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Construction Management Statement

REV A

Site Details:

Address: 1A Eaton Place, Reading RG1 7LP

Development by: UK Bauhaus Ltd

Contractor: UK Bauhaus Ltd

Contact Details:

Mr Singh
07951950828
vic@bauhaus.co.uk

Planning Ref: 211424

Appeal Ref: APP/E0345/W/22/3303428

Site Description: Demolition of existing commercial building (Class E) and erection of residential block comprising of 2 x 1 bed flats (Class C3)

Duty of Care:

The Duty of Care is set out in section 34 (1) of the Environmental Protection Act 1990 and imposes a duty on any person who is the holder of controlled waste. Any persons who import, produce, carry, keep, treat or dispose of controlled waste, or as a broker has control of such waste, is subject to a Duty of Care whereby they must take all reasonable applicable measures:

- To prevent another person illegally treating, keeping, depositing or otherwise disposing of the waste;
- To prevent the escape of waste; and
- To ensure that transfer of the waste only occurs to an authorised person and that the transfer is accompanied by a written description of the waste.

DEFRA provides Guidance on duty of care in their published document; “Waste Management, the Duty of Care, A Code of Practice”. This gives the measures that need to be taken to ensure that legal requirements are met. Specific guidance is given on the identification of waste, safe storage, transfer to the right person and requirements for checking up.

The Principal Contractor shall distribute copies of this plan to the Principal Designer, Client and Site Manager and each Subcontractor will be made aware of the plan. This will be undertaken every time the plan is updated.

The Site/ Project Manager is the environmental co-ordinator of the project and as such is responsible for instructing workers, overseeing and documenting results of the CMS.

It is recommended that a ‘reduce, reuse, recycle’ “Waste Champion” is nominated on-site to be responsible for the daily management, monitoring and enforcing of waste and also co-ordinating pickup times with the waste management companies.

The waste champion should also ensure that any skip does not become contaminated by gypsum waste as the cost of disposal will be higher.

The Waste Champion for the site is to be confirmed.

Subcontractors are expected to ensure compliance, to adhere to the principles and site practices described in this CMS, to attend training sessions and to contribute to the achievement of the CMS targets as necessary.

The Waste Management contractors will be responsible for recording the amount of waste taken off-site. They will also provide suitable waste containers, equipment and personnel as necessary to meet the requirements set out in this CMS as well as produce documents and keep records as required.

Workers in the construction area shall adhere to the site rules and the instruction provided through the site induction and/or toolbox talk for traffic management arrangements.

Workers shall report any deficiencies or faults in the arrangements for traffic management to the Site Manager using the site near miss reporting system.

Traffic Management Risk Register:

Note as the existing vehicle dropped kerb is no longer required, it will be reinstated and realigned with the footway as advised in previous Transport comments.

Hazard	Risk	Control Measures
Pedestrians and vehicles interface	Pedestrians struck by vehicles	The site does not allow for any vehicle access due to its size & siting, this almost eliminates any interactions between pedestrians & vehicles apart from when receiving deliveries. Pedestrians to wear high visibility clothing (jacket or vest minimum) at all times on site. Signage to be displayed on site directing vehicles and pedestrians.
Deliveries	Collision / conflict with other work activities or site operations	Clear instructions to be given for delivery drivers when placing orders / arranging deliveries. Site Manager contact details to be displayed at the main site entrance for contact on arrival. All delivery vehicles to be directed to site office on arrival. Size of project is small therefore deliveries via local suppliers on an 'as needed' basis and only a small amount of materials is to be stored onsite.
Access equipment	Struck by vehicles / overturning	Any access equipment positioned in areas at risk of being struck by cranes or delivery vehicles, including other mobile access equipment, to be clearly marked with all deliveries being under the supervision and assistance of a banksman/site manager providing clear instructions and ensuring safety on site.
Excavations (Demolition)	Vehicles entering / overturning	The site does not allow for any vehicle access due to its size & siting., therefore any excavations shall be dug by hand including its disposal via a grab lorry.

		along excavation.
Excavations by walkways	Falls from height	Excavations to be provided with solid pedestrian barriers/fences a minimum of 300mm from edge of excavation. Barriers are to be distinctively marked with warning signs.
Vehicles reversing and/or manoeuvring	Collision with pedestrians / structures	All reversing and/or turning vehicles (delivery vehicles and construction plant) to be accompanied by banksman. This would be, mainly, to safely direct traffic outside of the site.
Poor maintenance of vehicles	Failure of built-in controls	All plant to be maintained and examined in accordance with manufacturer's instructions. Where plant is obtained on hire obtain copies of certificates from the hire company. All construction vehicles to be provided with suitable audible and visual indications of movement. Controls, lights and warning systems to be checked before first use each shift.
Lack of competence	Human error due to lack of awareness	Confirm the competence of drivers for the particular vehicles to be used. Instruction given through inductions, on site safety briefings, signage and regular tool box talks. A banksman will be used if the driver's vision is restricted or when operating in a congested area. The carrying of passengers is prohibited.
Congestion	Collision of vehicles / excessive manoeuvring	Schedule of planned deliveries to be maintained and deliveries planned in advance to avoid conflict with other site operations or adjacent land uses.
Unauthorised use	Misuse of plant	The ignition key will be removed whenever machine is left unattended and if left on site overnight all plant will be immobilised.
Noise	Hearing damage	Figures for noise levels will be obtained from the hire company and where these are above 80dB(A) ear protectors will be worn. No noisy works before 9 am and after 5 pm.
Vibration	Whole-body vibration	Plant should be fitted with 'suspension' seats to reduce the effects of whole body vibration. Drivers do not drive plant for prolonged periods to minimise risk of whole body

Health and Safety Goals

The company will aspire to:

- Achieve zero fatalities and improve on safety performance year on year
- Comply with all current safety legislation and approved codes of practice
- Ensure compliance with CDM
- Work with and advise the client in his aspiration to provide a better environment for his employees

Topic	Details
PPE	Suitable and sufficient PPE must be worn at all times, provided by your employer. All operatives shall wear PPE including high visibility vests, toe protectors and hard hats at all times, under the instruction of the Site Manager. Failure to comply will result in removal from the site. Other PPE, where necessary, will include eye protection, ear protection, gloves and respirators. The supervisor will be responsible for ensuring all PPE is worn.
Induction	The Site Manager will induct all persons working on the site prior to commencement. All persons including visitors must report to the site office for induction on arrival. Once you have been inducted you have a duty to inform others who you suspect have not been informed of these rules. Failure to comply will result in removal from site.
Welfare	Welfare facilities will be made available on site for all operatives. You must leave welfare facilities in the condition they were found in. Report any damage or poor conditions to the site manager. Do not misuse the welfare facilities or equipment provided.
Security	All persons must sign in / out of site. Fencing surrounding the site boundary will not be less than 2-2.4 m high. It will be properly fitted, secured and maintained. All access gates will be lockable and secured when not in use, and at all times the site is unoccupied.

	The site will locked and secured at the end of each working day or when not in use. Storage and welfare facilities will also be within a lockable and vacant area of the site. You must not trespass upon adjoining areas except where permission has been granted. Comply with safety signs at all times.
First Aid	The first aid box will be available at the site office. All operatives will be made aware of its location in the site induction. The Site Manager is responsible for first aid throughout the construction phase and ensuring the procedures set out in the site induction and this plan are complied with. Promptly report any injuries to the appointed first aider for treatment.
Plant & Equipment	The site operates on 110v supply only. You may only operate plant and equipment that you are trained and authorised to use. You may only carry out tasks for which you are trained and competent. If you suspect that plant / equipment / scaffold is unsafe please notify the site manager immediately.
General Safety	You must comply with the method statements and risk assessments for your activity(s). If you see any hazards on site, real or potential, inform the site manager immediately. Do not block routes for access / egress / escape or fire exits. Maintain a safe place of work by being tidy and removing your rubbish or waste.
Restrictions	Radios are NOT PERMITTED on site No alcohol or drugs are permitted on site. Persons suspected of being under the influence of drugs or alcohol will be asked to leave site Food and Drink are only to be consumed within designated canteen areas Persons displaying racist, sexist, violent or threatening behaviour will be asked to leave site and not return
Fire Safety	Smoking and Burning on site are NOT PERMITTED Hot works are subject to permits – obtain from site manager
Parking	All workers are to commute via public transport. Where visitors are not using public transport, such as trades, they are to make use of the nearby public car park.

Deliveries	All materials will be delivered by local suppliers on an 'as needed' basis with minimal materials being stored onsite. No plant is envisaged for this small development with most works being done methodically and by hand.
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- Maintain safe and unimpeded access to the site, particularly for emergencies, and minimise disruption to neighbours
- Identify and address all risks arising from the works
- Monitor and coordinate the use of safe procedures, tools, plant, equipment and the appropriate use of PPE
- Work directly with sub-contractors to maintain safety and site cooperation
- Maintain adequate levels of welfare facilities
- Identify and provide health and safety training to promote awareness of safety and improve risk perception
- Assess and minimise the impact of site activities on the environment

Project Meetings

Contract Pre-Start Meetings: 1 per contractor prior to project commencement

Contract Meetings: Weekly

Progress Meetings: Weekly

Client Meetings: As Required

Management Review: On completion

Public Safety & Adjacent Land Use

Risk	Control
Unauthorised persons entering site	Site access via secure gated entrance which will be locked out of hours
Movement of plant and machinery on site	No members of the public to have access on to site, hoarding will be in place with signage
Work adjacent to the site boundary	Any work outside the site boundary to be risk assessed and temporary fencing erected
Access Routes for Vehicles, Plant and Pedestrians	Access to site for pedestrians only, no vehicle entry due to site constraints and small scale of the development
Vehicles and Plant Manoeuvring	All vehicles manoeuvring off site/around the site to be accompanied by a banksman to enhance public safety.

Environmental & Ground Issues

Risk	Control
Noise - above 80dB(A) or 10dB(A) above background noise out of hours	Disruptive works completed within normal working hours 8am - 5pm (Mon-Fri) and 9am - 1pm (Sat) Ear Protection for operatives
Exposure to high levels of vibration	Work on vibrating equipment will be minimised. Exposure will be restricted within the legal limits.
Dust exposure to operatives	Dust masks provided for activities if required, particularly silica containing products.
Risk of water contamination through spillages	Refuelling areas away from natural water or surface water drainage. Spill kits provided. Refuelling unlikely to be required.
Removal of construction debris	To be removed via a grab lorry to a licensed facility.
Contact with services (Gas, electricity, water, sewers etc)	Services to be located and marked on site Services within close proximity to proposed ground works to be disconnected and/or re-routed as necessary. Hand digging within 2m of live services

Fire & Emergency

Risk	Control
Fire Risk on Site	Possible risk due to hot works. Hot works permit to be issued prior to any hot works commencing.
Fire Risk to Adjacent Buildings	As above.
Fire Escape Blockage	Existing fire escapes to be kept in use. All existing fire escapes to be kept clear at all times.
Access Routes Obstructed	Materials blocking escapes. No materials to be stored in walkways.
Fire & Emergency Planning	PC to produce a fire plan on the general layout drawing and have it explained in the induction and also displayed on the information board and will ensure that the works are executed in accordance to the procedures set out.
Inhalation, burns, risk of fire from use of Flammable Substances	Recommendations as details on manufacturer safety data sheets on storage to be complied with. Gases and flammable liquids to be stored in a secure, ventilated area away from ignition sources and direct sunlight.
Arson	Site security to be maintained throughout project. Skips and waste materials to be located away from perimeter and buildings, where possible use a "wait and load" skip

Site Hazards

Risk	Control
Manual Handling - dropping, crushing, straining	PC to control delivery and movement of materials to ensure loads being lifted by individuals do not exceed those that can be safely lifted.
Demolition - Collapse, crushing	PC to ensure that demolition is carried out in a controlled way by competent contractors working to an approved RA/MS and in accordance to procedures contained within the Demolition Plan.
Excessive Noise	Ensure that all noisy operations are minimised during occupation of the building. Excessively noisy operations will be subject to noise assessments and programmed to minimise disruption.
Stability of existing structures	PC will protect any existing structures that may be effected by the works.
Live Services	PC to ensure that all areas are surveyed prior to works commencing. Live work prohibited on site
Hazardous Substances - Sealants, Adhesives, Paints etc	PC will ensure use by competent personnel working to approved RA/MS and thorough COSHH assessment. The COSHH data sheet will be with the RA/MS.
Disturbance of Asbestos Containing Materials	Client to provide refurbishment and demolition asbestos survey prior to commencement. Operatives to be asbestos aware. Works to stop if ACM found.
Falls of persons or materials	Safe access provided to be provided to all work faces. Competent personnel working in accordance with approved risk assessments and method statements will erect access plant and platforms.
Contact with falling materials from overhead work	Adequate protection from work being carried out overhead. Exclusions zones below work at height as required.
Persons falling down holes/excavations	Secure barriers to be fixed around all openings or plates/timber fixed over service holes.
Falls of persons causing injury	Fragile materials to be identified. Depending on location use of guardrails, toe boards, barriers, suspension and fall arrest equipment. RA/MS to be provided.
Slips, trips and falls - Fall of persons causing injury	Constant monitoring of housekeeping. Maintaining of access/egress routes.

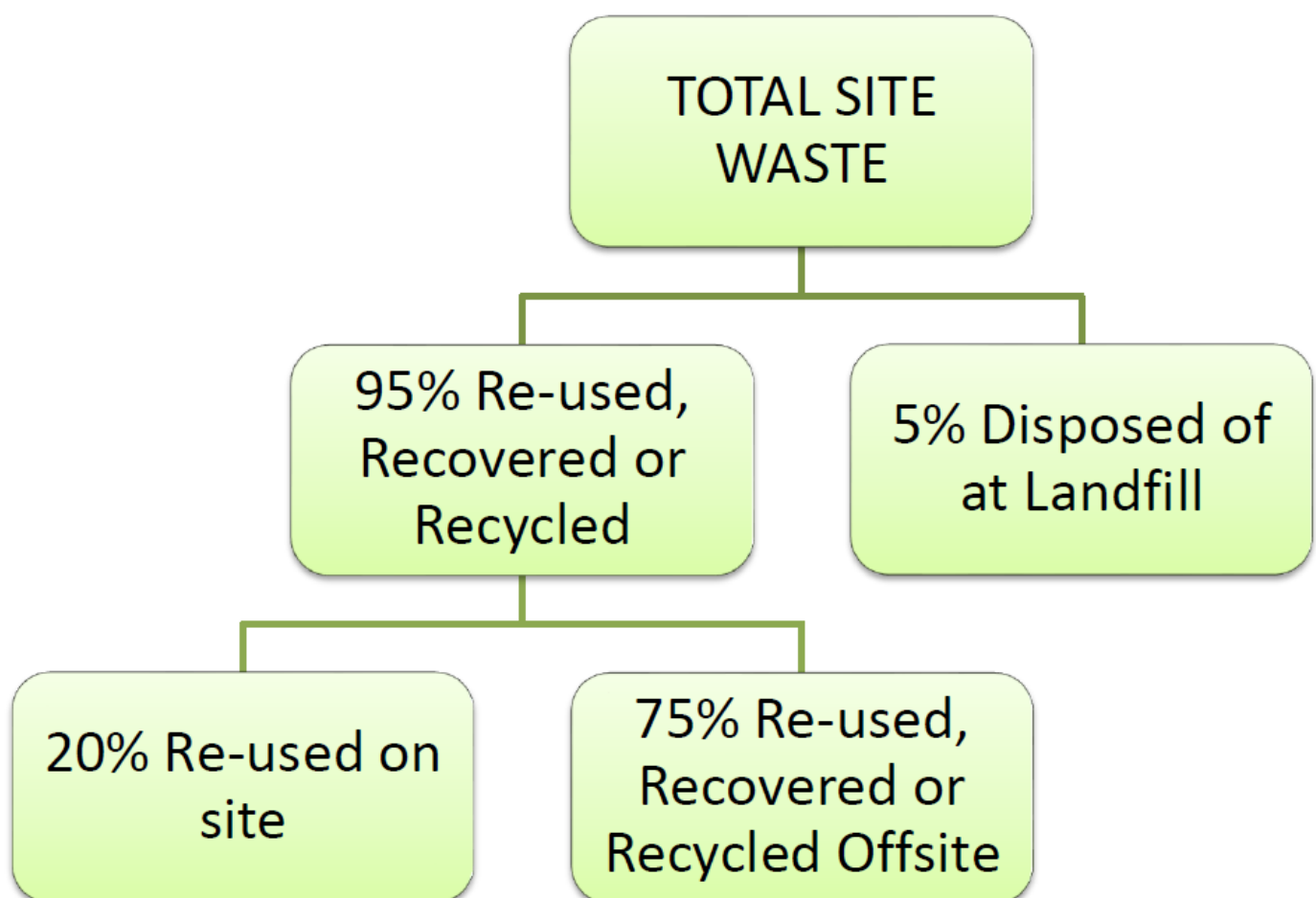
Segregation and Diversion Targets:

The diagram below shows the segregation and diversion targets for this development, and discussed below:

a) 95% of waste materials will be re-used, recovered or recycled, where practical of which;

- 20% will be reused on site
- 75% will be reused, recovered or recycled off-site

b) The remaining 5% will be sent to landfill.



Work Package	Subcontractor	Type of waste	European Waste Catalogue Code (EWC)	Estimated amount of waste (T)
Construction	TBC	Mixtures of concrete, bricks, tiles and ceramics	17-01-07	TBC
Construction	TBC	Timber	17-02-01	TBC
Construction	TBC	Metal - Mixed	17-04-07	TBC
Construction	TBC	Gypsum-based construction materials	17-08-02	TBC
Construction	TBC	Soil and stones – Clean subsoil	17-05-04	TBC
Construction	TBC	Plastic	17-02-03	TBC
Construction	TBC	Packaging - Mixed	15-01-06	TBC

Waste forecast above TBC by contractor and updated accordingly.

Waste Transfer of Notes:

The Environmental Protection (Duty of Care) Regulations 1991 require a Waste Transfer Note (WTN) to be provided on the transfer of waste between parties. The WTN will contain enough information about the waste to enable anyone coming into contact with it to handle it safely and either dispose of it or allow it to be recovered whilst maintaining compliance with law. Copies of WTNs must be retained for 2 years minimum and be available for inspection by the environmental regulator following the transfer of waste. The Regulations give specific requirements for the content of a WTN, which must:

- Contain a written description of the waste and the corresponding 6-digit EWC reference code;
- State the quantity of waste;
- State whether the waste is loose or in a container, and if in a container, the type of container used;
- State the time and place of the transfer;
- State the name and address of the transferor and transferee;
- State whether the transferor is the producer of the waste;
- State to which category of person the waste is transferred to e.g. a registered waste carrier, or a holder of a waste management licence; and
- Provide details of any waste carrier's registration or any waste management licence, where used.

Waste Carrier's Registration (WCR):

The Control of Pollution (Amendment) Act 1989 establishes the requirement for carriers of controlled waste to register with the Environment Agency. There are a number of exceptions to these requirements, including charities, waste collection authorities and emergency situations.

Waste will only be removed from site using a subcontractor or supplier holding a valid WCR. The Environmental Manager will verify the details on the WCR with the Environment Agency Public Register.

The Directive on the Landfill of Waste (Landfill Directive):

The Landfill Directive aims to improve standards of set waste to landfill across Europe, by setting specific requirements for the design, operation and aftercare of landfills, and for the types of waste that can be accepted at landfill sites.

It aims to reduce the pollution potential from landfilled waste that can impact on surface water, groundwater, soil, air and also contribute to climate change. In England and Wales the directive is applied under the Landfill (England and Wales) Regulations 2002 and must be fully implemented by July 2009.

This directive bans the landfilling of:

- Waste which is corrosive, oxidising, highly flammable, flammable or explosive;
- Liquid hazardous waste, infections hospital and other chemical wastes;
- Whole used tyres (from 2003); and
- Shredded tyres (from 2006).

The Directive classifies landfills as hazardous, non-hazardous, or inert waste and prevents the co-disposal of hazardous and non-hazardous waste after July 2004. It also requires that waste must be pre-treated before being landfilled and that landfill gas must be collected, treated and used to produce energy. This means that if the gas cannot be used, it must be flared.

Initial Steps & Demolition:

The site to be hoarded to protect the public as well as safeguard the site. Contractor to re-use hoarding from previous site setups and usable off cuts/waste where possible.

A copy of the relevant section of this Construction Management Statement (henceforth referred to as CMS), along with any relevant plans, is to be kept on site at all times and all staff is to be trained to follow and implement good practices to re-use, recycle and reduce waste on site at all times during the entirety of the construction project. The contractor shall be responsible to implement and follow all protocols and procedures.

It is not expected that asbestos is present on site, however, any asbestos identified during demolition will be cleared by a suitably qualified contractor, in accordance with the Control of Asbestos Regulation 2012 (follow any updated version where available).

Ensure that personal protective equipment (PPE) are worn by all site personnel during the excavation and demolition works.

Provide waste management training to all site personnel, including any subcontractors, as part of the Tool Box talk.

Viable waste material from demolition to be cleaned and kept on site where possible to then be reused on site where feasible (e.g. reuse crushed material as hardcore, reuse of aggregates as foundation etc).

There shall be no bonfires on site at any time throughout the duration of the project.

The existing drainage system is to be protected prior to commencement of works right through to completion. This is to be achieved by:

- The Contractor ensures that all contractor employees, sub-contractors, suppliers, and other visitors to the site are made aware of the specific environmental issues relating to their work. Accordingly, environmental specific induction training will be prepared and presented to all categories of personnel working and visiting the site.
- Cap off the front manhole using a sewer bung installed into all the inlets (located to the south of the site in front of the proposed main entrance in the landscaped area).
- Installation of a metal bolt down cover, to seal and protect the aforementioned manhole.
- Provide protective fencing around the above manhole cover.
- All other drains are to be disconnected and decommissioned as appropriate as they will be replaced with new pipes/manholes leading to the existing manhole. **The ends of the drainage pipes are to be capped off, this also prevents any rats/pests from entering the system.**
- Any material or substance which could cause pollution, including fuels/oils, wet cement, raw concrete or silty water will be prevented from entering groundwater, surface water drains or watercourses by the appropriate use of and appropriate placement of (temporary) silt fences, cut-off drains, silt traps and drainage to vegetated areas where appropriate. Any sign of failing water treatment measures or sight of silted or contaminated water entering any watercourse on site will be reported immediately.
- Any silty water generated on site will ideally be settled out as much as possible through drainage mitigation measures (silt traps, etc.) and channelled into vegetated (not blanket bog or similarly protected) areas at least 50 metres from watercourses.

- There will be no static fuel tanks on site.
- Fuel supplies for generators and static generator units will also be positioned on an impermeable bunded surface or housed within a container with integral bund / drip tray.
- All fuel, oils and chemicals will be stored on an impervious hard base within a bund able to contain at least 110% of the volume stored. No tanks or containers may be perforated or dismantled on site. A competent and appropriately licensed operator shall empty all contents and residues for safe disposal off-site.
- Spill kits will be available within each plant on site and also located close to identified pollution sources or sensitive receptors (fuel storage areas, water course crossings, etc).
- Portaloo to be installed for workers/visitors throughout construction.
- The new drainage system will then be installed at the end of the construction and commissioned for use. Bungs to be removed at the end of the build only once all materials are removed and decoration has been complete so as to prevent any contamination and washing of paint brushes etc.
- All deliveries and storage of materials to be kept in what will become the refuse storage area, marked in yellow on the site plan (pg 34). Aggregate or fine materials storage will be enclosed and screened/sheeted. Materials to be kept on site are to be minimal and contractor will utilise a 'just in time' delivery system.
- Ensure minimise disturbance to flora and fauna whilst carrying out the construction works, and to ensure that disturbed habitats will regenerate quickly after completion of the works.
- Topsoil and vegetation must be stored separately from subsoil and shall be retained and reinstated on all areas of stripped ground as soon as possible to prevent erosion and leaching/loss of nutrients. Where reasonably practicable, turfs shall be reinstated with the vegetated side facing upwards, in order to speed up the re-generation process, minimise the need for re-seeding, and help maintain the original species mix.
- Concrete is highly alkaline and corrosive and can have a detrimental impact on watercourses and wildlife. It is illegal to allow cement and wash-out water to enter a watercourse. Providing a suitably prepared wash-out area washing-out area in a designated is not suitable on this site; any washing is to be taken off-site in an appropriate designated environment.
- Vandalism, theft and tipping are common causes of pollution and the project area will be adequately protected by fencing and locked access to discourage unauthorised access. Any occurrence of tipping on the site will be reported to the site management who will then inform the local environmental authority and the police if necessary.

COSHH:

- The Contractor is responsible for ensuring that all materials ordered or brought to site listed as hazardous under the Control of Substances Hazardous to Health (COSHH) Regulations are accompanied with a hazardous information sheet. The Contractor complies with the COSHH Regulations.
- The Contractor is responsible for carrying out a risk assessment of each substance and ensuring that all appropriate storage, protective equipment and if necessary emergency procedures are put in place on site.
- All COSHH materials must be stored in appropriate containers, must be indelibly and legibly labelled to identify the contents, hazards and precautions required.
- Chemicals on site must be stored in a bunded area and in accordance with their materials safety data sheet/COSHH assessment, which must be readily available and up to date.
- Any spent (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with COSHH regulations.
- The Contractor carries out regular inspections of oil/fuel storage areas and plant.

Use the table below as a guide for decision making, re-use materials and ensure an overall minimisation of site waste.

Type	Waste Minimisation decision taken	By whom	Intended results
Trees	Recycle	Contractor	Re-use of material in other wood products.
Spoil from excavations	Re use	Contractor	Backfill under ground floor slab. Th make up levels to sports pitches.
Envelope (including Concrete and steel)	Reduction in site waste	Contractor	External walls will include section of dry wall construction which will be made off site. Concrete from quality local supplier. Steel recycled in skips on site.
Dry wall construction	Recycle	Contractor	Recycling of material on site.
Top Soil	Re use	Contractor	If space is available store on site for reuse. If removed from site re use on approved site.
General Building Waste	Reuse and recycling	Contractors	Segregate waste & dispose of in skips by specialist sub-contractor.
Plaster Board	Recycle	Contractor	Recycling of plaster board by manufacturer.
Food waste	Waste	Contractor	Remove from site by licensed carrier.
Paper	Recycle	Contractor	Segregated selection and recycling.

Please note that there will not be a need to close any section of the footpath or road during construction.

Managing Surface Water & Contaminants During Construction

The developer is to maintain the integrity of separate surface water sewer systems and is responsible for any blockages, pumping station breakdown, cross-connections, etc., and any impact (e.g., flooding or pollution, etc.) throughout the construction phase until handover. The existing waste drainage system is to be decommissioned & protected prior to commencement of works right through to completion, as mentioned under 'Initial Steps & Demolition:' on page 18-19 (these steps are to be followed).

During the demolition phase, rainwater will be managed in line with the requirements under the CDM regulations using existing SW gullies with measures in place to prevent contaminants entering the network (sand bag bunding).

All operations on site will be carried out in a manner to minimise the production and discharge of silty waters. In particular, where any dewatering has to be carried out an assessment will be made as to the method of disposal of the waters and agreed with the Site Manager. Any material or substance which could cause pollution, including fuels/oils, wet cement, raw concrete or silty water will be prevented from entering groundwater, surface water drains or watercourses by the appropriate use of and appropriate placement of (temporary) silt fences, cut-off drains, silt traps and drainage to vegetated areas where appropriate. Any sign of failing water treatment measures or sight of silted or contaminated water entering any watercourse on site will be reported immediately. Any silty water generated on site will ideally be settled out as much as possible through drainage mitigation measures (silt traps, etc.) and channelled into vegetated (not blanket bog or similarly protected) areas at least 50 metres from watercourses.

Areas of landscaping and boundary planting will be undertaken as the project nears completion. Water, which is clean and free from pollutants/contamination, is to be drained to the vegetation area(s), however, all other water generated via construction/waters that have come in contact with material stockpiles/contaminants/other building operations are to be intercepted via temporary drainage channels and collected either for treatment, suitable fill or safe disposal offsite via a licensed carrier/facility. Any permeable paving will only be installed when all construction activities are either complete, or near completion so as to minimise blockage of the surface.

Concrete is highly alkaline and corrosive and can have a detrimental impact on watercourses and wildlife. It is illegal to allow cement and wash-out water to enter a watercourse. Providing a suitably prepared wash-out area washing-out area in a designated is not suitable on this site; any washing is to be taken off-site in an appropriate designated environment. Excess concrete remaining in the delivery wagon at the end of a pour will be returned to a designated collection area.

All fuel, oil and chemical deliveries will be supervised by a responsible person who will be trained to deal with any spillage to prevent a pollution problem occurring. If there is any storage tanks kept on site, although not envisaged, then the levels will be checked before delivery to prevent overfilling and to ensure that the product is delivered to the correct tank. The storage of materials in the main compound and work sites will be controlled in such a manner to ensure that materials are not damaged prior to use either through vehicle or people movements or through exposure to the elements.

All fuel, oil and chemicals will be stored on an impervious base within a bunded area and secured. The bund shall have a capacity of 110% of the volume of the products stored within it. All tanks and containers will be kept in a secure compound and be protected from vandalism, and will be clearly marked with their contents. Stores shall be located at least 10 metres from any watercourse.

All mobile plant will be refuelled in a designated area on an impermeable surface and away from drains. In case of any spillages there will be a spill response kit available at each refuelling point and within each machine working within the highway corridor. Where it is impractical to refuel within a bunded area, a drip tray will be available to catch any spills caused by over fuelling.

For stockpiles, suitable measures should be implemented to prevent run off and dispersion if left for any length of time. Any powders should be stored in sealed bags or silos prior to use. All deliveries of dry powder should be undertaken in a manner to minimise dust emissions.

All staff, including any sub-contractors, is to be provided an induction and training in regards to site safety, equipment and cleaning up protocols and responses. In general, the steps to ensure effective spill response are:

1. Assess the risk
2. Select personal protective equipment
3. Confine the spill
4. Stop the source
5. Evaluate the incident and implement clean-up
6. Decontaminate the site
7. Complete an incident report

1. Assess the risk

From the moment a spill occurs and throughout response, responders should determine the risks that may affect human health, the environment and property. This could be instant because you know the liquid spilled because you were working with it, or it may involve some investigation. The spilled material can be identified from the container label or the Safety Data Sheet (SDS).

Next, identify how much has been spilled and the primary dangers posed to the spill responders and the environment. Once the extent of the spill and the risks are understood, appropriate measures may need to be taken to isolate the spill area (e.g. setting up exclusion zones).

2. Select personal protective equipment (PPE)

The spill responder may already be wearing the necessary PPE because they were working with the spilled liquid, but if not, it is crucial that the appropriate PPE is chosen. Consulting the SDS, Chemical Manufacturers literature or the PPE Manufacturers literature can aid in choosing. If the danger is uncertain and the material is unknown, the worst should be assumed and the highest level of protection used.

3. Confine the spill

Confining the spill may be a simple task for spills of a few litres or it could be more difficult for larger spills, so it is important to make sure that the correct absorbents and size of spill kit are available for the liquids that have been spilled. PIG Universal Absorbents absorb oils, coolants, solvents and water; PIG Oil-Only Absorbents soak up oil not water; PIG HazMat absorbents absorb most acids, caustics or unknown liquids. Spill Kits come in a variety of sizes to accommodate both large and small spills.

Once the correct absorbents or kits have been chosen, responders should limit the spill area by blocking, diverting, or confining the spill. Non-absorbent barriers such as our SpillBlocker Dike or a PIG Conical Drain Plug help to do so. The flow of the liquid should also be stopped before it has a chance to contaminate any drainage system on site; minimising the spill area and protecting drains are the priorities. Make sure the barrier is placed far enough away from the spill to ensure you can complete the setup but also far away from sensitive areas, such as drains and waterways.

4. Stop the source

This step may happen before the spill is even confined depending on the extent or the size of the spill. This could simply involve turning a container upright, or plugging a leak from a damaged drum or container. A Multi-Purpose Epoxy Putty is an effective product for stopping leaks from punctured pipes or drums. Once the leak has been stopped the liquids should be transferred from the damaged container to a new one.

5. Evaluate the incident and implement clean-up

Once the spill is confined and the leak has been stopped, it is time to reassess the incident and develop a plan of action for implementing the spill clean-up. First, responders should make sure they have enough spill response supplies to deal with the incident. Enough Pillows and Mat Pads should be used to quickly absorb the spill and should be placed throughout the confined spill area. Additional products can also be used such as vacuums, pumps and containers. Once the absorbents are saturated, they may be considered hazardous waste and should be disposed of properly.

6. Decontaminate

The site, personnel, and equipment should be decontaminated by removing or neutralising the hazardous materials that have accumulated during the spill. This may involve removing and disposing of contaminated media, such as soil, that was exposed during the spill incident. PPE may be able to be reused after inspection and clean-up. An effective decontamination area should also be created to ensure the health and safety of emergency responders.

7. Complete required reports

As soon as possible after the spill, all spill notifications and reports required by local and national guidelines should be completed. Typical reports include medical reports, local council reports, Environment Agency reports and company safety reports.

The steps above are simply a guide for companies to follow when responding to spills. They do not constitute a spill response plan in themselves, but together they provide a framework for companies to build a customized plan. Taking these steps will help companies be more prepared and able to respond effectively to unexpected spills.

In the unlikely event of an accidental leak or spill, action is to be taken immediately to clean and remove the material of concern. The contractor as well as any sub-contractors is keep, maintain, replenish and make use of all spill kits throughout the entire length of construction period up until all works on site are complete. All cleaning equipment and spill kits are to be regularly inspected by the contractor to ensure there are sufficient provisions and that they are all in good working order and protected from damage during construction.

A multitude of different types of spill kits are to be kept on site to cover various types of material/pollutants etc. Kits should include absorbent pads, socks and pillows in a range of sizes to soak up and stop hazardous oil in its tracks, as well as waste bags, bins and shoulder bags for swift emergency response and clay absorbent spill granules, GRS cellulose absorbent granules. Spill containment & storage units are to be kept on site (trays, polyethylene work floor, units, drums, bins [wheeled & stationary] etc.). Examples of different type of spill kits are:



Oil spill kits which have been designed to absorb oil and fuel, utilising the advanced hydrophobic technology, meaning that they are completely water repellent and will only absorb oils and fuel. The oil only products will enable contractors to provide complete protection of the work environment.



Chemical only absorbent spill kits are designed to absorb chemicals and no other contaminants; these should contain everything necessary for both minor and major spills.



Maintenance absorbent spill kits can be used across a wide variety of situations and are designed to absorb most fluids including hazardous chemicals, oils, fuels, solvents, cutting fluids, mild acids and alkalis.

Reduce the climate change impacts of waste management by encouraging waste to be managed close to its source, sustainable forms of transport and exemplary standards of sustainable design and construction.

Dust Suppression Measures

Suitable measures will be carried out to minimise dust nuisance caused by the operations and to ensure that no dust or other debris is carried on to the adjoining properties. Measures shall be provided in accordance with the Greater London Authority's "Air Quality" guidance.

Best practicable means of preventing, reducing and minimising dust will be adopted. It is expected that the proposed development will adhere to the relevant Code of Practice during construction. Measures include the use of hoarding around the entire perimeter of the site to assist in the screening of noise and dust generation from low-level sources.

Apart from using a water system to suppress dust, netting will also be used as required to the outside of the scaffolding.

Vehicles transporting materials capable of generating dust to and from the site are to be suitably sheeted on each journey to prevent release of materials and particulate matter.

Burning of waste or unwanted material will not be permitted on site. Land clearing activities will also be "damped down" using water suppression.

Off-site pre fabrication shall be used as much as possible. All plant to be well maintained & meet current legislation BS5228. All plant to be shutdown & switched off when not in use.

Wheel Washing Provisions

As no vehicle shall enter the site, there is no need for on-site washing provisions of the wheels & body of vehicles to minimise dust generation & transportation. It is a reasonable assumption that these vehicles have previously been washed at other sites or at the depot prior to leaving for a delivery run to the application site.

All loads of construction material, excavation spoil or any other such matter shall also be fully covered in order to ensure that no material leaves the site attached to the vehicle which might subsequently be deposited on the highway. In the event that material deposits onto the pavement/highway, contractor is to immediately & safely remove all debris from the highway and to sweep/hose clean.

Site Security

The contractor is to ensure that the site is secure through the use of perimeter 2.4m high hoarding screens and high quality locks on gates.

All necessary protection, hoardings, covers and protected walkways will be put in place as and when required. The hoarding will be maintained on a weekly basis, to cover/repair any damage caused by graffiti & vandalism. The site is just metres away from the main road and therefore minimising the chances of this to occur.

There will also be controlled access to the site for both security and safety reasons. The site compound will be kept locked at night. All entry points will be clearly signed with warning notices.

A just-in-time delivery system will reduce risk of damage and theft. The contractor is to ensure that appropriate clean-up / repair is undertaken promptly, to discourage further problems occurring if the site experiences a problem such as vandalism or graffiti.

Noise

On-site good practice procedures will also be followed in order to mitigate noise, vibration, and air pollution impacts under the Considerate Contractors Scheme.

All plant and equipment to be used for the works are to be properly maintained, silenced where appropriate, and operated to prevent excessive noise and switched off when not in use and where practicable. Plant will be certified to meet relevant current legislation and British Standard BS5228 and all trade contractors will be made familiar with the current legislation and the guidance in BS5228.

The loading and unloading of vehicles, the dismantling of site equipment such as scaffolding and the moving of equipment or materials around the site will be conducted in such a manner as to minimise noise generation. Where practical these will be conducted away from noise sensitive areas.

As far as possible construction works will be carried out using methods that minimize noise. For actions such as demolition and the breaking of the old foundations, there is little reasonable choice than to use percussion tools in one form or another. However quieter types of machinery will be used where possible.

Normal working hours will be 8.00 am until 6.00pm Monday to Friday and from 8.00am to 1.00pm on Saturday.

Artificial Lighting

Flood lighting, security lights, and any other obtrusive external lighting shall be sensitively located so as to avoid nuisance to neighbouring properties and should only provide the necessary luminance for the relevant task(s).

The direction and angle of any external lighting will not cause light spill, glare, or nuisance to neighbouring properties or highway users. Where practicable, the use of shields or covers will be used to minimise the level of obtrusive light beyond the site boundary.

Light sensors fitted will be adjusted as such to ensure that they are only activated from activity on the development site alongside timers to control lighting operating times to minimise/mitigate any impact

The use of external lighting overnight will be minimised consistent with safe access, egress, and security of the development site.

Pest Control

We will ensure that the risk of infestation by pest or vermin is minimised by adequate arrangements for disposal of food waste or other material attractive to pests. If infestation occurs, we will take such action to deal with it as required by the Environmental Health Officer.

Segregation:

Wherever possible, waste will be segregated before being removed from site. This prevents specific waste streams from becoming contaminated ready for recycling or re-use. However due to the limited storage area on this small sites, a grab lorry or small waste skip may be used for all waste generated (other than Gypsum products) and separation will be carried out off site at a Waste Transfer Station.

Waste will either be diverted for reuse or recycling or disposed of at landfill.

It is critical that waste separation is relayed to the Site Manager by the operators of the waste transfer station in order to ensure that accurate data is recorded in the CMS.

Where possible, smaller waste materials such as that from the canteen and the office should be segregated and recycled separately at the nearest Local Civic Amenity point or other recycling centre by the Site Manager. This is to include the recycling of plastic, paper, cardboard, cans and other waste.

The form for recording all waste information shall be kept in the site office.

A diagram of the site layout showing waste and materials storage areas will be marked up and displayed in the site office by the Site Manager and a copy given to SES to keep on file as evidence of good waste management.

Documentary evidence will be retrieved from Waste Transfer Notes to confirm the type and amount of waste removed from site.

Gypsum waste:

As of 1st April 2009, the Environment Agency revised its Policy for disposing of gypsum waste to landfill. Previously, waste containing less than 10% gypsum could be sent to landfill. Now, in England and Wales, if waste containing any amount of gypsum is sent to landfill, it must go to a separate cell for high sulphate waste. Guidance is given as follows:

- A dry storage area should be set aside for bagged plaster mix. This will reduce wastage and may save money.
- Mixed or dry plaster should not be washed into drains or surface waters as this can cause water pollution.
- Clean, uncontaminated plasterboard can be recycled. The supplier will be able to provide more information on this.
- Wet, mixed plaster should be left to go off before disposal. Liquid wastes cannot be disposed of at landfill sites.
- Plaster, plasterboard and other gypsum products should be separated from general wastes, as they contain high levels of sulphate.

Waste Controls and Handling:

Site Security

The operation phase(s) of the site will be fully hoarded and accessed via locked gates to prevent unauthorised access. These site security measures should avoid the illegal disposal of waste at the site.

Deliveries

It is recommended that the Site Manager keeps an inventory of used and ordered materials kept on site to avoid damage. The Site Manager will also be in charge of and manage the stores. The Site Manager will therefore:

- Be prepared for deliveries.
- Schedule the deliveries.
- Reject deliveries if incomplete or damaged.
- Record all deliveries using the supplies and materials form.

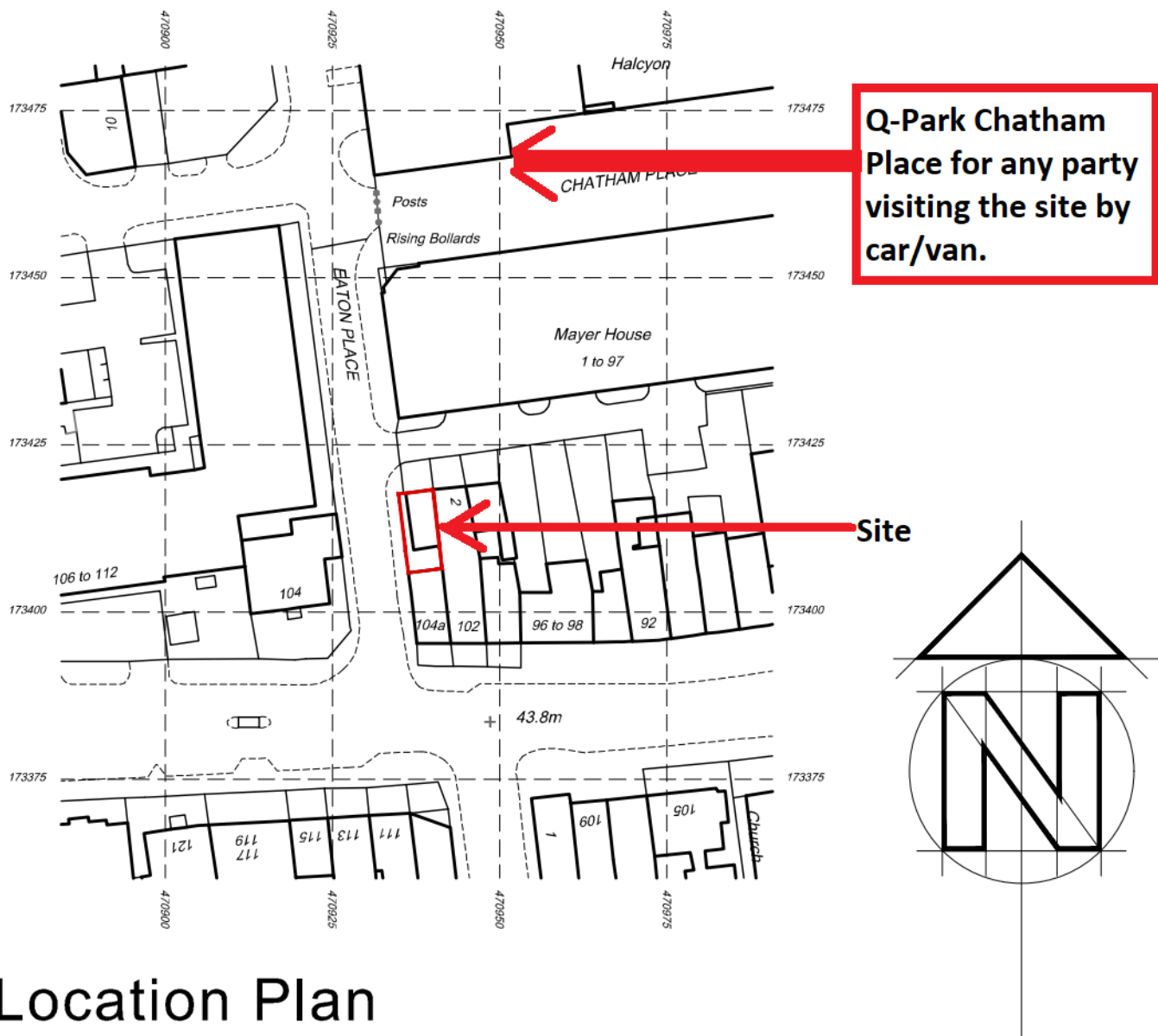
The Site Manager should separate all orders/deliveries into waste streams and file them for easy access/review.

It is important that any materials that subcontractors bring into site are also reported to the Site Manager for monitoring purposes.

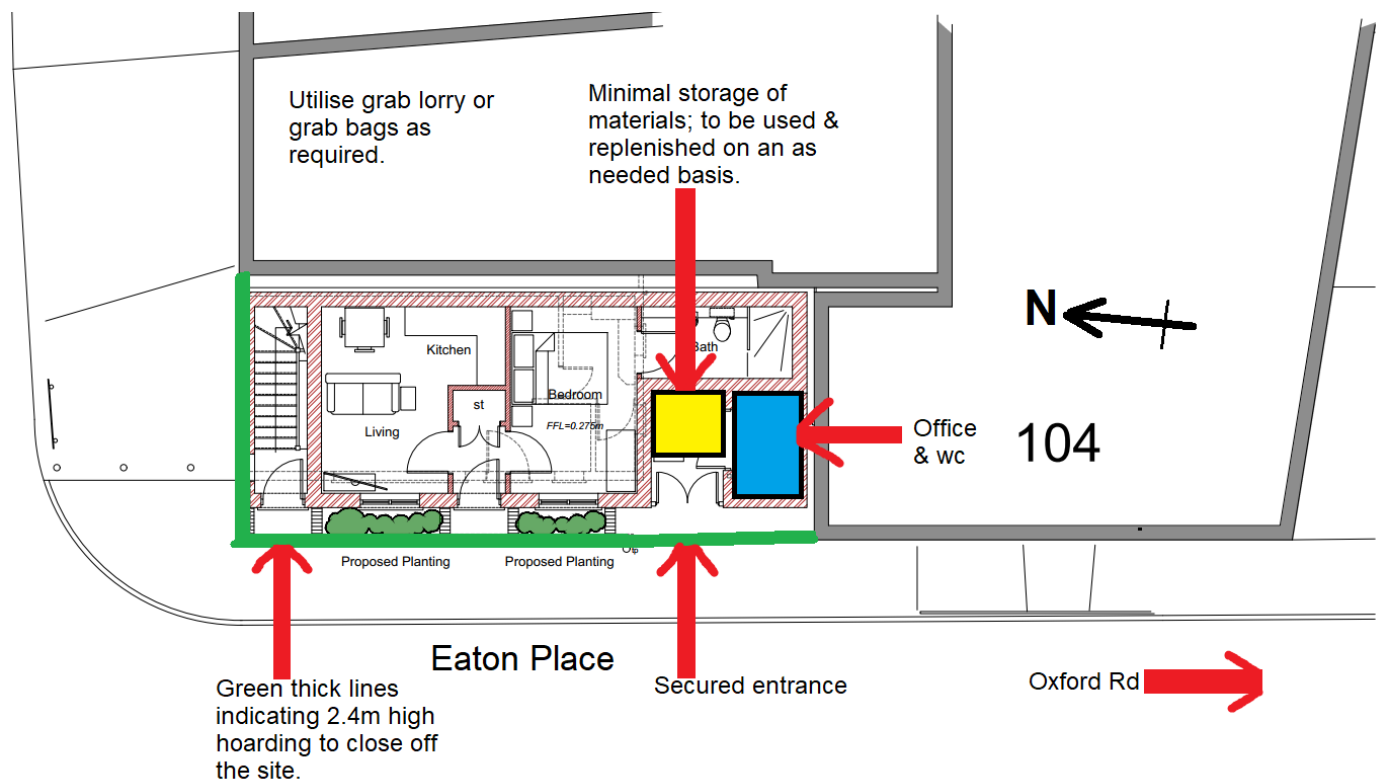
With regards to the safe storage of materials and to avoid damage of materials, the Site Manager should:

- Follow the suppliers' storage instructions.
- Keep harmful chemicals in secure bunded areas.
- Protect lightweight materials from wind.
- Carry out good manual handling techniques.

Delivery times will be between 09.30 and 15.00. No HGV movements to or from the site between the hours of 08:30-09:15 and 15:15-16:00 and arrangements to ensure no HGVs park or wait around the site between these times.



Location Plan



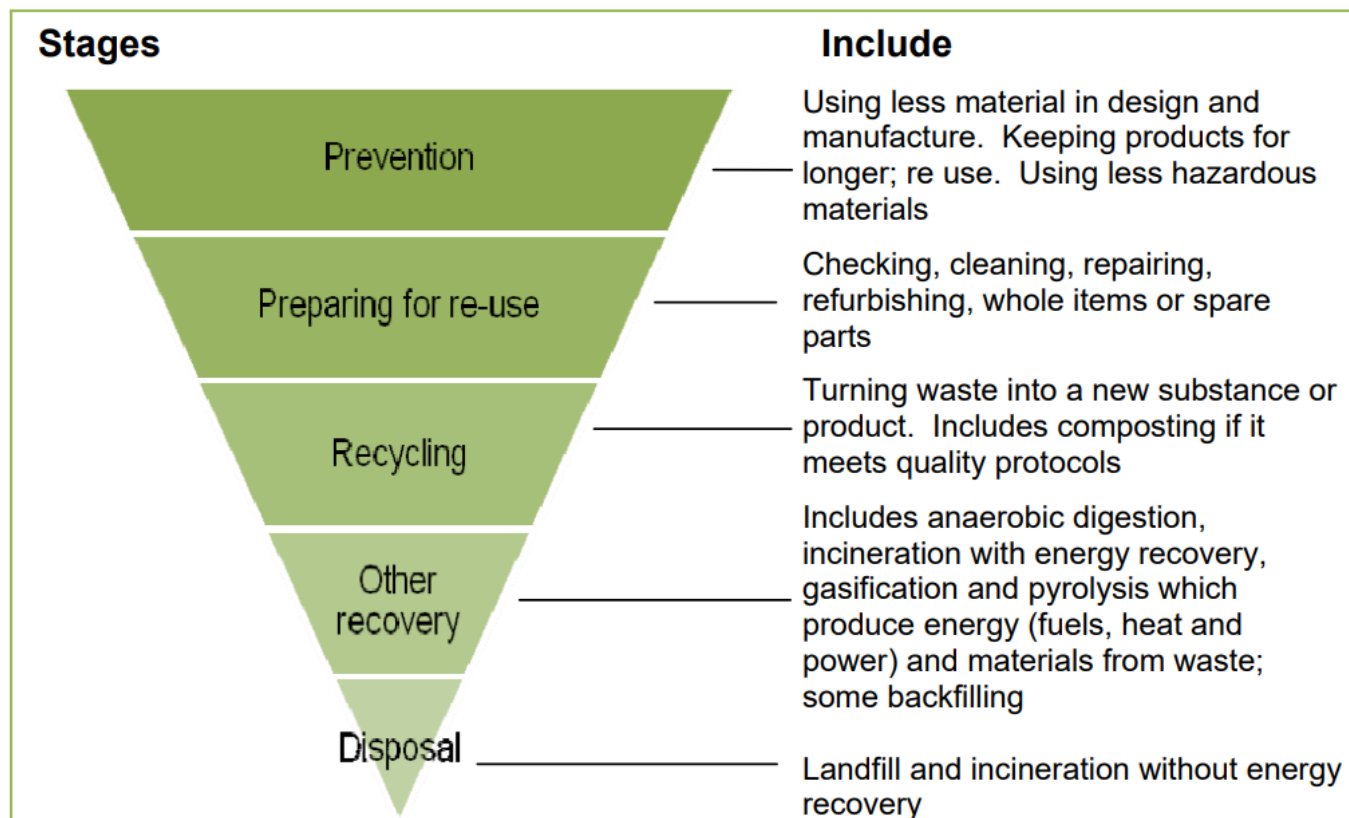
The approved Construction Method Statement will be adhered to throughout the construction period for the development. Consideration will be given to adjacent land users and any shared access requirements and planned deliveries communicated and coordinated with any persons directly.

All vehicles park, offload & depart with the assistance of a traffic marshal/banksman. Mitigation measures will be taken to ensure that any impacts from deliveries are minimised. Materials will be delivered to suit the works being carried out and ordered just in time and will be used on the day of delivery.

Waste Management:

Where a mixture of materials are being ordered, they should ideally be ordered from a single supplier or delivered via a single delivery service to collate materials and supply the site with the relevant materials at the day/time required for use and using a single vehicle or minimum number of vehicles.

The “waste hierarchy” ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal (e.g. landfill).



For most materials, the waste hierarchy ranking, shown above, applies. However for the materials below, the evidence suggests that waste management options which are not in keeping with the waste hierarchy order are better for the environment:

- For food, current research shows that anaerobic digestion is environmentally better than composting and other recovery options (as per Defra [Department for Environment Food and Rural Affairs] publication entitled ‘Guidance on applying the Waste Hierarchy’)
- for garden waste and for mixtures of food waste, dry anaerobic digestion followed by composting is environmentally better than composting alone (as per Defra [Department for Environment Food and Rural Affairs] publication entitled ‘Guidance on applying the Waste Hierarchy’)
- For lower grade wood energy recovery options are more suitable than recycling. To determine the grade of wood you handle, please see Wood Recyclers Association grading structure for UK derived, non-virgin wood (as per Defra [Department for Environment Food and Rural Affairs] publication entitled ‘Guidance on applying the Waste Hierarchy’)

Paper and Card	Food	Garden Waste	Textiles	Wood	Glass	Metals	Plastics±	WEEE	Tyres	Residual 'black bag'
Prevention	Prevention	Prevention	Prevention	Prevention	Prevention	Prevention	Prevention	Prevention	Prevention	Prevention
Preparation for re-use			Preparation for re-use	Preparation for re-use	Preparation for re-use	Preparation for re-use	Preparation for re-use	Preparation for re-use	Re-treading	
Recycling	Anaerobic Digestion	Anaerobic Digestion (dry) ²	Recycling	Recycling; energy recovery ♦ (preferable to recycling for lower grade materials)	Recycling in a remelt process	Recycling	Closed loop recycling Other recycling	Recycling (esp. suitable for metals and high quality plastic)	Recovery: use in road surfaces Energy recovery in cement kilns Energy recovery through pyrolysis	Solid recovered fuel derived from MHT or MBT, where it replaces coal*
Energy recovery ♦ (esp. suitable for short fibres or contaminated materials)	Composting; other energy recovery technologies	Composting; other energy recovery technologies	Energy recovery ♦		Other recycling		Energy recovery ♦	Energy recovery ♦ (esp. suitable for non-hazardous mixed plastic)	Other recovery (eg drainage fill & sea defences)	Energy Recovery, all technologies (Heat Only) Energy Recovery, all technologies (CHP) Energy Recovery, all technologies (Electricity Only) MBT or MHT outputs used as fuel (but do not replace coal) or *
Disposal	Disposal	Disposal	Disposal	Disposal	Disposal	Disposal	Disposal	Disposal	Gasification /incineration with EfW Microwave treatment	Disposal

*the impact of CHP technology, which can improve the efficiency of each of these options, is not illustrated here

± the hierarchy may be different for some forms of bio-based plastics

♦ 'energy recovery' covers a range of technologies, some of which will be more environmentally beneficial than others. Future versions will differentiate between technologies as more scientific evidence becomes available.

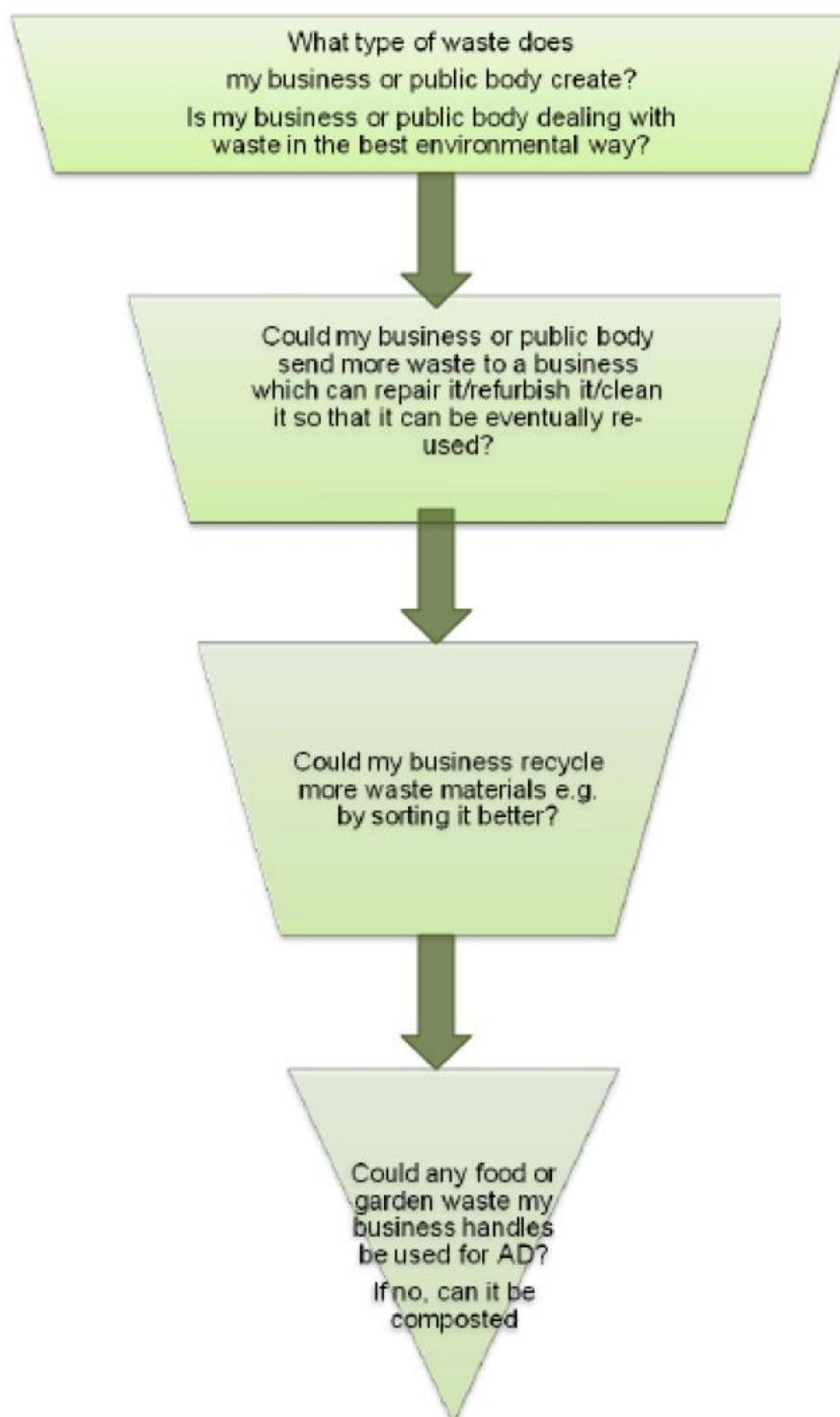
*2009 AEA – Report to the Welsh Assembly Government: Modelling of Impacts for Selected Residual Waste Plant Options using WRATE

The contractor is to implement good environmental practices. The contractor should:

- plan how to apply the waste hierarchy in advance and in conjunction with the relevant personnel/subcontractors
- monitor performance regularly
- monitor site materials regularly
- know what waste is being produced and make efforts to produce less
- sort and segregate the waste produced and encourage prevention of waste and re-using of materials first and foremost.

The contractor may find it helpful to work through the following questions to assess whether they are applying the hierarchy:

Figure 1: Putting the hierarchy into practice if you produce waste



The contractor is to be mindful to prevent as much waste of material in the first instance as possible. Priority should be given to waste prevention above all else. Do not over excavate, create unnecessary spoil, do not overuse water, place containers on site to collect rain water and use as grey water for cleaning tools etc., order materials as they are required to the correct quantity required etc.

Where waste/spoil is unavoidable, contractor to prepare for re-use where feasible. Check, sort, clean and make use of spoil, cuttings, off cuts, materials etc. before it degrades/becomes waste

The next solution down the line should be to recycle rather than discard materials, furnishing etc. The contractor to reach out to locals and local organisations so that any viable materials can be made use of by third parties rather than disposed of where applicable.

The last step is to dispose. Any disposal should be done in a responsible manor, using licensed facilities. Prohibit the uncontrolled disposal of waste, ensure that waste management activities are permitted (unless specifically exempt). Establish an integrated and adequate network of disposal installations.

IMPLEMENTATION, ROLES AND RESPONSIBILITIES:

Waste Carriers

During the segregation process, the waste contractors will be responsible for the recording of the quantities of all wastes taken off-site. They should fill in a log of the exact amount of waste materials removed from site for each container that is removed. This log sheet should also identify the quantity of the materials that were sent to landfill and the quantity that are intended for recycling, reuse or recovery. The full address for the end destination of all waste material, be it recycled, reused or disposed, should be provided. The form in Appendix 1 can be used for this purpose. Waste amounts should always be recorded in tonnes for consistency.

The form should be used by the waste management contractors to show their waste management licenses, waste carrier licenses and exempt site licenses that have been checked and verified for use on this project, a copy of which should be provided to the Principal Contractor.

Site Manager

The Waste Carrier as mentioned above will complete their copy of the Waste Data Collection form, confirming the amounts of waste recycled, reused or disposed of each waste stream. A copy of this form should be provided to the Site Manager on a weekly basis.

The Site Manager will complete an Appendix 1 form for any material reused on site or material that they personally remove from site, such as office waste to the local recycling centre.

Training & Communication

The Site Manager will require an induction into the requirements of the CMS, and ensure that they are able to effectively complete the Waste Data Forms.

The Site Manager will then provide on-site instruction of appropriate separation, handling, recycling, reuse and return methods to be used by all parties at all appropriate stages of the Project.

The following methods of communication will be used:

- Meetings: Pre-construction meetings will include discussions of the CMS and will encourage key project representatives to contribute to waste predictions. All subcontractors will be expected to attend.
- Site inductions: At site inductions, the Site Management Team will ensure that all operatives working on site and associated works (deliveries etc) are made fully aware of their responsibility under the CMS. Where present, site segregation zones will be noted, and the importance of not contaminating skips will be emphasized. All subcontractors will be provided with advice on waste reduction, reuse, recovery and recycling.
- Site briefings: Once the project is live, short meetings with key site personnel will be held as necessary to discuss problems and opportunities relating to waste on site

- Raising awareness: CMS information will be included in the induction process.
- Suggestion scheme: All employees working on site should be made aware of the scheme to enable them to contribute ideas and suggestions for future improvements.
- Training: Training sessions should be provided for the Construction team involved with the project. Training content, structure and duration will vary depending on the job role and level of competence/knowledge required. Workers should also be informed of the cost implications involved in disposing non-hazardous waste with hazardous waste and of the savings which can be made from correctly implementing a CMS.
- Training must be provided to notify employees of any major changes to the plan following a revision and the version number of the CMS document on which the training is based must be clearly recorded. Where problems are noted with Subcontractors not working to the requirements of the CMS, Supervisors will be requested to carry out a toolbox talk in relation to site waste in general, and the CMS that the Principal Contractor has implemented for the project.

Monitoring

It is recommended that the site is monitored on a monthly basis to confirm whether the requirements of the CMS are being managed effectively. This will ensure;

- That the plan is up to date and that it is the correct version
- That the Orders File is being maintained
- That skip returns/waste data forms are being faxed/emailed back to the Client
- That subcontractors are complying with the Plan
- That waste carrier returns are being received and filed

Waste Records

Records have to be accurate so that the CMS's progress is monitored correctly. An in-house database will be used to facilitate the CMS and will be used to record all waste leaving the site. Records will be taken directly from the Appendix forms provided in this document, waste tickets and monthly waste reports from the nominated waste contractor.