

+BOWMER KIRKLAND

Echo Street

**Construction Environmental
Management Plan**



Project Details	
Name	iQ Student Accommodation
Address	Echo Street, Manchester, M1 7DP

Approval	Prepared By	Reviewed By	Approved By
Name	Paul Smith, PIEMA	Paul Holt	Manchester City Council through Planning Application: 136874/FO/2023.
Position	Environment and IMS Manager	Sen. Project Manager	
Date	14th September 2023	14th September 2023	

Issue	Date	Reason
P1	5th June 2023	Issue for internal Review
P2	6th June 2023	Minor Updates
A	9th June 2023	Issue for Submission
B	11th September 2023	Updated Tree Protection
C	14th September 2023	Updated Logistic Plans, App. A

Contents

1. Introduction
2. Organisation and Responsibilities
3. Scope of Work
4. Construction Impacts
5. Construction Mitigation
6. Noise Management
7. Dust Management
8. Vibration Management
9. Construction Logistics
10. Waste Management
11. Implementation and Review

Appendices

- A - Site Logistics
- B - Construction Programme
- C - Quality, H&S and Environmental Policies
- D - Management System Certificates

1. Introduction

1. Introduction

This Construction Environmental Management Plan (CEMP) has been developed to identify the environmental mitigation measures and management controls to minimise the construction impacts of construction of 3 multi story interlinked tower blocks.

Bowmer and Kirkland have implemented an Integrated Management System (IMS) which is externally verified by a UKAS accredited certification body, BM Trada to ISO9001, ISO 14001 and ISO 45001 (See [Appendix C](#)).

Quality

Bowmer and Kirkland recognise the importance of developing our business through continued improvements in quality. By consistent and effective implementation of a robust Quality Management System (QMS) we believe that we can add value to the project development process for the benefit of Clients and users of our buildings. Our Quality Management System complies with ISO 9001:2015, and delivers the objectives of our Quality Policy (see [Appendix B](#))

Environment

Bowmer and Kirkland are committed to sound management practices that minimise the potential effects of building activities on the environment. By encouraging the sustainable use of natural resources, minimising environmental pollution, reducing waste and encouraging recycling, we aim to contribute to improving the world in which we work and live.

We believe that a proactive approach for promoting awareness of environmental issues with our employees, together with our development of various environmental initiatives, helps us to grow an even more sustainable business to the future.

Bowmer and Kirkland's Environmental Policy (see [Appendix B](#)) sets out the company's strategy for minimising the environmental impact of our site and office operations. Through promoting the prevention of pollution, energy efficiency and the sustainable use of natural resources in all our construction activities and those of our sub-contractors, we endeavour to achieve a high standard of environmental performance.

Our Environmental Management System complies with ISO 14001:2015, and delivers the objectives of our Environmental Policy.

Health & safety and Well-being

Bowmer and Kirkland has the highest regard for the well-being of all persons involved in its activities and others who may be affected by them. We are committed to working with our clients and external stakeholders to manage and control Health & Safety Risks. It is our belief that all accidents and occupational ill health can be prevented by adherence to our policies and procedures. We take a sensible, positive approach to Health & Safety.

Through the company's Health & Safety Policy (see [Appendix B](#)) the importance of discharging our statutory obligations and duties, and our leadership and commitment to effective Health & Safety management is defined. Best practice is accepted as a core aim throughout business operations and integral to maintaining a strong, positive safety culture. To facilitate this aim, the company's management system and procedures has gained accreditation to ISO 45001:2018

Corporate and Social Responsibility

Bowmer and Kirkland is underlining its commitment to sustainability through compliance with BS ISO 26000:2010 (see certificate in [Appendix C](#)). This Standard presents a framework for Bowmer and Kirkland to ensure that socially responsible behaviour is incorporated into its existing policies, procedures, and performance. Bowmer and Kirkland has a strong commitment to ethical practices in its business operations and hopes to strengthen these through a more rigorous assessment of its social responsibility policies. Adherence to the Standard will create multiple benefits, not only improving the company's environmental credentials and enhancing its brand reputation, but also supporting more cost-effective business practice to build a long-term competitive advantage. Engaging staff to improve the company's environmental performance can also improve employee motivation and bring sustainability into mainstream corporate communications. Meanwhile, monitoring environmental performance can present an insight into potential risks and opportunities to the business.

1. Introduction

This Construction Environmental Management Plan will identify the impacts and relevant mitigation that will be implemented by B+K throughout the project to minimise the impact to the local environment from the construction activities.

The CEMP has been compiled to meet the requirements of the Planning Decision notice for the development, Manchester City Council Planning Application Ref: 136874/FO/2023.

The CEMP will include the following:

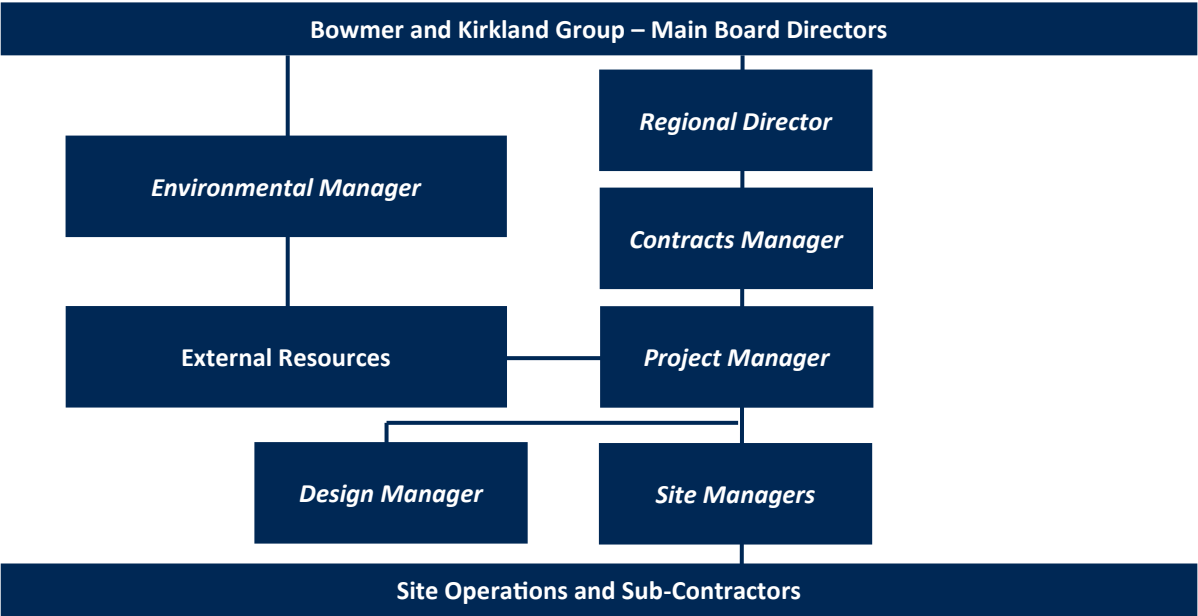
- *Display of an emergency contact number;*
- *Details of Wheel Washing;*
- *Dust suppression measures;*
- *Vibration Management*
- *Compound locations where relevant;*
- *Dilapidation survey;*
- *Consultation with local residents/businesses;*
- *Location, removal and recycling of waste;*
- *Routing strategy and swept path analysis;*
- *Methods to deal with the possible presence of badgers;*
- *Parking of construction vehicles and staff; and*
- *Sheeting over of construction vehicles.*
- *Manchester City Council encourages all contractors to be 'considerate contractors' when working in the city by being aware of the needs of neighbours and the environment. Membership of the Considerate Constructors Scheme is highly recommended.*

The development shall be carried out in accordance with the approved construction management plan.

In addition the measures identified in this CEMP, Bowmer and Kirkland intend to ensure the implementation of sound environmental management practices for all issues by the implementation of their Environmental Management System (EMS) in the project. Bowmer and Kirkland's EMS is registered to meet the requirements of ISO14001:2015 by a UKAS accredited certification body, BM TRADA (Certificate No. 1133 included in **Appendix B** of this document).

2. Organisation and Responsibilities

2. Organisation and Responsibilities



Regional Director

The Regional Director takes overall responsibility for all projects conducted by the construction region responsible for delivering the project and will visit the site on a regular basis.

Contracts Manager

The Contracts Manager takes Senior Management Responsibility for the overall project. The Contracts Manager will not be permanently on site but will visit the project 1-2 days per week to ensure the requirements of this CEMP and Bowmer and Kirkland’s IMS are fully implemented and effective. The Project Contracts Manager will conduct a formal inspection of the Site Operations on a monthly basis to assess the adequacy of Health, Safety and Environmental controls.

The Contracts Manager along with the Project Manager is responsible for liaison with the public and community groups during construction. The Contracts Manager will manage communication with the public and wider community which will include meetings, notices, newsletters and site visits as appropriate. This includes overseeing the resolution of any complaints raised relating to nuisance during the work.

Project Manager

The Project Manager is responsible for the day-to-day management of the project and will be permanently on site during the works. This includes the selection of competent sub-

contractors and the inclusion of control measures in their sub-contracts. The Project Manager, in conjunction with the Site Managers, will monitor the works on a daily basis to ensure the specified controls are implemented and effective. In addition, the Project Manager will ensure that the project is inspected on a weekly basis for compliance with Health, Safety and Environmental compliance. The Project Manager will assist the Contracts Manager in liaison with the public and community groups during construction. The Project Manager will assist in communication with the public and wider community which will include meetings, notices, newsletters and site visits as appropriate. This includes assisting with the resolution of any complaints raised relating to nuisance during the works.

Design Manager

The Design Manager is responsible for the management of the design consultants to ensure that the project specification is established in accordance with project requirements, building regulations and relevant standards. The Design Manager will be permanently on site during the early stages of the project and will visit site regularly during the later stages of the project. The Design Manager will liaise with relevant parties on the final scheme design and ensure advice is provided to the Project Manager on the potential impact of proposed construction methods.

2. Organisation and Responsibilities (Continued)

Site Managers

Site Managers are based permanently on site during the works, the number of site managers will vary depending on the construction output. The Site Managers are responsible for monitoring the implementation and effectiveness of the specified controls on a day-to-day basis. This includes the induction of all sub-contractor's operatives and liaison with their management; should improvements be required. The Site Managers, under instruction from the Project Manager, will formally inspect the works on a weekly basis for compliance with Health, Safety and Environmental compliance.

Environmental Manager

The Environmental Manager takes overall responsibility for the organisational legal compliance of the Bowmer and Kirkland Group of Companies. This includes ensuring our EMS recognises current regulatory and other requirements and the specified controls are effective in achieving compliance, preventing pollution and reducing the environmental impact of the organisation. The Environmental Manager will monitor the compliance of the project from information provided by external resources (see below) and site visits, ensuring the project is audited internally at least once.

External Resources

The following resources are employed by the Bowmer and Kirkland Group:

RG Wilbrey Consultants – conduct Health, Safety & Environmental inspections of the project bi-weekly.

Adler & Allen – provide pollution response 24/7 mobilising resources where required.

Cardinal Environmental – provide legislation updates and specialist legal advice where required.

Complaints Procedure

Although the measures set out within this CEMP are intended to minimise the impacts of construction activities on the local community by ensuring that neighbouring residents are informed of the construction programme and timescales through either door step introduction, newsletters and regular communication during the works, it is possible that complaints may be raised concerning construction activities. As previously detailed, contact details and information concerning construction will be provided to local residents, and the Project Management will be available to meet and explore issues with concerned parties directly via appointment.

B+K are Associate Member of the Considerate Contractors Scheme which the site will be registered with.



Any complaints received will be taken seriously and addressed immediately by the construction team and designated Site Managers. All complaints that are received will be reviewed in regular site meetings to ensure that any required actions are communicated to all employees, as appropriate.

B+K use Work Wallet on site as a means of members of the public to report issues both positive and negative, these are reported directly to B+K Head Office and reviewed by H&S / Business Development for action. A QR Code for the site will be displayed on the site entrance.



Emergency Contact

The emergency contact number for the site will be displayed at the site entrance.

+BOWMER
KIRKLAND

Project Name:	Project Name
Project No/Region:	001 B+K Region
Address:	Address Line 1 Address Line 2 Address Line 3 Address Line 4
Post Code:	Postcode
Local Authority:	Local Authority inc postcode
Contact Working Hours:	Contact name - telephone number
Out of Hours:	Contact name - telephone number
Site Feedback: 	To send us a comment about this site, either scan the QR code (left) and send us your message or Text (including the site ID number xxxx) plus your message to 07400 334 880

In the event of an emergency, dial 999

Registered No. 701982 England.
Head Office 01773 853131

3. Scope of Work

3. Scope of Work

Erection of 3 interlinked towers ranging from 27, 21 and 16 storeys together with intermediary link buildings (15 and 11 storeys) to form Purpose Built Student Accommodation with associated amenity space and external landscaping and other associated works



Fig 1 – Existing Site Plan

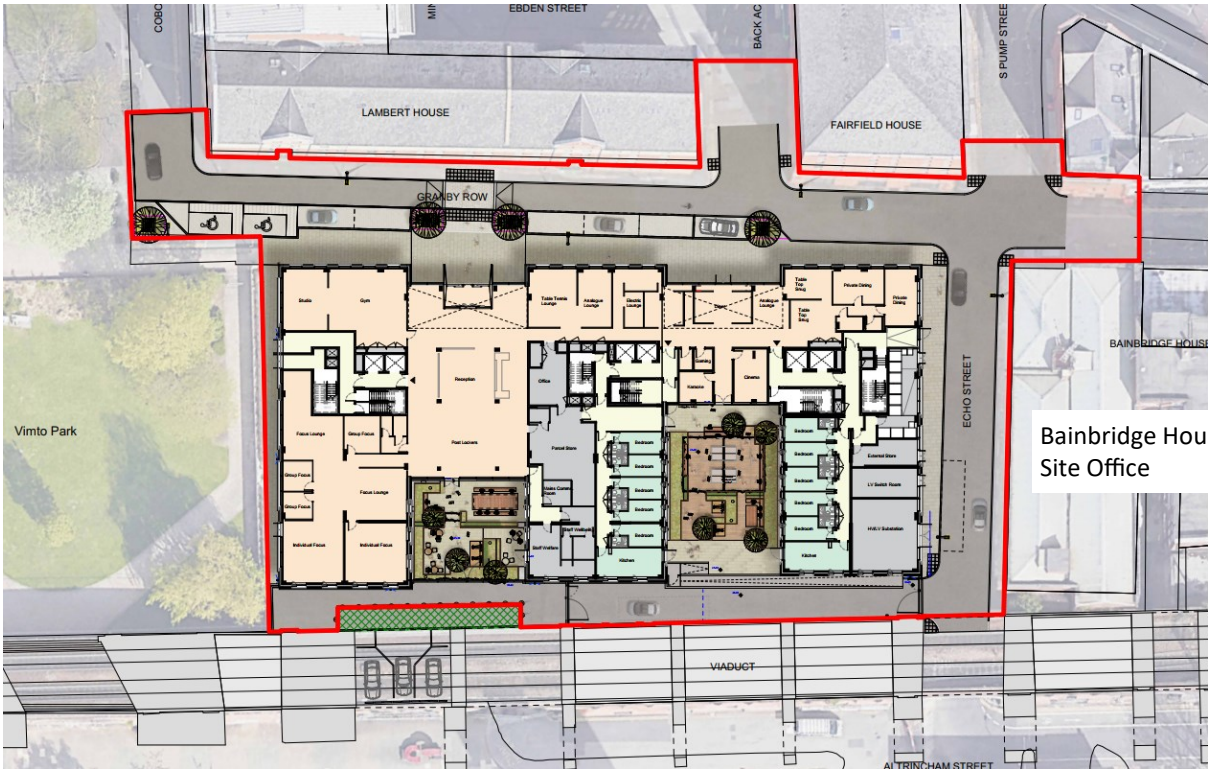


Fig 2 – Proposed Site Plan

4. Construction Impacts

4. Construction Impacts

The following table summarises the current key features on and around the development site which may be impacted by Bowmer and Kirkland's operations. In assessing the significance of the impact potential on these receptors we have taken into consideration reports received to date and publicly available information.

Receptor	Description	Potential Impact Severity							
		Noise	Vibration	Dust	Fumes	Visual	Physical Harm	Flooding	Pollution
General Community	The site the former Echo School and is bounded to the north by Granby Row and Lambert House residential apartments, to the east by Echo Street and retail units, Grade II listed railway viaducts abuts the southern boundary of the site with Altrincham Street beyond, and to the west by Vimto Park.	M	H	M	L	L			
Residential Areas	The nearest residential receptors adjacent to the site are Lambert House and Fairfield House on Granby Road and Capcis House on Echo Street, these residential receptors are all within 10m of the proposed new build.	M	M	M	L	L			
Ecology	A Preliminary Ecological Appraisal (PEA) by Penny Anderson Associates Ltd, March 2023 The site provides no significant area of foraging habitat and is unlikely to be used by foraging bats. No potential roost features were identified on the site. The site is considered to provide a relatively limited foraging resource for local populations of birds. The site is unlikely, therefore, to form a key part of the foraging habitat for any local populations of bird such as black redstart . The patches of butterfly-bush are currently unlikely to provide a suitable nesting habitat due to the sparse and open character of the vegetation which does not provide sufficient cover or shelter for nesting birds. Tree protection will be required for trees to the west of the site, works to the tree canopies will be required for safe operation of hoists and mast climbers						L		
Site Contamination	Phase 2 SI has been undertaken along with a Remediation Strategy for the site issued by Curtins, April 2023. Asbestos both cement board and fibres have been identified in the made ground, fibres 0.0001% have been record in the area of the crane base for TC1. No groundwater strikes were encountered. Made ground on site has been classified as non-hazardous with four samples hazardous. Should additional soils require excavation and disposal from site ten WAC testing should be carried out. ACM debris should be picked form the site and segregated for disposal as hazardous waste. Clean cover of 450mm is required in areas of soft landscaping Due to asbestos with made ground, soils have been identified as unsuitable for re-use on site. Information and evidence will be required from construction works for input into the verification report for the remediation strategy						L		
KEY:		Insignificant	Low	Medium	High				

4. Construction Impacts

The following tables summarises impacts to the receptors on and around the development site which may be impacted by construction activities and the overall risk to receptors from noise, dust and vibration where no mitigation is implemented:

General Construction Activities Impact Risk Assessment.

Construction Activity	Dust Emission Risk	Noise Emission Risk	Vibration Emission Risk
Excavation of TC base	High	Medium	High
Working Platform	Medium	High	Medium
CFA Piling	Medium	High	Medium
Foundations	Medium	Medium	Medium
RC Frame	Low	High	Low
Floor Slabs	Low	High	Low
Brick Slips	Low	Medium	Low
Roofing	Low	Medium	Low
Fitout	Low	Low	Low

KEY:	Insignificant	Low	Medium	High
------	---------------	-----	--------	------

5. Construction Mitigation

5. Construction Mitigation

In order to reduce the impact of the construction phase of the development Bowmer and Kirkland propose to implement our Integrated Management System (IMS) for the project. Our IMS is registered to meet the requirements of the international standard ISO 9001, ISO14001 and ISO 45001 by a UKAS registered certification body, BM TRADA (see **Appendix B** for certificate). Bowmer and Kirkland's IMS includes standard controls to mitigate the impact of our construction activities during normal construction operations. Site specific issues requiring project specific mitigation have been considered and are summarised in the following table:

Description	Potential Impact							
	Noise	Vibration	Dust	Fumes	Visual	Physical Harm	Flooding	Pollution
Workings Hours / Delivery Hours Working hours for Construction and Demolition works other than internal works not audible outside the site boundary will be: Monday to Friday 07:30 – 18:00 Saturday 08:30 – 14:00 There will be no works on Sundays or Bank Holiday, Works are associated with the generation of ground born vibration are only to be carried out between the hours of 08:00 and 18:00 Monday to Friday. Where normal construction activities are expected to exceed these working hours then EHO will be informed in writing at least 10 days prior to commencing works, including • Weekend erection of tower cranes • Abnormal Loads • Late hours and overnight works to protect and cure concrete cast during the day. Newsletter drops to the local area will also be implemented during construction.	✓	✓	✓	✓				
Statutory Nuisance - Noise To minimise issues caused by noise during construction, Best Practise Means will be employed in accordance with BS5228:2009+A1 2014, Part 1 during each phase of the project. Details of noise mitigation measures can be found in Section 6 Noise Mitigation .	✓							
Statutory Nuisance – Dust The control of dust is a prime concern for all construction projects, particularly during periods of dry and windy weather, there are also ecological receptors which may be impacted by dust. Details of dust mitigation measures can be found in Section 7 Dust Mitigation			✓		✓			✓
Statutory Nuisance - Vibration To minimise issues caused by vibration during construction, Best Practise Means will be employed in accordance with BS5228:2009+A1 2014, the piling solution is CFA thus significantly reducing the vibration risk, due to the proximity of the Grade II listed railway viaducts, a system of active vibration monitoring will be installed. Works will be in accordance with Network Rail (APA) asset protection agreement. Details of vibration mitigation measures can be found in see Section 8 Vibration Mitigation .		✓				✓		

5. Construction Mitigation (Continued)

	Potential Impact								
Description	Noise	Vibration	Dust	Fumes	Visual	Physical Harm	Flooding	Pollution	Heritage
Waste Management Bowmer and Kirkland will apply the waste hierarchy to the project to minimise waste production and subsequent landfill burden. No waste removed from site will be permitted to leave without the provision of an adequately completed waste transfer note and copy of valid waste carrier licence for the person removing the waste and environmental permit for the site where the waste is being taken. The burning of waste is banned on all B+K construction sites. In order to implement these requirements and monitor the amount of waste being produced by the project a Site Waste Management Plan will be prepared and maintained throughout the course of the construction phase. See also Section 10 Waste Management	✓	✓	✓		✓	✓	✓	✓	
Spillage Emergency Planning An emergency plan for spills of fuels, oils or other CoSHH materials will be prepared for the project and briefed to all operatives. All minor spills will be cleared and consigned off site as hazardous waste. An emergency response contractor, Adler and Allan, will be retained to attend site in the event of a major spill or spill which may affect any water course.						✓		✓	
Lighting Construction phase lighting shall be designed to minimise effects beyond the site boundary. - Where possible site lighting will be LED which virtually eliminates upward glare, - Warm white spectrum (<2700k) lamps to be used - Lights will be shrouded / pointed downward. - Pointed away for local residential windows. - Light to be pointed away from park area					✓				
Traffic Management Traffic Management Plans have been included in Section 9 . All deliveries will be booked in with Bowmer and Kirkland's Site Management who will avoid slots at peak hours. Roads will be kept clean by the provision of wheel cleaning facilities that may include jet wash or road sweepers as required.	✓	✓	✓	✓	✓	✓		✓	✓
Birds If shrub/scrub areas continue to develop on-site over time, these should be inspected by an Ecologist at least 48hrs prior to removal if being removed within the nesting season (March to August inclusive)						✓			
Site Contamination Due to the presence of asbestos with the made ground it is considered highly unlikely that the general shallow Made Ground could be considered 'uncontaminated' or 'clean' material for re-use as a subsoil, as such surplus soils will be removed from site as a waste. Appointed contractor to hold UKATA Asbestos in Soil. A watching brief will be in place for unexpected contamination								✓	
Tree's Tree protection will be erected in accordance with BS 5837 and the Tree Protection Plan, all tree works will be approved by relevant interested parties.						✓			

6. Noise Management

6. Noise Management

Noise Monitoring

Noise monitoring will be carried out for the sensitive receptors nearby and records maintained. Site Management will take noise readings twice per day.

BS 5228:2009 Part 1 Significance Criteria (Table E.1) Residential Properties			
Assessment category and threshold value period (LAeq)	Threshold value, in decibels (dB)		
	Category A	Category B	Category C
Night-time (23:00-07:00)	45	50	55
Evenings (19:00-23:00 weekdays) and Saturdays (13:00-23:00)	55	60	65
Daytime (07:00-19:00) and Saturdays (07:00-13:00)	65	70	75

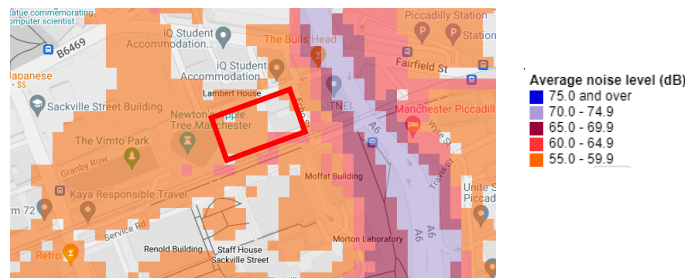
Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

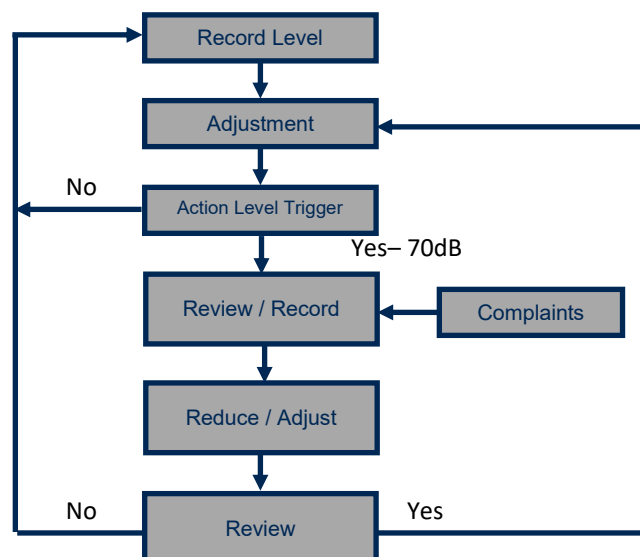
Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

An acoustic assessment of the development site has been undertaken by Miller Goodall this identified the background noise levels to be 59dB L_{Aeq1hr} , as such the threshold for significant impact will be set at 70dB in accordance with BS 5228, monitoring of noise levels will be undertaken, actions noise levels for the site boundary will be set at 70dB.

Using data from Extrium, the site is located in an area impacted by noise from the railway of between 59dB upto 70dB, this has been taken into account with the background noise levels.



Noise Monitoring and Action Process



6. Noise Management

Adjustments												
Construction Activity Main Building	Plant Type	LAeq at 10m (BS 5228:1)	Nearest Receptor	Distance from Nearest Construction Activity	Distance (-dB)	Screening (-dB)	Reflection (+dB)	Duration of activity (hrs)	Activity LAeq	Duration Days (% project total)	Threshold for Significant Impact Mon-Fri 8am to 6pm	Predicted Combined Noise Levels
Enabling Works												
Excavation	Tracked excavator (25t)	77	Lambert House, Fairfield House and Capcis House	13	7	0	3	6	71	90	9%	75
	Telehandler	79		10	6	0	3	5	73	90	9%	
Foundations												
Excavation	Tracked excavator (25t)	77	Lambert House, Fairfield House and Capcis House	13	9	0	3	4	58	174	17%	70
	CFA Piling Rig	79		15	9	0	3	4	58	174	17%	
Pumping Concrete	Concrete pump + concrete mixer truck (Discharge and	75		15	7	0	3	5	68	174	17%	
Concrete Finishing	Power Floating	72		15	7	0	3	2	61	174	17%	
Structural Frame												
Lifting operations	Tower Crane (TC1)	77	Lambert House, Fairfield House and Capcis House	28	9	0	3	5	68	414	41%	76
	Tower Crane (TC2)	77		35	10	0	3	5	67	414	41%	
Generator	TC Hybrid Generator (15 kW)	65		28	9	5	3	2	47	414	41%	
Concrete Delivery	Concrete Mixer (discharging)	75		15	7	5	3	3	61	414	41%	
Pumping Concrete	Truck Mounted Pump +	80		15	7	5	3	5	68	414	41%	
Concrete Works	Vibrating Poker	78		10	6	5	3	2	63	414	41%	
Materials movement	Telehandler	79		10	6	0	3	5	73	414	41%	
Envelope												
Lifting operations	Tower Crane (TC1)	77	Lambert House, Fairfield House and Capcis House	28	9	0	3	5	68	588	59%	73
	Hoist	68		10	6	0	3	5	62	588	59%	
Materials movement	Telehandler	79		10	6	0	3	4	72	588	59%	
External Works												
Excavation	Tracked excavator (15t)	79	Lambert House, Fairfield House and Capcis House	10	6	0	3	3	71	84	8%	74
	Telehandler	79		10	6	0	3	3	71	84	8%	

6. Noise Management

Summary of Predicted Noise Levels

The predicted noise levels have identified that during construction noise levels are predicted to be 6dB above threshold of 70dB, this will be during peak working times with all construction activities undergo at the same time therefore should construction works impact receptors then additional mitigation measure will be implemented accordingly.

Noise Mitigation Measures - General

The quietest and lowest impact processes that are reasonably practicable will be employed on-site in the undertaking of all construction works and in accordance with the best practise under BS5228:2009+A1 2014, Part 1. Mitigation measures that can be implemented as a means of minimising noise include:

Construction Mitigation

- Construction working hours will be carefully managed to ensure normal working hours are adhered to, with the exception for some construction activities that may exceed normal working hours, examples include erection of tower cranes, abnormal deliveries and concrete curing.
- Construction of RC Frames generate less noise compared to structural steel.
- Keep internal haul routes well maintained.
- Minimize drop height of materials.
- Radios and other noise-generating devices are not permitted on site.
- Keep voices and conversation outside of the perimeter of the Site to a minimum and low in volume.
- Use of work equipment designed to reduce noise should be consider by sub-contractors.
- Local residents will be advised of the start and finishing dates and times (particularly noisy works) and these will be timed to minimise the disruption to local residents as far as possible.
- Specific construction activities maybe required to achieve the specification finish and as such may cause extended periods or works.

- Noise monitoring to be used on site boundary and assessed periodically during construction, to identify effectiveness of noise management on site.
- Consultation will be undertaken with the Local Authority to ascertain whether continuous noise monitoring and baseline monitoring is required. If so noise monitoring & measurement of continuous ambient noise levels utilising remote noise monitoring systems to monitor dB, and set action and warning levels.
- Avoid nosier activities at the start of the working day.

Site Plant

- The quietest vehicles, tools and machinery shall be used as far as is reasonably practicable.
- Early connection to temporary builders supply (TBS) to reduce use of generators.
- Use of Ultra Quite generators.
- Avoid unnecessary revving of engines and switch off equipment when not required.
- Start up plant and vehicles sequentially rather than all together.
- No machinery will be permitted to start up on-site before 08:00.
- Plant to be fitted with effective silencers.
- No engines left running whilst vehicles are stopped on-site.
- Local residents and businesses will be advised of the start and finishing dates and times of particularly noisy activities and these will be timed to minimise the disruption to local residents as far as possible.

Enclosures

The use of enclosures can significantly reduce noise. These range from localised enclosures to the erection of noise reducing fencing around larger activities. Enclosures will be designed in accordance with BS5228:2009+A1 2014, Part 1, Appendix A.

Examples of Enclosures:

Plant	Enclosure Type	Noise Reduction
Site Generators	Ventilated acoustic enclosure	Up to 20dB
Pneumatic breakers, drills	Portable or Fixed enclosure	Up to 20dB
Rotary Drills, Diamond Drilling	Ventilated Acoustic Shed	Up to 15dB
Pumps	Acoustic enclosure with allowance for engine cooling and exhaust	Up to 20dB
Large Plant	Acoustic Screen / Fence	Dependant on design
Scaffolding Acoustic Sheeting	Acoustic Sheeting to Scaffolding Elevations	Up to 19dB

7. Dust Management

7. Dust Management

Dust Mitigation Measures

During construction and demolition, it is anticipated that the primary air pollution emissions will be associated with dust generated from plant movement on site. The following mitigation follows the principals of IAQM *"Guidance on the assessment of dust from demolition and construction"*.

Site Management

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
- Record and respond to all dust and air quality pollutant emissions complaints.
- Make complaints log available to the Local Authority when asked.
- Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the Local Authority when asked.
- Increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions are being carried out and during prolonged dry or windy conditions; and
- Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and ensure that the action taken to resolve the situation is recorded in the log book.

Preparing and Maintaining the Site

- Plan the site layout so that machinery and dust-causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Install green walls, screens or other green infrastructure to minimise the impact of dust and pollution.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.

Operations

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using recycled water where possible and appropriate.
- Use enclosed chutes, conveyors and covered skips.
- Minimise drop heights from loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Measures Specific to Earthworks

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Only remove the cover from small areas during work, not all at once.
- Use bowser water dust suppression on haul roads and traffic areas through the site.

Measures Specific to Construction

- Ensure aggregates are stored in banded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- For supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.
- Loading of excavated material onto tarmac area where possible instead of driving onto site.

7. Dust Management

Dust Mitigation Measures

Measures Specific to Trackout

- Jet Wash to be used at suitable location to clean mud from vehicles prior to tracking through school access.
- Regularly use a water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of the site.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Apply dust suppressants to locations where a large volume of vehicles enter and exit the construction site.

Waste Management

- Reuse and recycle waste to reduce dust from waste materials.
- Bonfires and burning of waste materials is banned on all B+K sites.
- Skips on site are to be located away from site boundary and are to be covered where necessary to prevent the escape of waste.
- Stock piles of materials soils are to be seeded if there are being retained for use later in the project.
- Stock piles of aggregates are to be kept dampened down during periods of dry and windy weather.
- All skips / wagons leaving site are to be covered.

8. Vibration Management

8. Vibration Management

Introduction

Bowmer and Kirkland will seek to maximise any opportunities to influence the decisions made during the design stage of construction projects to reduce the levels of vibration leaving site or impacting on existing structures. Where possible, vibration will be minimised through design, specification and the use of alternative methods particularly where there are sensitive receptors adjacent to the works, e.g. schools, public areas, sites of special scientific interest (SSSI's) and listed buildings.

Vibration Risks

- High vibration levels over sustained periods can cause damage to buildings, roads and utilities.
- Lower vibration levels can cause nuisance to residents.
- Vibration may also cause disruption to wildlife and damage to geological and archaeological sites.
- Vibration is a safety critical issue adjacent to railway lines.

Evaluate the Potential for Vibration

- Identify what is on or around the site which may be affected by vibration.
- Obtain dilapidation surveys for sensitive structures.
- Some construction activities will cause significant vibration through the ground, e.g. piling, plant and vehicle movements.
- The transmission of vibration is highly dependent upon ground conditions, where there is underlying sloping hard strata this can transmit vibration underground undetected for several hundred metres until the strata is nearer the surface.
- Activities causing low levels of vibration could become significant in occupied buildings / work on party walls, e.g. power floating, minor demolition and strip out. This can become an issue for sensitive building occupiers, e.g. libraries, laboratories.
- Liaise with Regulatory bodies and other interested parties including Network Rail, English Heritage, Environment Agency, Natural England etc. (there may be time / seasonal restrictions).
- Monitor conditions before work starts for sensitive structures / neighbours

Construction Vibration Assessment Criteria - Overview

BS 5228-2:2009 'Code of practice for noise and vibration control on construction and open sites – Part 2', gives guidance on vibration levels that could be used to assess the likely impacts of construction activities, including piling, on the environment and people. The main vibration impacts could arise from piling activities or heavy construction vehicle movements near sensitive receivers (typically within 20m).

Annex B of BS 5228 Part 2 gives guidance on the significance of vibration effects in terms of human response to vibration and structural response to vibration.

BS5228 Part 2 Guidance on Human Response to Vibration Levels	
Vibration Level	Effect
0.14 mm/s	Vibration might be just perceptible in the most sensitive situations for most vibration frequencies associated with construction. At lower frequencies, people are less sensitive to vibration
0.3 mm/s	Vibration might be just perceptible in residential environments
1.0 mm/s	It is likely that vibration of this level in residential environments will cause complaint, but can be tolerated if prior warning and explanation is given to residents
10 mm/s	Vibration is likely to be intolerable for any more than a brief exposure at this level

BS5228 Part 2 Transient vibration guide values for cosmetic damage		
Type of Building	Vibration Level 4 Hz to 15 Hz	Vibration Level > 15 Hz
Reinforced or framed structures Industrial	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above
Heavy commercial buildings		
Unreinforced or light framed structures	15 mm/s at 4 Hz	20 mm/s at 4 Hz
Residential or light commercial buildings	increasing to 20 mm/s at 15 Hz	increasing to 50 mm/s at 15 Hz

8. Vibration Management

Vibration Receptors

Continuous Flight Auger (CFA) piling will be used and the closest noise sensitive receptors to any proposed piling is assumed to be the student accommodation directly to the north of the site on Granby Row and the office accommodation on Echo Street, both approximately 10 metres from the northern and eastern boundary of the site. This is a worst-case assumption, based on the limited information available regarding locations of proposed vibration equipment.

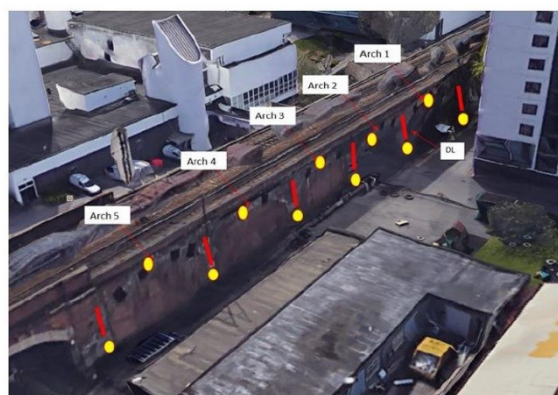
As existing piles are planned to be retained and incorporated into the foundation design (pending investigation works) the amount of additional piling required will be minimal.

All works will be undertaken taken in accordance with Network Rail (APA) Asset Protection Agreement.

Vibration Mitigation

To manage vibration risk, mitigation will be implemented (where required) to reduce the impact including:

● Vibration Sensor Tilt Sensor DL Data Logger



- Active vibration monitors will be installed (where required) to the viaduct walls, specific locations will be advised by the appointed vibration specialist contractor.
- Alert levels will be set based on BS 5228 Part 2 these are typically 5mm/s and 10mm/s for structures, these alert levels will be confirmed by the vibration consultant.
- Inform Neighbours - consult residents or workers in the vicinity of the works to explain the type and duration of the works.
- Works will be undertaken in accordance with the Network Rail BAPA.
- It might be possible to schedule the work to avoid particularly sensitive times, with works that generate vibration restricted to 09:00 to 17:00 Monday to Friday.
- Should complaints be received then B+K will assess the works undertaken and propose further suitable mitigations required.
- Consider vibration caused by plant and vehicles when establishing traffic management – early black topping / provision of engineered haul roads can significantly reduce vibration from traffic movements.

9. Construction Logistics

9. Construction Logistics (continued)

The Gate Cabin will be the focal point for all vehicles entering / leaving the site. This will be the operational base for our security personnel who will manage access and egress from the site alongside the biometric system.

In order to reduce disruption to neighbouring businesses and residents during the construction periods we will take several steps to ensure as little impact as possible on the roads surrounding the site. These will include the following:

- All subcontractors will be advised of the requirement for site tidiness, and enforcement of this rule will take place.
- Newsletter drops to local community informing of progress and planned works.
- Should any complaints arise, they will be dealt with promptly and courteously, and suitable compromises agreed wherever practicable, subject to the normal restrictions of construction sites.
- There will be no parking on site, there are a number of public car parks (see [Operative Parking](#)) as well as Manchester tram network.
- Minimise the accumulation of loose materials on site road by regular sweeping.
- Ensure bulk deliveries/collections are sheeted (where appropriate).
- Provide wheel washing facilities in the form of a jet wash at site exit point, particularly during reduced level dig and as required.
- Gully guards will be used in the road gullies.

Due to the location of the project it is imperative we reduce the risk of any mud on the surrounding roads due to the construction process. The risk of this will be higher within basement works phase, due to the nature of the works over this time. a jet wash will be located on an area of hard standing prior to exiting the site and any runoff contained within the site.

To manage and reduce mud and debris on the highway the following methods will be used:

- 1) A jet wash will be used at the exits from the construction area to ensure that vehicles wheels are cleaned before tracking onto public highways.
- 2) Road sweepers may be used to keep the school access roads clear. frequency of use will be increased to suite site conditions.
- 3) Gully Guards (or similar) will be used to protect existing road gullies from silt, and will be subject to regular inspections. These will be checked daily during wet weather periods.

Storage of Materials

The site compound will be used for the Construction Material; additional areas of material storage will also be available in the proposed construction areas. (see [Appendix A](#)). Some material will be used in construction areas directly from the transport for example, structural steel will be craned off and positioned for erection directly in the construction area.

The tower crane will be used for off loading from designated unloading area on Granby Street for direct placement during construction.

Vehicle Dwell Times

Construction delivery vehicles are not anticipated to be required on-site for a period longer than necessary to safely unload, depending on materials being delivered or collected. The Site Manager will allow sufficient times between deliveries to ensure that no vehicles arrive or depart at the same time, to minimise potential disruption to traffic flow on the surrounding local highway network.

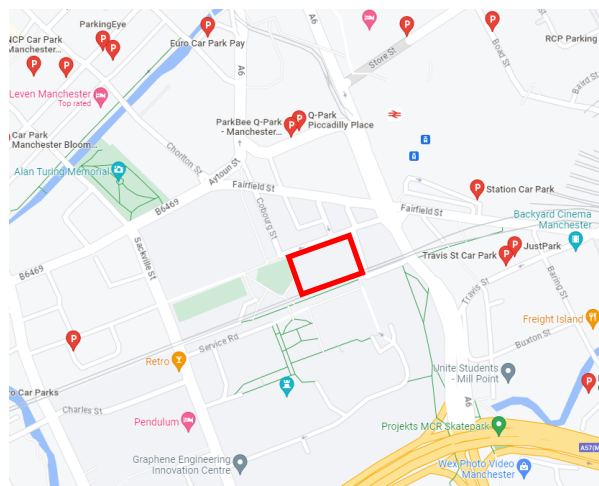
Material Deliveries and Storage

Deliveries will be on a 'just in time' basis and will be managed using an electronic delivery management tool.

Material deliveries will be unloaded within the dedicated delivery area. All delivery access into site will be controlled by dedicated gatemen at the point of entry.

Operative Parking

Due to no parking on site operatives will use nearby public pay and display car parks located within a 5 minute walk of the site, as well as utilising the Manchester Tram Network stop at Piccadilly Station.

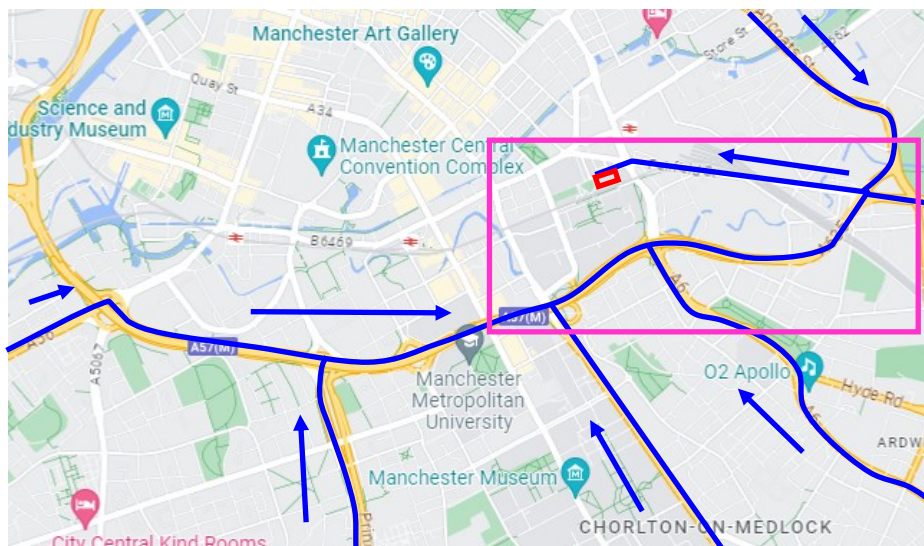


9. Construction Logistics (continued)

Logistics Route

The proposed large construction vehicle routing strategy to be employed for the duration of the construction programme is shown below. The routing strategy has been developed taking into consideration highway routes in the vicinity of the Site and sensitive receptors.

There are multiple routes to access the inner ring, it is expected that the primary route to site will be via the A57(M).



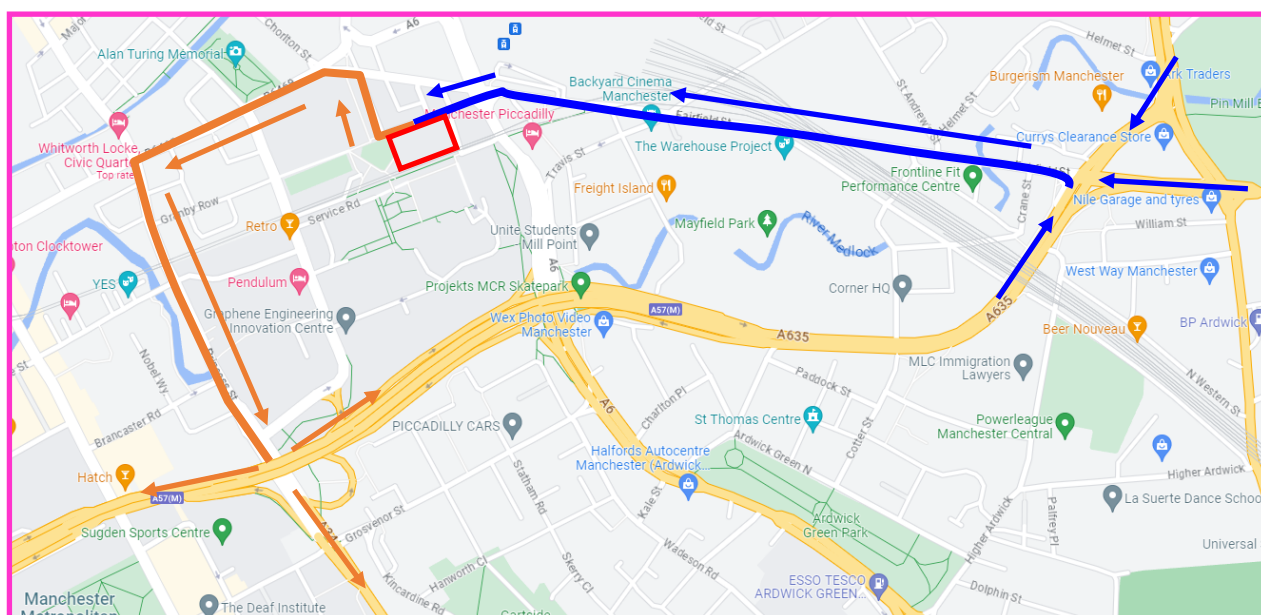
What Three Words: ///claims.gives.chefs

Route from Inner Ring Road (A6042) (Blue Route)

From the at the traffic light junction on A635, follow signs for Manchester Piccadilly on to Fairfield Street, past Piccadilly Station bear straight onto the left into Granby Row, site entrance will be directly in front.

Route from Site (Orange Route)

On leaving the site continue follow one way along Granby Street bear right into Cobourg Street, at the end turn left on to Fairfield Street (B6469) then continue straight along Whitworth Street at the 2nd set of traffic lights turn left into Princess Street, then continue to the Ring Road, A57(M).



9. Construction Logistics (continued)

Construction Vehicle Movements

The following table details the typical “Large Construction Vehicles” that may be required on site, these numbers will be dependant on the phase of works being undertaken., the numbers stated are indicative of the potential number of vehicle movements and will vary depending on construction programme phasing throughout the project.

For the avoidance of doubt, “Large Construction Vehicle” will be defined as any vehicle larger than a long wheel base transit type van (length 4.1m, width 1.7m, height 1.8m, payload 1200 – 1500kg). Vehicles below these specified dimensions will be defined as “General Construction Vehicles”.

Frequency of Large Construction Vehicles (per Building Unit)

Construction Activity	Type of Vehicle	Size of Vehicle	Number of Movements (Daily)	Duration
Muck Shift	8 Wheel Tipper	10m x 2.4m	6*	Short
Imported Material	8 Wheel Tipper	10m x 2.4m	15**	Short
Piling	Concrete Mixer	7.5 x 2.5m	4	Medium
Foundations - Concrete	Concrete Mixer	7.5 x 2.5m	5	Medium
Concrete Frame	Concrete Mixer	7.5 x 2.5m	8	Long
Brick Façade	Flatbed / Rigid	10m x 2.55m	5	Long
Roofing	Flatbed / Rigid	10m x 2.55m	3	Short
Internal Fitout	Rigid	10m x 2.55m	15	Long

*dependant on quantity of soils being removed each day

** dependant on quantity of aggregate required for working platform.

Types of large construction vehicles:

8 Wheel Tipper

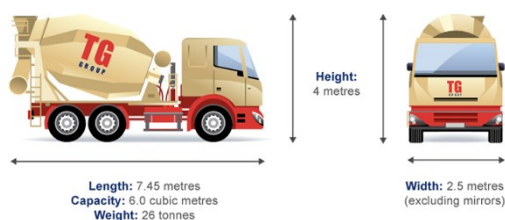


Rigid (<26 ton)

≤10m



Concrete Mixer



Articulated



Flatbed



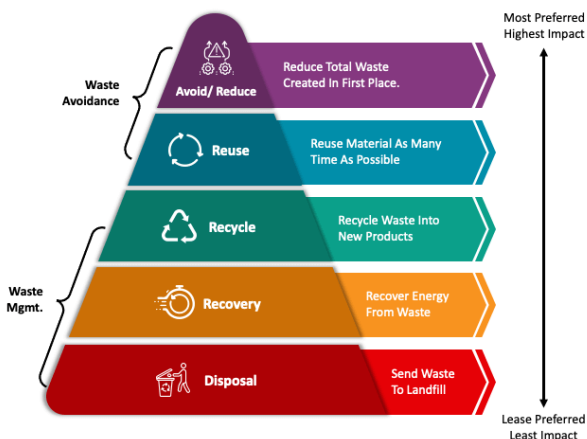
10. Waste Management

10. Waste Management

Bowmer and Kirkland will record all waste generated on site in a SWMP, this will be used to report on the performance of waste management on the site.

Waste Hierarchy

Bowmer and Kirkland will manage waste and develop the SWMP in accordance with the waste hierarchy. Specifically, the amount of waste produced will be minimised by consideration in development of the design and, where produced, will be reused before recycling / disposal options are considered.



Prior to Work Commencing on Site

A project specific Environmental Impact Assessment (EIA) will be undertaken by the construction management team. This assessment will embrace any specific site needs/requirements identified by the team in connection with waste management issues including any existing or generated hazardous material.

A Site Waste Management Plan (SWMP) will be prepared to enable a considered, documented approach to the management of waste on the project, this will include the Planning and Review of waste management for the project.

The person responsible to implement the SWMP is to ensure all relevant B+K personnel are aware of their duties before and during the project.

All Sub-contractors are informed of their general duties under the SWMP during pre-contract meetings and are required to sign up to the SWMP as part of the meeting.

Construction Waste

All site operatives will receive an induction on how waste is to be managed on the project before starting work on site, further toolbox talks are to be provided to operatives as required to meet the requirements of the SWMP:

- The site plan is to be updated to include provisions for access, materials storage and location of waste storage areas and containers ensuring minimal damage to materials by excessive handling and inappropriate storage.
- All skips and containers are to be colour coded or signed in line with the national colour coding scheme.
- Site security is to be provided to ensure waste is not removed by unlicensed contractors or contaminated by other waste producers.
- Duty of care checks are to be conducted on all waste management companies before they are permitted to take waste off site ensuring they are licensed to deal with type of waste being sent
- Hazardous waste is to be segregated and stored adequately to prevent contamination.
- Plasterboard and gypsum is to be segregated on site.

Copies of all waste transfer notes and hazardous waste consignment notes are immediately reviewed by the B+K site management team and kept within the SWMP

Disposal directly to landfill sites is generally to be avoided, where required the waste is segregated on site to recover as many reusable or recyclable materials as possible. Where segregation is not possible an agreement with the waste management contractor is to be made to treat the waste in accordance with the landfill regulations, it is B+K policy to achieve at least 95% diversion from landfill.

Records of all waste removals are recorded in the SWMP, this is by inclusion of the waste transfers note or hazardous waste consignment note within the SWMP and inputting of date into the SWMP spread sheet tool.

Regular reports are to be obtained from waste management contractors, these would normally include actual weights received, amount of waste recycled or recovered and amount of water sent to landfill.

The SWMP is to be reviewed on a regular basis by the person responsible for the SWMP to ensure it is up to date and effective. The results of these reviews are discussed with the B+K site management team during internal project review meetings to identify areas for improvement. Any actions agreed during these reviews are communicated externally to the sub-contractors and/or other parties where relevant.

10. Waste Management

Waste from construction activities will be disposed through an appointed waste management contractor, appointment will be on the basis of their performance of diverting mixed waste, from landfill by the following principles will be employed:

- Pollution from waste will be minimised by using the correct and safe storage of the waste.
- Segregation of different types of waste as they are generated.
- Marking of waste containers clearly with their intended contents.
- Using containers suitable for their contents.
- Disposing of different wastes in the correct containers.
- Checking the condition of waste containers before use.
- Placing containers in impervious bunded areas (if required)
- Ensuring that containers are securely covered (If required)
- Preventing damage to materials during storage

- Obtain details of waste disposal sites and verify the waste disposal licence in place.
- Carry out checks of carriers and disposal sites with the Environment Agency Public Register.

Once the checks are completed Bowmer and Kirkland will:

- Maintained records of waste transfer and record in Smartwaste
- Keep copies of all transfer notes of waste sent off-site.
- Check that the waste is going to the correct disposal centre as documented on the transfer notes.

Excavation Waste

Where suitable soils will be retained for reuse on site, this will depend on:

- Cut and fill balance
- Contamination
- Geo-technical suitability

Where made ground or contaminated soils are present a Materials Management Plan under CL:Aire DoWCOP can be used to plan, monitor and report on the re-use of excavated soils on site to ensure that legal obligations are fully complied with.

Clean natural occurring materials are exempt under the Waste framework Directive and is not designated a waste until it is intended to be discarded.

All excess soils will be removed from site to an appropriately licenced disposal site for re-use off site.

Concrete excavated materials or demolition waste crushed on site will be in accordance with the WRAP Quality Protocol for Aggregates which will allow for the re-use of crushed material as it will no longer be designated as a waste. Any excess crushed material can be removed from site as a non-waste for re-use offsite.

Duty of Care

Prior to removal of any waste from site Bowmer and Kirkland will carry out the following Duty of Care checks:

- Valid waste carrier's licence
- Ensure the waste carrier is authorised to carry the type of waste for disposal.

11. Implementation and Review

11. Implementation & Review

The control measures identified in the CEMP, and sub-ordinate documentation, will be implemented by the following means:

- Relevant information will be communicated to sub-contractors before an order is placed during a pre-contract meeting. An order will only be placed with a sub-contractor following a commitment that they will work to the control measures specified. Where they are required to appoint specific plant, equipment or specialist resources this will be stated in their contract.
- Sub-contractors will be required to submit a detailed method statement for all works they undertake stating detailed control measures. This will be reviewed and authorised by the Site Manager prior to the commencement of operations.
- All sub-contractors will be required to monitor their own works and provide a permanent on-site Supervisor. Where many operatives are provided Supervisors will be required at a ratio of 1:8 with site operatives.
- All site operatives will be required to attend a site induction before undertaking any work. The induction will be conducted by the Site Manager and will include all control measures site operatives are required to work to.
- Access and egress from the site for operatives and deliveries / collections will be controlled by a gateman who will be supervised by the Site Managers.
- The Site Managers will walk the site daily to monitor the works and implementation of the specified controls. Where actions are required to further implement controls these will be raised with the sub-contractor's supervisor. If required they may use a red / yellow card disciplinary and or toolbox talks to improve the implementation of the specified controls.
- Any incidents or visits from regulators will be reported to the Environmental Manager by the Site Manager as an official visit.

In addition to the monitoring described, the implementation and effectiveness of controls will be reviewed as follows:

- The Site Manager will conduct an inspection on general good order and security on a daily basis.
- The Site Manager will conduct an inspection of all environmental controls on a fortnightly basis, this will be alternated with the external inspection described below.
- RG Wilbrey Consultants will conduct an inspection of all environmental controls on a fortnightly basis.
- The Project Director or Regional Director will conduct an inspection of environmental controls on a monthly basis.
- The Environmental Manager will ensure the project will be audited for compliance with our Environmental Management System, controls which have been specified and legal requirements at least once during the project.
- A project meeting will be held on a monthly basis, to be attended by the Site Project Team, to review the results of the above monitoring and inspections. The effectiveness of the specified controls will be considered and any actions required to improve the overall environmental performance of the project agreed and documentation updated accordingly.

Appendix A

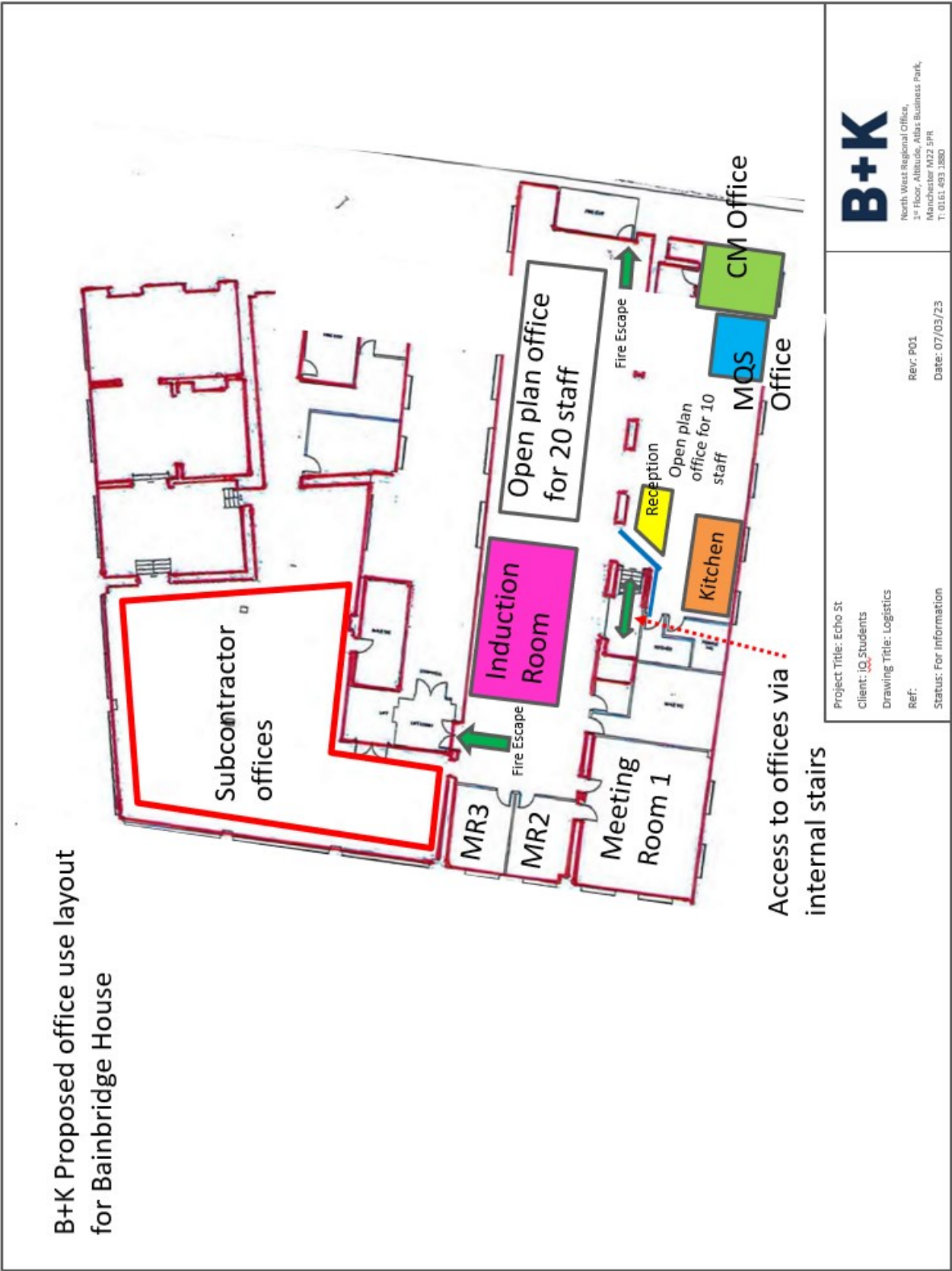
Site Logistics Plans

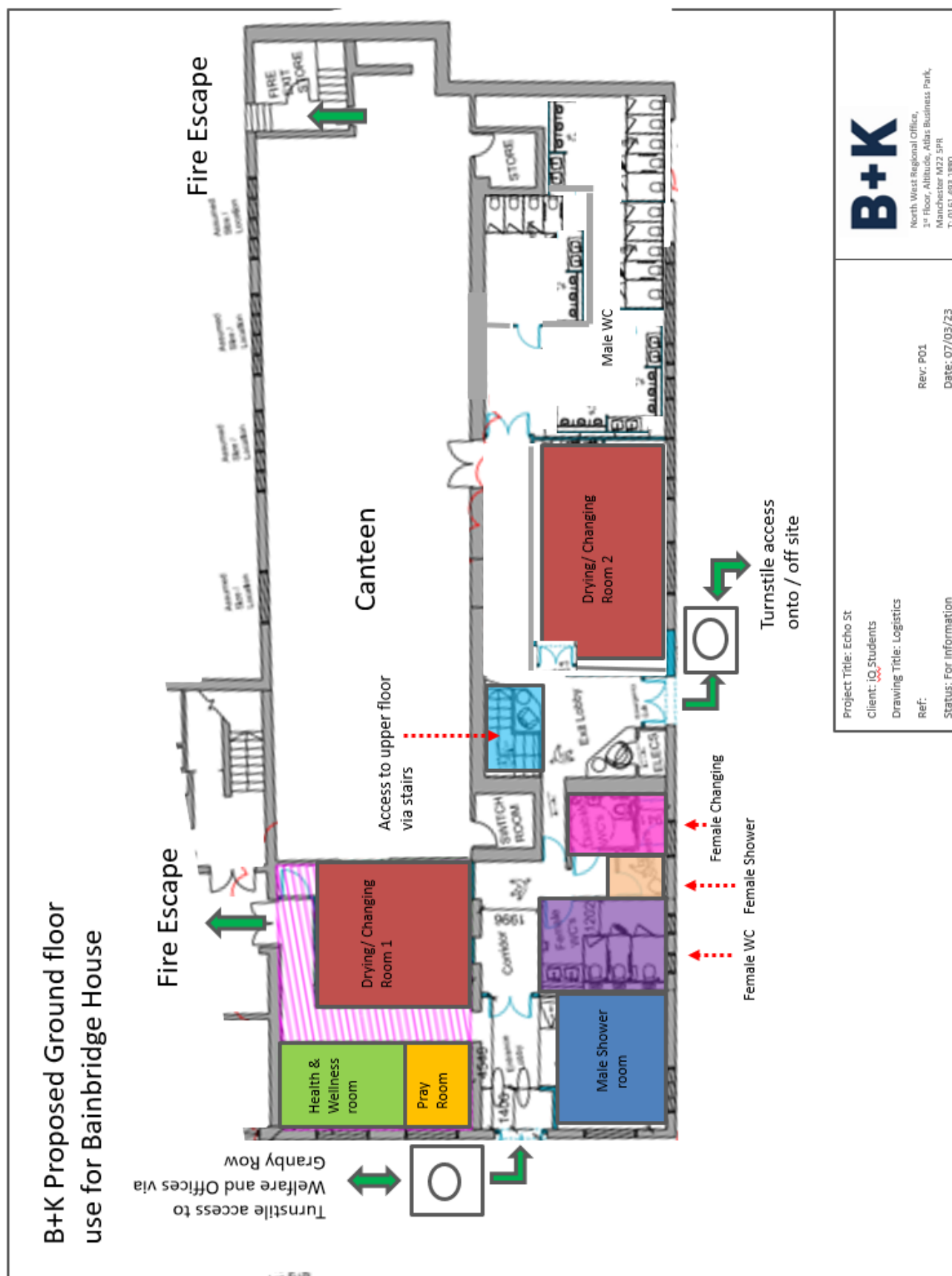
Existing Ground floor layout
in Bainbridge House



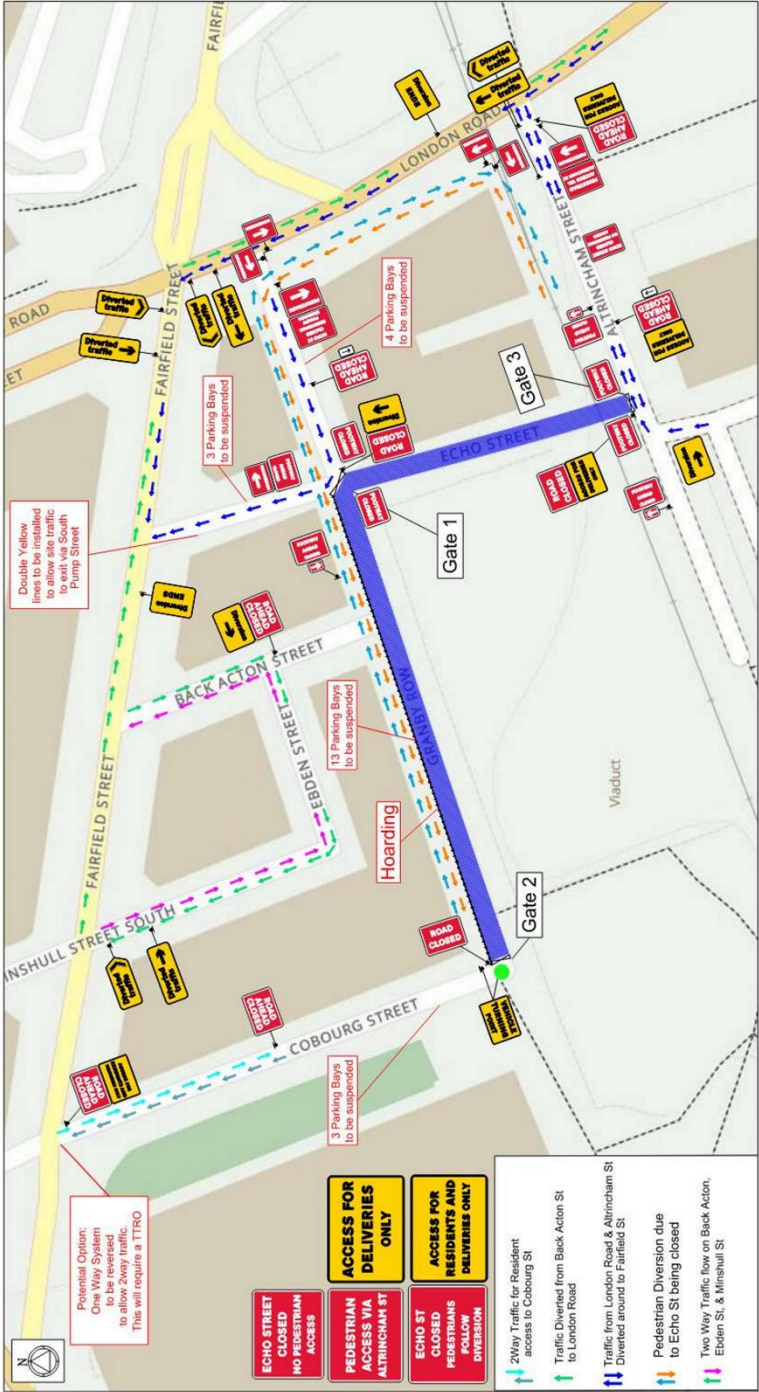
Project Title: Echo St
Client: iQ Students
Drawing Title: Logistics
Ref:
Status: For Information

B+K
North West Regional Office,
1st Floor, Altitude, Atlas Business Park,
Manchester M22 5PR
T: 0161 493 1880





Road Closures Agreed with MCC



UDP
utilities design & planning ltd

Design: Liam Harwood | Drawn: Liam Harwood | Chkd: XXX
Date: 10/08/2023 | Date: 10/08/2023 | Date: 10/08/2023
Scale: NTS @ A3 | Status: FOR-ISSUE
Drawing No: TMP-12128 | Rev: 1

ROAD CLOSURE

NOTES:
1. All road closures must be agreed with the relevant authority (MCC) in advance of the start of works.
2. All road closures must be agreed with the relevant authority (MCC) in advance of the start of works.
3. All road closures must be agreed with the relevant authority (MCC) in advance of the start of works.
4. All road closures must be agreed with the relevant authority (MCC) in advance of the start of works.
5. All road closures must be agreed with the relevant authority (MCC) in advance of the start of works.

Address
Echo St, Granby Row,
Manchester, M60 7LH

Traffic Type
Road Closure

Additional Information:
1. Is a Switch off required? No
Type? N/A
2. Is a TTR required? Yes
Type? N/A
3. Any Bus Stops to be suspended? No
How Many? N/A
4. Do we need off-peak Working? Yes
Reason Why? N/A
5. Parking bay suspension needed? Yes
How many Bays? 3

BOWMER KIRKLAND

KEY
p Traffic sign
p Diversion
p Work Area

WORKS	DATE	TIME	STATUS
WORKS	DATE	TIME	STATUS
WORKS	DATE	TIME	STATUS
WORKS	DATE	TIME	STATUS

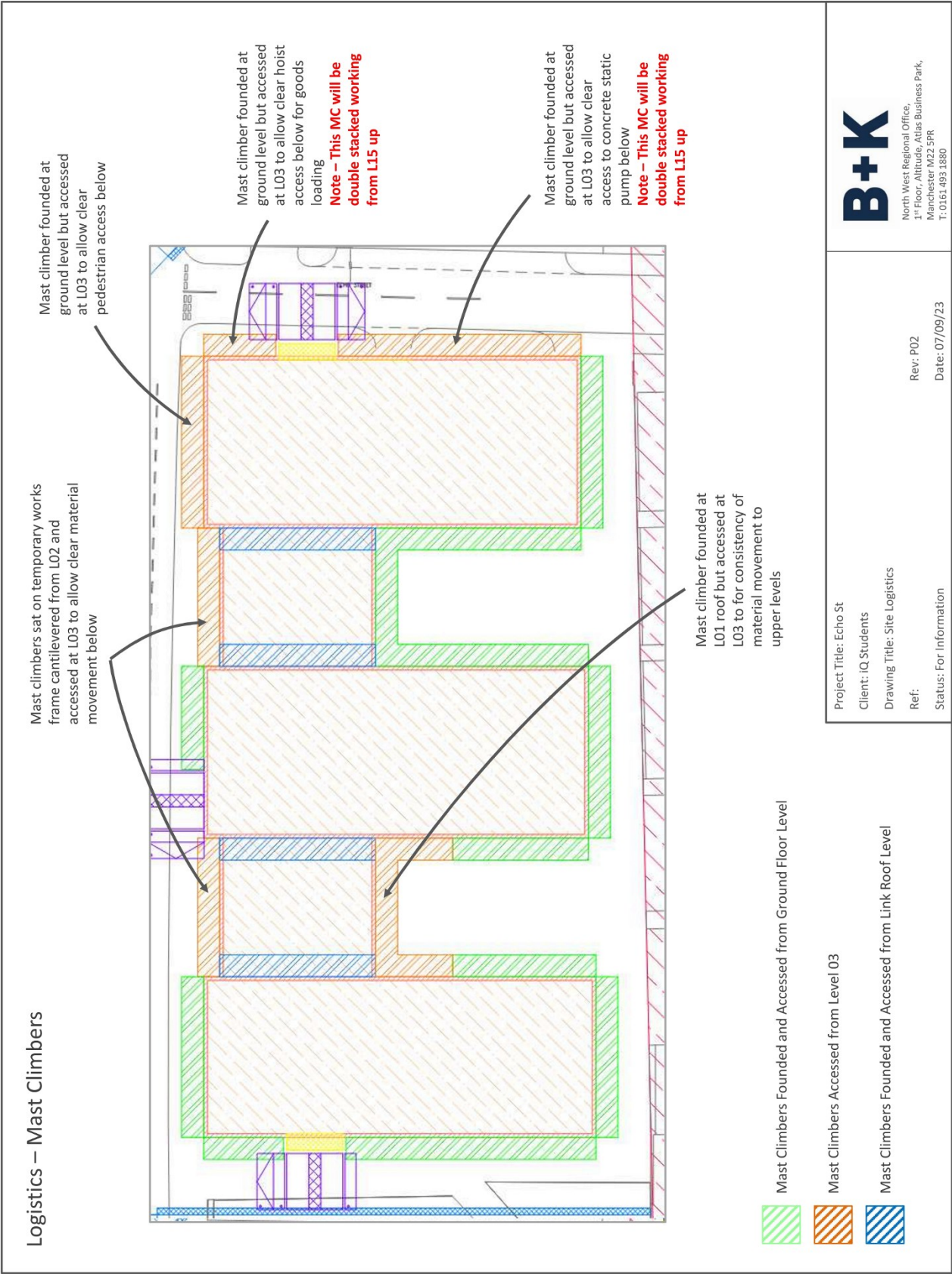
B+K
North West Regional Office,
1st Floor, Altitude, Atlas Business Park,
Manchester M22 5PR
T: 0161 493 1880

Project Title: Echo St
Client: IQ Students
Drawing Title: Site Logistics
Ref:
Status: For Information

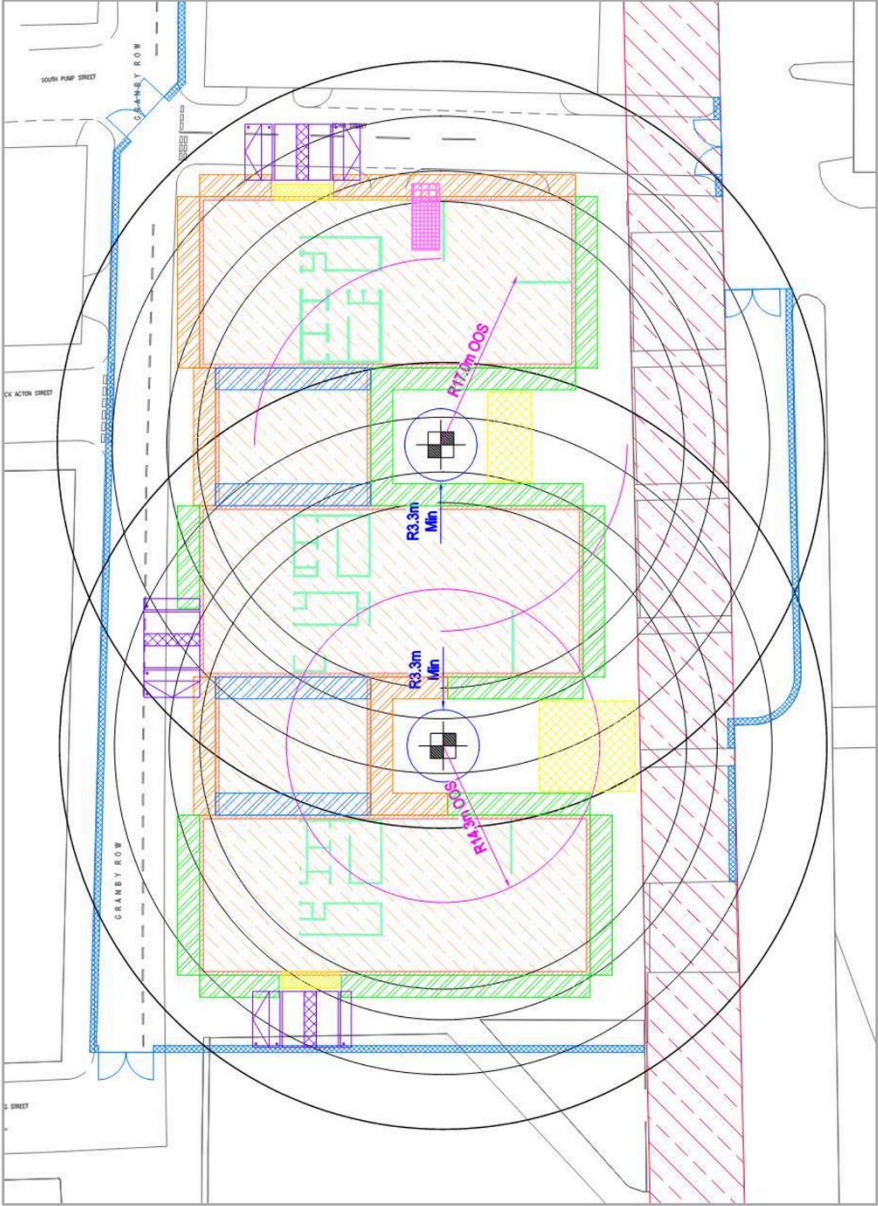
Rev: P02
Date: 07/09/23

Issue: C Date: 14th September 2023

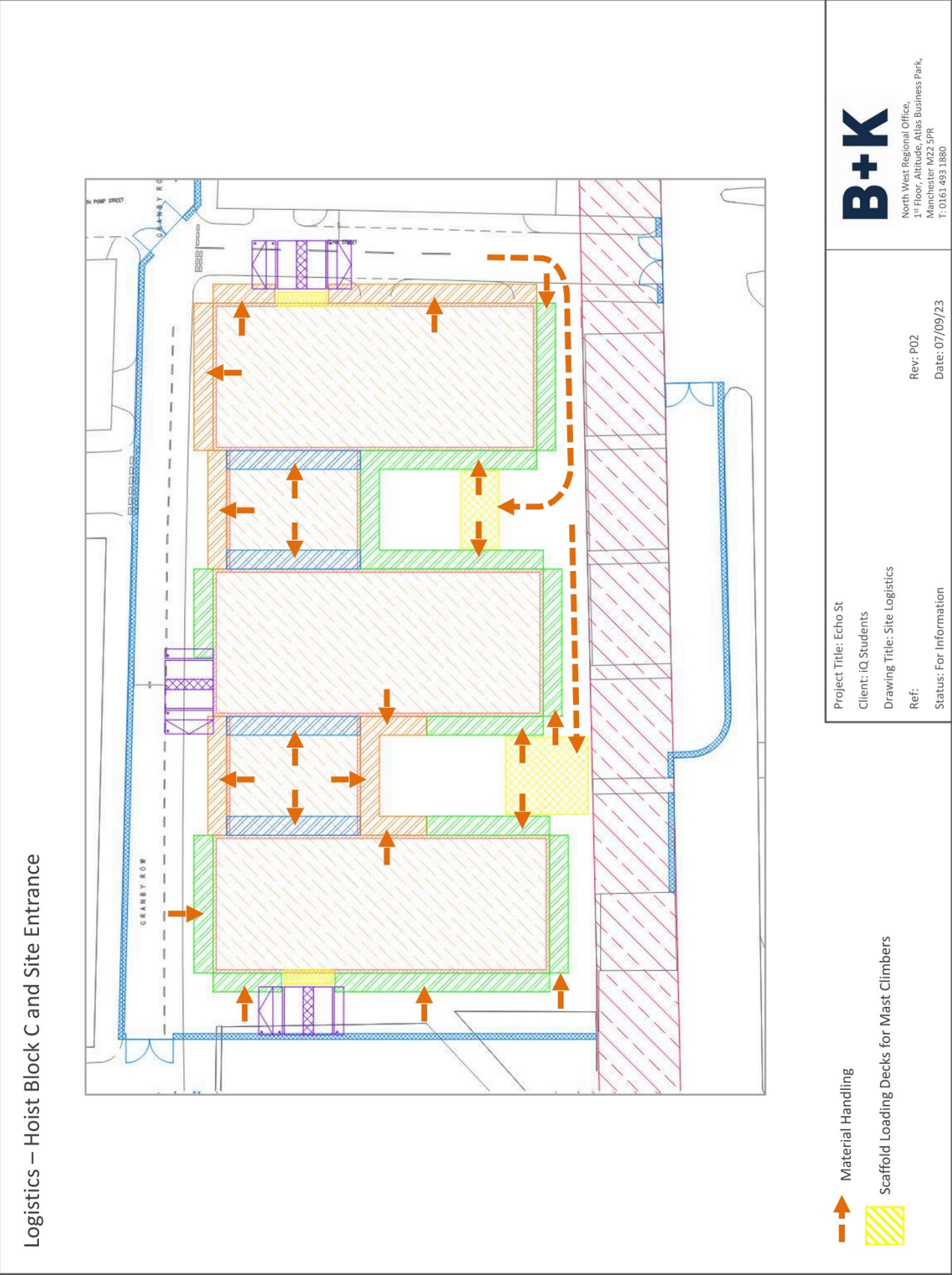
Page 29 of 44

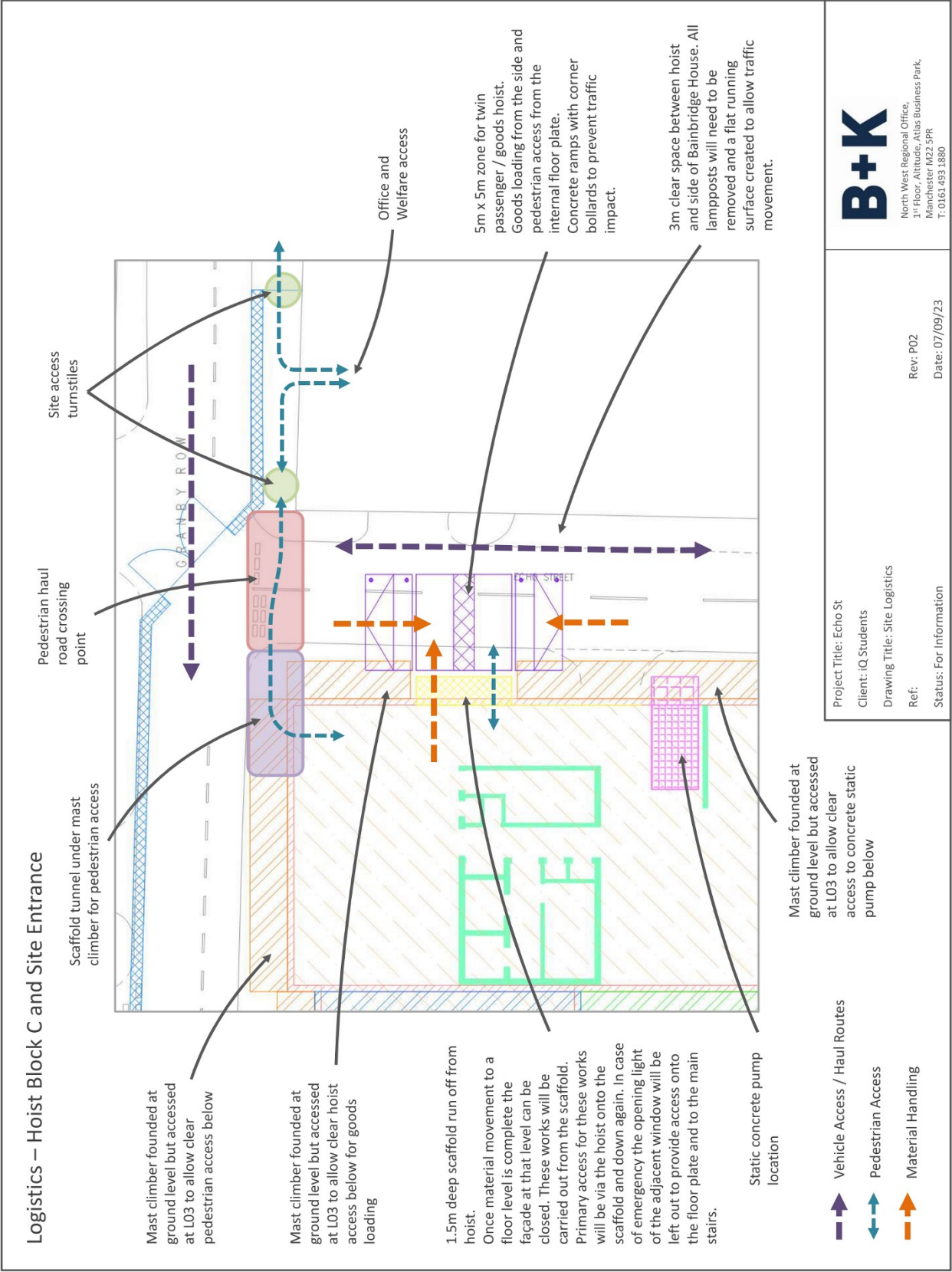


Logistics



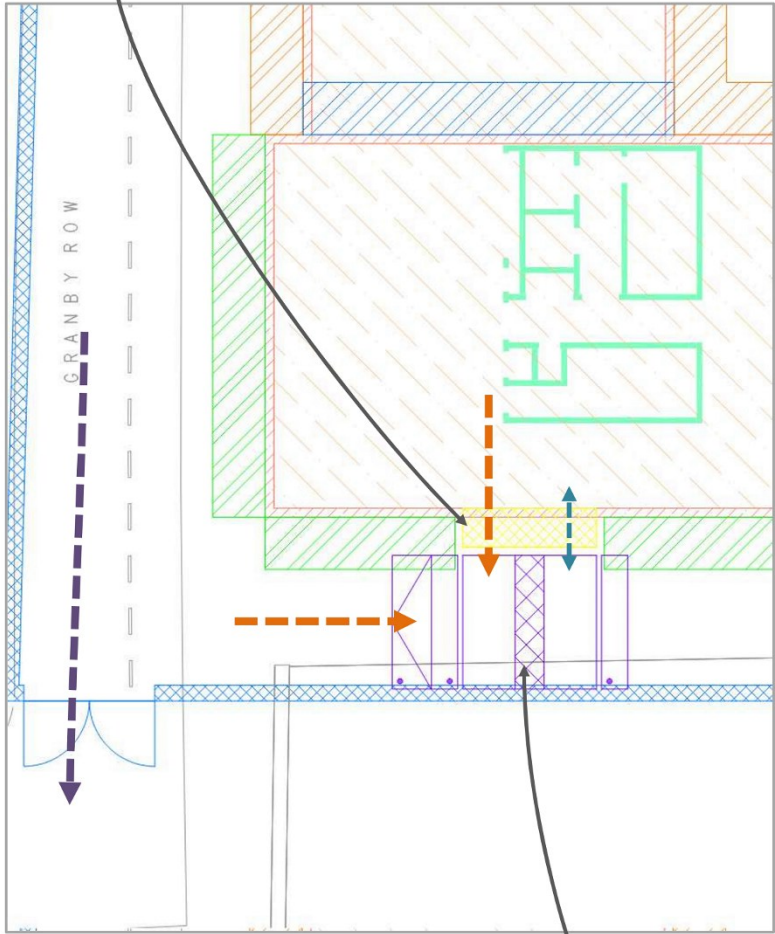
Project Title: Echo St	B+K North West Regional Office, 1 st Floor, Altitude, Atlas Business Park, Manchester M22 5PR T: 0161 493 1880
Client: IQ Students	
Drawing Title: Site Logistics	
Ref:	
Status: For Information	Rev: P02 Date: 07/09/23





Logistics – Hoist Block A and Site Exit

1.5m deep scaffold run off from hoist.
Once material movement to a floor level is complete the façade at that level can be closed. These works will be carried out from the scaffold. Primary access for these works will be via the hoist onto the scaffold and down again. In case of emergency the opening light of the adjacent window will be left out to provide access onto the floor plate and to the main stairs.



5m x 5m zone for twin passenger / goods hoist.
Goods loading from the side and pedestrian access from the internal floor plate.
Concrete ramps with corner bollards to prevent traffic impact.

- Vehicle Access / Haul Routes
- Pedestrian Access
- Material Handling

Project Title: Echo St
Client: IQ Students
Drawing Title: Site Logistics
Ref:
Status: For Information

Rev: P02
Date: 07/09/23



North West Regional Office,
1st Floor, Altitude, Atlas Business Park,
Manchester M22 5PR
T: 0161 493 1880

Appendix B

Quality, H&S and Environmental Policies

Quality Policy

At Bowmer and Kirkland, we are dedicated to achieving the highest level of satisfaction for our clients in everything we do. Over time, the company has both grown and adapted, meeting the changing circumstances and priorities of our industry. Whatever the changes and challenges we have faced, we have remained committed to our core principle of always delivering complete client satisfaction.

Across the whole Bowmer and Kirkland Group, we recognise the importance of promoting a quality led culture. We achieve this through consistent development of our businesses and of our people. Consistency is delivered via robust management systems, systems that provide our clients with added value throughout whole project lifecycles. Our systems ensure we can understand and meet regulatory, project, and client specific requirements. Our aim is not only to deliver our client's expectations, but exceed them.

To achieve the quality performance standards on our projects, we are committed to operating and maintaining a Quality Management System (QMS) that complies with ISO 9001: 2015. To promote efficiency, this sits within our other integrated management systems which comply with ISO 14001: 2015 (Environmental) and ISO 45001: 2018 (Health & Safety)

Bowmer and Kirkland is committed to the promotion of effective and efficient performance, delivered by our quality management system, and has set the following strategic aims:

- We will ensure that all employees remain dedicated to looking after our client's best interests
- We will provide adequate support and resource to enable our systems and people to deliver the requirements
- We will invest in our people to develop the skills, knowledge and capability of all existing and new employees so that we can successfully meet the changing needs and expectations of our clients and other interested parties.
- We will monitor the effectiveness of our Quality Management System and promote high standards of quality on all projects undertaken by the company.
- We will set & communicate clear essential business objectives and targets that are regularly reviewed to enable continual improvements.
- We shall support the continual review and development of our management systems to ensure company objectives are aligned with our core principles.

This Quality Policy, together with our management systems, will be periodically reviewed to ensure their continued suitability within an ever-changing industry.

Signed:



J A C Kirkland - Chairman
Date 31st January 2023

B+K

Environmental Policy

Bowmer + Kirkland is committed to promoting the conservation and sustainable use of natural resources, to preventing environmental pollution and to promote energy efficiency in all of its own construction activities and those of its sub-contractors and suppliers.

To achieve a high standard of environmental performance on our construction projects and related operations, we are committed to operating and maintaining a certified Environmental Management System that complies with ISO 14001: 2015. To promote efficiency this is part of an Integrated Management System which also complies with ISO 9001: 2015 (Quality) and ISO 45001:2018 (Health + Safety).

It is the general policy, therefore, to:

- Minimise any potential effects on the environment arising from site operations
- Liaise with our Clients on any potential environmental and sustainability issues and work with them to address issues and concerns
- Set clear environmental objectives and targets that are regularly reviewed to enable continual improvement in our overall environmental management performance
- Provide appropriate training for our employees
- Foster a constructive working environment through liaison with government and other interested parties, together with the communities in which we work.
- Conserve energy through minimising

consumption, maximising efficiency and monitoring our carbon emissions

- Develop management processes and operational procedures to prevent pollution and enable compliance with environmental laws, regulations, codes of practice and other relevant obligations
- Minimise the use of materials which may be harmful to the environment
- Promote efficient purchasing which will avoid waste, incorporate sustainable materials and allow for materials to be recycled at the end of building life.
- Employ sound waste management practices and encourage the efficient use of materials
- Promote prudent environmental practice in design
- Recognise and encourage the contribution every employee can make towards improving the Company's environmental performance

This Environmental Policy, together with our Management System, will be periodically reviewed to ensure their continued suitability within an ever-changing industry.

Signed:



J A C Kirkland - Chairman
Date 31st January 2023

B+K

Health & Safety Policy Statement

Bowmer + Kirkland Ltd and its subsidiaries (the Group) is a family owned business and promotes family values. Health & Safety is a core business value. We are committed to creating a future free of accidents, incidents, and ill health as a result of our activities.

We are committed to working with our Clients and other external interested parties to manage and control Health & Safety risks. Managing safety, health and wellbeing and engaging with, and training our workforce are integral to how we work along with the consultation and participation of workers

The Group wish to maintain workplaces where everyone is valued, all views are listened to and a safe and healthy working environment is the norm and not the exception.

It is the Group's belief that all accidents and occupational ill health can be prevented by adherence to our policies and procedures. We take a sensible, positive approach towards Health & Safety. We seek to comply with all applicable legislation, reducing risks to the lowest level we reasonably can. Good practice is accepted as core value throughout the business and integral to maintaining a strong, positive safety culture.

Nothing we do is so important that we cannot take the time to do it safely. No one is asked or expected to work unsafely.

We take pride in everyone returning home safely every day, and we will actively target any matters of concern.

All efforts will be made, and sufficient resources will be made available to maintain, as far as reasonably practicable, a safe and healthy environment at every location under the Group's control.

We embrace the principles of leadership and endeavor to help everyone in our business to eliminate hazards and reduce OH&S risks, work safely and prevent unsafe work practices,

and will never knowingly walk past an unsafe act or condition on site.

Documented arrangements are maintained in our Health & Safety Management System based upon ISO 45001:2018 and the Company's operational procedures. Compliance and continual improvement are achieved by effective implementation of this Policy and monitoring and audit to evaluate performance and progress This Group Health & Safety Policy is reviewed on an annual basis and monitoring the implementation of this policy is supported by the Group Director of Health & Safety and his Team.

Leadership, passion and commitment are present at all levels. The Group expects and requires all levels of Management and Supervision to actively initiate and pursue ways and means of making the working environment as safe and healthy as possible.

It is the responsibility of ALL our employees and subcontractors to comply with legal, moral and company safety requirements. Good safety behaviour is admired, respected and recognised across the Group. Peer pressure will reinforce policing – acting unsafely is anti-social.

All the Group Companies' Directors acknowledge their responsibility for successful implementation of the Health & Safety Policy and for promoting the continual improvement of Health & Safety within their Company.

Proper management of Health & Safety is critical in the future development of the Group and in safeguarding its reputation. Attitude and behaviour, not just statistics, are a measure of success. Our business welcomes those who support our vision and are willing to work with us – without compromise on safety.

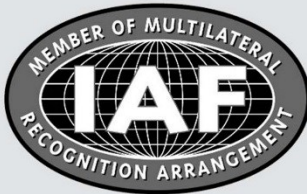
Signed:



J A C Kirkland - Chairman
Date 31st January 2023

Appendix C

Management System Certificates



CERTIFICATE OF REGISTRATION

This is to certify that

Bowmer and Kirkland Ltd

High Edge Court
Heage
Belper
Derbyshire
DE56 2BW

has been audited and found to meet the requirements of standard
ISO 14001:2015 Environmental Management System

Scope of certification

Building Contracting, including Design & Build.

Vicki Howlett
General Manager - Certification UK

Certificate number: 1133

Issue number: 2023-01

Certificate effective date: 1 February 2023

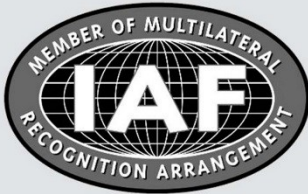
Certificate expiry date: 18 February 2026

Date of initial certification: 19 February 2008

Issuing Office: Warringtonfire Testing and Certification Limited t/a BM TRADA Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4ND, UK
Registered Office: Warringtonfire Testing and Certification Limited, 3rd Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA, UK
Reg No. 11371436.

This certificate remains the property of BM TRADA. This certificate and all copies or reproductions of the certificate shall be returned to BM TRADA or destroyed if requested. Further clarification regarding the scope of this certificate and verification of the certificate is available through BM TRADA or at the above address or at www.bmtrada.com/certified-companies/check-a-certificate

The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification number 012. For further information on bmtrada activities covered by UKAS accreditation please go to: <https://www.ukas.com/search-accredited-organisations>



CERTIFICATE OF REGISTRATION

This is to certify that

Bowmer and Kirkland Ltd

High Edge Court
Heage
Belper
Derbyshire
DE56 2BW

has been audited and found to meet the requirements of standard
ISO 45001:2018 Occupational Health and Safety Management System

Scope of certification

Building Contracting, including Design & Build.

Bowmer and Kirkland Ltd is deemed to satisfy and is registered to the SSIP Accredited Registered Scheme, which covers all ISO 45001:2018 certified sites detailed in this certificate, for the duration of this certificate and for the following CDM categories (Principal Contractor, Designer and Principal Designer). This certificate on its own should not be considered evidence of registration. To verify this organisations registration please go to the SSIP Portal:
<http://www.ssiportal.org.uk/Home>

Vicki Howlett

General Manager - Certification UK

Certificate number: 304

Issue number: 2023-01

Certificate effective date: 1 February 2023

Certificate expiry date: 18 February 2026

Date of initial OHSMS certification: 16 June 2009

Date of initial ISO 45001:2018 Certification: 14 April 2020

Issuing Office: Warringtonfire Testing and Certification Limited t/a BM TRADA Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4ND, UK
Registered Office: Warringtonfire Testing and Certification Limited, 3rd Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA, UK
Reg No. 11371436.

This certificate remains the property of BM TRADA. This certificate and all copies or reproductions of the certificate shall be returned to BM TRADA or destroyed if requested. Further clarification regarding the scope of this certificate and verification of the certificate is available through BM TRADA or at the above address or at www.bmtrada.com/certified-companies/check-a-certificate

The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification number 012. For further information on bmtrada activities covered by UKAS accreditation please go to:
<https://www.ukas.com/search-accredited-organisations>



CERTIFICATE OF REGISTRATION

This is to certify that

Bowmer and Kirkland Ltd

High Edge Court
Heage
Belper
Derbyshire
DE56 2BW

has been audited and found to meet the requirements of standard
ISO 9001:2015 Quality Management System

Scope of certification

Building Contracting, including Design & Build.

Certificate number: C1000

Issue number: 2023-01

Certificate effective date: 1 February 2023

Certificate expiry date: 18 February 2026

Date of initial certification: 1 September 2000

Vicki Howlett
General Manager - Certification UK

Issuing Office: Warringtonfire Testing and Certification Limited t/a BM TRADA Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4ND, UK
Registered Office: Warringtonfire Testing and Certification Limited, 3rd Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA, UK
Reg No. 11371436.

This certificate remains the property of BM TRADA. This certificate and all copies or reproductions of the certificate shall be returned to BM TRADA or destroyed if requested. Further clarification regarding the scope of this certificate and verification of the certificate is available through BM TRADA or at the above address or at www.bmtrada.com/certified-companies/check-a-certificate

The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification number 012. For further information on bmtrada activities covered by UKAS accreditation please go to: <https://www.ukas.com/search-accredited-organisations>



Certificate of Associate Membership Bowmer & Kirkland Group

is an Associate Member of the
Considerate Constructors Scheme

Associate Members:

- Register all their sites with the Scheme.
- Ensure compliance with the Scheme's Site Code of Considerate Practice on all their sites.
- Promote the Scheme and its aims.

Norman Reed, CEng(Hons) MICE,
Chairman, Considerate Constructors Scheme Ltd.

Issue date: November 2009

Improving the image of construction

Planet Positive verifies that Bowmer & Kirkland have aligned their Social Responsibility Policy, Procedures & Practices with ISO 26000:2010



Steve Malkin, CEO Planet Positive

1st May 2012



ISO 26000:2010 - Social Responsibility

Bowmer & Kirkland's Social Responsibility Policy, Procedures & Practices encapsulate the seven fundamental core principles of social responsibility:

Organisational Governance	Ensuring that an organisation has an effective system and structure in place to implement its social responsibility policies.
Human Rights	The guarantee that Bowmer & Kirkland respects the fundamental rights of the people that it interacts with. It means, for example, promoting equal opportunities and diversity.
Labour Practices	Practices to ensure that the health and wellbeing of Bowmer & Kirkland's employees and those working on behalf of B&K are safeguarded, that they are well trained and receive opportunities for development.
The Environment	Stems from the recognition that businesses have an impact on their environment, both directly and indirectly. Puts procedures in place to minimise this and wherever possible have a positive impact.
Fair Operating Practices	Commits Bowmer & Kirkland to ethical, honest and fair transactions with other parties. Also promotes harmonious working practices between management and Bowmer & Kirkland's employees.
Consumer Issues	Gives consumers the confidence that Bowmer & Kirkland have their best interests at heart. Focused primarily on B&K delivering complete customer satisfaction.
Community Involvement & Development	Acknowledges the important role that Bowmer & Kirkland plays in the wider community and that Bowmer & Kirkland can promote positive community development through engagement.



ENVIRONMENTAL IMPACT ASSESSMENT

(To be considered in conjunction with B+K Group Environmental Document)

PROJECT:	Echo Street, Manchester	PROJECT NO.	
AUTHOR / POSITION:	Paul Smith, Environment Manager	DATE:	Rev 1, 11/9/2023

REF	ENVIRONMENTAL SITE ASPECTS (Actual and Potential)	LIKELIHOOD	CONSEQUENCE	IMPACT LEVEL	PROPOSED MITIGATION MEASURES	TENDER STAGE ACTION	CONSTRUCTION STAGE ACTION	LEGAL & OTHER REQUIREMENTS (SEE MPA 6.1)
								LEGISLATION REF NO.
A	ARCHAEOLOGY AND HERITAGE: (ARCHAEOLOGICAL REMAINS, LISTED BUILDINGS, CONSERVATION AREAS)							
A1	No archaeology works required due to significant groundworks that have already been undertaken.	B	2	M	No further mitigation required	None	1. As a precaution Watching Brief during any deep excavations 2. Ref to SP 10.1 - Archaeology	5.1, 5.3 7.2
A2	Rail viaduct arches (Grade II Listed) located to the south of the site	B	2	M	Monitoring for vibration during construction	include cost for vibration monitoring during construction.	1. Ensure alert trigger levels are agreed and set, e.g 5mm/sec and 7mm/sec. 2. Where vibration alerts / warnings are received stop assess works.	3.1
B	CONTAMINATED LAND AND BUILDINGS: (CONTAMINATED GROUND, ASBESTOS, KNOTWEED, GIANT HOGWEED ETC.)							
B1	Made Ground source of non-hazardous contamination including asbestos ACM's and fibres @ 0.0001%.	B	2	M	Limited excavation works other than additional foundations and drainage	Arising will require disposal as non-hazardous (containing asbestos), allow for additional cost of WAC testing.	1. Additional WAC testing maybe required for disposal offsite 2. Asbestos hand-picked for disposed of at licence site as hazardous waste 3. Clean cover at 450mm in areas of soft landscaping	1.1, 1.2, 1.6 2.1 4.1, 4.2, 4.4, 4.5 5.1, 7.3 4.4
B2	Nearby Residential building impact by construction noise	B	2	M	Implementation of Mitigation in accordance with BS 5228	Allow for noise monitors during construction	1) Noisy works within permitted working hours 2) Noise monitoring to be implemented, where active noise monitoring is used then action and warning limits are to be set	3.1
C	ECOLOGY: (TPO'S, SSSI'S, WILDLIFE, FLORA / FAUNA)							
C1	Trees to be removed, potential for nesting birds. Tree protection require for retained trees within the park area to the West	B	2	M	Tree removal in nesting season will require inspection by an ecologist	Included within sub-contractor package for site clearance.	1. Avoid cutting or removing hedges and trees during the nesting season, April - September. Seek advice from the ecologist. 2. Erect tree protection in accordance with BS 5837 and Tree Protection Plan.	1.2, 1.6 5.1, 5.2 7.1, 7.2 7.3

IMPACT LIKELIHOOD / DEFINITIONS		IMPACT CONSEQUENCE DEFINITIONS		LEVEL	1	2	3
A	Likely Will probably occur	1	Major Significant effect	A	High (H)	High (H)	Medium (M)
B	Moderate May occur	2	Moderate Moderate effect	B	High (H)	Medium (M)	Low (L)
C	Unlikely Is unlikely to occur	3	Low Little or no effect	C	Medium (M)	Low (L)	Low (L)

ENVIRONMENTAL IMPACT ASSESSMENT

(To be considered in conjunction with B+K Group Environmental Document)

REF	ENVIRONMENTAL SITE ASPECTS (Actual and Potential)	LIKELIHOOD	CONSEQUENCE	IMPACT LEVEL	PROPOSED MITIGATION MEASURES	TENDER STAGE ACTION	CONSTRUCTION STAGE ACTION	LEGAL & OTHER REQUIREMENTS (SEE MPA 6.1)
								LEGISLATION REF NO.
D	WATER: (PROXIMITY TO WATERCOURSES, ATTENUATION, RESTRICTIONS)							
D1	No water courses near to site, no groundwater strikes	C	1	L	None	None	None	
E	EMISSIONS TO AIR: (DUST, SMOKE / FUMES / GASES & CO2 EMISSIONS)							
E1	Dust from lorries during excavation works and general site traffic.	B	2	M	Dust control measures to be provided e.g. wheel wash, road sweeper etc. and in accordance with "IAQM Guidance on the assessment of dust from demolition and construction"	Wheel wash and road sweeper included in preliminaries allowance.	1. Wheel wash provided prior to site strip. 2. Monitor condition of road and arrange for road sweeper as and when required. 3. Daily checks on plant that produce fumes to be carried out. 4. Application of site controls on smoking, including posting of notices in site cabins and on site. 5. Use of red diesel is banned for all construction non-road mobile machinery	1.1, 1.3 2.1, 2.2, 2.3, 2.5
E2	Exhaust fumes from plant equipment.	B	3	L				4.1 2.6
E3	Operatives smoking.	B	3	L				
F	LIGHTING: (SENSITIVITY OF SITE LIGHTING / PERMANENT LIGHTING TO NEIGHBOURS / WILDLIFE)							
F1	General Site Lighting and its impact on neighbours.	C	3	L	Appropriate lighting in site establishment package.	Allow for LED site lighting site lighting to be LED with at least Warm white spectrum (<2700k) Lights will be shrouded / pointed downward and away for areas of vegetation.	1. Scheme included in the "Considerate Contractor's Scheme". General site lighting and security lighting to be turned away from neighbours. 2. Lighting to be turned off after work ends for the day unless required for site security to minimise energy usage.	1.1
F2	Security Lighting and its impact on neighbours.	B	2	M	Need to avoid light pollution in security package.			4.1
F3	Security Lighting and its impact on wildlife.	B	2	M				5.1, 5.2 7.1
G	NOISE: (DISTURBANCE TO NEIGHBOURS, DELIVERY VEHICLES, TIMES OF OPERATION)							
G1	General plant equipment noise.	A	2	H	Anti-vibration and acoustic hoods to be included as part of	All anti-vibration and hoods included in sub-contractor	1. Sub-contractors include anti-vibration mounts and acoustic screens in RAMS.	1.1

IMPACT LIKELIHOOD / DEFINITIONS		IMPACT CONSEQUENCE DEFINITIONS		LEVEL	1	2	3
A	Likely Will probably occur	1	Major Significant effect	A	High (H)	High (H)	Medium (M)
B	Moderate May occur	2	Moderate Moderate effect	B	High (H)	Medium (M)	Low (L)
C	Unlikely Is unlikely to occur	3	Low Little or no effect	C	Medium (M)	Low (L)	Low (L)

ENVIRONMENTAL IMPACT ASSESSMENT

(To be considered in conjunction with B+K Group Environmental Document)

REF	ENVIRONMENTAL SITE ASPECTS (Actual and Potential)	LIKELIHOOD	CONSEQUENCE	IMPACT LEVEL	PROPOSED MITIGATION MEASURES	TENDER STAGE ACTION	CONSTRUCTION STAGE ACTION	LEGAL & OTHER REQUIREMENTS (SEE MPA 6.1)
								LEGISLATION REF NO.
G2	Noise from delivery vehicles.	B	2	M	sub-contract packages. Housing for generator to be considered. Review of site constraints and location of neighbours to construction activities	tender. Consider early Temporary Building Supply instead of generator.	2. Early engagement for TBS supply instead of generator. 3. identify high noise activities 4. Consider Section 61 application 5. Carry out noise monitoring at key locations on site boundary 4. Newsletter drops to local residents	3.1, 3.2
G3	Noise from specific construction activities	A	2	H				4.1
5.1								
H PACKAGING MATERIALS: (SEGREGATION / CONTROL, RECYCLING)								
H1	General site wastage from packaging, delivery pallets and crates.	A	3	M	Re-cycling skips to be provided to separate waste. Requirement for all sub-contractors to be responsible for their waste and to plan to remove waste in a safe manner and re-cycle whenever possible. Introduce packaging take-back schemes for subcontractors waste.	Cost of skips included in preliminaries allowance. Need for management of packaging noted in pre-order meeting minutes for sub-contractors.	1. Implementation of tender stage control measures. 2. Area for location of re-cycle skips identified. 3. Ensure subcontractors adopt take-back schemes to minimise packaging waste. 4. consider re-use/re-usable packaging.	4.1, 4.3, 4.7, 4.8, 4.10
I STORAGE AND HANDLING OF MATERIALS: (FUEL, STORAGE, WASTAGE, RADIOACTIVE / DANGEROUS MATERIAL)								
I1	Safe storage of fuel and oils	B	2	M	Use of bunded tanks for oil storage.	Provision for bunds to diesel tanks included in preliminaries allowance.	1. Diesel tanks bunded. 2. Adoption of "Considerate Contractor Scheme" on site. Work towards achieving "very good" rating. 3. Site storage areas established and 10m for any watercourse or drain.	1.2, 1.5, 1.6 2.3, 2.4
I2	Management of the storage of materials.	B	2	M	Dedicated site storage areas.	Areas for storage are included within our site establishment plan in our proposals.		4.1, 4.2, 4.9, 4.10 5.1
J VIBRATION: (DAMAGE TO BUILDINGS)								
J1	Vibration from driven piles	A	1	H	Piling for foundations to be bored piles NOT driven piles.	Cost of bored piles included within our tender, which are higher than cost of driven piles.	1. Bored piles to be used for the construction of the foundations. Daily monitoring checks to be carried out by the engineer during the piling process. 2. Regular checks carried out on the condition and impact of plant and equipment to minimise	3.1
J2	Vibrations from plant and equipment.	B	3	L	Regular maintenance of plant and equipment.			5.1
6.1								

IMPACT LIKELIHOOD /DEFINITIONS		IMPACT CONSEQUENCE DEFINITIONS		LEVEL	1	2	3
A	Likely Will probably occur	1	Major Significant effect	A	High (H)	High (H)	Medium (M)
B	Moderate May occur	2	Moderate Moderate effect	B	High (H)	Medium (M)	Low (L)
C	Unlikely Is unlikely to occur	3	Low Little or no effect	C	Medium (M)	Low (L)	Low (L)

ENVIRONMENTAL IMPACT ASSESSMENT

(To be considered in conjunction with B+K Group Environmental Document)

REF	ENVIRONMENTAL SITE ASPECTS (Actual and Potential)	LIKELIHOOD	CONSEQUENCE	IMPACT LEVEL	PROPOSED MITIGATION MEASURES	TENDER STAGE ACTION	CONSTRUCTION STAGE ACTION	LEGAL & OTHER REQUIREMENTS (SEE MPA 6.1)
								LEGISLATION REF NO.
							vibrations due to poorly maintained plant. 3. Refer to SP 10.5 – Vibration	
K	WASTE (HARMFUL SUBSTANCES, RE-CYCLING / SEPARATION / CONTROL, TRANSPORT, SKIPS)							
K1	Generation of waste materials.	B	2	M	SWMP to be prepared and implemented on the project	Remediation of contaminated soils included in tender. Disposal of hazardous waste included in tender Requirement for an MMP for the re-use of site won material	1. Additional WAC testing for playing field. 2. Implement SWMP 3. Segregate hazardous waste materials 4. Remediate & reuse contaminated soils on site 5. Assess requirement for MMP's 6. Provide areas for the safe and secure collection of packaging waste by subcontractors	1.1, 1.2 2.1 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7. 4.9, 4.10 5.1
K2	Avoid over-ordering that creates waste.	B	2	M				
K3	Re-use of site won material	B	2	M				

DISTRIBUTION:

Divisional Director

Contracts Manager

Site Manager

Project Surveyor

Main File

IMPACT LIKELIHOOD /DEFINITIONS		IMPACT CONSEQUENCE DEFINITIONS		LEVEL	1	2	3
A	Likely Will probably occur	1	Major Significant effect	A	High (H)	High (H)	Medium (M)
B	Moderate May occur	2	Moderate Moderate effect	B	High (H)	Medium (M)	Low (L)
C	Unlikely Is unlikely to occur	3	Low Little or no effect	C	Medium (M)	Low (L)	Low (L)