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Appendix 3.1 - Draft Construction Management Plan

Manchester City Council

October 2024

FORMER CENTRAL RETAIL PARK – THE PARK

AtkinsRéalis - Sensitive / Sensible

Notice

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Client signoff

Client	Manchester City Council	**Client signature/date**
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1. Introduction

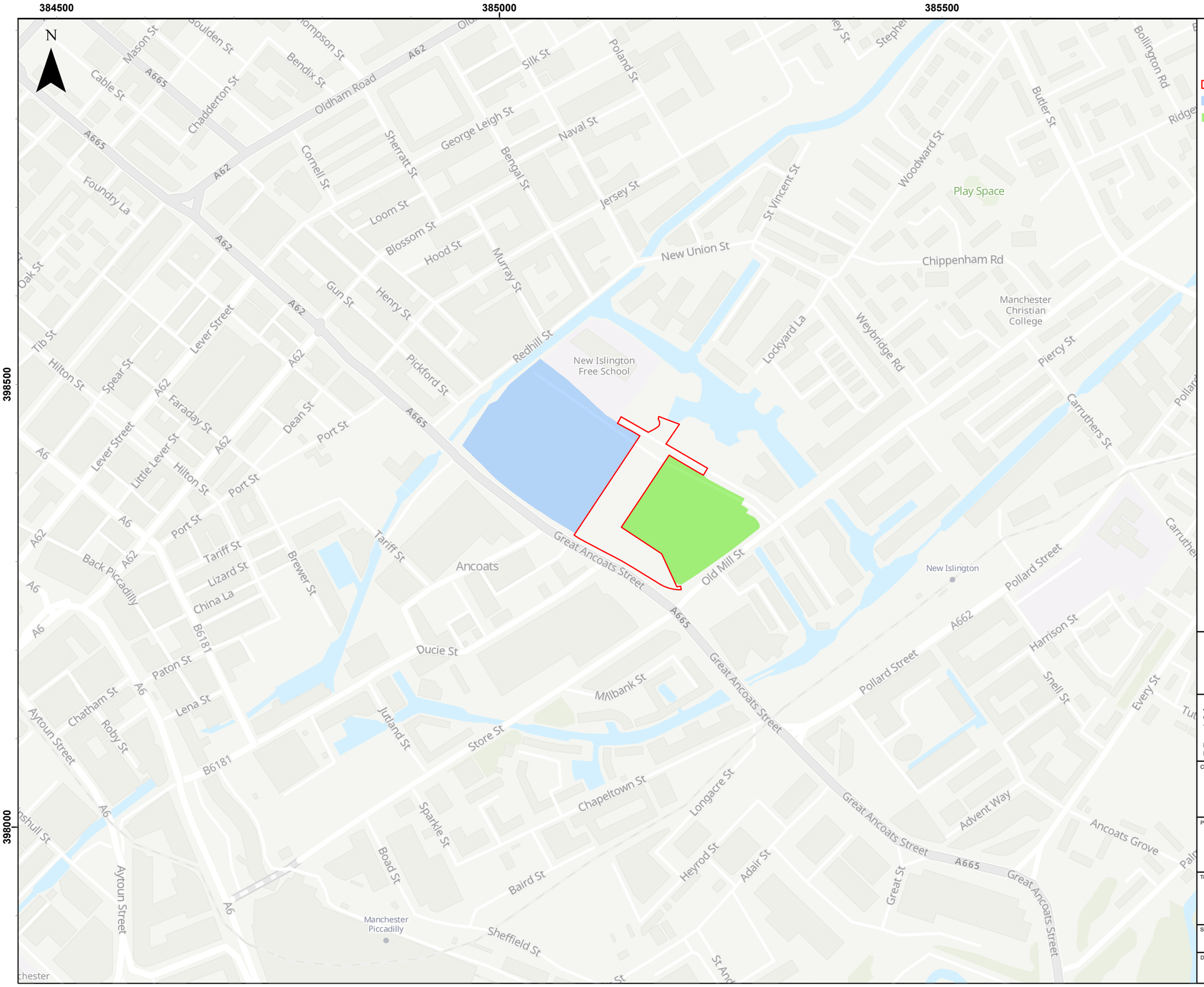
This Draft Construction Management Plan (CMP) has been prepared in respect of the proposals for the Park development at the former Central Retail Park at Ancoats in Greater Manchester (herein referred to as the 'Site'), see Figure 1-1. Manchester City Council (MCC) (herein referred to as the 'Applicant') will be submitting an application for Full Planning Permission for the new park, comprising landscaping, street furniture and hardstanding surfaces (herein referred to as the 'Proposed Development'). This should be read in conjunction with the main Construction Management and Phasing Chapter within the ES Volume (Chapter 3).

This Draft CMP provides a structure that will be developed by the appointed contractor(s) and aims to demonstrate what will be included as part of the detailed CMP.

This Draft CMP sits alongside the ES and supports the environmental assessment of the Proposed Development. Therefore it identifies environmental management requirements during the construction phase and it is the responsibility of the Principal Contractor to develop this further and include wider construction management and health and safety requirements in the Detailed CMP.

It is the appointed contractor(s) responsibility to identify all relevant regulations and statutory approvals within the detailed Construction Management Plan, ensuring all necessary permissions are obtained prior to commencing work.

It is proposed that the detailed Construction Management Plan is controlled using planning conditions, to allow details to be developed by the appointed contractor(s) in advance of works commencing on site.



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Metres
0 40 80 120 160

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Consulting Engineers
The Hub
500 Park Ave,
Bristol, South Glos.,
England, BS32 4RZ
Tel: +44(0)1454 662000
Fax: +44(0)1454 663333
www.atkinsrealis.com

Client
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Project
Former Central Retail Park: The Park

Title
Location of the Proposed Development

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Drawing Number
Figure 1-1

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2. Description of the Site and Proposed Development

The Site for the Proposed Development will form one part of a wider development of the Former Central Retail Park (FCRP) site. A Strategic Regeneration Framework (SRF) was produced for the entire FCRP site in March 2023[1] which details the context and design drivers behind developing the area into a 'high-quality sustainable office district with an attractive public realm at its centre, including a new green space'. The SRF outlines the phasing of the site in relation to three different developments that are proposed as part of the overall regeneration of the site: Phase 1, Phase 2 and the Proposed Development. This draft Construction Management Plan has been prepared in respect of the proposals for the Proposed Development.

2.1.1 Site description

The FCRP, which is currently vacant, is approximately 4 ha in total. The Site area, for the Proposed Development, is approximately 0.91 ha. It is located in Manchester City Centre's north-eastern fringe. The Site is bounded by Great Ancoats Street to the south, Cotton Field Park and Co-op Academy New Islington to the north, Rochdale Canal Towpath to the northwest and the Phase 2 development to the southeast. The Site will separate the Phase 1 and the Phase 2 development as shown in Fig 1-1.

2.1.2 Surrounding Area

The Site currently is an unused space amidst the on-going regeneration of the surrounding area. It is a large, concreted area with areas of scrub dotted throughout it, with a structure located on the western boundary. Trees line the edge of the Site and limited vegetation is present including buddleia. There is a 5 m ground level change across the Site between its northwest corner, descending towards its southeast corner where Great Ancoats Street and Old Mill Street intersect with remnants of the old buildings seen throughout.

Currently the Site has a main vehicular access point located off Great Ancoats Street, and a secondary access point off Old Mill Street, formerly used for deliveries and waste collections.

Key residential areas include those surrounding New Islington Marine, Union Street, New Islington and Weybridge Roads which are north of the Site. This region alone comprises over 600 residential dwellings. A further 800+ new developed residential properties are located south east of the Site, along Old Mill Street. Additionally, over 700 residential properties are located between Redhill Street and Jersey Street, north west of the Site.

There are businesses surrounding the site including at the Urban Exchange, a retail outlet on Great Ancoats Street opposite the Site. Occupiers include Aldi, GO Outdoors and PureGym. Poland Street, north of the Site, comprises several warehouses with occupiers including Powells Tea and Coffee Merchants, Ancoats Food Factory and a Recycling Centre. Other clusters of commercial properties are located in proximity to the Site such as those on Ducie Street and Laystall Street (south of the Site) and Cutting Room Square (west of the Site).

The built environment is broken up by a network of busy main roads such as the Great Ancoats Street ring road (A665) south west of the Site, Old Mill Street east of the Site and Redhill Street north west of the Site.

The Site is adjacent to Cotton Field Park which is located to the north and is defined by open green space. Co-op Academy New Islington is located to the west of the park.

Rochdale canal breaks up the urban environment and borders the western border of the Site. The canal connects to Cotton Field Wharf Marina, north of the Site. This marina included a variety of commercial properties as well as residential and facilitates the mooring of boats.

The Site is not within a conservation area; however the boundary of the Ancoats Conservation Area is located 127 m northwest to the Site. There are six other conservation areas within 1 km of the Site.

There are no statutory Listed Buildings within the Site, however there are 202 Listed Buildings within 1 km of the Site, the closest being Grade II listed 32 and 34 Laystall Street located 124 m southwest from the Site.

The Site is located within the Manchester Air Quality Management Area (AQMA), which covers Manchester City Centre, the area around Manchester Airport and the main arterial traffic routes in the city. The pollutant declared for the AQMA is annual mean nitrogen dioxide (NO2) with the source determined as a mixture of road types.

The Rochdale Canal is the closest waterbody to the Site, located 139 m northwest of the Site. The Site is within Flood Zone 1 (low probability of flooding).

There are three Noise Important Area (NIA) within 1 km of the Site. NIA ID: 10962 is located within the Site.

There are no historic landfills or permitted waste sites within 300 m of the Site. The closest is historic landfill (ID: EAHLD16530) located 790 m south-east of the Site.

3. Construction of the Proposed Development

3.1.1 Programme

The total construction programme is expected to span a period of approximately 12 months from 2030 at the earliest, within which there will be elements of ground works, hard and soft works such as tree and vegetation planting and installation of street furniture. The Proposed Development is anticipated to be delivered in three continuous phases.

Table 3-1 Construction programme

Phase		Timescale
1 – Site Establishment		Eight weeks
2 – Construction Execution	Earthworks	Six weeks
	Hard engineering	16 weeks
	Soft engineering	16 weeks
3 – Commissioning and Handover		Two weeks

The programme is based upon on the assumption that working hours of 07.00hrs to 18.00hrs Monday to Friday will be followed, with no work at weekends or Bank Holidays (unless otherwise agreed with MCC). No night-time working is assumed to occur at any point during the construction phase.

[1] Former Central Retail Park draft regeneration framework | Manchester City Council

3.1.2 Outline sequence of activities

The assumed sequence of activities, which will need to be determined by appointed contractor(s), is:

- Weeks 1-8: Mobilisation and site establishment
- Weeks 9-15: Construction Execution- Earthworks
- Weeks 16-32: Construction Execution- Hard Engineering
- Weeks 33-49: Construction Execution- Soft Engineering
- Weeks 50-52: Commissioning and Handover

The appointed Principal Contractor will determine the detailed construction methodology and outline this within the Detailed CMP.

3.1.3 Phasing

Construction of the Proposed Development will follow the completion of the Phase 1 development. The Phase 1 development will undertake partial site clearance and groundworks within the central corridor of the Proposed Development.

The 12-month programme has been split into three stages with their corresponding timescales detailed below:

- Site Establishment
- Construction Execution
- Commissioning and Handover

Phase 1: Site establishment

The first stage is to secure the Site, by establishing a works compound and materials and equipment laydown areas, Site access, and erecting security fencing to control access onto the Site.

It is assumed that the disused service road off Old Mill Street will be used for access to the Site throughout construction.

Phase 2: Construction execution

Construction methods are still to be confirmed; however they will be comparable to those of any similar scale recreational development. Broadly, the works activities will include:

- Earthworks:
  - Completion of earthworks/groundworks still outstanding following the construction of the Phase 1 development,
- Hard engineering:
  - Foundations and hardstanding construction,
  - Drainage infrastructure construction,
  - Lighting installation,
- Soft engineering:
  - Landscaping and vegetation planting, and
  - Street furniture installation.

Phase 3: Commissioning and handover

Upon completion of the works, the Principal Contractor will provide the operator with all as-built information, build records, and any relevant Inspection and Test Plans which identify the completion status and acceptance at the end of construction, ready for handover.

3.1.4 Site logistics

Access to the Site will be via the disused service road off Old Mill Street. The gates to the Site will be manned during working hours. Where required, appropriate vehicle wash facilities will be in place to ensure they leave the Site clean. This will be in combination with regular cleaning of Old Mill Street.

It is anticipated that all construction compounds, welfare facilities and material storage will be contained within the Site boundary. Power will be obtained from the existing grid connections to the Site so that mobile generators will not be required.

Any temporary public road or footpath closures associated with the construction of the Proposed Development will be agreed with the relevant MCC departments and relevant diversion signage will be put in place. This includes temporary cordoning within Cotton Fields Park where works are planned to take place.

Deliveries

It is anticipated that all deliveries will arrive via the disused service road off Old Mill Street which connects to the north of the Site.

Where appropriate, wheel washing facilities will be in place to ensure the maintenance of the road network in proximity to the Site is maintained. Sweeping of Old Mill Street will be undertaken when necessary.

Loading and unloading of material deliveries will occur within the Site whenever possible. Should exceptional circumstances occur, special measures will be instigated to accommodate these occurring outside of the Site.

Parking

It is assumed the workforce would be no larger than 50 people due to the scale of the Proposed Development and that site personnel will be encouraged to utilise the extensive public transport options available. Therefore parking requirements are expected to be minimal. Full site plans for parking will be outlined within the detailed CMP prior to construction.

Construction materials

The materials being used within the design do not generate a risk to construction personnel using the appropriate PPE and following manufacturers guidance.

Material storage will be within the Site with access through the Site entrance for deliveries. Stockpiling of materials will be kept to a minimum where possible, with deliveries timed appropriately to align with the programme of works taking place.

Site security and safety

Protecting the public from risks associated with the construction works is high priority of this application. Measures such as dust and noise control and the erection of perimeter fencing will be taken.

Appropriate action will be taken to ensure the Site is secure at all times from unauthorised access. The provision of CCTV would be considered if required to aid the prevention of unauthorised activities.

4. Contractor roles and responsibilities

As part of the detailed CMP, the Principal Contractor will establish their organisational structure, key points of contact and clearly defined roles and responsibilities, setting out who has responsibility for key roles on the project.

The Principal Contractor is responsible for overseeing the overall management of the construction site and thus the coordination of all parties on site and their associated construction activities.

Specific responsibilities of the Principal Contractor include:

- Implementing all environmental mitigation within the construction phase;
- Monitoring of the site;
- Maintenance of the site diary;
- Correspondence throughout the construction workforce, the client and local communities;
- General management of subcontractors;
- Instructions of works on site; and
- Maintaining contract records.

5. Contractor's requirements

Each construction tasks undertaken will require a Risk Assessment and Methods Statement (RAMS) to be produced. These will identify all potential risks, including environmental risks. The Principal Contractor will be required to ensure all relevant mitigation measures identified within Section 7 of this Draft CMP is incorporated within each of these RAMS' as well as any further mitigation that is deemed appropriate and proportionate.

6. Control procedures

6.1.1 Air Quality Management Plan

Implementation of air quality related mitigation identified within Section 7 of this Draft CMP will satisfy the required to define management of construction related air quality impacts. These measures include:

- Implementation of the mitigation measures specified in the IAQM guidance for all construction activities;
- Implementation of the mitigation measures specified in the IAQM guidance for low-risk demolition activities; and
- Implementation of the mitigation measures specified in the IAQM guidance for low risk trackout activities.

Further detail on each of these measures is provided in Table 7-1.

6.1.2 Waste management

Implementation of waste related mitigation identified within Section 7 of this Draft CMP will satisfy the required to define management of construction related waste. These measures include:

- Adherence to the Waste Hierarchy; and
- Implementation of the Site Waste Management Plan.

Further detail on each of these measures is provided in Table 7-1.

6.1.3 Human Impact Management Plan

No significant adverse impacts have been identified by the Human Health assessment within the ES (Volume 2, Chapter 13) and therefore no mitigation is proposed in order to manage the impact of the construction of the Proposed Development on humans at this stage.

This management plan will be developed prior to construction by the Principal Contractor within the Detailed CMP.

6.1.4 Traffic management

The Site is well served from the disused service road off Old Mill Street which connects to the surrounding local road network. Construction of the Proposed Development is not anticipated to generate a sufficient number of construction vehicles per day to have a material effect on the operational performance of the road network or to give rise to any related significant adverse consequential effects. Therefore no mitigation measure shave been identified at this stage.

This management plan will be developed prior to construction by the Principal Contractor within the Detailed CMP, detailing any coordination and consultation undertaken with National Highways and relevant local authorities.

6.1.5 Coordination of adjacent construction activities

Following a review of live planning applications in the surrounding area of the Site, it has been concluded that all developments are expected to be fully constructed prior to the Proposed Development. Therefore there are not currently any anticipated adjacent developments and construction sites. Should this change, the Principal Contractor will establish a process to ensure regular dialogue to manage the co-ordination of adjacent construction activities. This should consider key interfaces, timing of activities, deliveries, access/egress, loading and unloading, traffic management etc. These processes will be outlined within the Principal Contractor's Detailed CMP.

7. Construction mitigation

The following mitigation has been identified within the environmental assessments undertaken within the ES (Volume 2) and should be adhered to during the construction phase.

Table 7-1 Environmental mitigation to be implemented during the construction phase

Mitigation measure	Description
Adherence to waste hierarchy	The waste hierarchy is a framework that ranks waste management options according to their environmental impacts. The waste hierarchy has five steps: waste prevention, preparing for reuse, recycling, recovery, and disposal, with waste prevention being the most preferable option. Specific to the Proposed Development, the design will take into account the use of recycled materials to reduce the use of primary materials. To support the recycling and recovery aspect of the waste hierarchy, targets will be set to recycle or recover wastes that leave Site, therefore diverting them from landfill.
Best practice biodiversity measures	The following ecological mitigation measures have been provided as general best practice or for legal compliance only. ▪ If any protected species or evidence of protected species, or any invasive non-native protected species (INNPS), are unexpectedly encountered at any point during the works, all works will cease, and an ecologist will be contacted for further advice on how to proceed. ▪ Prior to construction, a suitably qualified Ecological Clerk of Works (ECoW) will be employed for the duration of construction of the Proposed Development and for pre-construction clearance works. The retained trees within, and adjacent to the Site, will be protected in line with guidelines provided in BS 5837 Trees in relation to Construction. ▪ Where relevant, any excavations will be filled or covered overnight to prevent animals (such as fox) becoming entrapped. Where excavations cannot be filled or covered overnight, a plank of wood (or similar) will be placed into the excavation at an angle that allows means of escape. If vegetation removal is scheduled within the core bird nesting season (the nesting season is 1 March to 31 August, though it should be noted that variation in dates is possible, for example from geographical variations in climate, or due to a particularly mild winter), works will require an inspection of vegetation to be cleared for breeding birds and their occupied nests by a suitably qualified ecologist no more than 24 hours prior to any works being undertaken. If any nesting birds are identified during the survey, they will be left in situ for their entire nesting period and alternative approaches to the work proposed. This may include leaving an exclusion zone around the nests to avoid disturbance. ▪ Any trees with a precautionary 'low' bat roost suitability and the structure on Site will be soft felled, where tree limbs and PRFs are cut/removed in sections under the guidance of the ECoW.
Best practice noise and vibration measures	▪ All plant and equipment will comply with the noise limit and noise marking requirements prescribed by the "Noise Emission in the Environment by Equipment for Use Outdoors Regulations 2001" and the "Noise Emission in the Environment by Equipment for Use Outdoors (Amendment) Regulations 2005" implementing the EU Directives 2000/14/EC. ▪ All plant, equipment and noise control measures applied to plant and equipment shall be maintained in good and efficient working order and operated such that noise emissions are minimised as far as reasonably practicable. As far as reasonably practicable, any plant, equipment or items fitted with noise control equipment found to be defective will not be operated until repaired. ▪ Vehicles and mechanical plant employed for any activity associated with the construction works will, where reasonably practicable, be fitted with effective exhaust silencers and shall be maintained in good working order and operated in a manner such that noise emissions are controlled and limited as far as reasonably practicable. ▪ Machines in intermittent use will be shut down or throttled down to a minimum during periods between works. ▪ Static noise emitting equipment operating continuously will be screened or housed within suitable acoustic enclosure, where appropriate. ▪ Noisy plant or equipment shall be sited as far away as possible from noise sensitive buildings. Wherever practicable, the use of barriers in the form of acoustic enclosures or barriers shall be employed. ▪ All personnel on site will undergo site specific inductions and briefings, to include section 61 consent requirements where required, and noise and vibration control measures. ▪ Where relevant, specific noise control measures will be incorporated into Works Package Plans. ▪ A programme of community liaison will be carried out, including notification of works and details of the complaints process. ▪ A programme of site inspections and noise monitoring is recommended to assess whether BPM is being employed in the control noise and vibration, to investigate any noise complaints or incidents and compare actual construction noise levels against those predicted. ▪ Noise from reversing alarms from delivery and construction vehicles will be controlled and limited as far as possible through the following means: ▫ Designing the site layout to limit the need for reversing vehicles; ▫ The use of banksmen for traffic management at site entrance gates and within site footprint; ▫ Reversing alarms incorporating directional sounders, broadband signals self-adjusting output sounders or flashing warning lights; ▫ Setting reversing alarms to the minimum output noise level required for health and safety compliance; and ▫ Where practicable, noisy activities (such as vegetation clearance and access track works near to properties) should be undertaken during normal daytime working hours (0800 to 1800 Monday to Friday). ▪ Neighbourhood liaison should be undertaken with local residents and surrounding businesses that are likely to be affected by the works, informing them of the nature and expected duration of the works and the proposed hours of work. A noticeboard should be displayed in a prominent position near the site detailing named contacts who are able to provide further information and deal with any complaints as appropriate during all working hours.

Mitigation measure	Description
Best practice pollution prevention measures	Potential impacts from construction can be mitigated through best practice measures which are associated with good site practice and preparation of robust method statements. Mitigation measures which will be implemented to mitigate any potential impacts to the water environment during construction of the Scheme will include adhering to Guidance such as Guidance on Pollution Prevention (GPPs) and CIRIA C715 Environmental good practice. Although now withdrawn by the Environment Agency, their Pollution Prevention Guidelines still detail good practice advice for undertaking works which may have the potential to result in water pollution. In general terms, by following these guidelines, significant impacts to the water environment will be avoided.
Carbon management plan	A Carbon Management Plan will be produced to identify opportunities to reduce carbon emissions through the use of materials with low embedded carbon, and construction practices that will minimise carbon emissions. The carbon management plan will be reviewed and updated throughout the detailed design phase to identify further opportunities for carbon savings throughout the construction and operation of the Proposed Development.
Construction site management	The construction site will be kept clean and tidy with dedicated areas demarcated for equipment and materials storage. Temporary construction site fencing will include solid hoarding where there are direct views into the Site. Working hours will consider adjacent residential receptors.
Drainage Management Plan	A Drainage Management Plan (CMP) will be produced by the Principal Contractor prior to construction. It will include details of how increased surface water runoff from new areas of hardstanding will be managed to ensure no increase in flood risk. The DMP will also include details of how the construction compounds will safely manage surface water flows in line with Environment Agency PPG and CIRIA guidance.
Flood risk management during construction	The majority of the earthworks doe the Site are being undertaken by the Phase 1 development. The earthworks for the remainder of the Site (the dog-leg parallel to Great Ancoats Street and within Cotton Field Park) should not be stored within the surface water flood extent, where surface water ponding may potentially occur during high storm events. This reduces the incidence of surface water runoff with a high sediment load being washed to the surrounding study area.
Implementation of the mitigation measures specified in the IAQM guidance for all construction activities.	The following general mitigation measures for all construction sites, specified in the IAQM guidance will be implemented across the construction works areas (Note that number refer to the mitigation number in the IAQM guidance): 1. Develop and implement a stakeholder communications plan that includes community engagement before work commences on site. 2. Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager. 3. Display the head or regional office contact information. 4. Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk, and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. 5. Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. 6. Make the complaints log available to the local authority when asked. 7. Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book. 8. Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport / deliveries which might be using the same strategic road network routes. 9. Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary. 10. Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked. 11. Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. 12. Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction. 13. Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. 14. Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. 15. Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period. 16. Avoid site runoff of water or mud. 17. Keep site fencing, barriers and scaffolding clean using wet methods. 18. 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. 19. Cover, seed or fence stockpiles to prevent wind whipping. 21. Ensure all vehicles switch off engines when stationary - no idling vehicles. 22. Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable. 23. Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate). 24. Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials. 25. Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing). 26. 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. 27. Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

Mitigation measure	Description
	28. Use enclosed chutes and conveyors and covered skips. 29. Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate. 30. 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. 31. Avoid bonfires and burning of waste materials
Implementation of the mitigation measures specified in the IAQM guidance for low risk demolition activities.	In addition to the general measures set out in the IAQM guidance, the following mitigation measures specified for low risk demolition activities must be applied (Note that numbers refer to the mitigation number in the IAQM guidance): 33. Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground. 34. Avoid explosive blasting, using appropriate manual or mechanical alternatives. 35. Bag and remove any biological debris or damp down such material before demolition.
Implementation of the mitigation measures specified in the IAQM guidance for low risk trackout activities.	In addition to the general measures set out in the IAQM guidance, the following mitigation measures specified for low risk trackout activities must be applied (Note that numbers refer to the mitigation number in the IAQM guidance): 43. Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use. 44. Avoid dry sweeping of large areas. 45. Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport. 47. Record all inspections of haul routes and any subsequent action in a site log book. 49. Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
PAS2080 Carbon Reduction Hierarchy	Guidance on how to avoid, switch and improve designs to reduce associated carbon emissions will be followed. This will initially focus on design changes and smart engineering before then focusing on offsetting or sequestration, either on-site or off-site. This will also relate to the transportation and construction of the design to ensure low carbon solutions are implemented throughout the 'Before use' stages of the Proposed Development.
Production of RAMS and adoption of appropriate PPE and best working practices	Health and safety Risk Assessment and Methods Statements (RAMS) will be undertaken for all construction activities which will be developed and managed by the Principal Contractor through the Detailed CMP. The RAMS will identify and specify the appropriate PPE necessary for the protection of construction workers and will identify the correct working measures to minimise risk.
Replacement compensatory habitat	Delivery of 10% gain for area base habitats and rivers. The Proposed Development will include landscape planting that includes the planting of 96 native trees, 0.06 ha of modified grassland, and 0.06 ha of wildflower meadow planting. The habitats within the baseline currently provide very limited ecological value (predominantly hardstanding and ornamental shrubs). The proposed landscaping will result in a 199.72% net gain of habitat units, demonstrating the beneficial impact of the Proposed Development on the ecological value of the Site. A variety of bird nesting boxes will be installed within suitable locations throughout the Proposed Development (such as within the tree planting), targeting urban bird species that are locally present and listed as local priority species. The bird boxes will target species locally present, as provided by GMBRC: swift, song thrush, black redstart, house sparrows, and starlings. Models will include (subject to availability): 2HW Schwegler, WoodStone Swift Nest Box, 1B Schwegler Nest Box, 1SP Schwegler Sparrow Terrace, and 16S Schwegler Swift Box. This, in combination with the tree planting, will increase the bird nesting opportunities within the Site beyond their current levels and further increase the ecological value of the Site. A variety of bat boxes will be installed within suitable locations throughout the Proposed Development, including boxes suitable for day roosts, maternity, and hibernation. Models will include (subject to availability) 1FF Schwegler Bat Box, 2F Schwegler Bat Box, and 1FW Bat Hibernation Box. This will increase the suitability for bats beyond the Sites current limited levels. Woodcrete insect boxes and hibernacula (such as log piles) will be installed within suitable locations throughout the Proposed Development (such as within areas of wildflower meadow and ornamental shrub) to provide enhanced habitats for invertebrates. The stands of wall cotoneaster (INNPS) within the Site (located within the planters on the southern boundary) will be eradicated prior to any works commencing to avoid the spread of this species during construction.
Site Waste Management Plan	A Site Waste Management Plan (SWMP) will be used to report how waste will be managed and minimised on site during construction. This has been produced in support of the ES (Volume 3, Appendix 14.1).
Stakeholder engagement	The very local businesses, organisations, residential properties and community facilities should be fully mapped and consulted around specific effects for the ongoing planning of the construction period. Further measures such as signage and the protection of timely site access for their different needs could be considered to mitigate the risks to those who are most sensitive to and impacted by these changes.

AtkinsRéalis

AtkinsRéalis
11 Bressenden Place,
London
SW1E 5BY

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