT
PEDESTRIANS
GATES
ROAMING BANKSPERSON
CROSSING
WAITING
Static
ACCOMODATIO
UNLOAD/LOAD
Unload
LIFT / PUMP
INFORMATION/FIRE
&DECONTAMINATION
POINT
WASTE & RECYC
SUDS / Covid
CONCRETE WASH-OUT
SILT TRAP & SUMP
TEMPERATURE CHECK
& DECONTAMINATION
HD rev B 03/09/2020
1. Fire and rescue service access, fire fighting shafts and fire lifts.
2. Dedicated emergency escape routes and staircases
3. Fire points.
4. Position of nearest hydrants.
5. Storage locations of flammable liquids, gases etc.
6. Location of gas mains, electrical risers etc.
7. The muster point.
8. Temporary buildings and accommodation.
9. Refuge points.
Segregation;
Hoarding;
Herras Type;
Pedestrian Barriers/Crossing Points;
Permanent;
3.
Llancarfen Primary School FIRE PLAN

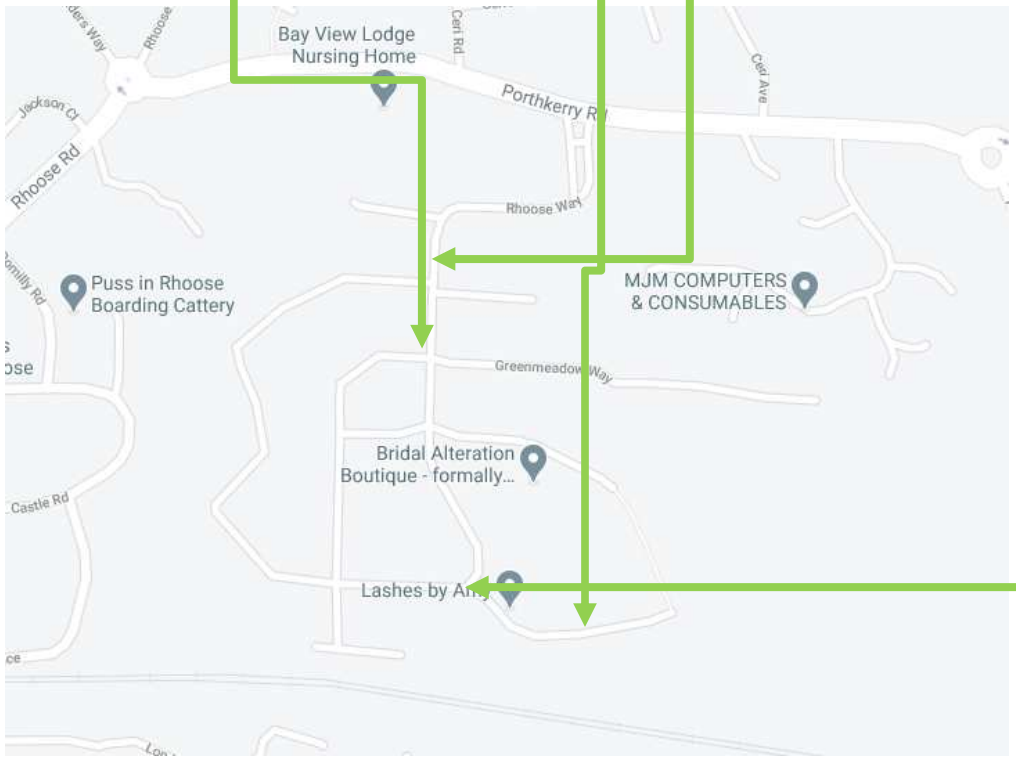
FIRE PLAN
Overview

Choose safe Choose health

Hydrant Locations = 

Choose safe Choose health





4.

Fire Hydrant Locations

Fire evacuation within the building

Choose safe Choose health

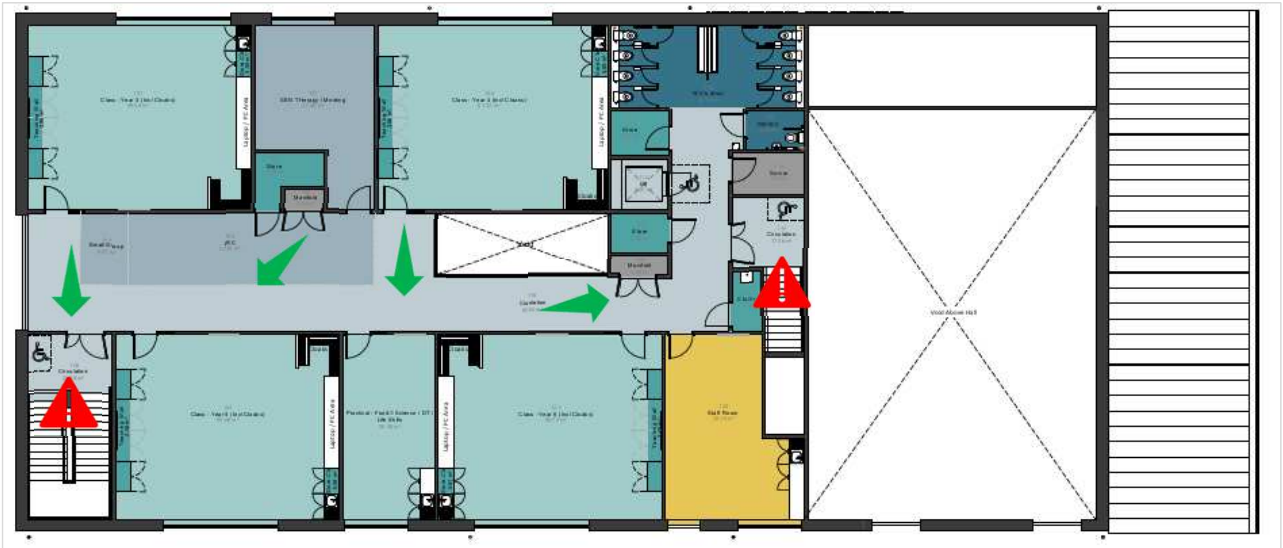
Fire exits; routes for escape

- Basic Teaching (net)
- Circulation (non net)
- Halls (net)
- Kitchen (non net)
- Learning Resources (net)
- Nursery
- Plant (non net)
- Staff & Admin. (net)
- Storage (net)
- Toilets and Personal Care (non net)

Caution here

Route to exit

Ground Floor



- Basic Teaching (net)
- Circulation (non net)
- Learning Resources (net)
- Plant (non net)
- Staff & Admin. (net)
- Storage (net)
- Toilets and Personal Care (non net)

First Floor

Llancarfan Primary School CEMP Appendix 8

Management of surface water run-off during the construction phase

Prepared by	Revision	Date
Howard Davies	0	21/03/20
Howard Davies	1	30/6/20
Howard Davies	2	03/09/20

Contents

1. Introduction

The proposed development of Llancarfan Primary is a project which consists of the redevelopment of a previously undeveloped land used by Taylor Wimpy as their site compound and attenuation location for the residential development constructed over the past 3-4 years.

The design and construction of a two-storey steel framed brick/render clad, 1 FE (140-210 places) school with associated external works including, drainage, parking soft & hard landscaping..
This project is for **Llancarfen CIW primary School** and is to commence on **21st September 2020** and finishes on **18th October 2021** Works will not commence until this plan has been completed to a satisfactory standard and has been deemed suitable by the Principal Designer. Additionally, the Construction Phase Health & Safety Plan must also be authorised and signed by the appropriate persons of the Project Team. The Scope of works includes: The design and construction of a two-storey steel framed brick/render clad, 1 FE school with associated external works including, drainage, parking soft & hard landscaping. The site is set within a new residential area with roads and infrastructure. The new school will like this (similar to St.Davids school Colwinston);

2. Environmental Risks

The external works have the potential to introduce contaminants from the associated machinery, infrastructure, transportation, importation of constructions materials and maintenance and storage of plant equipment as per the below list:

Excavated ground and exposed ground

Recently disturbed and vegetation free ground allows for relatively low velocity runoff to erode the surface. This leads to increased runoff and sedimentation of receiving waters, thereby increasing flood risk.

Stockpiles

Rainfall could lead to erosion of material should a stockpile be uncovered. This could lead to siltation of receiving watercourses and therefore an increase in flood risk.

Haul roads (off Rhoose Way)

The run-off from haul roads contains a large amount of suspended solids as well as hydrocarbons. This could lead to siltation of receiving watercourse and therefore an increased risk. This could also impact upon water quality.

Oils and hydrocarbons

The use of oils and hydrocarbons on construction sites provide a risk of leakages and spillages, leading to pollution incidents. This could affect the water quality in the receiving watercourses and aquifers.

Weather (storms)

The runoff from heavy rainfalls could cause flash flooding

Concrete wash out

During construction the washing out of the concrete delivery vehicles placement shoots will be required and this will be controlled by the site team

Dewatering

During construction there will be occasions when excavations left overnight could be suspectable to collecting rainfall

3. Project Control Measures

The following control measures will be reviewed and the most appropriate used throughout the different phases of the project

Excavated ground and exposed ground

Due to the on-going nature of the work it is generally not possible to protect exposed surfaces until the project is completed. That said there are measures that can be adopted to mitigate contamination / sedimentation referred to below.

At Llancarfen school we will use the temporary measures listed below to control storm water run-off and these will be used until any new hard surfaces are installed. Prior to the installation of the new hard surfaces the project team will ensure that the permanent features and permanent drainage solutions are installed.

To help limit the volume of runoff reaching the exposed ground we have considered the implementation the following protection measures (as also adopted and know to work at our Bro Morganwg school project):

- Run-off diversion or interception devices
- Silt fences such as the Hy-Tex Terrastop Silt fence
    - This is a special high quality permeable technical filter fabric that be installed as an entrenched vertical barrier fence that is designed to intercept and detain run-off trapping harmful silt
- Temporary hay bales
    - Hay bales will be used as part of the temporary holding ponds
- Sediment Entrapment mats
    - These can also be used as an alternative to hay bales
- Gulley Guards
    - These will be placed in all existing gulleys that could receive surface water run off
    - The guards will be inspected daily and cleaned as appropriate to ensure that silt or debris collected in the guards do not impede the flow water into them
- Temporary catch pits
    - Using a geotextile fabric and clean stone we will form temporary catch pits at the lowest points of each construction zone to control water flows

Stockpiles

Stockpiles will be located away from existing drainage points to prevent the leaching of contaminants.

- A combination of cut-off ditches and silt fencing

Existing access ramps & roads

The existing access ramp 'haul' roads will be designed so that the length is kept to a minimum, but still serves its
purpose. The gradient will be shallow to prevent increasing runoff velocity and, if possible, bunds and / or discrete ditches constructed to intercept the runoff.

Haul roads (including roads that are in process of construction partially sealed) will be sprayed regularly to keep down dust. If any section of a haul road is hard surfaced, then it will be swept on a regular basis to prevent accumulation of dust and mud.
Gullies will be covered when not in use before the final bituminous running surface is laid.

Once constructed, there could be a residual risk of silt run off from haul roads and stones surfaces. These risks will be controlled by;

- Constructing suitable channels on haul roads to channel water away from any watercourses, surface drains, or green areas.
- Regular environmental inspections of these areas to ensure controls are effective.
- All operatives will receive a toolbox talk on silt prevention.
- Suitably sized spill kit will be available with spill action plan.
- ISG will consider the use of sustainable drainage systems on site. Features such as permeable surfaces reduce soil sealing, help to increase water infiltration, and can increase groundwater recharge, while swales and retention basins can temporarily collect surface water and reduce soil erosion from surface water runoff.

Oils and Hydrocarbons

Simple measures can be taken to prevent oil and hydrocarbons becoming pollutants, such as:

- Maintenance of machinery and plant
- Drip trays
- Regular checking of machinery and plant for oil leaks
- Correct storage facilities
- Check for signs of wear and tear on tanks
- Care with specific procedures when refuelling
- Designated areas for refuelling
- Emergency spill kit located near refuelling area

Weather / Storm

ISG have an internal system for weather alerts to projects. These are sent to warn sites and allow preparation time before any significant rainfall.

- Stockpiles of stone and aggregates will be sheeted during times of heavy rain.
- Stockpiles of stone and aggregates will be located as far as practical away from rivers, ditches, or surface water drains. Ideally this will be on level ground.
- Developing a robust environmental action plan with emergency controls.
- Fuel and COSHH substances will be stored in a designated area. They will be in double bunded units with 110% capacity and appropriate spill kit. The designated area will be away from any watercourses, surface water drains

Concrete wash out

Simple measures can be taken to ensure no concrete wash out pollutes the ground around:

- Discharge of water into a lined or proprietary concrete washout skip
- Concrete washout skip is to be placed in it's own bunded area
- Sediment skip positioned within a larger skip (to act as a dual slit trap & bund)

Dewatering

Simple measures can be taken to ensure that dewatering of excavations can be controlled as per the guidance set out below:

- Phasing of the works to ensure that no excavation is left open for more than 48 hours
- Trenches to be backfilled after works are complete
- Ensure that we only have short term and temporary discharge of uncontaminated water which is wholly or mainly rainwater, from an excavation to surface water

- Comply with all the conditions in the regulatory position statement (RPS) which is in abeyance due to the covid-19 pandemic, further reading here; https://www.gov.uk/government/publications/deposit-and-dewatering-of-non-hazardous-silts

- Use tanks are used to ensure pumped water filtered for silts and contaminants
- Only clean water (e.g. rain water) will be permitted to discharge
- Localised temporary soakaways will be used to filter and store dewatering

4. Emergency Response Plan

In the unlikely event that our control measures fail then the ISG emergency response plan will be followed.

- Check watercourses during periods of high rainfall or construction activities
- with potential for significant run-off.
- Check for broken field drains which could lead to pollution at any time.
- Take immediate action if you identify any high sediment which is causing pollution or if unsure if it is significant consult with the environmental manager(s) who should determine who is to be notified
- Implement mitigation measures immediately. Control pollution at source wherever possible. Consider whether the site activity should be halted.
- Consult the ISG Environmental Team if in doubt. Rhodri Davies our environmental officer for this project and will be available on 07971103522.
- Place straw bales (preferable barley straw as it does not break down so quickly as hay), silt screens etc to help control sediment immediately and/or check measures already in place for efficacy.
- Monitor the effectiveness of protection measures daily and re-plan as necessary.
- Always remove silted bales/screens etc regularly so they do not make problems worse.
- Talk to Officers regularly and check your plans for emergency procedures.
- Reconsider working practices which may be causing pollution in poor weather conditions and re-plan / re-programme.
- Plan in water activities to take account of the risk of flooding (eg when
- constructing water crossings).

5. Monitoring

The following monitoring arrangements will be implemented by the site team:

- Daily checks of all gulley guards
- Daily weather checks

6. Training

All personnel from the site manager to engineers, foremen, plant operatives, sub-contractors, tradesmen and labourers have a part to play in preventing pollution and harm to the water environment during construction. It is crucial that each member of the site team is aware of the potential impact of their activities and is equipped with the knowledge of how to eliminate or reduce that impact.

7. Repair works and improvements to existing site features

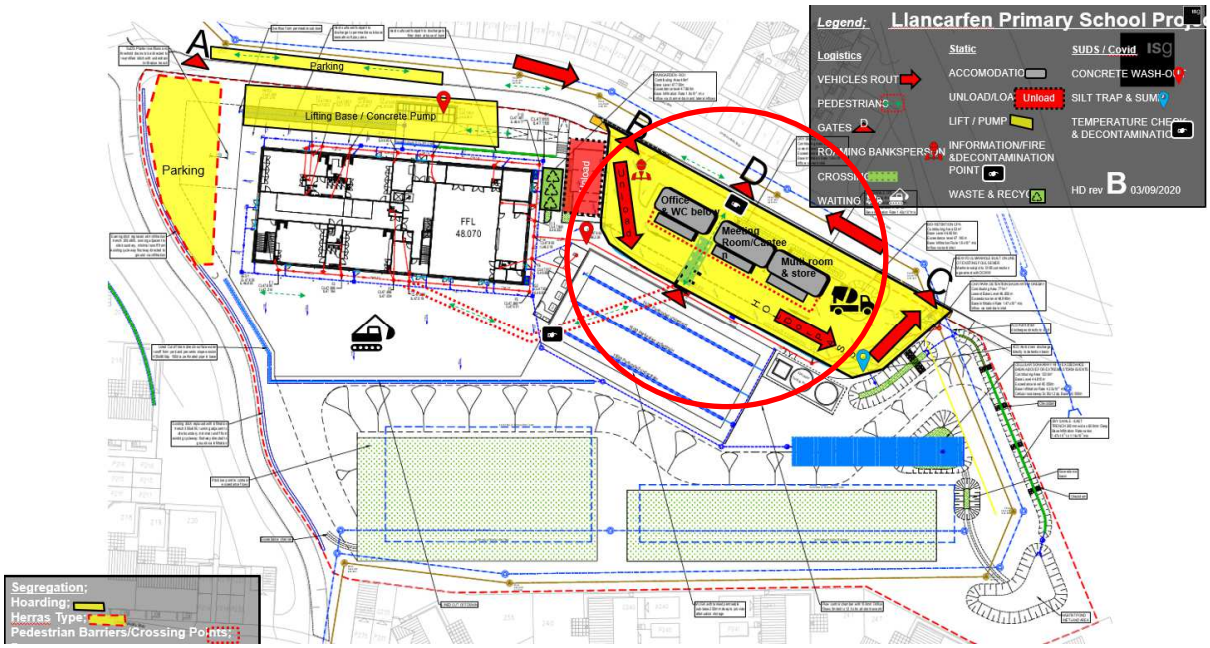
Following recent below ground CCTV surveys of the existing storm and foul drainage network we are aware of damage and blockages which may be required.

8. Programme and Phasing

Appendix of the CEMP (this document) should be read in conjunction with the contract documentation (slides)

9. Site Welfare and Office

During the construction phase it is a CDM requirement to provide welfare facilities for our staff and operatives. For the delivery of Llancarfan school our site welfare will be placed in the site compound adjacent the entrance road and be contained with solid hoarding:



At the end of the project when the cabins have been removed the wearing course of the car park will be laid and white lining installed prior to occupation by the end users.

9. Dealing with change

Any changes that occur during the construction stage will be communicate to the SAB and Vale officers for review on 02920 673 011 or via email SAB@valeofglamorgan.gov.uk.

Llancarfan Primary School SWW0054

Construction Environmental Management Plan
(Appendix 8 of the Construction Phase Health & Safety Plan)

09/09/2020 Rev 3 HD

Llancarfan CIW Primary School
Construction Overview

Introduction

The construction works will generally follow the guidance set out in the CEMP (SITE SPECIFIC SURFACE WATER RUN OF STRATEGY) Appendix 8 to control the risk of surface water run-off during the construction phase.
This phasing plan will show how the site team (with the support of the supply chain) will control the risk of surface water run off during each specific phase of the works.

General principles to follow

The following items will be undertaken to help control surface water run-off:

- Install control measures as noted in Appendix 8 of the CEMP, these consist of:
    1. Gulley guards
    2. Silt traps
    3. Sediment entrapment mats
    4. Construct temporary catchment pits
    5. Construct run-off channels
    6. Understand how the existing surface moves over, around and through the campus currently
    7. Monitor weather reports & look back at previous rainfall (understand how it impacted projects & adjacent environments)
    8. Repair damaged drainage pipework
    9. Consider constructing the permanent control measures prior to laying any hard surfaces
    10. Follow recommendations from statutory bodies
    11. Pumped Sediment Tanks

Sequence and Programme of the works

The following summary is generally how the works will be programmed whereby the control measures identified on this page will form part of the works:

Programme Overview;

130	EXTERNAL WORKS		32w 2d	23 Nov 20	22 Jul 21
131	Sprinkler tank base & ducting		4w	23 Nov 20	18 Dec 20
132	*Attenuation (Cellular Soakaway)*		*4w*	*23 Nov 20*	*18 Dec 20*
133	Cellular soakaway (& infiltration trench)		4w	23 Nov 20	18 Dec 20
134	Sprinkler tank envelope/housing		4w	21 Dec 20	27 Jan 21
135	Drainage to new hard standing (mini) MUGA		4w	21 Dec 20	27 Jan 21
136	Surfacing to mini MUGA area		3w	28 Jan 21	17 Feb 21
137	Rain gardens & swales (East)		4w	04 Jan 21	29 Jan 21
138	Rain gardens & swales (West)		4w	01 Feb 21	26 Feb 21
139	Drainage Completions & Incoming Services		6w	01 Mar 21	13 Apr 21
140	Kerbs, Edgings & Paving		5w	22 Mar 21	27 Apr 21
141	Permanent Fencing		4w	14 Apr 21	12 May 21
142	Soft Play (earthworks, profiling & seeding)		4w	14 Apr 21	12 May 21
143	Sports play area (earthworks, profiling & seeding)		4w	13 May 21	10 Jun 21
144	External Furniture & Equipment		2w	13 May 21	26 May 21
145	Planting & Seeding		3w	28 Apr 21	19 May 21
146	Tree Pits & Trees		3w	04 Jun 21	24 Jun 21
147	Signage		1w	02 Jul 21	08 Jul 21
148	Surfacing to car park area		3w	11 Jun 21	01 Jul 21
149	Surfacing to hard play area (Junior & Infant)		3w	02 Jul 21	22 Jul 21

Distribution;

1. Client –ACOME Conna Ryan
2. 2.Dave Williams RVW Consulting Engineers
3. Gary Harsant HSQE ISG
4. Rhodri Davies - Sustainability Manage ISG

Issued 03.09.20

Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

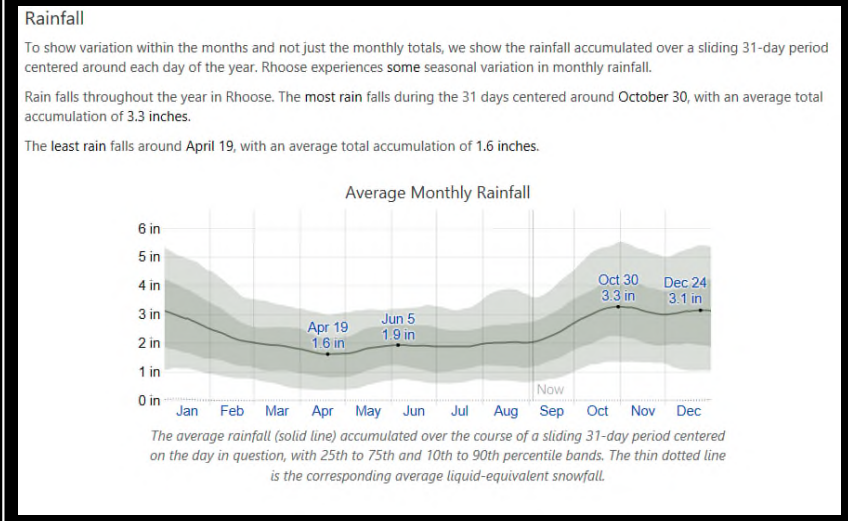
Date 03/09/2020

Number	Revision
CO	C3

Llancarfan CIW **Primary School**
Understanding Local Rainfall Prior to Operations

Table 1. Introduction

Here is the rainfall for Rhoose for the 2019 period

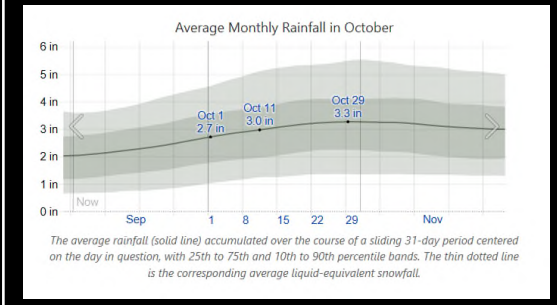


Conclusion; Although the close proximity of the sea directly to south and the hills, steep valleys and mountains to the north can contribute rapid precipitation the previous rainfall level confirms that the area is at low risk of flood but we should be mindful and prepared for localised flood risk. Wind blown rain remains a high risk for the duration of the work.

Source of data;
https://weatherspark.com/y/37831/Average-Weather-in-Cowbridge-United-Kingdom-Year-Round#Sections-BestTime

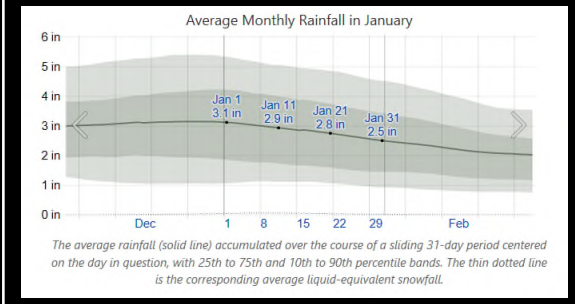
Table 2. Weather Pattern and Programme of the works

Mid Autumn 2020-Project start



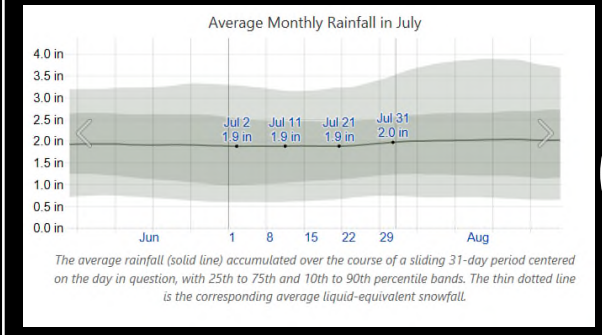
Good time to commence operations

Winter 2020-Up to 1st Quarter



Approx 40% chance of rain or 2/5 days

Spring /Summer 2021-2nd to 4th Quarter



Approx 40% chance of rain or 2/5 days, reducing to 1/5 days

Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date 03/09/2020

Number ULR

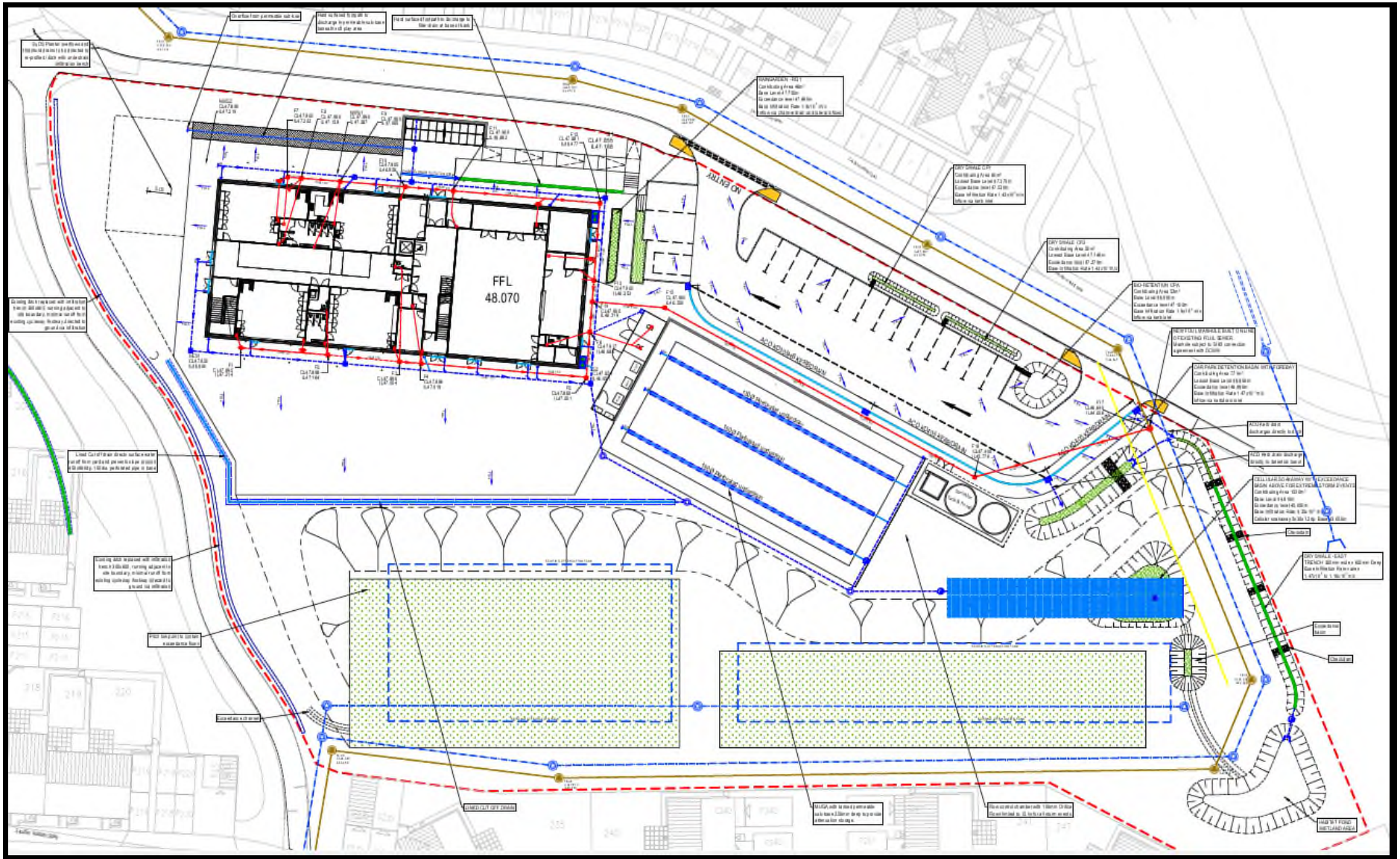
Revision C3

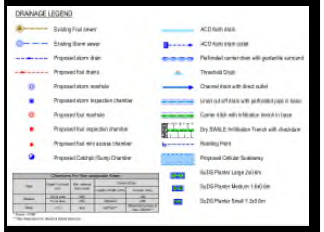
Drainage Work

VALE of GLAMORGAN
BRO MORGANNWG

Ysgolion yr 21ain Ganrif
21st Century Schools

isg





Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date
03/09/2020

Number	Revision
DR	C3

Drainage Work-Legend & Strategy

DRAINAGE LEGEND

- Existing Foul sewer
- Existing Storm sewer
- Proposed storm drain
- Proposed foul drains
- Proposed storm manhole
- Proposed storm Inspection chamber
- Proposed foul manhole
- Proposed foul inspection chamber
- Proposed foul mini access chamber
- Proposed Catchpit /Sump Chamber
- ACO Kerb drain
- ACO Kerb drain outlet
- Perforated carrier drain with geotextile surround
- Threshold Drain
- Channel drain with direct outlet
- Lined cut-off drain with perforated pipe in base
- Carrier ditch with infiltration trench in base
- Dry SWALE /Infiltration Trench with checkdam
- Rodding Point
- Proposed Cellular Soakaway
- SuDS Planter Large 2x0.6m
- SuDS Planter Medium 1.6x0.6m
- SuDS Planter Small 1.2x0.6m

Chambers For Non-adoptable Areas				
Type	Depth To Invert (m)	Min. Internal Size (mm)	Covers Sizes	
			Length x Width (mm)	Circular (mm)
Shallow	0.6 or less	190*	-	190
	1.2 or less	450	430x430	430
Deep	>1.2	450	300*300**	Restricted access to max. 350mm**

** Drains >150Ø*
*** Size Restricted For Health & Safety Reasons*

SuDS /SAB DRAINAGE NOTES:

A. Surface water system has been designed in accordance with the principles set out within the Statutory Standards for Sustainable Drainage Systems 2018.

B. S1 - Run-off Destination -
The drainage destination hierarchy has been followed as noted below;
Priority Level 1 - Re-use - No forseeable demand
Priority Level 2 - Infiltration - Initial site investigations show varied infiltration within the weathered fractured limestone (Porthkerry Menber). Infiltration features are designed based on the closest recorded infiltration rate.
Priority Level 3 - N/A Priority Level 4 - N/A Priority Level 5 - N/A

C. S-2 - Hydraulic Control -
Hydraulic control is not applicable as discharging directly to ground. Interception is provided within infiltration features as close to source as possible. Exceedance routes are provided with areas of aboveground storage for exceedance events provided within the site to ensure no offsite flooding.

D. S-3 - Water Quality
All surface water runoff passes through suitably sized SuDS features to provide adequate levels of treatment and pollution interception prior to discharge ground. Additional above ground features are provided to enable maintenace, cleansing and pollution control.

E. S-3 - Amenity
The drainage design has been developed to maximise the benefits for amenity for the overall site.

F. S4 - Biodiveristy
The proposed external works and drainage scheme are designed to to enhance planting and soft landscaping opportunities for the site. With drainage features along the eastern and western boundaries linking back to the proposed enhanced habitat areas.

G. All SuDS drainage is subject to Local Authority SAB Approval, no works to be carried prior to approval.

a. System has been designed to ensure no surface water flooding up to the 30yr Storm event with localised above ground storage provided within drainage features away from the main school buildings during extreme events. Full design has been carried out for all storms up to and including 100yr + 30% Climate Change critical storm event.

b. Surface Water drainage & SuDS maintenance - Surface water drainage system to be inspected and maintained in accordance with current best practices and in line with CIRIA Report C753 - The SuDS Manual.

Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date 03/09/2020

Number DR

Revision C3

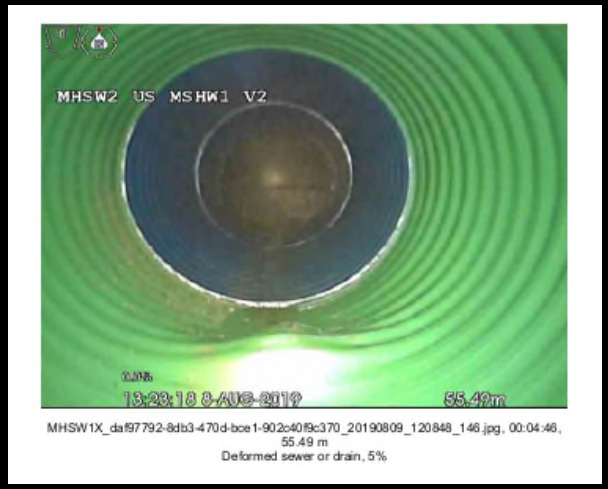
Cleaning & Repair of Existing Drainage Statement

Section Pictures - 08/08/2019 - MHSW1X

Inspection Direction	PLR	Client's Job Ref	Contr
Upstream	MHSW1X	ALS/2494	

MHSW1X_6d044728-cff3-4957-83a6-15df06319100_20190809_120511_868.jpg, 00:03:51, 43.84 m
Deformed sewer or drain, 15%, start

Best Case



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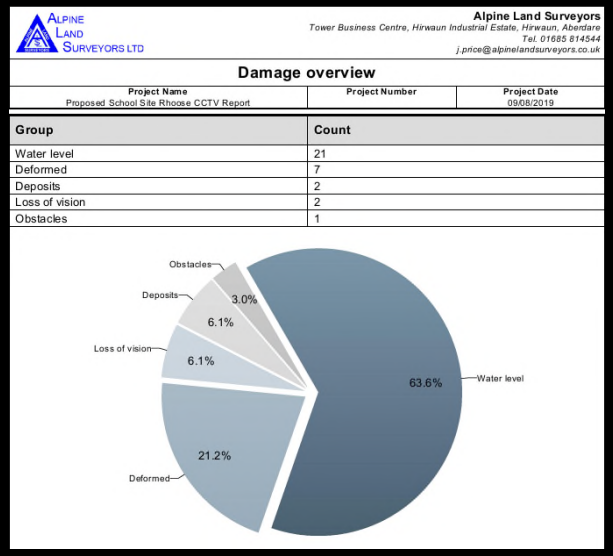
Deformed sewer or drain, 5%

Worst Case

MHSW5X_64d2307a-09c3-4c6c-9f88-0b8417995be5_20190809_130927_349.jpg, 00:02:10, 22.97 m
Other obstacles, brick or masonry in invert at joint from 4 o'clock to 8 o'clock, 25% cross-sectional area loss

Worst Case



Alpine Land Surveyors LTD

Alpine Land Surveyors
Tower Business Centre, Hirwaun Industrial Estate, Hirwaun, Aberdare
Tel. 01685 814544
j.price@alpinelandsurveyors.co.uk

Damage overview

Project Name	Project Number	Project Date
Proposed School Site Rhoose CCTV Report		09/08/2019

Group	Count
Water level	21
Deformed	7
Deposits	2
Loss of vision	2
Obstacles	1

Typical

Given the poor an inconsistent nature and condition of the existing drainage ISG will execute a separate condition survey of the drainage and issue to the client.

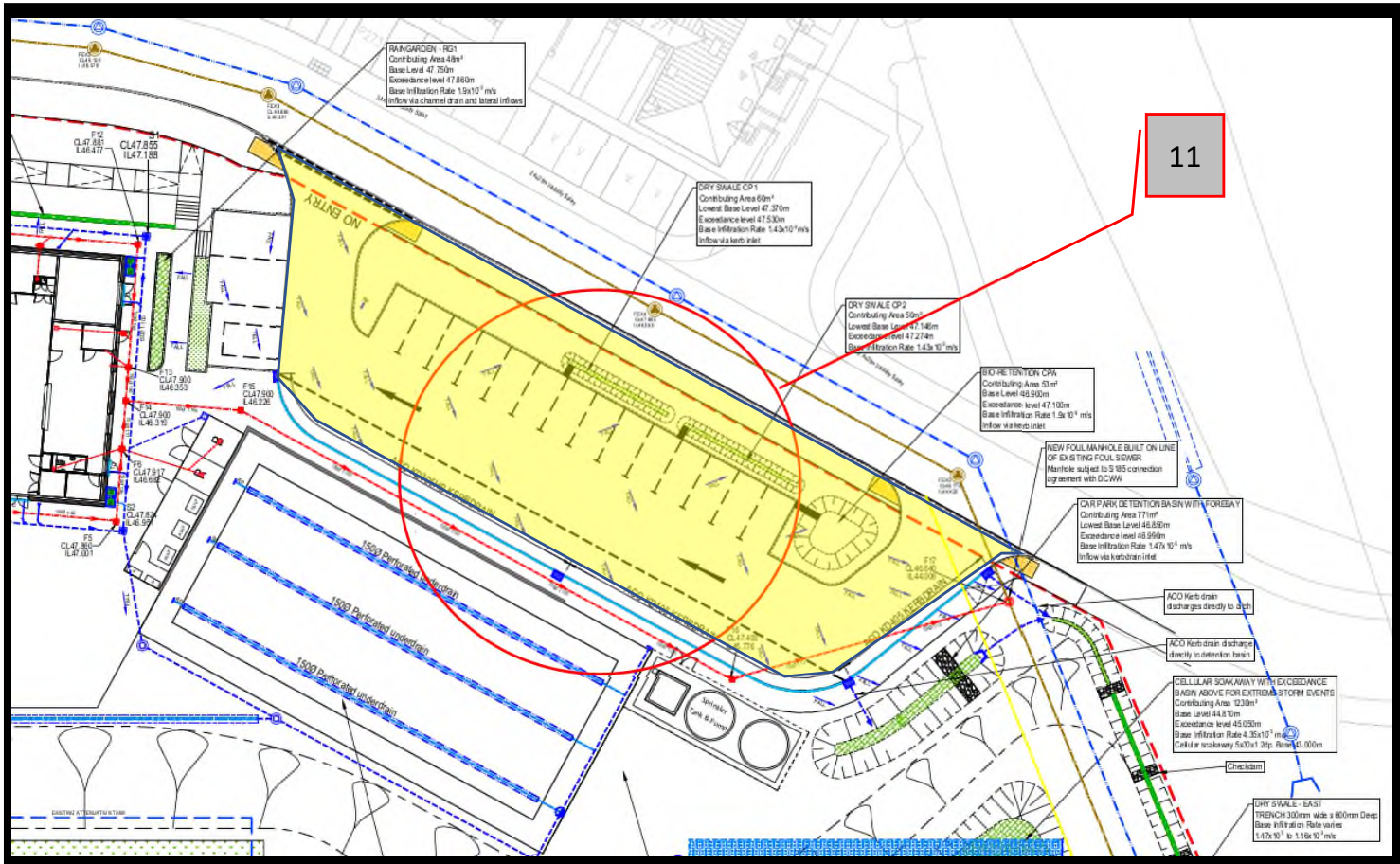
Note:
A below ground CCTV of the existing network has been undertaken. Where an issue has been identified then the client will monitor the performance of their on site network during the construction phase. ISG will co-ordinate any remedial works on behalf of the client to ensure consistency, best value and minimise any communications /co-ordination nuances. Such works can be carried out by simple jetting and cleaning or breaking out and repairing

Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date 03/09/2020

Number	Revision
C&R	C3

Llancarfan CIW **School Phase Installation**
Work Section 1-North



Period of construction:

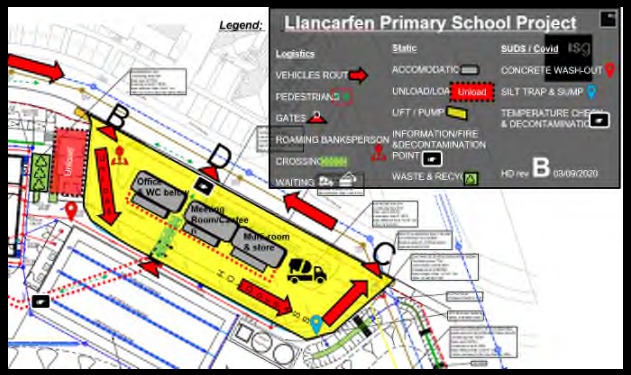
Installation sequence

- Install run-off control measures
- Excavate and remove stone layer
- Import stone and install works as per the design
- Installation of Silt trap (as below)
- Lay surface finishes (not final layer)
- Use space for contractor welfare (site cabins)

Control Measures

- Gulley socks - road gullies in adjacent carriageway will have gully socks fitted to stop any silt infiltration during construction
- Silt fencing – use silt fencing to ensure no run off is controlled
- Catch pits – excavate and line with Geotextile material.
- Utilise hoarding base to catch silt run-off to south

	Key Dates & Milestones		62w 2d	17 Jul 20	18 Oct 21
2	starting date	100.00		17 Jul 20	17 Jul 20
3	Taylor Wimpey handover to VoG			15 Sep 20	15 Sep 20
4	access date 1 (mobilisation)			19 Oct 20	19 Oct 20
5	access date 2 (Building works)			09 Nov 20	09 Nov 20
6	Planned completion			31 Aug 21	31 Aug 21
7	Terminal float		6w 4d	31 Aug 21	15 Oct 21
8	Completion Date			18 Oct 21	18 Oct 21
9	New School Opens (for new school term)			18 Oct 21	18 Oct 21
10	Mobilisation		3w	19 Oct 20	09 Nov 20
11	Mobilisation (incl. site set up)		3w	19 Oct 20	06 Nov 20
12	Start on Site			09 Nov 20	09 Nov 20
13	New Build Construction		39w 3d	09 Nov 20	27 Aug 21
14	SUBSTRUCTURE		9w	09 Nov 20	20 Jan 21
15	Service diversions		1w	09 Nov 20	13 Nov 20
16	Strip Site		1w	16 Nov 20	20 Nov 20



1
Section

Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date 03/09/2020

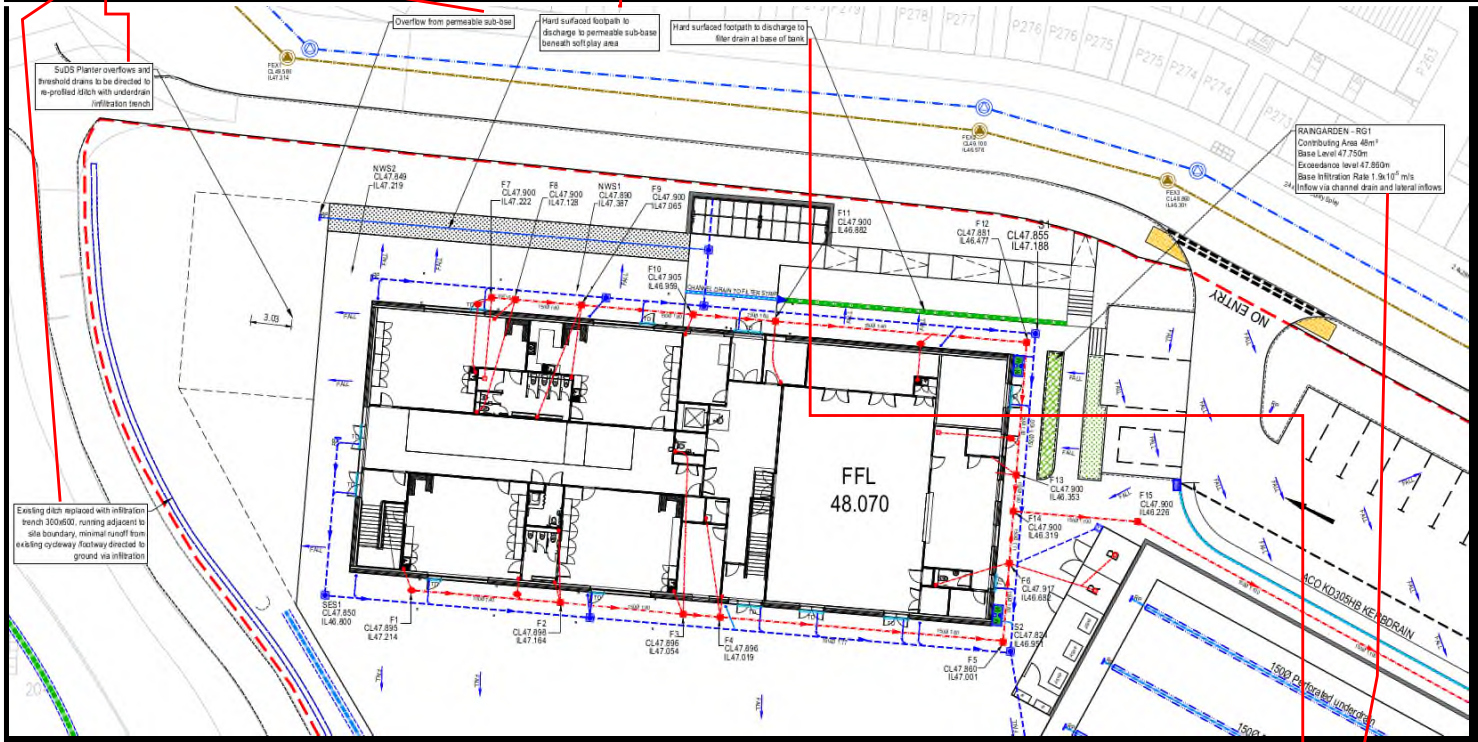
Number P1

Revision C3

Llancarfan CIW **School Phase Installation**
Work Section 2-WEST

133

140



138

130	**EXTERNAL WORKS**		**32w 2d**	**23 Nov 20**	**22 Jul 21**
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133	Cellular soakaway (& infiltration trench)		4w	23 Nov 20	18 Dec 20
134	Sprinkler tank envelope/housing		4w	21 Dec 20	27 Jan 21
135	Drainage to new hard standing (mini) MUGA		4w	21 Dec 20	27 Jan 21
136	Surfacing to mini MUGA area		3w	28 Jan 21	17 Feb 21
137	Rain gardens & swales (East)		4w	04 Jan 21	29 Jan 21
138	Rain gardens & swales (West)		4w	01 Feb 21	26 Feb 21
139	Drainage Completions & Incoming Services		6w	01 Mar 21	13 Apr 21
140	Kerbs, Edgings & Paving		5w	22 Mar 21	27 Apr 21
141	Permanent Fencing		4w	14 Apr 21	12 May 21
142	Soft Play (earthworks, profiling & seeding)		4w	14 Apr 21	12 May 21
143	Sports play area (earthworks, profiling & seeding)		4w	13 May 21	10 Jun 21
144	External Furniture & Equipment		2w	13 May 21	26 May 21
145	Planting & Seeding		3w	28 Apr 21	19 May 21
146	Tree Pits & Trees		3w	04 Jun 21	24 Jun 21
147	Signage		1w	02 Jul 21	08 Jul 21
148	Surfacing to car park area		3w	11 Jun 21	01 Jul 21
149	Surfacing to hard play area (Junior & Infant)		3w	02 Jul 21	22 Jul 21

Period of construction:

Installation sequence

- Install run-off control measures
- Excavate and remove stone layer
- Import stone and install works as per the design
- Lay surface finishes (not final layer)
- Use space for contractor welfare (site cabins)

Control Measures

- Gulley socks - road gullies in adjacent carriageway will have gully socks fitted to stop any silt infiltration during construction
- Silt fencing – use silt fencing to ensure no run off is controlled
- Catch pits – excavate and line with Geotextile material.
- Utilise hoarding base to catch silt run-off to south

2

Section

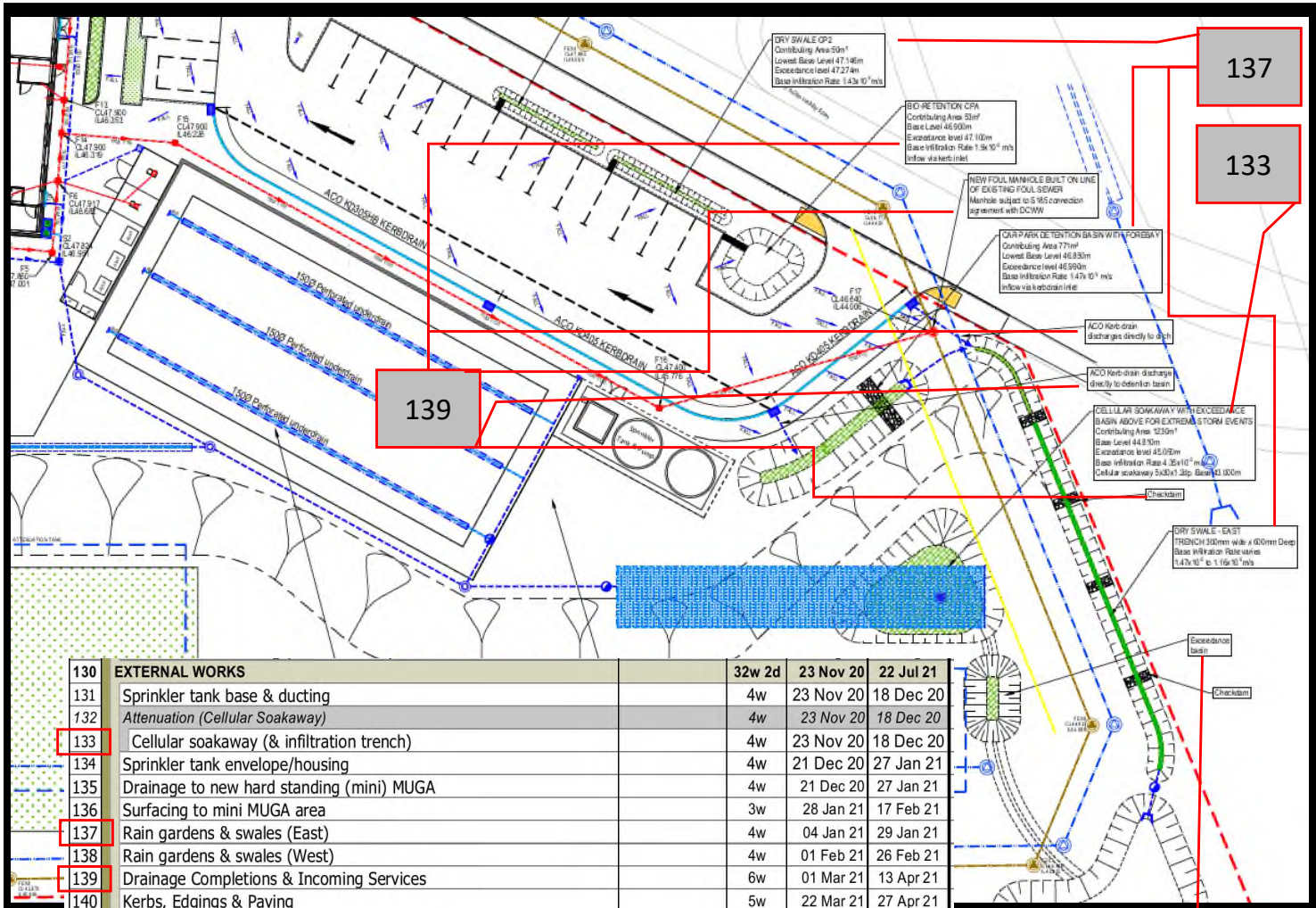
Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date 03/09/2020

Number P1

Revision C3

Llancarfan CIW **School Phase Installation**
Work Section 3-EAST



130	**EXTERNAL WORKS**		32w 2d	23 Nov 20	22 Jul 21
131	Sprinkler tank base & ducting		4w	23 Nov 20	18 Dec 20
132	*Attenuation (Cellular Soakaway)*		*4w*	*23 Nov 20*	*18 Dec 20*
133	Cellular soakaway (& infiltration trench)		4w	23 Nov 20	18 Dec 20
134	Sprinkler tank envelope/housing		4w	21 Dec 20	27 Jan 21
135	Drainage to new hard standing (mini) MUGA		4w	21 Dec 20	27 Jan 21
136	Surfacing to mini MUGA area		3w	28 Jan 21	17 Feb 21
137	Rain gardens & swales (East)		4w	04 Jan 21	29 Jan 21
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139	Drainage Completions & Incoming Services		6w	01 Mar 21	13 Apr 21
140	Kerbs, Edgings & Paving		5w	22 Mar 21	27 Apr 21
141	Permanent Fencing		4w	14 Apr 21	12 May 21
142	Soft Play (earthworks, profiling & seeding)		4w	14 Apr 21	12 May 21
143	Sports play area (earthworks, profiling & seeding)		4w	13 May 21	10 Jun 21
144	External Furniture & Equipment		2w	13 May 21	26 May 21
145	Planting & Seeding		3w	28 Apr 21	19 May 21
146	Tree Pits & Trees		3w	04 Jun 21	24 Jun 21
147	Signage		1w	02 Jul 21	08 Jul 21
148	Surfacing to car park area		3w	11 Jun 21	01 Jul 21
149	Surfacing to hard play area (Junior & Infant)		3w	02 Jul 21	22 Jul 21

Period of construction:

Installation sequence

- Install run-off control measures
- Excavate and remove stone layer
- Import stone and install works as per the design
- Lay surface finishes (not final layer)
- Use space for contractor welfare (site cabins)

Control Measures

- Gulley socks - road gullies in adjacent carriageway will have gully socks fitted to stop any silt infiltration during construction
- Silt fencing – use silt fencing to ensure no run off is controlled
- Catch pits – excavate and line with Geotextile material.
- Utilise hoarding base to catch silt run-off to south

3

Section

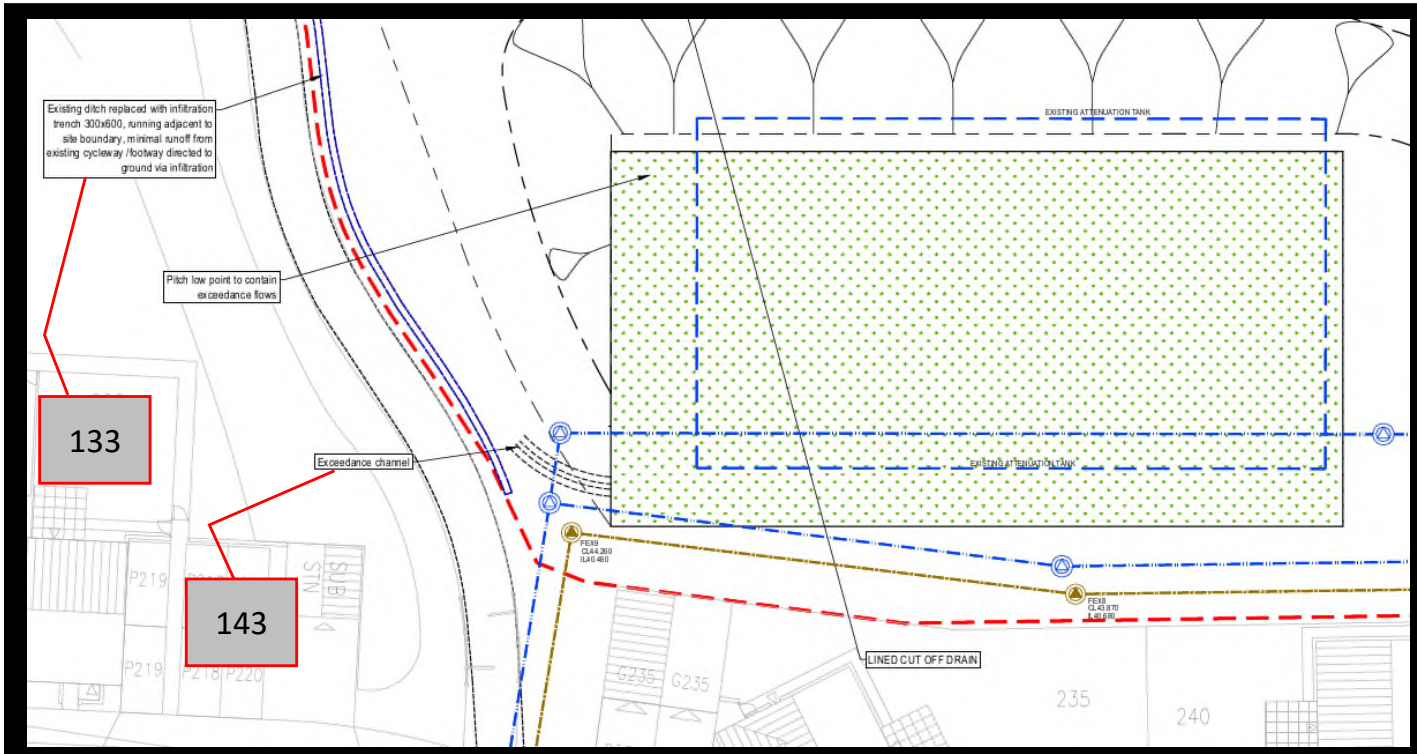
Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date 03/09/2020

Number P1

Revision C3

Llancarfan CIW **School Phase Installation**
Work Section 4-SOUTH



130	EXTERNAL WORKS		32w 2d	23 Nov 20	22 Jul 21
131	Sprinkler tank base & ducting		4w	23 Nov 20	18 Dec 20
132	*Attenuation (Cellular Soakaway)*		*4w*	*23 Nov 20*	*18 Dec 20*
133	Cellular soakaway (& infiltration trench)		4w	23 Nov 20	18 Dec 20
134	Sprinkler tank envelope/housing		4w	21 Dec 20	27 Jan 21
135	Drainage to new hard standing (mini) MUGA		4w	21 Dec 20	27 Jan 21
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Period of construction:

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- Utilise hoarding base to catch silt run-off to south

4

Section

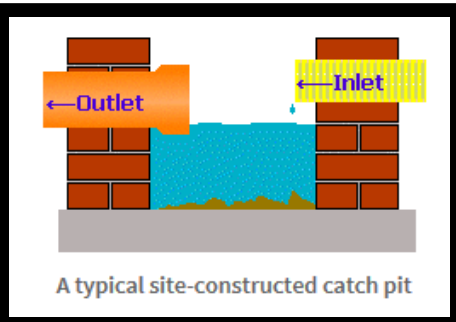
Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date
03/09/2020

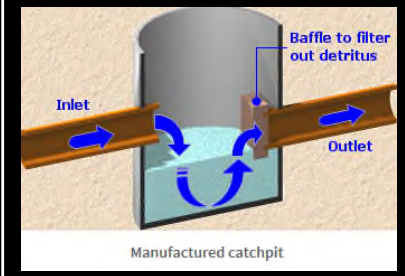
Number	Revision
P1	C3

Llancarfan CIW **School Operations**
Site Options –Daily Checklist

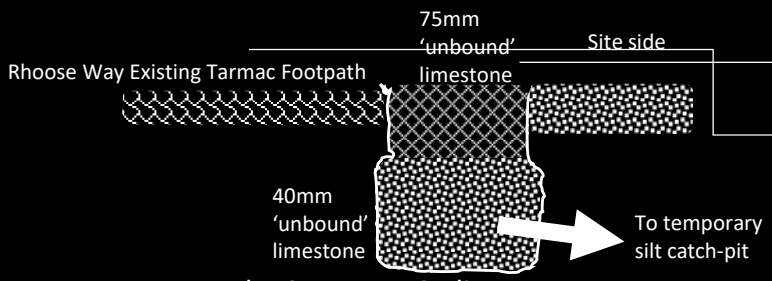
1. Gulley guards
2. Silt traps
3. Sediment entrapment mats
4. Construct temporary catchment pits
5. Construct run-off channels
6. Pumped Sediment Tanks
7. Understand how the existing surface moves over, around and through the campus currently
8. Monitor weather reports & look back at previous rainfall (understand how it impacted projects & adjacent environments)
9. Repair damaged drainage pipework
10. Consider constructing the permanent control measures prior to laying any hard surfaces
11. Follow recommendations from statutory bodies



A typical site-constructed catch pit



Manufactured catchpit



Bespoke Crossover Sediment Trap

1 Section

Rev	Date	Reason for Issue
C3	03/09/20	CP Plan integrations
C2	30/06/20	Coviid 19 & School logistics amended
C1	25/05/20	Construction Stage

Date 03/09/2020

Number SOCL

Revision C3

Appendix 9

Covid-19 Track and Trace

If a member of staff, workforce or visitor develops a high temperature, a persistent cough, or a loss or change to their sense of taste or smell

The person must return home immediately, wear a face covering, avoid touching anything, cough or sneeze into a tissue and put in a closed top bin

The person is to book a test to check if they have coronavirus as soon as possible. Anyone you live with, and anyone in your support bubble, should also get a test if they have symptoms.

This is a simple process, a drive through test in one of 50 locations can be booked on the following website address https://www.nhs.uk/conditions/coronavirus-covid-19/testing-and-tracing/get-a-test-to-check-if-you-have-coronavirus/

Results are typically received in 12 - 48 hours.

Negative Result

Return to work, if fit to do so.

Positive Result

Person to self-isolate for 7 days

Track or Trace – The person is to notify their line manager who must notify the project lead/ office manager as soon as possible. Who will then inform the Business Unit Lead and the Health and Safety Team.

Project Lead/ Office Manager is to determine those whom have had close contact with the individual. Close contact for the purpose of track and trace includes a person who has been close to someone who has tested positive for COVID-19 anytime from 2 days before the person was symptomatic, close contact includes one of the following;

- *A person who has had face-to-face contact (**within one metre**), with someone who has tested positive for COVID-19, including being coughed on having a face-to-face conversation within one metre having skin-to-skin physical contact, or*
- *contact within one metre for one minute or longer without face-to-face contact or*
- *a person who has been within **2 metres** of someone who has tested positive for COVID-19 for more than **15 minutes** or*
- *a person who has travelled in a small vehicle with someone who has tested positive for COVID-19 or in a large vehicle near someone who has tested positive for COVID-19*
- *people who spend significant time in the same household as a person who has tested positive for COVID-19*

The Justification permit process and travel plans are to be used to determine those that have been in contact. Ask the person if there is anyone who they have inadvertently been in contact with whilst on site or in the office (using the above criteria).

Contact those that have been identified as having close contact. Those who they had contact with must self-isolate for a period 14 days from the point of contact. Any persons not classified as being in close contact with the individual can book a test immediately.

If there is more than one case of Covid-19, you should contact the local health protection team to report the suspect outbreak https://www.gov.uk/health-protection-team

Project Lead/Office Manager is to review the hygiene, hand washing, and cleaning regimes and update the Covid-19 Control Action plan. Remind all staff and workforce via Toolbox Talk of the preventive measures employed on the site/office

Business Unit Lead to confirm if any additional measures are required i.e. limit access or temporary closure of site/ office. This decision is to be undertaken based on risk assessment considering the environment, workforce/ staff number and the number of confirmed cases.

Local Lockdown Communication Plan

Communication	In the event of a local lockdown, communication with contractors, supply chain and client are essential, please abide the following points:-

Department for Education

15 April 2020

To Whom it May Concern,

Department for Education construction project worker

The Government's current position is that construction should continue where safely possible within Public Health England guidelines. The guidance recognises that certain jobs, including construction, cannot be undertaken at home and require people to travel to their place of work, provided they are well and neither they nor their household are self-isolating.

This letter confirms that the supplier named below is working on the project named below for the Department for Education.

Supplier name & address	ISG Construction St Paul's Place, 40 St Paul's Square Birmingham B3 1FQ
School name & address	Beauchamp City Sixth Form 1 South Albion Street Leicester LE1 6JL
Contact reference	PS 0530

When accompanied by a letter from the supplier listed above, confirming their employment on the project listed and valid photographic identification (CSCS card/Driving Licence/Passport), please accept this letter as evidence of their right to travel.

Yours faithfully,

Rory Kennedy
Director of Capital
Department for Education

ISG

TO WHOM IT MAY CONCERN

March 2020

Essential worker - Permit to Travel

Please accept this letter as confirmation that this person works on an ISG plc construction site or on related activity that requires them to travel to a place of work. Construction sites are not on the list of businesses that government has directed to close (see Gov.co.uk) and site workers and some other ISG plc employees cannot work from home, therefore this person still needs to travel to work.

If you require any further information or have any questions do please speak to the employee or contact me on 020 72471717.

Regards

Jane Falconer
CHRO
ISG plc

delivery dynamic

1. Contact senior management within the supply chain and reiterate the site is operating in line with PHE & Government guidance.
2. Highlight with relevant contractors the potential for individuals residing within the hot spot areas. Closer monitoring of these operatives may be an option. Consider increasing social distancing marshals.
3. Speak to Client or framework lead to investigate the possibility of them providing communications to ISG to pass onto the workforce in the form of a letter, confirming the Governments current position that construction should continue in alignment with PHE guidelines. This should be issued to project workers and supply chain responsible for deliveries to site. This can be used should the local authority stop check vehicles coming into the lock down area for works. Letter shown left was provided by DFE for continued operations on the Leicester Beauchamp's scheme.
4. PM to re-brief all staff on site regarding the local lockdown position and the controls in place to allow works to continue.
5. PM (or similar) to regularly attend supervisors DABS in order to reassure and allow cascading of the relevant information as quickly as possible.
6. Regularly speak to operatives, advise them that measures put in place are to ensure safe continued operation of the site. **Reassurance is key.**
7. Regularly use approved information channels as a tool to gather updated information. This can then be accurately communicated
8. Previous internal permit to travel letter (ISG HR) can still be utilised in addition to any supporting information received from the client. https://isgplc.sharepoint.com/thevine/pages/COVID-19.aspx
9. Promote local catering services via visual posters to enable staff to order refreshments to site or via a click and collect service. Site personnel should utilise site canteen areas for break times and only transit public areas at the start/end of shift.
10. Include daily lock down updates in DABS, regular TBT and site stand down communications ensuring 2m social distancing is maintained.

Construction dust

HSE information sheet

Construction Information Sheet No 36 (Revision 2)

Construction dust is not just a nuisance; it can seriously damage your health and some types can eventually even kill. Regularly breathing these dusts over a long time can therefore cause life-changing lung diseases.

This sheet tells employers what they need to know to prevent or adequately control construction dust risks. It also provides advice for safety representatives and workers.

Construction dust

This is a general term used to describe different dusts that you may find on a construction site. There are three main types:

- silica dust – created when working on silica-containing materials like concrete, mortar and sandstone (also known as respirable crystalline silica or RCS);
- wood dust – created when working on softwood, hardwood and wood-based products like MDF and plywood;
- lower toxicity dusts – created when working on materials containing very little or no silica. The most common include gypsum (eg in plasterboard), limestone, marble and dolomite.

Health risks

Anyone who breathes in these dusts should know the damage they can do to the lungs and airways. The main dust-related diseases affecting construction workers are:

- lung cancer;
- silicosis;
- chronic obstructive pulmonary disease (COPD);
- asthma.

Some lung disease, like advanced silicosis or asthma, can come on quite quickly.

Figure 1 Common tasks like cutting can create very high dust levels

However, most of these diseases take a long time to develop. Dust can build up in the lungs and harm them gradually over time. The effects are often not immediately obvious. Unfortunately, by the time it is noticed the total damage done may already be serious and life changing. It may mean permanent disability and early death.

Construction workers have a high risk of developing these diseases because many common construction tasks can create high dust levels. Over 500 construction workers are believed to die from exposure to silica dust every year. The amounts needed to cause this damage are not large. The largest amount of silica someone should be breathing in a day **after using the right controls** is shown below next to the penny.

Figure 2 Your maximum daily silica exposure is tiny when compared to a penny

The law

The Control of Substances Hazardous to Health Regulations 2002 (COSHH) cover activities which may expose workers to construction dust.

There are three key things you need to do:

- Assess (the risks)
- Control (the risks)
- Review (the controls)

Assess (the risks)

Assess the risks linked to the work and materials. Examples of high-risk tasks are listed in Table 1. High dust levels are caused by one or more of the following:

- task – the more energy the work involves, the bigger the risk. High-energy tools like cut-off saws, grinders and grit blasters produce a lot of dust in a very short time;
- work area – the more enclosed a space, the more the dust will build up. However, do not assume that dust levels will be low when working outside with high-energy tools;
- time – the longer the work takes the more dust there will be;
- frequency – regularly doing the same work day after day increases the risks.

Control (the risks)

Use the following measures to control the risk. Examples of controls for common high-risk tasks are given in Table 1.

Stop or reduce the dust

Before work starts, look at ways of stopping or reducing the amount of dust you might make. Use different materials, less powerful tools or other work methods. For example you could use:

- the right size of building materials so less cutting or preparation is needed;
- silica-free abrasives to reduce the risks when blasting;
- a less powerful tool – eg a block splitter instead of a cut-off saw;
- a different method of work altogether – eg a direct fastening system.

Control the dust

Even if you stop some dust this way, you may do other work that could still produce high dust levels. In these cases the most important action is to stop the dust getting into the air. There are two main ways of doing this:

- **Water** – water damps down dust clouds. However, it needs to be used correctly. This means enough water supplied at the right levels for the whole time that the work is being done. Just wetting the material beforehand does not work.

Figure 3 Water suppression on a cut-off saw

- **On-tool extraction** – removes dust as it is being produced. It is a type of local exhaust ventilation (LEV) system that fits directly onto the tool. This ‘system’ consists of several individual parts – the tool, capturing hood, extraction unit and tubing. Use an extraction unit to the correct specification (ie H (High) M (Medium) or L (Low) Class filter unit). Don’t just use a general commercial vacuum.

Figure 4 Wall chasing using on-tool extraction

Respiratory protective equipment (RPE)

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. You will need to make sure that the RPE is:

- adequate for the amount and type of dust – RPE has an assigned protection factor (APF) which shows how much protection it gives the wearer. The general level for construction dust is an APF of 20. This means the wearer only breathes one twentieth of the amount of dust in the air;
- suitable for the work – disposable masks or half masks can become uncomfortable to wear for long periods. Powered RPE helps minimise this. Consider it when people are working for more than an hour without a break;
- compatible with other items of protective equipment;
- fits the user. Face fit testing is needed for tight-fitting masks;
- worn correctly. Anyone using tight-fitting masks also needs to be clean shaven.

Remember: RPE is the last line of protection. If you are just relying on RPE you need to be able to justify your reasons for this.

Other controls

Depending upon the work you are doing you may have to combine these measures with other controls. Think about:

- limiting the number of people near the work;
- rotating those doing the task;
- enclosing the work to stop dust escaping. Use sheeting or temporary screens;
- general mechanical ventilation to remove dusty air from the work area (eg in enclosed spaces such as indoors);
- selecting work clothes that do not keep hold of the dust.

You also need to make sure workers are doing the job in the right way and are using controls properly. Train workers:

- about dust risks and how this can harm their health;
- how to use the dust controls and check that they are working;
- how to maintain and clean equipment;
- how to use and look after RPE and other personal protective equipment (PPE);
- what to do if something goes wrong.

Review (the controls)

You may already have the right controls in place, but are they all working properly? Check the controls work by:

- having procedures to ensure that work is done in the right way;
- checking controls are effective. Does the work still seem dusty? You might need to carry out dust exposure monitoring;
- involving workers. They can help identify problems and find solutions;
- maintaining equipment:
  - follow instructions in maintenance manuals;
  - regularly look for signs of damage. Make repairs;
  - replace disposable masks in line with manufacturer's recommendations;
  - properly clean, store, and maintain non-disposable RPE. Change RPE filters as recommended by the supplier;
  - carry out a thorough examination and test of any on-tool extraction system at least every 14 months.
- supervising workers. Make sure they:
  - use the controls provided;
  - follow the correct work method;
  - attend any health surveillance where it is needed.

You may have to put a health surveillance programme in place. You may need advice for this from an occupational health professional.

Table 1 Controls for common high-risk tasks

Task	Eliminate or limit the dust by:	Control the dust by using:
Cutting concrete kerbs, blocks and paving with a cut-off saw	■ Limiting the number of cuts during design/layout ■ Using lower energy equipment like block splitters ■ Getting material cut off site and delivered	■ Water suppression and ■ RPE* with an APF of 20
Chasing concrete and raking mortar	■ Limiting the need for chasing at the design/layout stage ■ Using a work method that limits/does not need chasing, like over-covering cables	■ On-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20 – consider powered RPE for longer duration work
Cutting roofing tiles with a cut-off saw	■ Hand cutting natural/fibre cement slates and other tiles where possible ■ Using ½ and 1½ tiles ■ Correct setting out/design ■ Minimising valleys/using dry valleys	■ Water suppression and ■ A dedicated cutting area with scaffold board protection and ■ RPE* with an APF of 20
Scabbling or grinding with hand-held tools	■ Specifying architectural finishes that do not need scabbling ■ Using (ultra) high-pressure water jetting ■ Using chemical retarders and pressure washing ■ Casting in proprietary joint formers, eg mesh formwork	■ Where possible use on-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20
Short-duration drilling totalling 15–30 minutes with hand-held rotary power tools	■ Limiting the number of holes during design/planning ■ Using direct fastening or screws	■ Where possible use equipment that stops dust getting into the air. The larger the holes the better this needs to be. Options range from: – drilling through a dust 'collector' or using cordless extraction attached to the drill (for smaller drill bits) or – on-tool extraction using an H or M Class extraction unit ■ Otherwise use RPE* with an APF of 20
Drilling holes with hand-held rotary power tools as a 'main activity'	■ Limiting the number of holes during design/planning ■ Using direct fastening or screws	■ Where possible on-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20
Dry coring	■ Limiting the number of holes during design/planning	■ On-tool extraction using an H or M Class extraction unit ■ Longer duration work (ie over 15–30 minutes accumulated time over the day) will also need RPE.* Use an APF of 20
Wet coring	■ Limiting the number of holes during design/planning	■ Water suppression ■ Long periods of wet coring in enclosed spaces will also need RPE.* Use an APF of 20
Using a hand-held breaker in enclosed spaces with limited ventilation	■ Limiting the amount of breaking during design/planning stage ■ Bursting, crushing, cutting, sawing or other techniques ■ Remote controlled demolition ■ Hydrodemolition	■ On-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20

Task	Eliminate or limit the dust by:	Control the dust by using:
Abrasive pressure blasting	■ Using a different method of work like (ultra) high-pressure water jetting ■ Using 'silica free' abrasive material	■ Wet or vacuum blasting and ■ RPE* will depend on silica content of building materials, blasting equipment and length of work: – In most instances use RPE with an APF of 40 – Use RPE with an APF of 20 for lower risk work (including the 'potman' nearby) ■ Shrouds or screens to contain the flying abrasive ■ Certain restricted/enclosed working places may also need general mechanical ventilation
Soft strip demolition	■ Carefully planning the work ■ Limiting the number of people that need to be in the work area ■ Screening off areas to prevent dust spreading	■ Use water suppression or on-tool extraction for those tasks where it is possible and ■ RPE* with an APF of 20 – consider powered RPE for longer duration work ■ Enclosed spaces may also need general mechanical ventilation to remove dusty air
Removing small rubble, dust and debris	■ Limiting waste materials during design/ planning ■ Considering where waste material is created and how frequently it needs removing ■ Using the correct dust controls when making rubble/debris	■ Damping down and using a brush, shovel and bucket for minor/small 'one-off' amounts Or for regular removal/site cleaning: ■ Water spray for damping down ■ Rake, shovel and bucket/wheelbarrow to remove larger pieces ■ Covered chutes and skips where needed ■ Vacuum attachments fitted to an H or M Class extraction unit ■ RPE* with an APF of 20 depending upon location, duration and type of work
Cutting wood with power tools	■ Using a less toxic wood[1] ■ Ordering pre-cut materials ■ Using dedicated cutting areas to minimise spread	■ On-tool extraction using an H or M Class extraction unit ■ Longer duration work (ie over 15–30 minutes accumulated time over the day) will also need RPE† suitable for the wood dust – particularly in enclosed spaces
Sanding wood with power tools	■ Using a less toxic wood[1] ■ Using 'pre-finished' materials	■ On-tool extraction using an H or M Class extraction unit and ■ RPE† suitable for the wood dust in most situations
Sanding plasterboard jointing	■ Using other finishes/systems	■ On-tool extraction using an H, M, or L Class extraction unit

*** Table 2** Common RPE types for construction dust

APF	Common RPE types for construction dust
10	■ FFP2 disposable mask or half mask with P2 filter
20	■ FFP3 disposable mask or half mask with P3 filter Or for longer duration work: ■ Powered RPE such as a TH2 powered hood/helmet
40	■ Abrasive blasting helmet with constant flow airline

† RPE for wood dust

The risk from wood dust is specific to different types (species) of wood.[1] Knowing the species is important in establishing the right RPE to use. In general RPE with an APF of 20 is appropriate; particularly for higher residual dust levels, such as when sanding, and for all work with more toxic woods such as hardwoods, western red cedar and MDF. RPE with an APF of 10 is suitable for work with less residual dust and when the wood is lower risk (eg pine).

References

1 *Toxic woods* Woodworking Information Sheet WIS30(rev1) HSE Books 2012 www.hse.gov.uk/pubns/wis30.htm

Further information

Further information on dust and other construction health risks can be found at www.hse.gov.uk/construction/healthtopics/index.htm

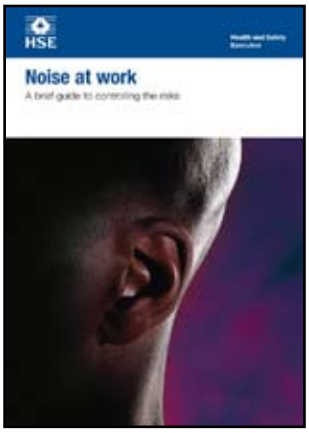
For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

This information sheet is available at www.hse.gov.uk/pubns/cis36.htm.

Noise at work

A brief guide to controlling the risks



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Introduction

What is this leaflet about?

Loud noise at work can damage people's hearing and lead to risks to safety. This leaflet explains what you, as an employer, need to do under the Control of Noise at Work Regulations 2005 to protect your employees from noise. It will also be useful to employees and their representatives.

This leaflet tells you about:

- the harm that noise can cause;
- the legal duties on employers;
- identifying if there is a problem with noise in your workplace;
- controlling noise and preventing harm.

What harm can noise cause?

Hearing damage

Noise at work can cause hearing damage that is **permanent** and **disabling**. This can be hearing loss that is gradual because of exposure to noise over time, but also damage caused by sudden, extremely loud noises. The damage is disabling as it can stop people being able to understand speech, keep up with conversations or use the telephone.

Hearing loss is not the only problem. People may develop tinnitus (ringing, whistling, buzzing or humming in the ears), a distressing condition which can lead to disturbed sleep.

Safety issues

Noise at work can interfere with communications and make warnings harder to hear. It can also reduce people's awareness of their surroundings. These issues can lead to safety risks – putting people at risk of injury or death.

The law

The Control of Noise at Work Regulations 2005 (the 'Noise Regulations') require you to eliminate or reduce risks to health and safety from noise at work.

Depending on the level of risk, you should:

- take action to reduce the noise exposure; and also
- provide your employees with personal hearing protection.

Other duties under the Regulations include the need to:

- make sure the legal limits on noise exposure are not exceeded;
- maintain and ensure the use of equipment you provide to control noise risks;
- provide your employees with information, instruction and training; and
- carry out health surveillance (monitor workers' hearing ability).

The Regulations apply where work activities expose people at work (your employees or other workers affected by your work activities) to risks to their health and safety from noise.

The Regulations do not apply where people who are not at work are exposed to risks to their health and safety from noise related to work activities; however, the general duties of section 3 of the Health and Safety at Work etc Act 1974 may apply in such cases.

Do I have a noise problem in my workplace?

You will probably need to do something about the noise if any of the following apply:

- the noise is intrusive – for example, as noisy as a busy road, a vacuum cleaner or a crowded restaurant – or worse than intrusive, for most of the working day;
- your employees have to raise their voices to carry out a normal conversation when about 2 m apart for at least part of the day;
- your employees use noisy powered tools or machinery for more than half an hour each day;
- your sector is one known to have noisy tasks, eg construction, demolition or road repair; woodworking; plastics processing; engineering; textile manufacture; general fabrication; forging or stamping; paper or board making; canning or bottling; foundries; waste and recycling;
- there are noises due to impacts (such as hammering, drop forging, pneumatic impact tools etc), explosive sources such as cartridge-operated tools or detonators, or guns.

Situations where you will need to consider safety issues in relation to noise include where:

- you use warning sounds to avoid or alert to dangerous situations;
- working practices rely on verbal communications;
- there is work around mobile machinery or traffic.

Decide what action is needed

If any of the statements in the previous section apply, it is likely you will need to take some further action. You should carry out a risk assessment to decide what action is needed, and develop a plan.

A risk assessment means more than just taking measurements of noise – measurements may not even be necessary. Your risk assessment should:

- identify where there may be a risk from noise and who is likely to be affected, include:
  - risks to health; and
  - risks to safety;
- contain an estimate of your employees' exposures to noise (see 'Noise exposure levels');
- identify what you need to do to comply with the law, eg whether noise-control measures and/or personal hearing protection are needed, or whether working practices are safe; and
- identify any employees who need to be provided with health surveillance and whether any are at particular risk.

You must record the findings of your risk assessment. You must also record the action you have taken, or intend to take, to comply with the law.

You should review your risk assessment if circumstances change or if it is no longer valid, for example if the work changes and this affects workers' noise exposure, or there are changes to the availability, applicability or cost of noise-control measures. You should not leave it for more than about two years without checking whether a review is needed.

Noise exposure levels

Estimating noise exposure

You are required to make a reliable, representative estimate of your workers' daily personal noise exposure. Daily personal noise exposure, or $L_{EP,d,}$ represents a daily noise 'dose' – a combination of 'how loud' and 'how long exposed' for the various noises that a person is exposed to in a working day.

You also need to determine the likely peak sound pressure levels, $L_{Cpeak,}$ to which workers are exposed.

This means thinking about:

- what work is done or likely to be done;
- the ways in which the work may be done; and
- how the work might vary from one day to the next.

It may be possible for you to estimate the $L_{EP,d}$ or the L_{Cpeak} for some or all of your workers from published information, such as HSE industry-specific guidance. Noise level information may come from other sources, such as:

- measurements in your own workplace;

- other workplaces similar to yours; and
- data from suppliers of machinery.

Do not make any allowance for the wearing of personal hearing protection when you estimate workers' noise exposure levels.

Personal noise exposure may also be calculated over a week rather than a day, if the noise exposure of workers varies markedly from day to day. This is written as $L_{EP,w}$. Noise exposure calculators are available on the HSE website.

Exposure action values

The Noise Regulations define 'exposure action values' – levels of noise exposure which, if exceeded, require you to take specific action. There are 'lower' and 'upper' action values.

You need to compare your estimated noise exposure with the action values to know what specific actions are required of you in addition to your general duty to reduce risks from noise.

	Lower exposure action value (decibels)	Upper exposure action value (decibels)
Daily or weekly personal noise exposure ($L_{EP,d}$ or $L_{EP,w}$)	80	85
Peak sound pressure (L_{Cpeak})	135	137

Take action – control the risks

When is action required?

Wherever there is noise at work you should be looking for alternative processes, equipment and/or working methods which would make the work quieter or mean people are exposed for shorter times. You should also keep up with what is good practice or the standard for noise-control within your industry, eg through your trade association, or machinery or equipment suppliers.

Where your employees are likely to be exposed at or above the upper exposure action values, you must take action to reduce noise exposure with a planned programme of noise control.

Even where noise exposures are below upper exposure action values, you should take action to reduce the risks, eg reducing exposure further.

Any action you take should be 'reasonably practicable' – in proportion to the level of risk. If exposure is below lower action values, the risk is low and it is likely no action is required – but if there are simple, inexpensive practical steps that would reduce risks further, you should consider implementing them.

How can I control noise?

There are many ways of reducing noise and noise exposure. It is within the capabilities of nearly all businesses to decide on practical, cost-effective actions to control noise risks, if necessary by looking at the advice available (eg the HSE website).

First think about how to remove the source of noise altogether – for example, housing a noisy machine where it cannot be heard by workers. If that is not possible, investigate:

- using quieter equipment or a different, quieter process;
- engineering/technical controls to reduce, at source, the noise produced by a machine or process;
- using screens, barriers, enclosures and absorbent materials to reduce the noise on its path to the people exposed;
- designing and laying out the workplace to create quiet workstations;
- improved working techniques to reduce noise levels;
- limiting the time people spend in noisy areas.

Measures that give ongoing or medium- and long-term benefits, and would be expected to be part of your noise-control programme, are:

- a low-noise purchasing policy for machinery and equipment;
- proper and regular maintenance of machinery and equipment that takes account of noise.

Where your noise-control measures require actions from employees to be effective (eg making proper use of noise enclosures or following approved low-noise working methods), you should make sure employees do what is required. Make sure that employees have appropriate information, instruction and training, and ensure appropriate supervision. Employees have a duty to make use of any noise-control measures you provide.

Plan for maintenance

You have a duty to maintain anything you provide that is intended to control noise. You should put in place a system to ensure that noise-control equipment is maintained so that it continues to be effective. This can be incorporated into your systems for routine and reactive maintenance. The effectiveness of many noise-control measures can be significantly reduced even though the level of disrepair seems minor.

Choose quieter equipment and machinery

When hiring or buying equipment you should consider noise alongside other factors (eg general suitability, efficiency). Compare the noise data from different machines as this will help you to buy from among the quieter ones.

Manufacturers of work equipment have legal duties regarding the equipment they supply (see ‘Duties of machine manufacturers on noise’) and you have a duty under the Provision and Use of Work Equipment Regulations 1998 to only provide your workers with equipment that meets relevant supply laws.

When using a manufacturer’s noise data you will need to make sure that the data is representative of the way you intend to use the equipment. Be cautious when using manufacturers’ data other than for comparing equipment; for example, the data is likely only to be a guide to personal noise exposure as many factors affect the noise levels experienced by employees.

You should ask your supplier about:

- installation arrangements, eg methods of mounting and location, to ensure machinery operates as quietly as possible;
- how different ways of operating the machine affect the noise it produces;
- maintenance arrangements to ensure the machine continues to operate properly and does not get louder over time.

Duties of machine manufacturers on noise

Under the Health and Safety at Work etc Act 1974 and the Supply of Machinery (Safety) Regulations 2008 a supplier of machinery must:

- provide machinery that is safe and without risk to health, with the necessary information and instructions to ensure those aims can be met during installation, use and maintenance;
- design and construct machinery so that the noise produced is as low as possible;
- provide information about the noise the machinery produces, including descriptions of the operating conditions under which the noise was measured.

Safety risks

Where warning sounds are used to avoid or alert to dangerous situations, they should be selected to be clearly audible in the environment in which they are used, taking account of the hearing ability of the people involved and any use of personal hearing protection.

Systems of work where safety relies on verbal communications should be avoided where levels of noise or wearing hearing protection could lead to misunderstandings.

Where personal hearing protection is being used when working around mobile machinery or traffic, particular consideration should be given to the types of protector you supply and the ways in which you expect workers to make use of them.

Exposure limits

There are legal limits on the levels of noise to which workers may be exposed.

To comply with the exposure limits you must ensure that your workers' noise exposure, reduced by an appropriate factor if they are using personal hearing protection, is not above:

- 87 decibels for daily or weekly personal noise exposure ($L_{EP,d}$ or $L_{EP,w}$); and
- 140 decibels for peak sound pressure (L_{Cpeak}).

Complying with exposure limits is only one aspect of your legal duties under the Noise Regulations. It is separate from your duty to reduce risks from noise to as low as is reasonably practicable.

Personal hearing protection

When should personal hearing protection be used?

Hearing protection should be issued to employees:

- where extra protection is needed above what has been achieved using noise control;
- as a short-term measure while other methods of controlling noise are being developed.

You should not use hearing protection as an alternative to controlling noise by technical and organisational means.

Providing hearing protectors and managing their use

The Noise Regulations require you to:

- provide employees with hearing protectors and make sure they use them fully and properly when their noise exposure exceeds the upper exposure action values;
- provide employees with hearing protectors if they ask for them, and their noise exposure is between the lower and upper exposure action values;
- identify hearing protection zones – areas of the workplace where access is restricted, and where wearing hearing protection is compulsory.

To make sure protectors are worn fully (all of the time they are needed) and properly (fitted or inserted correctly) will require you to have systems of supervision and training. Also consider the use of spot checks and audits.

Selecting suitable hearing protectors

You should take account of the following in selecting the hearing protectors you provide to your workers:

- choose a suitable protection factor – sufficient to eliminate risks from noise but not so much protection that wearers become isolated;
- consider the work and working environment, eg physical activity, comfort and hygiene;
- compatibility with other protective equipment, eg hard hats, masks and eye protection.

You should only supply CE-marked hearing protectors. You must consult with workers and their representatives over the types of protector provided.

Maintenance of hearing protectors

You have a duty to maintain hearing protection so that it works effectively. Factors that affect the level of protection, such as the headband tension and the condition of seals, should be checked as part of your system of maintenance.

Employees have a duty to report any defects in hearing protection. This duty should be explained to them, as well as how to identify defects, as part of their training.

Information, instruction and training

What do I need to tell my employees?

Employees should be provided with training so that they understand the risks they may be exposed to, and their duties and responsibilities. Where they are exposed above the lower exposure action values you should at least tell them:

- their likely noise exposure and the risk to hearing this creates;
- what you are doing to control risks and exposures;
- where and how to obtain hearing protection;
- how to identify and report defects in noise-control equipment and hearing protection;
- what their duties are under the Noise Regulations;
- what they should do to minimise the risk, such as the proper way to use noise-control equipment and hearing protection;
- your health surveillance systems.

You can give HSE's pocket card *Noise: Don't lose your hearing!* to your employees to supplement the training you give (see 'Find out more').

Employee and safety representatives

Consulting with trade union-appointed safety representatives or other employee representatives is a legal requirement. Discuss with them your risk assessment and plans to control risk, including any proposal to average exposure over a week, selection of hearing protection and your health surveillance programme.

Health surveillance

Providing health surveillance

You must provide health surveillance for all your employees who are likely to be frequently exposed above the upper exposure action values, or are at risk for any reason, eg they already suffer from hearing loss or are particularly sensitive to damage. Consult your trade union safety representative, or employee representative and the employees concerned before introducing health surveillance.

Health surveillance usually means regular hearing checks, conducted annually for the first two years of being exposed and then at three-yearly intervals (although this may need to be more frequent if a problem with hearing is detected or where the risk of hearing damage is high).

The hearing checks need to be carried out by someone who has the appropriate training. A suitable doctor, nurse or audiologist needs to review the results and ensure that employees with poor hearing or rapid hearing loss are referred for further medical advice.

You should receive results including information on an employee's fitness to continue working in noisy environments. However, you should only receive information on any hearing damage an individual employee has if that employee has given consent. You will also need to see anonymised, grouped health information, which should be made available to employee or safety representatives.

Where any hearing damage due to noise is identified you should prevent further harm to the individual, taking account of the medical advice you receive on fitness. On the basis of both individual and grouped information, you will need to consider what action you need to take; this should include reviewing your risk assessment, any control measures you have in place and your health surveillance procedures.

You will need to keep health records containing information on the outcomes of health surveillance and fitness for work. Health records must be kept separate from any confidential medical results.

Find out more

Noise: Don't lose your hearing! Pocket card INDG363(rev2) HSE Books 2012 www.hse.gov.uk/pubns/indg363.htm

www.hse.gov.uk/noise/index.htm

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

This leaflet is available at www.hse.gov.uk/pubns/indg362.htm.