Demolition and Construction Management and Logistics Plan

67 Pinkwell Lane Hayes Middlesex

Submission of Condition 4 of Application: 54986/APP/2023/3718

4 Prior to development commencing, the applicant shall submit a demolition and construction management plan to the Local Planning Authority for its approval.

The plan shall detail:

(i) The phasing of development works

(ii) The hours during which development works will occur (please refer to informative I15 for maximum permitted working hours).

(iii) A programme to demonstrate that the most valuable or potentially contaminating materials and fittings can be removed safely and intact for later re-use or processing.

(iv) Measures to prevent mud and dirt tracking onto footways and adjoining roads (including wheel washing facilities).

(v) Traffic management and access arrangements (vehicular and pedestrian) and parking provisions for contractors during the development process (including measures to reduce the numbers of construction vehicles accessing the site during peak hours).

(vi) Measures to reduce the impact of the development on local air quality and dust through minimising emissions throughout the demolition and construction process.

(vii) The storage of demolition/construction materials on site. The approved details shall be implemented and maintained throughout the duration of the demolition and construction process.

REASON To safeguard the amenity of surrounding areas in accordance with Policy OE1 of the Hillingdon Unitary Development Plan (Saved Policies 2007). Roles and responsibilities

Introduction

This Demolition and Construction Management Plan (DCMP) supports the planning application for the development at 67 Pinkwell Lane, Hayes, Middlesex. The plan outlines the procedures and measures to be implemented throughout the demolition and construction phases to ensure the safety of workers, residents, and the surrounding environment.

Phasing of Development Works

Phase 1: Pre-Demolition Preparations

- Secure the site with appropriate fencing and signage.
- Set up site offices, welfare facilities, and temporary services.
- Disconnect utilities (electricity, gas, water) to the parts of the building being demolished.
- Conduct an asbestos survey and remove any asbestos-containing materials.

Phase 2: Demolition

- Carefully dismantle the designated parts of the existing dwelling and garage.
- Sort and salvage materials for reuse or recycling.
- Remove hazardous materials following strict safety protocols.

Phase 3: Site Preparation

- Clear debris from the demolition phase.
- Conduct site grading and leveling.
- Install necessary temporary drainage and erosion control measures.

Phase 4: Construction of New Dwelling

- Lay foundations and construct the superstructure of the new detached three-bedroom dwelling.
- Install roof, windows, and doors.
- Complete exterior finishes (brickwork, rendering, etc.).

Phase 5: Alterations to Existing Dwelling

- Construct single-storey rear extension.
- Convert roof space to habitable use and construct rear dormer roof extension.
- Modify fenestration as per new design.

Phase 6: Final Works and Landscaping

- Complete internal finishes (plumbing, electrical, plastering, painting).
- Install fixtures and fittings.
- Landscape garden and install parking, cycle, and bin storage areas.

Phase 7: Site Clearance and Handover

- Remove all construction equipment and temporary facilities.
- Clean site and conduct final inspections.
- Handover the completed dwellings

Roles and Responsibilities

Construction Manager

The Construction Manager is accountable for fulfilling the following responsibilities in relation to health and safety:

- Details of Site Manager still to be determined, but when this is allocated, the details will be displayed on the main project information board outside the site.
- The site manager will also ensure all other relevant contact details are displayed on hoarding.
- Develop and Implement the Company's policy and to appreciate the responsibility
  afforded as Principal Contractor.
- See that tenders are adequate to cover sound methods of working and reasonable welfare facilities.
- Determine at the planning stage:
  - The most appropriate order and method of working.
  - Allocation of responsibilities with Sub-contractors and others.
  - Hazards which might arise from overhead or underground services and other situations which might lead to unnecessary improvisations on site.
  - Facilities for welfare and sanitation.
  - Adequate fire prevention and fire-fighting measures.
  - Afford adequate mobilization periods to all sub-contractors and suppliers in preparing and planning their work activities.

- Ensure that suitably developed and detailed method statements and risk assessments are prepared for each task.
- Ensure that suitable and sufficient risk assessments are developed and prepared to identify potential hazards at each stage and indicate precautions to be adopted.
- Ensure adequate co-ordination measures are provided to manage the interface, and access requirements of all sub-contractors.
- Ensure that work, once started, is carried out as planned and that the provisions of CDM
- Regulations and all relevant health, safety and Environmental legislation are

observed on site.

- Set a personal example on site visits by wearing appropriate protective clothing.
- Reprimand any member of the Company failing to discharge satisfactorily the responsibilities allocated to them.
- Give all Trades Foremen and Gangers instructions on their responsibilities for correct working methods, see that they do not require, or permit operatives (particularly apprentices and trainees) to take unnecessary risks.

- Discipline those who fail to consider their own well-being and that of other operatives.
- Arrange delivery and safe storage of materials to avoid risks by double handling,position plant effectively, ensure that the electricity supply is installed and maintained without endangering men and equipment.
- Plan and maintain a tidy site.
- Implement arrangements with Sub-contractors and other contractors on site to avoid any confusion about areas of responsibility.
- Check that all machinery and plant, including power and hand tools, are maintained in good condition.
- Ensure that all hazardous materials are properly marked to enable adequate precautions to be taken.
- Make sure that suitable protective equipment is available to protect employees from foreseeable risk to their health and safety and to ensure that it is used.
- Ensure that arrangements are made for first day site induction together with the knowledge of the Site Rules and Regulations.
- Ensure that their First Aid Certificates are up to date and all items of First Aid equipment as required by the Health & Safety (First Aid) Regulations 1981, is available and their location known to employees. Emergency telephone numbers are to be clearly displayed.
- See that proper care is taken of casualties and knowledge where to obtain medical help and ambulance service in the event of a serious injury (nominate others to act in an emergency).
- Accompany H.M. Inspector and Safety Advisor on site visits and act on any
- recommendations given.

- Report all accidents, in accordance with the Reporting of Injuries, Diseases and
- Dangerous Occurrences Regulations 2013 (RIDDOR).
- Co-operate with the Safety Advisor, act on any recommendation given.
- Liaise with the Fire Brigade on fire prevention; ensure that firefighting equipment is available and that escape routes are clearly identified.
- Hold site meetings at regular intervals to discuss and implement safety procedures,
- examine accident records and causes to consider improvements in safe working arrangements.

Safety Advisor

The Safety Advisor is independent and shall act professionally at all times in the discharging of his duties in relation to health and safety which shall include: Advise management on:

- Preventing injury to personnel and damage to plant.
- Prevent hazards arising leading to occupational ill health.
- Further improvements in existing sound working methods.
- Legal requirements affecting safety, health and welfare.
- Provision and use of protective clothing and equipment.
- Suitability, from a safety viewpoint, of new and hired plant and equipment and validity of all appropriate test certificates.
- Methods of safe working arising from new developments.
- Changes in legislation.
- Undertaking of site monitoring, in association with the Construction Manager to see that only safe and healthy methods of working are in operation and that all regulations are being observed.
- Co-ordinate the investigation of accidents, dangerous occurrences or near-misses and implement any necessary improvement actions.
- Supervise the recording and analysis of information on injuries, ill health,

damage and

- production loss, assess accident trends and review overall safety performances.
- Liaise with the Health & Safety Executive, Fire Authorities, Environmental Authorities,
- Safety Group and the Employment Medical Advisory Service.
- Participate in site management/operative discussions on injury, health and welfare damage and wastage control
- Keep up to date with recommended codes of practice, new safety and health literature and circulate information applicable to each level of employee.
- Create an understanding within the Company that injury prevention, occupations hygiene and damage control are an integral part of business and occupational efficiency.

All Employees & Sub-Contractors

This Policy cannot operate without full co-operation from all employees and sub-contractors and places a high priority on good health and accident prevention.
Managers, Supervisors, Employees and Sub-Contractors must work together to identify, record and monitor those situations which could lead to personal injury and hazard to the health of other employees sub- contractors, visitors and members of the general public.
All employees and sub-contractors are therefore required to undertake their work and generally behave in a sensible, careful and considerate fashion, and, in particular, they are required to:-

- Read the “Health & Safety Policy” and carry out your work in accordance with its requirements.
- Work in a safe manner at all times. Do not take unnecessary risks which could endanger yourself or others. If possible, remove hazards yourself.
- Do not use any plant or equipment that you have not been trained to use, or for workthat it is not intended.
- Visually inspect portable equipment and leads before use, ensure they are tested and ensure that the necessary guards are fitted, controls are

functioning properly and that they are correct for the job.

- Report all known hazards and suspected unsafe conditions that do not appear to be under control to the supervisor/manager, in order that suitable and timely corrective action can be taken. (This includes damaged tools and equipment, items needing maintenance and unserviceable personal protective equipment).
- Report to your Manager any injury to yourself which results from an accident at work, even if the injury does not stop you working. Report also any incident which could have resulted in injury or damage.
- Report to your Manager any damage which results from an accident at work.
- Abide by any “Codes of Practice”, Site Rules and Regulations and the requirements of the staff handbooks, issued for your Health & Safety
- Help the Company take special care of new and young workers and other susceptible persons.
- If your health is having an adverse effect on your work or your relations with others around you, or is in any other way a reasonable cause for management concern, the Company may require you to undergo a medical examination

Method Statements, Risk Assessment, COSHH Reports & Hazard Identification.

It shall be a fundamental principle of the Project control arrangements that work activities and hazards are controlled, the principle arrangement will be the production of method statements and risk assessments.

- Establish a safe method for performing every task, and provide or procure from others the correct plant, equipment and materials suitable for that task.
- Monitor the working methods to ensure that they are achieving their objectives.
- Endeavour by good planning, to identify known hazards to safety and avoid creating any new hazards through carelessness, lack of thought or knowledge, or failure to appreciate its responsibility for adopting safe working practices.
- Establish routine procedures for identifying and discussing safety matters both prior toand during each project, thereby anticipating hazards and agreeing actions to overcome them.
- Make every effort to determine the exact positions and routes of all known services and utilities, both private and those belonging to Statutory

Undertakers, and ensure that they have been identified, isolated, re-routed or protected, as necessary.

- Prepare logic plan(s) to describe how the works will be resourced and performed within the anticipated construction period and (where necessary) prepare method statements, risk assessments and safety plans to describe the safe performance of those works.

Scope of Work impact on Site and Surrounding Area

Project Description

Erection of an additional detached three-bedroom dwelling with associated parking, cycle, and bin storage following part demolition of the existing dwelling and garage. Alterations to the existing dwelling to include a single-storey rear extension, conversion of roof space to habitable use involving the construction of a rear dormer roof extension and amendments to fenestration to accommodate two three-bedroom dwellings within the site

Occupied or Vacant

The site contains an existing semi-detached large Victorian property which has been previously extended and will be occupied.

Site Clearance

There will be no requirement for carrying out a site clearance prior to project starting

Arbilogical Statement

There are no trees on site.

All Existing Shrubs to be retained. Any new planting which are removed, die, become severely damaged or diseased within five years of the completion of development shall be replaced in accordance with by the proposed landscape plans detailed above.

All Landscaping will be maintained by an external contractor visiting the site once every two weeks in the summer and once a month in the winter.

All new planting that die, become severely damaged or diseased within five years of the completion of development shall be replaced with trees or shrubs of appropriate size and species in the next planting season

Existing Environment

Adjacent land uses

The surrounding area comprises a mix of residential properties including purpose built flatted developments, flat conversions and single-family dwelling houses. Buildings in this area are predominantly two to three storeys in height.

Existing Drawings

Existing drawings are attached to the application

Existing Services

There are currently existing services within the premise 67 Pinkwell Lane.

Existing Traffic Systems

Access to the site will be via Pinkwell Lane, of Shpiston Lane , of the M4

Overlap with Clients Use of Site

There will be no overlap with the Client’s undertakings.

Existing Structures

The existing Structure is of a 1945-1955 brick construction

Local Issue

There is level of Cars Passing by due to the proximity to the M4

A number of external bodies will need to be consulted during the project and these are as follows:

- Utility companies
- Local Residents and businesses in the immediate site area
- Local Council Highways Department
- Local Planning Department
- Building Control or Approved Inspectors

Site Specific Items

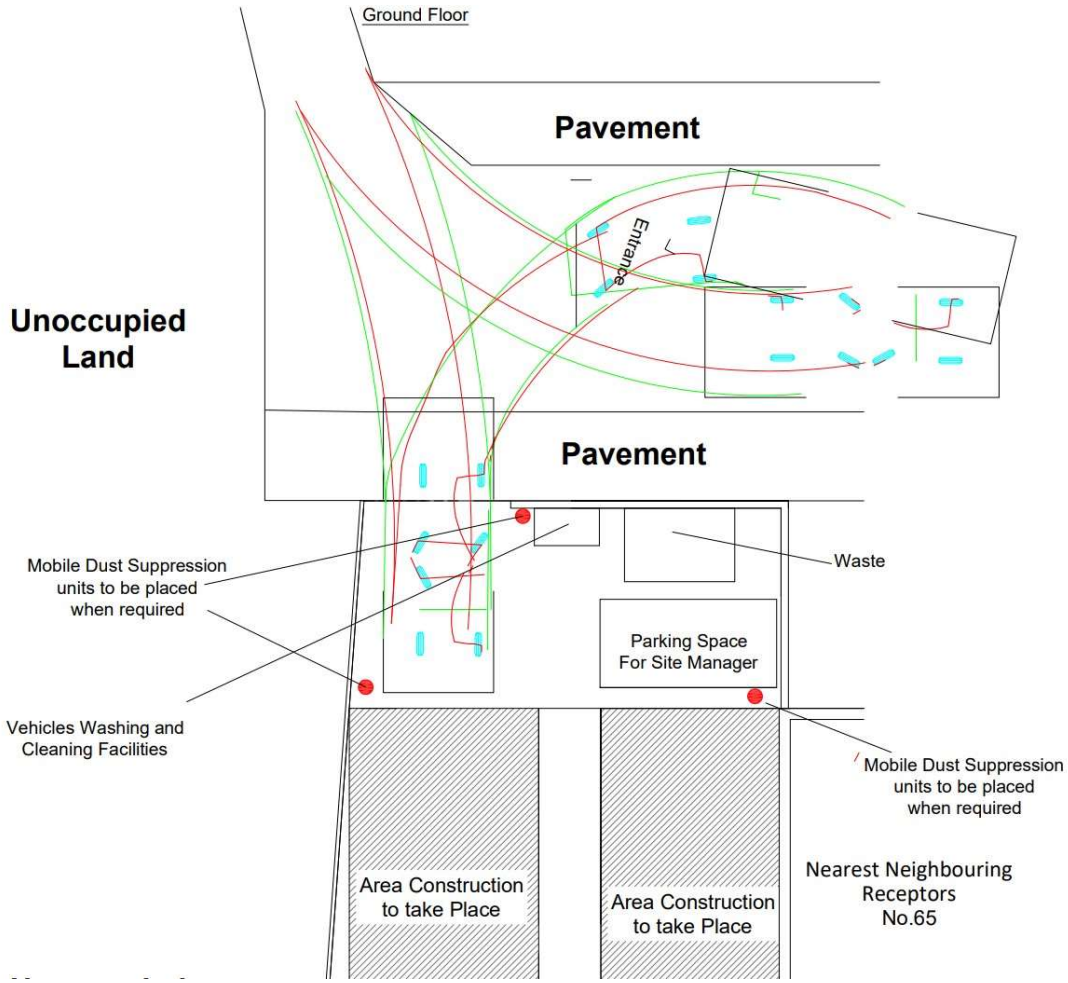
4.1 Site Compound

It is intended that the existing house will contain office, welfare facilities and WC located within.

The main site access to the loading and unloading area will allow vehicles to enter the site in a forward gear and be directed into the position for loading and unloading with the aid of a vehicle banksman.

On completion of loading and unloading the vehicles will be reversed from this position with the aid of a vehicle banksman and be able to egress the site in a forward gear.

See attached Swept Plan below



The Principal Contractor shall ensure that the facilities are maintained in good condition and that waste is not allowed to accumulate unnecessarily throughout the duration of the contract.

Welfare Facilities

We recognise the CDM Requirements to provide adequate welfare prior to work commencing, and in addition that any such welfare facilities shall generally be compliant with the requirements of schedule 2 of the CDM Regulations 2015.

The Principal Contractor shall ensure that the facilities are maintained in good condition and that waste is not allowed to accumulate unnecessarily throughout the duration of the contract.

Access & Egress

Access and egress to the site will be via Pinkwell Lane Arrangements will be in place to allow for emergency evacuation.

Fencing & Security

Where necessary the site will be made secure using an appropriate fencing system. Warning signs shall be placed around the construction areas to identify the construction site. Out of hours telephone numbers shall be provided to local occupiers for use in an emergency. Consideration of CCTV being installed externally to cover entrances.

Protection to Members of the Public & Third Parties

Warning signs shall be located at any access point, external or internal to the construction areas, and shall clearly identify that the construction area is prohibited to any un-authorised persons.

Special Needs

Electrical supply shall be required to be provided for the site welfare and for electrical supplies for power tools, and lighting.

Any temporary electrical supplies for construction shall comply with BS:7375 Code of practice for the distribution of electricity on construction and building sites.

The CDM Principal Designer has provided information on the requirements to be met for the provision of temporary electrical supplies to Construction and building sites.
The Principal Contractor shall engage a competent electrical contractor to provide and install a temporary electrical supply for the purposes of the project as appropriate.

Demolition

- Carefully dismantle the designated parts of the existing dwelling and garage.
- Sort and salvage materials for reuse or recycling.
- Remove hazardous materials following strict safety protocols.

Waste

Waste, from food, tea bags, and wrappings, etc.…, shall be disposed of progressively.
Sufficient waste receptacles shall be provided, and waste disposed of according to local authority waste collection and recycling requirements for the area. Materials from the project will placed into skips that will be located in the loading and unloading area.
All construction waste shall be classed as controlled waste, and disposed of in accordance with the requirements of the regulations. Waste shall be placed in skips which shall be enclosed and lockable at the end of the day to prevent arson.
Waste to be removed by licensed hauliers & Consignment notes collected by the site manager

Dust

Although it is not anticipated during the course of the works that significant amounts of dust will be generated due to works being undertaken, the Principal Contractor is to ensure that the creation of any dust will be always contained to within the curtilage of the development site so far as reasonably practicable.
To ensure significant amounts of dust will not be generated due to works being undertaken, task specific risk assessments will be carried out to determine appropriate control methods as and where required.
Water suppression or dust extraction will be used on equipment to minimise dust levels During the works or wet weather, the site manager will ensure that all vehicles

leaving site will be inspected and if required have their wheels cleaned by jet wash to remove any mud prior to entering the highway. This would be monitored and if further measures were required these would be implemented.

During the hot month's dust may be generated by traffic movement, this will be controlled by damping down and speed restrictions.

All highways will be kept clean and tidy at all times and if applicable the road being hosed down and swept at regular intervals.

Suitable PPE will be worn by operatives when carrying out activities creating dusts. This will include the wearing of suitable dust masks when necessary (copies of face fit testing records will be kept in site file)

The following measures will be used to control the risk.

Prevention:

Before work starts, looking at ways of stopping or reducing the amount of dust.

The use of different materials, less powerful tools or other work methods. For example

- 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.
- Suppression
- The following will be implemented to prevent dust getting into the air.
- Water – water damps down dust clouds.
- On-tool extraction – removes dust as it is being produced.

Suppression:

The following will be implemented to prevent dust getting into the air.

- Water – water damps down dust clouds. Using a Water Browser
- On tool Extraction – removes dust. as it is being produced

Containment:

Where water or on-tool extraction may not be appropriate, respiratory protection (RPE) will be provided that is,

- adequate for the amount and type of dust
- suitable for the work

- compatible with other items of protective equipment
- fits the user. Face fit testing will be undertaken

Other controls

Depending upon the work being undertaken, the following controls may be necessary

- limiting the number of people near the work
- rotating those doing the task
- enclosing the work to stop dust escaping by using sheeting or temporary screens
- general mechanical ventilation to remove dusty air from the work area
- selecting work clothes that do not keep hold of the dust.loads delivered to or collected from the site will be covered where appropriate.
- road vehicles will be requested to comply with set emission standards.
- skips will be securely covered.
- the air quality within the site will be continually monitored.

All persons will be informed of the following:

- 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 equipmenthow to use and look after RPE and other personal protective equipment (PPE)
- what to do if something goes wrong.

Review (the controls)

- Control measures will be monitored by the Site Supervisor or Manager to ensure
- use of the controls provided
- follow the correct work method
- attend any health surveillance where it is required

Noise

Noise from a building site is covered by BS5228: ‘Noise Control on Construction and Open Sites’,and relevant European Union Directives.

All construction work on site will thus meet the British Standard BS 5228 and at all times we will do all we can to reduce noise and vibration

The Client will appoint a Safety, Health and Environment Adviser who is trained and experienced in the use of noise monitoring equipment. He retains his own noise monitoring equipment and will carry out monitoring checks during the course of the construction, to ensure noise levels adjacent to the works are within specified limits. Should the noise measurement be identified as being above 60 decibels outside of the site boundary all work will cease until the relevant measures have been put in place to reduce the levels.

We understand the limitations of noisy works within a residential environment and will ensure all subcontractors are aware of the site restrictions on noisy work as detailed within subcontract orders and the site rules. We will identify any noisy activity, its location, the duration and any applicable control measures necessary to mitigate its effect.

The Client is sensitive to the requirements of working alongside existing occupied premises and recognises the importance of working closely with the nearby residents to ensure that they are informed in advance of any noisy or disruptive activities that may be undertaken and to allow time for the implementation of reasonable mitigation measures that may be required, for example, when tasks creating noise are being undertaken, near neighbours will be politely requested to keep windows closed to help reduce noise nuisance

The Principal Contractor is to ensure that noise levels from the site are kept to a reasonable level and does not create a nuisance to neighbours and the local community.

To ensure high levels of noise will not be generated due to works being undertaken, task specific risk assessments will be carried out to determine appropriate control methods as and where required.

- The following control measures are to be implemented as standard,
- The Principal Contractor will take reasonable steps to minimise noise disruption to neighbours and the local community.
- Where it is necessary, noisy activities will be identified in advance and notice given to neighbours and the local community.

- Operatives working in noisy areas will be monitored to ensure they are wearing the necessary protective equipment and that they are not exceeding their permitted exposure periods.
- Electrically operated plant will be used where practical.
- All plant used on the site is to be effectively silenced.
- No externally audible radios or other audio equipment will be allowed on site.

Traffic Layouts & Emergency Routes

The normal traffic and emergency access routes within the secure site is defined by existing road access

.

Movement of Plant

The movement of waste vehicles and vehicle deliveries shall be controlled by the use of a banks man at all times.

Access Equipment

Scaffolds, erected by competent persons, will be used throughout the project. All scaffolds and working platforms shall comply with the requirements of the relevant schedules of the Construction Design and Management regulations.

All work equipment shall be subject to the provisions of BS:5975 Temporary works. The Principal Contractor shall act as the Temporary Works Co-coordinator.

Ladders and steps shall be limited in use to short duration and light duty activities. In all cases the selection of steps and ladders shall be made having first undertaken a risk assessment to establish safest means of access.

Needles & Sharps

Not anticipated at this site, however vigilance shall be maintained throughout.

Disease & Infestation

Not anticipated at this site, however vigilance shall be maintained throughout

Confined Spaces

There will be no confined space work taking place.

Hot Works

In the event that hot work such as welding, or the use of an angle grinder are required, such work shall be subject to an initial risk assessment, the Principal Contractor shall require that a suitable fire extinguisher is provided and that in some circumstances a hot work permit is issued by him.

Work at Height

All work at height activities shall be carried in line with the requirements of the work at height Regulations 2005, work at height activities shall be properly planned and organized. Access equipment shall be selected through the process of risk assessment.

The site manager shall be responsible for ensuring that all work equipment is subject to a check prior to use to ensure that it is fit for purpose, any person operating or using access equipment shall be suitably trained and competent in its use.

Tower scaffold shall only be erected by persons who have been trained, a record of all training records shall be retained on site by the Construction site manager.

Smoking or Ignition Source Restrictions

No smoking is permitted. Flammable substances shall be stored in external secure containers in well ventilated areas and such areas shall be identified as non-smoking areas.

Unstable Structures

The site contains no unstable structures.

Vibration

Vibration caused by the use of percussive equipment is not anticipated, however vibration will be controlled daily by the site manager who will assess the trigger time of the equipment to be used and ensure that this is not exceeded on a daily basis.

Significant Design Assumptions, Suggested Work Methods, Sequences etc.…

Designers shall be required to comply with regulation 12 of the Construction (Design and management) Regulations 2015, and give due consideration in their design decisions to health, safety and wellbeing to persons involved in the construction of

the structure, and subsequently to the health, safety and welfare of those persons who will use the structure for its designed intention and purpose, and the health, safety and welfare of those persons who shall be responsible for the maintenance of the structure.

Residual hazards shall be provided by the Designer to the ma Principal in Contractor such that these can be considered, and suitable measures taken to prevent injury. The project appointed Principal Designer shall be responsible for ensuring that designers give due consideration to design decisions affecting health and safety during construction, functional use and maintenance.

Wheel Washing of vehicles

It is not anticipated that there will be a requirement for wheel washing facilities, but incase this is required cleaning facilities will be kept on site, details of this are detailed on page 25-26 under paragraph " Prevention of mud on the road"

Sediment and Pollution

It is not anticipated that there will be any sediment or pollution issues.

Protection measures to watercourses.

No materials will be stored within 10m of any watercourse.

Washing out of mixers or washing down of vehicles or plant will not be permitted within 10m of any watercourse.

Any materials likely to cause pollution will be delivered straight to the site compound which in itself will be sited a minimum of 10m from any watercourse. Any hazardous materials will be in a bunded enclosure.

Management of Health and Safety

Site Documentation

- The site team maintains the following documentation:
- Health & Safety Policy
- Construction Phase Plan
- Copy of Notification to the HSE
- Risk Assessments and Method Statements • Fire & Emergency Procedures
- COSHH Assessments
- Health & Safety Inspection Reports
- Site Induction – Information & Rules
- Site Personnel Details
- Site Training Records
- Information for Health & Safety Files
- Log book on site for complaints and best practicable means are employed

Training

Training records shall be required to be provided by sub-contractors and the Principal Contractor and the site manager shall retain these on sites.

Subcontractors & Other Parties Selection & Interaction

Health and Safety is on the agenda for the regular periodic Subcontractor Co- ordination Meetings held on site.

Prior to start on site all Subcontractors will be made aware of the content of this Environmental Management Plan and will be issued subsequent amendments. Subcontractors will be required to prepare risk assessments and method statements before work commences. This information will be included within the site-specific induction carried out by the Site Manager and will include details of any significant interfaces with other subcontractors.

Representatives of each subcontractor will also be invited to the Monthly Health and Safety Meeting.

Communication and Liaison between parties will take place throughout the course of the project. Specific issues will be brought to monthly progress and monthly design meetings as items on the meeting agenda.

All sub-contractors are selected and approved via the Principal Contractor's supplier vetting

and assessment procedures.

Views of Operatives Regarding Health and Safety

The Principal Contractor operates the following methods to consult with operatives and obtain their views on Health and Safety:

- Health & Safety Team Meetings
- Toolbox talks and inductions
- Open Door Policy.

The Principal Contractor has also appointed a Site Health, Safety Advisor who can also act as a focus for the exchange of views between operatives and the Management Team.

H&S Objectives & Targets

- 100% Induction of all personnel on arrival on site.
- All areas are to be clean and tidy at the end of each working day.
- All access and egress points to be unobstructed
- Zero accidents, incidents and near misses on site.
- Zero complaints In relation to Health, Safety and Welfare.
- Full regard is to be made to the Health, Safety and Welfare of the construction staff and that of any others that might be affected by the project, particularly residents and the public.

Exchange of Information

Suitable arrangements shall be made during the contract period for exchange of information between all parties. The Principal Contractor shall hold regular discussions with all sub- contractors to offer the opportunity for co-ordination and exchange of information between all sub-contractors.

On-site training

As and when necessary the Principal Contractor shall arrange for any onsite training. Site inductions shall be provided on the first day of any new start contract

Temporary works

In line with the requirements of BS:5975 the Principal Contractor shall give all due consideration to the control and co-ordination of any Temporary works. It is currently envisaged that this shall extend only to the erection of scaffold access equipment, site fencing, and excavations. A record of inspections shall be made and retained in the site file.

Risk Assessment

A Site-Wide Risk Assessment will be made prior to the start of the contract and any method statements required would be identified. The assessment will be periodically reviewed by the Site Manager/ H&S advisor. A copy of the Site Wide Risk Assessment will be included in the Site Health & Safety File.

COSHH

Any hazardous materials will be the subject of a COSHH Assessment. Details of the COSHH assessments will be included within the site induction briefing provided to all personnel before work commences.

In general, the materials to be used in this project are commonly used in construction and their use shall be strictly in accordance with the manufacturer's information and recommendations.

Asbestos Extent and Location of Existing Records and Plans

There are no incidences of asbestos or other similar contaminants on the site.

Mechanical Handling

Equipment used for the mechanical handling of materials and equipment shall be selected to be suitable for the work and the environment, equipment with the capability to lift materials and equipment shall be subject to the Lifting operations and lifting equipment regulations and shall be provided with a current certificate of examination and test and a valid insurance certificate. The Principal Contractor shall ensure that copies of such certification are seen and recorded.

The use of any such equipment shall be under the control of a fully trained and competent person/ operator. Where necessary and as determined through risk assessment, a banks man shall be in attendance to control any vehicle movement.

All mechanical handling equipment shall be visually inspected at the start of each day prior to being put into use.

Manual Handling

Manual handling will be required for materials. Manual handling assessments for

lifting of equipment and materials will be undertaken prior to work beginning.
Mechanical measures will be used where practicable to avoid the need for manual handling.

It will be assured that all Non Road Mobile Machinery (NRMM) comply with the Non Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999.

There will not be a need for a mobile crusher to be used on site

Common Arrangements

Health & Welfare

Appropriate PPE is to be worn by all persons who work on the site, the minimum standard for PPE is a hard hat, safety shoes, note Riggers boots are not permitted when working with Concrete. High visibility clothing must be worn, and not be loose fitting.

In general PPE shall comply with the following standards:

- Safety Boots/Safety Wellingtons to BS 1870.
- Hard Hat to BS 5240 type 1 (helmets).
- Light Eye Protection to BSEN166.
- Overalls (fire retarding for burning and welding activities).
- Gloves to EN374.
- Goggles for cutting and grinding activities either concrete or steel to BSEN166. • Ear Defenders to BS 5108 and BS 6344.

First Aid

A qualified First Aider will be present on site

Inductions

Prior to allowing any person to commence work on the development site, the Site Manager shall induct persons using an appropriate Induction Pro-forma.

Toolbox talks

The Principal Contractor/site manager shall hold regular tool box talks with those persons who are on the site. The tool box talk shall be related to the control of a health and safety hazard.

Accidents / Dangerous Occurrences

Sub-contractors and employees must inform the site manager of all accidents and enter them into the accident book.

If an accident or incident is reportable under the current RIDDOR Regulations, the Site Manager will notify the Health and Safety advisor who will report the incident to the

HSE.

The Health and Safety Advisor will arrange for investigations to be carried out as necessary and inform the Principal Designer.

Fire & Emergency Procedures

The Fire and emergency safety plan will be displayed in strategic positions on the site. All new starters will be made aware of the arrangements and routes as part of the site induction process.

In determining the fire management strategy for the site a fire risk assessment shall be prepared by our Health & Safety Advisor.

FIRE/EMERGENCY PROCEDURES

- RAISE THE ALARM VERBALLY
- SOUND ALARM / KLAXON LOCATED IN SITE OFFICE
- ADVISE NEAREST MEMBER OF CONSTRUCTION STAFF / RESPONSIBLE PERSON. ENSURE THEY RAISE ALARM AND CONFIRM THAT THE SITE IS CLEAR OF ALL PERSONNEL
- ENSURE FIRE BRIGADE IS ADVISED OF NATURE OF FIRE AND LOCATION.
- USE FIRE EXTINGUISHERS LOCATED IN SITE OFFICE AREAS WITHIN THE EXISTING BUILDING, ONLY IF
  - YOU ARE COMPETENT TO DO SO
  - YOU HAVE SOMEONE ELSE WITH YOU
  - THE CORRECT EXTINGUISHER IS AVAILABLE THE FIRE IS VERY MINOR
  - JOIN EVERYONE IN EVACUATING THE BUILDINGS TO THE ASSEMBLY POINT OUTSIDE THE BUILDING
- RESPONSIBLE PERSON TO REPORT TO FIRE BRIGADE CONFIRMING THAT SITE IS CLEAR OF ALL PERSONNEL
- DO NOT RE-ENTER SITE UNTIL YOU ARE ADVISED IT IS SAFE TO DO SO BY A FIRE BRIGADE OFFICER

Common Plant

There will be no common plant requirement on this site.

UV Protection

Persons engaged on the project will be required to wear protective clothing at all times and thereby minimise expose to UV. The removal of shirts will not be permitted whilst working on site.

Arrangements for Monitoring Health & Safety Performance

Health & Safety Inspections

Daily and weekly health & safety inspections will be carried out by the Site Manager/Site supervisor.

Other safety inspections shall be carried out by the health and safety advisor. Such inspections will be recorded and maintained in the Site Health & Safety File.

Feedback from these reports is reviewed at the Monthly Site Health & Safety Meeting.

Modification and updating of the Environmental Construction Management Plan

Review and Amendment

This plan may require revision due to the following:

- Further Development of Plan. Some aspects may not have been fully developed at the time of the initial issue.
- Result of reviews by the Site Management Team following a review meeting.
  - Periodic review by Health and Safety advisor.
- Modification to the design or scope of works.
- Information received from subcontractors.

Amendments, changes in methodology and work sequence must be notified and approved by the Employers Agent, Clients Representative, Principal Contractor, Health and Safety advisor and Principal Designer.

H&S File

The Principal Designer has stated the structure as follows:

- Full contact details of all sub-contractors used including work performed
- Full contact details of all suppliers used including materials supplied
- Record or “as-built”drawings and plans used and produced throughout the constructionprocess, along with the design criteria and shall include, as a minimum: - a) A site plan(s) showing the actual position and route of all drainage and services b) Architectural, structural and specialist drawings and calculations for all structures
- General details of the construction methods and materials used: a) Details (specific and common) relating to the structure and materials showing method of construction, fixings, schedules of ironmongery, sanitary ware, finishes etc. b) Details relating to health and safety that may affect future structural alteration works c) Details relating to health and safety that may affect future demolition or dismantling works d) Details relating to health and safety that may affect cleaning and maintenance works e) COSHH Statements for materials that may affect health and safety in any of the above (items a – d)
- Detail of the structure’s equipment and maintenance facilities.
- Maintenance procedures and requirements for the structure.
- Manuals produced by Specialist Contractors and suppliers, which outline operation and maintenance and service procedures and schedules for all plant and equipment installed as part of the structure, including manufacturers and/or suppliers guarantees and warranties etc.
- The Designer and all contractors working on this project shall ensure that any
- information, including risk assessments and method statements and/or information supplied by manufacturers, suppliers etc. relating to the safe use, installation, commissioning, maintenance, cleaning, decommissioning, disposal, demolition etc. installed substances, materials, products or equipment at the building shall be communicated to the Principal Contractor who shall pass the information on to the Principal Designer for inclusion in the Health & Safety File.
- Where products, equipment and/or materials are required to have the CE mark affixed, the Client shall require a copy of either the certificate or the declaration of conformity and where appropriate the declaration of incorporation.

- In addition it has been identified that the client will provide each dwelling with an information pack consisting of information on the design of the dwelling and installed items, including electrical and gas test certificates.

SITE RULES

In order to ensure health and safety standards are consistent, and in order to achieve the stated health and safety goals and objectives. The following standard rules shall be adopted on the construction site;

- The site will be a safety hat & shoe site.
- No Burning of waste materials is to be permitted on site.
- The site is a no smoking site, other than in designated areas.
- No alcohol is to be consumed within the working day. Operatives who have consumed alcohol during working hours or who are incapacitated for work will be sent home and subject to disciplinary action.
- All operatives will wear appropriate personal protective equipment.
- Operatives are not permitted to reside on site.
- A banks man/guide is to be used whenever there are vehicular movements.
- Hot work is not permitted in the last hour of operation of the day. The contractor is to inspect site prior to vacating for the night
- The site is to be, maintained in a tidy condition.
- A visitor log is required to be maintained throughout the works
- Working operations are to be limited on site to the hours 07.30am to 6.00pm, so as to reduce the disturbance of the adjacent properties
- Operatives are not permitted in areas where work is not being undertaken.
- The security and fire alarms are to be maintained throughout the works. All emergency escape routes are to be maintained where practicable throughout the works. Temporary alternatives are to be erected, where escape routes, are blocked by the works.
- No animals or children will be allowed on site.
- No cartridge firing tools to be used on site.
- No flammable gas cylinders are to be left on site overnight.
- Temporary scaffolds and stagings used to access work at height must be

erected by a trained and competent person.

- All portable hand-held electrical appliances shall be 110 volts or less. All electrical appliances shall be PAT tested prior to use on site.
- All substances used on site must be provided in the first instance with a suitable COSHH assessment, supported by the product material safety data sheet.
- All lifting equipment must be provided with a current certificate of examination and test prior to being used
- No person shall commence work unless he/ she have been inducted or is under the guardianship of an inducted person
- No person shall be permitted to operate machinery or equipment that they are not trained to do.
- Fixed scaffolds must be subject to statutory 7 day inspection. No person shall alter a scaffold.
- Working operations are to be limited on site to the hours 07.30am to 6.00pm, so as to reduce the disturbance of the adjacent properties
- The security and fire alarms are to be maintained throughout the works. All emergency escape routes are to be maintained where practicable throughout the works. Temporary alternatives are to be erected, where escape routes, are blocked by the works.

TRAFFIC MANAGEMENT PLAN

The Traffic Management Plan is designed to reduce the impact of the construction works on the existing road network.

Material deliveries for the project will be scheduled between 09.30am and 15.45pm to avoid peak traffic times. Vehicles arriving outside of these times will not be allowed access.

During the construction project it is envisaged there will be one materials delivery vehicle and one grab wagon approximately every two days.

The actual number of deliveries will be monitored to identify any peaks and minimise the impact. Deliveries will be in accordance to site operating times as detailed below.

We do not anticipate deliveries that are outside the normal permitted size of weight. If this is required we will notify the authorities in advance to allow liaison with interested parties and to ensure minimal disruption.

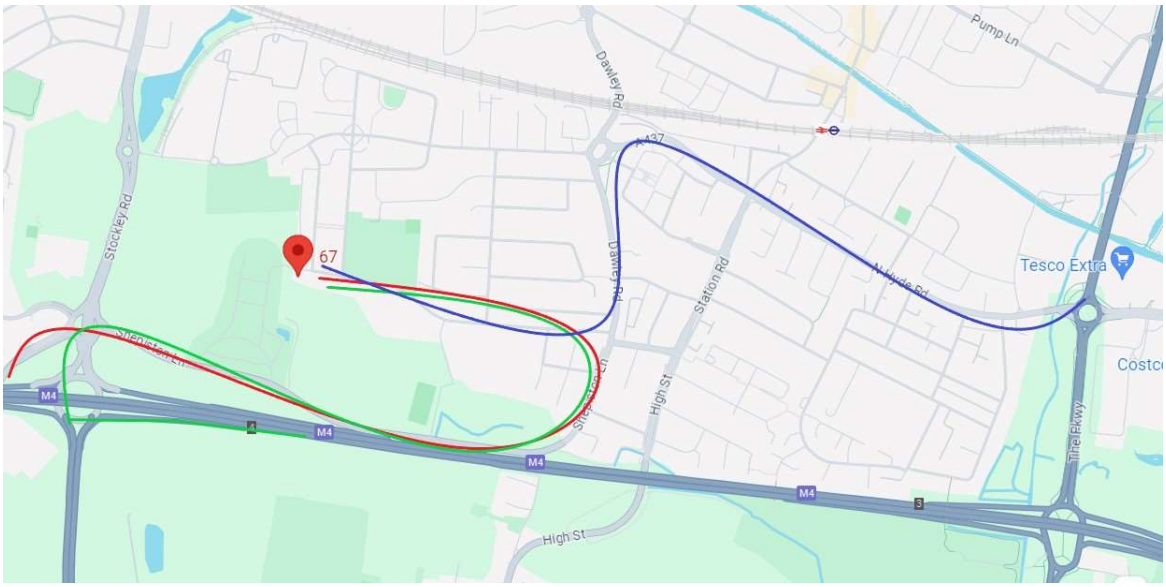
Construction Access Route

The access of all construction site traffic, including HGVs to and from the construction site will be as below.

Red Route Access Via M4 East

Green Route Access Via M4 West

Blue Route Access Via The Park Way



Construction Site Hours

Construction working hours are set as:

- Monday – Friday, 08.00 – 18.00 and some Saturdays, 08.00 – 13.00.
- Delivery Hours are set as:
- Monday – Friday, 09.30 – 15.45
- No construction work at all on Sundays and Bank Holidays.
- Although work operations are permitted on site at 7.30am no noisy operations will be undertaken until 9:00am

Deliveries and Removals and Other Vehicles Access

- Delivers and removals to take place, Monday to Friday: 10:00-16:00
- All Freight Operators and Haulers Will be FORS and CLOCS accredited
- There Shall be no parking or waiting of construction lorries on Public Highways
- There shall be limited to one Lorry entry to the site at a time, one hour will be allotted to be between one lorry leaving site to if required another lorry attending.
- Minor vehicles will be asked to only come at allotted times when larger vehicles are not on site.
- Vehicles carrying workman will arrive at opening times and leave at daily closing times

Site Access

The main site access to the loading and unloading area will allow vehicles to enter the site in a forward gear and be directed with the aid of a vehicle banksman.
Vehicles will be reverse into the position for loading and unloading, and an additional vehicle banksman will be in attendance.
On completion of loading or unloading, vehicles will be able to egress the site in a forward gear

Each delivery will be allocated a time to access the site and this will be orchestrated by the site manager. Deliveries will be instructed to call ahead to avoid two delevries at the same time. This will ensure that there is not a need for parking to be required outside the construction site.

No parking bays, waiting/loading bays will need to be suspended in order for the development to be undertaken.

Construction Parking

A car parking space for the site manager will be provided on the resident's parking area and construction staff will either cycle or travel to site on public transport.
If necessary, arrangements will be made for a cycle rack to be positioned within the site compound. The Site loading and unloading area will be laid out to provide for a vehicle to be loaded and unloaded and will be assisted in to position safely and with the use of a vehicle banksman.

Phasing of vehicle movements

Phasing will be used to reduce peak daily vehicle movements by timing activities and deliveries to avoid cumulative effects.

Prevention of mud on the road

The site compound is to be positioned in the hard-standing area adjacent to the semi-detached premises and therefore it is envisaged that there is no potential for mud. The Site Manager is to supervise all deliveries and will ensure the cleanliness of vehicles egressing the site.
No soil is being imported during the works and excess soil from the groundworks will be placed in bags and taken to the waste area at the front of the carpark and removed by grab lorries,

All car parking will be on hard standing surfaces.

Facilities to provide wheel washing & Manual Sweeping will be kept by the front Access to remove all dirt from Vehicles and front drive

Details of a contractor who can provide a mechanical road sweeper, will be given to the site manager this contract will be to attend the site within 3 hours if required.

As a conventional construction site wheel wash, is not appropriate for this site.
A jet power hose wash will be kept at the front of the site to clean all vehcles as thery leave.

A combination of using cut-off trenches adjacent to unmade haul roads to channel water and using sandbags or straw bales to form a barrier along unmade haul roads. Will be used to prevent muddy water reaching public pavements and roads

Avoidance of Dust

The specific controls relating to the avoidance of dust for vehicles entering and leaving the site will include:

- Surfacing of hard-standing areas
- Maintenance of hard-standings by water spraying;
- All vehicles carrying dusty materials to be fully sheeted; • Enforcement of site speed limits

Vehicle Emissions

Drivers will be required to:

- switch off their vehicle’s engine when stationary to prevent exhaust emissions
- maintain vehicles, including engines in tune and catalysts working efficiently
- comply with MOT emission standards at all times.

EMERGENCY TELEPHONE

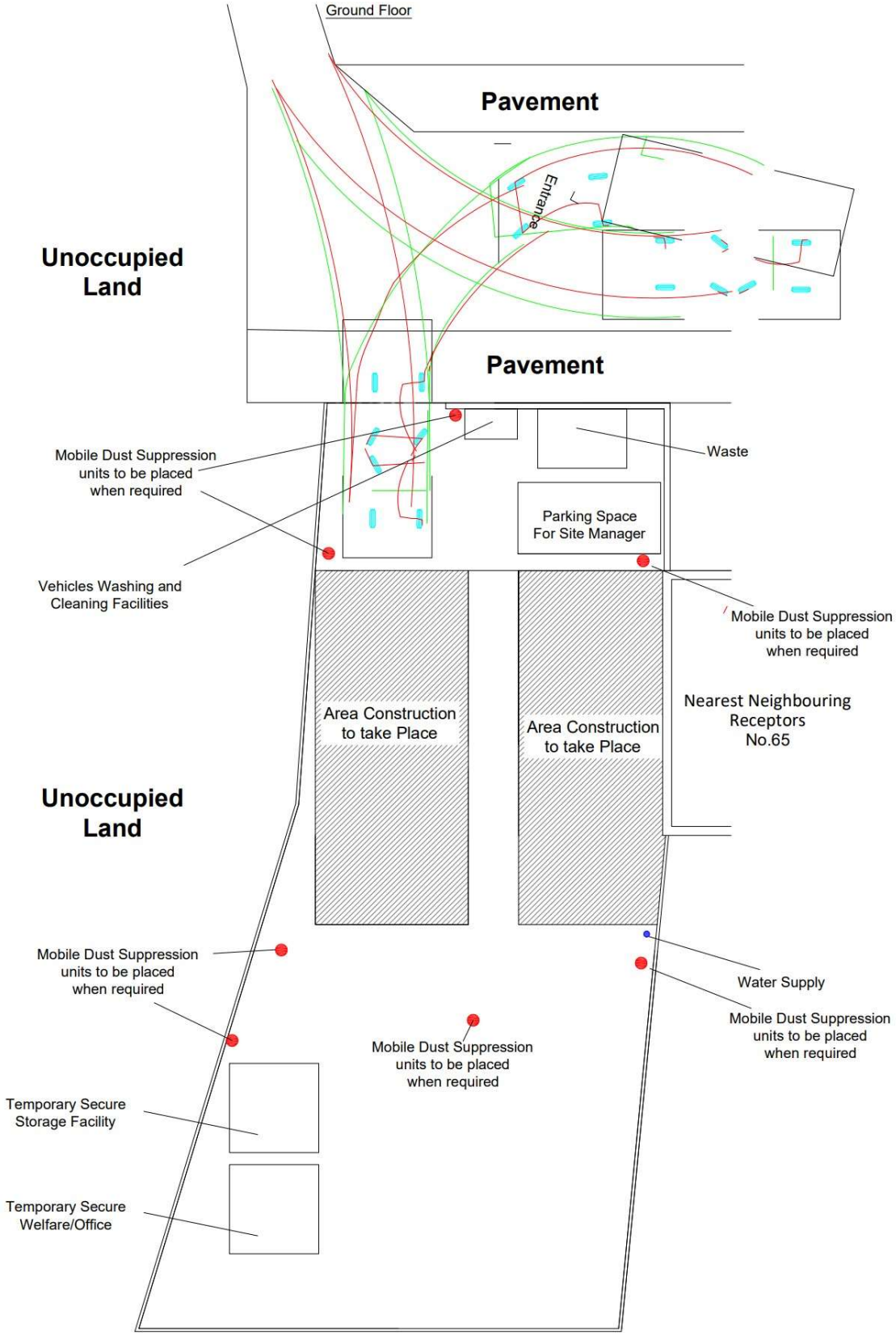
Electrical Gas Water BT

0800 195 4141 0800 111 999 0845 746 2200 0800 917 3993

HSE INCIDENT LINE: 0845 300 9923

Logistic Plan:

Detailing: Parking, Storage, Delivery Points, Welfare Facilities, Contractors Compound and Car Parking Facilities and General Parking for Construction Process



A Construction Statement Details works to be undertaken Provided by the Structural Engineer

GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT WORKS REFERRED TO ON THIS DRAWING COMPLY WITH ALL CURRENT LEGISLATION APPLICABLE, WHETHER IT IS EXPLICITLY STATED OR NOT.

2. BEFORE PROCEEDING ON SITE, THE CONTRACTOR SHALL CHECK ALL BUILDING DIMENSIONS, LEVELS, SEWER INVERTS AND CONNECTION POINTS SHOWN ON ARCHITECTURAL AND ENGINEERS' DRAWINGS. ANY DISCREPANCIES TO BE CHECKED WITH THE ARCHITECT OR ENGINEER AS APPLICABLE.

3. STRUCTURE INDICATED IS FOR FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS TO PROVIDE STABILITY DURING CONSTRUCTION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY PROTECTION, SCREENING AND WARNINGS IN CONNECTION WITH EXISTING SERVICES.

HEALTH & SAFETY REQUIREMENTS

5. THE CLIENT IS RESPONSIBLE TO APPOINT A SUITABLY QUALIFIED AND EXPERIENCED PARTY WALL SURVEYOR TO PREPARE AND MANAGE PARTY WALL AGREEMENTS

6. CONSTRUCTION DESIGN AND MANAGEMENT (CDM) 2015 REGULATIONS SHALL BE APPLICABLE IF SCHEDULED WORK ON SITE WILL;

7. LAST LONGER THAN 30 WORKING DAYS AND HAVE MORE THAN 20 WORKERS WORKING SIMULTANEOUSLY AT ANY POINT IN THE PROJECT; OR EXCEED 500 PERSON DAYS.

8. IF CDM REGULATIONS ARE APPLICABLE, THE CLIENT MUST GIVE NOTICE IN WRITING TO HEALTH AND SAFETY EXECUTIVE AS SOON AS IS PRACTICABLE BEFORE THE CONSTRUCTION PHASE BEGINS.

9. THE CONTRACTOR SHALL PROVIDE A WRITTEN CONSTRUCTION PHASE PLAN PRIOR TO STARTING WORK ON SITE. THE PLAN SHALL INCLUDE;

- CONTACT INFORMATION OF SITE SUPERVISOR.
- SITE WELFARE FACILITIES TO BE PROVIDED.
- KEY PROJECT DATES SUCH AS START DATE, EXPECTED END DATE AND A CONSTRUCTION SCHEDULE.
- ANY INFORMATION PROVIDED BY THE CLIENT ABOUT EXISTING SERVICES AND ISOLATION POINTS, ACCESS RESTRICTION, ETC.
- ANY INFORMATION REGARDING PRESENCE OF ASBESTOS.
- LIST OF CONSTRUCTION RISKS RELEVANT TO THE PROJECT SUCH AS; WORKING AT HEIGHT, TEMPORARY SUPPORT TO EXISTING STRUCTURE, STABILITY OF EXCAVATIONS, EXPOSURE TO BUILDING DUSTS ETC., AND HOW THESE RISKS WILL BE MANAGED.

FOUNDATIONS

11. FOUNDATIONS SHALL BE TAKEN DOWN TO VIRGIN GROUND. ALL ROOTS IN THE AREA TO BE GRUBBED OUT AND 'SOFT SPOTS' SHALL BE REMOVED AND BACKFILLED WITH LEAN CONCRETE MIX.

12. SUITABILITY OF EXISTING FOUNDATIONS THAT WILL BE BUILT ON ARE TO BE CHECKED ON SITE BEFORE WORK COMMENCES. FINAL DEPTHS OF FOUNDATIONS ARE TO BE AGREED WITH BUILDING CONTROL INSPECTOR ON SITE. DEPTH OF FOUNDATIONS TO BE MINIMUM 700mm FROM EXISTING GROUND LEVEL FOR A RAFT FOUNDATION, AND 1000mm FOR A TRADITIONAL SPREAD FOOTING.

13. ANY FOUNDATIONS ON SITE BOUNDARY IS TO BE BUILT AS ECCENTRIC WITH A MINIMUM WIDTH OF 600mm, UNLESS NOTED OTHERWISE. REFER TO RELEVANT STRUCTURAL DRAWING FOR DETAILS AND ANY REINFORCEMENT REQUIREMENTS.

14. ALL CONCRETE IN DIRECT CONTACT WITH GROUND TO COMPLY WITH BRE SPECIAL DIGEST CONCRETE IN AGGRESSIVE GROUND: 2005 FOR DESIGN SULPHATE CLASS DS-3B WITH AN ACEC CLASS OF AC3.

DRAINAGE

15. THE CONTRACTOR SHALL DETERMINE THE UNDERGROUND DRAINAGE LAYOUT, IN COORDINATION WITH PLUMBING DESIGN REQUIREMENTS.

16. UNDERGROUND SOIL PIPES TO BE 110mm UPVC TO BS EN 1401. MINIMUM PIPE GRADIENT TO BE 1:40. PIPES SHOULD BE LAID IN STRAIGHT RUNS BETWEEN ACCESS POINTS AT AN APPROXIMATELY CONSTANT GRADIENT.

17. PIPES SHALL BE LAID AND SURROUNDED BY 10mm PEA GRAVEL. MINIMUM DEPTH OF BEDDING TO BE 100mm. PIPES SHALL BE BACKFILLED TO A MINIMUM DEPTH OF 300mm USING FILL MATERIAL FREE FROM STONES LARGER THAN 40mm, LUMPS OF CLAY OVER 100mm, TIMBER, FROZEN MATERIAL AND VEGETABLE MATTER.

18. WHERE PIPES HAVE LESS THAN A MINIMUM RECOMMENDED COVER, PROTECTION FROM DAMAGE SHOULD BE BY A REINFORCED CONCRETE COVER SLAB WITH A COMPRESSIBLE FILLER AND AT LEAST 75 mm OF GRANULAR MATERIAL BETWEEN THE TOP OF THE PIPE AND THE UNDERSIDE OF THE COMPRESSIBLE FILLER BELOW THE SLAB. CONCRETE COVER SLAB TO BE MINIMUM 900mm WIDE WITH A193 MESH TO BOTTOM, WITH 50mm COVER TO REBAR.

19. WHERE THE PIPE PASSES THROUGH A WALL USE PRE-STRESSED LINTELS TO CREATE AN OPENING ALLOWING 50mm GAP AROUND THE PIPE. THE OPENING SHALL BE MASKED WITH RIGID SHEET MATERIAL TO PREVENT INGRESS OF FILL OR VERMIN AND MUST BE FILLED WITH A COMPRESSIBLE SEALANT TO PREVENT INGRESS OF GAS.

20. WHEN VERTICAL DRAINAGE STACKS ARE RUN INSIDE THE BUILDING, A PORTION OF THE HORIZONTAL PIPE WILL RUN UNDER THE SLAB AND WALL. WHERE THE HORIZONTAL PIPE IS BURIED, AT LEAST 100 mm OF GRANULAR FILL OR OTHER FLEXIBLE FILLING SHOULD BE PROVIDED AROUND THE PIPE

21. ANY INSPECTION CHAMBER WITHIN THE BUILDING SHOULD HAVE A MECHANICALLY FIXED AIRTIGHT COVER.

22. ANY SOAKAWAY TO BE INSTALLED MUST BE A MINIMUM OF 5m FROM ANY DWELLING AND SHALL HAVE A MINIMUM DIMENSION OF 1000x1000x1000mm.

GROUND FLOOR

24. A MINIMUM 225MM CLEAR CAVITY BELOW THE DPC SHOULD BE MAINTAINED. THE MINIMUM CLEAR CAVITY DEPTH MAY BE REDUCED TO 150MM BELOW THE DPC, PROVIDED THAT WEEP HOLES AND OTHER NECESSARY MEASURES ARE TAKEN TO ENSURE FREE DRAINAGE.

25. SUBSTRUCTURE AND WALLS BELOW THE DPC SHALL BE EITHER CLASS B ENGINEERING BRICKS OR CONCRETE BLOCKS TO BS EN 771 WITH A MINIMUM DENSITY OF 1500KG/M³.

26. DAMP PROOF COURSES (DPC) SHOULD BE IMPERMEABLE, POSITIONED A MINIMUM OF 150MM ABOVE FINISHED GROUND LEVEL AND LINKED WITH ANY DPM; EITHER WELDED OR LAPPED BY 100MM MINIMUM.

27. DAMP PROOF COURSES (DPC) SHOULD BE EITHER BITUMEN BASED MATERIAL TO BS 6398 OR 0.5MM POLYETHYLENE TO BS 6515 (BUT NOT BE USED BELOW COPINGS, IN PARAPETS OR FOR TANKING)

28. DAMP PROOF MEMBRANES (DPM) SHOULD EITHER BE 1200-GAUGE (0.3MM) POLYETHYLENE SHEET OR BITUMEN SHEET TO BS 743.

29. NEW GROUND FLOOR SLAB TO COMPRISE;

- 100MM COMPACTED SUBBASE (WELL GRADED MATERIAL SUCH AS MOT TYPE 1 OR SIMILAR)
- 50MM SAND BLINDING
- 1200 GAUGE DAMP PROOF MEMBRANE
- 125MM CONCRETE SLAB WITH MESH
- 75MM PIR INSULATION (ECOTHERM ECO-VERSAL U-VALUE=0.22W/MK, OR SIMILAR)
- 75MM SAND-CEMENT SCREED.
- FLOOR FINISH

30. WHERE REQUIRED, EXISTING SUB-FLOOR VENTILATION MUST BE DIVERTED TO NEW PERIMETER WALLS USING PROPRIETARY VENT EXTENSIONS OR OTHER SUITABLE ALTERNATIVES. THE NUMBER AND SIZE OF NEW VENTILATION TO BE APPROVED BY BUILDING INSPECTOR.

MASONRY WALLS

31. EXISTING MASONRY WALLS TO BE VISUALLY INSPECTED PRIOR TO INSTALLING NEW STRUCTURAL ELEMENTS. IF CRACKS OR DAMAGE IS ENCOUNTERED THE STRUCTURAL ENGINEER SHALL BE NOTIFIED BEFORE ANY ADDITIONAL WORK IS CARRIED OUT.

32. PARTS OF EXISTING MASONRY WALL THAT ARE DAMAGED SHALL BE REPLACED WITH NEW MASONRY UNITS AND SUITABLE MORTAR, UPON APPROVAL FROM THE STRUCTURAL ENGINEER.

33. NEW EXTERNAL CAVITY WALLS (U-VALUE=0.19W/MK);

- INNER LEAF: 100MM LOAD BEARING BLOCKWORK (>7.0N/mm²) WITH 3MM SKIM COATED 12.5MM PLASTERBOARD ON DABS.
- CAVITY: 100MM CAVITY WITH 90MM PIR INSULATION (ECOTHERM ECO-CAVITY OR SIMILAR WITH lk< 0.022 W/mK)
- OUTER LEAF: 102MM FACING BRICK/100MM LOAD BEARING BLOCKWORK AND FINISH AS PER ARCHITECT'S SPECIFICATION.
- FOR WALLS ABOVE FIRST FLOOR LIGHTWEIGHT BLOCKWORK (>3.6N/mm²) MAY BE USED.

34. WALL INSULATION TO EXTEND 225MM BELOW THE DAMP PROOF COURSE (DPC).PROPRIETARY CAVITY CLOSURES TO ALL OPENINGS. FOR WATERPROOFING DETAILS REFER TO ARCHITECTS DRAWINGS AND SPECIFICATIONS.

Notes

35. WALL TIES SHOULD BE STAINLESS STEEL OR NON-FERROUS, IN ACCORDANCE WITH BS EN 845-1. TIES SHOULD BE LONG ENOUGH TO BE EMBEDDED A MINIMUM OF 50MM INTO EACH LEAF.

36. UNLESS NOTED OTHERWISE WALL TIES SHALL BE SPACED ABOVE AND BELOW THE DPC AS FOLLOWS;

- GENERAL WALL AREA: MAXIMUM 900MM HORIZONTALLY AND 450MM VERTICALLY. TIES SHOULD BE STAGGERED.
- JAMB OPENINGS: WITHIN 225MM OF OPENING HORIZONTALLY, AND WITHIN 300MM VERTICALLY.
- MOVEMENT JOINTS: WITHIN 225MM OF JOINT HORIZONTALLY, AND WITHIN 300MM VERTICALLY.
- TOP OF GABLE WALLS: WITHIN 225MM HORIZONTALLY (PARALLEL TO THE TOP OF THE WALL) AND WITHIN 300MM VERTICALLY.

37. WHERE 1,200MM INSULATION BOARDS ARE USED WITH PARTIAL FILL CAVITIES, THE WALL TIES SHOULD BE SPACED CLOSER TO PROVIDE ADEQUATE SUPPORT AND RESTRAINT. TIES SHOULD BE SPACED AT 600MM CENTRES IN ROWS, I.E. NOT STAGGERED.

38. INTERNAL MASONRY WALLS TO BE:

- 140MM SOLID CONCRETE BLOCK (>7N/MM2).
- WALL LINING: 2 LAYERS OF 12.5 GYPSUM-BASED BOARD (TOTAL NOMINAL MASS PER UNIT AREA 22KG/M²) BOTH SIDES WITH JOINTS STAGGERED

39. MORTAR SHALL CONSIST OF ONE OF THE FOLLOWING TYPES OF MIX BY VOLUME.

MORTAR DESIGNATION	CEMENT: SAND	MASONRY CEMENT: PLASTICIZER	CEMENT: LIME: SAND
(illegible)	(illegible)	N/A	N/A
(illegible)	(illegible)	(illegible)	(illegible)
(illegible)	(illegible)	(illegible)	(illegible)
(illegible)	(illegible)	(illegible)	(illegible)

CLASS (I) MORTAR TO BE USED BELOW DPC .

CLASS (II) MORTAR TO BE USED ABOVE DPC.

40. MORTAR MADE ON SITE MUST BE MIXED BY MACHINE, WHICH MUST BE CLEANED BEFORE USE TO AVOID CONTAMINATION AND MUST BE CLEANED OUT BEFORE CHANGING MIXES, AND AT THE END OF EVERY WORKING PERIOD.

41. ALL MATERIALS MUST BE MEASURED ACCURATELY BY VOLUME OR WEIGHT, AND NOT SHOVELS.

42. POWDERED PLASTICIZER MUST BE DISSOLVED IN PART OF THE MIXING WATER BEFORE USE. MORTAR SHOULD BE USED WITHIN 2 HOURS OF THE MIXING OF THE CEMENT AND WATER, AND ANY MORTAR NOT THEN USED MUST BE DISCARDED AND NOT RE-TEMPERED. 2 HOUR PERIOD MAY REQUIRE REDUCING DUE TO TEMPERATURE AND WEATHER CONDITIONS.

GENERAL NOTES (CONTINUED)

43. UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT, THE BONDING OF THE BRICKWORK SHALL BE AS FOLLOWS:

- WALLS OF ONE BRICK THICKNESS AND OVER - ENGLISH BOND
- WALLS OF HALF BRICK THICKNESS - STRETCHER BOND

44. BRICKWORK IS TO BE CONSTRUCTED SO THAT FOUR COURSES EQUAL A VERTICAL DIMENSION OF 300MM AND THE BOND IS TO BE CARRIED UP REGULARLY. NO HALF BRICKS OR BATS ARE TO BE USED EXCEPT WHERE REQUIRED FOR THE PROPER CLOSURES.

45. THE RATE OF LAYING BRICKS MUST BE SUCH THAT IT WILL PREVENT THE SQUEEZING OF MORTAR JOINTS. BLOCKWORK IS TO BE CONSTRUCTED SUCH THAT THE COURSING COINCIDES WITH THE BRICKWORK COURSING WHERE APPLICABLE.

46. UNITS SHOULD BE LAID IN TRUE AND REGULAR COURSES WITH ADEQUATE BOND. ALL PERPENDS ARE TO BE TRULY KEPT AND ALL JOINTS PROPERLY FLUSHED UP OR POINTED AS SHOWN ON THE DRAWINGS.

47. POINTING SHOULD BE CARRIED OUT FROM THE TOP OF THE WALL DOWNWARDS, UNLESS SPECIFIED, AS WORK PROCEEDS

48. THE WORK IS TO BE CARRIED UP TO EVEN HEIGHTS ALL ROUND SO FAR AS IS PRACTICABLE AND NO PART IS TO RISE MORE THAN SCAFFOLD HEIGHT (I.E. MAXIMUM 2M) ABOVE ANY ADJOINING BRICKWORK.

49. THE CONSTRUCTION OF ANY PORTION OF THE WORKS SHALL NOT RISE BY MORE THAN 1.5 METRES IN ANY ONE DAY.

50. ALL BRICKWORK AND BLOCKWORK SHALL BE LAID ON A FULL BED OF MORTAR, AND VERTICAL JOINTS SHALL BE FILLED UP.

51. THE CAVITY FACES OF BLOCKWORK AND BRICKWORK ARE TO BE 'FLUSHED UP' AS WORK PROCEEDS.

52. THE AVERAGE THICKNESS OF THE VERTICAL AND HORIZONTAL JOINTS SHALL BE 10MM, EXCLUSIVE OF ANY KEY IN THE JOINTING SURFACES OF THE UNITS. WHERE BRICKS HAVE 'FROGS' THEY ARE TO BE LAID WITH THE 'FROGS' FACING UPWARDS.

53. CLAY BRICKS HAVING A SUCTION RATE GREATER THAN 1.5 KG/M²/MINUTE SHALL BE WETTED SO AS NOT TO EXCEED THIS FIGURE AT THE TIME THEY ARE LAID. THE METHOD OF TESTING WILL BE AS OUTLINED IN "THE BRITISH CERAMIC RESEARCH ASSOCIATION'S SPECIAL PUBLICATION NO. 56".

54. BLOCKWORK SHALL BE LAID STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, WHICH MAY VARY WITH WEATHER CONDITIONS, TEMPERATURE, EXPOSURE, ETC.

55. MOVEMENT JOINTS SHALL BE FORMED WHERE SHOWN ON THE DRAWINGS IN ACCORDANCE WITH THE DETAILS GIVEN AND CARE IS TO BE TAKEN TO ENSURE THAT THE GAP IS FREE FROM DEBRIS.

56. BRICKWORK AND BLOCKWORK JOINTS TO BE PROVIDED AT NOT GREATER THAN 12.0M AND 6.0M RESPECTIVELY - JOINT LOCATION TO BE SPECIFIED BY ARCHITECT TO SUIT ELEVATION TREATMENTS ALL INTERNAL WALLS TO BE FULLY BONDED/ TOOTHED-IN TO EXTERNAL WALLS U.N.O.

57. ALL INTERNAL AND EXTERNAL MASONRY TO BE RESTRAINED AT THE HEAD AT NOT LESS THAN 600MM CENTRES TO THE UNDERSIDE OF THE ROOF AND/OR FLOOR CONSTRUCTION, STEELWORK OR SUITABLY DESIGNED MASONRY RESTRAINTS

58. NO FINISHES OR FIXINGS SHALL BE TIED ACROSS MOVEMENT JOINTS. IN ADDITION, PARTICULAR ATTENTION SHALL BE PAID TO THE MANUFACTURER'S RECOMMENDATIONS FOR SPACING AND FORMATION OF CONTRACTION AND EXPANSION JOINTS AND IN THE REINFORCEMENT TO PREVENT CRACKING AROUND OPENINGS, JOINTS IN RETURN WALLS AND MOVEMENT JOINTS.

INTERNAL PARTITIONS

59. INTERNAL TIMBER FRAME PARTITION WALLS (100mm THK);

- STUDS: 38X75 TIMBER STUDS @ 450mm CENTRES, WITH TOP AND BOTTOM PLATES AND NOGGINS.
- FACINGS: ONE LAYER 12.5mm ACOUSTIC RATED PLASTERBOARD (>11 KG/M²) TO EACH SIDE.
- INSULATION: MINIMUM 50mm OF ROCKWOOL FLEXI, OR SIMILAR.

LINTELS

60. PRIOR TO ORDERING LINTELS SIZES MUST BE CONFIRMED BY CONTRACTOR TO SUIT WALL THICKNESSES AND OPENING SIZES. IF IN DOUBT CONTACT THE ENGINEER.

61. ENSURE LINTEL IS INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS AND, IF PRECAST CONCRETE, THE CORRECT WAY UP AS MARKED.

62. LINTELS SHALL BE CAREFULLY BEDDED ON A FULL MORTAR JOINT WITH A MINIMUM BEARING AT EACH END OF:

- 150mm FOR OPENINGS UP TO/INCLUDING 3000mm.
- 200mm FOR OPENINGS OVER 3000mm.

61. PROVIDE CATNIC, IG OR SIMILAR INSULATED LINTELS IN CAVITY WALLS ABOVE ALL EXTERNAL OPENINGS, AS MARKED ON DRAWINGS.

TIMBER FLOORS

62. FLOOR JOISTS SUPPORTING INTERNAL STUD PARTITIONS AND STAIR OPENINGS TO BE DOUBLED UP ACCORDINGLY. USE M12 COACH BOLTS AT 600mm C/C'S COMPLETE WITH GALVANISED TOOTHED TIMBER CONNECTORS AND SQUARE WASHERS.

63. JOISTS TO BE CONNECTED TO SUPPORTING WALLS AT MAXIMUM 2M CENTRES USING 30x5mm GALVANISED MILD STEEL TENSION STRAPS (MIN 1200mm LONG) TO BS EN 845-1.

64. JOINTS BETWEEN 2.5 TO 4.5M LENGTHS SHALL BE STRUTTED AT MID-SPAN USING ONE ROW OF SOLID NOGGINS OR HERRINGBONE STRUTS. FOR JOINTS LONGER THAN 4.5M, TWO ROWS OF STRUTTING ARE REQUIRED AT ONE-THIRD POINTS OF THE SPAN.

65. NOGGINGS TO BE MINIMUM 38mm WIDE AND AT LEAST 0.75 X THE DEPTH OF THE JOIST.

STEELWORK

66. REFER TO STRUCTURAL PLAN DRAWINGS FOR SIZES AND LOCATIONS OF STEEL BEAMS REQUIRED.

67. STEEL BEAM SUPPORTS SHOULD NOT BE ABOVE WINDOW AND DOOR OPENINGS, UNLESS OPENINGS ARE APPROPRIATELY BRIDGED WITH LINTELS.

68. STEEL BEAMS SHALL BE SUPPORTED ON PADSTONES AND HAVE A MINIMUM BEARING OF 100mm, UNLESS NOTED OTHERWISE IN STRUCTURAL DRAWINGS.

69. PADSTONES SHOULD BE FORMED IN ONE UNIT WITH A MINIMUM COMPRESSIVE STRENGTH OF 10N/mm². FOR PADSTONE SIZES LESS THAN 215mm x 100mm, ENGINEERING BRICKS WILL BE SUITABLE.

70. STEELWORK SHOULD BE BLAST CLEANED TO SA 2½ WITH A MINIMUM 80MM (MICRON) HIGH BUILD ZINC PHOSPHATE EPOXY PRIMER TO PAINT MANUFACTURER'S RECOMMENDATIONS. REPAIR DAMAGED AREAS BY THOROUGHLY WIRE BRUSHING AND BUILDING UP NEW COATS USING SAME PAINT AND TO THE SAME DRY FILM THICKNESS.

71. ALL EXPOSED STEELWORK SHALL HAVE A MINIMUM OF 30MIN FIRE PROTECTION ACHIEVED BY INTIMUSCENT COATINGS OR FIRE PROOF CLADDING, UNLESS NOTED OTHERWISE.

72. ALL BOLTS, NUTS AND WASHERS, WHERE THEY ARE TO BE PAINTED SHALL BE SHERARDIZED TO BS 4921-CLASS 1.WHERE BOLTS ARE LEFT UNCOATED THEY ARE TO BE SUPPLIED HOT DIP GALVANISED TO ISO 1461.

73. UNLESS NOTED OTHERWISE, ALL FILLET WELDS SHALL BE A MINIMUM 6mm LEG LENGTH. ALL WELDS SHALL BE FULL PROFILE, UNLESS NOTED OTHERWISE.

74. ALL TUBULAR MEMBERS SHALL BE SEALED AT EACH END WITH A 4mm CAP PLATE CONNECTED BY FILLET WELD.

75. WHERE WIND POSTS AND FIXINGS ARE REQUIRED TO THE INNER SKIN OF PERIMETER WALLS THESE ARE TO BE DESIGNED BY THE SUPPLIER IN ACCORDANCE WITH BSEN 1991-1-4.

DORMER CONSTRUCTION

76. MINIMUM DORMER FRAME MEMBER SIZES SHOULD BE AS FOLLOWS, (GRADE C16 AT 450mm C/C'S), UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS:

- DORMER ROOF RAFTER: SEE STRUCTURAL DRAWING
- HEAD BEAM: 100x75mm.
- HEAD TRIMMER 125x75mm
- TRIMMING RAFTER: DOUBLED ROOF RAFTER OR DOUBLED FLOOR JOIST.
- SILL TRIMMER 125x75mm
- CORNER POST 100x100mm
- CHEEK POSTS 100x50mm

77. DORMER CHEEK CONSTRUCTION (U-VALUE=0.20W/M²K) SHALL COMPRISE:

- 3mm SKIM COATED 32.5mm INSULATED PLASTERBOARD (KINGSPAN KOOLTHERM OR SIMILAR WITH THERMAL CONDUCTIVITY ≤ 0.018W/M·K) BETWEEN TIMBER STUDS.
- 100mm PIR INSULATION BOARD PARTIALLY FILLING SPACE BETWEEN RAFTERS. (INSULATION KINGPSAN KOOLTHERM K107 OR SIMILAR WITH THERMAL CONDUCTIVITY ≤ 0.018 W/M·K)
- 9mm OSB3 (TG4)
- BREATHABLE (VAPOUR PERMEABLE) MEMBRANE
- TILES ON TILING BATTENS AND VERTICAL BATTENS.

ROOF CONSTRUCTION

79. REFER TO ARCHITECTURAL DRAWINGS FOR DIRECTION OF FALLS AND POSITION OF RAINWATER OUTLETS. PROVIDE A MINIMUM 1:80 FALL TO FLAT ROOF, UNLESS NOTED OTHERWISE.

80. PITCHED ROOF CONSTRUCTION (UVALUE=0.18W/M²K):

- 3MM SKIM COATED 37.5MM INSULATED PLASTERBOARD (ECOTHERM ECO-LINER OR SIMILAR) FIXED UNDER RAFTERS.
- TIMBER RAFTERS. SIZES AND SPACING AS PER STRUCTURAL DRAWING.
- 100MM PIR INSULATION BOARD PARTIALLY FILLING SPACE BETWEEN RAFTERS.(INSULATION ECOTHERM ECO-VERSAL OR SIMILAR WITH k ≤ 0.022 W/M·K)
- BREATHABLE (VAPOUR PERMEABLE) ROOF UNDERLAY
- 38MMX38MM COUNTER-BATTENS
- ROOF BATTENS
- TILES

81. NEW FLAT ROOF CONSTRUCTION (UVALUE=0.18W/M²K):

- 3MM SKIM COATED 12.5MM PLASTERBOARD.
- TIMBER JOISTS, SIZES AND SPACING AS PER STRUCTURAL DRAWING.
- 18MM PLYWOOD DECK
- VAPOUR CONTROL LAYER
- **120MM PIR INSULATION (ECOTHERM ECO-TORCH OR SIMILAR, WITH k ≤ 0.022 W/M·K) TO BE INSTALLED WITH GLASS TISSUE FACING UP .**
- GRP ROOF TO MANUFACTURER'S SPECIFICATION.

82. TIMBER DECKS TO BE FIXED AT A MAXIMUM OF 100mm CENTRES (UNO) USING FLAT-HEADED RING SHANK NAILS (50mm LONG x 3mm FOR PLYWOOD, 3mm x 2.5 x BOARD THICKNESS FOR OSB).

83. TIMBER DECKS TO HAVE A MAXIMUM MOVEMENT GAP BETWEEN BOARDS OF 3mm FOR SQUARE EDGE BOARDS, AND HAVE A MINIMUM MOVEMENT GAP OF 10mm WHERE BOARDS ABUT A RIGID UPSTAND (WALL).

84. RAFTERS TO BE ANCHORED TO SUPPORTING WALLS AT MAXIMUM 2M CENTRES USING 30x5mm GALVANISED MILD STEEL TENSION STRAPS TO BS EN 845-1.TENSION STRAPS SHOULD BE FIXED INTO MASONRY USING HARDENED 4mm x 75mm NAILS OR 50mm LONG NO 12 WOOD SCREWS (INTO SUITABLE PLUGS).

Notes

GENERAL NOTES (CONTINUED)

85. RAFTERS TO BE RESTRAINED USING LATERAL RESTRAINT STRAPS AT A MAXIMUM SPACING OF 2METERS. LATERAL RESTRAINT STRAPS SHOULD BE FIXED TO GABLE WALLS BY EITHER FIXING TO SOLID NOGGINS OR FIXING TO LONGITUDINAL BRACING MEMBERS.

86. RIDGE OR HIGH-LEVEL VENTILATION EQUIVALENT TO A CONTINUOUS OPENING OF 5mm SHOULD BE PROVIDED AT THE HIGHEST POINT OF EACH ROOF SLOPE.

87. ROOF BATTENS TO BE 25mm x 38mm, UNLESS TILE MANUFACTURER'S DETAILS STATE OTHERWISE. BATTENS SHOULD BE A MINIMUM OF 1.2M LONG AND SPAN A MINIMUM OF THREE RAFTERS.BATTENS SHOULD BE SET OUT TO AVOID JOINTS OCCURRING OVER THE SAME RAFTER. WHERE BATTEN SPACING IS:

- MORE THAN 200mm, NO MORE THAN ONE BATTEN IN ANY GROUP OF FOUR SHOULD BE JOINED OVER ANY ONE TRUSS OR RAFTER
- 200mm OR LESS, NO MORE THAN THREE JOINTS SHOULD BE MADE OVER ANY 12 CONSECUTIVE BATTENS.

88. ROOF COVERING TO BE AGREED WITH THE CLIENT. PITCH, GAUGE AND LAP SHALL COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.

89. AT EAVES, TILES SHOULD PROJECT A MINIMUM OF 50mm ACROSS THE GUTTER AND UNDERLAY SHOULD BE DRESSED INTO GUTTER UNDER EAVES TILES.

90. FLASHING SHALL BE PROVIDED AT ABUTMENTS, FLAT ROOF INTERSECTIONS, CHANGES IN SLOPES AND PROJECTIONS TO RESIST THE PASSAGE OF MOISTURE TO THE INSIDE OF THE BUILDING. FLASHINGS SHOULD BE TUCKED 25mm INTO A BRICK JOINT AND OVERLAP MIN 150mm WITH TILES. ROOF UNDERLAY TO BE TURNED UP BEHIND FLASHING.

91. FASCIAS, BARGEBOARDS AND SOFFITS SHALL BE APPROPRIATELY FIXED AND TREATED AGAINST DECAY.

92. GUTTERS TO BE 112mm HALF ROUND, WITH 68mm DIAMETER DOWN PIPES. ALL TO BE BLACK COLOUR PVC MATERIAL, UNLESS NOTED OTHERWISE.

DOORS, WINDOWS AND GLAZING

93. ALL FLAT ENTRANCE DOORS MUST BE 30-MINUTE FIRE DOORS, NO UPVC OR SOLID WOOD DOORS OR NON-FIRE RESISTING GLAZED DOORS ARE PERMITTED UNLESS 30 MINUTES CAN BE PROVEN. NO CAT FLAPS, LETTERBOXES OR DAMAGE IS PERMITTED. NON-COMPLYING DOORS MUST BE REPLACED.

94. FIRE DOORS TO BE SELF CLOSING AND FITTED WITH INTUMESCENT STRIPS AND SMOKE SEALS, WITH ESCAPE TYPE LOCKS.

95. AS PER APPROVED DOCUMENT PART L1B, ALL NEW WINDOWS TO EXISTING DWELLINGS SHOULD ACHIEVE WINDOW ENERGY RATING (WER) BAND C RATING OR A WHOLE ELEMENT U-VALUE OF 1.6W/M²K; OR BETTER.

96. ALL NEW DOORS SHOULD ACHIEVE DOORSET ENERGY RATING (DSER) BAND E RATING OR A WHOLE ELEMENT U-VALUE OF 1.8W/M²K; OR BETTER.

97. WINDOW AND DOOR FRAMES SHOULD BE FIXED, SOLIDLY, LEVEL AND PLUMB USING DOOR/WINDOW CRAMPS, OR PLUGGED AND SCREWED AT MAXIMUM SPACING OF 600mm AND WITHIN 150mm OF THE TOP AND BOTTOM.

98. UNDER INTERNAL DOORS, A 10mm VENTILATION GAP ABOVE FLOOR FINISHES SHOULD BE PROVIDED.

99. DOORS SHOULD BE HUNG ON HINGES IN ACCORDANCE WITH:

- EXTERNAL DOORS USING 1½ PAIRS x 100mm HINGES.
- INTERNAL DOOR USING 1 PAIR x 75mm HINGES.
- FIRE DOOR IN ACCORDANCE WITH DOOR MANUFACTURER'S RECOMMENDATIONS.
- AIRING OR CYLINDER CUPBOARD DOORS USING 1½ PAIRS x 75mm HINGES.

101.WHERE THERE IS A HIGH RISK OF ACCIDENTAL BREAKAGE, GLAZING SHOULD BE DESIGNED AND SELECTED TO COMPLY WITH APPROVED DOCUMENT N. DOOR SIDE PANELS OR 'LOW LEVEL' GLAZING, SHALL COMPRISE TOUGHENED OR LAMINATED GLASS, OR OTHER MATERIALS SUCH AS ACRYLIC OR POLYCARBONATE.

102.INTERNAL DOORS OPENING TO COMMUNAL AREAS SHALL HAVE A MINIMUM MASS OF 25KG/M² OR A MINIMUM SOUND REDUCTION INDEX OF 29DB R_w.

SOUND INSULATION

103.INTERNAL SEPARATING WALLS AND FLOORS BETWEEN FLATS SHOULD ACHIEVE A SOUND REDUCTION OF:

- AIRBORNE SOUND: WALLS, FLOORS AND STAIRS 43DB
- IMPACT SOUND: FLOORS AND STAIRS 64DB

104.REFER TO RELEVANT DRAWINGS FOR SEPARATING WALL AND FLOOR DETAILS.

105.PRE-COMPLETION SOUND TESTING OF THESE ROOMS WOULD BE REQUIRED TO ENSURE THE CONSTRUCTION OF SEPARATING WALLS AND FLOORS ACHIEVES THE PROPOSED DB VALUE.

106.NEW INTERNAL WALLS BETWEEN BEDROOMS AND OTHER ROOMS, OR BETWEEN A ROOM CONTAINING A W.C. AND ANOTHER ROOM, SHOULD PROVIDE A 40DB SOUND REDUCTION. INTERNAL WALL CONSTRUCTION SHALL COMPRISE;

- MINIMUM 75MM DEEP TIMBER STUD (OR 45MM DEEP METAL STUD) PARTITION.
- ONE LAYER OF 10KG/M2 PLASTERBOARD EACH SIDE WITH A MIN 50MM LAYER OF MINERAL WOOL (MIN 10KG/M²) IN THE CAVITY.
- ALL JOINTS WELL SEALED.

107.NEW INTERNAL FLOOR SHOULD PROVIDE A 40DB SOUND REDUCTION, WHICH COMPRISE THE FOLLOWING;

- TIMBER OR WOOD-BASED FLOOR COVERING SHALL HAVE A MINIMUM MASS OF 15KG/M²,
- CEILING PLASTERBOARD WITH A MINIMUM MASS OF 10KG/M²
- ABSORBENT LAYER OF 100MM MINERAL WOOL WITH A MINIMUM DENSITY OF 10KG/M³
- ALL JOINTS WELL SEALED.

VENTILATION

108.HABITABLE ROOMS SHOULD HAVE OPENABLE WINDOW AREA GREATER THAN 5% OF THE FLOOR AREA OF THE ROOM, OR ROOMS IT SERVES. BACKGROUND OR TRICKLE VENTILATION SHALL ALSO BE PROVIDED, WHICH CAN BE INCORPORATED IN TO THE HEAD OF THE WINDOW FRAMEWORK, HAVING A TOTAL AREA NOT LESS THAN 5000mm².

109.KITCHENS SHOULD HAVE INTERMITTENT MECHANICAL VENTILATION WITH AN EXTRACT RATE OF 30L/S ADJACENT TO HOB, OR 60L/S ELSEWHERE IN THE ROOM. FOR KITCHENS, BACKGROUND OR TRICKLE VENTILATION PROVISION SHALL NOT BE LESS THAN 4000mm².

110.BATHROOMS AND SHOWER ROOMS SHOULD HAVE INTERMITTENT MECHANICAL VENTILATION WITH AN EXTRACT RATE OF 15L/S (PER BATH). BACKGROUND OR TRICKLE VENTILATION PROVISION SHALL NOT BE LESS THAN 4000mm².

111.UTILITY ROOMS SHOULD HAVE INTERMITTENT MECHANICAL VENTILATION WITH AN EXTRACT RATE OF 30L/S. BACKGROUND OR TRICKLE VENTILATION PROVISION SHALL NOT BE LESS THAN 4000mm².

112.SANITARY ROOMS (WCS) SHOULD HAVE OPENABLE WINDOWS OR INTERMITTENT MECHANICAL VENTILATION WITH AN EXTRACT RATE OF 6L/S.

113.IF BATHROOMS/SHOWERS OR SANITARY ROOMS ARE WITHOUT OPENABLE WINDOWS, THE COMBINED LIGHT/EXTRACT FAN SWITCH MUST CONTAIN A 15MIN OVER-RUN FACILITY FOR THE FAN.

PLUMBING

114.NEW PLUMBING TO BE INSTALLED AS PER BS EN 12056-2:2000 GRAVITY DRAINAGE SYSTEMS INSIDE BUILDINGS. SANITARY PIPEWORK, LAYOUT AND CALCULATION.

115.SOIL VENT PIPE (SVP) TO BE 110mm. SVP SHOULD FINISH WITH A CAGE OR COVER, AT LEAST 900mm ABOVE ANY OPENING WITHIN 3M OF STACK. THE STACK MAY TERMINATE WITHIN A BUILDING, IF FITTED WITH AN APPROVED AIR ADMITTANCE VALVE PROVIDING THE DRAIN IS VENTILATED TO OUTSIDE ELSEWHERE.

116.110mm OFFSET SHOULD BE PROVIDED TO AVOID CROSS FLOW FROM SIMILAR SIZED CONNECTIONS TO SVP. OFFSET TO BE MIN 200mm FOR THE JUNCTION BETWEEN WC BRANCH AND OTHER CONNECTIONS.

117.MINIMUM 200mm RADIUS BEND SHOULD BE PROVIDED AT THE BOTTOM OF SVP. LOWEST BRANCH CONNECTION TO BE MIN 450mm ABOVE DRAIN INVERT.

118.WC PAN TO BE 100mm, WATER SEAL DEPTH TO BE 50mm.

119.WASTE PIPES TO SINKS, BATHS AND SHOWERS TO BE 40mm FOR 3M, OR 50mm FOR 4M RUN TO SVP. WATER SEAL DEPTH TO BE 50mm.

120.UNLESS NOTED OTHERWISE, ALL OTHER SANITARY FITTINGS TO HAVE 75mm DEEP SEAL TRAPS.

121.ALL GAS WORK TO BE CARRIED OUT BY GAS SAFE REGISTERED INSTALLER, WHO SHALL PROVIDE A BUILDING REGULATIONS COMPLIANCE CERTIFICATE AT COMPLETION.

ELECTRICAL INSTALLATION

122.ALL NEW ELECTRICAL WORKS TO BE DESIGNED, INSTALLED AND TESTED IN ACCORDANCE WITH BS 7671:2008, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS (THE IEE WIRING REGULATIONS 17TH EDITION).

123.THE WORKS TO BE UNDERTAKEN BY AN INSTALLER REGISTERED WITH ONE OF THE GOVERNMENT-APPROVED SCHEME PROVIDERS, OR BY A SUITABLY QUALIFIED PERSON WITH A CERTIFICATE OF COMPLIANCE PRODUCED BY THAT PERSON TO BUILDING CONTROL AT COMPLETION.

124.ALARMS AND DETECTION SYSTEMS TO BE INSTALLED TO BS 5839-1:2013, FIRE DETECTION AND FIRE ALARM SYSTEMS FOR BUILDINGS.

125.SD DENOTES MAINS OPERATED SMOKE DETECTOR, INTERLINKED AND WITH A BATTERY BACKUP. SMOKE DETECTORS TO BE IN ALL KITCHENS, LANDINGS AND COMMON AREAS.

126.ELECTRIC METERS WITHIN THE STAIRCASE TO BE ENCLOSED IN A FIRE RESISTING CUPBOARD/HOUSING. THE STAIRCASE WHICH IS THE PROTECTED ROUTE TO BE KEPT FREE FROM COMBUSTIBLE MATERIALS AND OBSTRUCTIONS.