

VNIF-PLA-ZZ-YYY-RP-L-0001

REFERENCE
PL2700

PROJECT

RED BANK NEIGHBOURHOOD, VICTORIA NORTH

DEVELOPMENT PLATFORMS AND GREEN INFRASTRUCTURE

INCLUDING 4.5HA OF THE CITY RIVER PARK

DOCUMENT

DESIGN AND ACCESS STATEMENT

CLIENT
MANCHESTER CITY COUNCIL

STATUS
DRAFT

DATE
03/03/22



DOCUMENT CONTROL

FILE NAME

VNIF-PLA-ZZ-YYY-RP-L-0001

PREPARED BY (INITIALS)		
CL		
CHECKED BY (INITIALS)		
MS		
PLANNING		
AVISON YOUNG		

Contents

1 VISION AND OBJECTIVES	6	5 PROPOSED WORKS, LANDSCAPE MASTERPLAN AND OVERARCHING STRATEGIES	32	6 LANDSCAPE CHARACTER AREAS	57
1.1 The Wider Vision: City River Park	7	5.1 Landscape Vision Masterplan (not for approval)	33	6.1 Landscape Character Areas	58
1.2 Localised Vision and Objectives	8	5.2 Proposed Landscape Masterplan (for approval)	34	6.2 Red Bank Terraces	59
2 CONTEXT AND HISTORY	9	5.3 Access and Movement	36	6.3 Union Waterfront	62
2.1 Location Context	10	5.4 Accessible Routes - South	38	6.4 St Catherine's Wood	64
2.2 Historic Context	11	5.5 Accessible Routes - North	39	6.5 St Catherine's Wood Riverside	68
2.3 Historic overlay - 1850	12	5.6 Ground Conditions and Creation of Development Platforms	40	6.6 Ridge Promenade	70
2.4 Historic overlay - 1892	13	5.7 Highways	41	7 MATERIALITY	72
2.5 Historic overlay - 1970	14	5.8 Drainage Design	42	7.1 Hardworks Palette	73
3 ANALYSIS	15	5.9 Utilities	43	7.2 Furniture Palette	74
3.1 Site Photos Surrounding Streets	16	5.10 Structures	44	7.3 Planting Palette	75
3.2 Site Photos Red Bank Viaduct and Former Railway Sidings	18	5.11 Lighting and Security	45	8 MANAGEMENT AND MAINTENANCE	76
3.3 Site Photos St Catherine's Wood	20	5.12 Activation and Meanwhile Use	46	8.1 Management and Maintenance	77
3.4 Existing Topography Red Bank	22	5.13 Site Wide Wayfinding	48	9 SUMMARY	78
3.5 Existing Topography St Catherine's Wood	23	5.14 Natural Play	49	9.1 Summary Conclusion	79
3.6 Tree Survey	24	5.15 Softworks and Planting	51		
3.7 Opportunities and Constraints St Catherine's Woods	25	5.16 Ecology Strategy	52		
3.8 Opportunities and Constraints Redbank Viaduct	26	5.17 St Catherine's Wood Vegetation Strategy	53		
3.9 Opportunities and Constraints River Corridor	27	5.18 Woodland Strategy - Restoring the Structure	54		
3.10 Opportunities and Constraints Surrounding Streets and Area	28	5.19 Woodland Flora	55		
4 DESIGN DRIVERS	29	5.20 Woodland Fauna	56		
4.1 Vision Design Drivers	30				

Introduction

One of the key aims of the Victoria North HIF Infrastructure Project is to deliver the St Catherine's Wood area of the City River Park Vision, and the development platform and supporting infrastructure to allow the future delivery of the residential-led masterplan for the Red Bank Neighbourhood.

The proposed development is located on an area of land which forms part of Victoria North (formerly referred to as Northern Gateway), a regeneration scheme which aims to deliver up to 15,000 new homes and social and physical infrastructure on approximately 155 hectares of land between Victoria Station and Queens Park. Seven interconnected neighbourhoods are proposed as part of the Victoria North regeneration project and the proposed development relates to land controlled by the Joint Venture of MCC and Far East Consortium, within the emerging Red Bank and New Town neighbourhoods, located to the north-east of Victoria Station, to the south of Red Bank Road, and immediately adjacent to Manchester City Centre (hereafter referred to as ‘the Site’).

This planning application represents the next step in the delivery of the strategically important Victoria North project, which will deliver transformational regeneration on an unprecedented scale in Manchester and help to fulfil its potential as a truly innovative, sustainable, and world-class city.

The infrastructure works proposed by this application form a crucial role in the delivery of the first new residential neighbourhood within Victoria North. Unlocking £51.6m of HIF funding to delivery much needed infrastructure, around 5,500 new homes and new and improved green space including the revitalisation of St Catherine's Wood to deliver c. 4.5ha of the new City River Park, alongside new public realm, permeability, and habitat creation. These critical infrastructure works are subject to a strict programme under the terms of the Government funding arrangements which requires the HIF monies to be spent by March 2024.

The infrastructure works and creation of the development platforms and plots that form part of this planning application, is intended to ready the site for the forthcoming residential masterplan being prepared by FEC. Third party landowners will also be beneficiaries of the infrastructure and landscape works.

The JV’s proposals for the Red Bank Neighbourhood are envisaged as a single development project, including the infrastructure and enabling works, and the residential plot development. The development project is to be brought forward in a series of phased planning applications to be submitted to MCC for approval.

On 23rd December 2021, planning permission was granted for advanced HIF enabling works, which comprised the first planning application prepared in relation to the site (‘Application 1’) (LPA reference: 132252/VO/2021). The delivery of the consented enabling works is due to commence on site in the first quarter of 2022.

Further development at the site will be brought forward in the following phased planning applications:

- HIF Infrastructure Works (referred to hereafter as ‘Application 2’). To be submitted by MCC.
- HIF Flood Defence and Alleviation Measures (referred to hereafter as ‘Application 3’). To be submitted by MCC.
- Red Bank Neighbourhood Application (referred to hereafter as ‘Application 4’). To be submitted by FEC.

Please note that the application numbering does not refer to any sequencing of planning submissions.

This planning application is ‘Application 2’ and seeks full planning permission for the bulk of the works which benefit from the HIF funding and required to deliver the future Red Bank Neighbourhood, including the creation of development platforms, formation of a new spine road (Phase 1), and new utilities and services connections that will allow for future residential-led development (to be applied for in a future planning application), together with new and improved green infrastructure, including the revitalisation St Catherine’s Wood as part of the City River Park.

In February 2019 Manchester City Council approved a Strategic Regeneration Framework (SRF) for 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.



VICTORIA NORTH SEVEN INTERCONNECTING NEIGHBOURHOODS FROM THE APPROVED SRF

Victoria North will establish a series of new, sustainable and integrated residential neighbourhoods, with a balanced mix of housing types and tenures, making it a desirable place for a variety of new and existing Manchester residents. Victoria North is one of the largest regeneration projects in the UK as well as being the largest single opportunity for residential redevelopment in Manchester, effectively a new town within the heart of an established, popular, and growing city.

In April 2017, MCC appointed FEC as its JV investment and delivery partner, to accelerate the delivery of the Victoria North opportunity. Since making this appointment, MCC has endorsed the Northern Gateway Strategic Regeneration Framework (SRF), which provides a 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.

An Initial Development Area has been identified by the JV as having the potential to deliver an estimated 5,500 residential units across 21 residential development plots, as well as delivering critical infrastructure works, which is essentially Phase 1 of the wider SRF.

To unlock the full potential of the area, MCC has secured £51.6m of Government Funding through the Housing Infrastructure Fund (HIF) to deliver critical infrastructure and enabling works within the Initial Development Area. A key condition of the funding is that the spend availability period runs until March 2024.

Concurrent to the delivery of the infrastructure and enabling works, FEC will progress proposals for a new residential neighbourhood on land controlled by the JV (within the wider Initial Development Area), which will create a new, distinctive residential neighbourhood over the next 10 years. This will deliver the majority of the new residential homes envisaged in the Initial Development Area. It is currently envisaged that the JV's proposals, which are to be known as the "Red Bank Neighbourhood", will include:

- Approximately 4,200 of the 5,500 new homes intended for the Red Bank Neighbourhood (i.e. the Initial Development Area), across a range of tenure types and sizes, including affordable homes, set within high quality public realm;

- New community facilities;
- 4.5 hectares of new or improved green space, including the revitalisation of St Catherine's Wood;
- New walking and cycling routes to improve connections between neighbouring communities;
- Improvements to the River Irk to enhance the river environment, including measures to help prevent flooding; and,
- Low carbon neighbourhood that delivers development in a sustainable way.



VICTORIA NORTH ILLUSTRATIVE MASTERPLAN FROM THE APPROVED SRF



VISION AND OBJECTIVES

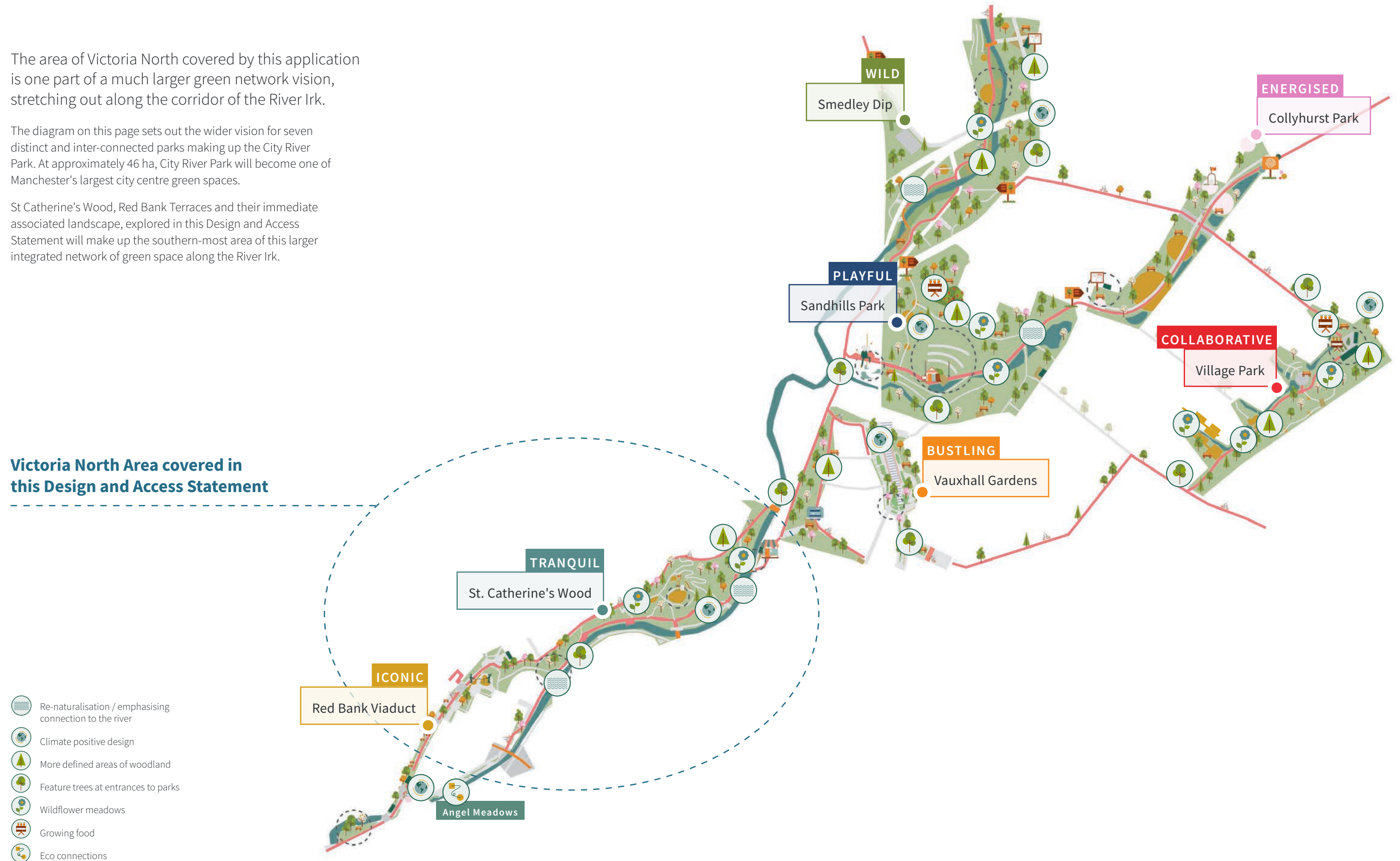
1.1 The Wider Vision: City River Park

The area of Victoria North covered by this application is one part of a much larger green network vision, stretching out along the corridor of the River Irk.

The diagram on this page sets out the wider vision for seven distinct and inter-connected parks making up the City River Park. At approximately 46 ha, City River Park will become one of Manchester's largest city centre green spaces.

St Catherine's Wood, Red Bank Terraces and their immediate associated landscape, explored in this Design and Access Statement will make up the southern-most area of this larger integrated network of green space along the River Irk.

Victoria North Area covered in this Design and Access Statement



1.2 Localised Vision and Objectives

The new park at the heart of the proposals is one of the closest to the city centre and will be one of the first implemented as part of wider development in this part of Victoria North. This will ensure that it is well connected, with activities and commercial opportunities supporting it as an attractive urban natural destination in close proximity to Manchester City Centre. The woodland will be enhanced with native understorey plants and the river re-naturalised, encouraging life to return to the Irk.

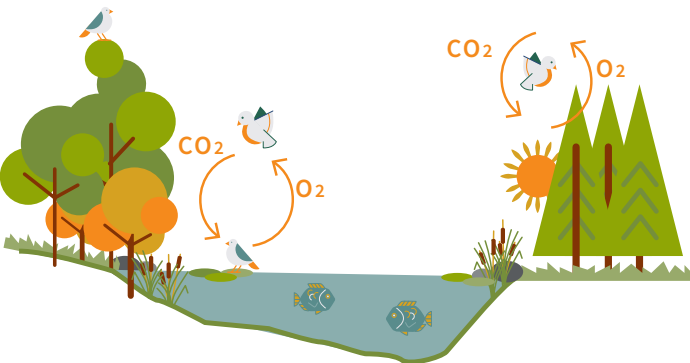
Given the complex history of the study area, fully natural habitats are largely absent - virtually all habitats occur as a result of historic or more recent human influence.

Whilst this could suggest a habitat which has little biodiversity interest, there is a reasonably diverse range of habitat types present and this vision seeks to develop on these intrinsic values and enhance the quality of the natural environment, as explored in more depth later in this document.



AIMS

- City River Park to become the catalyst for the **cleaning of the River Irk.**
- Build on the **existing vegetation** in the City River Park
- Enhance existing habitats and create new **habitats for wildlife.**
- Achieve consistency through the use of **feature trees and planting** to visually link the parks together.
- Be guided by **climate positive design** to create results which are as carbon neutral as possible.



CLIMATE CHANGE AGENDA BIODIVERSITY

St. Catherine's Wood benefits from an established woodland and the proximity of the River Irk. However, both these habitats have the potential of being significantly enhanced - the woodland with rich forest floor planting and the river with re-naturalisation, allowing for the banks to again become welcoming habitats to fish, amphibians and other creatures.



2

CONTEXT AND HISTORY

2.1 Location Context

Victoria North will benefit from a prime location; just a short walk north of Manchester City Centre and offering a new perspective on the city. The transformation of the site is intended to create an attractive new green city neighbourhood for residents, visitors and wildlife alike.

The Victoria North initiative is an area of approximately 155 hectares to the north of Manchester City Centre and Victoria Station offering an opportunity to deliver approximately 15,000 new homes over the next 15-20 years, along with a range of employment, social, community, cultural and ancillary uses.

Victoria North will establish a series of new, sustainable and integrated residential neighbourhoods, with a balanced mix of housing types and tenures, making it a desirable place for a variety of new and existing Manchester residents. Victoria North is one of the largest regeneration projects in the UK as well as being the largest single opportunity for residential redevelopment in Manchester, effectively a new town within the heart of an established, popular, and growing city.

New residents and visitors will have just a ten minute walk to Victoria Station with both rail and tram links and a twenty minute walk to Piccadilly Gardens via the Northern Quarter.

To it's south and south-east the site borders directly onto existing or proposed residential apartments, whilst to its west and north lies light industrial uses with some smaller elements of food and beverage and residential.

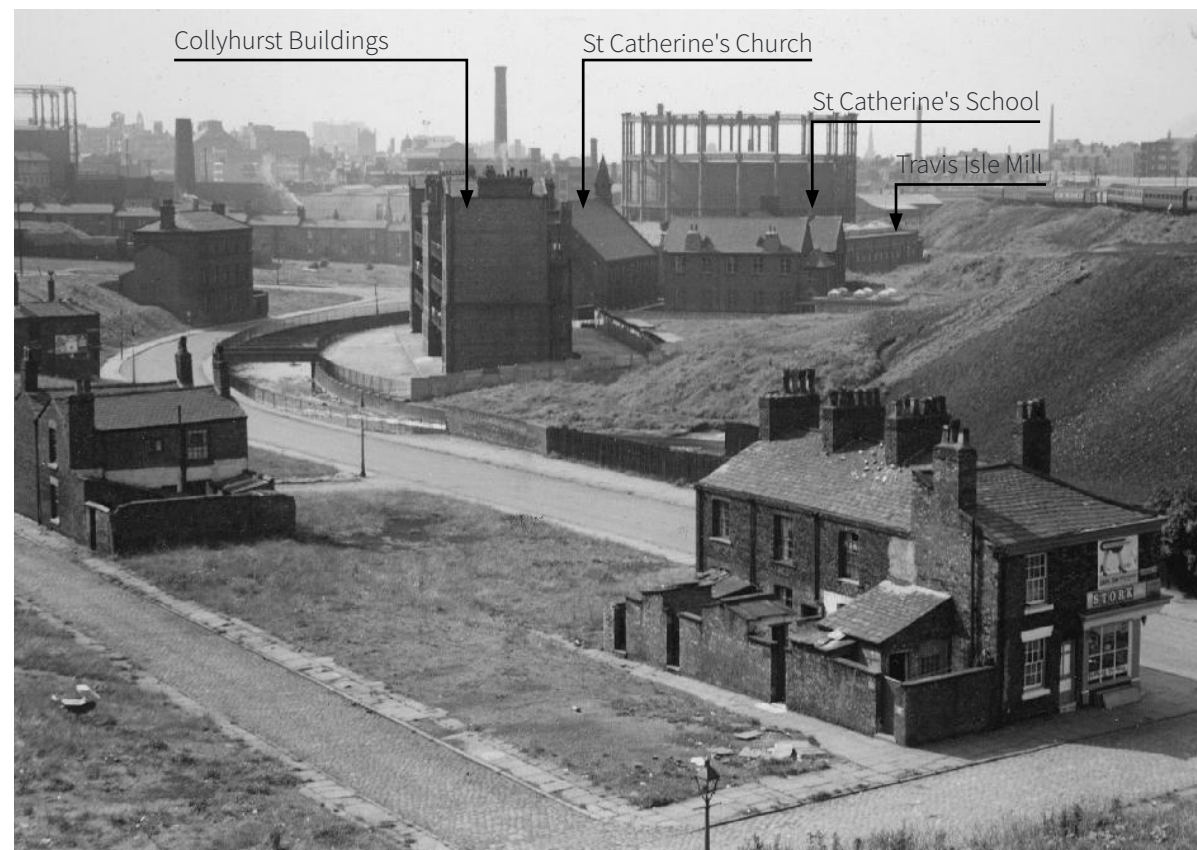
As well as benefiting from fantastic local transport and road links Victoria North is home to St Catherine's Wood - an asset to be retained as much as possible and its influence expanded upon. There are also other public greenspaces nearby; Angel Meadows, Sandhills and Village Park, all of which are intended to be linked up as part of the wider City River Park vision.

The River Irk, although currently walled, fly tipped into and devoid of significant wildlife, has the potential to become a true aesthetic asset and vital wildlife corridor north of out the city centre.



2.2 Historic Context

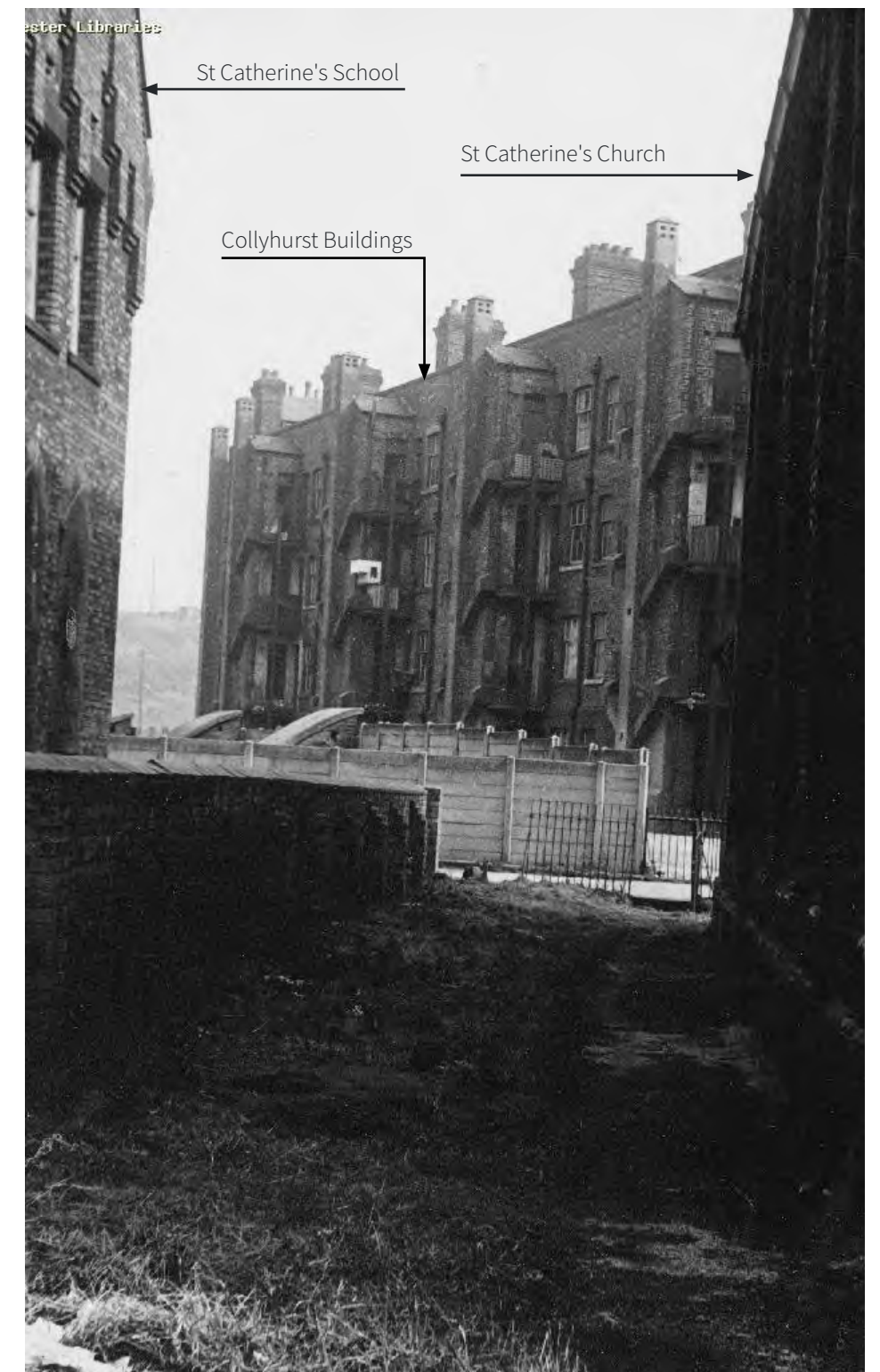
As these historic photographs clearly illustrate, the site has changed dramatically over the past half century. Following the demolition of the railway sidings, industrial and residential buildings that once occupied the site, self seeded vegetation has taken hold, and little of the historic features and structures still remain. The following pages show the development of the site via historic map overlays.



VIEW SOUTH ALONG COLLYHURST STREET TOWARDS ST CATHERINES CHURCH/SCHOOL & COLLYHURTS BUILDINGS



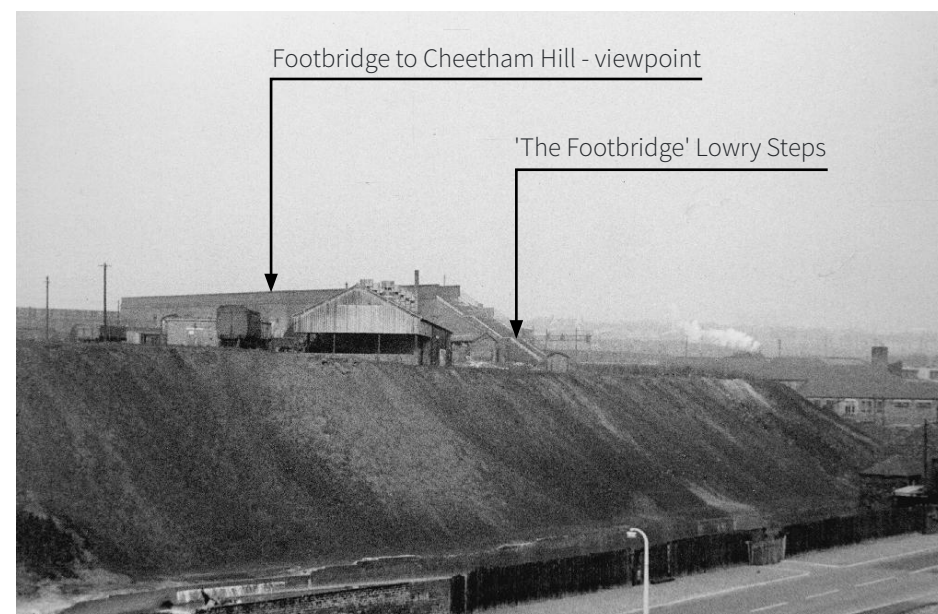
VIEW FROM COLLYHURST STREET UP EMBANKMENT TOWARDS TRAIN CARRIAGE SHEDS



VIEW BETWEEN CHURCH & SCHOOL OF DRAINED RIVER CHANNEL



COLLYHURST BUILDINGS FRONTAGE



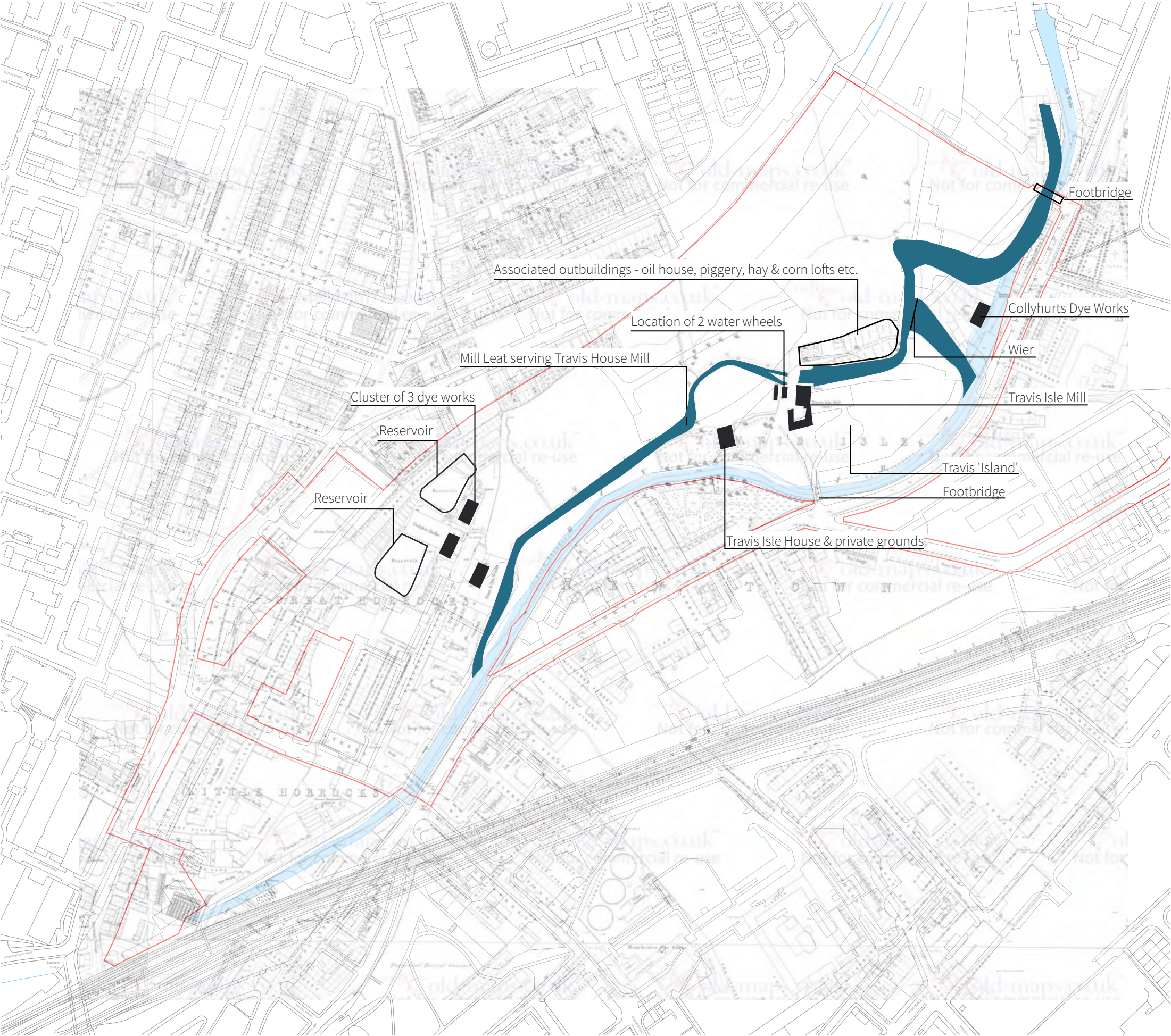
VIEW FROM COLLYHURST STREET UP EMBANKMENT TOWARDS TRAIN CARRIAGE SHEDS & FOOTBRIDGE

2.3 Historic overlay - 1850

This map shows how the River Irk was manipulated to create multiple waterways for its industrial usage to power Travis Isle Mill.

1850

- Travis Isle Mill was first occupied in 1797.
- It was a compact Water Corn Mill, Oil Mill, and Logwood Mill, called Travis Mill. Two water wheels were amply supplied with water from the river Irk, by a dam with a sluice.
- A large family house with gardens, pleasure grounds and outbuildings, consisting of an oil house, stable, barn, shippon, piggery, hay and corn lofts, coach house, cart shed, joiner's shop, large yard, together with several closes of valuable land, sat close to the mill, the whole being surrounded by the river and sluice.
- The sinuous River Irk was divided to follow two courses, the smaller of which served as a mill leat. The two water courses produced an 'island' about 1/4 mile long, and about 80 ft across at its widest point, reached by a road bridge and a footbridge. A mill building straddles the leat, with two channels emerging from it, consistent with the two water wheels referred to above.
- In 1868 gum and starch manufacturer, Travis Isle Mill was listed as bankrupt.

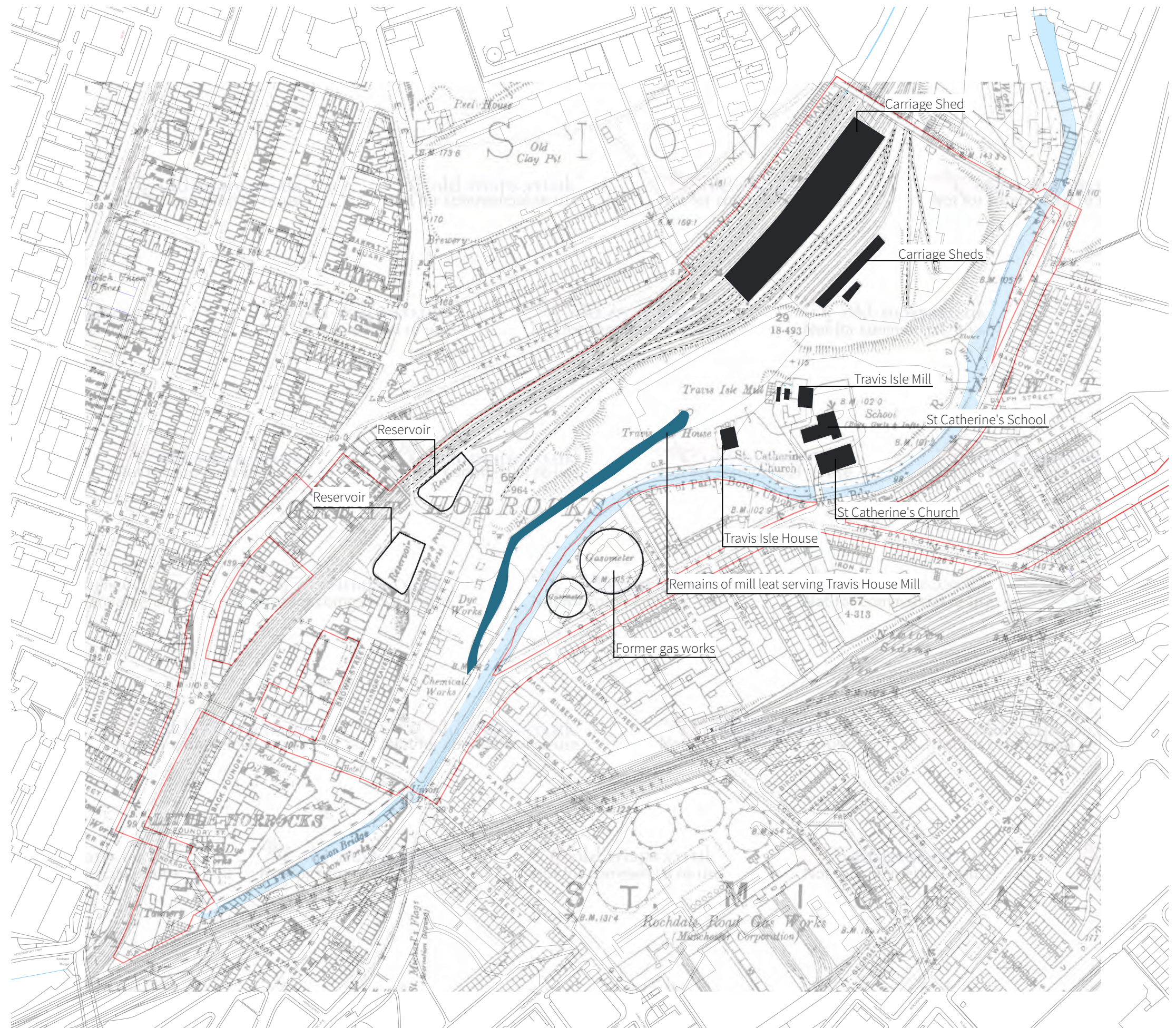


2.4 Historic overlay - 1892

This map shows how the artificially created waterway disappeared in the late 19th century as the neighbouring railway was developed.

1892

- Travis Isle Mill and Travis Isle House are still shown in 1892, but the upstream half of the leat has disappeared. Possibly culverted, because a 'sluice' is marked on the map alongside the upstream weir. The area was now overlooked by a railway system, and the surviving part of the leat was in the shadow of a dye works and two gasometers.
- St Catherine's Church - founded in 1859 - closed in 1966. A gothic church reached by a small bridge over the Irk.
- Later, as the railway was built and the man-made bank encroached towards Newtown, the Irk was re-routed to a straighter course, to run by the side of Collyhurst Road.

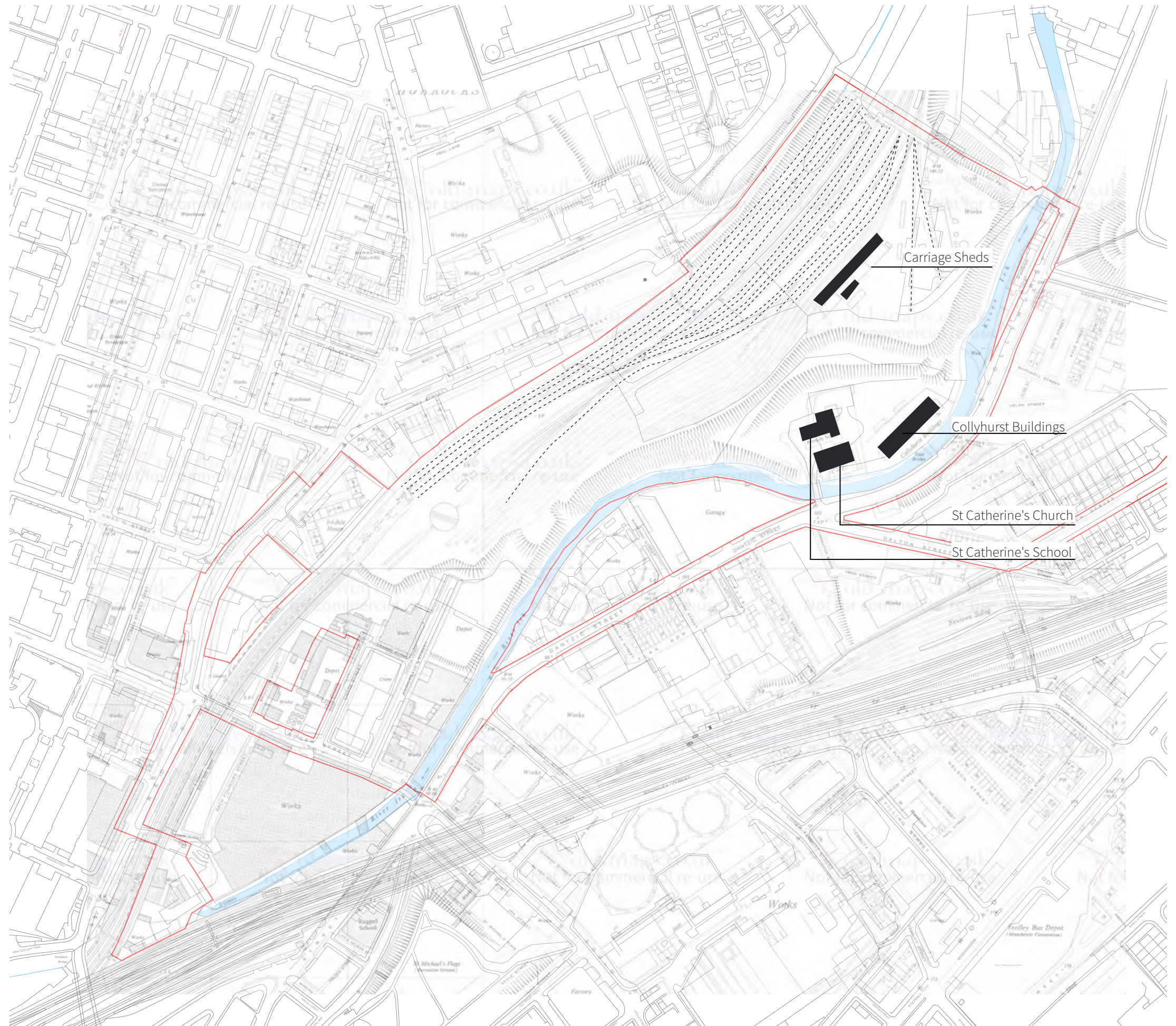


2.5 Historic overlay - 1970

This map shows how the site became more inhabited in the mid/late 20th century with the construction of residential and school buildings.

1970

- The Collyhurst Buildings; residential dwellings had been constructed.
- Travis Isle Mill was now demolished.
- The river leat that once supplied the mill had been culverted.
- The Carriage Sheds had been partly removed due to an expansion of the railway tracks that fed south into Victoria Station.

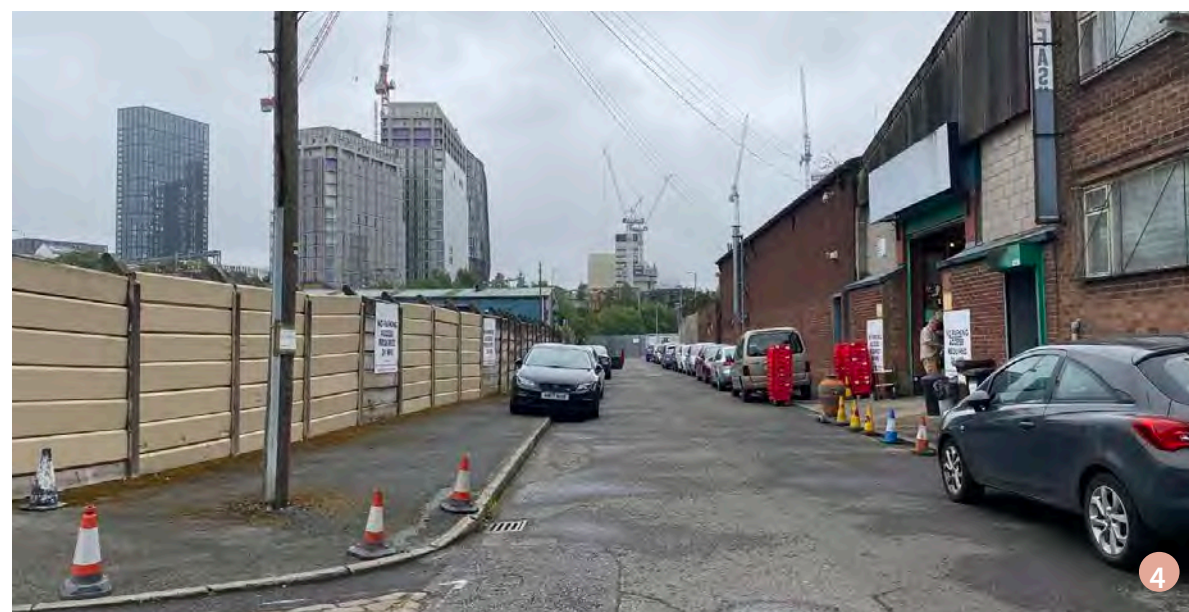


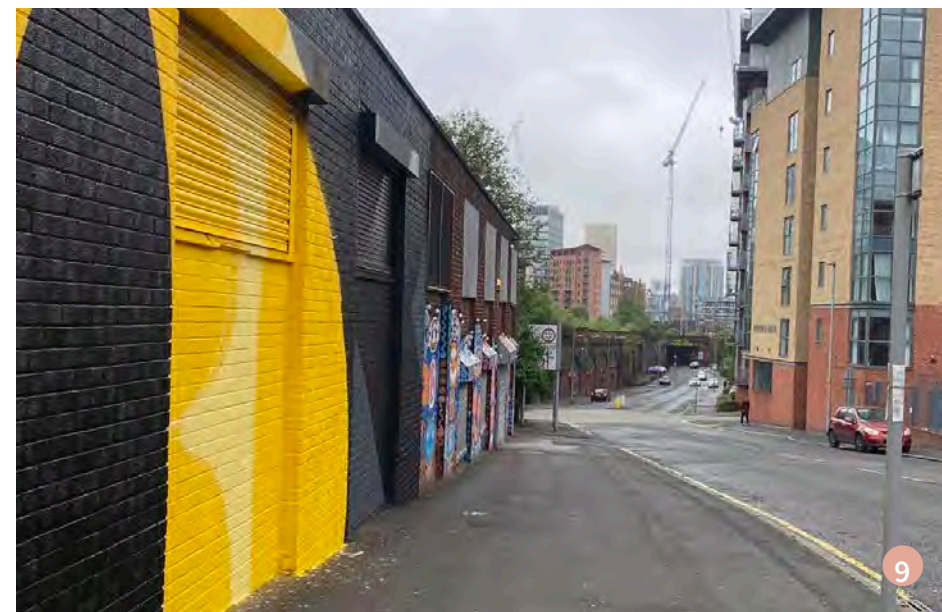
3 ANALYSIS

3.1 Site Photos Surrounding Streets

Red Bank and Honey Street, largely home to a mix of light industrial uses, border the site to the north. Dantzic and Roger Street, home to a similar array of uses form the southern boundary alongside the River Irk.

- The rivers edge is inaccessible in many places due to private land/industrial units, and is concealed by high brick walls.
- There are large areas of surface car parks, semi vacant industrial units and other unused plots of land.
- There is an interesting relationship between street level and the Red Bank viaduct with opportunities for activation of the viaduct wall.
- There are significant amounts of fly-tipping in the river and car parks.
- There are some existing independent retailers in the area such as GRUB street food on Red Bank.
- Dantzic streetscene is dominated by car parking.
- Topography around Red Bank towards Honey Street provides views across city and the valley.





3.2 Site Photos

Red Bank Viaduct and Former Railway Sidings

The level plateau area to the north of the site forms a significant area that is most suited to future development plots with opportunities to connect to Red Bank.

- The plateau has a post-industrial character and until recently had been overgrown with self set birch and buddleja with relatively low ecological value.
- This part of the site is rich in history that can still be seen including some historic railway infrastructure and Lowry Steps pedestrian bridge structure that bounds the northwest edge of the site.
- There is no current sense of purpose or identity.
- The viaduct that connects to the southern part of the plateau has huge potential as an elevated greenspace with views across the city.
- There are large amounts of vandalism and tipping.
- The elevated topography creates interest and vantage points from which to view the river valley below and the northern edge of the city.





3.3 Site Photos St Catherine's Wood

St Catherine's Wood provides a valuable and rare inner city wildlife habitat, however suffers from a lack of management and maintenance.

- The majority of woodland within the area is of planted origin, however it is a locally extensive habitat and provides habitat value in the local context.
- There is a dominance of non-native species, particularly sycamore. Some structurally poor and colonising species such as birch and willow. Lack of woodland under storey planting, with a few common species such as nettle.
- Dense areas of bracken exist to the south along the steep embankment and provide a potentially valuable breeding bird habitat.
- There are a small number of riverside specimen trees of note - mainly large willows.
- River banks are typically walled and this limits opportunities for many species.
- The area feels unmanaged and unwelcoming with lots of vandalism and fly tipping. Also very disconnected, cross valley/park links are non existent.
- Invasive species, particularly Japanese Knotweed and Indian Balsam are locally dominant along the river.
- There is very restricted access to the river edge due to vegetation and industrial units. There are also inaccessible /incomplete footpaths - many are overgrown, or access is blocked by fallen trees/vegetation.
- The only real access is via a historic footbridge link to St Catherine's park but there is an opportunity to make this a key gateway and cross valley connection.





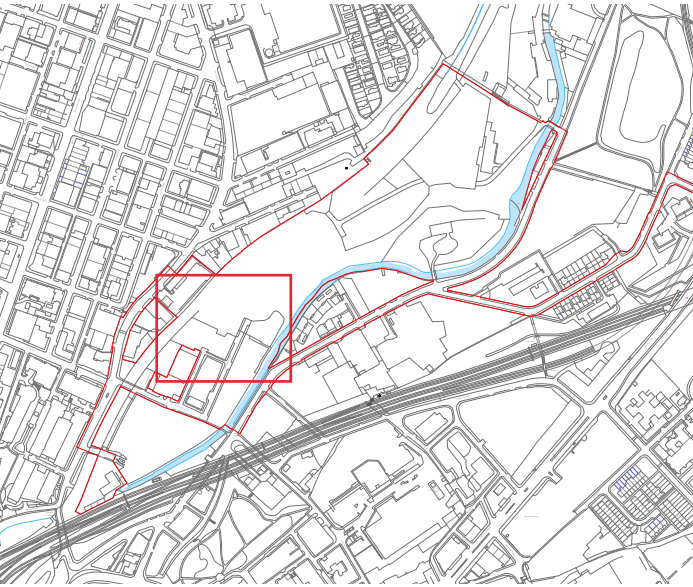
3.4 Existing Topography Red Bank

The adjacent diagram illustrates the existing topographical contours through the Red Bank Area of the site.

The 10m level change between the lower area adjacent to the River Irk and the upper plateau is clearly evident at the Red Bank viaduct area where the contours tighten creating a steep embankment with no access.

This steep slope may act as a constraint in providing access up to proposed future development areas at the plateau level, although vehicular access can be more easily achieved from the north via Red Bank.

The existing viaduct walls act as striking and functional retaining structures and can largely be retained and incorporated into the future design proposals.



LOCATION PLAN

KEY

- Flat areas
- Steep areas
- Existing contours



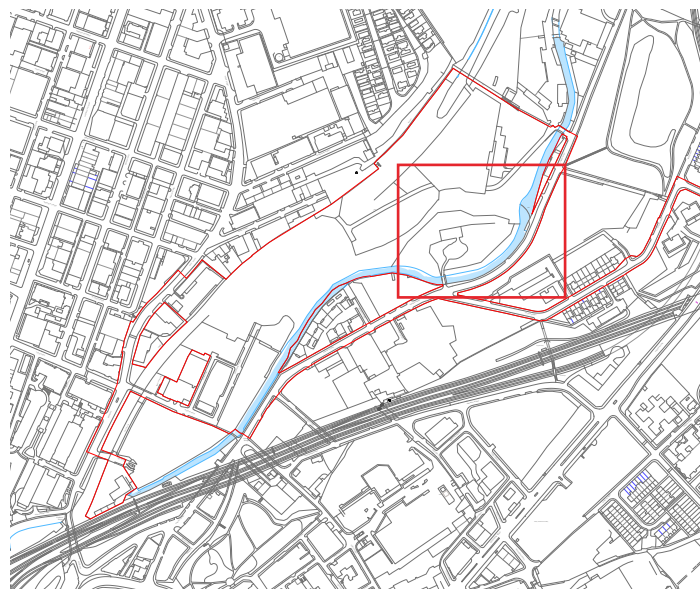
3.5 Existing Topography St Catherine's Wood

The adjacent diagram illustrates the existing topographical contours through the St Catherine's Wood area of the site.

There is a 10m level change between the main body of St Catherine's Wood adjacent to the river, and the future development plots that sit on the largely flat plateau area of the site.

To the centre of the woodland this level change is more gradual than to the southern and northern tips of woods where the steep banks form a barrier between the river and the plateau level. The steep topography to the northern periphery of site acts as a potential constraint in providing access up to areas of proposed development.

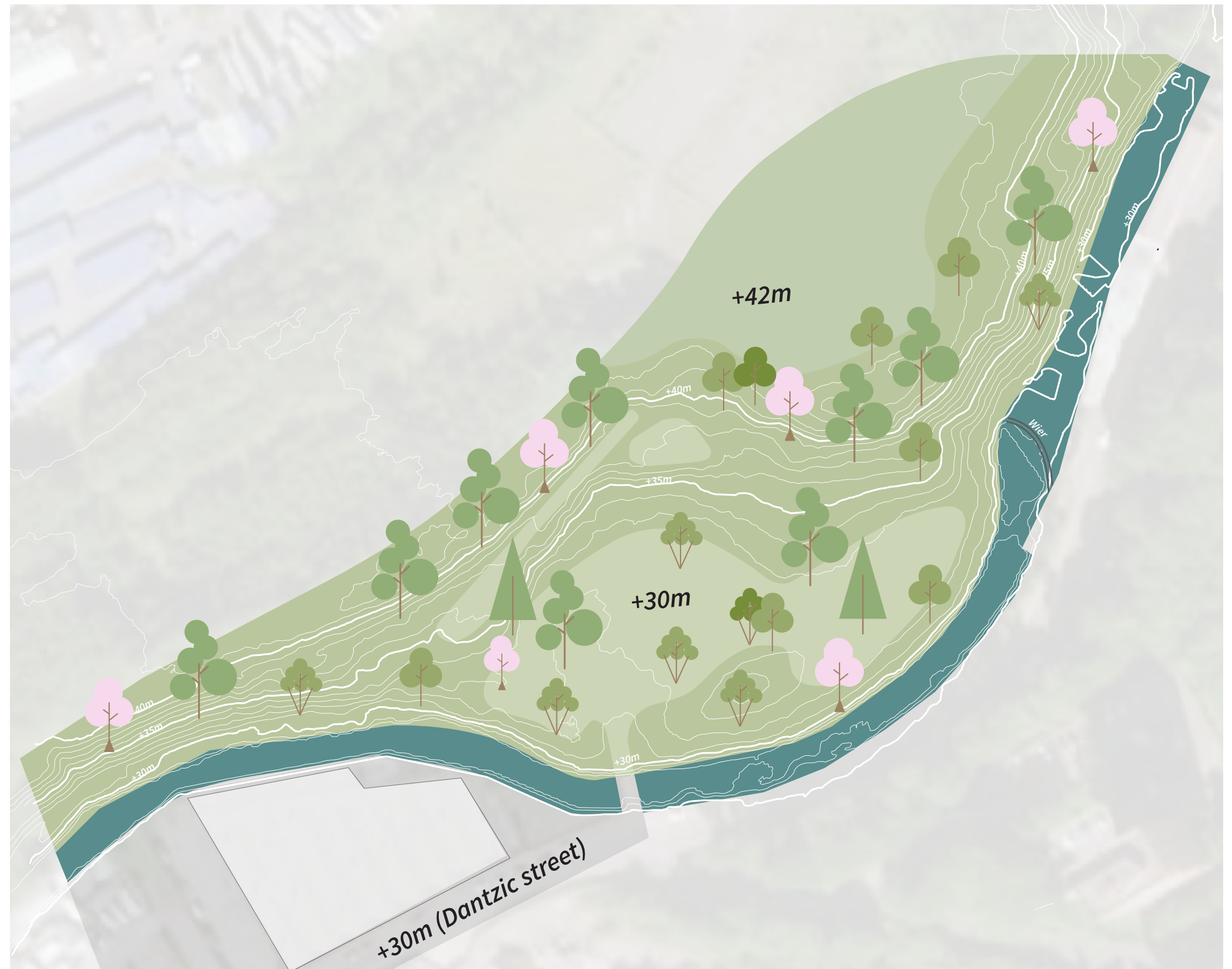
A one in nine sloped wide path forms access into the upper flat area of the site from the northern tip of the site via an existing bridge over the River Irk, whilst another existing footbridge central to the woods provides pedestrian access into the site.



LOCATION OF ZOOMED IN PLAN WITHIN WIDER SITE

KEY

- Flat areas
- Steep areas
- Existing contours



3.6 Tree Survey

The key findings of the tree survey are summarised as follows:

- The majority of tree cover to the plateau area of the site comprises large groups of self-set silver birch and goat willow regeneration of varying ages with occasional established trees, generally around the boundaries.
- Several of the land parcels are devoid of tree cover of any sort or have only small self-set shrubs and other vegetation.
- There are no category A trees (high retention value), and several category B trees (medium retention value). The majority of trees are category C (low retention value) by virtue of their size or condition and their self-set nature. Overall their value is mainly as habitat with some limited landscape value as well.
- Common species include Silver birch, Goat Willow, Elder, Sycamore, Ash, Wild Cherry, Field Maple and Common Hazel. Sparse shrub layer with species such as Hawthorn, Dogwood and Buddleja.
- None of the trees on or adjacent to the site are covered by TPOs. There is no ancient woodland or veteran trees within and/or adjacent to the site.
- Any new planting should not be viewed principally as an exercise in landscape architecture and aesthetic design but should be strongly informed by conservation and habitat objectives and in consideration of a planted trees' future requirements for healthy growth (e.g. rooting and canopy space).

The adjacent images and associated comments are taken from the Tree Survey by TEP which should be referred to for more information.



VIEW WEST ALONG THE RIVER IRK SHOWING T11 AND GROUP 19 ADJACENT TO RIVER



VIEW NORTH LOOKING AT GROUP G10 - BOUNDARY TREES GROWING ON THE OLD VIADUCT



VIEW NORTH FROM COLLYHURST ROAD OVER THE RIVER IRK, SHOWING TREE GROUP 4 (DEVELOPING WOODLAND) AND EXISTING STEPS



VIEW LOOKING WEST ALONG THE RIVER IRK - GROUP G20 - LARGER MULTI-STEMMED WILLOW ON RIVER BANK.



VIEW LOOKING SOUTH WITHIN ST CATHERINE'S WOOD - WOODLAND W1 - MIXED BROAD LEAF WOODLAND



VIEW LOOKING TOWARDS THE CITY CENTRE ALONG THE OLD VIADUCT - GROUP G11 - INACCESSIBLE SMALL TREES ON OLD VIADUCT.

3.7 Opportunities and Constraints

St Catherine's Woods

St Catherine's Wood is a rare green asset on the edge of Manchester City Centre, however also comes with constraints identified during the site analysis.

OPPORTUNITIES:

- The existing woodland is a green asset along the river corridor connecting into the city and can influence the wider movement and greenspace network aspirations that will ensure connectivity and activity.
- Maximising enhancement of the woodland with rich forest floor planting and the river with re-naturalisation, allowing for the banks to again become welcoming habitats to fish, amphibians and other creatures.
- Utilisation of the existing topography to create a dynamic and interesting landscape, filled with interesting routes and activities and offering spectacular views to the city.
- Recycling existing site won and imported materials including felled timber for furniture, path surfacing or artwork features.
- Developing an activities and collaborative workshop programme that could also benefit future phases of the City River Park delivery.

RISKS AND CONSTRAINTS:

- The new green space remains insufficiently managed and does not feel welcoming or safe.
- Previous attempts at activating the space have been challenging due to its isolation.
- Industrial history means area is likely to be heavily contaminated, this may restrict opportunities for earthworks and remodelling the ground.
- The existing site topography and steep levels may restrict design opportunities with steep embankments preventing access to some areas and making new routes difficult to implement.
- Within flood zone therefore issues with variable water levels that need to be understood as part of the design circulation strategy.



1. Existing steps down to weir. Steep level change.
2. Incomplete footpath - overgrown/ access blocked by fallen trees.
3. Large amounts of fly-tipping along this length of the river.
4. Undesirable/poor quality footpaths. Incomplete connections - overgrown/ access blocked by fallen trees in places.
5. Historic St. Catherine's footbridge
6. Area dominated by bracken. Paths overgrown/ inaccessible. Steep topography down to this level. No current access down to river edge.

3.8 Opportunities and Constraints Redbank Viaduct

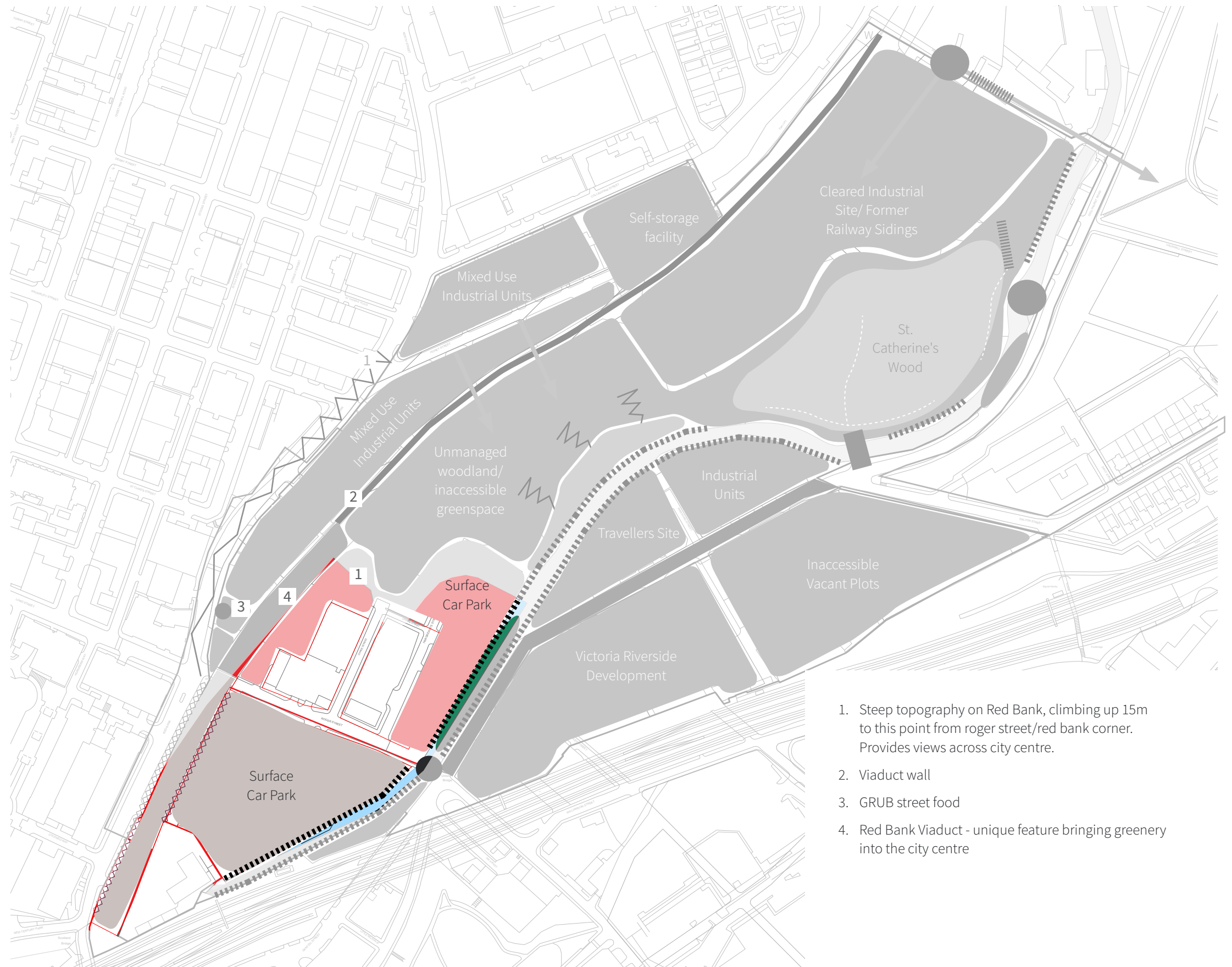
The historic viaduct brickwork is a strong asset for future development of the site, once several constraints have been overcome.

OPPORTUNITIES:

- The area is rich in history and has historic railway infrastructure that should be celebrated. The disused railway infrastructure could help bring new development and green links along and across the site.
- Enhancement of links to existing communities such as the Green Quarter and future developments like Gould Street.
- The structure and landscape topography create vantage points from which to view the valley and the northern edge of the city which could be made a feature in social or economic developments.
- Re-use of railway arches and top deck. Huge opportunity for dwelling, green space and viewing points.
- Pedestrian space with potential for cycle access if connection with Victoria Station is opened in the future.

RISKS AND CONSTRAINTS:

- The area currently feels unsafe and unloved with numerous examples of vandalism and fly tipping.
- Restricted access opportunities and potential safety issues around the existing structure.
- Potential high costs and technical / structural constraints around the existing structure that might prevent design aspirations to be realised.
- Industrial history and potential for contamination may restrict potential earthworks and remodelling.
- The existing site topography and steep levels may restrict new routes, and make difficult to implement.



1. Steep topography on Red Bank, climbing up 15m to this point from roger street/red bank corner. Provides views across city centre.
2. Viaduct wall
3. GRUB street food
4. Red Bank Viaduct - unique feature bringing greenery into the city centre

3.9 Opportunities and Constraints River Corridor

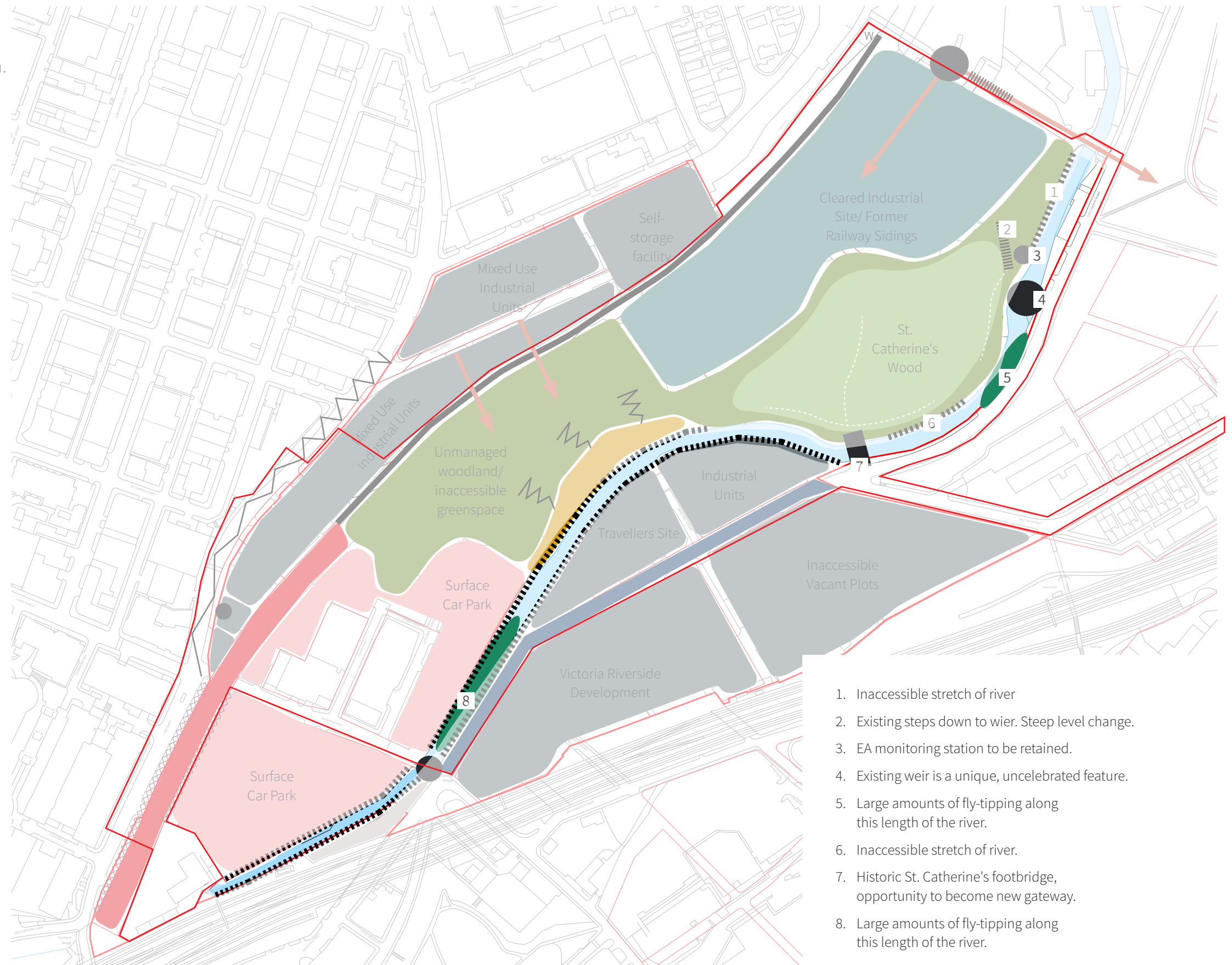
The River Irk has been walled, neglected, used for fly tipping and appears devoid of life. There is a huge opportunity to regenerate and create a wildlife haven.

OPPORTUNITIES:

- The regeneration of St Catherine's Wood as part of the City River Park can become the catalyst for the regeneration of the River Irk.
- Delivering positive environmental and ecological change will increase biodiversity, benefiting many species in the River corridor and visa versa.
- Improving the river morphology and making the river more naturalistic will improve and create habitats and improve access.

RISKS AND CONSTRAINTS:

- Within a flood zone/variable water levels – understanding the range of water level is important in ensuring easy escape routes as part of the circulation strategy.
- Industrial history - The area is likely to be contaminated and this may restrict opportunities for remodelling the river channel and banks.
- Access restrictions along the river frontage - poor quality industrial uses and fencing resulting in the river edge being inaccessible in many places.
- Topography – linkages are limited with steep embankments preventing access to some areas.
- Creating a safe environment and ability to avoid crime – Existing areas feel unsafe and with numerous examples of vandalism and fly tipping.
- Walled banks of the river – These offer limited opportunities for many species. The straightening of the river with stone/steel/concrete walls allows little chance of gravels being deposited in the river. Something that is vitally important to all species of river life.
- Invasive species - Japanese Knotweed and Indian Balsam are locally extensive along the river.
- The Environment Agency monitoring station needs to remain near Collyhurst Weir.



1. Inaccessible stretch of river
2. Existing steps down to wier. Steep level change.
3. EA monitoring station to be retained.
4. Existing weir is a unique, uncelebrated feature.
5. Large amounts of fly-tipping along this length of the river.
6. Inaccessible stretch of river.
7. Historic St. Catherine's footbridge, opportunity to become new gateway.
8. Large amounts of fly-tipping along this length of the river.

3.10 Opportunities and Constraints Surrounding Streets and Area

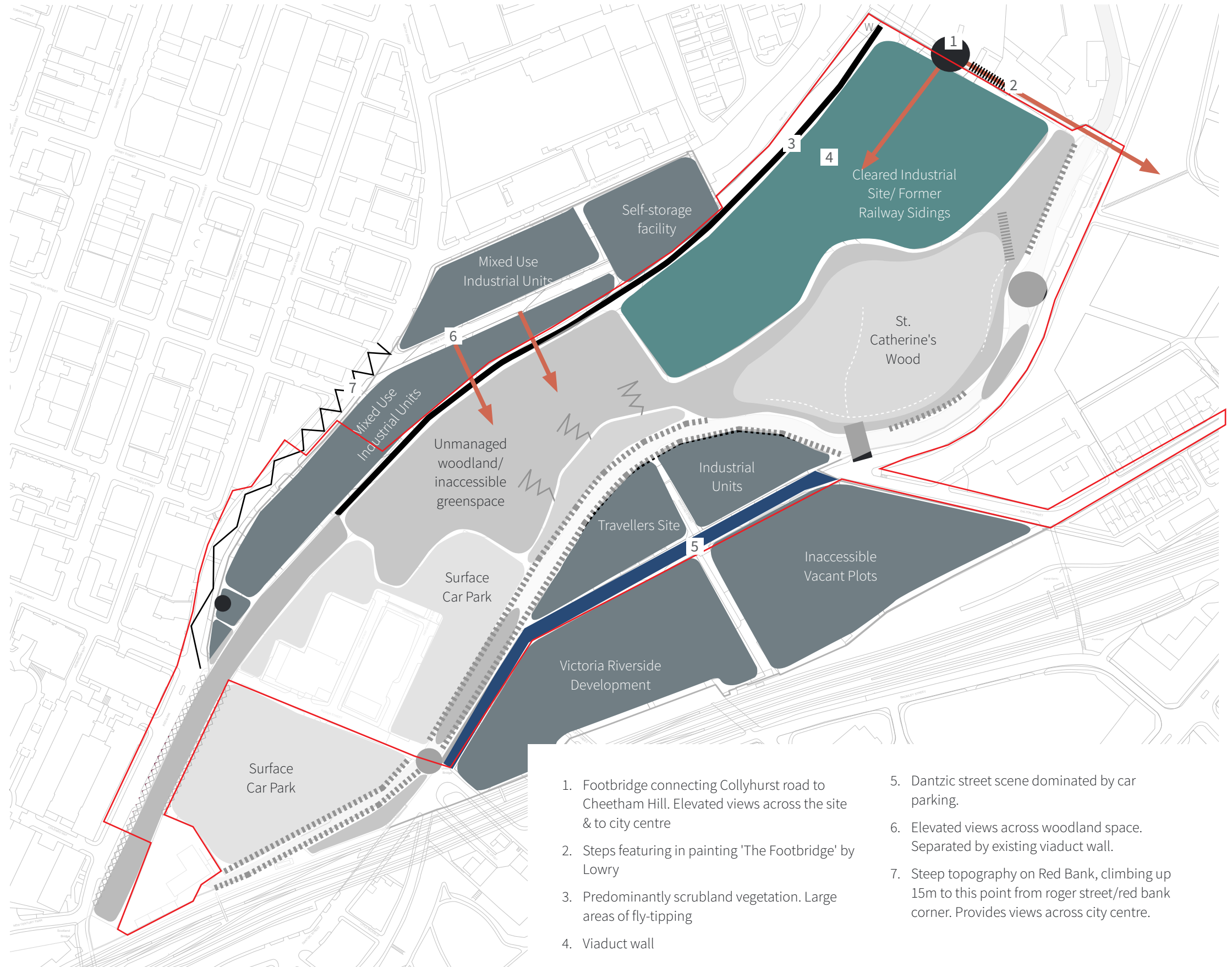
Existing streets can be incorporated into a network of new green pedestrian and cycle routes through the site and across the wider area.

OPPORTUNITIES:

- Balanced streets: generous footways for pedestrians allowing opportunities to stop and rest, reduce highway widths, low kerb heights, and flexible zones to allow for seating/cycle parking/green space and planting.
- Improved connectivity, both north south and east west, linking to existing communities such as the Green Quarter and future developments like Gould Street.
- Tree planting where utilities permit, greening where utilities prevent space for rootballs.
- SuDS features integrated into the street design where possible to reduce discharge into sewers and embrace green infrastructure in design.

RISKS AND CONSTRAINTS:

- Challenging site topography may restrict design opportunities, particularly around Red Bank access road.
- Whilst north/south links are available on road and off – cross valley links are limited, from Red Bank/Honey St to Dantzig St/Collyhurst Rd.



4



DESIGN DRIVERS

4.1 Vision Design Drivers

The below diagrams illustrate the key site considerations which relate to the existing nature of the landscape and the social/environmental aspirations for the site. The diagrams incorporate some aspects of the wider aspirational landscape masterplan for context, not only landscape elements that are to be delivered as part of the HIF Main Infrastructure proposals.

TOPOGRAPHY

The level changes across the site offer great design potential but must be managed to allow safe routes and accessibility for all. Some steeper site areas can be re-profiled with tiered and stepped sections with universal access routes implemented where possible.

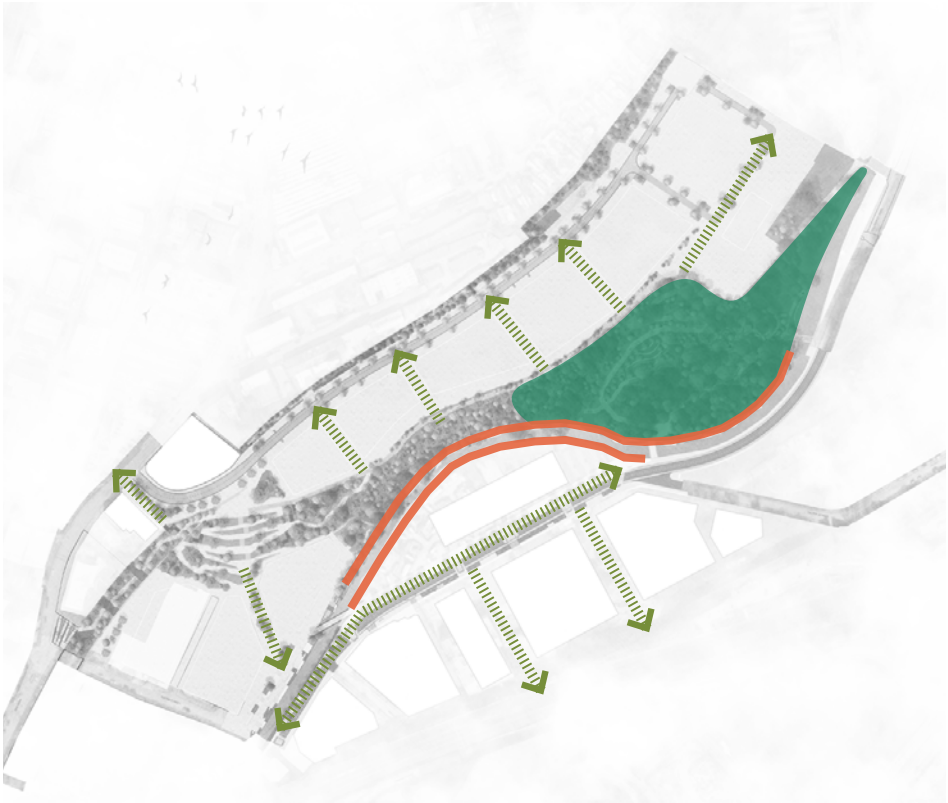


KEY

- Steeper Sections (generally 1:1 to 1:6)
- Flatter Areas (top of bank)
- Flatter Areas (bottom of bank)
- Potential Stepped Access Routes

ECOLOGY

The site's existing natural woodland setting is one of its greatest assets so ecological considerations must enhance this where possible. Where vegetation removal is required, new species will be planted to enhance the woodland and river edge habitats.

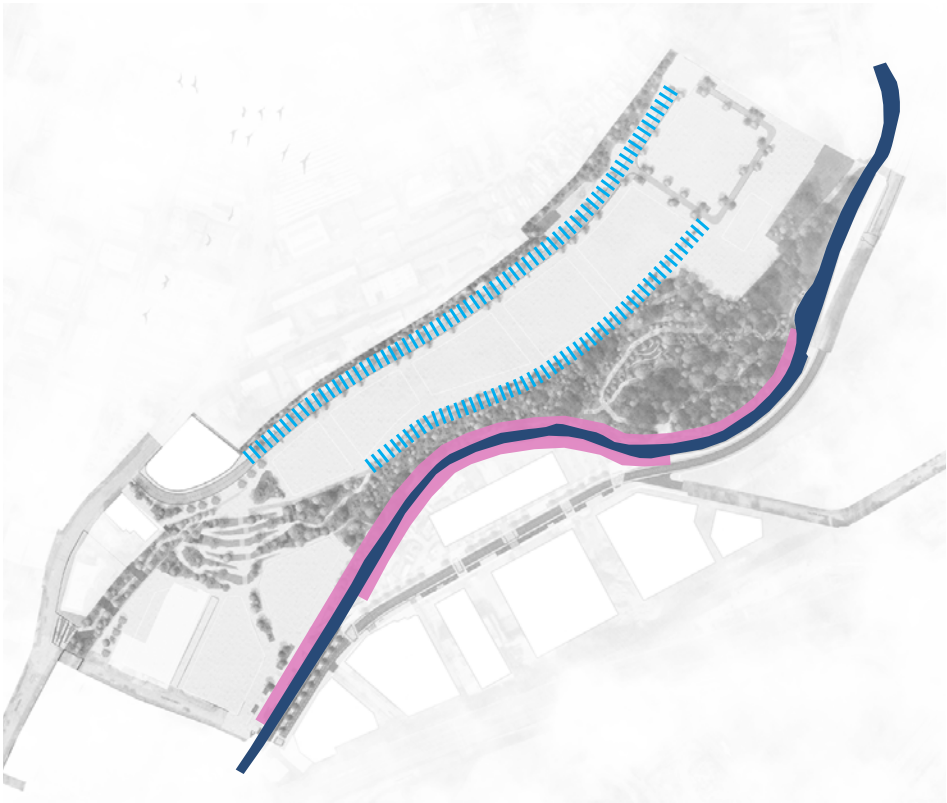


KEY

- Existing Woodland (retained and enhanced where feasible)
- Green Corridors (habitat routes to link into network)
- River's Edge Ecosystem (aquatic habitat creation)

WATER

The River Irk is a key feature of the site so its ecological and social potential must be maximised. Water management and flood mitigation is a key consideration because of its proximity to highways and buildings.



KEY

- SUDS Infrastructure
- Enhancement of River Corridor (riverside route and habitat creation)

MOVEMENT AND ACCESSIBILITY

Some areas of the site have hard boundaries such as retaining walls and river corridors so it is important site access is enhanced where possible. Unlocking routes through steeper woodland sections which have limited access will open up site wide permeability.



KEY

- Primary Universal Travel Route
- - - Secondary Access Links
- - - Riverside Walkway
- - - Vehicular & Pedestrian Route
- - - Existing Non DDA Compliant Route
- ↔ New Access (proposed bridges not delivered as part of this application. Number and location not yet confirmed)
- ☀ Existing Access Bridges

SPATIAL ACTIVATION

Spatial activation will be key in animating the site and building a connection between the landscape and the new community. Establishing key social nodes which are well connected will create a socially sustainable basis for people to engage with the site.



KEY

- Edge Activation (retaining wall & riverside edge)
- ☀ Arrival Space (bridge landings)
- - - Woodland Play Area
- ☀ Key Dwell Space (tiered seating)

SOCIAL AND ECOLOGICAL BALANCE

The ways in which social and environmental factors work together to establish a sustainable neighbourhood is an underpinning driver for the design. The ecological ambitions must compliment the social interventions to create a mutually beneficial environment.



KEY

- Riverside Enhancement (route provision and habitat creation)
- Key Movement Infrastructure (incorporation of SUDS)
- - - Connecting Routes (for pedestrians and wildlife)
- ↔ Potential Future Bridge Links (not delivered as part of this application. Number and location not yet confirmed)
- Dwell & Play Space (social and ecological provision)



**PROPOSED WORKS,
LANDSCAPE MASTERPLAN AND
OVERARCHING STRATEGIES**

5.1 Landscape Vision Masterplan (not for approval)

The masterplan shown on this page illustrates the aspirational vision for the site, however not all aspects will be delivered as part of this planning application.

The creation of the development platforms and new and improved green infrastructure works that form part of this planning application are intended to ready the site for the forthcoming residential masterplan being prepared by FEC, whose proposals will deliver c. 4,200 homes. However, it should be noted the proposed infrastructure works relate to whole of the Initial Development Area (to deliver 5,500 new homes), and are not limited to the FEC residential masterplan alone.

The Red Bank Neighbourhood aspiration and vision is to deliver the first of seven distinct and inter-connected parks that make up the City River Park, as set out in the City River Park Vision Document (09/2020). The vision document defined several themes and strategies for the City River Park, in line with the objectives of the Northern Gateway Strategic Regional Framework (February 2019) and the Red Bank Neighbourhood masterplan will adopt these within the developing proposals where feasible.

In addition to the creation of a new park, the Red Bank Neighbourhood masterplan aims to support existing and new neighbourhoods and residents, whilst connecting Manchester's City Centre with the city's northern neighbourhoods, parks and ultimately the upper sections of the Irk Valley. The future bridge connections shown on the adjacent plan are aspirational and not yet confirmed in terms of location or number.

The detailed masterplan design will be cognisant of existing communities and social issues, health and well-being, education and anti-social behaviour. It also places climate adaptation as the foundation of key masterplan design decisions, looking to embrace MCC's declaration of a 'Climate Emergency' as a driver for change.



This aspirational landscape masterplan represents an illustrative future vision and does not represent what is being applied for within this planning application.

5.2 Proposed Landscape Masterplan (for approval)

The Landscape Masterplan for which planning permission is sought by this planning application is illustrated on this page.

The proposed development will deliver the green heart to the masterplan, with the regeneration and reimagining of St Catherine's Wood as a new public park, a valuable asset for the city and local residents.

It will also deliver significant ecological enhancements to the existing woodland as well as improvements to the River Irk; enhancing the river environment, and incorporating naturalisation measures to help reduce the risk of future flooding.

In addition, several other key pieces of public realm will be delivered including the Red Bank Terraces, Viaduct Linear Park and Union Waterfront.

The establishment of a hierarchy of high quality circulation and movement routes across the site will provide key infrastructure for future residents of the FEC masterplan and also provide much needed, safe and accessible connections for existing local communities in the short term.



In addition to the landscape masterplan vision including new public realm and delivery of c 4.5ha of the City River Park, the proposals also include critical site infrastructure works which benefit from Government HIF funding, and which will ready the site for its future redevelopment as a residential neighbourhood. An overview of the works applied for by this planning application is provided below:

PERMANENT LANDSCAPING

The permanent landscaping works comprise:

- The enhancement of St Catherine's Wood park to deliver c 4.5ha of the City River Park, including vegetation planting, lighting and security, and a new circulation route access for pedestrian and cyclists leading from St Catherine's Wood bridge, including some minor reprofiling of slopes to the rear of the park and tree and shrub clearance; and,
- The creation of new public realm areas in the form of Red Bank Terraces, and Union Waterfront at the southern-most extent of the site, and connecting pedestrian and cycling circulation routes.

PREPARATORY WORKS TO CREATE DEVELOPMENT PLATFORM

The preparatory works comprise:

- Demolition of sections of retaining wall. Three sections of the existing river wall adjacent to the northern banks of the River Irk are proposed for removal to facilitate the proposed earthworks and landscaping in these areas.
- Tree and shrub clearance to facilitate the construction of the residential led development platform (Red Bank Plateau) and as part of the park area/ proposed landscape improvements.
- The reclamation of the development platform at Red Bank Plateau, Red Bank Terraces and the circulation route to Union Waterfront comprising.
- Cut and fill and remediation to the Red Bank Plateau and Red Bank Terraces, including the regrading/reprofiling of existing slopes and changing the Red Bank Plateau platform levels.
- The reprofiling of stretches of the northern bank of the River Irk and the erection of a bund to assist with flood alleviation. Preparatory works to create development platform

HIGHWAY WORKS

The highway works comprise:

- The formation of a new spine road (Phase 1) (Plateau Avenue) on Red Bank Plateau. This application is seeking planning permission for Phase 1 of the new road at Plateau Avenue. This road will be constructed with sacrificial highway and footpath finishes for Phase 1, which will be upgraded by FEC's residential led development. The detail of the road will be agreed through future reserved matters applications pursuant to FEC's prospective outline planning application (Application 4).
- The creation of a circulation route leading from 'Red Bank Terraces' and 'Union Waterfront', at the western extent of the site, to the Packaging Products access bridge, at the eastern-most point of the site, which will also be for emergency access.
- The formation of the new priority junction at Red Bank road.

DRAINAGE AND UTILITIES WORKS

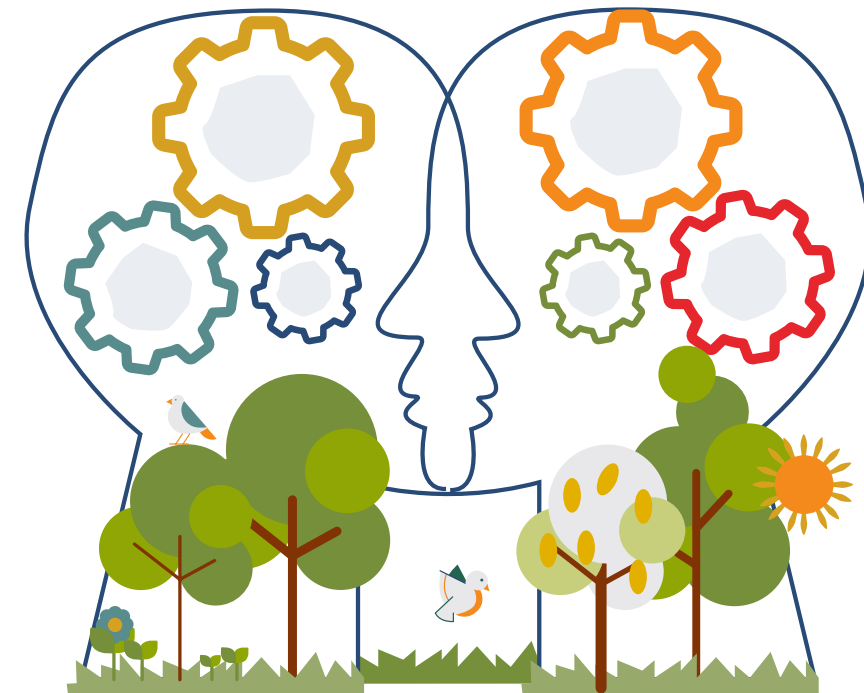
The utilities works comprise:

- New drainage installation including the creation of SuDS, including drainage for the future development plots (to be applied for by FEC as part of Application 4/ the residential masterplan).
- Utilities and services connections for all new development plots and park/landscape/public realm areas and highways.
- Utilities diversion and new installations on Dantzic Street and new drainage installation.
- Street Works for new utilities incorporating two trenches for HV ducting from Queens Park substation to the north-east of the site, and additional utilities needs within existing streets local to the Initial Development Area.

TEMPORARY WORKS

The temporary works comprise:

- Temporary construction access from the eastern-most point of the site, adjacent to the Packaging Products site.
- Temporary site security including gates and fencing to be erected during construction works.



5.3 Access and Movement

A hierarchy of access routes will provide circulation for all user groups, prioritising active travel and sustainable modes of transport, whilst also accommodating servicing and emergency vehicle access.

An active travel route will circulate the site from Dantzic Street, up through new access routes from the river to the plateau via Red Bank Terraces and St Catherine's Wood.

These accessible pedestrian and cycle routes will link into a network of pedestrian only routes through the public realm and along the River Irk. The less direct routes will form a network of paths, designed for people to engage with the natural environment at a slower pace.

Other playful paths with stepping stones and narrower trails will allow for unique exploratory routes through St Catherine's Wood.

Vehicular access will be mainly incorporated via the circulation road along the plateau, forming the spine of the future masterplan development in this area.

KEY

- Primary/Active Travel Routes:
Cyclists and pedestrians; smooth, direct character, minimum 3m width
- Primary Pedestrian Routes:
Pedestrian only; direct routes from A to B
- Secondary/Tranquil Routes:
Pedestrian only; meandering, playful character
- Exploratory/Discovery Routes:
Playful wooded trails, off the main routes
- Primary Vehicular Access Routes
- Vehicular Servicing and Emergency Access
- Future Cycle Lanes on Dantzic Street (not part of this application)
- Existing 1 in 9 slope down from plateau area to the River Irk to meet the existing bridge. Slope retained, smoothed and resurfaced
- Existing Bridge Retained
- Potential Future Bridges (not to be delivered as part of this application. Location and number are yet to be confirmed)



PRECEDENT IMAGES

HOW DIFFERENT ROUTES MAY LOOK



PRIMARY PEDESTRIAN ROUTES



PRIMARY PEDESTRIAN ROUTES



SECONDARY, TRANQUIL PEDESTRIAN ROUTES



PRIMARY PEDESTRIAN ROUTES



EXPLORATORY/DISCOVERY/PLAY ROUTES



EXPLORATORY/DISCOVERY/PLAY ROUTES

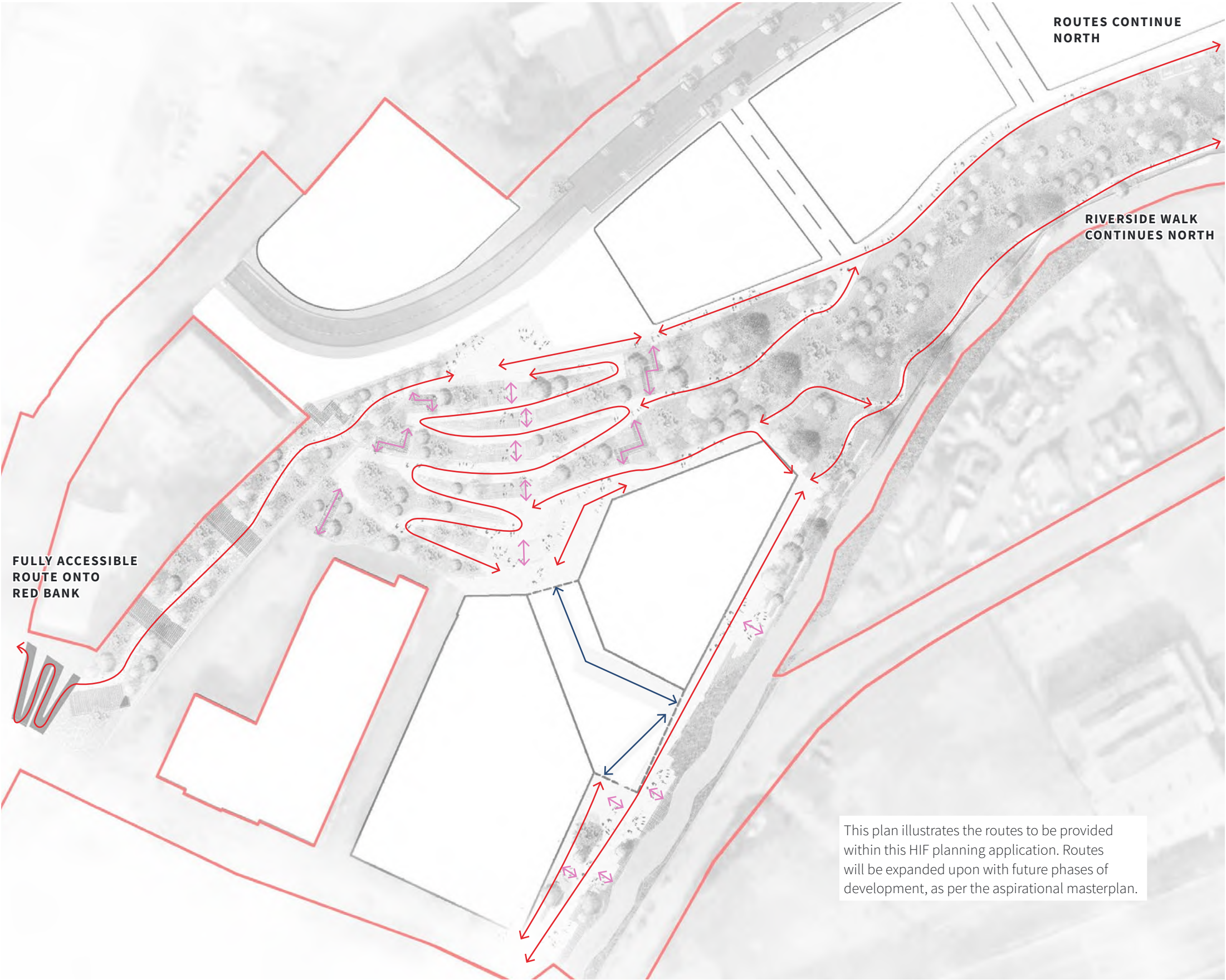
5.4 Accessible Routes - South

The public realm has been designed to be accessible to all users via a network of shallow gradient routes that navigate the significant level changes across the site.

To the southern end of the site, the ten metre level change between the plateau area and existing viaduct down to the River Irk has been made fully accessible via a series of accessible paths with integrated landings and seating along its length.

Steps provide a shorter and more direct connection through the terraces and will have handrails and tactile paving.

As can be seen on the adjacent diagram, a wide network of accessible paths allow for the site to be easily navigated and connect to the wider public realm. The future phases of delivery will see this network of accessible routes expanded upon.



5.5 Accessible Routes - North

The network of accessible routes continues to the north of the site along the river's edge, the plateau ridge, and through St Catherine's Wood.

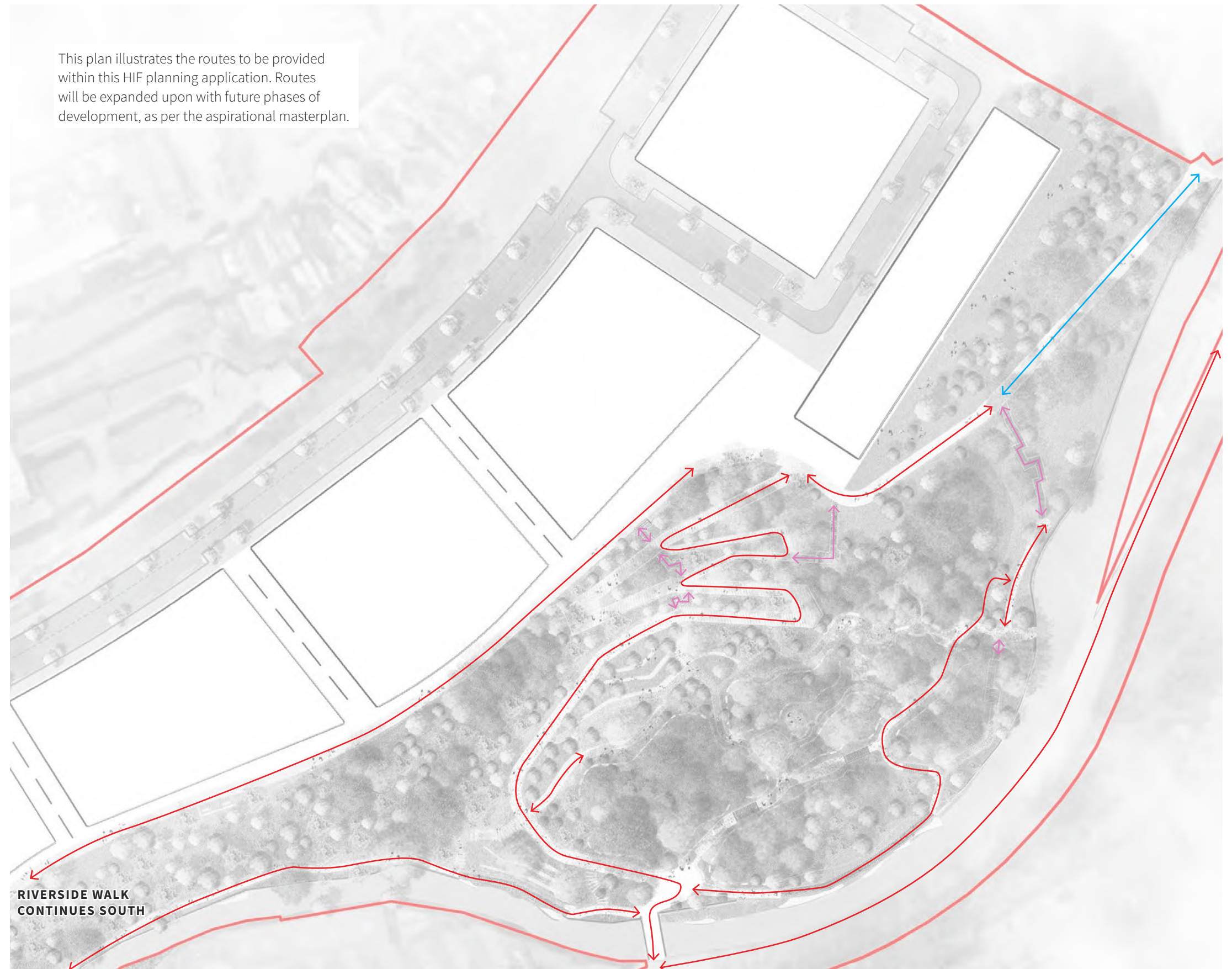
The riverside pedestrian path connects a route along the north bank of the river at Union Bridge through to St Catherine's Wood at the northern end of the site.

A key access route and active travel route will traverse the steep level change from the lower part of the woods with the plateau area, connecting the future development plots and ridge promenade with the new park and existing bridge connection at Dantzig Street. Stepped routes, like those at Red Bank Terraces will provide short cuts through the accessible routes.

Whilst St Catherine's Wood can be circumnavigated via smooth surfaced shallow routes, smaller meandering paths through the woodland and play areas are to be surfaced with bark so as to be fully permeable and more suited to the character and wildlife habitat.

An existing steep gradient route from the P&P Bridge at the north boundary of the site is to be retained and resurfaced. Options to create a more accessible gradient have been explored however this would require significant earthworks and tree felling that was deemed to have too much of an impact on the existing ecology and habitats.

This plan illustrates the routes to be provided within this HIF planning application. Routes will be expanded upon with future phases of development, as per the aspirational masterplan.



KEY

- Fully Accessible Pedestrian Routes:
1 in 21 slope or greater, minimum 1.2m wide, smooth surface for ease of movement
- Compliant Stepped Routes:
Accessibility compliant treads and risers with handrails and tactile paving
- Existing 1 in 9 slope down from plateau area to the River Irk to meet the existing bridge. Slope retained, smoothed and resurfaced

5.6 Ground Conditions and Creation of Development Platforms

As far as can be achieved, the earthworks strategy aims to create a balance of cut and fill material across the site, and cause as minimal disruption to existing vegetation and ecology as is possible.

Existing ground investigation data has identified a number of areas within the site that require:

- further investigation and analysis to validate the findings of existing data in relation to associated risks to human health
- additional detailed quantitative risk assessment to determine risks to controlled waters.

It is intended that these assessments are undertaken in advance of the HIF Infrastructure Works but will be important in confirming the actual scope of works that are required on site.

On the basis of current assessments and in advance of the further assessments described above, the following key tasks have been identified as forming part of the HIF Infrastructure Works:

- Areas of surface hardstanding across the planning application site will be removed.

- The remains of former rail infrastructure will be removed including:
- The remains of two former rail turntables present at the surface of the site.
- The below-ground remains of a former carriage shed.
- The upper surface of the Red Bank Plateau and Red Bank Viaduct areas are to be turned over to an average depth of 500mm. Obstructions that are encountered will be removed to a depth of 1m.

Areas of steep slopes have been identified and the following strategy has been set out by Arup to address future stability issues:

- a).Regrading the slope adjacent to plots RB02 and RB03 to target gradients of 1v to 2.5h.
- b).Lowering ground levels beneath plots RB02 and RB03 to a reduced level of 38.5m AOD.
- c).Defining a risk zone adjacent to plot RB05b. It is considered that any instability associated with the slopes adjacent to this plot will be relatively minor and confined within the risk zone.



PLANS PREPARED BY ARUP

No Development/construction is to take place within the risk zone.

Once these operations are complete, the resulting sub-formation should be proof-rolled. Any soft spots identified during proof-rolling should be treated.

Excavated materials will need to be processed to recover soils for re-use on site as fill in order to construct the required development platforms. The re-use of suitable materials using the CL:AIRE Definition of Waste Code of Practice (DoWCoP) has been proposed in early discussions with the Environment Agency.

In order to address risks to users of the site and risks to neighbours in the period between completion of the HIF IW and follow-on development, it is recommended that a temporary validated cover layer is placed across relevant parts of the site.

The detailed remediation strategy will include a verification plan identifying the data that must be collected during the HIF IW to demonstrate the requirements of the remediation strategy have been implemented.

5.7 Highways

This application is seeking planning permission for Phase 1 of the new road at Plateau Avenue.

This road will be constructed with sacrificial highway and footpath finishes for Phase 1, comprising a temporary tarmacadam surface to allow for construction traffic during the HIF funded works, which will then be upgraded by FEC's residential led development. The detail of the road and footpath surfaces will be agreed through future reserved matters applications pursuant to FEC's prospective outline planning application (Application 4).

Plateau Avenue is proposed as a private (non-adopted) highway, the route of which through the northern area of the site on the plateau is shown on the plan to the right. A priority junction is proposed from Red Bank which would be adopted by MCC under Section 38 of the Highways Act 1980 (extents to be confirmed).

The access junction has a maximum gradient of 2% for the first 15m into the site before increasing on descent into the site, subject to a maximum gradient of 5% (1 in 20) on the inner footway. The highway alignment descends to approximately 1.0m below existing ground level before crossing the line of the retaining wall and emerging into the site at approximately 3.0m above existing ground level.

The initial bend has a carriageway width of 7.3m to allow two large vehicles to pass, which is deemed as probable occurrence. Once on the plateau the carriageway width is reduced to 6.0m, which allows two 3.0m wide vehicles to pass with caution. The one-way loop around RB05a has a 4.5m width, which allows a car to pass a stationary car.

The vertical alignment of the road through the site is generally positioned approx. 1.0m above existing ground level to minimise excavation below existing ground level and provide an opportunity to deposit site won material gained elsewhere, thus minimising carbon impact.

The highway including carriageway width has been designed such that it will in future be able to accommodate 129 on-street parking bays including a 10% provision for accessible parking bays and also loading bays adjacent to each of the future development plots. Tree planting is provided between areas of parking and loading to break up the space. A width of 3.0m is provided for accessible parking and service loading bays on the south side and a 2.5m width is provided on the north side for standard parallel parking.



IMAGE BY ARUP

5.8 Drainage Design

A significant proportion of the site will be permeable, via both planting and hard materials, meaning surface water runoff can be contained.

The Drainage output for the HIF Infrastructure Works will be a series of sustainable drainage networks which will collect the required surface and foul water from the proposed site. The surface water will discharge at a restricted rate to the River Irk in 4 locations.

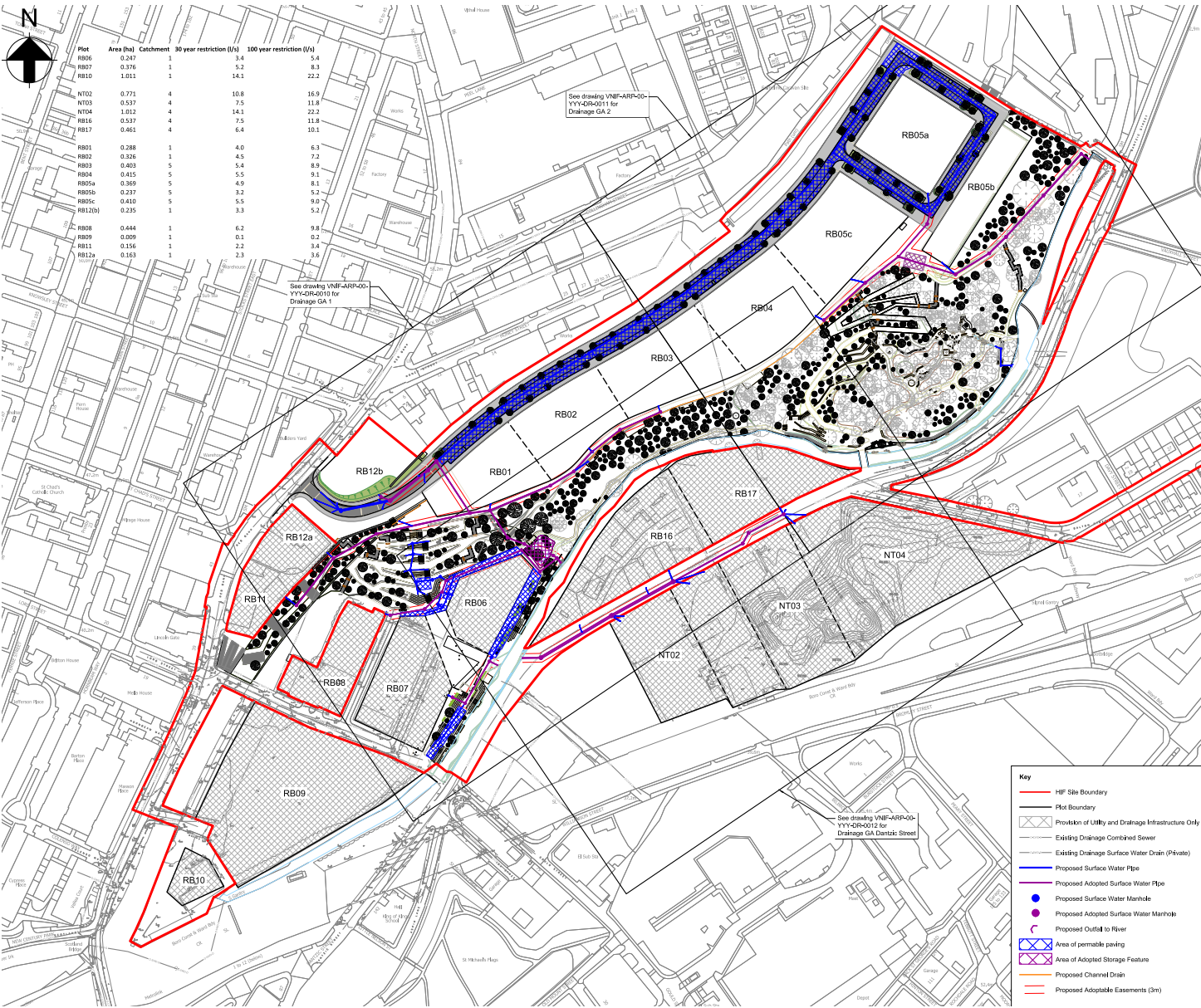
The excess water will be stored in a series of SuDS throughout site with the primary aim of controlling and storing at source. These SuDS are in the form of mainly permeable paving but also

storage tank and swales. There will be additional SuDS storage for the main run through site in the form of a detention basin.

The foul water will be collected and passed through a proposed network to one of two proposed connection points to the existing combined network. These are; the combined sewer passing through the centre of site or the combined sewer which is present in Roger Street to the west of site. This still required detailed modelling and agreement with United Utilities.



PROPOSED FOUL DRAINAGE PLAN - PREPARED BY ARUP



PROPOSED SURFACE WATER DRAINAGE PLAN - PREPARED BY ARUP

5.9 Utilities

The utilities strategy seeks to rely on existing infrastructure where possible, and expand various networks efficiently where required.

ELECTRICITY

Due to the improved energy efficiency of proposed buildings and appliances, and potential incorporation of on-plot renewable energy sources, the overall energy demand for the HIF site will be reduced. Four HV (high voltage) ring mains will be provided by HIF (illustrated here), with three of these ring mains energised and supplied by Queens Park primary substation. The fourth ring main will be ducted through the site only and not live – this provides flexibility for the future depending on requirements of the wider Victoria North site. Two off-plot secondary substations will be provided by HIF, to supply lighting, future EV (electric vehicle) charging and public realm demands.

Provision for lighting has been incorporated into the main routes of the parks and public realm in Stage 3 but may develop further during Stage 4 as the lighting design develops (currently only at strategy level).

TELECOMS

Provision for BT Openreach and Virgin Media will be provided as part of HIF, in addition to spare ducting for potential smart network connections between plots, future CCTV needs and other potential telecoms providers. Telecoms network expansion along Dantzie Street will be incorporated with the ‘full aspirational’ plans to widen Dantzie Street which is outside HIF.

WATER

Plots to the north of the river will be supplied by an existing trunk water main in Red Bank and will not require and Union Bridge water main to be upsized. The proposed water main in Plateau Avenue may be provided as 2No smaller mains rather than 1No larger main, to allow efficiency of the network prior to the completion of the later plots. The plots to the south of the river will be served by the existing water mains in Dantzie Street.

RIVER CROSSINGS

The new Dantzie Street bridge will now be delivered under works outside the HIF timeline. Therefore, an alternative trench crossing beneath the River Irk will be adopted to allow utility connections to the site. This would be implemented for the Collyhurst Weir Bridge if the bridge is not delivered as part of the HIF River Works.

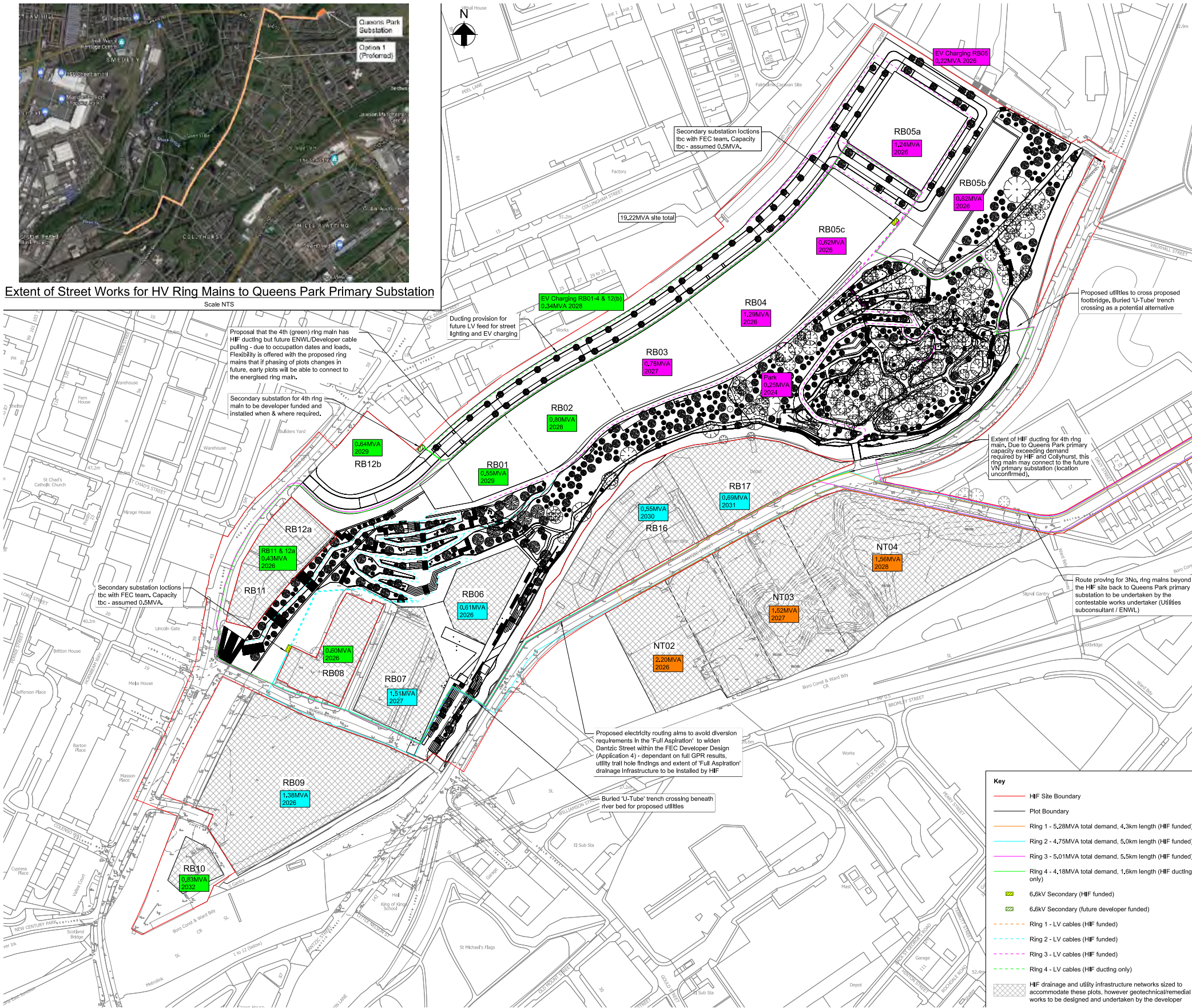


IMAGE BY ARUP

5.10 Structures

The approach to existing and proposed structures seeks to rely on existing infrastructure where possible and build efficiently and sensitively into the landscape where required.

The existing St. Catherine’s Wood bridge- not currently open to the public- is intended only as a pedestrian and cycle route. Required works will include resurfacing, raising of the parapets to a minimum of 1.4m above deck surface and the provision of lighting.

In general, it is assumed all existing retaining walls are to be maintained at current condition, where no additional loading or change in ground conditions is introduced by the scheme. Although discrete sections of the river wall on the northern bank have been identified for planned demolition to create connection with the river and improve aquatic habitat.

The global stability of the Honey Street retaining wall is proposed to be improved by placing fill at the toe of the wall.

A new retaining wall is being provided at the south-west corner of the new access road, adjacent to plot RB12b. The wall is located at the end of the viaduct and its height varies to a maximum of approximately 4m at the boundary of the plot. It is assumed to be a reinforced concrete cantilever wall (see detail drawing). Further work will be needed to establish the ground conditions below it and consider potential reduction in carbon impact and construction efficiency.

The small retaining walls supporting Red Bank Terrace design and the raised soft landscape areas adjacent to Honey Street retaining wall are proposed to be gabion structures (as a low carbon solution), with the final form to be determined in the next design stage to suit architectural/landscape finishes.

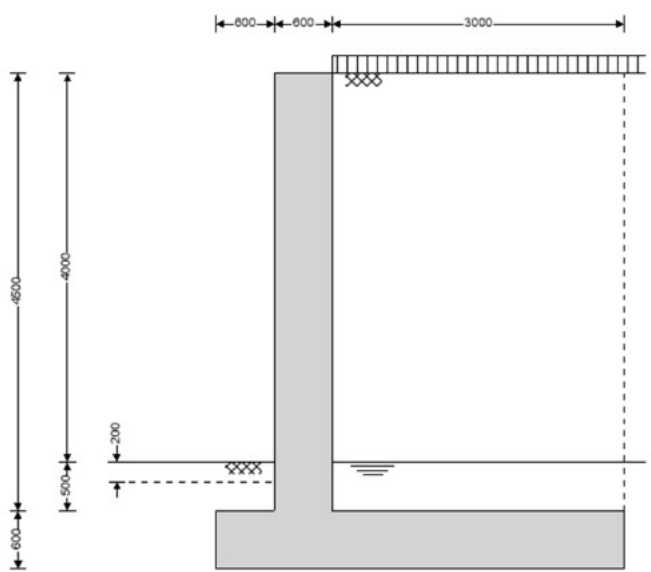
The raised walkways in St Catherine’s Wood and along the riverbank are proposed to be of low impact and minimal carbon footprint with safety handrails provided on the edge. The walkways are not considered as bridges, but they will require a maintenance regime as part of long-term maintenance plans for the park.

KEY

- Lengths of existing river wall proposed for removal
- Proposed new retaining wall
- Proposed gabions to act as retaining walls to Red Bank Terraces
- Existing Bridge Retained



PROPOSED NEW RETAINING WALL PLAN - PREPARED BY ARUP



PROPOSED NEW RETAINING WALL DETAIL - PREPARED BY ARUP



5.11 Lighting and Security

An overview of the lighting strategy for the HIF works at Victoria North has been provided, refer to the Lighting Report for Planning VNIF-ARP-ZZ-YYY-RP-Y-0003 for more detail on the wider lighting principles.

At the heart of the lighting philosophy for the development is the woodland, intertwined with the different urban spaces. The lighting strategy aims to create a strong identity, by strengthening sense of place and promoting safety and security, whilst being sensitive to the ecological requirements.

PLATEAU AVENUE

Highway lighting provides uniform levels of light for interactions between vehicles, cyclists and pedestrians.

ACTIVE TRAVEL ROUTE

Looping around the site, a safe and vehicle free pathway for runners and cyclists will have lighting to promote use later into the evening. Lighting elements will be placed at gateways into the site to aid with wayfinding.

RED BANK TERRACES

The terraces are a place to socialise and dwell. Lighting is applied to the winding pathways and stairs, seating areas and soft landscaping. Enhanced levels of light will be provided to changes in level at ramps and stepped routes. The Viaduct route from the top of the terraces into the city will have low level lighting to allow the sky and surrounding cityscape to take precedent.

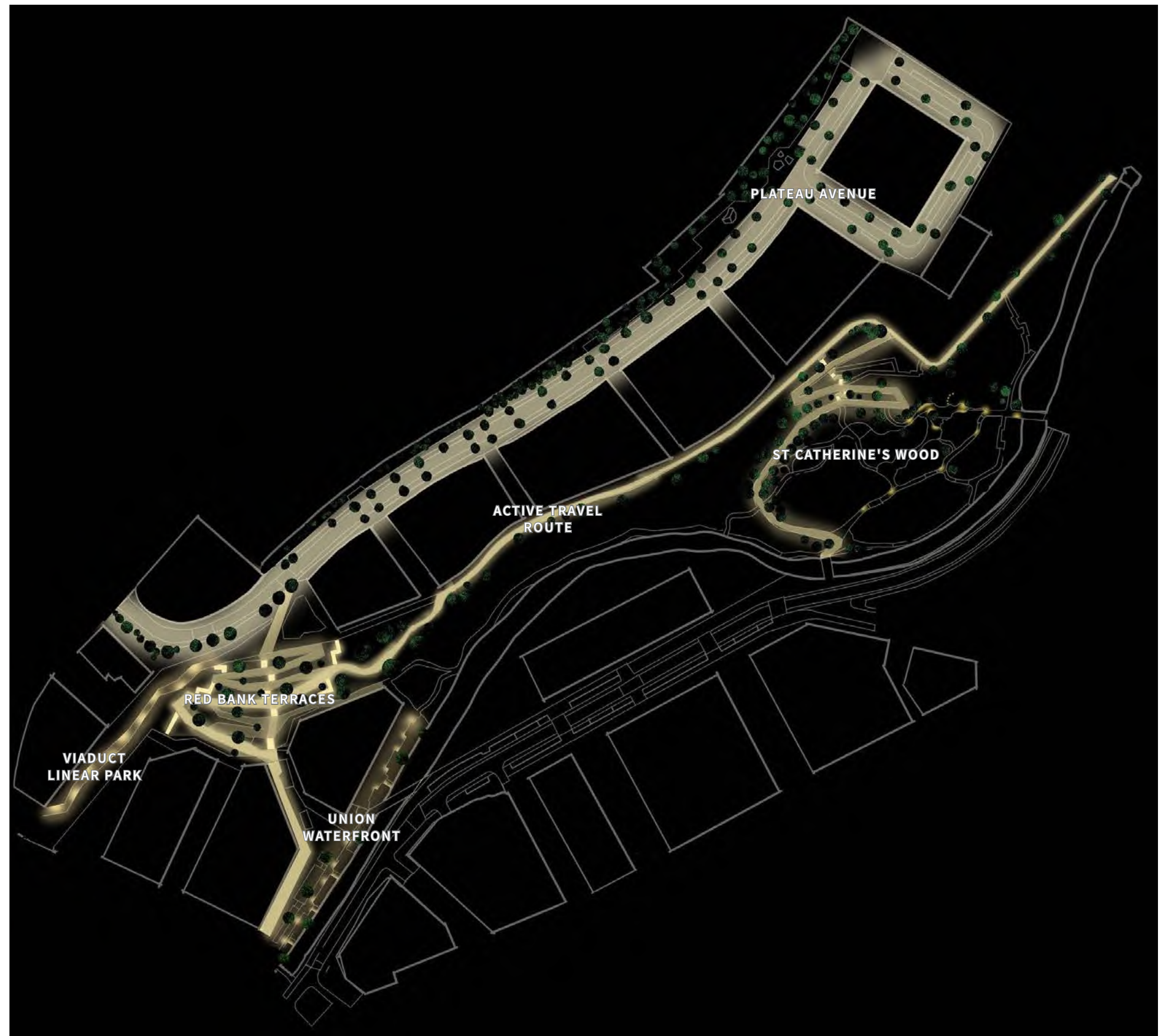
UNION WATERFRONT

Lighting to the waterfront is sensitive of the waterway, but provides clear routes into the site.

ST CATHERINE'S WOOD

Characterised by controlled lighting to reduce spill over into the adjacent areas of woodland, visibility of the path ahead is a priority. Lighting is applied to the primary route through the woodland connecting the Plateau and Dantzig Street. Low intensity lighting to some areas of play allows passive surveillance for night time use. Areas of darkness away from routes is preserved for the benefit of ecology.

Lighting has been proposed to areas that fall outside the HIF boundary, and shall be addressed as part of future plot planning submissions. Pedestrian pathways between the waterfront and Red Bank terraces and Plateau will be lit using temporary equipment, to provide safe routes during construction periods.



GLOW-PLAN IMAGE BY ARUP

5.12 Activation and Meanwhile Use

The Red Bank Neighbourhood will be home to a wide variety of attractions within the landscape from play to more relaxed areas of seating and contemplation.

Many of the interactive elements and landscape features that are proposed for the site are highlighted on the adjacent plan. These are just those included within the HIF plan that forms this application. Within the future aspirational masterplan many more interactive landscape elements and active frontages are proposed.

Way-finding will be essential in order to ensure that visitors are aware of all the site has to offer and where each element can be found. Entrances to the site should have clear diagrammatic and easy to interpret information boards some of which could include an element of art and play.

Within the site will be several trails through the woods and along the river and there will be viewpoints to the river and plateau to take advantage of the naturalistic setting.

Seating will be provided throughout the site in a wide variety of options, however there will also be several distinctive larger areas of seating where individuals, couple and small groups can congregate, catch up, eat, enjoy and relax.

Play for all ages will be incorporated within the site with timber play elements for children within St Catherine's Wood.

Art will also feature within the woodland, ideally with timber sourced from those trees needed to be felled on site.

Visitors and residents of the future development plots will benefit from kiosks and active frontage amenities such as cafés and shops that will populate the site. This will also help boost the local economy as well as retaining people on site longer.



PRECEDENT IMAGES

PUBLIC REALM ACTIVATION



ACTIVE FRONTAGES



SIGNIFICANT AREAS OF SEATING



PLAY



TEMPORARY EVENTS AND ART INSTALLATIONS



POP UP KIOSKS AND ASSOCIATED SEATING



POP UP KIOSKS



SPORTS AND PLAY FOR ALL AGES



POTENTIAL FOR PERMANENT KIOSKS



SPORTS AND PLAY FOR ALL AGES

5.13 Site Wide Wayfinding

Informative, attractive and engaging signage and wayfinding plays an essential part in putting a new park on the map and engaging local residents and visitors in its growth, fostering a sense of care and appreciation.

These precedent images illustrate how the wayfinding for the site could appear and be integrated within the public realm.



As well as the primary function of helping users to orientate and navigate the site, there are opportunities for the wayfinding to deliver other information including educational and historical narratives that help to engage people with the site's ecology and past.



5.14 Natural Play

The Red Bank Neighbourhood will be home to a new park and woodland play within St Catherine's Wood; a place for children of all ages, abilities and backgrounds

Equipment will be installed with sensitivity around the existing trees and with an aim to encourage children's appreciation of nature.

Water play will provide a different type of engagement and a sense of connection to the River Irk.

The play equipment will be designed to celebrate and take advantage of the existing topography and trees.



PRECEDENT IMAGES

PLAY ELEMENTS AND EQUIPMENT



TUNNELS AND NATURAL OBSTACLE COURSE ELEMENTS



DEN BUILDING AND EXPOSURE TO NATURE



CLIMBING AND INTERACTIVE PLAY WITHIN THE WOODLAND



UTILISING THE EXISTING LEVEL CHANGES WITHIN THE WOODS



DENS AND WILLOW STRUCTURES



HIGHER ELEMENTS TO ADD DRAMA AND INTRIGUE



USING TIMBER SOURCED FROM SITE TO CREATE PLAY ELEMENTS



WATER PLAY



ELEMENTS TO ENCOURAGING BALANCE AND INTERACTION



ART INSTALLATIONS

5.15 Softworks and Planting

The softworks strategy must be sensitive to existing plants and wildlife whilst enhancing the environment for people and nature.

As can be seen on the adjacent plan, a large area of the site is proposed to be expansive areas of planting or permeable hard materials such as bark paths or decked paths that will be elevated above the planted terrain below. These elevated paths will allow for the protection of existing tree roots and allow water, vegetation and wildlife to pass beneath them.

Alongside areas of hard landscaping, planted SuDS areas will provide a vital tool for absorbing surface water runoff as well as an attractive and urban cooling landscape feature.

The steep ten metre gradients from the plateau down to meet the River Irk will be retained yet softened in places and form a dramatic level change through the site, unusual for Manchester. Planting will help absorb much of the storm-water on its way down to the river.

Along the rivers edge new planting banks will be introduced to help reinvigorate the Irk as well as helping with future flood prevention. Therese measures will be developed in line with Ecological and Engineering advice.



5.16 Ecology Strategy

The planting and ecology strategy for the site seeks to expand upon and enhance the existing habitats and create new high quality ones.

OPPORTUNITIES

- Enhancing the existing ecology to create new wildlife habitats.
- Extend the green character and ecological benefits beyond the immediate river and woodland areas.
- Provision of information points as part of ecological trails to engage and educate users.
- Carbon offsetting contributing to net carbon targets for the masterplan development.

CONSTRAINTS

- The contaminated post-industrial nature of the site potentially impacts upon opportunities to remodel the landform.
- Significant invasive species that are present within the site boundary and potential requirement for long term treatment / remediation strategies.



AIMS

1. Deliver net biodiversity gain
 - River Irk restoration - in-stream and bankside habitats
 - Remove invasive species
 - Increase native woodland
 - Increase species rich grassland
 - Increase opportunities for fauna, particularly breeding birds, pollinators and river species
2. Improve habitat connectivity
3. Targets in Greater Manchester Biodiversity Action Plan
4. Target national initiatives - Biodiversity 2020, national pollinator strategy

Key Habitat and Species Action Plans and Northern Gateway targets include particularly:

Urban Managed Greenspace Habitat Action Plan (HAP)

Increase the area of urban managed Greenspace within the Northern Gateway area.

Native Woodland HAP

Increase the area of native woodland within the Northern Gateway area. Take account of key woodland types referred to in the LBAP, for example, lowland mixed broadleaf, oak and wet woodland.

Grasslands HAP

Increase the area of species-rich grassland within the Northern Gateway area. Take account of key grassland types referred to in the LBAP, for example, unimproved neutral grasslands, marshy grassland and grasslands of high ecological value on previously developed land.

Bats Species Action Plan (SAP)

Provide artificial roost sites. Improve connectivity. Enhance the foraging resource.

Black Redstart SAP

Ensure that the Northern Gateway provides suitable nesting and foraging habitat.

Water Vole SAP

Ensure that the River Irk restoration includes habitat provisions (both breeding and foraging) for this species.

Black Poplar SAP

Ensure protection of all existing trees and increase the numbers within the Northern Gateway area.

5.17 St Catherine's Wood Vegetation Strategy

Using native species that provide year round interest and diversity will help enhance the existing woodland habitat.

HABITAT ZONES

New woodland character;

- Opportunity to create new woodland character with flowering and foraging tree species and planting.

Enhanced existing mixed broadleaf and coppice woodland;

- Selective retention of existing broadleaf species (considering biological, cultural or aesthetic value) and introduction of native tree species
- Selective rotational coppicing of species such as Common Hazel to create a broad, open habit with a light canopy.
- Woodland ground floor - encourage native plants, ferns and mosses to create a rich, low level ground cover. Some woodland shrub species to create areas of more cover.

Sloped embankment mixed broadleaf woodland;

- Selective retention of existing broadleaf species (considering biological, cultural or aesthetic value) and introduction of native tree species
- Woodland understory - a rich shrub and ground floor layer - encouraging native shrubs, plants, ferns and mosses to create a varied vegetation structure.

No-go ecological zones;

- Selective retention of existing species and introduction of native tree species
- Allow for a dense shrub and understory layer to create sheltered habitats

Waters-edge planting

- Selective retention of existing tree species (considering biological, cultural or aesthetic value)
- Softening of riverbanks where possible to provide vegetated embankments as opposed to manmade structures

KEY

- New woodland character
- Enhanced existing mixed broadleaf and coppiced woodland
- Sloped embankment mixed broadleaf woodland
- No-go ecological zone
- Waters edge planting



5.18 Woodland Strategy - Restoring the Structure

The existing semi-natural broadleaf woodland is currently in poor condition, dominated by non-native tree species such as Sycamore. The ground floor layer is also lacking diversity, with large areas of species taking over, such as nettles, brambles and bracken.

EXISTING SPECIES

Sycamore, Ash, Field Maple, Common Hazel, Wild Cherry, Goat Willow, Crack Willow, Elder, Norway Spruce, Oak, Field maple, Silver birch, Common hazel, Common hawthorn, Blackthorn.

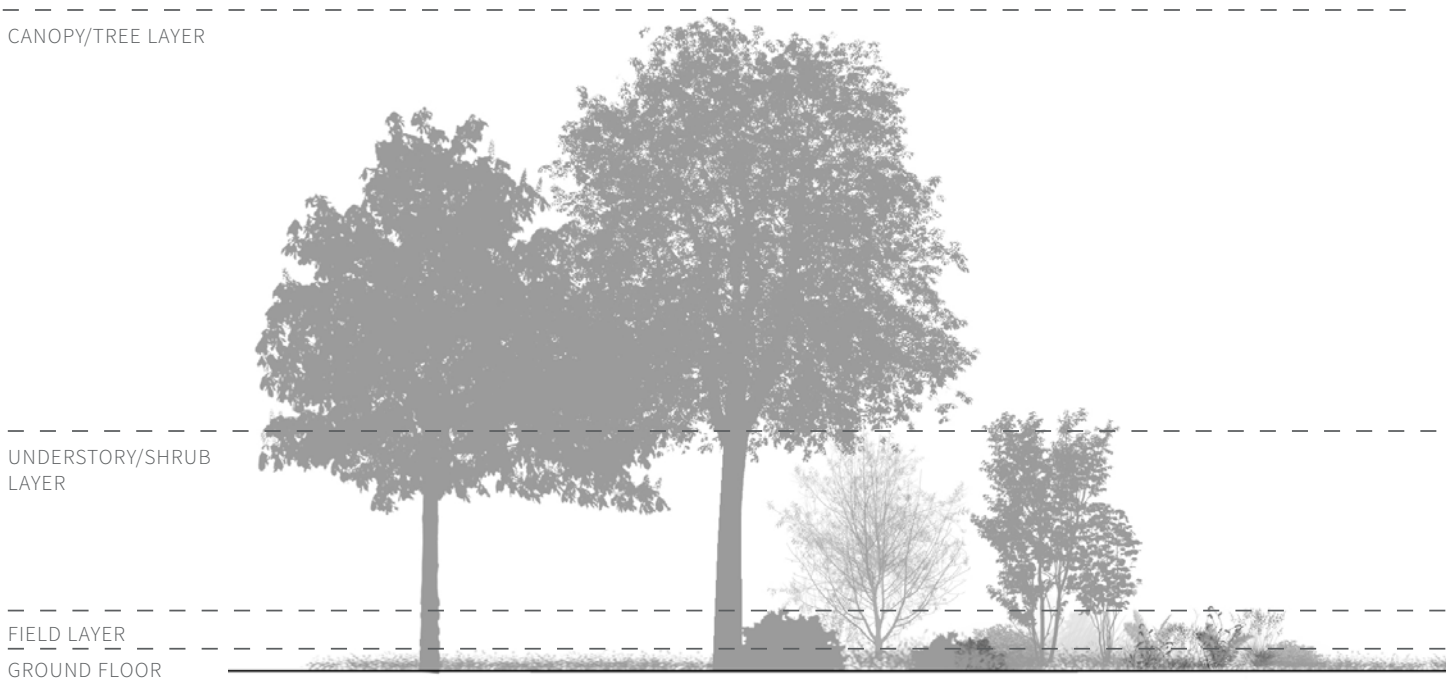
KEY MOVES

- **Retain and support existing habitat value** - acknowledge existing flora and fauna and their habitats, creating opportunities for them to thrive.
- Management of **invasive species**.
- Management of **pedestrian footfall**.
- Increasing species diversity by planting **native species** and species bearing **fruit, berries and nectar**.
- Creating a **varied vegetation structure** - structural diversity - varying heights, creating a shrub layer and ground floor layer.
- Use management methods such as **coppicing** that manage woodlands for wildlife.
- Using species of **local provenance and strengthen local vegetation character**.

MANAGEMENT

Much of the wildlife within our woodlands relies on **active management** to provide a mix of different habitats.

Without some form of management many of our woodlands will become **dark, over-shaded** and dominated by big mature trees **without any variation in structure, age or cover**. Ultimately this reduces the amount of wildlife that can live in them.



RESTORING WOODLAND STRUCTURE

Coppicing

- Allows greater amounts of **light to reach the ground**, allowing other species to grow there and thus **increasing woodland biodiversity**. These species are a food source for butterflies and other insects, which in turn provide food for birds, bats and mammals.
- A coppice woodland creates a **varied age structure** of the vegetation and **increases the life of the tree**.
- Creates **structural diversity** - providing varying heights creates more opportunities for shelter, foraging, breeding and nesting

Thinning

Thinning of trees involves the **removal of poor, weak, diseased or overcrowded trees** to make the remaining trees stronger and sturdier, and allows light to penetrate to ground level.

Creating glades

Glades allow **wildflowers and insect species to flourish** in the middle of the woodland due to the exposure to sunlight and warmth. However, glades are even better when they are fringed by big trees to provide some shelter

Deadwood

Dead wood will provide **food for various animal, fungus, lichen and moss**, in addition to homes for bats, woodpeckers and many invertebrates.

5.19 Woodland Flora

Using native species that provide year round interest and diversity will help enhance the existing woodland habitat.

CANOPY LAYER

- Alder (*Alnus glutinosa*)
- Ash (*Fraxinus excelsior*)
- Aspen (*Populus tremula*)
- Beech (*Fagus sylvatica*)
- Downy Birch (*Betula pubescens*)
- Silver Birch (*Betula pendula*)
- Elm (*Ulmus procera*)
- Hornbeam (*Carpinus betulus*)
- Common Lime (*Tilia x europaea*)
- Small Leaved Lime (*Tilia cordata*)
- Large-leaved Lime (*Tilia platyphyllos*)
- English Oak (*Quercus robur*)
- Sessile Oak (*Quercus petraea*)
- Scots Pine
- Black Poplar
- Whitebeam (*Sorbus aria*)
- Wild Service Tree (*Sorbus torminalis*)
- Bay Willow (*Salix pentandra*)
- Crack Willow (*Salix fragilis*)
- Goat Willow (*Salix caprea*)
- Common/Grey Willow (*Salix cinerea*)
- Osier Willow (*Salix viminalis*)
- White Willow (*Salix alba*)
- Yew (*Taxus baccata*)



UNDERSTORY / SHRUB LAYER

- Apple (*Malus x domestica*)
- Blackthorn
- Buckthorn (*Frangula alnus*)
- Cherry, bird (*Prunus padus*)
- Cherry, wild (*Prunus avium*)
- Crab Apple (*Malus sylvestris*)
- Dogwood (*Cornus sanguinea*)
- Elder (*Sambucus nigra*)
- Field maple (*Acer campestre*)
- Guelder rose (*Viburnum opulus*)
- Hawthorn (*Crataegus monogyna*)
- Hazel (*Corylus avellana*)
- Holly (*Ilex aquifolium*)
- Rowan (*Sorbus aucuparia*)
- Spindle (*Euonymus europaeus*)
- Wild service tree (*Sorbus torminalis*)



FIELD AND GROUND LAYER

- Field Rose (*Rosa arvensis*)
- Bluebells (*Hyacinthoides non-scripta*)
- Bramble (*Rubus fruticosus*)
- Wood anemone (*Anemone nemorosa*)
- Primrose (*Primula vulgaris*)
- Foxgloves (*Digitalis purpurea*)
- Wild garlic (*Allium ursinum*)
- Sweet cicely (*Myrrhis odorata*)
- Snowdrops (*Galanthus nivalis*)
- Dog violet (*Viola riviniana*)
- Wood sorrel (*Oxalis acetosella*)
- Garlic mustard (*Alliaria petiolata*)
- Woodruff (*Galium odoratum*)
- Wood Spurge (*Euphorbia amygdaloides*)
- Sanicle (*Sanicula europaea*)
- Red campion (*Silene dioica*)
- Honeysuckle (*Lonicera periclymenum*)
- Golden rod (*Solidago virgaurea*)



5.20 Woodland Fauna

There is a diverse range of habitat types existing in St Catherine's Woodland.

The vision seeks to retain these intrinsic values, and where possible, looks to provide additional habitats, supporting an increased range of species, and improving the sites biodiversity.



BADGERS

Badgers are already present within 0.1km of the site and could therefore be encouraged into St Catherine's Wood with the right interventions, such as creating a range of **vegetation structure** for **sett building** and a variety of **feeding opportunities** for foraging. Badgers eat predominantly **earthworms**, but also eat slugs and insects, fruit and berries, bulbs and small mammals such as hedgehogs and mice.

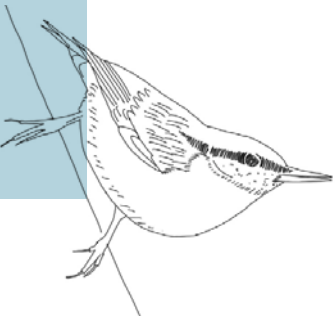
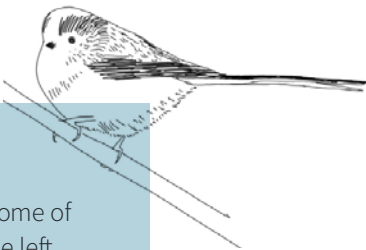


BIRDS

There are already a number of woodland species present, some of which are nesting in St. Catherine's Woodland and should be left undisturbed where possible.

A complex vegetation structure is required, with a **variety of species and heights** to provide **food sources and nesting** habitats for birds. Some birds breed high up in trees, using **branches or hollows**, others nest in **dense undergrowth** lower towards the ground.

Some species rely on **tree seeds** as their main food source, such as **birch, alder and pine**. Others rely on **fruits and berries**. In the summer months, most birds supplement their diet with **invertebrates**.



OTTERS AND WATERVOLE

It is unlikely the site will provide a suitable habitat for otters, as they like undisturbed sites with large areas of cover for their holts, however they are present further up the River Irk valley. **Cleaning and bringing fish back** to this section of the River Irk may encourage the otter to **forage and commute** in this area.

Softening and de-engineering the river banks to create opportunities for burrow creation, **slowing water speeds**, and providing **suitable vegetation** for them to feed on, such as rushes, grasses, sedges and horsetail, may provide a suitable habitat for the water vole.



HEDGEHOGS

St. Catherine's Wood can provide a perfect habitat for hedgehogs. They rely on **woodland edges** for food and shelter, eating **invertebrates** such as caterpillars, beetles and earthworms. They require sheltered areas for **hibernation**, such as fallen leaves or habitat piles.



INVERTEBRATES

A woodland can support millions of insects and invertebrates that live among the **leaves, under bark, in dead wood and on the woodland floor**. The key to maintaining a wide range of insects and other invertebrates is the provision of **pollen and nectar** across as much of the year as possible. Increasing the amount of invertebrates present will have a direct relationship with the number of **birds, bats and mammals** present.



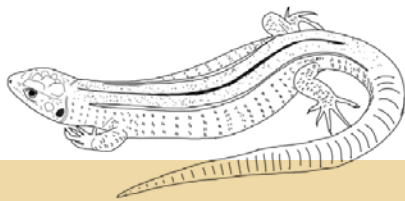
BATS

The woodland and River Irk provide good commuting and foraging habitat for bats. Five trees were assessed as having suitability for roosting bats. These should be retained to prevent any damage or disturbance to potential roosting bats. Sensitive lighting design.



AMPHIBIANS

Current lack of breeding habitat - introduction of suitable aquatic vegetation for egg laying, providing ponds/standing water and / or reducing the flow to river water may encourage breeding. The woodland supports foraging, commuting and hibernating amphibians.



REPTILES

Favour a range of vegetation structure, habitats and topographies for shelter, basking and foraging. Currently not present, as areas are too disturbed. Areas must be left undisturbed if reptiles are to be present.



LANDSCAPE CHARACTER AREAS

6.1 Landscape Character Areas

The proposed masterplan will create four distinctive landscape character areas, each with their own identity whilst being part of a coherent whole.

- **Red Bank Terraces** will create a new fully accessible active travel route up through the site from the River Irk, alongside stepped, more direct routes and informal play. Although existing trees will be lost due to the required earthworks and levels remodelling, the terraces will be heavily planted with a wide range of species to create a terraced green space. This character will also extend to the existing viaduct, which will be transformed into new public realm destination.
- **Union Waterfront** will be a new area of public realm that engages with the cleaned up and revitalised River Irk. Large seating steps will drop down to the waters edge where people can relax and dwell.
- **St Catherine's Wood** will retain its woodland character and identity yet will be carefully restored with proper management techniques put in place in order to provide safety and enhance benefits to wildlife. New fully accessible routes and woodland play space will be introduced. The river, flowing along the length of the woods, is at present neglected, largely walled and seemingly devoid of wildlife. With the removal of the river wall in places, clearance of rubbish and debris, and the introduction of reprofiled river banks, and other enhancement features and planting it is hoped that wildlife will soon return to this part of the river.
- **Ridge Promenade** occupies the upper area of the site, along the ridge that follows the length of the future development plots to the plateau. A new active travel route will connect the Red Bank Terraces with St Catherine's Wood and the future development to the plateau where the railway sidings once lay. This is the highest and flattest area of the site providing expansive views down through the woods to the river and across the city.



6.2 Red Bank Terraces

Red Bank Terraces take their name from the sandstone that forms this area of the city and will provide a striking route between river's edge and upper plateau.

- The 10 metre level change will be traversed by a fully accessible active travel route with a central more direct stepped route connecting the public realm at the upper and lower level.
- Seating steps, with a variety of reclining options; including armrests and backrests will be provided adjacent to the main stepped route, creating a destination for people to meet and dwell, enjoying the south facing aspect and views over the river below.
- Secondary meandering stepped routes will provide a less formal means of access, elevated steel structures that allow for planting to flow beneath them.
- Planting will flow throughout this area of the site with new tree planting of a variety of species proposed to provide greater biodiversity and habitat opportunity.
- The viaduct linear park will link directly into the top of the terraces and will also be accessible via steps from both north and south. The current verdant form of the space is planned to be retained as much as possible, as an attractive raised green and destination public realm.
- A future green corridor link will be created between Red Bank Terraces, down to meet the new Union Waterfront public realm.



The below section illustrates how the landscape will flow down the slope, with a generous, fully accessible pedestrian and cycle route making its way up the terraces.



SECTION LOCATION PLAN

FEATURE STEPS

A verdant, welcome route between the River Irk and the Viaduct top park .

A fully accessible 1 in 21 route will be provided along with a more direct stepped route and secondary more meandering, playful stepped routes of elevated step structures, allowing planting to flow beneath and reflecting the industrial history of the site.



PRECEDENT IMAGES



PRECEDENT IMAGES

RED BANK TERRACES & VIADUCT LINEAR PARK



TIMBER BENCHES NESTLED INTO PLANTING



SUN-LOUNGER STYLE TIMBER SEATING



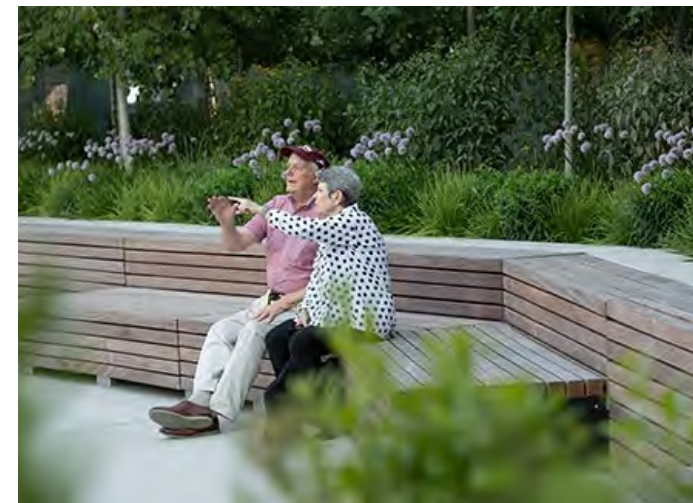
OPPORTUNITIES TO RELAX ON THE WAY UP THROUGH THE TERRACES



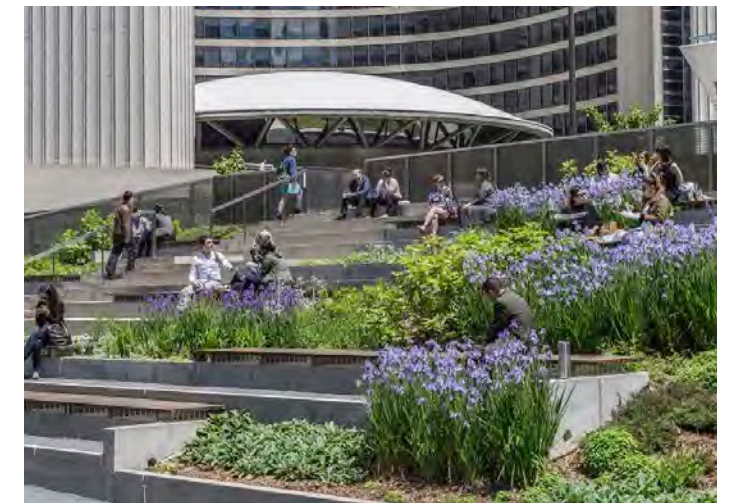
RETAIN THE FEEL OF THE VIADUCT PLANTING WITH ROUTES THROUGH



SEATING EDGES RETAIN PLANTING BEDS BEHIND



TERRACED TIMBER TOPPED SEATING ELEMENTS TO RD BANK TERRACES



PLANTING INTERSECTED BY STEPS AND SEATING



GABIONS RETAINING ELEMENTS WITH BESPOKE DETAILING



A SHARED CYCLE AND PEDESTRIAN ROUTE WINDS THROUGH TERRACES



GABIONS AND TIMBER DETAILING TO RED BANK TERRACES

6.3 Union Waterfront

Union Waterfront will create an attractive destination on the banks of the reinvigorated River Irk; a place for socialising and relaxing in the sun.

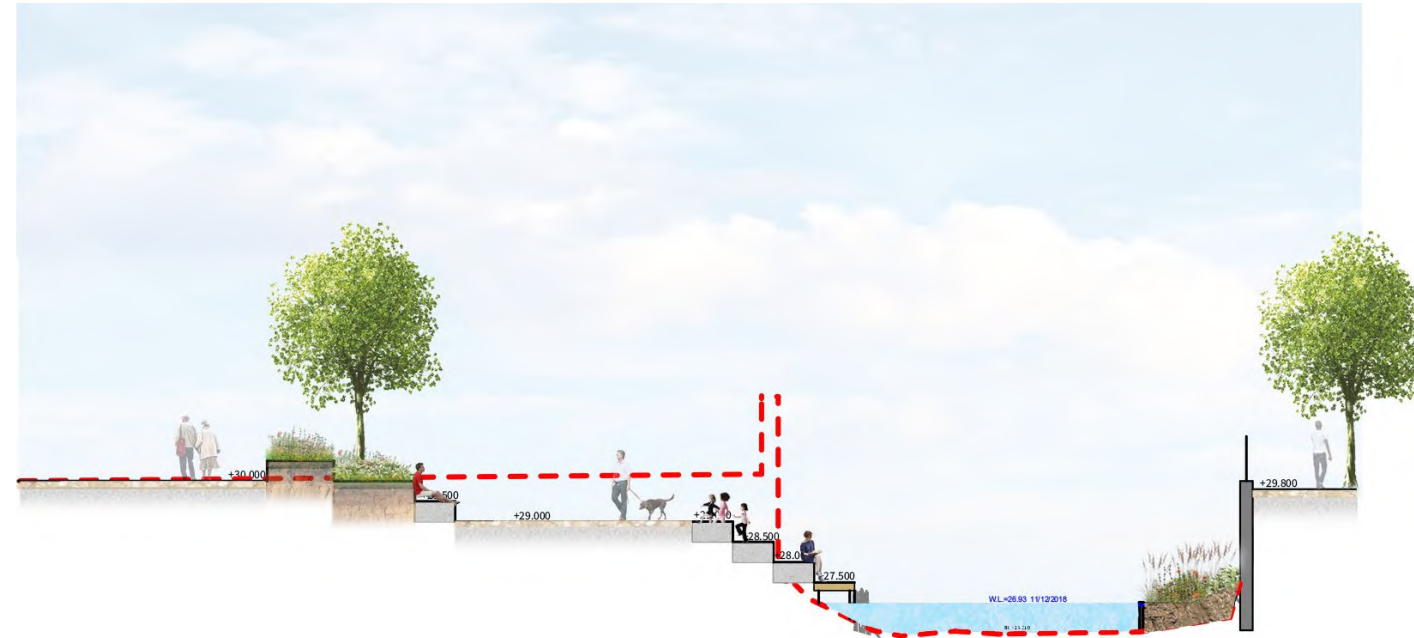
- The character of Red Bank Terraces will be continued through this part of the public realm, with terraced seating and steps allowing people access the water's edge. The terraces and steps will be broken up with trees and planting that will help to soften the space.
- The removal of the existing high river walls and the introduction of new reprofiled river banks and planting will allow wildlife to populate the river edge once again.
- To the upper level, a generous shared pedestrian and cycle route will connect to the wider active travel routes and provide a car free space to circulate and enjoy the views of the river. This riverside walk will continue to link into the riverside path that flows the length of the north bank to St Catherine's Woods, meeting the existing bridge and beyond.



The below section illustrates how the terracing of the Union Waterfront will open up this space to the river giving people a strong connection with the water.



SECTION LOCATION PLAN



TERRACES

Seating terraces and steps will create informal routes down to the waters edge and allow for small groups to congregate and enjoy being by the reinvigorated River Irk.

The river banks will be cleaned and planted with a range of biodiverse species to encourage life back to the river and allow wildlife to reach its banks.



PRECEDENT IMAGES

6.4 St Catherine's Wood

The existing woodland character will be retained and enhanced for the enjoyment of people and for the benefit of wildlife and ecology.

- The main body of St Catherine's Wood sits at the bottom of the embankment alongside the River Irk. This area will become home to a new woodland park with meandering paths through the existing woodland and areas to dwell, explore and play.
- There will be some selected tree removal and management techniques utilised to open up the woodland and accommodate new accessible footways, however the majority of trees are to be retained and sensitively integrated within the design. In addition there will be new tree planting in areas where there is space in the tree cover, and tree species and planting will be introduced to increase diversity and habitat benefit.
- Where possible, it is proposed that felled timber from site is used within the design; for artwork, seating and log piles to act as habitats and as informal fencelines to discourage people accessing areas of the site designated as ecological / habitat zones.
- Informal seating terraces are proposed to nestle into the existing contours where currently a clearing in the woodland.
- Woodland play and artwork are proposed, with a focus on timber structures that will integrate within the existing trees and topography to provide interactive play elements for a wide range of child ages. Proposals are illustrated in more detail over the following pages.
- The riverside walk is proposed to run the entire length of the woodland, from Union Waterfront in the south to the existing bridge and up through an improved stepped route to meet the future development plots. In a couple of places the river wall is proposed to be removed and the land sloped down to allow wildlife to move freely between the river and woods, underneath elevated boardwalks. The riverside section of this chapter provides further detail of this.
- A variety of seating will be provided to suit all user groups; playful, including options with backrests, as well as benches, and picnic tables. The location of the seating, along primary, secondary or tertiary routes will inform its material and design. An overarching material strategy will ensure a coherent design language across the landscape and public realm.



The below section illustrates how the terracing of the Union Waterfront open up this space to the river giving people a connection with the water.

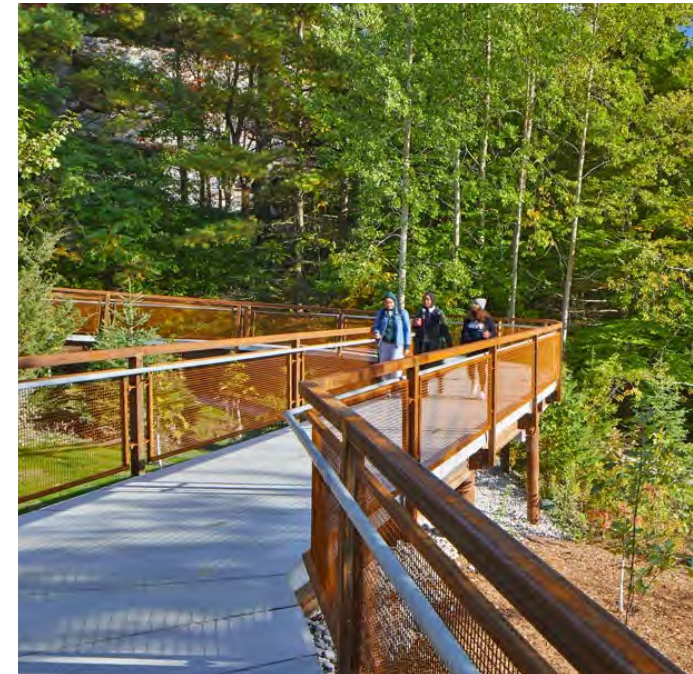


SECTION LOCATION PLAN

ACCESSIBILITY

A clear hierarchy of routes will serve all visitors to the park. Each route type will be mapped as part of the wayfinding strategy, with a strong material palette, also helping indicate route accessibility.

A central cycle route will flow through the heart of the park with more informal stepped and sloped routes providing a secondary network through the woodland and along the River Irk.



PRECEDENT IMAGES



PRECEDENT IMAGES

ST CATHERINE'S WOOD - ROUTES AND DESTINATIONS



SEATING NESTLED INTO PLANTING



SEATING WILL BE PROVIDED ALONG PATHS THROUGHOUT THE WOODS



PLAY AND ART WILL BE GLIMPSED THROUGH THE WOODLAND



THE PLAY AREA WILL BE A TRUE DESTINATION SPACE



ROUTES SEEK TO RETAIN AND WORK AROUND EXISTING TREES



OPPORTUNITIES TO REST ALONG ROUTES



LIGHTING MINIMISED TO PRIMARY ROUTES FOR WILDLIFE BENEFITS



INFORMAL TIMBER STEPPED ROUTES THROUGH WOODLAND



A MORE DISCREET STEPPED ROUTE WILL INTERSECT THE WINDING SHARED CYCLIST AND PEDESTRIAN ROUTE UP THROUGH THE WOODS

PRECEDENT IMAGES**ST CATHERINE'S WOOD - A BALANCE BETWEEN PEOPLE AND NATURE**

Although a greater number of visitors will be encouraged into the woodland, with appropriate management of existing trees and protection of ecological areas along with the introduction of new tree and plant species an outstanding new habitat can be created.

Sculptural and playful log piles and features could be attractive to humans as well as wildlife and act as informal fences, discouraging human entry to certain parts of the woodland.

There is an opportunity for sculpture and artwork features within St Catherine's Wood, creating an iconic attraction. These could be interactive, playful and make use of timber reclaimed from site.

Some of the play and seating elements can also be designed to incorporate wildlife habitats.



SOME PLAY ELEMENTS CAN DOUBLE UP AS HABITATS



ARTWORK COULD ALSO ACT AS A WILDLIFE HAVEN



LOG PILES COULD BE FORMED IN AN ARTISTIC MANNER



LOG PILES CAN BE CREATED IN AN ARTISTIC MANNER AND USED TO ACT AS INFORMAL BARRIERS BETWEEN THE PATHS AND WILDLIFE ONLY AREAS



SEATING, PLAY AND ART SHOULD BE SENSITIVE TO WILDLIFE



ART, PLAY AND HABITATS CAN BE COMBINED

6.5 St Catherine's Wood Riverside

Wildlife will once again be able to move between the woods and River Irk, creating valuable new habitat opportunities.

- The removal of some sections of river wall will create new connections between the woodland and river. Where the wall is removed paths will be elevated to allow wildlife to pass freely beneath the pedestrian routes.
- The riverside walk will run the length of the north bank, from Red Bank Terraces and Union Waterfront in the south past the existing St Catherine's Wood footbridge and beyond. At this point the river walk will step up through the woods to the future development plots above.
- The riverside walk and all other paths within the woods have been designed to work around existing trees and retain as many as possible, with a light construction approach to minimise impact on tree roots.
- Features such as gravel bars, boulders and timber logs will be introduced where the river wall will be removed so as to create new river banks and in channel enhancements that can be planted and provide valuable habitats. In this way it is hoped that many species can be brought back to this section of the River Irk.



The below section illustrates how the new Riverwalk and dwell spaces will open up access to the riverbanks whilst enhancing the aquatic river habitat.



SECTION LOCATION PLAN



RIVER BANKS

The banks of the River Irk along the length of the woods are littered with human debris and fly tipped material at present.

The proposals seek to address this and break up the river wall in places allowing wildlife to move between the river and woods and create planted reprofiled banks.



PRECEDENT IMAGES



6.6 Ridge Promenade

Ridge Promenade will be a shared pedestrian and cyclist active travel route running along the southern length of the future development plots on the plateau, with key views down over St Catherine's Woods to the river and towards the city centre beyond.

- It will be a generous hard surfaced shared pedestrian and cyclist route between the Viaduct Linear Park, Red Bank Terraces and St Catherine's Wood.
- The proposed delivery of the development plots to the plateau in the future will provide further animation and connectivity to this key route.
- Prior to the delivery of the development plots the promenade will be a key elevated route fringed by the woodland and offering a green recreational route for visitors and the local community.
- Along its length will be seating opportunities, some on elevated decks above the woods, where existing trees and levels allow and where there are key views towards the city centre.



PRECEDENT IMAGES

RIDGE PROMENADE



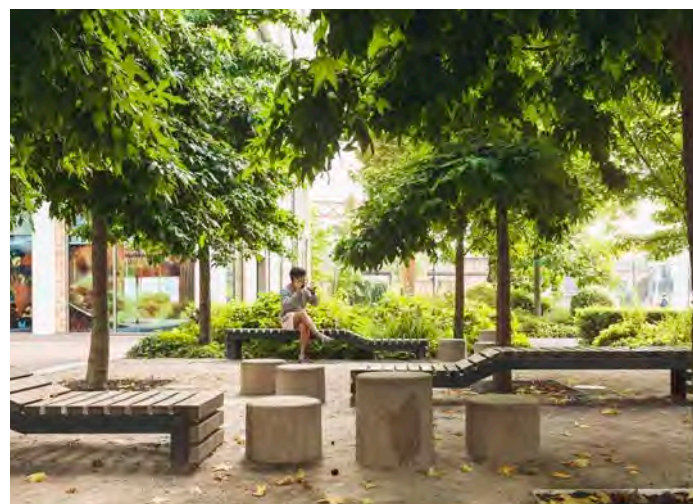
A GENEROUS SHARED CYCLIST AND PEDESTRIAN ROUTE WITH BIKE PARKING AND SEATING ALONG THE WAY



ST CATHERINE'S WOOD WILL RUN UP TO THE PROMENADE



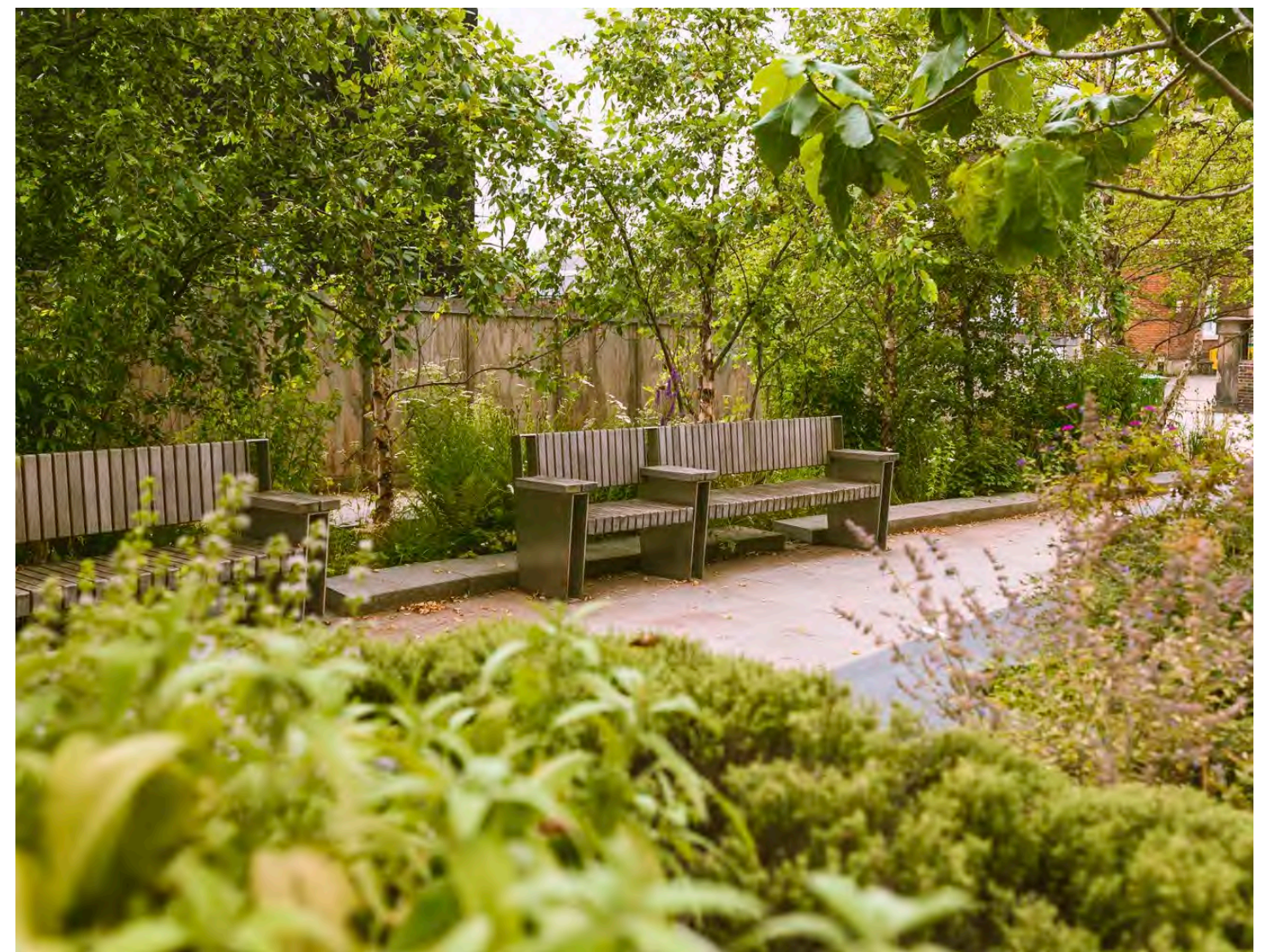
SEATING AND PLANTING WILL LIE ALONG THE ROUTE



A VARIETY OF SEATING OPPORTUNITIES WILL BE PROVIDED



CYCLISTS WILL BE ENCOURAGED TO USE THE PROMENADE



SEATS WITH BACKRESTS AS WELL AS WITHOUT WILL BE PROVIDED. VIEWS DOWN OVER THE WOODS TOWARDS THE RIVER WILL BE EXPLOITED

7

MATERIALITY

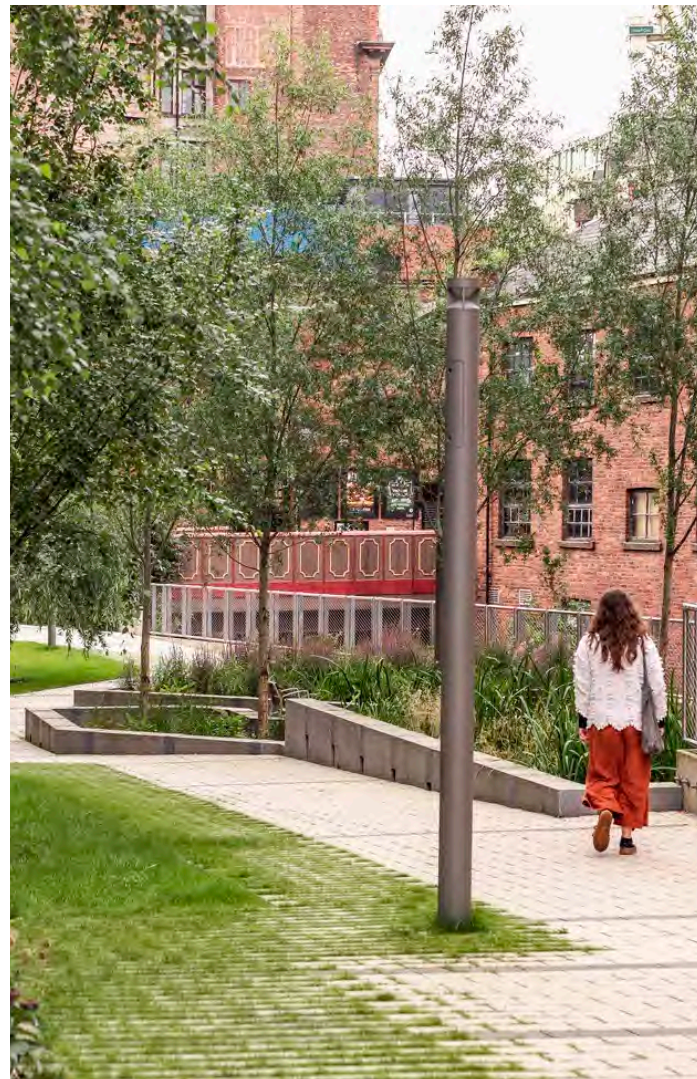
7.1 Hardworks Palette

A warm and varied hard material palette will flow across the site, creating a coherent carpet that unites the various character areas.

Clay paving in warm hues will form the main surface to the more urban areas of the site to the south; Red Bank Terraces and Union Waterfront. Pre-cast concrete steps and seating elements will form the routes through the terraces and up from the river, with pockets of green gap paving alongside the rivers edge.

Elevated metal walkways will provide secondary stepped routes to Red Bank Terraces and onto the Viaduct Linear Park.

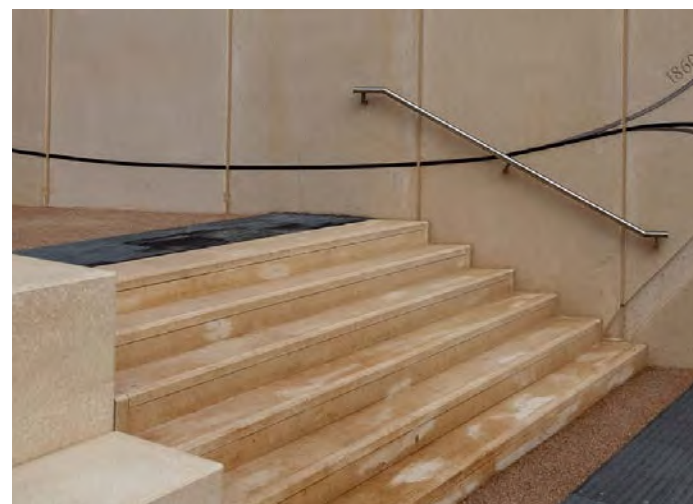
St Catherine's Wood will have a softer palette of materials with resin bonded gravel, bark surfacing, timber steps and elevated metal and composite timber walkways to navigate the steeper sections of the site.



GREEN GAP BLOCK PAVING WITH GRASS INFILL TO UNION WATERFRONT



PRE-CAST CONCRETE STEPS AND SEATING STEPS



PRE-CAST CONCRETE STEPS AND SEATING STEPS



CLAY PAVING IN STRETCHER BOND TO PEDESTRIAN ONLY AREAS



RESIN BONDED GRAVEL TO ST CATHERINE'S WOOD PATHS



INFORMAL STEPPING STONE ROUTES THROUGH ST CATHERINE'S WOOD



COMPOSITE TIMBER DECKING TO ST CATHERINE'S WOOD



METAL DECK BOARD-WALK AND STEPS TO SECONDARY ROUTES



INFORMAL BARK PATHS THROUGH THE WOODS AND PLAY AREA

7.2 Furniture Palette

An attractive and simple palette of timber and metal is proposed for the furniture across the site.

Timber will form seating, play and artwork elements throughout the woods and wider site, and there is an opportunity to use reclaimed material where possible adding to the character as well as meeting low carbon objectives.

Metal will feature in the form of handrails, bike stands, seating frameworks and structural elements, also wayfinding and play equipment.

Stone filled gabion baskets are proposed as retaining wall elements to Red Bank Terraces due to their durability and flexibility of use and are intended to be faced with local natural stone/sandstone to reflect the name of the area.

Corten steel could perhaps be used as a detail element in the form of handrails, hand-rests, and other furniture elements. Its warm tones will play on the industrial heritage of the site in a contemporary manner.



BENCHES MADE FROM RECLAIMED TIMBER AND CORTEN STEEL



TIMBER PLAY ELEMENTS



TIMBER TOPPED GABION SEATS TO RED BANK TERRACES



BENCHES BOTH WITH AND WITHOUT BACKRESTS



FELLED TIMBER USED ON SITE FOR SEATING AND PLAY ELEMENTS



GABION RETAINING WALLS WITH BESPOKE DETAILING



RECLAIMED TIMBER AND CORTEN STEEL PICNIC TABLES



MORE RELAXED SEATING/SUN-LOUNGER OFFERS



PLENTY OF CYCLE STANDS PROVIDED SITE-WIDE

7.3 Planting Palette

There are many variations in planting palette throughout the site, as illustrated in earlier parts of this document; St Catherine's Wood will vary in character to Red Bank Terraces, the waterfront and viaduct.

This rich variety in planting typology and species will not only provide an attractive and immersive experience for visitors, it will also greatly improve the current biodiversity and ecology of the site.



FUTURE SUDS PLANTING ALONGSIDE VEHICULAR ROUTES



A RICH PALETTE OF ORNAMENTAL AND POLLINATOR ATTRACTING SPECIES TO THE MORE FORMALISED PARTS OF THE PUBLIC REALM



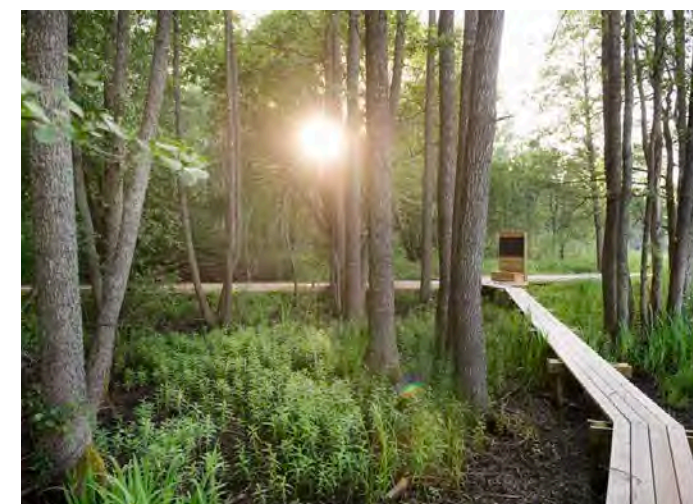
A RICH VERDANT LANDSCAPE TO MEANDER THROUGH



RIP RAP BOULDERS AND PLANTING TO NEW RIVER BANKS



APPROPRIATE RIVERSIDE AND SUDS PLANTING



ADDITION OF WOODLAND UNDER-STOREY PLANTING



NEW HABITATS CREATED IN LINE WITH ECOLOGIST ADVICE



MANAGEMENT AND MAINTENANCE

8.1 Management and Maintenance

A separate Management and Maintenance Plan will be included as part of this planning application, a summary of which is set out below.

The document *Landscape Management Plan* sets out an introduction to the site and what is proposed prior to outlining the key methods of maintenance required to keep the hard, soft and furniture elements in their best condition for many years to come.

To ensure the site continues to positively contribute to the surrounding landscape and local community it is vital that there is a long term commitment to management and maintenance, whilst providing a befitting and lasting legacy. Therefore it is of utmost importance that this plan is followed and adapted where necessary to meet the changes in climate, technology and the needs of the local community.

The management plan is intended to be a live document that is easily accessible and regularly reviewed and updated as required. Effective monitoring of changes in the species, habitats and other features of the site is an essential while monitoring and reviewing the effectiveness of interventions is also required.

The adopted Landscape and Ecological Management Plan will initially cover a five-year period from the redevelopment works although it is intended that this can be implemented for the long term future management of the site. Works will be carried out in phases and therefore the maturity of the new vegetation will vary between the phases. The plan should be reviewed annually to ensure a high quality and ecology rich environment is maintained.

Management of hard materials is largely related to their appearance and longevity however the management and maintenance of the soft landscaping is not only to ensure the plants are looking their best but that the desired wildlife habitats are created and maintained via keeping on top of invasive species and changes in climate. The adjacent text outlines the key differences however the report itself should be referred to for full details.

SOFTWORKS

The site has been divided into six key soft landscape character areas, each with their own objectives and management techniques.

Where there is existing vegetation to be retained, such as St Catherine's Woods varying techniques, such as thinning and coppicing will need to be followed in line with arboriculturalist advice to ensure that existing trees can be protected and thrive alongside newly introduced trees and planting to create a healthy woodland and biodiverse habitat.

The areas of completely new planting will be designed to be suited to their localised environment as well as climate adaptive. Management of these areas will relate to ensuring their positive aesthetics and habitat value.

Where the rivers edge has been de-engineered new areas of aquatic planting will be introduced to create a valuable habitat and link between the woods and water. These areas should be managed to meet the advice and expectations of ecologists to ensure they are at their optimum.

HARDWORKS

The long term success of the hard landscaping has much to do with the level of maintenance it receives, if well looked after the clay, timber and other materials proposed for the site could remain in a usable, attractive condition for many years to come.

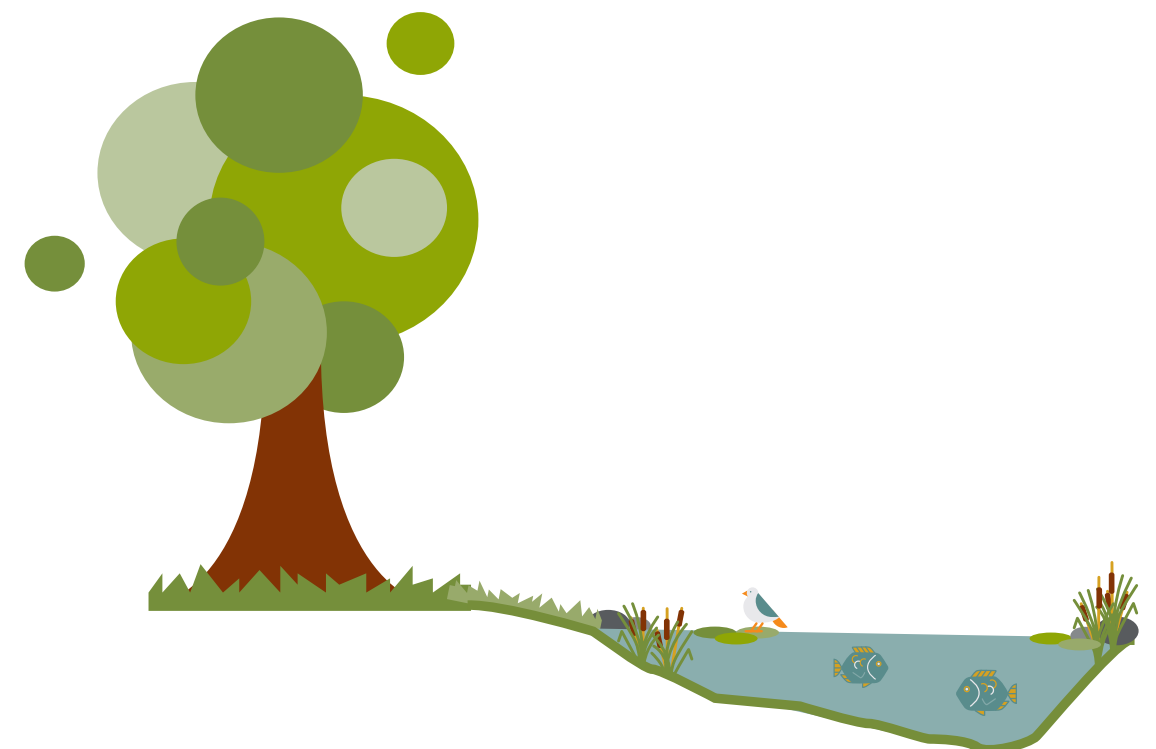
Common defects and how to rectify them are set out within the report as well as required maintenance techniques for the hard materials proposed.

It is important that paved surfaces are regularly inspected so that defects can be identified and rectified. Typically, early life maintenance or after-care of new works will be the responsibility of the Main Contractor that delivered the works.

The maintenance and defects liability period will generally be 12 months. The Main Contractor should visit the site at regular intervals during the maintenance period, to inspect all paved areas, and to undertake any remedial works. At the end of the maintenance period the contractor will be required to undertake remedial works to the satisfaction of the Client.

FURNITURE

The report sets out general maintenance for furniture materials such as timber and metal, however the manufacturer/supplier's recommendations should be followed when cleaning and repairing items so as to make sure they are kept safe, usable and looking their best.



9

SUMMARY

9.1 Summary Conclusion

The development platforms and new and improved green infrastructure proposals will help in the transformation of this long neglected part of Manchester into a pioneering and exemplary neighbourhood, and proud piece of a world-class city. The infrastructure works will provide the platform and setting for the forthcoming FEC residential masterplan to build upon, and establish a quality standard for all future regeneration and later phases of the City River Park.

As has been illustrated in this document, the proposals will provide a network of green spaces, high quality public realm, and circulation routes that will connect the Red Bank neighbourhood and provide opportunities for residents and the local community to enjoy access to nature.

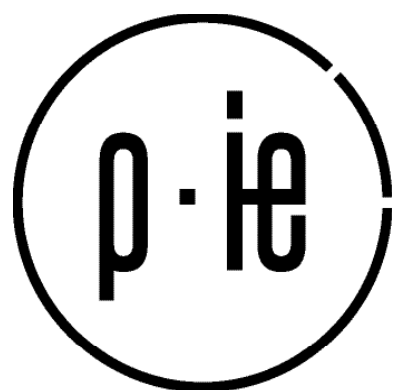
Focussed around the enhancement of St Catherine's Wood and the River Irk these improvements will deliver c. 4.5ha of the City River Park, as well as the creation of new public realm destinations with strong links to the city centre in the form of Red Bank Terraces, and Union Waterfront.

The significant site remodelling and infrastructure involved in order to deliver the new public realm and long term masterplan vision, will include earthworks and ground stabilisation to create the development platforms, accessible routes and spaces, and to prepare the future development plots.

There will also be clearance of vegetation including the elimination of widespread invasive species, as well as demolition work across the site including the removal of retaining walls to form new vehicle access to the plateau, and to improve physical and visual connectivity to the River Irk.

This will be further supported with new utilities connections and diversions, and drainage installations that will prepare and future-proof the site for the forthcoming residential development, as well as serving the new landscape and public realm areas. In addition there will be a new lighting that will create a strong identity, balancing safety and security with sensitivity to ecological requirements.





MANCHESTER

2 Back Grafton Street
Altrincham,
WA14 1DY
+44 (0)161 928 9281

LONDON

Waterside, 44-48 Wharf Road
London,
N1 7UX
+44 (0)207 253 5678

LIVERPOOL

Tempest 5.3, 12 Tithebarn Street,
Liverpool,
L2 2DT
+44 (0)151 363 1230

STANDISH

Standish Gatehouse, Stonehouse,
Gloucestershire,
GL10 3BZ
+44 (0)145 360 7080

LEEDS

No.1 Aire Street, Leeds Station
Leeds,
LS1 4PR
+44 (0)113 824 6413