

NT02-04 NEW TOWN, VICTORIA NORTH FULL PLANNING APPLICATION

Sustainability Statement

April 2023



**Far East
Consortium**

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Introduction

This Sustainability Statement has been prepared by WSP on behalf of Far East Consortium International Limited (FEC) in support of a proposed residential-led mixed-use development comprising 1,551 apartments, maisonettes, and townhouses (“The Proposed Development”) on land south of Dantzic Street known as plots NT02 – NT04, Victoria North, Manchester (“The NT02-NT04 Site” or the “Site”). The proposed development is located on an area of land to the northeast of Victoria Station, south of Dantzic Street, north of the operational railway line, west of Victoria Riverside and east of Dalton Street (Figure 1).

Joint Venture Partnership

In April 2017, Manchester City Council (MCC) appointed FEC as its Joint Venture investment and delivery partner, to accelerate the delivery of the Victoria North opportunity. This appointment was the conclusion of an international marketing exercise that commenced in April 2016. Since making this appointment, in February 2019, MCC approved the Northern Gateway Strategic Regeneration Framework (SRF), which provides an updated vision, core objectives and development framework to guide the regeneration of Northern Gateway (now known as Victoria North) with a focus on the provision of housing and supporting infrastructure investment.

FEC’s Masterplan for Red Bank and New Town

Maccleanor Lavington Architects and Schulze + Grasso Urban Designers have been commissioned by the FEC to produce a cohesive Illustrative Masterplan for Red Bank and New Town. The Illustrative Masterplan is based

on a series of site wide strategies including a Sustainability Strategy. The overarching vision for Red Bank is to create a community through the development of thriving

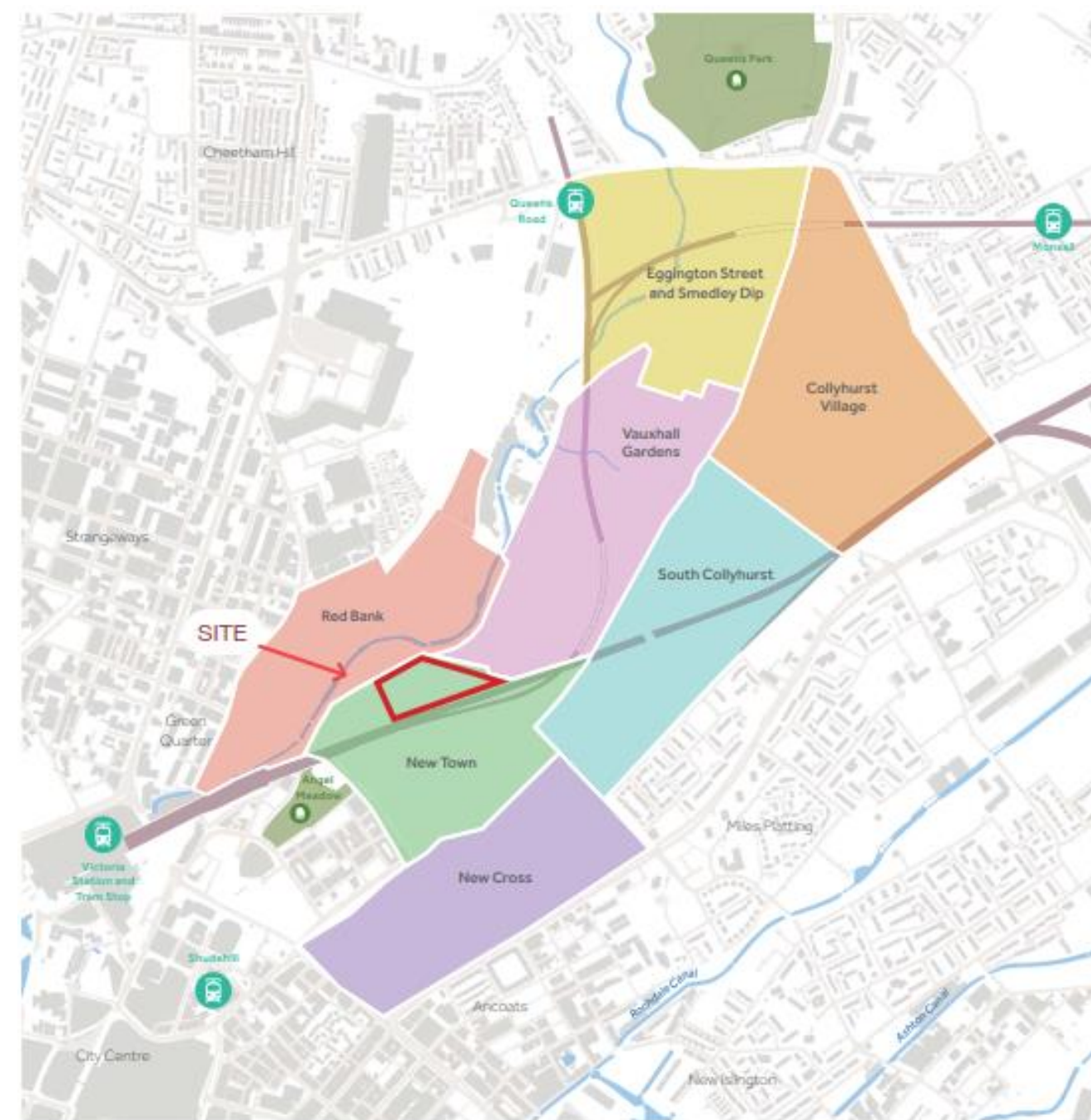


Figure 1 - Site location plan

neighbourhoods which will provide new homes for a diverse mix of people, alongside the long-term infrastructure to help these communities to develop sustainability.

FEC's Full Planning Application (Application 5)

This Sustainability Strategy is submitted in support of a full planning application by FEC for residential led buildings on three plots of land known as NT02, NT03 and NT04. This residential scheme will provide:

- 1,551 residential units across three plots;
- A clubhouse providing a combination of resident's amenity space and commercial uses, total quantum 2,145m² GIA (gross internal area);
- A total of 2,147m² GIA non-residential floorspace (including the commercial space contained within the clubhouse);
- Car and cycle parking provision comprising 100% cycle parking provision and 10% car parking provision;
- Associated hard and soft landscaping.

The full application site relates to three of the development plots within the Masterplan area and extends to 2.81 hectares.

FEC's Outline Planning Application (Application 4)

Concurrently to the full applications submission, a separate but interrelated outline application (with all matters reserved) for a residential led mixed development has been submitted by FEC. This outline application relates to the majority of the development plots within the Masterplan area and proposes

up to 3,250 residential units (Use Class C2 and C3); non-residential development (across uses E, F and Sui Generis); clubhouse residential amenity buildings; health centre uses (Use Class E); a primary school use (Use Class F1(a)); and car parking and cycle storage provision.

Sustainability Statement

This Sustainability Statement provides a non-technical summary of how the Proposed Development is addressing sustainability in its broadest sense. This Statement summarises the project commitments and is underpinned by the various technical documents to provide the detail and evidence base for realising the ambition of Proposed Development.

This Statement should be read in conjunction with other supporting documents submitted with the Detailed Application, including the Design and Access Statement which explains the Proposed Development in more detail and relates it to the surrounding context and planning policy framework for the Site.

Policy and Guidance

There are local and national policies and guidance documents that set the context and requirements for Red Bank. The key elements from these documents are outlined in the following section, with the Sustainability Themes then illustrating how Red Bank will consider these from concept, through design, in ongoing use and to end-of-life.

National powers

The National Policy Framework (NPPF)

The NPPF document¹ (revised in July 2021) sets out the Government's national planning policies for England and how these are to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. There are three dimensions to sustainable development, as stated within the NPPF: economic, social, and environmental (adjacent). These dimensions give rise to the need for the planning system to perform different roles.



An economic role – contributing to building a strong, responsive, and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure.



A social role – supporting strong, vibrant, and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating beautiful and safe places, with accessible local services that reflect communities' needs and support its health, social and cultural well-being.



An environmental role – contributing to protecting and enhancing our natural, built, and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, eliminate waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

¹ UK Government, National Planning Policy Framework, [National Planning Policy Framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-planning-policy-framework)

Climate Change Act

The Climate Change Act 2008² (2050 Target Amendment) sets legally binding targets to reduce carbon dioxide emissions in the UK by 100% by 2050 from 1990 levels. It also established an independent body, the Committee on Climate Change, to advise the Government on the level of each carbon budget. The Committee also reports to Parliament on progress made on reducing emissions.

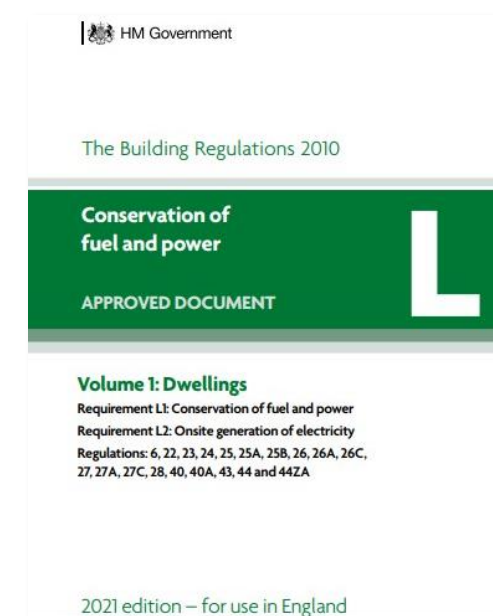
The Act introduced carbon budgets which put legally binding limits on the amount of greenhouse gases the UK can emit over a five-year period. Five carbon budgets were put into law that run up to 2032 which require a 57% reduction by this time. The UK government has now also enshrined a target in the new climate change law to cut emissions by 78% by 2035, setting also the sixth carbon budget for the period 2033-37.

Building Regulation's Part L: Conservation of Fuel and Power

The Building Regulations Part L³ governs the conservation of fuel and power in both new construction and refurbishment of the England and Wales building stock.

Compliance with the Building Regulations is a regulatory requirement for all new developments. Carbon emissions of a development comparative to compliance with Part L is a key performance indicator

for achieving carbon targets. The new Building Regulations which came into effect from 15 June 2022, comprise five new Approved Documents, including uplifts to Part L (fuel and power) and Part F (ventilation), and will have a marked impact on new and existing buildings.



² UK Government, Climate Change Act, [Climate Change Act 2008 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2008/27/section/1)

³ UK Government, Conservation of Fuel and Power, [Conservation of fuel and power: Approved Document L - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/building-regulations-approved-documents)

Building Regulations, Part O – Overheating

Building Regulations Part O⁴ – Overheating, sets the compliance standards for overheating in buildings.

Part O (2021) requires all newly constructed dwellings to comply with the O1: Overheating Mitigation requirements. The aim of requirement O1 is to protect the health and welfare of occupants of the building by reducing the occurrence of high indoor temperatures. O1 is met by designing and constructing the building to achieve both of the following:

- a) Limiting unwanted solar gains in summer; and
- b) Providing an adequate means of removing excess heat from the indoor environment.

Compliance with requirement O1 can be demonstrated by using one of the following methods:

- a) The simplified method for limiting solar gains and providing a means of removing excess heat, as set out in Section 1 of the Approved Document; and
- b) The dynamic thermal modelling method, as set out in Section 2 in the Approved Document.



Local Policy

Local Plan Review: Manchester Core Strategy 2012 to 2027

The Local Plan, Core Strategy 2012 to 2027⁵, is a plan for the future development of the Manchester city area, it sets out the long-term strategic policies for Manchester's future development. The following policies are relevant to sustainability:



- Policy EN 1: Design Principles and Strategic Character Areas;
- Policy EN 2: Tall Buildings;
- Policy EN 3: Heritage;
- Policy EN 4: Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development;
- Policy EN 5: Strategic Areas for low and zero carbon decentralised energy infrastructure;
- Policy EN 6: Target Framework for CO₂ reductions from low or zero carbon energy supplies;
- Policy EN 7: Energy Infrastructure opportunities;
- Policy EN 8: Adaptation to Climate Change;
- Policy EN 9: Green Infrastructure;
- Policy EN 10: Safeguarding Open Space, Sport, and Recreation Facilities;
- Policy EN 11: Quantity of Open Space, Sport, and Recreation;

⁴ UK Government, Overheating, [Overheating: Approved Document O - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/overheating-approved-document-o)

⁵ Manchester City Council, Core Strategy 2012-2017, [Core Strategy 2012-2017](https://www.manchester.gov.uk/core-strategy) | [Core Strategy 2012-2027](https://www.manchester.gov.uk/core-strategy) | [Core Strategy 2012-2027](https://www.manchester.gov.uk/core-strategy) | [Manchester City Council](https://www.manchester.gov.uk/core-strategy)

- Policy EN 12: Area priorities for Open Space, Sport, and Recreation;
- Policy EN 14: Flood Risk;
- Policy EN 15: Biodiversity and Geological Conservation;
- Policy EN 16: Air Quality;
- Policy EN 17: Water Quality;
- Policy EN 19: Waste;
- Policy T 1: Sustainable Transport;
- Policy T 3: Strategic Integration;
- Policy CC 3: Housing;
- Policy CC 5: Transport;
- Policy CC 7: Mixed Use Development;
- Policy H 5: Central Manchester; and
- Policy H 1: Overall Housing Provision.

Local Guidance

Zero Carbon Manchester- Manchester City Council Climate Change Action Plan 2020-2025

The Climate Change Action Plan (CCAP) of the Manchester City Council⁶ has a target to reduce direct emissions of CO₂ by 50% over the five-year period up to 2025. To achieve this, the Council aims to reduce its emissions by 13% every year, for five years. The CCAP sets a



carbon budget of 119,917 tonnes of CO₂ for the five-year period of 2020-25, calculated using science-based targets. This action plan also details the activities that will have to be undertaken, developed, and investigated further over the next five years to ensure the successful transition to being a zero-carbon city by 2038. Although the plan includes investment in green and blue infrastructure to increase carbon storage and sequestration, reaching zero carbon will not include offsetting the emissions. The ambition has been informed by the SCATTER project (Setting City and Area Targets and Trajectories for Emissions Reductions), which is a model that helps cities set zero carbon targets from their buildings, energy, and transport.

Guide to Development in Manchester, Supplementary Planning Document

Manchester's Core Strategy requires that all new residential developments should accord with the design guidance set out in the Supplementary Planning Documents (SPD).

The 'Guide to Development in Manchester' SPD⁷, adopted on 11 April 2007, supports, and enhances the ongoing shaping of the city by providing a set of reasoned principles which will guide developers, designers, and residents. Its role is to inform the ongoing development of the city over the next decade by highlighting its many and varied existing qualities and describing how they can be enhanced in the future.

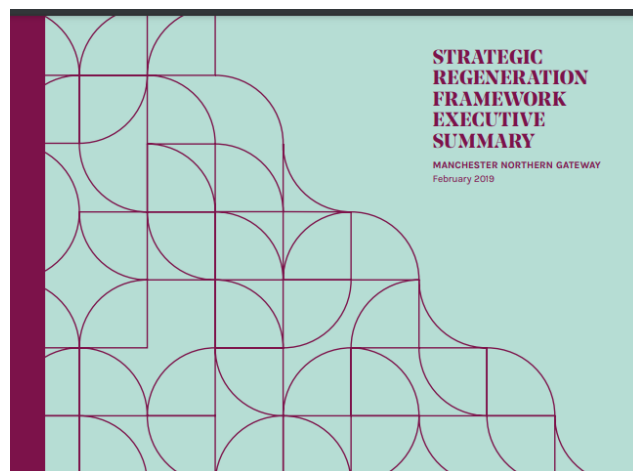


⁶ Manchester City council, Climate Change Action Plan 2020-2025, [Final MCC Climate Change Action Plan 2020-25.pdf \(manchester.gov.uk\)](https://www.manchester.gov.uk/media/2020-25.pdf)

⁷ Manchester City Council, Guide to Development in Manchester, [Guide to Development in Manchester - Supplementary Planning Document and guidance | Manchester City Council](https://www.manchester.gov.uk/media/2007-04-11-SPD.pdf)

Manchester Northern Gateway Strategic Regeneration Framework (SRF)

In February 2019, MCC approved a Strategic Regeneration Framework (SRF)⁸ for Northern Gateway (now known as Victoria North) which sets out a series of principles and a “big picture” plan to guide the future development of this area over the next 15 to 20 years. Red Bank is one



of seven neighbourhoods identified within this Framework. The SRF area covers approximately 155 hectares (ha) to the north of Manchester city centre between Victoria Station, NOMA and the Northern Quarter in the south-west, and Queens Park and the intermediate ring road (Queens Road) to the north-east. The eight Core objectives for the Northern Gateway are:

1. A unique and high-quality residential-led regeneration scheme;
2. A varied network of high-quality green streets and public open spaces;
3. Manchester’s unique city river park;
4. Build on the best of what is there;
5. Improve connectivity across the northern gateway and beyond;
6. Create new gateways to and from the city centre;
7. Promote truly sustainable places; and
8. Foster the emergence of local retail and service hubs.

⁸ Manchester City Council, Northern Gateway Strategic Regeneration Framework, [SRF Appendix 5.pdf](#) (manchester.gov.uk)

The Vision for the Red Bank Neighbourhood Masterplan

As stated above, the site comprises three plots of land (NT02-NT04) which form part of the wider Red Bank Neighbourhood Masterplan.

The vision for the Red Bank Neighbourhood Masterplan is for a development that brings nature into the city and (at the same time) extends the city into the natural environment, so that people and nature coexist in a harmonious and mutually beneficial way; this approach is termed 'Wild Urbanism' and is described further in the Themes section of this Sustainability Strategy.

The unique landscape and topography of the site provide opportunities for active lifestyles, exercise and recreation, and job creation in the management and stewardship of the new neighbourhood.

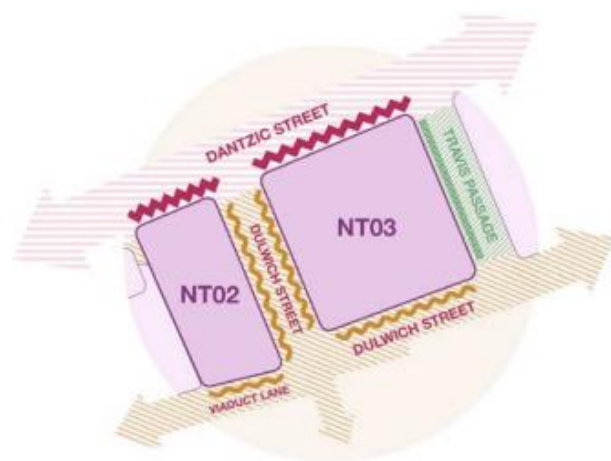
These positive social qualities must be provided within the constraints of ecological limits, so that the development does not use more than its 'share' of natural resources and is also regenerative in disposition. By designing a Net Zero carbon enabled neighbourhood, integrated within a resilient and diverse river park, the future population of Red Bank will be able to thrive in the natural environment that surrounds them as they go about their day-to-day activities.

The underlying ambitions that support this Vision for the Red Bank Neighbourhood Masterplan are:

- A neighbourhood that is a home to a diverse mix of people, including residents across all age groups and a mix of local and independent businesses.
- A Net Zero carbon enabled neighbourhood, delivering sustainable development that reinvigorates the green spaces along the river valley through Wild Urbanism.
- A connected neighbourhood, where all key local amenities are within a 15-minute walk, with safe routes for walking, cycling, and running.
- Through sensitive architecture, thoughtful planning, and an understanding of the existing ecosystems, enhance what is already there.
- A neighbourhood with a strong connection to nature, with access to the river's edge, woodland, and places to sit, relax and play.

Figure 2 and Figure 3⁹ illustrate the design principles for the NT02-NT03 and NT04 Proposed Development and provides an overview of the broader design interventions and inclusions.

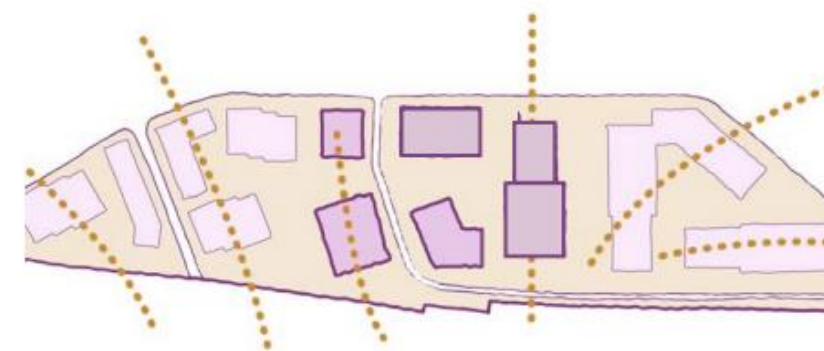
⁹ Red Bank Detailed Plots NT02-04 Design and Access Statement. Dated: 17/03/2023



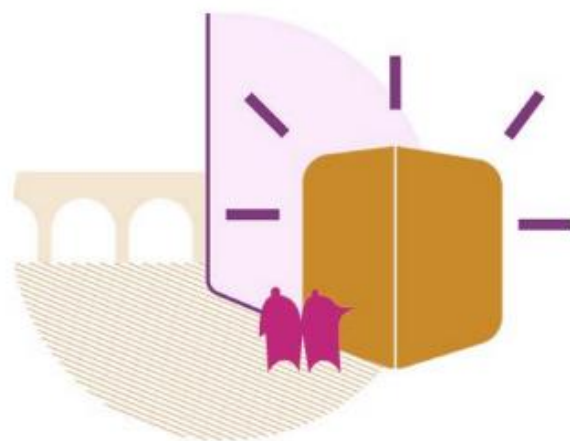
1. Define the street edges with strong frontages that contribute to the quality and character of the public realm



2. Respond to established and emerging routes and the site topography, maximising street activation



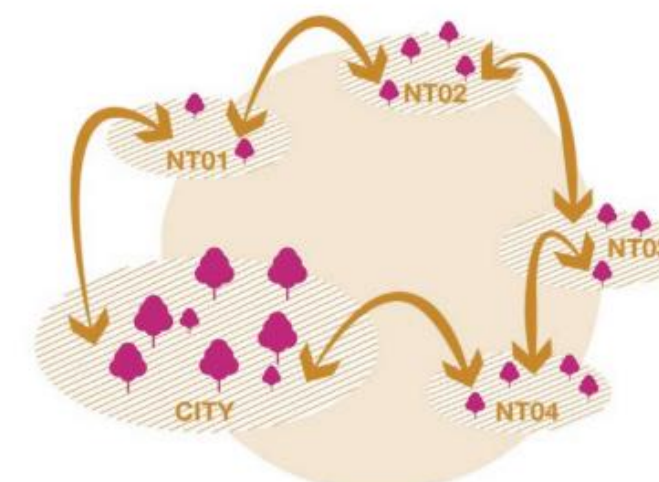
3. Urban composition responds to the viaduct and sweep of Dantzic Street, creating dynamic spaces between buildings



4. Create primary moments of height against the viaduct and locate building entrances on visible street corners

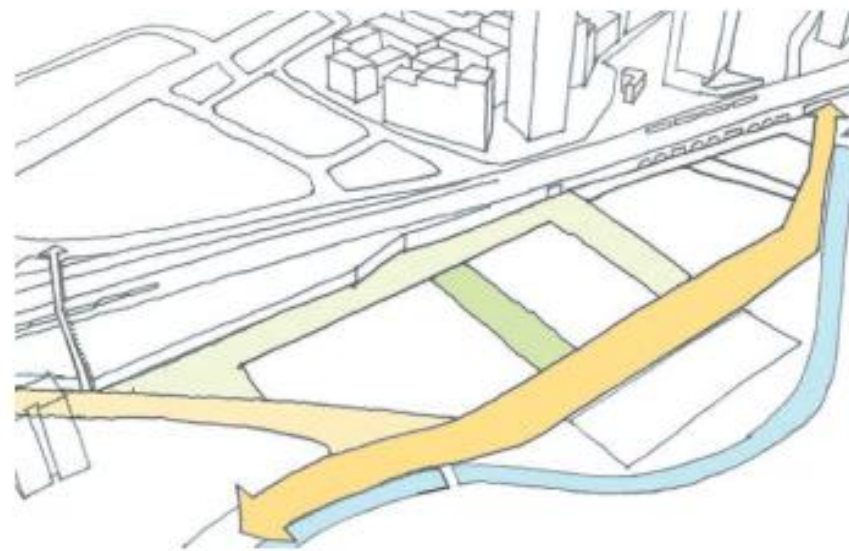


5. Open up views to St Catherine's Wood, the city centre and beyond

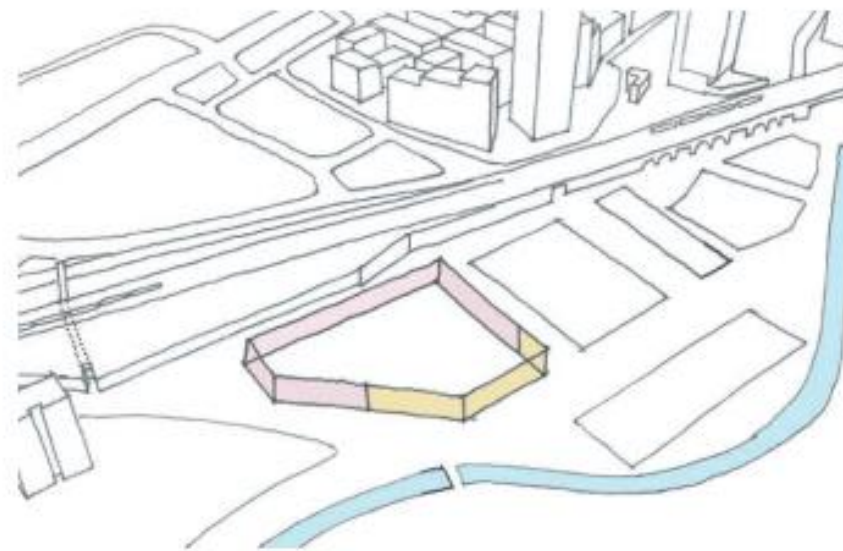


6. Connect the lily pads of green space between the plots, extending into the landscape beyond

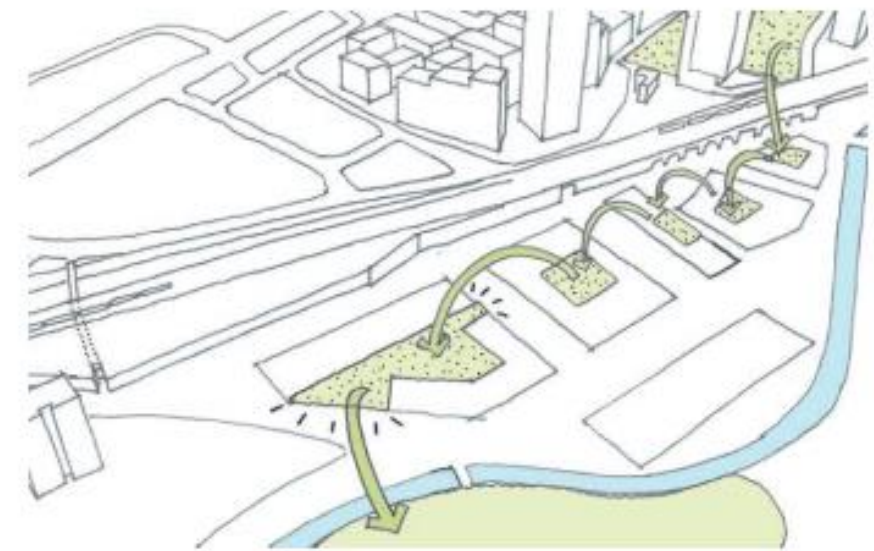
Figure 2- NT02 and NT03 design principles (Design and Access Statement)



1. New high-quality public realm defines the plots



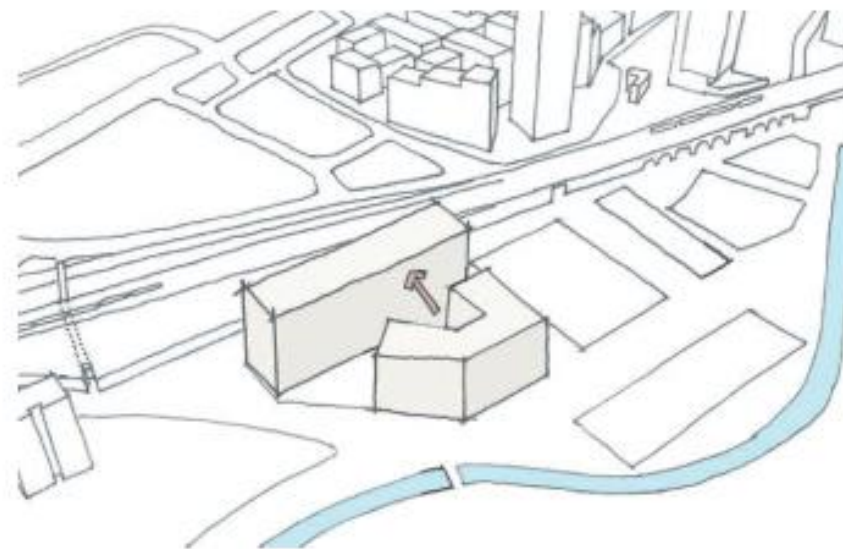
2. Uses and frontages relate to the public realm



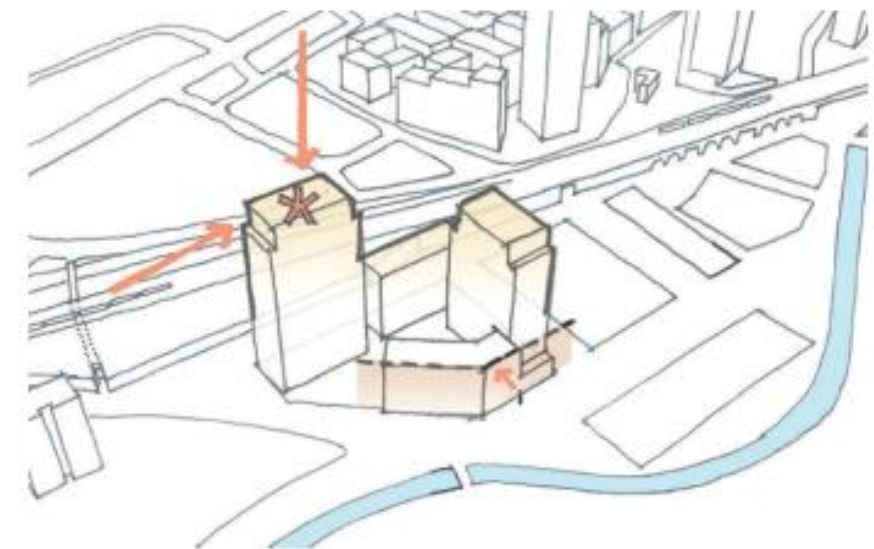
3. Connect to the landscape



4. Work with the topography



5. Height to the railway



6. Urban plinth and metropolitan towers

Figure 3- NT04 design principles (Design and Access Statement)

Guiding Principles: The Six Themes

The following six themes capture the overarching sustainability aspirations for the Red Bank Neighbourhood Masterplan and have been used to set the objectives which will help to ensure that it meets its Sustainability Vision.

- **Carbon:** Enabling a Net Zero-Carbon neighbourhood;
- **Biodiverse:** Biodiverse and resilient river park;
- **Circular:** Thriving circular economy;
- **Healthy:** Resilient communities;
- **Local:** 5-minute neighbourhood and 15-minute city; and
- **Skilled:** Building social value.

Together, these themes enable the Red Bank neighbourhood masterplan to take a holistic view of sustainable development, ensuring that fundamental social needs are met, whilst also maintaining a healthy natural environment. Situated between these social needs and the planet's environmental limits is the 'safe and just space for humanity'¹⁰, and this is the area within which inclusive and sustainable economic and physical development must take place (Figure 4).

The key design developments and embedded interventions, which will help meet local and national policy requirements for the proposed development at the NT02-NT04 site, are now presented.

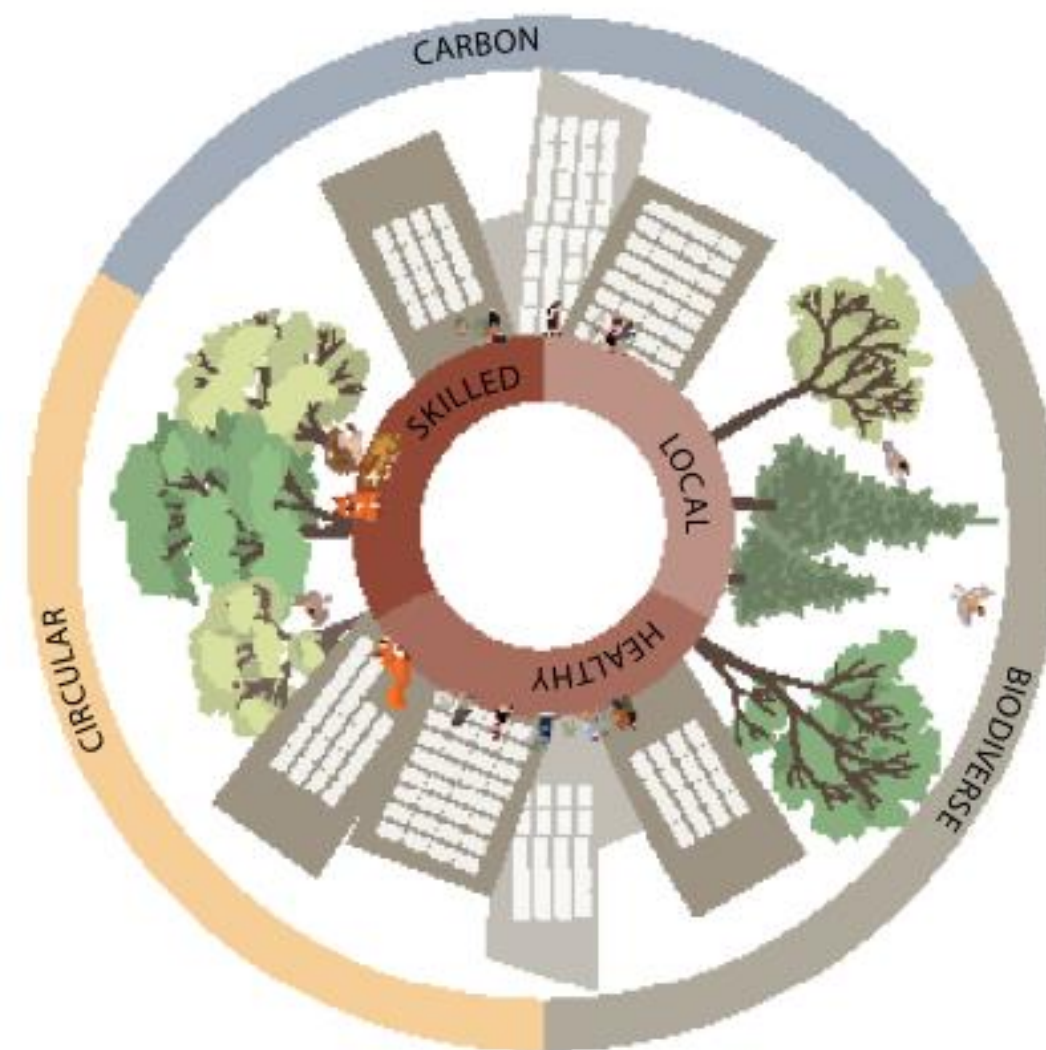


Figure 4- A holistic sustainability framework for Red Bank based on the principles of Doughnut Economics (source - Useful Projects)

¹⁰ Raworth, K. (2017) Doughnut economics. Random House UK.

SUSTAINABILITY ELEMENTS

This section provides detail on how sustainability has been embedded in design and construction for each topic relevant to Proposed Development at the NT02-NT04 site.

Socio-Economics¹¹

An assessment of the likely socio-economic effects associated with the demolition, construction and the completed and operational Proposed Development at the NT02-NT04 site was undertaken, using a range of methods and following conclusions were drawn from the assessment.

The demolition and construction phase would generate up to 1,988 net additional temporary construction jobs over the construction period, of which approximately 584 would likely be taken up by MCC residents. These temporary construction jobs would generate around 18.3 million in GVA per year of the Works to the regional economy (of which £5.4 million could be generated in the MCC District economy).

Residents of the Development would be anticipated to generate annual expenditure of £21 million per annum within the district economy and £2.9 million per annum in additional Council Tax receipts for MCC. The Development would contribute to the overall housing delivery targets for the MCC and wider area with the provision of up to 1,550 dwellings (43% of MCC's annual target).

¹¹ Socio-Economic ES chapter

Health and Well-Being¹²

The London Healthy Urban Development Unit (HUDU) 'Planning for Health Rapid HIA Tool', Fourth Edition (October 2019) provides a useful checklist that was developed for London but is also applicable to residential led development elsewhere in the UK. The checklist aims to promote healthy urban planning by ensuring that the health and wellbeing implications of major planning applications are consistently taken into account, through providing a set of themes and planning issues that can be used to assess development proposals. The checklist and criteria were used to inform the health and wellbeing assessment for the Proposed Development at the NT02-NT04 site.

Through appropriate monitoring and management processes, the demolition and construction phase of the Development will unlikely lead to any significant Health and Wellbeing effects. The construction phase represents investment in the local area which will support numerous jobs over a prolonged period of construction activity. This will provide a range of economic benefits to MCC and the North West region more broadly.

The Site will create new connections with existing communities, encouraging pedestrian movement through the Site and surrounding developments within the Victoria North masterplan and the local area more generally. The multi-use nature of the Proposed Development will also encourage people from outside the Site to enter to use the range of facilities on offer. Furthermore, as part of the Proposed Development, the potential non-residential

floorspaces include uses under F2 'Local Community' which might include halls and meeting places for principal use of the community. Thus, the mixed-use nature of the Proposed Development at NT02-NT04, along with its commitment to providing a range of different housing typologies and tenures will provide significant benefits to the new residents at the complete and operational Development, along with existing neighbouring residents.

The Proposed Development will promote active travel, activate a disused space to enhance perceptions of community safety, provide spaces for the sale of locally grown and healthy foods and incorporate links with other future developments and existing communities. Non-residential uses included within the Proposed Development will also support local employment opportunities, along with options to enhance health outcomes such as fitness and leisure uses which also foster a sense of community whilst improving physical health.

Importantly, the proximity to open space will enhance the amenity of the area, whilst also being beneficially used to create a sustainable and resilient Development which can proactively respond to climate change and the potential effects of it.

¹² Health and Wellbeing ES chapter

Wind Microclimate and Thermal Comfort¹³

The Wind Microclimate assessment for the Proposed Development was carried out using wind tunnel testing for the NT02-NT04 Full Application.

Exceedances of the pedestrian safety and/or comfort criteria are observed at several receptors for The Proposed Development at the NT02-NT04 site. However, with the introduction of the proposed landscaping strategy and wind mitigation measures, these exceedances are fully mitigated.

TM59 / Part O Regulations¹⁴

In addition to the carbon calculations completed to demonstrate compliance with current Building Regulations, an assessment has been undertaken to provide a preliminary overheating analysis.

The preliminary analysis indicates that if the windows can be opened during the day (8am to 7pm in living rooms, 8am-11pm in bedrooms) then overheating may be controlled by means of Mechanical Ventilation with Heat Recovery (MVHR) and enhanced ventilation rates for the majority of the NT02-NT04 Proposed Development. To achieve this, the openings must meet the requirements of Part F and Part O of the building regulations, in relation to the purge ventilation. The façade glazing will require some elevations to have a g Value of circa 0.4.

Temperatures- External/internal¹⁵: All temperatures shall be designed with due consideration of, and fully in accordance with, the guidance published within the CIBSE guide and following the specific criteria listed in Figure 5.

Space	Temperature (Heating)	Temperature (Cooling)
Bedrooms	22°C	TM59
Living rooms	22°C	TM59
Bathrooms	22°C	N/A
Entrance lobby and foyer	22°C	N/A
Amenity Space & staff office	22°C	22°C
Gym area	20°C	18°C
Corridors and stairwells	18°C	TM52 corridors only
Communications room	19°C	19°C
Basement Carparks	Unheated	N/A
Plantrooms	Frost protection to 10°C	N/A

Figure 5- Temperature specifications

¹³ Wind Microclimate ES Chapter

¹⁴ Energy Statement by FutureServ. Dated: March 2023

¹⁵ NT02, NT03 and NT04 Stage 2 MEP Report by FutureServ

Townscape and Visual¹⁶

The NT02-NT04 Proposed Development demonstrates embedded ‘good design’, by providing a setting for a diverse range of uses and activities; buildings, landscape and infrastructure that are likely to endure and evolve incrementally; and a richness of experience, including visual, such as views across the landscape of the Irk Valley.

The strategy for NT02-NT04 Proposed Development responds to the wider Red Bank Masterplan vision, incorporating the concept of creating neighbourhoods with distinct character areas, differentiated by density and height, use, building typology and dwelling mix.

The concept of ‘wild urbanism’, which has guided the design would be applied to the more detailed scale of NT02-NT04 using biophilic design, including:

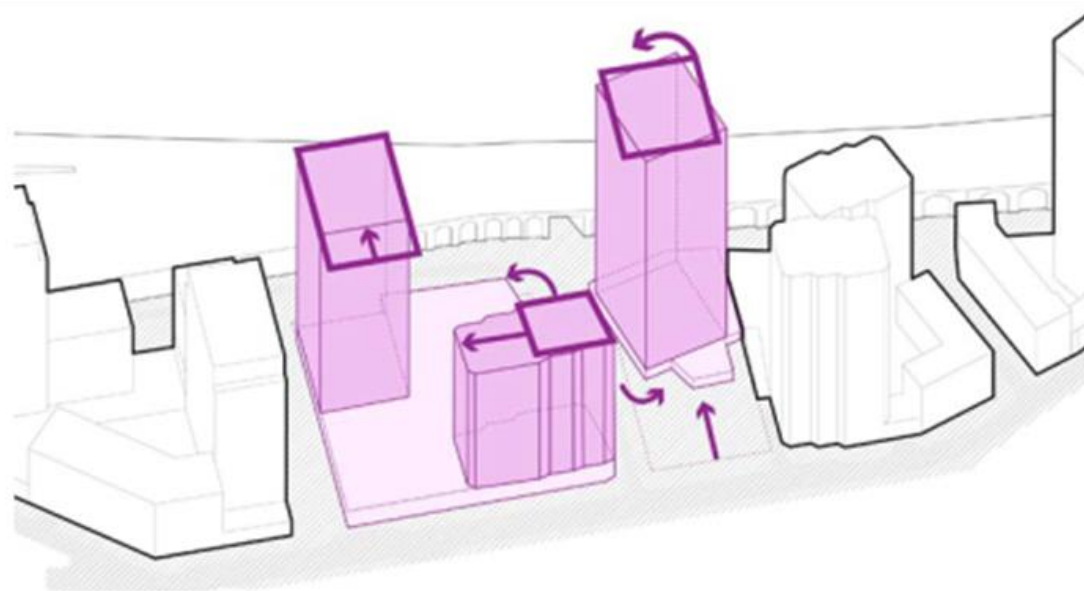
- Nature in the space: incorporating natural elements in design;
- Natural analogues: using nature-inspired shapes, patterns, colours and textures; and
- Nature of the space: reproducing the layout of natural environments.

Green connections would be maximised through both public realm and architectural intervention, recognising the potential role of the Site as a key connection between the Irk Valley and Angel Meadow Park. The tallest buildings within NT02-NT04 Proposed Development would be located

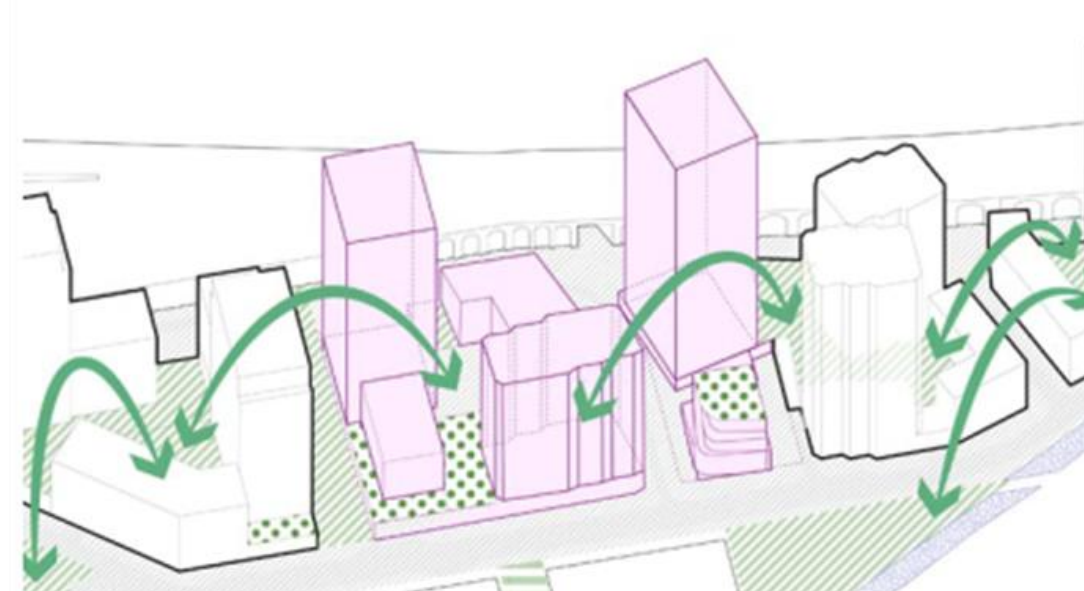
adjacent to the railway, and massing would be arranged to maximise permeability and aspect. These approaches are illustrated in Figure 6.

The materiality of buildings within Application 5 will respond to their surrounding context and will help to integrate the Proposed Development into the surrounding townscape. Across plots NT02 and NT03, at the southern city centre end of the Site, the towers will be finished with anodised aluminium and will feature full-height windows, which will be in-keeping with existing buildings and development taking place across the emerging city centre to the south. Across plot NT04, at the north-eastern end of the Site, the predominant material for the towers will be brick, including a colour palette of red, yellow, and buff. This will respond to the historical typology of red brick buildings which are prevalent across the wider Study Area, as well as responding to more modern red-brick residential development occurring within Collyhurst and Miles Platting.

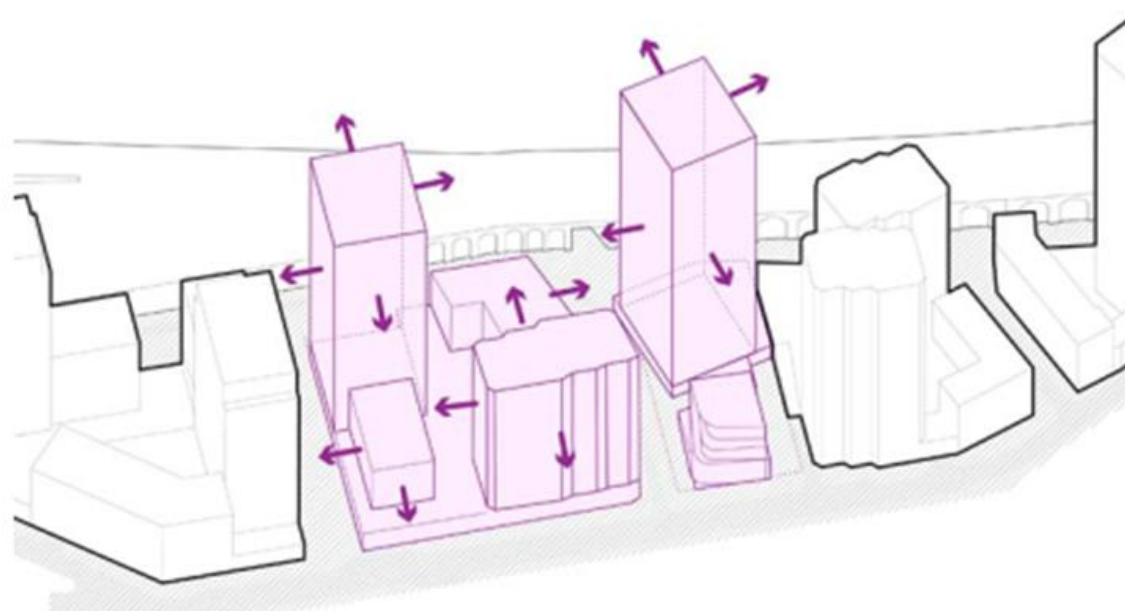
¹⁶ Townscape and Visual ES Chapter



Articulate the massing in response to surrounding context – views, light, landscape and entrances.



Greening of streets, courtyards and roofs responds to the lily pads landscape concept contributes to BNG



Permeable massing enables views towards St Catherine's Wood, the city centre and beyond.

Figure 6- Massing and visual connections for NT02-03 (Design and Access Statement)

Daylight, Sunlight and Overshadowing¹⁷

For daylight, sunlight and overshadowing assessment, a technical analysis has been undertaken in accordance with the Building Research Establishment (BRE) Guidelines 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' (2022) criteria. The BRE Guide gives criteria and methods for calculating daylight and sunlight both within new developments and the impact on existing surroundings. Based on the BRE Guide, the level of impact of the Proposed Development has been assessed using the following metrics:

- Obstruction Angle (25°);
- Daylight: Vertical Sky Component (VSC);
- Daylight Distribution: No-Skyline (NSL);
- Sunlight: Probable Sunlight Hours (PSH);
- Overshadowing of Open Amenity Spaces: Sun Hours on Ground (SHOG);
- Sunlight: Sunlight Hours (SH); and
- Daylight Provision: Illuminance (III).

A 3D model of the Proposed Development (Figure 7) and the relevant surrounding context has been developed for the purpose of the Daylight, Sunlight and Overshadowing Assessment of the NT02-04 Proposed

Development. The model has been constructed based on the design team drawings and model.

The results of the daylight assessment of the Proposed Configuration showed that for the properties with internal room information, all the 1613 rooms assessed, (100%) are within the recommended daylight criteria i.e., with VSC values above 27% and the NSL above 80% of the room area.

The results of the sunlight assessment for the Proposed Configuration showed that all the 2700 windows assessed (100%), are within the recommended sunlight criteria, indicating APSH values above 25% and WPSH values above 5%. The results of the overshadowing assessment for the Proposed Scenario indicated that all 12 (100%) of the existing adjacent open amenity spaces satisfy the BRE criteria. No mitigation has been identified given the negligible impact of the Proposed Development on the daylight, sunlight on overshadowing to existing surrounding properties.



Figure 7- 3D Model for the Assessments showing the Full Application within the existing surrounding – SE Perspective

¹⁷ Daylight, Sunlight and Overshadowing ES Chapter

Energy

For the NT02-NT02 full application, a number of planning policies, both national and local that apply to the Proposed Development, have been reviewed together with the Building Regulations Approved document part L1A & L2A. The policies advise that a carbon emissions reduction of 15% greater than Part L of the Building Regulations (2010) shall be achieved.

An energy emissions baseline has been prepared for the Proposed Development, in the form of a preliminary Standard Assessment Procedure (SAP) calculation for typical units in the apartment buildings. Underpinning this calculation, a fabric first approach has been prioritised with passive measures being adopted to create significant improvements to thermal performance and air tightness. The improvements made beyond current Building Regulations Part L1a are identified in the Figure 8, indicating a 25-45% improvement on U-values and a 50% improvement on air permeability.

Construction Element	Building regulation Part L Limiting U-Values for fabric elements	Development Specification
Floor	0.18 W/m ² K	0.11 W/m ² K
External Wall	0.26 W/m ² K	0.15 W/m ² K
Roof	0.16 W/m ² K	0.11 W/m ² K
Unitised Façade	1.6 W/m ² K	0.9 W/m ² K
Window	1.6 W/m ² K	1.2 W/m ² K
Air Permeability	8 m ³ /h/m ²	3.75 m ³ /h/m ²

Figure 8- Improvements made to construction elements beyond Part L1a

In addition to the fabric first passive design measures, active building services have been designed to minimise direct energy consumption and CO₂ emissions, with particular emphasis on the following:

- Increased hot water generating efficiencies;
- Reduced standing losses from pipes and cylinders;
- Energy efficient LED lighting;
- Improved lighting controls;
- Low energy motors in pumps and fans;
- Efficient heat recovery in relevant systems;
- Enhanced heating controls – Wi-Fi enabled; and
- Combined natural and mechanical ventilation systems.

Energy Improvements

The proposed development will incorporate energy efficient building services, designed to reduce the carbon footprint of the site below the passive improvement stage (fabric first approach), using highly efficient heat generation plant, heat recovery systems and energy efficient and highly controllable lighting.

Electric heating will be supplied the apartments, utilising increasingly decarbonised electricity from the UK grid, but also power from PV arrays.

100% of internal lighting installations will make use of low energy technologies, combined with 'presence and absence detection' in conjunction with timed setbacks. Photo switching and automatic dimming will be

specified to communal areas, to reduce overall energy consumption. Lighting controls will be provided throughout the development with automatic switching incorporated in Landlords and Common areas where it is safe to do so.

All fans, motors and pumps shall be specified to incorporate Enhanced Capital Allowance (ECA) accredited technology and appropriate controls.

The NT02 Amenity Clubhouse will use an air source heat pump (ASHP) system. Amenity and back of house areas will use local electric hot water heaters. It is suggested that apartments have pressurised hot water cylinders with integral heat pumps to meet demand.

The space heating will be via electric panel heaters, or similar, in all residential areas of the building. These will be complete with thermostatic and time controllers. These units will also have enhanced central Wi-Fi enabled controls. The ventilation will be via whole dwelling Mechanical Heat Recovery Ventilation (MVHR) units in each apartment.

Policy compliance

The carbon emissions of the NT02-NT04 Proposed Development apartments have been calculated to be in excess of 15% below Part L 2010 which is therefore in line with the local Manchester energy policy (Supplementary Planning Document 2009).

In addition to the above, an assessment has been undertaken to check compliance with the current Part L 2021 Building Regulations. Using SAP10,

the initial results indicate the development performs well and is compliant with the new Building Regulations. This will also improve over time as the UK electricity grid continues to decarbonise in the future. The carbon emission reduction on this development has been calculated to be around 70% over Part L 2010 and in line with Manchester City Council Local Plan Document.

Electric heating shall be provided to each apartment within the development, to meet the requirements of the Environmental Criteria section and will ensure full compliance with the Part L1A of The Building Regulations (2021).¹⁸

Internal Lighting Levels: Artificial lighting throughout the development will be designed to meet the requirements of CIBSE Lighting Guides and BS EN 12464.

Electric Vehicle (EV) Charging¹⁹: Within the carpark areas, electrical infrastructure and distribution will be provided to facilitate the installation of EV charging points in accordance with Approved Document Part S.

As a minimum provision the infrastructure will be sized to cater for 100% of all car parking spaces to be provided with a 7kW Single Phase chargers, on the basis a 'Dynamic Load Balancing' system is provided to limit the power utilised by EV charging and diversify the supply availability.

Potable water

The design, installation and testing of the potable water services installation shall comply with the requirements of the current Water Supply Regulations

¹⁸ NT02, NT03 and NT04 Stage 2 MEP Report by FutureServ

¹⁹ NT02, NT03 and NT04 Stage 2 MEP Report by FutureServ

and the Local Water Undertakers representative. All parts of the installation will comply with HS (G) 70, BS 8558 and BS EN 806, British Standards and Codes of Practice & Safety recommendations.

Ecology

The BNG assessment indicates a net gain of 26.86% for area-based habitats within the NT02-NT04 full application area only. No linear or river habitats are present or to be created. This demonstrates that for the full planning application, well in excess of 10% in biodiversity units is achievable. Metric 3.1, the most up to date metric at the time of this assessment, was used in line with Natural England advice and consultation with the Environment Agency. Thirty-year Landscape and Ecology Management Plans (LEMP's) for each phase of Application 5 will be secured by way of planning condition.

²⁰ Figure 9 show details of the proposed habitats for the Full planning application.

Habitat loss has been minimised as far as is possible, but some loss is unavoidable. Replacement planting will occur which will result in no negative significant residual impacts from habitat loss.

Tree Survey²¹

An arboricultural survey was initially undertaken in accordance with British Standard BS 5837:2012 and updated in 2023. A schedule of all trees and tree groups including data on species, condition, age, management recommendations and BS 5837:2012 quality categories were compiled during the survey.

Planting Strategy²²

The planting strategy for the site has been broken down into a series of themes. These themes will be applied to the different character areas across the NT02-04 plots, each responding to localised requirements of the surrounding area and contributing to biodiversity improvements across the site.

Green & Brown Roofs

The NT02-NT04 Proposed Development aims to maximise the biodiversity and wildlife value of the roofscape by providing three different roof conditions:

Extensive green roofs: Located on mid-level roofs. Inaccessible and low maintenance roof with native wildflower mix. Attractive to invertebrates and provide foraging for birds and bats. Suitable for inclusion around PV panels.

Intensive green roof terrace: Located on accessible mid-level NT04 roof. Accessible roof with herbaceous perennial and shrub planting. Attractive to invertebrates and provides opportunity for contact with nature.

Brown roofs: Located on high roofs of tower buildings. Low-nutrient substrate left to self-vegetate via wind-blown or bird dispersal creating a natural habitat. Provides foraging and nesting potential for birds, including Black Redstarts.

²⁰ Biodiversity Net Gain Assessment- April 2023

²¹ Ecology ES Chapter

²² Red Bank Detailed Plots NT02-04 Design and Access Statement

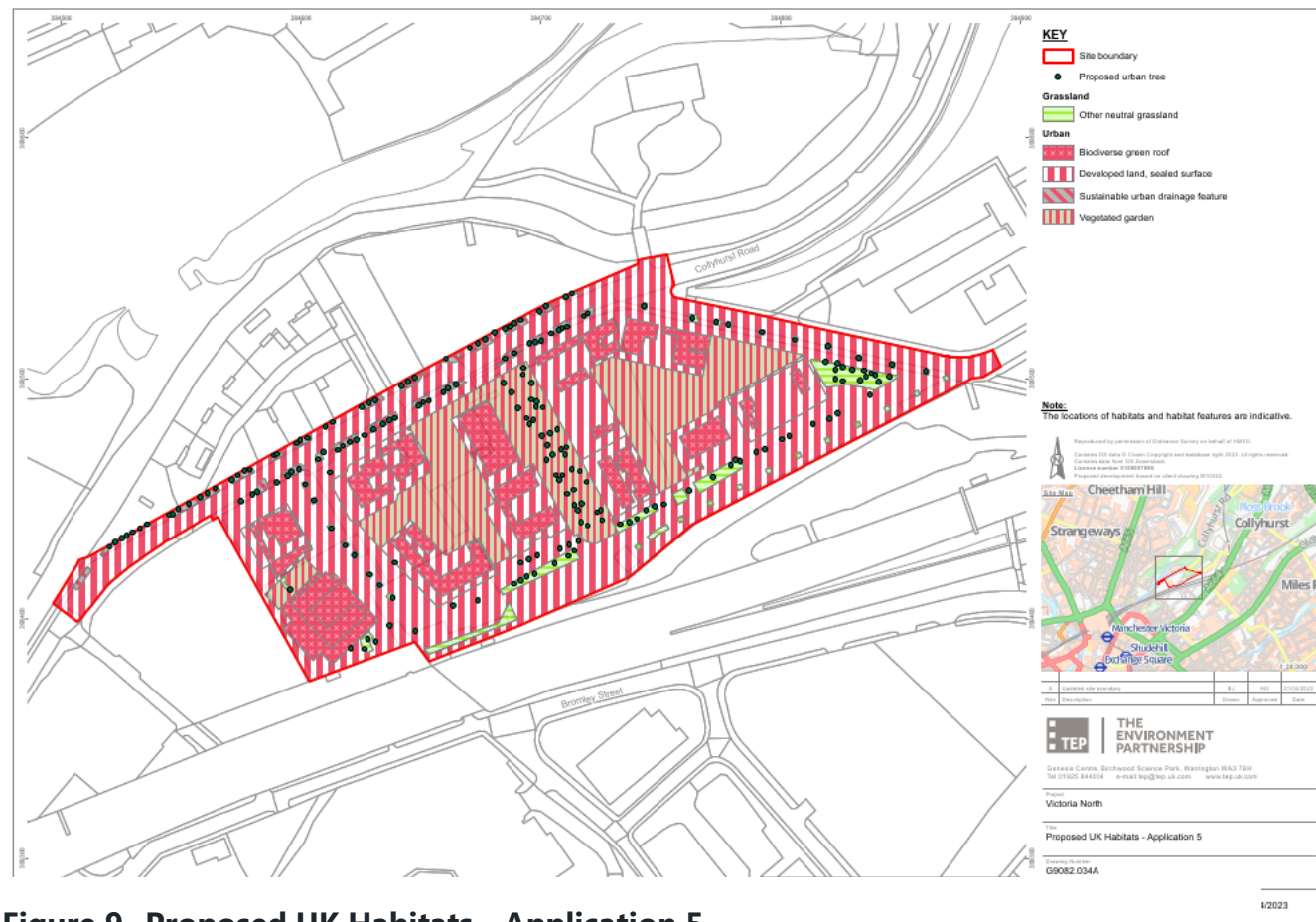


Figure 9- Proposed UK Habitats - Application 5

Ground Conditions²³

Land contamination risk management (LCRM)²⁴ will be used as a technical framework in the understanding of how contamination issues that may arise could be managed. The Conceptual Site Model (CSM) will be used to identify and assess the potential effects on the identified sensitive receptors and outline mitigation measures to manage the risks identified in the assessment.

The level of risk from land contamination has been evaluated in accordance with the methodology set out in CIRIA C552: Contaminated Land Risk Assessment: A guide to good practice (CIRIA, 2001). This approach involves classification of the consequence and probability associated with each potential contaminant linkage and thereby the corresponding level of risk (risk category).

Those risk categories presented (Very Low, Low, Low to Moderate, Moderate, High, Very High) follow guidance presented in publication C552, which states that risk levels should be based on an understanding of both the probability (likelihood) of a risk occurring and the magnitude of the potential consequence (severity) of a risk. CIRIA defines four levels of probability and four levels of severity with relation to contaminated land.

Risk assessments based on laboratory analysis of soil and groundwater and subsequent gas monitoring completed at the NT02-NT04 site concludes that

at present, the existing baseline poses a risk to human health and controlled waters.

For example, groundwater monitoring conducted at the NT02-NT04 site identified elevated concentrations of heavy metals (mercury and zinc) and Polycyclic Aromatic Hydrocarbons (PAH) (fluoranthene) at the River Irk (upstream, central and downstream).

To ensure the risks of these contaminants are mitigated during the construction phase, the following measures will be adopted:

- Site construction workers will be protected by safe working practices in accordance with the Health & Safety at Work etc. Act (1974) which requires appropriate risk assessments and mitigation to be in place.
- Working methods during construction will ensure that surface water cannot run-off from the works or any stockpiles into adjacent surface watercourses, and activities comply with Environment Agency requirements for work adjacent to Main rivers²⁵.
- Implementation of appropriate pollution incident control e.g., spill kits.

For operational phase no potential significant effects are anticipated and therefore no further mitigative approaches are required.

²³ Groundwater ES Chapter

²⁴ Land contamination risk management (LCRM). Available at: <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

²⁵ <https://www.gov.uk/permission-work-on-river-flood-sea-defence>

Flood Risk and Drainage²⁶

The FEC Baseline Model represents the existing flood risk to the site from the River Irk. This model shows that plots NT02-NT04 are within the extents of Flood Zone 3a and Flood Zone 2 or the 1 in 100-year and the 1000-year event flood.

Flood management

The design flood level for NT02-NT04 Proposed Development is defined as the 100-year event plus a 35% allowance for climate change. The proposed flood risk strategy for NT02-NT04 is as follows:

Plot NT02:

- The finished floor level (FFL) for plot NT02 is set above the design flood level (Figure 10).
- The FFL of NT02 is 31.55m AOD which is more than 300mm above the design flood level and is also above the 1000-year flood level which is 31.32m AOD.

Plot NT03:

- The FFL for plot NT03 is split but all FFLs are set above the design flood level including an allowance for climate change.
- The design flood Level for NT03 is 31.45m AOD. The FFL of NT03 is therefore 270mm above the worst-case design flood level including and

allowance for climate change and is also above the 1000-year flood level for NT03 which is 31.79m AOD.

Plot NT04:

- Plot NT04 is the only plot with a vulnerable (commercial) use across the masterplan with an FFL which is set below the design flood level.
- The FFL for the residential access of NT04 is 32.23m AOD which is more than 300mm above the design flood level and is also above the 1000-year flood level which is 31.93m AOD.
- With respect to mitigation for the commercial usage with floor level below design flood level NT04, the proposals are that flood resistance in the form of an impermeable concrete upstand will be provided to 610mm above FFL which is 31.565m AOD, and that resilience measures up to 300mm above this level which is 31.865m AOD.

Flood doors or retractable flood barriers will be provided at door thresholds. This is aligned with the approach taken for the neighbouring consented Victoria Riverside development. Safe access and egress for the commercial plots will be provided via a ramped corridor to the rear of the units which emerges along Dalton Street at a level of approximately 31.70m so roughly 140mm above design flood level.

Drainage

Surface water from the proposed development is to be discharged to the River Irk via the adoptable site wide HIF drainage system. It is proposed that the NT02-NT04 surface water will ultimately drain to the River Irk.

²⁶ Flood Risk Assessment and Drainage Strategy Report

A new adoptable surface water carrier drain will be installed in Dalton Street and Dantzic Street which discharges to the River Irk via a proposed new headwall located to the west of Plot RB16. The proposals for the new adoptable carrier drain and outfall have been discussed with United Utilities, the Environment Agency, and the Manchester Lead Local Flood Authority (LLFA).

A new foul drainage network is proposed for NT02 to NT04 Proposed Development which consists of new carrier drains and chambers with connections provided to the proposed structures on site.

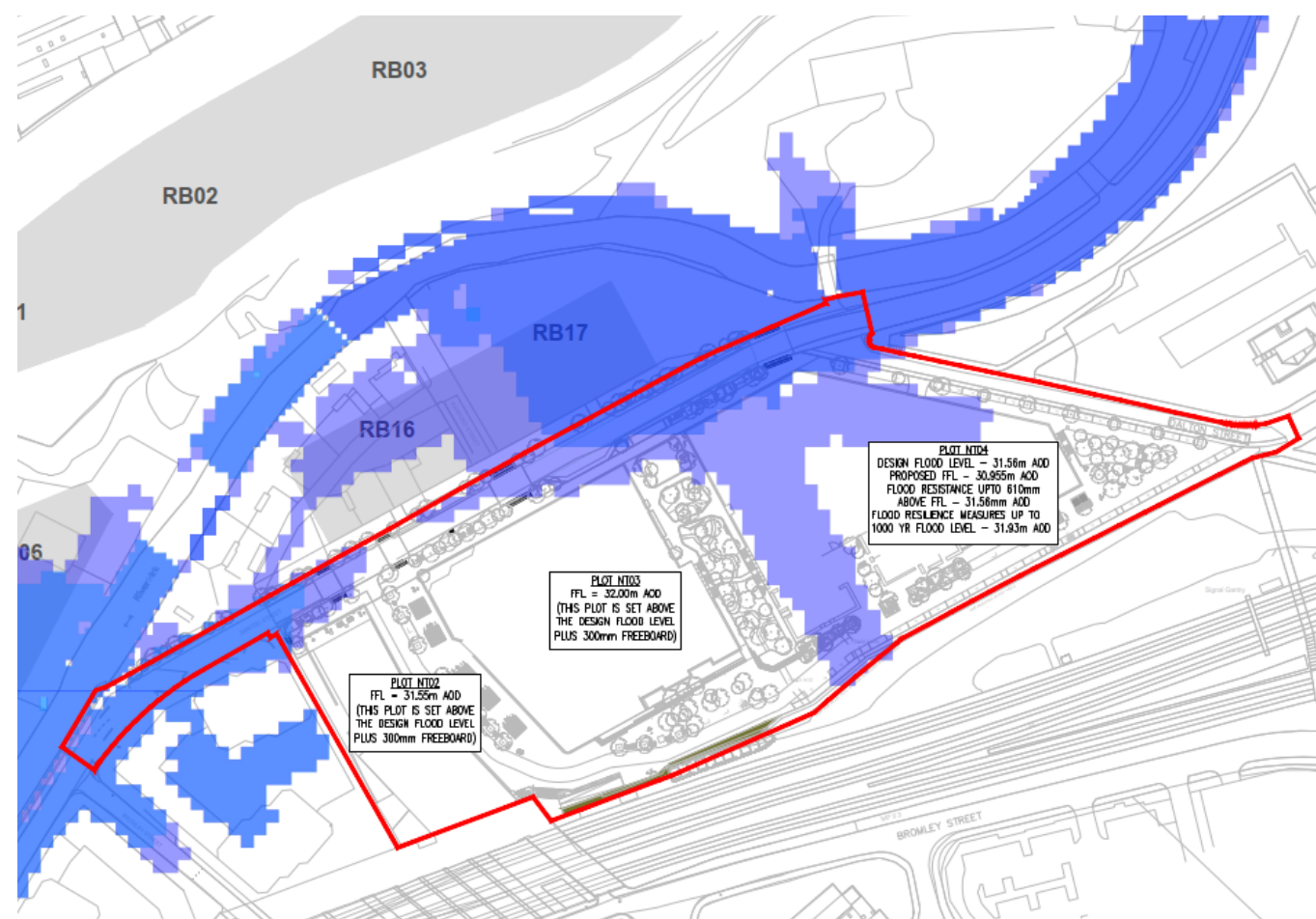


Figure 10- Minimum finished floor levels and design flood extents

Sustainable Urban Drainage Systems (SuDS)

A detailed assessment of the suitability of all types of SuDS has been carried out. The provision of SuDS has been considered and will, where appropriate, be included within the surface water drainage proposals.

Due to the spatially constrained nature of the site, there is limited scope to incorporate space intensive, green SuDS such as swales or detention basins within the plot boundaries or the public realm. As a result of this lack of space within the plots, it is anticipated that the SuDS provision within each plot will be provided in the form of underground attenuation tanks located under areas of hard landscaping, or underground car parks found within the plots.

Discharge rates

The calculations for the plot attenuation for NT02-NT04 Proposed Development were completed using the Micro Drainage source control detailed design function. A 45% allowance for climate change was applied. In addition to the plan area of the NT02-NT04 plot, an allowance for the vertical surfaces of the proposed buildings was included. This area was taken as 50% of the area up to 10 storeys high of the tower blocks on each plot, using a worst-case wind direction that affected the longest length of building façade. This was only applied to buildings over 10 storeys high. This approach is in line with BS 12056.

Transport and Access²⁷

The proposed development is located in a 'public transport accessible' location and accords with the principles of national, regional, and local transport planning policy.

Allocated parking

The provision of parking spaces for the Proposed Development is 10% resident's car parking, in line with the principles set within the "Northern Gateway Initial Development Area Transport Strategy (March 2019)" which recommends a parking provision of no more than 10% for residential uses. The implications of this level of provision have been tested through the master planning process for the Red Bank neighbourhood which has informed the preparation of this full planning application.

Given the highly accessible location of the NT02-NT04 Site, the proposed on-site facilities, and the existing and proposed active travel infrastructure, it is considered this level of parking provision is suitable and appropriate. Parking provision at this level, taken together with the factors mentioned above, will encourage active travel and public transport to be the mode of choice for new residents.

The full application proposes the following car and cycle parking provision:

- 10% car parking for residents of the development totalling 156 onsite and off-site car parking spaces comprising:

- 7% car parking for residents of the development on site and within the podiums and on Dulwich Street totalling 104 car parking spaces. Of these 104 car parking spaces, 10 are accessible which equates to 6.5% of the overall car parking proposed by the proposed development (156 car parking spaces) and will be provided on site.
- 3% car parking for residents of the development off site in a location within the outline planning application area to be identified totalling 52 car parking spaces. Initially, the offsite car park will be temporary in a secure and well-lit car park until the permanent solution is delivered as part of the Red Bank outline application development. It is proposed that the location, design and specification of this off-site car parking area will be secured by condition.
- 13 car parking spaces on site are proposed at Dulwich Street, Dantzic Street and Dalton Street (including 4 accessible spaces) for visitors to residents and users of the non-residential uses proposed by the development located in close proximity to main residential and non-residential entrances.

Provision of local services

To reduce the need for residents to travel off site, the masterplan includes for a range of complementary uses which will serve residents needs at a local level.

²⁷ Transport Assessment report

The Proposed Development at the NT02-04 site, includes a range of complementary uses such as retail, food and beverage, fitness, medical services, a creche, and other local community facilities. By incorporating these facilities within the development proposal there will be a reduction in the need for residents to travel off-site for similar services, with a consequent beneficial effect in terms of active travel use versus car use.

Pedestrian movement hierarchy

A focal point of the NT02-NT04 Proposed Development has been to encourage walking and cycling within the site, to reduce the dominance of the car / motor vehicle on the residential streets within the site boundary. Accordingly, the street and public realm design are underpinned by best practice standards, including Manual for Streets / Manual for Streets 2, and Local Transport Note 1/20.

Therein, the design principles for transport respect the principles and objectives of the Greater Manchester Transport Strategy 2040, in particular the Streets for All design guidance²⁸. The NT02-NT04 Proposed Development is well aligned with the Streets for All vision to enable walking, cycling and public transport use, through placing walking and cycling at the heart of the movement strategy by reducing the dominance of vehicles on key routes including Dantzic Street and the Plateau Avenue.

Specific ways in which the on-site infrastructure is encouraging active travel include:

- All on-site street design incorporating a maximum 20mph speed limit;
- Carriageway widths being minimised to 5.5m except where a larger width is needed to specifically facilitate delivery / refuse / emergency vehicles or buses;
- Use of planting, street furniture and materials to soften the appearance of the streets, encourage active travel use and reinforce the streets as a place to use and dwell rather than a place to simply travel through;
- 1,551 cycle spaces (316 cycle spaces in NT02, 579 cycle spaces in NT03, 656 cycle spaces in NT04) will be provided;
- Cycling lanes are accommodated within the street where possible, or with segregated facilities along key routes such as Dantzic Street;
- Additional cycle parking will be provided in the public realm to accommodate visitors to the non-residential uses, in line with the relevant MCC standards for the exact non-residential land uses and quantum proposed
- Segregated cycle facilities designed to LTN1/20 standards;
- Footways have been designed to exceed the minimum width requirements set out in LTN1/20.
- A mobility hub is proposed within the outline planning application area, which could include facilities such as a delivery consolidation hub, cycle parking, e-cycle and e-scooter charging, cycle and scooter maintenance and a community café facility.

²⁸ Streets for All design guidance. Available at: https://assets.ctfassets.net/nv7y93idf4jq/2jl7ApjSymHATQzRtObTT7/0cdfea7890fa7053ed80d0bfe19c063f/Streets_for_All_strategy.pdf

Air Quality and Dust²⁹

A qualitative assessment of the likely significant impacts on local air quality due to the generation and dispersion of dust and particulate matter (PM10) during the construction phase has been undertaken following the assessment methodology published by the Institute of Air Quality Management (IAQM), the available information for this phase of the Proposed Development provided by the Applicant and Project Team, and professional judgement.

For the prediction of impacts due to emissions arising from road traffic generated by the Proposed Development once it becomes operational, the dispersion model Atmospheric Dispersion Modelling System (ADMS) Roads (version 5.0.0.1) has been used. This model uses detailed information regarding traffic flows on the local road network, surface roughness, and local meteorological conditions to predict pollutant concentrations at specific receptor locations, as determined by the user.

No embedded mitigation measures are included for the construction phase that are relevant to air quality at this stage.

For operational phase following measures are in place currently:

- Cycle parking will be provided to encourage the use of active travel to and from, and within, the NT02-NT04 Proposed Development. The level of provision proposed is 1 cycle space per residential property (1,551 cycle spaces)

- The whole development will be fully electrified and Electric Vehicle (EV) parking will be provided to encourage the use of low and zero emission vehicles. It is proposed that 20% of all car parking spaces will include active EV charging points, with the remaining parking bays having passive provision.
- As mentioned in the Transport Assessment, a focal point of the NT02-04 design has been to encourage walking and cycling within the site, to reduce the dominance of the car/motor vehicle on the residential streets within the site boundary. The provision of on-site facilities (such as local shopping) will also reduce the need to travel off-site. This will automatically result in reduction of any adverse effects with respect to air quality.

²⁹ Air Quality ES Chapter

Noise and Vibration³⁰

Construction stage

The assessment of construction noise has been undertaken based on the guidance contained within BS 5228-1. Drawing upon the results of the baseline noise survey, a series of construction noise assessment criteria have been determined following the ABC method detailed within Annex E Section E3.2 of BS 5228-16. The assessment of construction vibration has been undertaken based on the guidance contained within BS 5228-2.

Operational stage

The impact of noise from proposed fixed/mechanical plant that would be introduced as a result of the Proposed Development has been based on BS 4142. At this stage, the precise details and location of any such plant are not known. Therefore, a series of plant noise level limits have been determined based on the results of the baseline noise surveys. It is anticipated that, at the detailed design stage, relevant plant noise levels will be designed to comply with these limits.

Development Generated Road Traffic

To inform the assessment of development generated traffic, a series of Background Noise Level (BNL) calculations have been carried out drawing on the scheme traffic data. The methodology adopted for the prediction of road traffic noise generally follows that set out in Calculation of Road Traffic

Noise (CRTN) guide. Calculations have been undertaken for 'with' and 'without' the Proposed Development scenarios, to allow determination of the noise level change associated with the addition traffic movements during the construction and operational phases. The significance of the identified noise level changes has then been determined and assessed by application of the impact magnitude scale adopted from LA 111³¹.

Measures for reduction of noise during construction stage

The adoption of Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974, is usually the most effective means of controlling noise from construction Sites. Such measures would be included within the Construction Environmental Management Plan (CEMP), to which the appointed Contractor will be required to comply.

All plant brought on to Site will comply with the relevant EC/UK noise limits applicable to that equipment or should be no noisier than would be expected based on the noise levels quoted in BS 5228-1. Each plant item will be well maintained and operated in accordance with manufacturers' recommendations and in such a manner as to minimise noise emissions.

Careful selection of construction methods and plant will be implemented and utilised, for example, breaking out of concrete structures using, where possible, low noise methods such as munching or similar, rather than percussion breaking.

³⁰ Noise and Vibration ES Chapter

³¹ LA 111 - Noise and vibration. Available at: <https://www.standardsforhighways.co.uk/search/cc8cfc7-c235-4052-8d32-d5398796b364>

The results of the Transport Assessment (TA), in particular the traffic flow data, have been used as the basis for the assessment of noise level changes that could arise from construction traffic noise during the construction phase, and development generated road traffic noise during the operational phase.

The site manager, or other appointed site representative, will be responsible for logging all received environmental noise and vibration comments/complaints, as well as the action that is taken in response to each point raised, and whether this was successful. Where not successful, supplementary actions will be carried out and resulting effects logged.

With the above measures in place, as much as a 10dB noise reduction can typically be achieved and this benefit has been assumed in determining the predicted construction noise levels.

The assessment of construction traffic noise has identified that level changes on local road traffic routes range between +1.2 and +2.8dB. Such level changes are not sufficient to give rise to any significant effects, or the need for additional mitigation.

Operational stage

The impact of the existing noise environment on residential aspects of the NT02-NT04 Proposed Development has been based on the results of the detailed modelling exercise. This has included an assessment of the on-site noise levels against guidance criteria adopted from BS 8233, WHO and the MCC Planning and Noise Technical Guidance.

The assessment of development generated road traffic noise has followed the same principle of approach as the construction traffic noise assessment. The assessment shows that the Noise Policy Statement for England (NPSE)

effect level range is No Observed Effect Level (NOEL) to Significant Observed Adverse Effect Level (SOAEL), these are unchanged by development generated traffic.

The assessment of operational phase development generated road traffic noise has identified the highest-level change on the surrounding network due to both the NT02-NT04 Proposed Development and other committed developments would be +1.6dB. in the future opening year of 2029 Such level changes are not sufficient to give rise to any significant effects, or the need for additional mitigation.

Climate Change³²

GHG Assessment

The NT02-NT04 Proposed development has been designed, as far as possible, to avoid and minimise the impacts and effects of climate change through the process of design-development and by embedding mitigation measures into the design.

In addition to the fabric first passive design measures, active building services are to be designed to minimise direct energy consumption and CO₂ emissions.

The materials demand of the Development will be practicably reduced by maximising the use of reclaimed and recycled materials, throughout the procurement and construction processes. These measures will be considered at the appropriate design stages and written into the building specifications. The demand upon the Development for the provision of recycling and waste storage will also be addressed in the appropriate stages and when detailed discussions can be held with prospective operators regarding the specific operations of the proposed commercial units. In addition, recycling and waste will be prioritised for the construction phase with the approach and targets detailed in the Site Waste Management Plan (SWMP).

A GHG assessment for NT02-NT04 Proposed Development was undertaken to determine the impact of development from carbon perspective. The

assessment concluded that the demolition and construction phase would result in estimated net GHG emissions of **51,078 tCO₂e**, and the completed and operational phase would result in estimated net GHG emissions of **106,937 tCO₂e** over the lifetime of the Proposed Development. In accordance with the professional opinion of the authors of the assessment, these emissions were considered unlikely to impact the UK Government's ability to meet the relevant UK Carbon Budget.

Climate Resilience

A Climate resilience assessment was also undertaken to determine the impact of development from climate resilience perspective. The assessment responds to Policy EN8, the Manchester Strategy 2016-2025, and the core objectives of the Northern Gateway SRF.

The assessment identified eight potential significant adverse effects across the following four receptors: buildings, public realm, infrastructure, and end users. This included, for example, overheating of buildings, flooding of car parking, and shrinking and cracking of soils.

To respond to these risks, mitigation measures will be adopted, including inspecting buildings and the grounds for cracking and subsidence following dry periods; ensuring that natural ventilation in residential spaces is sufficient to regulate overheating during heatwaves; and ensuring that the design is sufficient to prevent flooding of car parking areas, taking into account the climate projections for precipitation during potential flood events.

³² Climate Change ES chapter

Waste Management

Construction phase

It is anticipated that waste will be generated during the Works, for example, packaging from deliveries and off-cuts of materials that are surplus to requirements. A Site Waste Management Plan will be prepared for the Development and will set out management / control measures to ensure that waste generated from carrying out the Works is kept to a minimum.

The movement of materials will adhere to the guidance set out in the 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites'.³³

During construction, waste management measures will be put in place, with any salvageable materials considered for reuse on-site or recycling. This will form part of a wider requirement to promote sustainable construction techniques on Site during the construction phase.³⁴

Operational waste³⁵

The refuse provision and waste stores on the development have been designed in accordance with the criteria set out in Appendix E Proforma for Planning Applications (Planning Application - Waste Management Strategy) GD04 v6³⁶. A breakdown of the assumed waste capacity for the commercial

and individual residential areas has been calculated to inform these designs (Figure 11 and Figure 12).

Towers 1, 2 and 3 in NT02-NT03 plots have a refuse chute with a tri-separator to encourage recycling, accessed from shared corridors. Residents in Mid-Rise 3 will be able to take refuse and recycling directly to the refuse stores located adjacent to the circulation cores at ground level.

The size of each the stores have been designed to exceed the guidance recommendation of 0.43m² per apartment. All refuse stores will be managed by the facilities staff. Residents will not be permitted to enter refuse stores that are fed by chutes. A similar provision is also made for the NT04 Tower.



Figure 11-Refuse provision for NT02-03 (Source- DAS)

³³ EIA Briefing Note (Issue 3, Feb 2023)

³⁴ Health and Wellbeing ES Chapter

³⁵ Red Bank Detailed Plots NT02-04 Design and Access Statement

³⁶ Appendix E Proforma for Planning Applications (Planning Application- Waste Management Strategy). Available at: <https://docs.planning.org.uk/20210525/27/QRYIFXBCOCT00/lo5rvwe9n532e387.pdf>



Figure 12- Refuse provision for NT04 (Source - DAS)

Refuse vehicle access³⁷

The overall servicing and refuse strategy will take place on-street, through use of lay-bys situated within the public realm. These have been located proximate to each building to accord with relevant standards relating to walking distance to and from bin storage locations.

For the purposes of Auto Tracking a rigid vehicle of 11.5m length has been used, to reflect the largest typical refuse vehicle currently in use or likely to be used in the future in Greater Manchester. This also encompasses the likely size of delivery vehicles given the nature of the land uses

For the NT02-NT04 Proposed Application proposals, a full Auto Track assessment of delivery and refuse vehicle access has been undertaken. The principle is that delivery vehicles use Dantzic St / Dalton St / Dulwich St as necessary, with pull in locations identified on the drawing to allow deliveries or refuse collection to take place without overly delaying through traffic using these routes.

³⁷ Transport Assessment report

Conclusion

The evidence provided in this Statement supports the Full Planning Application to be submitted to the MCC, for the Proposed Development. It details plans for delivering proportionate sustainable outcomes on the basis of design work for the NT02-NT04 Proposed Development at the Red Bank site.

Building on a detailed assessment of local policy, evidence collated during workshops and report reviews with members of the design and delivery team, this statement demonstrates that a range of positive and proportionate steps to achieving sustainable outcomes across the Proposed Development lifecycle have been considered and will continue to be pursued.

There is therefore strong evidence to suggest that the design has responded well, and consistently, to local policy and strategy commitments to sustainable development.

Any further refinement of the design and delivery of the Proposed Development will be expected to progress in accordance with the commitments and intent set out in this Statement, as well as other relevant documents submitted under this planning application (particularly the Sustainability Strategy and Environmental Standards Statement). Evidence of outcomes achieved in this context will remain valuable in demonstrating a comprehensive and ongoing response to the requirements for a sustainable development.



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