5.3. Control Measures for Concrete, Cement and Grout

Concrete, cement and grouts are highly alkaline and corrosive and can have a detrimental impact on watercourses. To minimise any impact:

CONCRETE WASHOUT FROM CONCRETE LORRIES

- Concrete wash water control measures will be planned and implemented before starting the project. A concrete washout risk assessment will be completed to assess the risk to receptors based upon site location and volume of concrete washout generated.
- The amount of wash water produced will be minimised and where possible and practicable, it will be returned to the batching plant
- For washwaters that cannot be returned to the batching plant, the concrete washout system utilised will (as a minimum) securely capture, contain and store the concrete solids and wash water in an impervious container/ bund.
- Washout arrangements will be located 10m away from drainage gullies, surface water drains and watercourses
- The washout area will be conveniently located for washing out equipment and adequately signposted.
- To minimise the amount of washout water generated, excess concrete will be scraped off the equipment before it is washed. These excess solids will be placed in a designated storage container.
- A high pressure, low volume water spray nozzle will be used to reduce water use
- The area will be monitored and maintained to ensure proper use and have adequate storage capacity
- Temporary concrete washouts will be designed with enough volume to contain all liquid and concrete waste.
- Plastic lining material will be a minimum of 10 mm polyethylene sheeting and will be free of holes, tears, or other defects that compromise the integrity of the material

CONCRETE WASHOUT SYSTEMS (EXAMPLES IN ORDER OF PREFERENCE)

A. Wash into geotextile bag, collect the filtered wash out water in separate tank and arrange with concrete supplier to extract tank contents following the last pour of the day. Concrete washout water can be reused at the batching plant making more concrete. **Note: Requires submersible pump, geotextile bags and agreement with concrete supplier**

B. Use integrated pump and waterhose to clean chute into the specific geotextile bag. This segregates the solids, and the collected high pH wash out water is stored for re-use to rinse out the next wagon's chute. **Note: Requires power connection to pump the water, geotextile bags and has capacity for 50 wagons**

C. Combined Concrete Washout and pH adjustment System - separates and dewaters the waste concrete solids and then its on-board automatic carbon dioxide pH adjustment system neutralises the high pH washwater down to (circa pH 6 to 9) limits set by the Environment Agency for discharge. **Requires: Power, consent to discharge, CO_2 gas, and water quality testing**

D. Washout into a holding tank / skip lined with an impermeable sheet to prevent ground contamination. Mixture is allowed to cure / water evaporate **Requires: dry weather / potentially a sacrificial bag of cement**

Figure 3 - Examples of Concrete Washout systems that may be utilised on site

ON-SITE BATCHING

- Batching and mixing activities will be located well away from watercourses and drains
- Material storage areas for all cementious materials will be protected and covered.
- Surface drainage in the area around the batching plant will be controlled as we are aware that it may be polluted.
- Spills of concrete, cement, grout and similar materials will be contained and ensured that they cannot reach surface water or drains.
- Concrete washout from mixing plant will be carried out in a designated contained impermeable area.

CONCRETE PLACEMENT

- We will discuss arrangements for deliveries to site with suppliers before work starts, agreeing routes, designated washout areas and emergency procedures.
- Bulk and bagged cement and concrete additives will be stored at least 10m away from watercourses, gullies and drains.
- A contingency plan will be put in place for uncontrolled releases.

5.4. Control Measures for Oil Storage

Oil is one of the most common pollutants in the UK and spilt oil can pollute waterbodies and groundwater supplies which can be used for drinking water.

TYPES OF OIL EXPECTED TO BE FOUND ON SITE

- Petrol
- Diesel
- Heating oils
- Biofuels
- Lubricating and hydraulic oils
- Synthetic and mineral oils
- Biodegradable
- Shuttering and cutting
- Waste oils

OIL STORAGE LOCATIONS

In all cases we will avoid storing oil in high risk locations such as:

- Where there is risk of damage by impact or collision e.g. from site traffic
- Within 50M of a spring, well or borehole
- Within 10M of a watercourse, ditch or drainage channel
- Where spilt oil could enter open drains or soak into unmade ground where it could pollute groundwater

OIL STORAGE TANKS AND CONTAINMENT SYSTEMS

When storing more than 200litres of oil, a secondary containment system will be provided. The capacity of the secondary containment system will be either 110% of the largest drum or 25% of the total volume stored (whichever is greater). Additionally all ancillary equipment will be kept contained within the bund.

Figure 4 - Illustration of oil storage with a secondary containment system

INSPECTION AND MAINTENANCE

All oil storage areas, containers and secondary containers will be frequently inspected and checked for signs of damage, corrosion, bulging, leaks or unauthorised use and interference. Any required maintenance, defects or faults will be repaired immediately.

5.5. Control Measures for Refuelling

A **designated refuelling** area will be established for the project. This area will consist of an impermeable surface, situated well away from watercourses. Signage (such as that illustrated below) will be erected to indicate the location of the refuelling area and an oil spillage kit will also be at hand at this area. All fuel deliveries to site will be supervised by a designated individual.

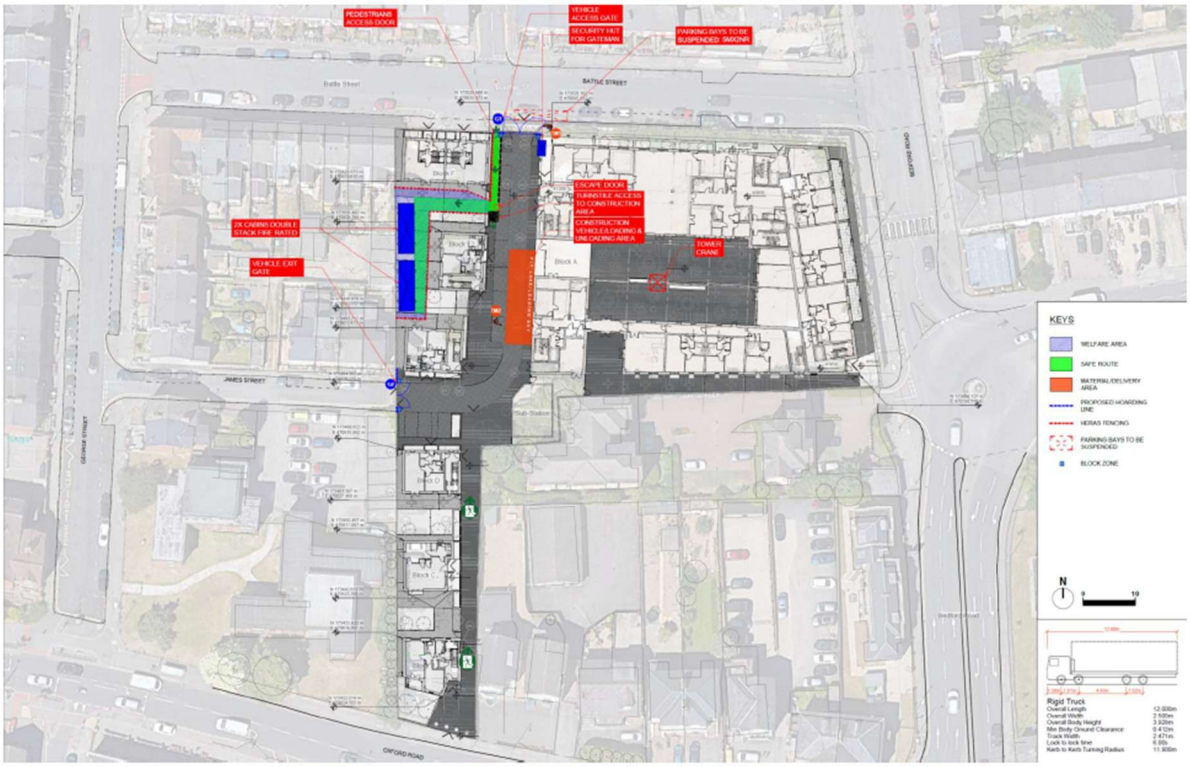
Figure 5 - Example of a protected refuelling area on handstand with spill kit

When refuelling has to be carried out away from the designated area, it will be carried out by using a drip tray or other secondary containment solution to prevent oil from spilling onto the ground. Where mobile refuelling is necessary, all bowsers will carry an emergency spill kit. All oil containers (including mobile bowsers) will be returned to the designated storage.

c) The erection and maintenance (including removal of any graffiti or fly posters) of security hoarding around the site:

The site comprises solid timber hoarding with segregated vehicle and pedestrian gates. Weekly hoarding inspections will be completed to identify graffiti or posters. Any identified graffiti or posters will be removed.

PROJECT SITE OVERVIEW



CALL US: 020 3146 0350 EMAIL US: info@LLSLogistics.co.uk VISIT US: First Floor, 1 New Street, London EC2M 4TP

Battle Street Weekly Hoadring Inspection

PF10-PR10-27-F001

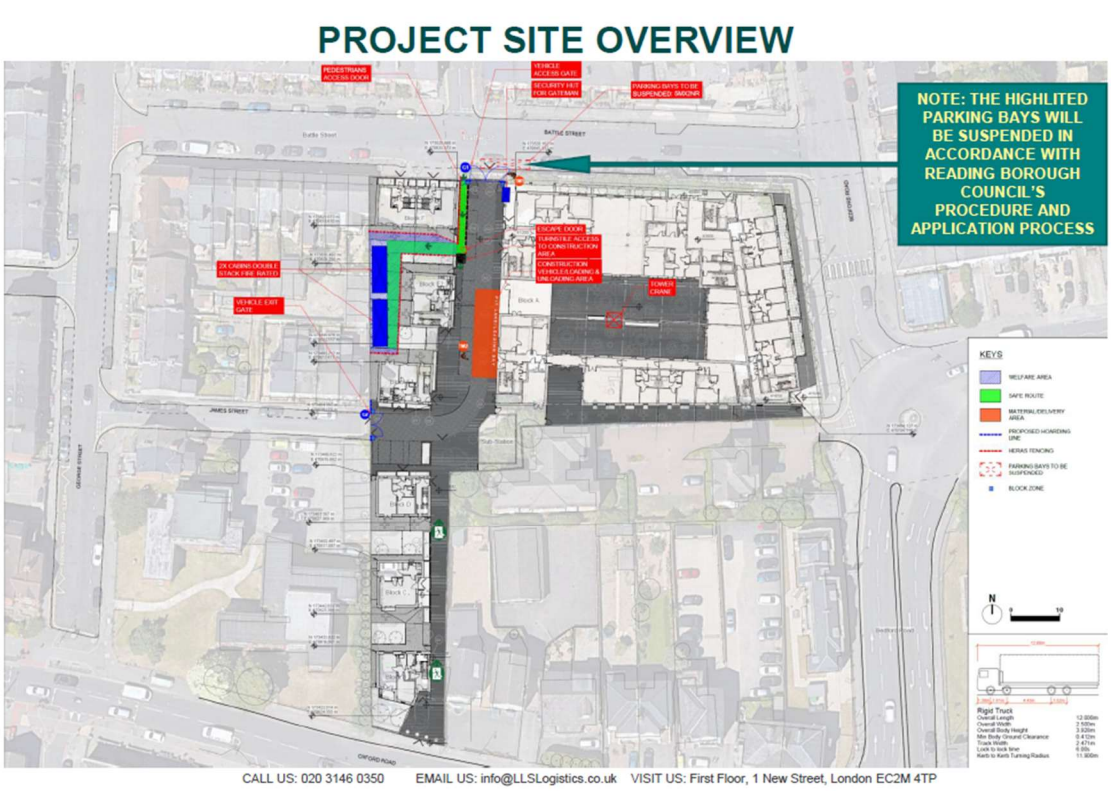
PROJECT:	Battle Street Reading	SITE CODE:	10850

	Areas To Be Inspected	Satisfactory	Photograph Taken
1	Are site boundary fences checked and secure, with appropriate warning signs displayed, any ballast weights checked and confirmed?	YES/NO	
2	Panels and posts are secure with no signs of damage.	YES/NO	
3	Check for any posters or graffiti on the boundary fenceline. If found notify the Site Manager and remove.	YES/NO	
4	Check the hoarding is free from rust corrosion and any damage.	YES/NO	
5	Check all signage and ensure it is clearly visible from a distance.	YES/NO	
6	Check the condition of the timber and ensure there is no sign of decay or damage.	YES/NO	

7	Check vehicle and pedestrian access gates are secure locked and in good condition.	YES/NO	
8	Is any Traffic Management set-up correctly, with cones, signs etc., clean and visible with provision in place for maintenance.	YES/NO	
9	Are all footpaths bordering the site (including temporary ones) free of debris and obstructions? Is width and ground suitable for wheelchair users (min 1200mm)?	YES/NO	
10	Check for any gaps or openings that could allow for unauthorised access.	YES/NO	

Inspection Completed		**Date:**	

d) Identification of any footpath closures or road closures needed during construction;



The area of the required footpath closure is noted on logistics drawing above and the applications for footpath closure to facilitate vehicle deliveries will be made and completed and returned on applications on the 171 application and also a TTRO application for parking bay suspensions.

https://images.reading.gov.uk/2024/03/S.171-Application-pack-1.docx

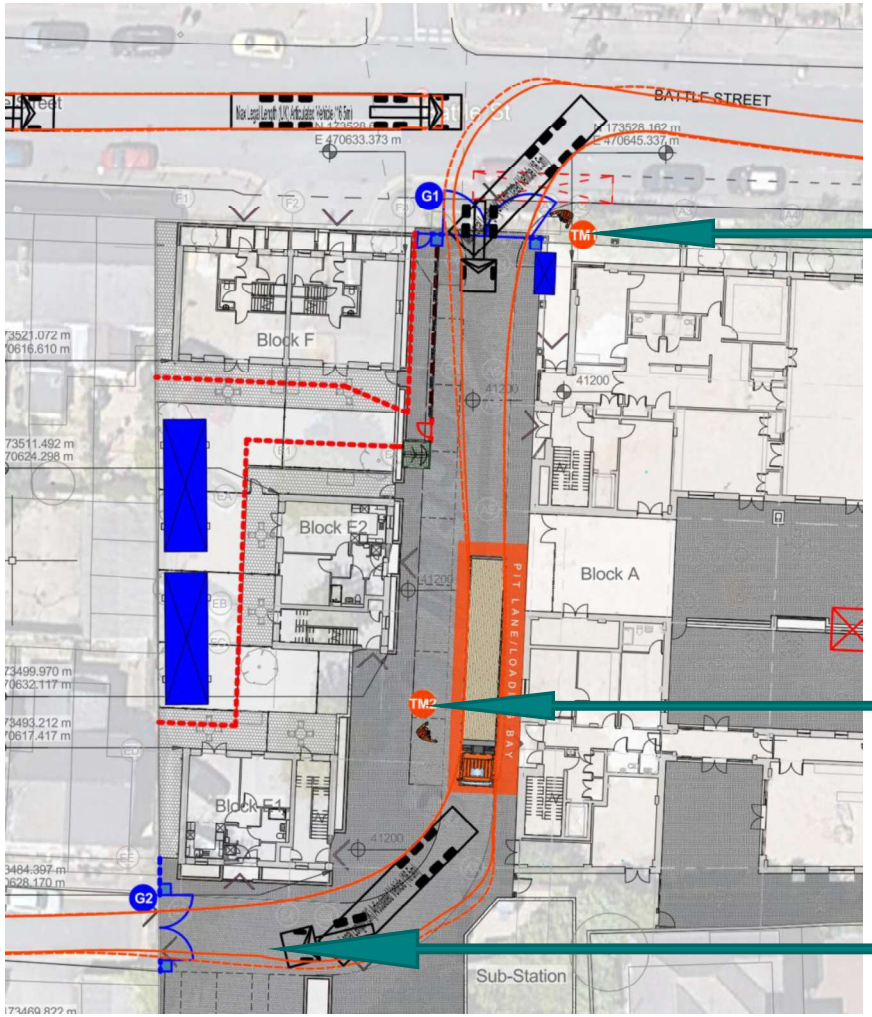
https://images.reading.gov.uk/2019/12/TTRO_Application_Form_v2_3_r_r01_02_16.doc

The application relates to non-excavation works and as requested by Reading Borough Council the application and a copy of the Construction Method Statement will be sent to resurfacing@reading.gov.uk

e) Required wheel washing facilities on site;

Plan and methodology below. Wheel washing facilities will be provided by the banksman to all deliveries leaving the site.

TRAFFIC MARSHALL METHODOLOGY



TRAFFIC MARSHALL 1 TO OPEN GATES (G1) TO ALLOW VEHICLE INTO SITE BOUNDARY AND DETERMINE WHICH DELIVERY IT IS AND CALL THE RELEVANT SUPERVISOR TO COLLECT THIS MATERIALS

Upon approach to the pitlane / gate the driver is to pull into the pitlane for the traffic marshal to determine which delivery it is and who the delivery is for; after confirming this the traffic marshal is to notify the relevant sub-contractor / supervisor so the delivery can be offloaded in a timely manner.

TRAFFIC MARSHALL 2 TO ENSURE VEHICLE IS PARKED SAFELY AND SWITCHED OFF. TM2 WILL ALSO OPEN GATES TO ALLOW VEHICLE OUT OF SITE BOUNDARY (G2) AND GUIDE THE VEHICLE OUT ONTO JAMES STREET SAFELY

The traffic marshal has full access to the DMS and will only allow in deliveries that have been prebooked through the appropriate channels. Enabling works will need to be completed prior to pitlane being set up to ensure two-way traffic can flow freely without being impeded.

WHEEL WASHING WILL BE CARRIED OUT BY THE BANKSMAN PRIOR TO VEHICLES LEAVING THE SITE

f) A scheme for recycling waste resulting from the construction works.

SECTION 9.0 Site Waste and Resource Management Plan

Guidance Notes:

This section contains details of the processes and opportunities to reduce waste, reuse or recycle products, components and buildings, and for materials to move up the waste hierarchy so that material resources can flow around a circular economy.

9.1 Purpose and Description of the Project

9.2 Responsibilities and Declarations

9.3 Description of Waste Management Roles

9.4 Waste Management Policy

9.5 Benchmarks for Conserving Resources

9.6 Proposals for Waste Minimisation

9.7 Identification of Waste and Proposals for Waste Reuse and Recycling

9.8 Organisations which may be used to facilitate reuse

9.9 Waste Storage Arrangements

9.10 Office Waste Arrangements

9.11 Duty of Care and Waste Transfer Procedures

9.12 Waste Transfer Note Detail

9.13 UK SIC CODES - Excerpts from UK Standard Industrial Classification of Economic Activities

9.14 Minimisation of Hazardous Waste

9.15 Typical Hazardous Outputs

9.16 Management of Hazardous Waste

9.17 Hazardous Waste Consignment Note Detail

9.18 Training

9.19 Subcontractor Requirements

9.20 Management of Subcontractors

9.21 Waste Management Supplier Requirements

9.22 Waste Monitoring and Reporting

9.1 Purpose and Description of the Project

Project Name	Battle Street Housing Project		
Project Location	Battle Street, Reading, RG1 7NU. 		
Project Cost (estimated)*	£32 Million		
Project Start Date	**Date**	**Month**	**Year**
	TBC		
Project End Date	**Date**	**Month**	**Year**
	TBC		
Description of the Project	62 new homes, made up of affordable and sheltered living accommodation, in various configurations, and an older persons' day care centre.		
Project Footprint (Sq/M)	TBC		
Client	Reading Borough Council		
Principal Contractor	GRAHAM		
Version Number and Date	V001 10.01.25		

9.2 Responsibilities and Declarations

	Name	Contact details
Who is responsible for drafting the SWMP?	Rosie Barnett	rosie.barnett@graham.co.uk
Who is responsible for implementing the SWMP on site?	JP Hickey	johnpaul.hickey@graham.co.uk
Who is the waste champion?	JP Hickey	johnpaul.hickey@graham.co.uk
Who is the person in charge of the project?	Guy Salazar-Lewis	guy.salazar-lewis@graham.co.uk
Where will this SWMP be kept?	Site Office / Project Sharepoint	

Declaration statement: We the 'Client' and the 'Principal contractor' will take reasonable steps to ensure that all waste from the site is dealt with in accordance with the waste duty of care in section 34 of the Environmental Protection Act 1990 and the Environmental Protection (Duty of Care) Regulations. All reasonable steps will also be taken to ensure that the waste materials are handled efficiently, and waste managed appropriately.
Client signature:
Signature of Principal Contractor Representative:
Signature of S/C Representative(s):

9.3 Description of Waste Management Roles

Project Manager: JP Hickey	• Ensure plan meets client's approval and is signed off accordingly • Implementing and managing the plan on site • Arranging for full details of all arising's, movements and treatment of waste to be accurately recorded and reported in a timley manner • Distinguish reusable materials from materials suitable for recycling • Ensure maximum segregation at the source and separate materials for recovery • Appointment of a suitable "Waste Champion" for the site
Environmental Manager: Rosie Barnett	• Implementing the plan within GRAHAM • Providing training • Providing advice and guidance to the Site Manager and ensure that best practice is transferred across the organisation • Conducting waste audits
Procurement Manager: TBC	• Ensure that materials are ordered so that the quantity delivered, the timing of the delivery and storage of materials does not generate unnecessary waste • Ensure that the waste management requirements within the GRAHAM procurement documents are communicated to our supply chain • To undertake early engagement with our Waste Management Contractor in order to discuss our waste forecasts and to ensure an optimal skip strategy which maximises recycling
Environmental Champion: TBC	• Overseeing management of waste records • Periodic reviews of SWMP • Regular inspection of waste recycling areas on site • Ensuring that regular toolbox talks on waste management and minimisation are carried out • Encourage and motivate site personnel to implement best practices
Appointed Operatives: TBC	• Ensure that discrete operations stated in the SWMP are performed on an on-going basis

9.4 Waste Management Policy

GRAHAM operate an Environmental Management System which is certified by National Quality Assurance (NQA) against the requirements of BS EN ISO 14001:2015. Our EMS will be utilised to assist in the employment of waste reduction techniques on the project

This Site Waste Management Plan has been prepared in accordance with the GRAHAM Environmental Policy, Waste Management Policy and Waste Management Procedure **PF10-PR10-44**

GRAHAM are committed to the Circular Economy, where products and materials are kept in high value use for as long as possible. This includes minimising waste, reducing consumption, and designing for reuse, repair and recycling. This commitment has driven the adoption of an approach which prioritises the reuse of all materials and products.

9.5 Benchmarks for Conserving Resources

GRAHAM WASTE TARGETS

	KPI/Metric	Target
A	Tonnes of Construction waste generated per £1M construction value	**Refer to Onos**
B	Diversion of Construction waste from landfill	**Refer to Onos**

SECONDARY WASTE TARGETS

	KPI/Metric	Target
C	Tonnes of Construction and Demolition waste generated per £1M construction value	**Project Specific**
D	Tonnes of Construction waste per 100m2 GIFA	**Project Specific**

- The site construction waste reduction target has been derived using GRAHAM data relating to construction waste generated on all construction sites during our baseline accounting year (2014/15). This waste reduction target aligns with the GRAHAM Company Target to reduce the quantity of avoidable Construction Waste generated by 65% by 2030 and 100% by 2040*
- Projects within the building division also benchmark against BREEAM KPIs for construction and waste demolition and waste diversion (Target D).

* Avoidable construction waste is interpreted as materials, products or components that can be prevented from becoming waste. At every stage of a project lifecycle, from the manufacture of materials and products, the design, specification and assembly of buildings through to deconstruction there are opportunities to avoid waste and reuse or recycle products.

9.6 Proposals for Waste Minimisation

REF	INFORMATION REQUIRED	YES/NO/NA	RESPONSE / COMMENTS
1.	Have opportunities been identified to reduce waste through the design process e.g., no-dig techniques, pre-fabrication of materials?	Choose an item.	
2.	Can structures be raised out of the ground to reduce excavation volume?	N/A	
3.	Is excavation material suitable for re-use following suitable testing?	Choose an item.	
4.	Can excavated materials be re-used at another GRAHAM Site (Note - waste exemption required)	Choose an item.	
5.	Can it be arranged for excavated material to be used at a landfill site for capping or engineering works?	Choose an item.	
6.	Can contaminated material be treated using soil washing, bioremediation or other techniques to render it suitable for re-use?	Choose an item.	
7.	Is there scope to use a recycled product such as 6F2 or fine fill aggregates, reducing reliance on finite raw materials?	Choose an item.	
8.	Has the site team discussed and identified strategies for reducing waste with subcontractors?	Choose an item.	
9.	Has a "Waste Management Suppliers pre-appointment Assessment" been completed?	Choose an item.	
10.	Will Subcontractors and Site operatives who handle materials and waste receive waste awareness toolbox talks and other training?	Yes	
11.	Is waste data going to be regularly reviewed (e.g. during progress meetings) in order to monitor waste targets for the project?	Yes	
12.	Will the Environmental Champion be briefed on their duties to help facilitate waste prevention during the project?	Yes	
13.	Can redundant equipment be sold for reuse?	N/A	
14.	Can unsuitable material be conditioned to make it useable by following the relevant Waste and Resources Action Programme (WRAP) quality protocol?	Yes	
15.	Are there any other ways in which the project will minimise waste to landfill?	Yes	Segregation, Community Wood Recycling, Take back schemes

9.7 Identification of Waste and Proposals for Waste Reuse and Recycling

With reference to the Drawings and Specification, the following materials have been identified as wastes which could potentially arise on the Project. Quantities of forecast construction wastes have been derived by multiplying the total material quantity by standard wastage rate data provided by the Waste and Resources Action Programme (WRAP).

Waste Type	Waste Stream	Material Type	Suggested LOW Code	Destination	Forecast Quantities (tonnes)
Excavation	Soil and Stones	Soil and stones other than those mentioned in 17 05 03	17 05 04	Choose an item.	
Excavation	Bituminous material	Bituminous mixtures other than those mentioned in 17 03 01	17 03 01	Choose an item.	
Construction	Gypsum (Plasterboard)	Gypsum-based construction materials other than those mentioned in 17 08 01	17 08 02	Choose an item.	
Construction	Wood	Timber materials – offcuts/shuttering/wooden packaging	17 02 01	Choose an item.	
Construction	Metals	Mixed metals – electrical and plumbing waste/pipe offcuts/stud wall cuttings	17 04 07	Choose an item.	
Construction	Plastics	Hard Plastics/Pipe offcuts/ wrapping protection materials	17 02 03	Choose an item.	
Construction	Packaging	Mixed Packaging – Cardboard/Paper/Plastic	15 01 06	Choose an item.	
Construction	Segregated Hazardous Waste	Used Engine Oil/ Batteries/ Waste paints/ Aerosol cans/ Paint thinners	Various	Choose an item.	
Construction	Office waste	Mixed Municipal Waste from site offices/canteen	20 03 01	Choose an item.	

9.8 Organisations which may be used to facilitate reuse

- **The National Community Wood Recycling Project**

www.communitywoodrecycling.org.uk

The National Community Wood Recycling Project (NCWRP) is a network of wood recycling social enterprises. The aim of the enterprise is to

- Save resources by rescuing and re-using waste timber that would otherwise by landfilled
- Create sustainable jobs, as well as training and volunteering opportunities, for local people – especially those who might find it difficult to get into or back to employment.

- **Recipro**

www.recipro-uk.com

Suppliers and contractors donate unwanted, surplus building materials to the Recipro social enterprise. The products are then sold on at hugely discounted rates. Customers range from charities to schools, churches to shops as well as the local community

- **Community Repaint**

www.communityrepaint.org.uk

Community Repaint is a network of paint reuse schemes across England, Scotland, Wales and Northern Ireland. The purpose of the scheme is to collect leftover reusable paint and redistribute it to those who need paint but cannot afford it.

- **International Synergies**

www.international-synergies.com

International Synergies can be utilised to identify any wastes which may have a value to other member companies with a view to third party re-use of these materials.

- **Reuse Network**

www.reuse-network.org.uk

Surplus furniture and household items can be donated for reuse through the Reuse Network. This is a national coordinating body for 300 furniture and appliance re-use and recycling organisations which exist across the UK.

Note - this list is non-exhaustive and may be added to as new opportunities are sought and implemented.

9.9 Waste Storage Arrangements

In line with best practice for the recycling of waste, we will segregate waste on site and to facilitate this, an appropriate number of waste handling and segregation areas will be set up. At these areas, waste streams will be segregated into separate skips and then removed to an approved material recycling facility. Each skip will be clearly labelled indicating type of waste contained within.

Figure 6: Waste Storage Arrangements

The segregation of skip wastes will be of the following types:

- Metal
- Packaging
- Timber
- Gypsum
- Inert
- Mixed (for all other wastes)

Additional skips and bins will also be provided for office derived waste including:

- Paper & Cardboard
- Plastic
- Cardboard
- Food waste

All skips utilised on site will:

- Prevent spillages or leakages
- Be corrosive resistant (to the weather elements)
- Will prevent scavenging from animals
- Prevent materials from being blown away

9.10 Office Waste Arrangements

Site offices and canteens often generate a significant quantity of wastes, many of which are recyclable. Opportunities should be sought to recycle as many of these items as possible and separate waste bins should be available in the site offices to facilitate collection of recyclables such as paper, cardboard, aluminium cans and plastic bottles. Site Operatives should be regularly reminded of the office/ canteen waste recycling procedures and bins should be labelled to assist in their correct usage.

Figure 7 - Office Waste Segregation

9.11 Duty of Care and Waste Transfer Procedures

Throughout construction of the Project, it will be ensured that all site staff, subcontractors and waste management contractors will act in accordance with all environmental legislation in relation to waste management. All movements of waste will be accompanied by waste transfer notes. GRAHAM site staff will ensure that the waste is described as accurately as possible and that the waste transfer note is signed by both the waste producer and the waste carrier. The waste carrier will hand over a copy of the note to a member of GRAHAM site staff prior to leaving the site.

- Waste Transfer Notes will be stored in Appendix 4.1 of this plan
- A log of each waste movement will be completed. This can be done via Onos or by using the GRAHAM waste log (REF:PF10-PR10-44-F009) and storing the log in appendix 4.4 of this plan

Only registered carriers of waste will be employed for transport purposes and copies of all waste management permits, licences and exemptions will also be obtained and held on site prior to any movement of waste taking place. For all waste transfers, GRAHAM will obtain a copy of the receipt, or a copy of the invoice, from the authorised disposal site as proof that the waste reached the proposed destination.

- Details of Waste Management Carriers for Transporting Waste (REF:PF10-PR10-44-F012) will be stored in Appendix 4.3 of this plan
- Details of Permitted, Licenced or Exempt Sites (REF:PF10-PR10-44-F011) will be stored in Appendix 4.2 of this plan

GRAHAM will retain all controlled waste transfer notes for a minimum of two years and hazardous waste transfer notes for a minimum of three years. Waste transfer notes will initially be retained on site and upon project completion will be transferred to a document store in head office. Each consignment of waste taken from the site will be subject to documentation, which will conform to the table below to ensure full traceability of the material to its final destination.

Waste Transfer Note Detail

1. State the name of the waste producer.
2. Signature of the waste producer.
3. Signature of the waste carrier.
4. A combination of:
   (i) a description of the waste (inert, non-hazardous or hazardous) and
   (ii) the relevant the European Waste Catalogue (EWC) code classification.
5. State the quantity of waste in cubic metres (m3).
6. How the waste is stored and any processes the waste has been through
7. State the name of the site where the waste is being created.
8. State the date and time that the waste was taken off site by the waste carrier.
9. State the name and address of the waste carrier.
10. Waste carrier licence number
11. State the name and address of where the waste is being taken to and the site licence/ permit or exemption
    number
12. State whether the waste carrier is the producer or carrier of the waste (in most cases it will be the latter).
13. Highlight on the waste transfer note the certificate number
14. Standard Industry code (SIC) of your business
15. Include a statement that you have applied the waste hierarchy

9.12 Waste Transfer Note Detail

Written Description of the Waste e.g. concrete, timber, mixed construction

European Waste Code (EWC) E.G.

17 09 04 Mixed Construction

The Standard Industry Classification (SIC) Code See list of common GRAHAM SIC Codes (section 9.13 of

Details of the place where the waste is transferred from the transferor (waste producer) to the transferee (carrier) this is the location the waste is being collected from

Date of the waste transfer (date or period the collection was made)

The Waste Carriers Registration Number

Duty of Care – Waste Transfer Note

PF10-PR10-44-F008

Project:

Section A – Description of Waste

1. Description of the waste being transferred: _____
2. European Waste Catalogue/ List of Waste Code [ ] [ ] [ ] e.g. 17 01 01
3. How is the waste contained?
   Loose ☐ Sacks ☐ Skip ☐ Drum ☐ Other ☐ *Please describe*
4. How much waste? For example, number of sacks, weight etc: _____

Section B – Current holder of the waste (Transferor)

By signing in section D below I confirm that I have fulfilled my duty to apply the waste hierarchy

1. Full Name: Graham Construction
2. Company name and address: Ballygowan Road, Hillsborough, BT26 6HX
3. SIC code (2007):
4. Which of the following are you: (*Please tick one or more boxes*)
   Producer of the Waste ☐ Importer of the Waste ☐ Registered Waste Carrier ☐
5. Please state how has the waste been treated:
   Segregation/ separate collection/ screening/ hand picking (*Delete as appropriate*)
6. If treatment has not been carried out please state why this is not considered necessary. (E.g. The waste is inert waste which cannot be treated because it is not technically feasible to do so): _____

Section C – Person collecting the waste (Transferee)

1. Full Name: _____
2. Company name and address: _____
3. Which of the following are you?

	Tick	*Licence/ permit number*	*Expiry date*
Holder of a valid exemption		N/A	N/A
A registered waste carrier/ broker/ dealer			

Section D – The Transfer

1. Address of transfer/collection point (*SITE*): _____
2. Date of transfer: _____
   (*For multiple consignments/ "Season Tickets" give "between" dates*)
3. Time(s) of transfer: _____
4. Destination of Waste, give address: _____
5. Destination of Waste, give licence/ permit number: _____
6. Name and address of broker who arranged this waste transfer (*if applicable*): _____

Transferor's signature	**Transferee's signature**
Print Name: _____	Print Name: _____
Representing: _____	Representing: _____

Details of the container and the quantity of waste Skip, size, Volume or weight and whether waste is in bags,

The Waste Hierarchy Declaration confirming that the waste producer has considered prevention, reuse, recycle, recover and disposal in that order

Details of the person transferring the waste (transferor) this is usually the waste producer – GRAHAM. If subcontractors are arranging waste disposal it may be

Details of the person the waste is being transferred to (the transferee) this is the waste carrier e.g. skip company, haulage contractor, road

Destination details including permit or exemption reference for that facility GRAHAM requirement for waste destination to be on the waste transfer note

Signatures of the transferee (waste producer) and the transferor (waste Carrier) both signatures are needed on all WTN

Note: Legible copies of waste transfer notes must be available at all times and must be kept for two years from the date of the waste collection

9.13 UK SIC CODES - Excerpts from UK Standard Industrial Classification of Economic Activities

Section F Construction

41100	Development of building projects
Common SIC CODES for GRAHAM operations	
41201	**Construction of commercial buildings**
41202	**Construction of domestic buildings**
42110	**Construction of roads and motorways**
42120	**Construction of railways and underground railways**
42130	**Construction of bridges and tunnels**
42210	**Construction of utility projects for fluids**
42220	Construction of utility projects for electricity and telecommunications
42910	Construction of water projects
42990	Construction of other civil engineering projects
43110	Demolition
43120	Site preparation
43130	Test drilling and boring
43210	Electrical installation
43220	Plumbing, heat and air-conditioning installation
43290	Other construction installation
43310	Plastering
43320	Joinery installation
43330	Floor and wall covering
43341	Painting
43342	Glazing
43390	Other building completion and finishing
43910	Roofing activities
43991	Scaffold erection
43999	Other specialised construction activities

Short Enforcement Guide

- You will be committing an offence, if you give waste to an unregistered waste carrier
- You will be committing an offence, if you do not have valid waste transfer notes and or consignment notes for the movement of waste
- You will be committing an offence, if you transport waste and you are not registered to do so
- You will be committing an offence, if you transport waste and do not have a complete waste transfer note with you
- You will be committing an offence, if you accept waste without holding the relevant waste authorisation
- You will be committing an offence, if you keep, treat or dispose of waste without the relevant waste authorisation

9.14 Minimisation of Hazardous Waste

Hazardous Waste Minimisation

Eliminating the use of hazardous materials will eliminate the generation of hazardous waste from these products. Therefore, it is important that designers and architects are involved in any plan to reduce hazardous waste as they may specify materials which we (as a contractor) are bound by. However, GRAHAM also have an element of choice in the products we purchase, and we also have further opportunities to reduce the amount of hazardous waste produced through better handling, segregation and identification of re-use and recycling options.

The following table is a list of potential opportunities that may be applied to the construction project in order to reduce the generation.

Hazardous waste management/ minimisation measures				
	Material	***Measure***	***Indicative Cost***	***Anticipated Benefits***
1.	Solvents	Purchase only low-VOC paints, solvents and adhesives	Low	Reduced VOC emissions to atmospheres, less residual solvent in containers, easier disposal
2.	Various	Brief all site workers on likely hazardous wastes. Identify and clearly mark recovery & disposal storage arrangements	Low	Less cross-contamination, increased hazardous waste segregation, raised levels of awareness, reduced disposal costs
3.	Paints & Solvent	Increase level of accountability for hazardous materials – single point of issue, with nominated person responsible	Low	Less hazardous raw materials used, greater accountability and control/understanding of material usage (benchmarking).
4.	Packaging	Clean and sort packaging to reduce hazardous component prior to disposal	Low - Medium	Reduced volume of packaging being consigned as hazardous (disposal costs reduced)
5.	Treated wood	Reduce disposal of treated waste wood to landfill – minimise off-cuts and increase re-use where applicable.	Low - Medium	Increased level of beneficial wood re-use (or energy recovery), reduced landfill, potential future revenue source
6.	Oils, fuels & lubricants	Ensure all materials are stored in bunded areas and allocate central accountancy for oil wastes	Low - Medium	Reduce the frequency of spills to ground, increase collection of waste oils/rags.

9.15 Typical Hazardous Outputs

Storage of Hazardous Wastes

All Hazardous waste streams will be stored separately from other Hazardous wastes and will be stored separately from controlled waste in secure and labelled containers.

Typical Hazardous Waste Streams

Typical hazardous waste streams occurring on site will include

Activities	Hazardous Inputs	Hazardous Outputs
Site clearance and demolition	N/A	Asbestos, treated wood, electrical and electronic items containing hazardous components (including cables and switches); refrigerants and foams; drums of hazardous materials, potentially fly-tipped hazardous materials
Excavation	N/A	Potentially contaminated soils, asphalt containing tar products from paving and driveways
General construction works (including cementing, grouting etc.)	Grout, cement, resins, hardeners, various COSHH materials	Spent resins and hardeners, concrete and grout wash-out, un-set cement/grout, contaminated shuttering, spent COSHH materials and contaminated packaging
Building installation (e.g. electrical wiring and fittings, insulation, plumbing)	Fluorescent tubes/bulbs, electrical and electronic equipment and cabling	Spent fluorescent tubes and bulbs, off-cuts of electrical wiring etc.
Floor and wall covering (including plastering)	Adhesives, solvents, coatings, polishes, varnishes, resins, treated wood, plasterboard	Spent coatings and adhesives, empty containers containing residue, contaminated packaging, spent solvents, asbestos, plasterboard off-cuts, plaster washout
Painting (including paint preparation)	Solvent-based paints, paint thinners, enamels, lacquers, epoxies, primers, acrylics, brush cleaners	Spent solvent-based paints, empty solvent-based paint tins containing residue, spent solvent cleaners
Asphalting (roofing, paving)	Asphalt	Unused asphalt containing tar products, contaminated containers and equipment
General maintenance and power generation	Oils, greases, degreasers, batteries	Oily rags, oil filters etc. from maintenance of plant and machinery; waste oil; spent batteries; greases and lubricants; spent COSHH materials; oil contaminated absorbent spill material; contaminated PPE; oil contaminated water from bunds etc.

9.16 Management of Hazardous Waste

How to determine if waste is Hazardous

To determine whether waste is hazardous or not, the European List of Wastes (LoW) should be consulted. Within the LoW, Hazardous Waste is classified as "Absolute, Mirror or Non-Hazardous". Absolute (A*) is considered hazardous irrespective of the concentration of levels of dangerous substances present. A Mirror entry (*) can be either hazardous or not, depending on whether it contains certain levels of "*dangerous substances*".

Unexpected discovery of Hazardous Waste

Unexpected hazardous waste not previously anticipated will be identified as early as possible into the duration of the project. Appropriate facilities and remediation or disposal arrangements will be made at the earliest possible opportunity. Examples of unexpected hazardous wastes include discovery of contaminated land.

Moving and Transporting Hazardous Waste

Hazardous wastes must be:

- Transported by a registered or exempt waste carrier
- Accompanied by a consignment note
- Transferred to a facility that holds a suitable environmental permit or pollution prevention and control (PPC) permit

Consignment Notes

A consignment note should be completed every time hazardous waste is removed from the site. The consignment note will then accompany the hazardous waste whilst it is being moved or transferred. In line with our legal requirements copies of completed hazardous waste consignment notes should be kept for three years.

Consignment notes can be purchased/ obtained from the relevant statutory authority. The type of consignment note you need to complete depends on how and where the waste is transported. You can use single or multiple collection forms.

Pre-notification/ Premise Registration

<Add in project specifics – DELETE TEXT FOR REGIONS NOT REQUIRED>

<u>ENGLAND</u>

A Consignment Note must accompany all movements of hazardous waste. The CN contains more information than a standard Waste Transfer Note and should be retained for 3 years. There is no requirement to pre-notify the regulator of such waste movements.

<u>SCOTLAND / NORTHERN IRELAND</u>

You must pre-notify the relevant regulatory authority at least three clear working days and not more than one month before any hazardous waste leaves your site. You do this by filling in the pre-notification form within the consignment note.

<u>WALES</u>

Where the site will be producing more than 500kg of waste per annum, the premises (or site) needs to be registered with Natural Resources Wales. Registration can be carried out online, by paper or on the phone and costs £18.00. Once registered you will receive a unique "premises code" which is valid for 12 months from the date of registration. If hazardous waste continues to be produced or removed from the premises (or site) after the expiry, then the premises code must be renewed.

9.17 Hazardous Waste Consignment Note Detail

Consignment Note Code Unique code generated by the waste producer

Details of the waste destination the receiving waste facility must hold a permit that allows it to accept the hazardous

Details of the site the waste is being collected from GRAHAM site /

The Standard Industry Classification (SIC) Code Construction: 41.20

Demolition 43.11

European Waste Code (EWC) 17 03 01* bituminous mixtures containing coal tar

17 05 03* soil and stones containing hazardous substances 17 06 01* Insulation containing asbestos 17 06 05* construction materials containing asbestos 13 05 03* interceptor sludges 13 05 07* oily water from oil / water separators 13 07 01* fuel oil and diesel 160601*lead batteries 20 01 21* fluorescent tubes 20 01 27*

The Hazardous Property (HP) code and or indentity of Persistent Organic Pollutant (POP) (COSHH Assessment)

H1 – Explosive

H2 – Oxidising

H3 – Flammable

Details of the container and the quantity of waste

Details of the person transferring the waste (consignor)

This is usually the waste producer, GRAHAM or a subcontractor if they have arranged the waste collection.

Details of the waste carrier including the carrier registration number and vehicle registration number must be signed and dated by the waste carrier

The Hazardous Waste Regulations 2005: Consignment Note

Environment Agency

PRODUCER'S/HOLDER'S/CONSIGNOR'S COPY (Delete as appropriate)

PART A Notification details

1 Consignment note code: /

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):

3 The waste will be taken to (name, address and postcode):

4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):

PART B Description of the waste If continuation sheet used, tick here ☐

1 The process giving rise to the waste(s) was:

2 SIC (2007) for the process giving rise to the waste: /

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are: /

1 Carrier name:

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

2 Carrier registration no./reason for exemption:

3 Vehicle registration no. (or mode of transport, if not road):

Signature

Date D D M M Y Y Y Y Time H H M M

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

1 Consignor name:

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Signature

Date D D M M Y Y Y Y Time H H M M

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)

1 I received this waste at the address given in A3 on: Date D D M M Y Y Y Y Time H H M M

2 Vehicle registration no. (or mode of transport if not road):

3 Where waste is rejected please provide details:

Name:

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

I certify that waste permit/exempt waste operation number:

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

Signature

Date D D M M Y Y Y Y Time H H M M

Note: A copy of the HWCN must be taken when the waste is removed and a further copy with Part E signed must be obtained. Part E is signed by the waste facility when they receive the waste from the carrier. The final copy with Part E must be obtained from the waste carrier and returned to GRAHAM. Legible copies of hazardous waste consignment notes must be available on site and must be kept for three years from the date of the waste collection.

Confirmation that the waste facility has received the waste from the carrier. A copy of the HWCN with this section signed by the waste facility must be obtained within 3 months

9.18 Training

Everyone on site will receive training which will include the following waste and environmental issues:

- The Site Waste and Resource Management Plan
- Roles and responsibilities
- Waste procedures on site – including segregation, recycling, reuse and return methods
- Hazardous waste
- Duty of care/ responsibilities
- Materials storage and handling

Waste and environmental training on site will consist of:

- Induction training will incorporate a section on waste management on site
- Toolbox talks will be carried out on waste issues and all site operatives and subcontractors will be expected to attend
- Various employees attend workshops and seminars delivered by External providers such as WRAP in order to further advance knowledge and best practice in relation to waste issues.
- A training course for the elected "Site Environmental Champion" is delivered in house to relevant operatives by the Environmental Manager.

Communication:

- Communication of the progress of the SWRMP is carried out during monthly progress meetings involving site staff, senior management, and the client
- Posters are displayed throughout the site to ensure that everyone is aware of the importance of the Site Waste and Resource Management Plan and adheres to the site waste management procedures

Figure 8 - Posters

9.19 Subcontractor Requirements

All Subcontractors are required to fulfil the following responsibilities in relation to waste management:

- Provide to the project team a forecast of the key waste streams that you will create and an identification of what actions you plan to take to reduce waste.
- Minimise the use of materials and the production of waste through, efficient design, handling, transportation, stock control, the use of prefabricated / pre-sized materials, minimise packaging and efficient construction techniques.
- Segregate waste, use specific waste containers and waste management areas.
- Fulfil all statutory waste handling requirements such as Duty of Care Regulations
- Manage the collection, storage, segregation and treatment/disposal of the different types of waste you produce

In addition, a small number of subcontract work packages may be **responsible for the disposal of their own waste.** Where this is the case, the Site Team will ensure that these Subcontractors undertake the following responsibilities:

- Complete the "Expectations for removal of Excavated Material from Site by a Sub-Contractor" form (REF: PF10-PR10-44-F007)
- Provide the waste carriers licence (collection permit in ROI) for the haulier removing the waste
- Provide the waste management licence /permit/ exemption certificate or permit for the site receiving the waste
- Provide any other relevant licence / permit / exemption such as that required for reprocessing or waste storage
- Provide a monthly report (using the standard GRAHAM format) with the quantities of the different types of waste removed from site. This must be provided with the split of each different type of waste managed, according to waste management method – re-use, recycling, recovery, landfill and other, and, in the case of re-use, recycling and recovery, whether this has taken place on- or off- site; and the quantity of waste materials sent to landfill.

9.20 Management of Subcontractors

Illustration of Type A and Type B Subcontractors

The nature of Subcontractor work activities will assist in determining whether a Subcontractor should be responsible for their own wastes (as illustrated below). This arrangement can only be finalised following receipt of relevant documentation illustrated below. Where relevant documentation has not been provided, GRAHAM will arrange the waste removal and contra-charge the Subcontractor as appropriate.

Site Activity/ Sub-contractor Work Package	Primary Waste Stream	Waste Management Responsibility
Demolition and site clearance	Hardcore, spoil, timber, plastics	**Type A Subcontractor** Subcontractor has full responsibility for their own waste and must collect, store, segregate and dispose of all waste materials in accordance with industry best practice and current legislation. **MUST** provide the Site Team with copies of the following for all waste leaving the site: • Waste Carriers Licences • Waste Management Licences/ permits • Waste Exemption Certificates • Waste Transfer Notes • Hazardous/ Special Waste Consignment Notes • Monthly figures of all waste removed from site to include type of material, total quantity of waste, waste management option i.e. landfill, reuse, recycling and the percentage of each waste material recycled or reused.
Groundworks	Spoil	
Foundations/piling	Spoil and hardcore	
Structure	Bulk concrete, miscellaneous hardcore & metal	
Drylining	Plasterboard, metal studwork and insulation off cuts	
Brick/ blockwork	Bricks (crushed and incorporated into works)	
Building envelope	Timber, plastic, cardboard, hardcore/ rubble, Metal, Hazardous Waste	**Type B Subcontractor** Waste Management Contractor has responsibility for overall waste management and removal of waste from site. Individual subcontractors have local responsibility for segregation and distribution of waste on site to the waste compound.
Mechanical & Electrical	Cables, metal, timber, plastic, cardboard, plastic packaging, Hazardous waste	
Trades (Joinery, Painting, Timber, cardboard, plastic packaging, Plastering, etc.)	Timber, paint, renders, cardboard, plastic packaging, Hazardous waste	
Landscaping habitat restoration/creation	Green waste and Topsoil	
Site re-instatement, removal of site offices and final clear away	Timber, hardcore, metal, office waste	
Office activities	Paper, cardboard, plastic packaging, general office waste	

9.21 Waste Management Supplier Requirements

To actively help achieve the waste reduction, reuse and recycling targets that have been set out for the project, requirements for Waste Management Suppliers are as follows:

- Agreement to work in accordance with GRAHAM Waste Supplier KPIs
- Fulfil all statutory waste handling requirements.
- Work with the project team to plan and implement suitable on-site waste management processes
- Monthly waste analysis reports to be made available to the GRAHAM site team by the 3rd of each month
- The tonnage of each waste material must be recorded within the waste report and the percentage recovery rates for each material illustrated.
- Waste log to be made available to the GRAHAM site team by the 3rd of each month
- Facilitate site visits/ audits by GRAHAM where requested
- GRAHAM are to be informed immediately of any changes to the operator's conditions, licence suspensions or pending prosecutions
- Delivery of at least 99% diversion of non-hazardous waste from landfill
- Contribute to the development and implementation of the Site Waste and Resource Management Plan as required.

GRAHAM Approved/ Preferred List of Waste Management Suppliers

The GRAHAM SHE team maintain a list of approved/ preferred Waste Management Contractors. Suppliers not on the "approved/ preferred and unapproved list" will be asked to complete the "Waste Management Supplier Pre-Appointment Assessment" (Appendix 1.3 – REF: PF10-PR10-44-F0010). The returned information will be forwarded to the SHE Team to review details and ensure that the supplier meets relevant GRAHAM environmental requirements.

Reporting and Documentation

The Waste Management Contractor shall provide the following information:

- Waste Transfer Notes and Hazardous Waste Consignment Notes.
- Copies of the Carriers Licence for all carriers used.
- Copies of the Waste Management Licences / Permits (or exemptions) for all destinations of waste.
- A register of containers logged.

On a monthly basis the Waste Management Contractor will supply the following information:

- The quantity (weight) of waste produced for each waste type together with the destination of that waste (reused, recycled, land filled, etc.).
- Recommendations for improved waste management/minimisation.

9.22 Waste Monitoring and Reporting

Waste quantities and data should be recorded within the waste management section of Onos. Data should be uploaded each month by the 5th of the month.

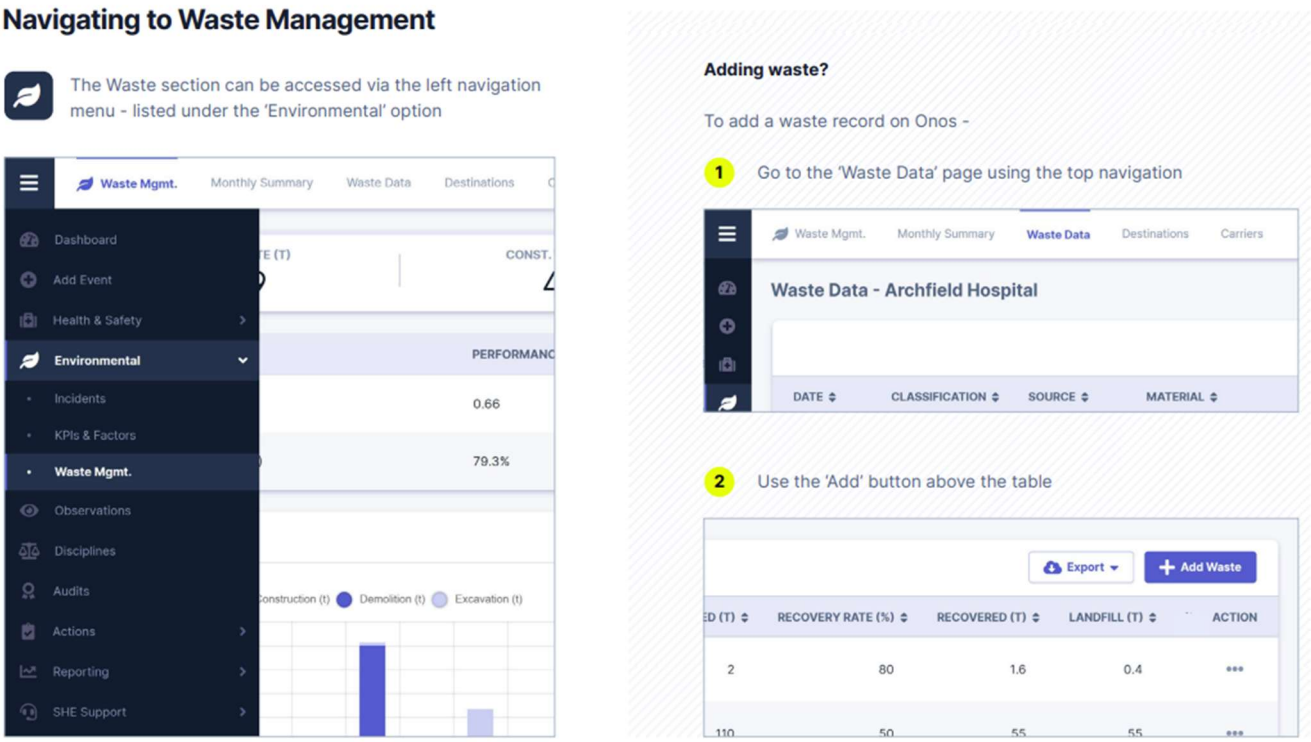


Figure 9 - Onos (waste section)

Use Onos to input project waste data. The software will automatically calculate the total waste, and waste to landfill.

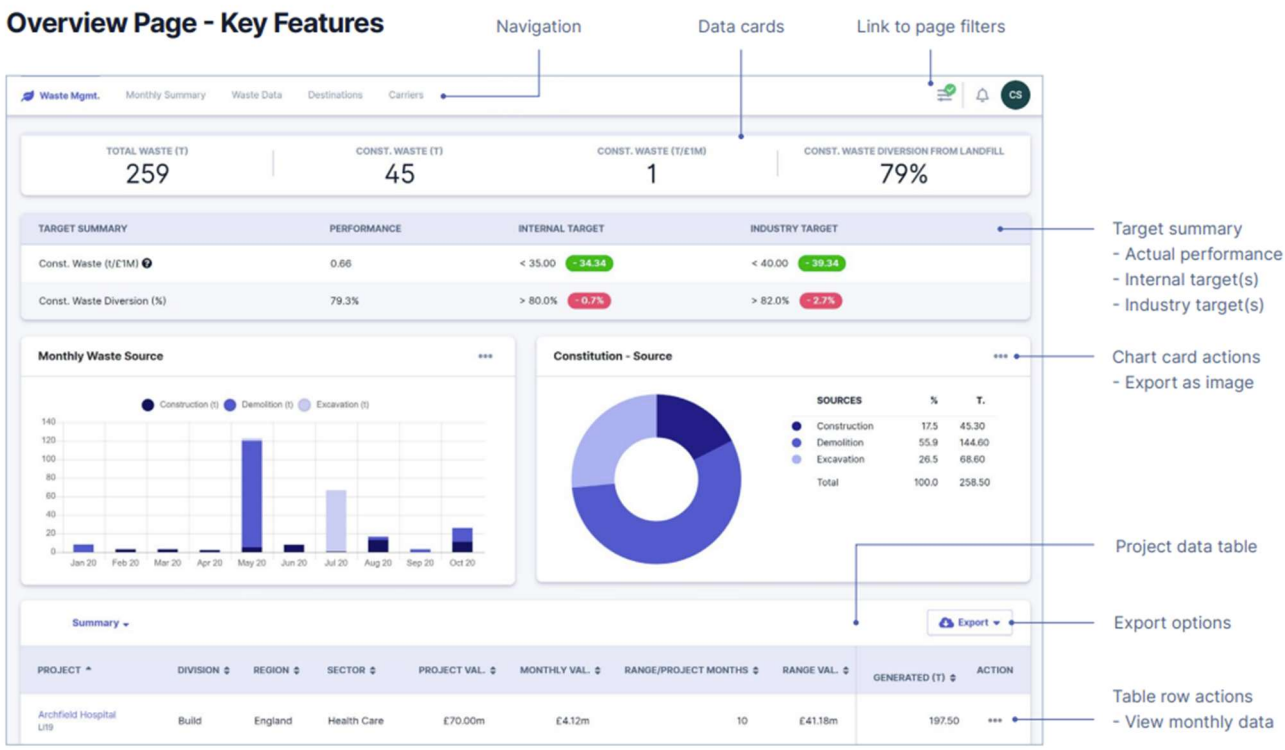


Figure 10: Onos (overview)

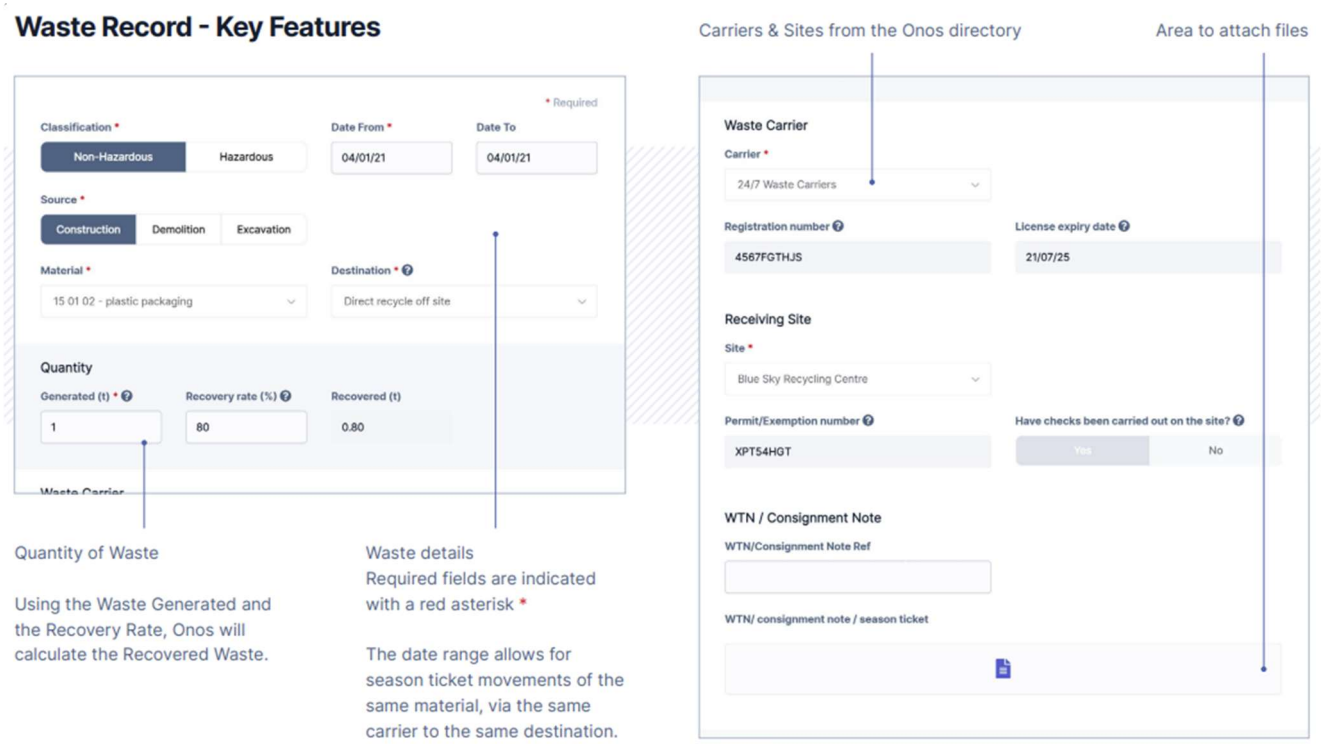


Figure 11: Onos (Waste Records)

Waste Types Included in the Measurement

- Record ALL construction, demolition and excavation wastes – including that generated by subcontractors (where this is part of the main contact of works)
- Record wastes in Tonnes only. Volumes of waste should be converted using standardised conversion factors
- For skip wastes – find out from your waste management contractor, the total tonnage of waste generated and the percentage that has been recycled and record this within the spreadsheet
- Record ALL reuse of wastes on site e.g. reuse of topsoil in landscaping

Note:

- Guidance from the Department of Communities and Local Government identified that List of Waste **17 05 04 (soil and stones not containing dangerous substances)** is non-exempt and when sent to landfill should be allocated a 50% recovery rate. All sites should therefore ensure that where excavation waste classified under European Waste Code 17 05 04 is taken to landfill, that it is allocated a 50% recovery rate.
- Where EWC 17 05 04 is "beneficially reused" e.g. used as capping as part of a landfill closure or restoration or sent to an "exempt" site, it should be allocated a 100% recovery rate.

g) Measures for controlling the use of site lighting whether required for safe working or for security purposes

Technical Measures and Equipment

- **Directional lighting:** Angle all lights, especially floodlights, downward to illuminate the target area and prevent light from shining into windows or above the horizontal plane (main beam angle should ideally be kept below 70° from the vertical).

- **Shields and louvres:** Fit lights with shields, hoods, or internal louvres to control and limit light spill and glare.
- **Appropriate light intensity:** Use the minimum necessary light intensity (lux levels) for the task at hand. Avoid excessively bright lights; for example, a 150W halogen lamp is often sufficient where 300W or 500W might be used unnecessarily.
- **Warm colour temperature:** Opt for "warmer" colour temperatures (around 2700K to 3000K) as they are less disruptive to human sleep patterns and wildlife than white lights with high blue content.
- **Low-height fixtures:** Install lighting fixtures at the lowest possible height to cover the necessary area, as this increases the scope for directing light downward and reduces light spill.

Operational and Management Controls

- **Use sensors and timers:** Control when lights are on using Passive Infra-Red (PIR) sensors or timers to ensure lights are only active when needed for work or security. Turn off lights when the site is closed or activity is low (e.g., after midnight).
- **Task-specific lighting:** Employ low-level, task-specific lighting, such as handheld or head-torches, for specific operations rather than illuminating large areas unnecessarily.
- **Regular maintenance:** Regularly inspect and maintain all lighting fixtures to ensure they remain correctly aimed and are functioning efficiently.
- **Use the 'best practicable means' defence:** In the UK, if a complaint is made, using the "best practicable means" to avoid the nuisance can be a defence against legal action. Document all the measures taken to demonstrate due diligence.

h) Required measures to control the emission of dust, dirt and other airborne pollutants during demolitionand construction

SECTION 6.0 Dust and Air Quality Management Plan

Guidance Notes:

This section contains details of the steps required in order to ensure best practice with regard to the protection of air quality and dust prevention

6.1 Dust and Air Quality Issues
6.2 Site Conditions
6.3 Monitoring Protocols
6.4 Records of details and action taken in response to exceptional incidents or dust-causing episodes
6.5 Dust and Air Pollution Mitigation Measures

6.1. Dust and Air Quality Issues

Dust and air pollution, including odours, can cause nuisance affecting properties. In addition, there are statutory objectives in relation to nitrogen dioxide (NO2) and fine particulate matter (PM10) which have known health impacts.

Section 79 of the Environmental Protection Act 1990 defines a number of factors relating to dust and air pollution which constitute a statutory nuisance. This includes:

- Smoke emitted from premises so as to be prejudicial to health or a nuisance
- Fumes or gases emitted from premises so as to be prejudicial to health or a nuisance
- Any dust, steam, smell or other effluvia arising on industrial, trade or business premise and being prejudicial to health or a nuisance
- Any accumulation or deposit which is prejudicial to health or a nuisance

Our objective is to carry out the works in such a way that emissions of dust and other air pollutants including odour are limited and to use best practicable means to avoid the creation of nuisance.

6.2. Site Conditions

Summary of work activities that may give rise to dust and air pollution

- Construction plant and vehicles
- Transportation and storage of materials
- Excavations and earthworks
- Operation of the construction site or undertaking construction activities which results in odours being generated from, for example, smoke, fumes or gases.

Summary of receptors relevant to the works

- The public adjacent to the construction site
- Site workers

There are no dust sensitive ecological habitats in the vicinity of the Site (within 50m of the Site boundary or within 50m of the routes used by construction vehicles up to 500m from the site entrance) therefore an assessment of the impacts on ecological receptors has not been considered further.

The risk of dust impacts prior to mitigation for each emission source has been assessed by Entran in August 2022 as follows.

Source	Impact Magnitude	Human Health Risk	Dust Soiling Risk
Earthworks	Small	Low	Medium
Construction	Small	Low	Medium
Trackout	Medium	Low	Medium

Demolition has been completed at the Site. The impacts of dust and particulate matter arising from the demolition works have therefore been excluded from this assessment.

Overall, the Proposed Development is considered to be a medium risk of dust impacts, and a low risk to human health from particulate matter concentrations at nearby receptors during the construction phase.

6.3. Monitoring Protocols

The inspection and monitoring procedures to be implemented to monitor the effectiveness of measures to prevent dust and air pollutant emissions and to avoid detrimental effects on the health of workers or nuisance to sensitive receptors due to exposure to dust and air pollution are as follows:

- Daily inspection of areas adjacent to the construction site to monitor any dust and air pollution which may be generated despite the use of best practicable means to prevent dust and air quality emissions.
- Daily inspection of construction vehicles, plant and machinery.
- Daily inspection of the level of trafficking, use and condition of access routes to site.

Should inspections show a nuisance arising, work will be stopped until prevention and remediation measures are implemented.

6.4. Records of details and action taken in response to exceptional incidents or dust-causing episodes

Records will be made within the site diary where action was taken in response to exceptional incidents or dust-causing episodes.

Full details of any complaints in relation to dust will be recorded by the Site Management Team on Onos. The complaints log (recorded on Onos) will be available for Reading Borough Council as required.

6.5. Dust and Air Pollution Mitigation Measures

GENERAL

- The GRAHAM Site Management Team will use best practicable means to prevent nuisance as a result of dust through design and different work methods
- The name and contact details of the Project Manager, who is responsible for air quality and dust issues, will be displayed on the site boundary, along with contact information for the GRAHAM London Office
- Site operatives will receive training as part of site induction, toolbox talks and through communication of relevant environmental risk assessments and method statements
- The site will be laid out such that machinery and dust-causing activities will be located away from sensitive receptors, where reasonably practicable
- Hoardings and other barriers will be erected along the site boundary, to mitigate the spread of dust to any sensitive buildings or other environmental receptors

CONSTRUCTION PLANT AND VEHICLES

- Construction plant will be operated in accordance with the manufacturer's written recommendations
- All vehicles and plant will be switched off when not in use – NO IDLING
- Vehicle and construction plant exhausts will be directed away from the ground where possible and be positioned at a height to facilitate appropriate dispersal of exhaust emissions
- Enclosing, shielding or provision of filters on plant likely to generate excessive quantities of dust beyond the site boundaries will be employed
- The movement of construction traffic around the site will be kept to the minimum reasonable for the effective and efficient operation of the site and construction of the Project
- Construction plant will be located away from site boundaries which are close to sensitive receptors where reasonable and practicable
- We will avoid use of diesel or petrol powered generators by using mains electricity or battery powered equipment where reasonable and practicable
- We will keep vehicle, plant and equipment maintenance records on site and these will be made available to the Employer's Representative upon request

TRAFFIC/ ACCESS ROUTES

Due to the tight logistics on site. Public transport, car sharing and off-site parking will be promoted.

- A Green Travel Plan that supports and encourages sustainable travel will be implemented
- Inspection of vehicle movement area site conditions will be undertaken by the Site Manager
- Delivery drivers will be made aware of site restrictions
- Vehicle speeds will be restricted to 10m/h to prevent high levels of dust being released
- Vehicles either delivering or removing material from Site, which have a dust potential, will be covered with tarpaulin or the like to minimise the release of dust

TRAFFIC IMPACTS ON PUBLIC ROADS

- A Construction Logistics Plan has been produced to manage the sustainable delivery of goods and materials
- Vehicle wheel washing facilities will be provided and there will be a road sweeper on hand at the site to clear up any material deposited on the public highway by vehicles accessing/egressing the site and site compounds.
- Public roads outside of the site will be regularly inspected for cleanliness and cleaned as necessary
- Site Management will liaise with relevant authorities regarding any road or lane closures
- Delivery drivers to adhere to public road restrictions.
- Neighbours will be advised of unusual traffic movements (e.g., concrete wagons for continuous large concrete pours/ abnormal loads etc.)

i) Provisions to be made for the control of noise coming from the site during demolition and construction;

SECTION 7.0 Noise and Vibration Management Plan

Guidance Notes:

Details of control measures in respect of noise and vibration are contained within this section.

7.1 Noise and Vibration Issues
7.2 Site Conditions
7.3 Noise Control Measures (General)
7.4 Operating Hours
7.5 Establishment of Baseline Conditions
7.6 Noise Monitoring Plan
7.7 Liaison with the Local Community during the Contract
7.8 Establishment of Working Relationship with the Local Authority
7.9 Section 61 of the Control of Pollution Act (COPA), 1974
7.10 Programming of Works
7.11 Distancing from Sensitive Receptors
7.12 Plant and Equipment
7.13 Traffic Noise during Construction
7.14 Noise Screening
7.15 Vibration

7.1. Noise and Vibration Issues

Excessive noise and vibration on site not only represents a major hazard to site workers but it can also annoy neighbours and in some cases disturb adjacent wildlife. Best practice will therefore be implemented in order to minimise noise and vibration and comply with the contents and recommendations of the "Code of Practice for Noise Control on Construction and Open sites" (BS5228-1: 2009+A1:2014).

7.2. Site Conditions

Details of baseline surveys

Environmental noise surveys were undertaken between 27th April and 5th May 2021 to determine the prevailing noise levels around the site.

Long-term noise monitoring equipment was located on east and southern boundaries of the site at a height of approximately 2 m above local grade level.

- Location 1 - Eastern corner of the site, overlooking Bedford Road
- Location 2 - Southern part of the site, overlooking Oxford Road

Date	**Daytime (07:00 – 23:00) dB L_{Aeq}, 16 hour**	**NightTime (23:00 – 07:00)**	
		dB L_{Aeq}, 8 hour	**dB L_{Amax}, f (typical)**
Tuesday 27/04/21	65	59	74
Wednesday 28/04/21	68	60	71
Thursday 29/04/21	66	58	72
Friday 30/04/2021	65	59	75
Saturday 01/05/21	65	58	70
Sunday 02/05/21	65	57	73
Monday 03/05/21	66	60	74
Tuesday 04/05/21	65	58	71
Representative	**66**	**59**	**72**

Ambient noise levels at Location 1 (Eastern Boundary)

Date	Daytime (07:00 – 23:00) dB L_{Aeq}, 16 hour	NightTime (23:00 – 07:00)	
		dB L_{Aeq}, 8 hour	dB L_{Amax}, f (typical)
Tuesday 27/04/21	66	61	76
Wednesday 28/04/21	68	62	77
Thursday 29/04/21	66	61	76
Friday 30/04/2021	68	61	77
Saturday 01/05/21	67	61	75
Sunday 02/05/21	66	62	76
Monday 03/05/21	68	63	79
Tuesday 04/05/21	67	-	-
Representative	**67**	**62**	**76**

Ambient noise levels at Location 2 (Southern Boundary)

- Location 3 – Overlooking Battle Street (Northern Boundary)

Additional short-term noise measurements were undertaken at the northern boundary of the site at an approximate height of 1.5 m. Ambient noise levels at this location were in the order of 55 dB LAeq, 30 mins during the daytime.

From the results of the noise survey, the background noise levels representative of the nearest noise sensitive residential receptors to the site are:

- Daytime (07:00 to 23:00 hours): 48 dB LA90, 1 hour
- Night-time (23:00 to 07:00 hours): 33 dB LA90, 15 mins

Project: Battle Street, Reading	**Title:** Aerial View and Measurement Locations	24Acoustics
DWG No: Figure 1	**Scale:** N.T.S.	**Rev:** 0
Date: July 2022	**Drawn By:** MH	**Job No:** 8986

The dominant noise source at both long-term noise measurement locations was road noise, from Bedford Road affecting Location 1 and from Oxford Road affecting Location 2.

Details of noise and vibration receptors

The key noise and vibration sensitive residential receptors are the residential properties on Battle St, George Street and Bedford Road. With mainly commercial properties on Oxford Road.

<Insert details of construction noise impact criteria>

<Insert details of possible noise and vibration impacts and assessment>

E.G

The Main Noise and Vibration sources relevant to the works are:

- Construction Noise
- Construction Traffic Noise
- Construction Vibration

According to xxx the Noise effects during construction are not considered to be significant

7.3. Noise Control Measures (General)

No part of the works will be carried out in such a manner as to cause unnecessary noise except in cases of an emergency when the work is absolutely necessary for the saving of life or property or the safety of the works.

All operatives will receive training and advice on noise minimisation and general good site practice through site-specific training and briefings.

7.4. Operating Hours

The working hours on this project are restricted to:

0800 to 16.00 Mon to Fri

0800 to 13.00 Sat

No working on Sunday or bank holidays.

These hours are set out within planning requirements and will be strictly adhered to.

Prior agreement will be sought from both the Local Authority and the client if occasions arise where it is necessary to work beyond these times.

Working hours and contact details will be displayed on external site hoarding using the environmental noise information poster.

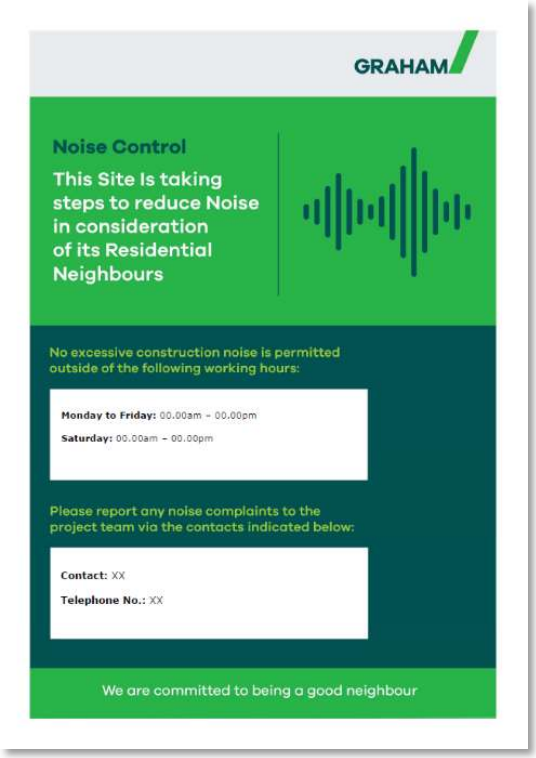


Figure 12 - Noise Control Poster

7.5. Establishment of Baseline Conditions

Prior to work commencing the site team will ensure that baseline noise measurements have been taken in order to understand the dominant noise sources and extent in the vicinity of the site area. The location of key noise and vibration sensitive residential receptors will also be identified.

7.6. Noise Monitoring Plan

A Noise Monitoring Plan will be drawn up prior to construction commencing. This will detail the predicted noise levels as a result of construction activities and will specify the typical noise levels of construction plant intended for use. This will be set against appropriate construction noise impact criteria. Anticipated noise monitoring positions will also be set out.

Mitigation measures will be undertaken if the results of noise monitoring indicate that excessive noise impacts are arising from the activities associated with the works.

7.7. Liaison with the Local Community during the Contract

The effect of noise and vibration on nearby sensitive receptors will be minimised through a good communication strategy. Prior to works being undertaken, consultation with occupiers of sensitive receptors that may be adversely affected by construction noise and vibration will be undertaken. We will provide information of construction works and notice of when high noise and/or vibration generating activities are taking place. It is intended that this will increase the tolerance of receptors and thus minimising adverse effects. All communications will contain contact details to direct any questions or complaints to.

7.8. Establishment of working relationship with the Local Authority

The site team will make contact with the local authority at the earliest opportunity. Agreement with the local authority will be sought on appropriate controls for undertaking significantly noisy works close to receptors.

7.9. Section 61 of the Control of Pollution Act (COPA), 1974

Consideration will be given to the merit in applying to the local authority for a section 61 prior consent. Section 61 is in effect an agreement between the developer and the local authority which allows a reasonable level of noise to occur. This offers protection from any subsequent action by the local authority under section 60 or 66 of COPA or under the Environmental Protection Act to impose further controls on noise from the site. It also allows the local authority to (a) Attach any conditions (b) Limit or qualify a consent to allow for any change in circumstances (c) Limit the duration of a consent. Any person who knowingly carries out the works, or permits the works to be carried out, in contravention of any conditions attached to the Prior Consent will be guilty of an offence.

Section 61 to be applied for using online form on Reading Borough Council website.

7.10. Programming of Works

Information will be sought from the community concerning sensitive periods so works can be planned to occur outside these times.

7.11. Distancing from Sensitive Receptors

- Noisy work activities will be planned in order to maximise the distance from the noise source to sensitive receptors
- Work compounds will be laid out so that access and loading areas are located as far away from sensitive neighbours as practicably possible
- Shouting and raised voices will be kept to a minimum. The use of tannoys and radios will be prohibited within close proximity of sensitive residential receptors.

7.12. Plant and Equipment

- Modern installation techniques will be adopted that utilise high frequency pile drivers which significantly limit noise and vibration. Pile dampers will also be utilised.
- Selection of equipment will be carried out with the objective of reducing noise and vibration wherever possible. Only equipment conforming to relevant

national or international standards, directives and recommendations on noise and vibration emissions will be used

- Plant and equipment will be maintained and operated following manufacturer's instructions to run efficiently generating minimal noise
- Where possible plant producing less noise will be used
- Pneumatic tools will be fitted with silencers or mufflers
- Plant will be switched off when not in use
- Mobile compressors and generators will be fitted with appropriate silencers and/ or proprietary acoustic enclosures
- Plant and equipment supplied with acoustic enclosures will be operated with all panels closed
- Site staff will enforce a policy whereby all plant is shut down when not in use
- All stationary equipment with significant noise outfall will be sited to minimise noise nuisance to local residents
- As far as possible generation of power will be via a permanent power supply as opposed to generators
- Using electrically powered equipment run from the mains supply where available is preferred to using generators to power plant and equipment
- Care will be taken when erecting or striking scaffolds to avoid impact noise from banging steel. Scaffold deliveries will be programmed to arrive during normal working hours only.
- Crane spindles, pulley wheels, telescopic sections and moving parts of mobile working platforms will be adequately lubricated in order to prevent undue screeching.

7.13. Traffic Noise during Construction

- Delivery vehicles will, where reasonably practicable, be fitted with effective exhaust silencers and will be maintained in good working order and operated in a manner such that noise emissions are controlled and limited as far as reasonably practicable
- Time slots will be adopted for deliveries to ensure that convoys of vehicles do not arrive simultaneously and to avoid unnecessary idling on-site
- Strict controls will be implemented to prevent temporary parking on kerbside in the vicinity of noise sensitive receptors near the site
- Sufficient clear signage will be utilised to ensure that demolition and construction vehicles use only designated routes.
- Care will be taken when unloading vehicles to minimise noise

7.14. Noise Screening

Where appropriate, screenings will be utilised in order to reduce noise levels between the source and the receiver. Materials used for screening may include earth bunds, existing buildings, site security hoarding or purpose-built noise screens. Holes/ openings in the screen material will be kept to a strict minimum and the density of the material will also be given due consideration in order to be as effective as possible.

7.15. Vibration

A vibration risk assessment will then be undertaken to ensure that underground utilities, buildings and other protected structures surrounding the works are protected from damage.

Controls will be put in place to avoid risk of physical damage from vibration

j) Full details of pest control measures following any demolition required. Where necessary capping of drains/sewers and baiting arrangements

Graham will implement the Procedure document noted below.

Pest Control Measure Procedure

PF08-PR11-27-F003

PROJECT:	Battle Street Reading	SITE CODE:	10850

	Items to be implemented.	Satisfactory
1	Redundant drains and sewers will be grubbed out and the connection with the sewer effectively sealed.	YES/NO
2	Live sewer connections appropriately sealed and capped while construction works are in progress to prevent rat egress from the sewers.	YES/NO
3	To prevent rat egress from live drains and sewers to new systems, the live systems have been temporarily sealed off with expanding drainage stoppers until connection to new drainage is completed.	YES/NO
4	Pest monitoring and baiting programmes will be implemented including a proactive surface monitoring baiting programme during the construction process.	YES/NO
5	Exposure of construction staff to risks associated with a rodent infestation may contravene the Health and Safety at Work, Etc. Act 1974. An all-encompassing sewer rat monitoring programme should be implemented in the sewer systems within the project area for the duration of the project. Sewers and drains should be cleared of any remaining building debris	YES/NO
6	All pest monitoring devices will be labelled with a date and placed in a recorded location.	YES/NO

7	Bait stations are strategically placed and secured, and pesticides should be stored securely off-site if possible.	YES/NO
8	Insect and rodent survey points should be placed in potential harbourage or activity areas and checked monthly for infestation. Results from inspections have been recorded.	YES/NO
9	A building perimeter inspection has been conducted to verify that there are no access routes for rodents. This includes doorway thresholds, pipe penetrations and any other location for pest entry	YES/NO
10	To avoid the risk of pests entering and dispersing through buildings, cracks and crevices in floors, walls, and ceilings have been effectively sealed. Supply pipes and cables, such as gas, electricity, water, computer and telephone, must be tightly sealed where they pass through floors and walls.	YES/NO

Completed by:		**Date:**	