



NATIONAL HEALTH INNOVATION CAMPUS MASTERPLAN SOUTHGATE, HUDDERSFIELD

MASTER PLANNING, PHASING, DESIGN CODE CONTEXT

JUNE 2022

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1.0 INTRODUCTION

1.1 INTRODUCTION

This document forms part of a Condition Discharge application for conditions 4,5 and 6 of outline planning permission reference 2021/91544 for a new National Health Innovation Campus on the Southgate site and should also be read in association with the 1st Reserved Matters application submitted. The site was granted outline planning permission in September 2021 for 75,000sqm of new development across a range of land use classes. This document outlines the proposed phasing for bringing forward the development of the site, its strategic masterplan framework as well as various design code principles that will be incorporated into this process..

The proposal is for a new National Health Innovation Campus as part of the University of Huddersfield. The campus will promote health and well-being through its education, built form and public realm.

1.2 CLIENT & PROFESSIONAL TEAM

Client and Developer.....University of Huddersfield
Architect AHR Architects
Planning Consultant..... IB Planning Limited



2.0 CONTEXTUAL ANALYSIS

2.1 SITE OWNERSHIP

The masterplan site is located to the East of Huddersfield Town Centre and sits within the metropolitan borough of Kirklees West Yorkshire. The site is bound by two key thoroughfares, Southgate section of the A62 ring road and Leeds Rd. The site is also bound by Old Leeds Rd and is overshadowed by Crown House, an 11 storey building which stands at the south-eastern corner of the site.

The site is owned by the University of Huddersfield, and is currently part occupied by a Kirklees Council run car park with temporary permission. The adjacent Crown House has planning approval in place to be converted to residential use. The remainder of the site is disused and surrounded by hoardings.



Fig 2.1.1 - Site Ownership Drawing

2.2 PLANNING CONTEXT

The Southgate site has been identified as a large development site for the university. The site has been given outline planning, 2021/60/91544/W containing additional education buildings, external spaces, parking, servicing and cycle storage facilities

The Southgate site is located on the Eastern edge of Huddersfield town centre, within the metropolitan borough of Kirklees in West Yorkshire. The site sits on the busy intersection between Leeds Road and the Southgate section of the A62.

The site is significant in size, approximately 2.67 hectares. Formerly occupied by two high-rise residential blocks, a sports centre, commercial centre and car park, the site is now owned by the University of Huddersfield and is planned for mixed use development.

The first of the plots to be developed within the masterplan will shortly be submitted for planning - the National Health Innovation Building. Comprising of 10,000sqm of world class educational facilities, this will be the landmark plot for the site.

- a. A Reserved Matters application for the 1st phase of development on the site will be submitted in due course alongside the Condition Discharge application.
- b. A specific Design and Access statement will accompany the 1st phase Reserved Matters application.
- c. This phasing, master planning and design code context document has been prepared specifically to respond to the requirements of conditions 4,5 and 6 of the outline planning permission granted on the site.

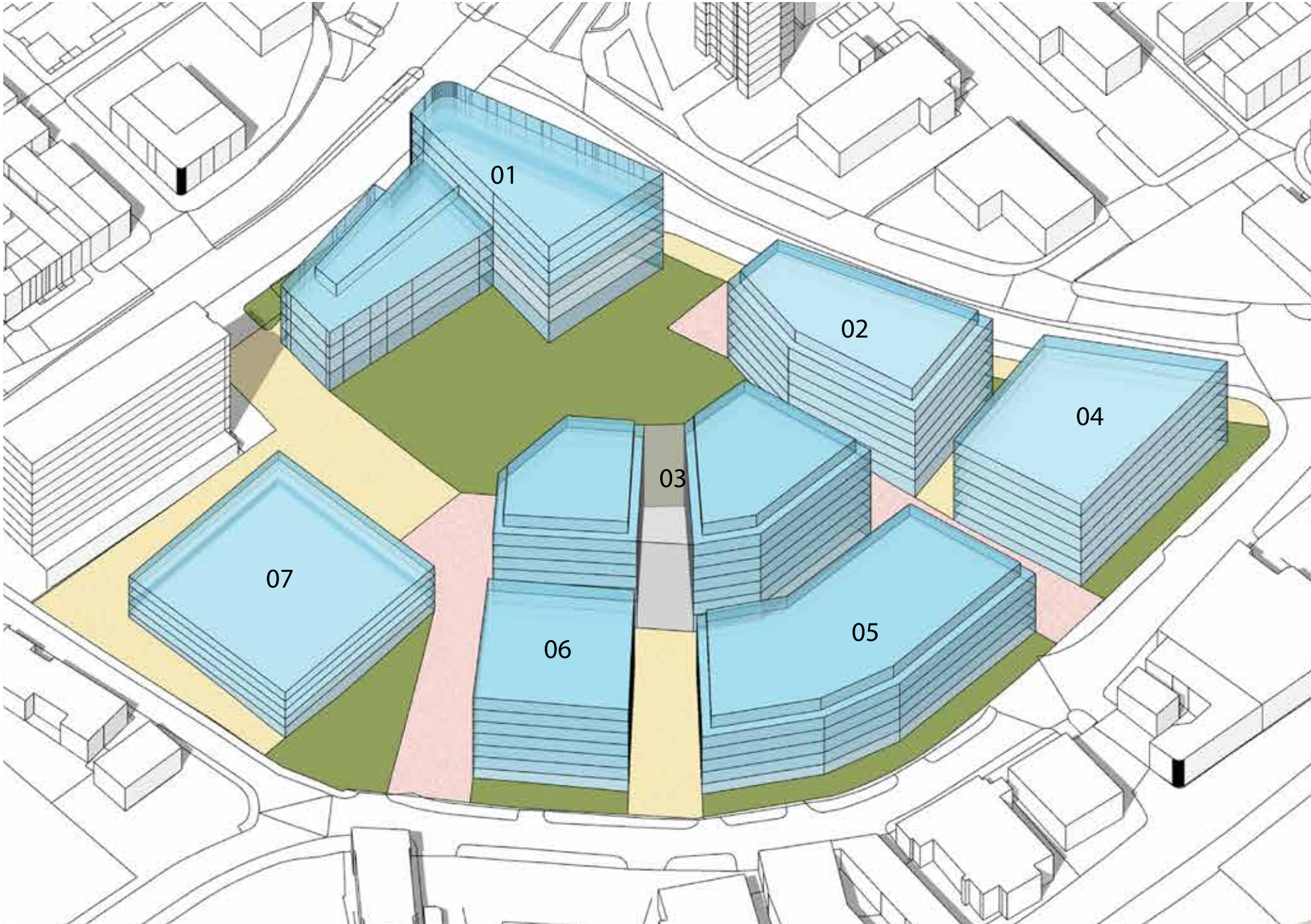


Fig 2.2.1 - Southgate Masterplan submitted for outline planning

2.3 HUDDERSFIELD BLUEPRINT

The Huddersfield Blueprint provides key context around the site in question. The 10 year vision to transform the town to create a thriving town centre proposes improvements to 6 key areas within the ring road of Huddersfield. Part of this strategy also considers the Station to Stadium route - the Southgate site being situated outside the ring road along this key journey.

The 5 key objectives of the Huddersfield Blueprint are;

- A vibrant culture, art, leisure and night-life offer
- Thriving business
- A great place to live
- Improved access, and
- Enhanced public spaces

Sufficient transport links by train, bus and car allow the Southgate site to be easily accessible to the town and wider region, as well as being within reasonable walking distance from key points throughout the Town Centre and main University Campus. The site sits within 0.2 miles of Huddersfield Train Station and is serviced by buses along Southgate and Leeds Rd.

Areas for development:

- 1. Station Gateway
- 2. Kingsgate
- 3. Civic Quarter
- 4. New Street
- 5. St Peter's
- 6. Queensgate

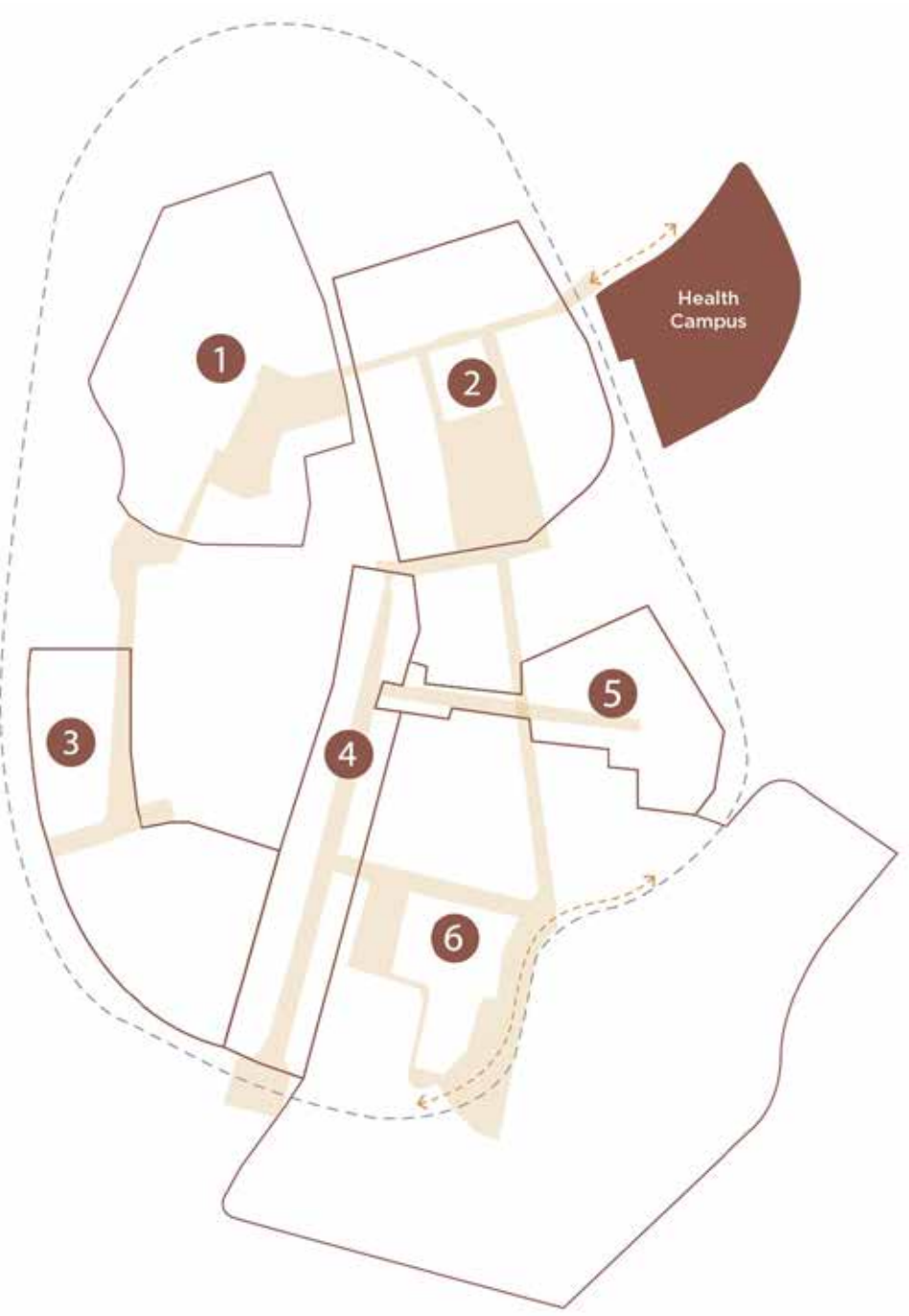


Fig 2.3.1 The Huddersfield Blueprint areas of development



Fig 2.3.2 Kingsgate



Fig 2.3.3 St Peter's



Fig 2.3.4 Northumberland St

2.4 SITE LOCATION

The Southgate site is situated to the East of Huddersfield Town Centre, along the Southgate portion of the ring road. It's location is ideal in regards to its close proximity to the Town Centre within the Ring Road, as well as areas outside of the Ring Road. The approach to the Town Centre along Leeds Road passes directly along the Northern site boundary. This is a part of the Station to Stadium route established by the council which connects sports fans to the John Smith stadium, less than a mile from the centre.

The site also is also situated well within proximity to the University of Huddersfield Queensgate campus which is within walking distance via Southgate or down the historic Huddersfield Broad Canal.

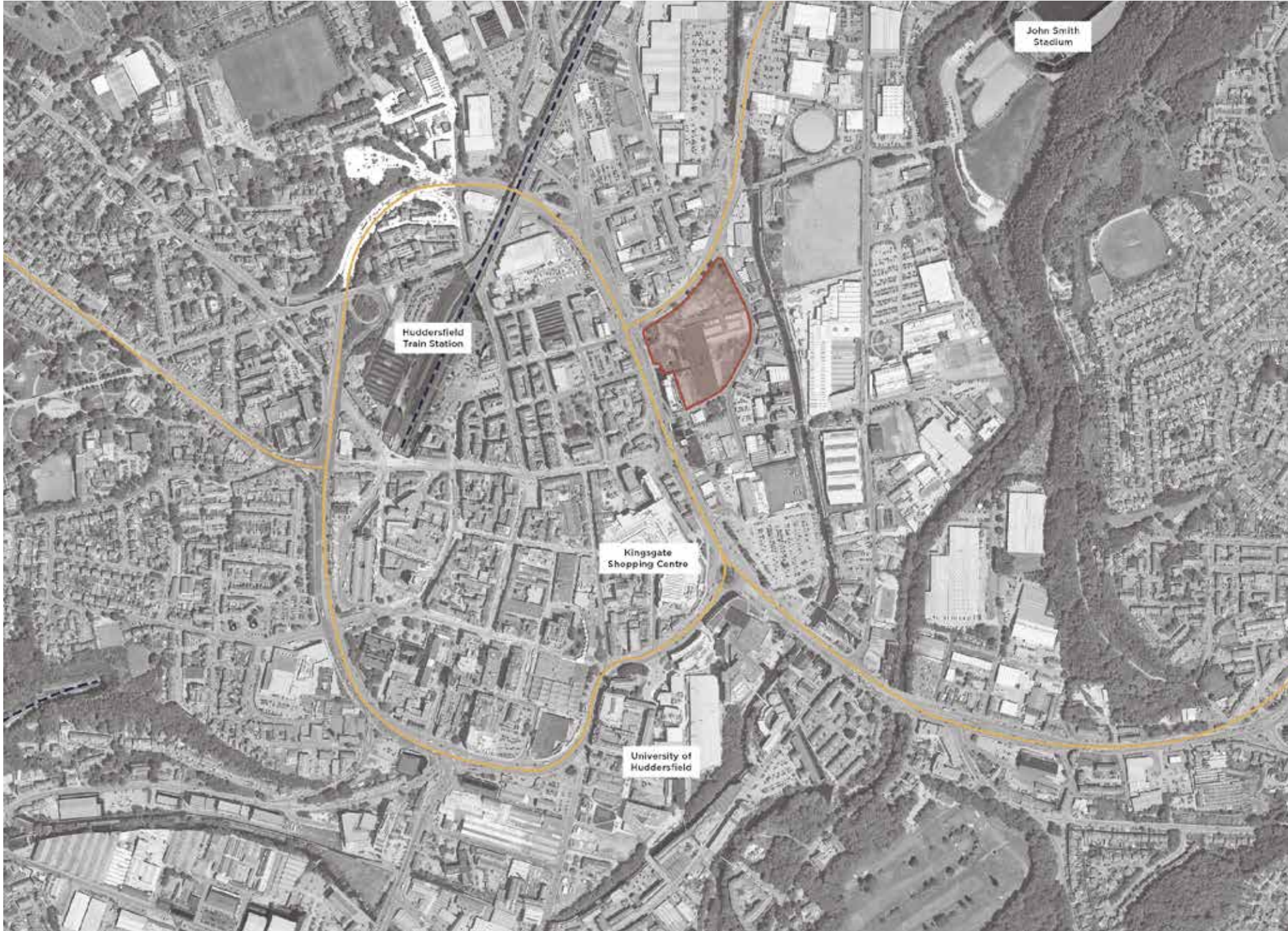


Fig 2.4.1

2.5 EXISTING AND PREVIOUS USE

The site was previously occupied by two high-rise residential blocks, a sports centre, car park and commercial premises. Towards the lower end of the site behind the sports centre, lower level light industrial units were located on the site reflecting the use and massing of the buildings opposite on Old Leeds Rd. These buildings were demolished by 2016.



Fig 2.5.1 - View west up Pine Street



Fig 2.5.2 - View east down Pine Street



Fig 2.5.3 - View from the junction of Southgate and Leeds Rd



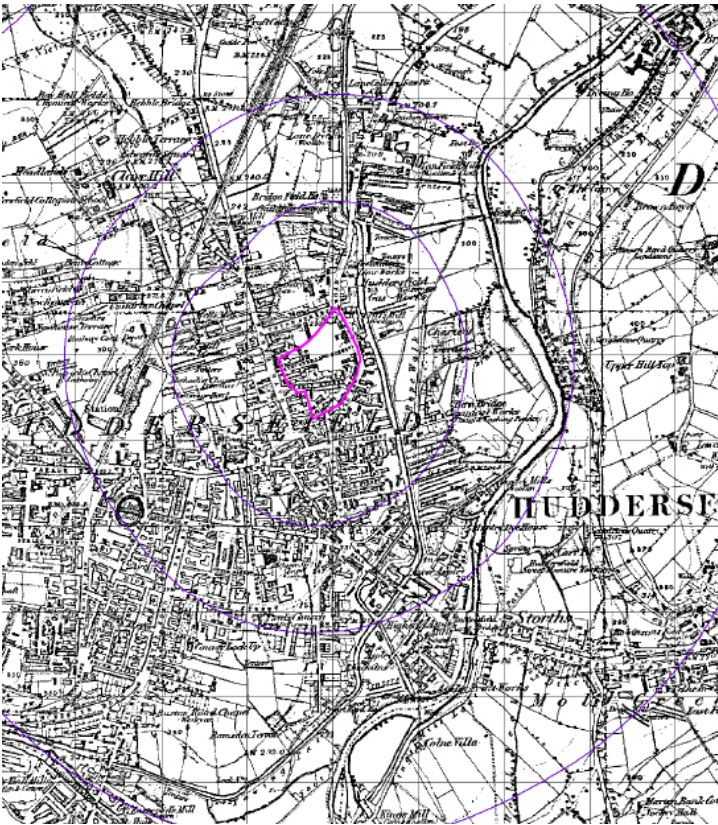
Fig 2.5.4 - View looking north from Watergate

2.6 HISTORICAL CONTEXT

The Southgate site is rich in the history of the town of Huddersfield which must be considered sensitively in any new proposals to create a new chapter of life of the town, and re-connecting it with its heritage.

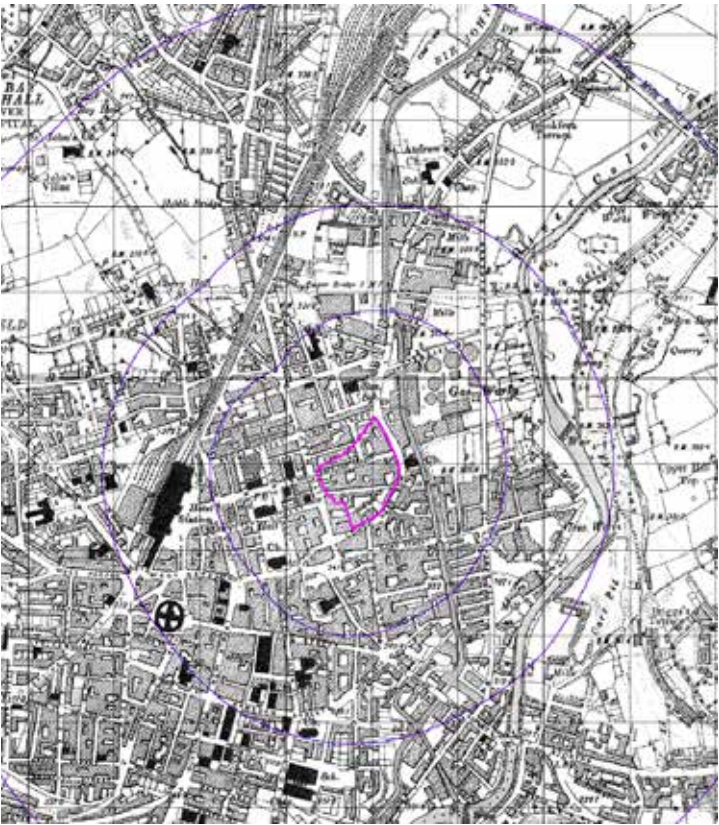
1854

By 1854, the nearby railway station had been competed on Northumberland Street but development within the Southgate site was limited to some residential use to the west and industrial buildings relating to the canal on the east. The centre of the site remained largely undeveloped.



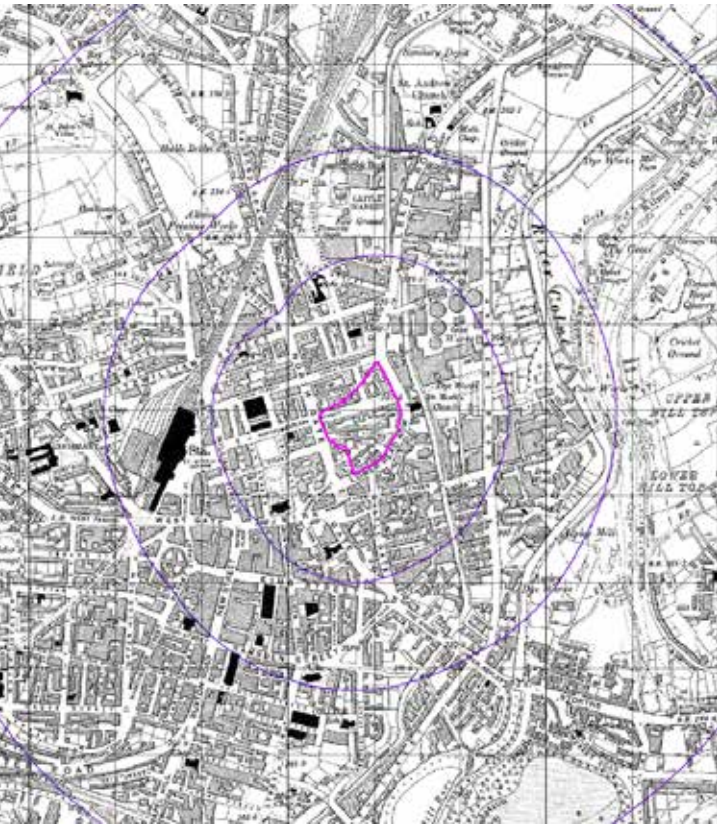
1894

By 1894, there is significantly more development across the Southgate site. Northumberland Street has been extended through the site and buildings now cover the majority of the site.



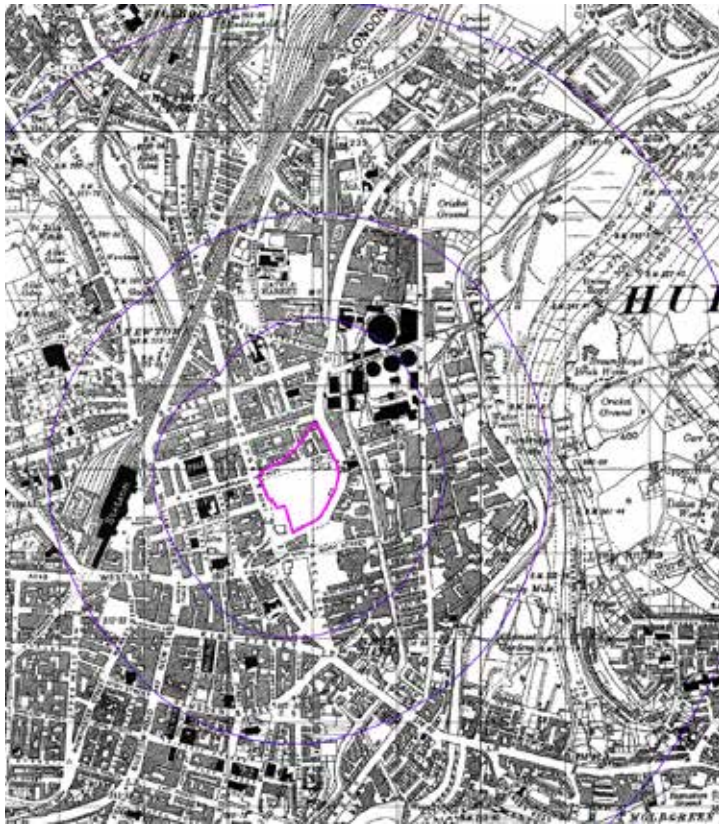
1908

There are no significant changes to the site since 1894. Northumberland Street and Thomas Street continue to the main roads passing through the site, both from west to east.



1938

A significant to the site takes place by 1938. All of the development to the south of the masterplan site has been demolished and remain a vacant plot. Northgate still runs to the west of the site although this is still a main road running north to south in the town.



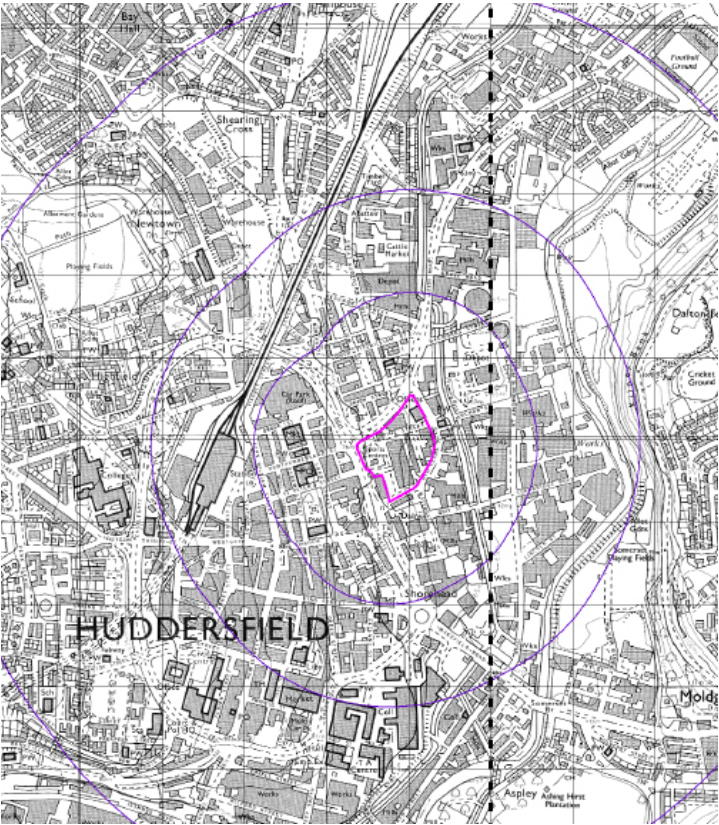
1966

There is very little development on or around the site during and after the war. By 1966, the north of the site has been cleared and industrial premises have been constructed to the south east, close to the canal.



1976

There is more major development in the next 10 years as the leisure centre is constructed in the centre of the site and two medium rise residential towers are constructed to the north west, on the same footprint as the Human and Health Science building.



1987

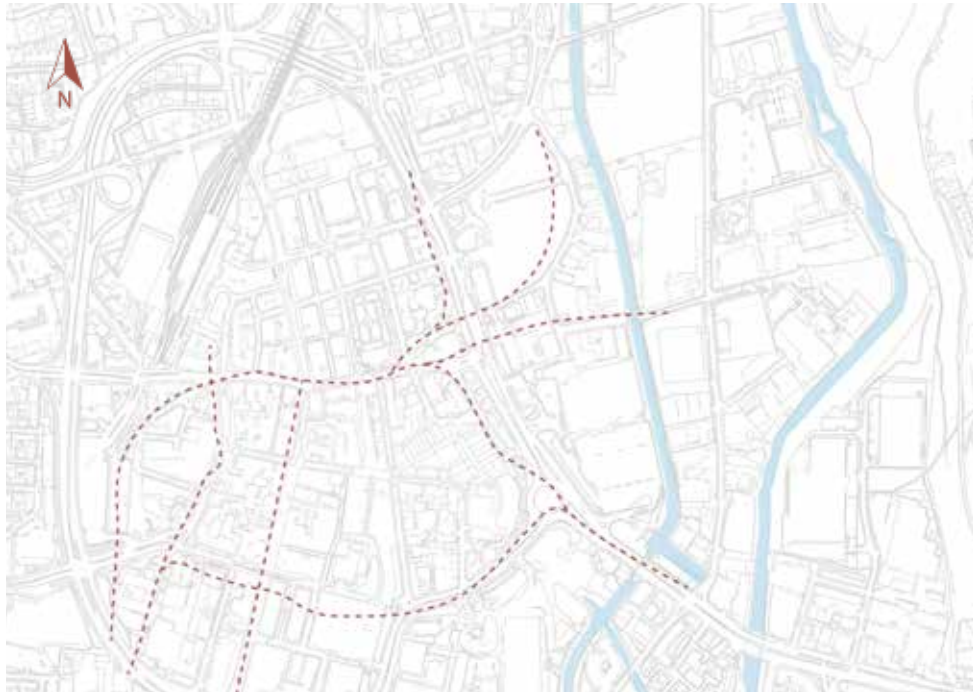
By 1987, the Crown House building just outside of the masterplan has been constructed along with a number of smaller buildings along the northern boundary. These include a number of council buildings.

2.7 HISTORICAL STREET STRUCTURE

The adjacent maps aim to show the development of the main roads throughout the Town Centre, and how the implementation of the Ring Road around the central roads ultimately has lead to the isolation of the Southgate site and its relationship with the Town Centre.

The development of the Town Centre in relationship with the Town's Heritage within the textile industry meant that the roads were developed with four key axis - roads to transport textile goods out of Huddersfield were developed in the direction of Leeds, Wakefield, Manchester and Halifax. Huddersfield Broad Canal was the location of many of the Mills within the Town Centre, and therefore Roads throughout the Town Centre develop in the direction of many of these to provide transportation. This is particularly evident when considering the Southgate site and it's location between the canal and the Centre.

The decline of this industry towards the end of the 20th Century and the need for a connection to the Canal, along with the development of the Ring Road ultimately leads to the Southgate site becoming an 'island', separated from the town centre by the Ring Road and enclosed by Leeds Road and Old Leeds Road.



1778



1854



1908



C.2016

2.8 HERITAGE

The history of Huddersfield is deep rooted within the textile industry. As one of the world's finest worsted producers, the label 'Made in Huddersfield' at one time was world famous. The back bone of this industry was Huddersfield Broad Canal and the River Colne. The Town's position between Leeds and Manchester along with it's close proximity to fresh water allowed for the developing textile industry to boom, with mills predominantly located down the Broad Canal. This is evident not only in the town centre, but down further down the Colne Valley, where the mill industry was thriving.

The number of mills around the town centre has drastically decreased - with many of these mill abandoned or re-purposed. The re-purposing of mills includes developments such as shops, workshops and studios, whether art studios or sports facilities. A small number of the previous mills are owned by the University and have been converted into lecture theatres, labs and seminar rooms, with the University campus running alongside the canal. This therefore provides precedent as to the development of the Southgate site - allowing the University to re-connect the town to its heritage, re-developing an area largely forgotten.

Evidence of the heritage of Huddersfield and its importance throughout the town centre is situated on Northumberland Street - a key route from the Train Station to the Southgate Site. Established in 1896 by Henry Percy and Frederick Dugdale, Dugdale Brothers is the last independently owned cloth merchants business in the centre of Huddersfield Town Centre. After 124 years of service, Dugdale Bros take pride in the heritage of the cloth industry within Huddersfield and upkeep as many of the original skills/processes as possible.

The location and prominence of this historical building is a key indicator of how important the connection to heritage is within the town centre, and therefore to the site on the 'Station to Stadium' route.



Fig 2.8.1 - Dugdale Brothers Textile Mill



Fig 2.8.2 - Abandoned mill adjacent to the Southgate site.



Fig 2.8.3 - Historical painting of Dugdale Brothers mill



Fig 2.8.4 - View looking north from Watergate

2.9 CONSERVATION AREAS AND LISTED BUILDINGS

Listed buildings are designated for their special architectural or historic interest in accordance with the DCMS Principles for Selection of Listed Buildings (2010). The buildings identified in Table 1 are relevant with respect to the proposed development:

Listed Building:Grade:

Chimney at SE 14942 16846	II
John L Brierleys Mill	II
14 and 16 Northumberland Street	II
Friendly and Trades Club	II
Wholesale Market for Fruits and Vegetables	II
The George Hotel	II
Huddersfield Train Station	I
Britannia Buildings	II*
Parish Church of St Peter	II*
Four Telephone Kiosks outside Head Post Office	II
8 Northumberland Street	II
1 and 3 Northumberland Street	II
The Vulcan Public House	II
Kirkgate Tenements	II
Kirkgate Buildings	II
Lion Buildings	II
Revenue Chambers	II
Somerset Buildings	II
Kirklees District Department of Social Services	II
3 Southgate	II
5 Southgate	II

7 Southgate	II
11 Southgate	II
36 Peters Street	II
28 Peters Street	II
26 Peters Street	II
14 Peters Street	II
12 St Peters Street	II
10 St Peters Street	II
21 Lord Street	II
19 Lord Street	II
17 Lord Street	II
7 and 9 Beast Market	II
Boy and Barrel Inn	II
37-41 Kirkgate	II
33 and 35 Kirkgate	II
6, Beastmarket	II

There are 217 listed buildings within the town centre of Huddersfield. The buildings listed above sit within proximity to the National Health Innovation Campus site.

Conservation Areas

Conservation areas are areas of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. The application site is located just outside the eastern boundary of the Huddersfield Conservation Area, so the site does not sit directly within a conservation area.

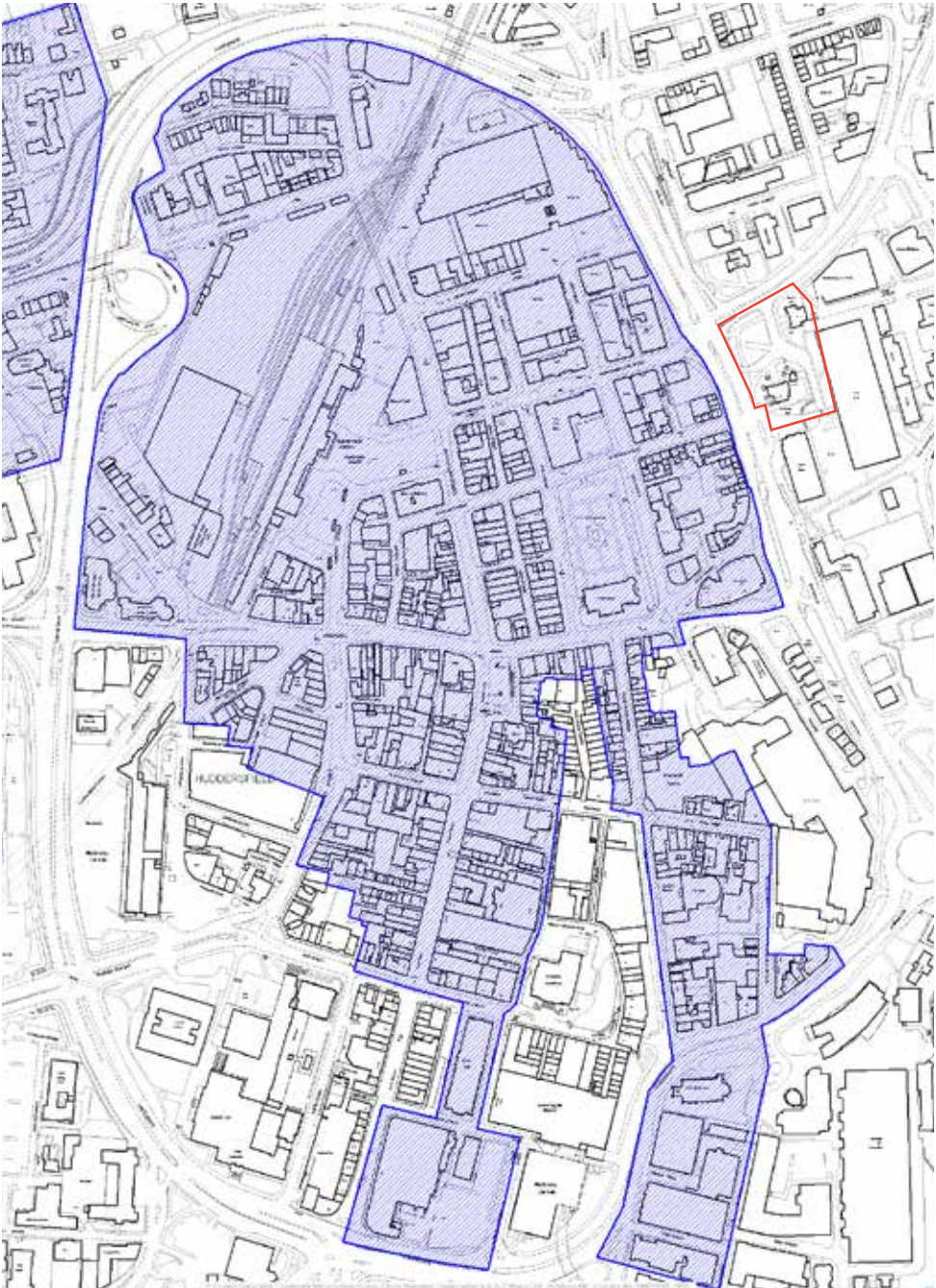


Fig 2.9.1 - Conservation area in Huddersfield town centre

2.10 URBAN STRUCTURE AND GRAIN

The urban structure surrounding the site differs according to which edge you are looking at. The Town Centre, to the West of the site, is of a more Victorian street pattern, with an obvious hierarchy of streets and perimeter blocks making up the built form. St Peter's church sits obviously as a point block within the structure and its neighbouring gardens a break for green space.

To the North, East and South of the site, the urban structure changes. Here it is evident that the functionality of buildings is more industrial with a less obvious street hierarchy or system visible. Buildings sit along Old Leeds Rd but then from there buildings become lost in point block arrangements.

In order to connect these two visually differing areas it is important that the street structure throughout the proposed Masterplan is properly considered.



Fig 2.10.1 - Figure ground of the Southgate site and context

2.11 EXISTING LANDSCAPE AND PUBLIC REALM

There is little of relevance in the existing landscape and public realm as the Southgate site has been cleared as a development site with very little remaining, there are also plans to remodel the junction of Leeds Road and Southgate, with works due to commence in late 2021.

There is, however, the Huddersfield Blueprint to consider which has established a strategy to improve the public realm throughout the Town Centre over the next 10 years.

The Southgate has a drastic difference in elevation from the Ring Road to Old Leeds Road, dropping sharply by over 6m from West to East. The masterplan looks to take advantage of these level changes through incorporating accessible routes, suitable for all pedestrians and cyclists, while providing aesthetically interesting landscape features.

There are a limited number of nearby green spaces to consider in the development of the National Health Innovation Campus site, including the public gardens at St Peters Church. St Georges Square is also located to the West, however this is predominantly hard landscape. There is little green space throughout the town centre to provide areas of recreation or parks, the nearest park being Greenhead park, situated to the Western edge of the Ring Road.

A new landscape strategy to the university has also seen a more coherent landscape created around the university campus. It is the intention that Southgate will adopt a similar strategy in order to be immediately recognised and considered a part of the wider university campus through its external treatments.

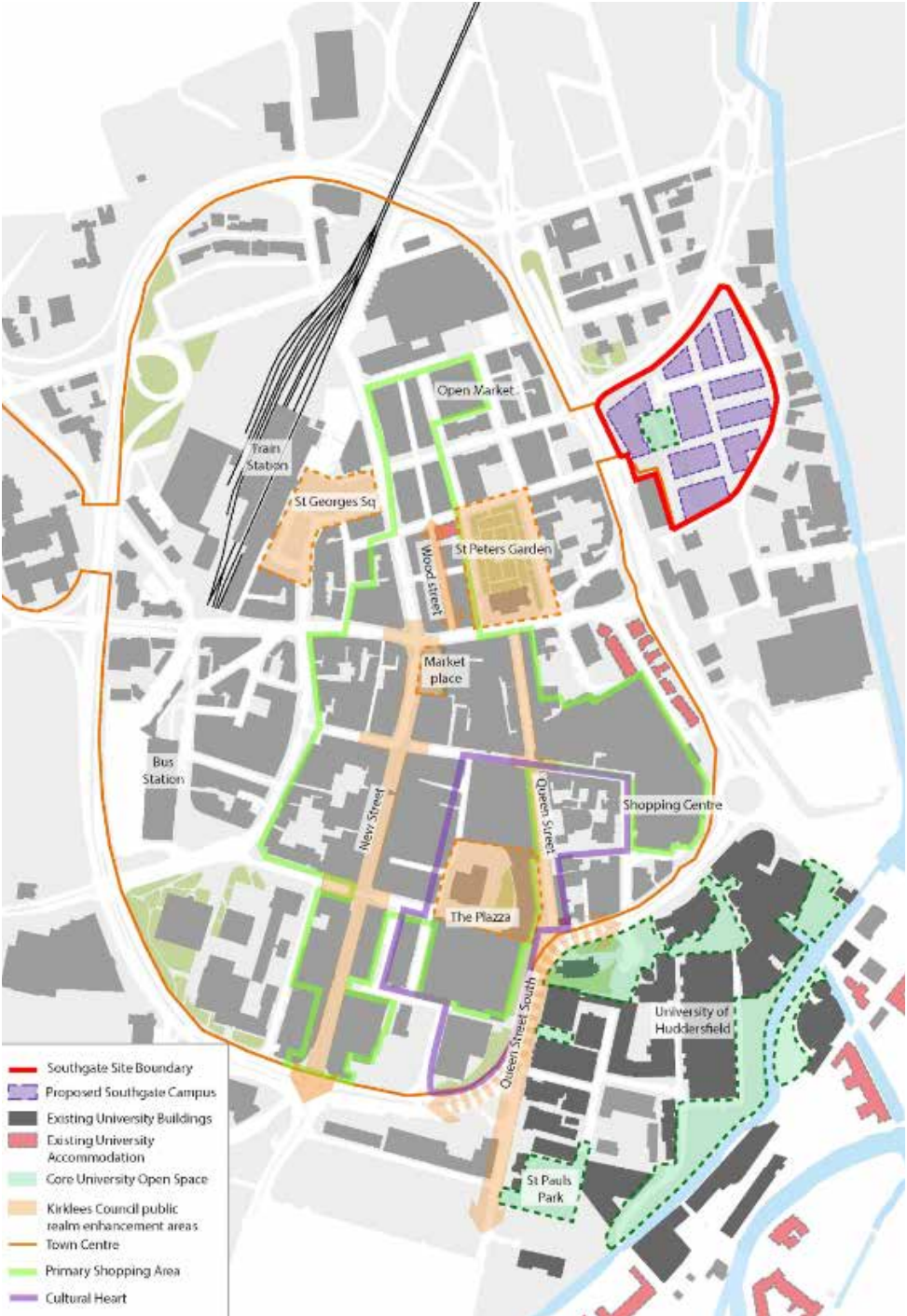


Fig 2.11.1 - Public Realm Strategy, Huddersfield



Fig 2.11.2 - Public gardens, St Peters Church



Fig 2.11.3 - Current site condition

2.12 KEY APPROACHES

The site has a series of key approaches where the building is framed and enhanced by it's immediate surroundings. The design of the masterplan has been considered from different approaches.

1. Southgate – This is the main approach along the town's ring road. The site sits along Southgate with a prominent corner on the junction. The approach from the north is flat with three taller buildings in view. Firstly the Mechanics Institute to the right, then Harold Wilson Court on the left at the junction of Leeds Road. Beyond the site, Crown House is within view. The distant view of the Oastler Building on the University of Huddersfield main campus is also a consideration.

2. Leeds Road – The approach along Leeds Road gives views of the north elevation of the site. The height at the junction of Leeds Road and Southgate creates a landmark at this point. Beyond the site, the Victorian buildings of the town centre are evident. On approach along the road, Harold Wilson Court is prominent to the right, and Crown House rises beyond the site.

3. Northumberland Street – The approach from Northumberland Street reaches back to the entrance to Huddersfield Train Station and St George's Square, a prominent arrival space in the town. From this approach, the building stands as a landmark and gateway to the Southgate masterplan site beyond. The immediate approach is framed by the Victorian buildings along the street, including the previous Post Office Building.

4. St Peter's Street – As you approach from the town centre, the levels change to slope down to Southgate and the site beyond. As the masterplan develops, views into the Southgate masterplan will be visible from this approach, opening up the area with a visual connection to the heart of the town centre.

- Primary Route
- Secondary Route
- Tertiary Route



Fig 2.12.1- Road Hierarchy



2.13 TRANSPORT AND MOVEMENT

Pedestrians – The Southgate masterplan has been developed specifically to improve permeability of the site for pedestrians. Since houses were demolished after the war, the site was developed as a municipal leisure centre, along with other council buildings and two tower blocks, limiting pedestrian movement across the site.

Views - The topography of Huddersfield and its change in level from East to West allows a significant number of views both into and out of the proposed site. The site has an extremely prominent corner to Leeds Road and Southgate and will a focus of views from the train station and ring road.

Views of Landmarks – There a number of Huddersfield landmarks which will be seen from the building including the St Peters Church, the sports stadium, Castle Hill, the mechanics institute and the main university campus.

Noise – There are a number of roads immediately adjacent to the site including Southgate to the west and Leeds road to the north. Further to the East is Old Leeds Road, which is significantly quieter than Leeds Road.

Roads – There are a number of roads immediately adjacent to the site including Grove Street to the west and Smithdown Lane to the south. Mount Vernon Road is one block to the north and Low Hill beyond that. Further to the west is Brownlow Hill which connects the site to the city centre.

Parking – Temporary Site wide parking has been provided in a surface car park to the east, accessed from Pine Street. There is a future sustainable transport hub planned for the masterplan.

Surrounding Uses – There are a variety of surrounding land uses including residential to the north and commercial development to the south although this is vacant. Land use beyond this include industrial to the East and retail to the West.

Levels – The level changes across the Southgate masterplan are a challenge with a 6m drop from West to East. Within the National Health Innovation Campus site there is a 4m level change between the West and East of the building.

Traffic – In general, the building is to be located in traffic free zone on the Southgate site. However, Southgate to the west will remain a main route in the town along with Leeds Road to the north.

Access onto Site – Access onto the site is generally good with ample links to and from local bus and train routes.

Distance from Huddersfield Train Station.	.0.2 mile
Distance from Huddersfield Bus Station.	.0.4 mile
Distance from Leeds Rd Great Northern St bus stop.	.100 yards
Distance from Southgate bus stop.	.350 yards
Distance from University.	.0.3 mile

Key

Traffic Noise

Key Views

Car Park

Landmark

Transport Hub

Pedestrian Route to University Campus

Site Fall



2.14 SCALE AND CHARACTER

The scale of the buildings in the surrounding area is quite varied and the difference in building heights is also emphasised by some fairly significant level changes, as the town rises away from the river basin at the East of the town centre towards the station then beyond to the M62 in the west. Bounding the Southgate site buildings range from 10 storey Crown House building to the South, 11 storey residential facilities to the north and 2-4 storeys to the opposite side of Southgate to the west.

The character of the buildings in the area varies. There is a greater concentration of stone buildings in the Town Centre where a more classic sandstone vernacular dominates. This is less the case outside of the town centre with more brick built or metal clad buildings.

The Victorian architecture of the area is quite notable with areas such as the nearby St Georges Square of a high quality and supported by many Victorian institutional buildings.

Also quite unique to this area of Huddersfield, and certainly part of the character, is the railway station which acts as an anchor in the town centre. The track is elevated above street level to the North of the station and is highly visible from many parts of the town

The character of the National Health Innovation Campus site has changed quite considerably over the years being predominantly residential from the late 19th century until the war. After the war, the site was cleared and the leisure centre and residential blocks were constructed, both of which having little reference to the historical character of the site or the Town Centre. The scale and massing of the New Health building on the masterplan was influenced by a number of important considerations:

- The building location on the junction of Leeds Road and Southgate – This is a key intersection on the outskirts of the town centre where the scale of the building needs to be commensurate with its location.
- The view from the train station and St Georges Square – This is a key linear view down Northumberland Street which takes in a number of buildings including the George Hotel, The Post Office and the Old Mechanics Institute.
- The building being the gateway building onto the new masterplan – Being located on the gateway site, there is a logic that the scale reflects this with a four storey building rising to 6 storeys on the road junction.
- Permission to achieve 75,000m2 across the whole masterplan – The masterplan permission allows for 75,000m2 to be developed across the whole of the site, it seems that accommodation 10,000 in the first development is commensurate with this.
- A semi Public building – numerous facilities in the building are available to the public as well as the university and therefore the scale reflects its status as being accessible to the public
- Desire to establish external green space within the building plot – To sit with the core values of the Human Health Science Faculty and the masterplan design, the creation of a protected green academic quad balances with the desire to develop a greater area of the building plot
- Scale of adjacent buildings – The adjacent Crown House at 10 storeys tall and Harold Wilson Court at 10 storeys establish a height parameter to be considered in their close proximity.
- Scale of previous buildings – The site previously contained two residential towers similar in scale and massing to Harold Wilson Court which establish a historic height parameter on the site to be considered.



Fig 2.14.1 - Crown House, to the South of the site



Fig 2.14.2 - Harold Wilson Court, to the North of the site



Fig 2.14.3 - St Georges Square and Huddersfield Railway Station



Fig 2.14.4 - Post Office in close proximity to the site

2.15 SURROUNDING BUILDING HEIGHTS

Building heights around the site as well as around Huddersfield, remain in general at below 7 storeys. Immediately surrounding the site boundary along Old Leeds Rd, buildings are low, at around 1-2 storeys on average, with some at 3-4 storeys, this is the same for the boundary along Leeds Rd. There is a slight change in building height along Southgate. With Crown House and Harold Wilson Court which are both 7+ storeys neighbouring the site, and the buildings opposite towards the town centre slowly increasing in height.

The only proposed plot within the masterplan site, the National Health Innovation Building will stand at around 6-7 storeys and aims to consider surrounding building heights carefully to allow the proposed site to fit in within its immediate context.



Fig 2.15.1 - Building heights diagram

2.16 CURRENT CONTEXT

The current surrounding context of the site is mainly old industrial mills and light industrial buildings. Huddersfield Broad Canal sits to the East of the site, with access along it from the South and North and then across the canal bridge. Taller mills sit along the boundary with the canal with lower industrial surrounding. Boarding surrounds the site, with no access currently onto the site aside from Pine Street, where the current car park is being used as a Coronavirus Testing Site.



1. Canal bridge over the Broad Canal



2. View north west down Quay St



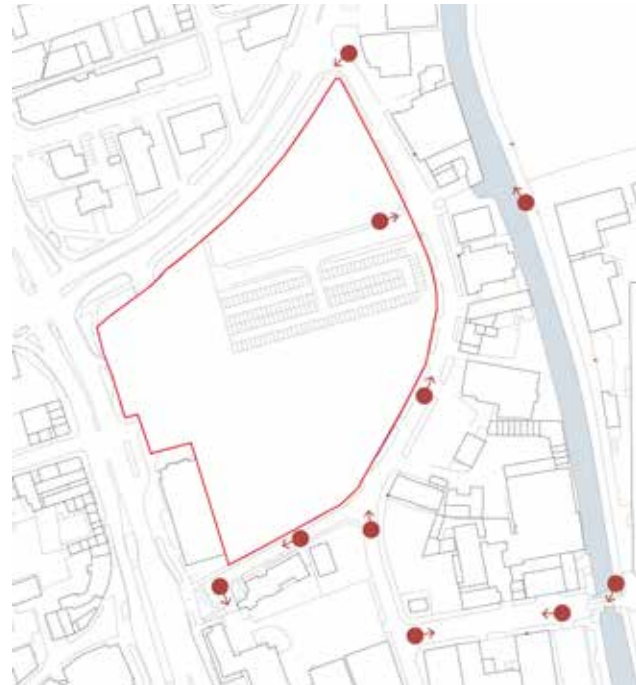
5. View north down Watergate



6. View south west up Old Leeds Rd



7. View south towards BT openreach building



3. View west down Quay St towards the canal bridge



4. View north up the Broad canal



8. View north up Old Leeds Rd



9. View west from the junction of Pine St and Old Leeds Rd



10. View south west on the junction of Leeds Rd and Old Leeds Rd

2.17 PHYSICAL ATTRIBUTES

The Southgate Site is currently occupied by a car park owned and run by Kirklees Council, but now in the ownership of the University of Huddersfield. This is the only activity which remains on the site. Pine Street is the access road into the heart of the site, an existing road and pavement which has space for car parking along it.

The topography of the site is sloped and rough. There is a significant level change across the site - from West to East the site falls by approximately 7m. This provides a challenge for developing the site in a way that is accessible for all.



Fig 2.17.1 - Pine Street and Pine Street car park



Fig 2.17.2 - Level changes from Crown House

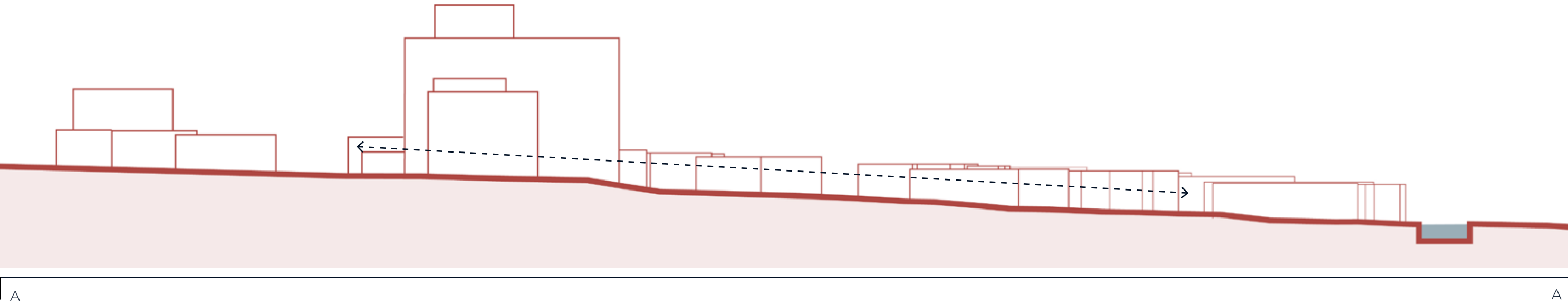


Fig 2.8.2 - Site section looking north, showing level change from east to west

2.18 ASPECT

The site has 4 main aspects:

South - Immediately to the south of the site is Crown House, an imposing 9 storey tower. Beyond Crown House, is a BT openreach building and a Sainsburys Supermarket and petrol station. On the other side of Southgate, buildings from the Town Centre back onto the road until Kingsgate Shopping Centre and multi storey sit prominently on the roundabout where the University of Huddersfield buildings then come into view.

West - To the West of the site is the Town Centre. Backs of shops and some frontage overlook the site. The steeple of St Peter's Church rises above the York stone buildings of the Town Centre which defines the close proximity and relationship that this site has to the centre of Huddersfield.

East - To the East the site runs down to Huddersfield Broad Canal. Pine street car park sits within the land between the canal and the site, which will be retained within the first phase of masterplan implementation. The rest of the land is currently disused, however will become the Southgate Masterplan. Beyond this, existing mill buildings line the canal, and light industrial sheds which are still occupied are littered within this area - the area also provides some opportunity for future development.

North - Immediately to the North of the site are low level industrial sheds as well as the residential tower of Harold Wilson Court. Beyond this the gas works sits as a the highest point to connect back to the building.



Fig 2.18.2 View east towards Broad Canal



Fig 2.18.2 View north towards Leeds Road



Fig 2.18.2 View south towards University of Huddersfield campus



Fig 2.18.2 View west towards Huddersfield town centre

2.19 APPEARANCE (DETAIL AND MATERIAL)

The strong and varied historical background to Huddersfield means that there are a number of materials considered common in the town. Whilst many of the civic buildings such as the Post Office, Station, St Peters Church and St George Hotel use a local Sandstone as their primary material, many of the buildings and surrounding houses close to the site use a vernacular brick. The nearby university uses a mix of both stone, brick and metal clad buildings with many more recent ones using contemporary detailing of these materials.

This suggests there is a fairly varied material palette in the town, although sandstone is considered a dominant material.

Huddersfield Station – completed between 1846-50, the station was designed by JP Pritchett and sits on the original Manchester to Leeds line which now extends to the East and West coasts of England.

George Hotel – Opened in 1851, the hotel was developed to support the requirements of the adjacent railway station and was famously the venue where the Northern Rugby Football Union was established in 1895. The 60 bedroom hotel is currently undergoing a significant refurbishment and is currently closed.

The Mechanics Institution – with construction commenced in 1859, the institute is well proportioned sandstone building dominated by 3 blind arches to its frontage. More recently, it has been redeveloped into 21 loft apartments.

Post Office – In the early 20th century, the new Post Office was opened. Designed by post office architect, Charles P Wilkinson, the building is now listed. It also has an addition to the rear made in 1968 to accommodate mechanised sorting equipment. The Post Office has been re-located within the Town Centre, the building now unused, however the sorting office remains in function. This is a key point for re-development within the Huddersfield Blueprint, with residential and co-working spaces proposed.

Open Market – opened in 1888, the listed market hall is constructed from cast iron and glass with a colourful treatment to the external metal dominating the street along with its intricate detailing.

St Peters Church – Constructed in 1836, the site has had a church located here since 1073. J P Pritchett was the architect for the current church which

uses local sandstone. Further updates were made in the 19th century by acclaimed architect of the time William Butterfield. Further additions have been added more recently.

Oastler Building – completed in 2017, this confident building is located on a prominent gateway to the university campus and combines local sandstone with glazing then wrapped in brise soleil.

Barbara Hepworth Building – in 2019, the university completed its latest major new building for the School of Art Design and Architecture. This has established a new standard for quality of architecture in the town and has secured numerous awards for it design.



Fig 2.19.1 - Huddersfield Station



Fig 2.19.2 - George Hotel



Fig 2.19.3 - The Mechanics Institution



Fig 2.19.4 - Post Office



Fig 2.19.5 - Open Market



Fig 2.19.6 - St Peters Church



Fig 2.19.7 - Oastler Building



Fig 2.19.8 - Barbara Hepworth Building

2.20 FUTURE DEVELOPMENT

The National Health Innovation Campus will become a part of the University of Huddersfield, adding to their strategic development. It is vital that the new campus sits well within existing urban structure of the town as well as connect to the main Queensgate Campus, both in look and feel. The site's position provides an opportunity for it to become a key connection from the East of Huddersfield into the town centre. The National Health Innovation Campus will also sit along the strategic route of 'station to stadium' which highlights the journey of sports fans through the town.

To support these connections between campus, the Broad canal becomes an excellent opportunity to create an easy journey between the two. The canal will become a 'back bone' between the two campuses with routes provided for students, academics and the public to move through the town this way. This therefore connects the Southgate site to both the Town Centre and University campus, solidifying its position as a central part of the town - connecting not only physically, but via its re-establishment of the importance of the Huddersfield Broad Canal within the heritage of the town.

The surrounding area of the site also shows potential for development. In the future, these sites could be developed to support the regeneration of the area, contributing to a new neighbourhood for Huddersfield and further solidifying the areas prominence as a vital part of the Town Centre.



Fig 2.10.1 Potential development along the canal



Fig 2.20.1 Potential development east of Southgate site



Fig 2.20.3 Barbara Hepworth Building, University of Huddersfield



Fig 2.20.4 Oastler Building, University of Huddersfield

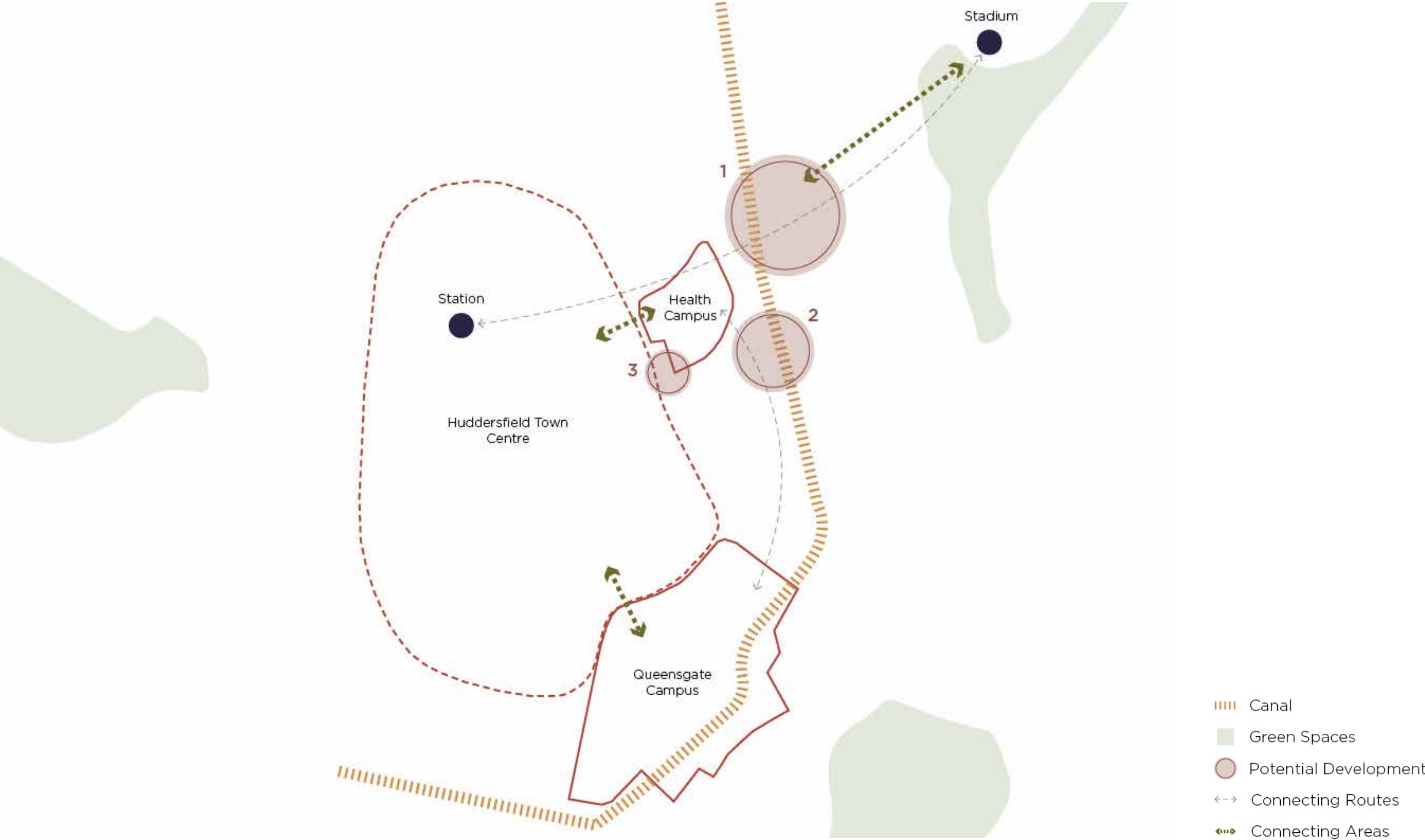


Fig 2.20.5 Future development of Huddersfield

3.0 STRATEGIC MASTERPLAN DEVELOPMENT

3.0 STRATEGIC FRAMEWORK

The Vision

The overarching vision for the Southgate site is a world class leading National Health Innovation Campus which integrates health and well-being outcomes into its values as a place. The campus will be a place where people will come to learn, innovate, research, communicate and share the role that health will play in the future success of Huddersfield and Kirklees. The new masterplan carefully considers an environment where relationships between academics, businesses and the public are actively encouraged.

The Framework

The framework is a guide for the strategic development of the Southgate masterplan site, and will direct the trajectory of Southgate in becoming an innovative world class National Health Innovation Campus. The strategic framework diagram sits as a conceptual overview of the site, taking into consideration the key principles that have been developed, all of which are centred around driving the aspiration for a Health Innovation Campus.

The framework targets four key objectives;

1. Walkability

The objective is to improve connectivity through the site and into Huddersfield town centre through the means of well designed public realm and walking routes.

2. Human Dimension

The objective is to provide a sense of enclosure and activity within the masterplan and create a place which feels accessible for all users.

3. Sustainability

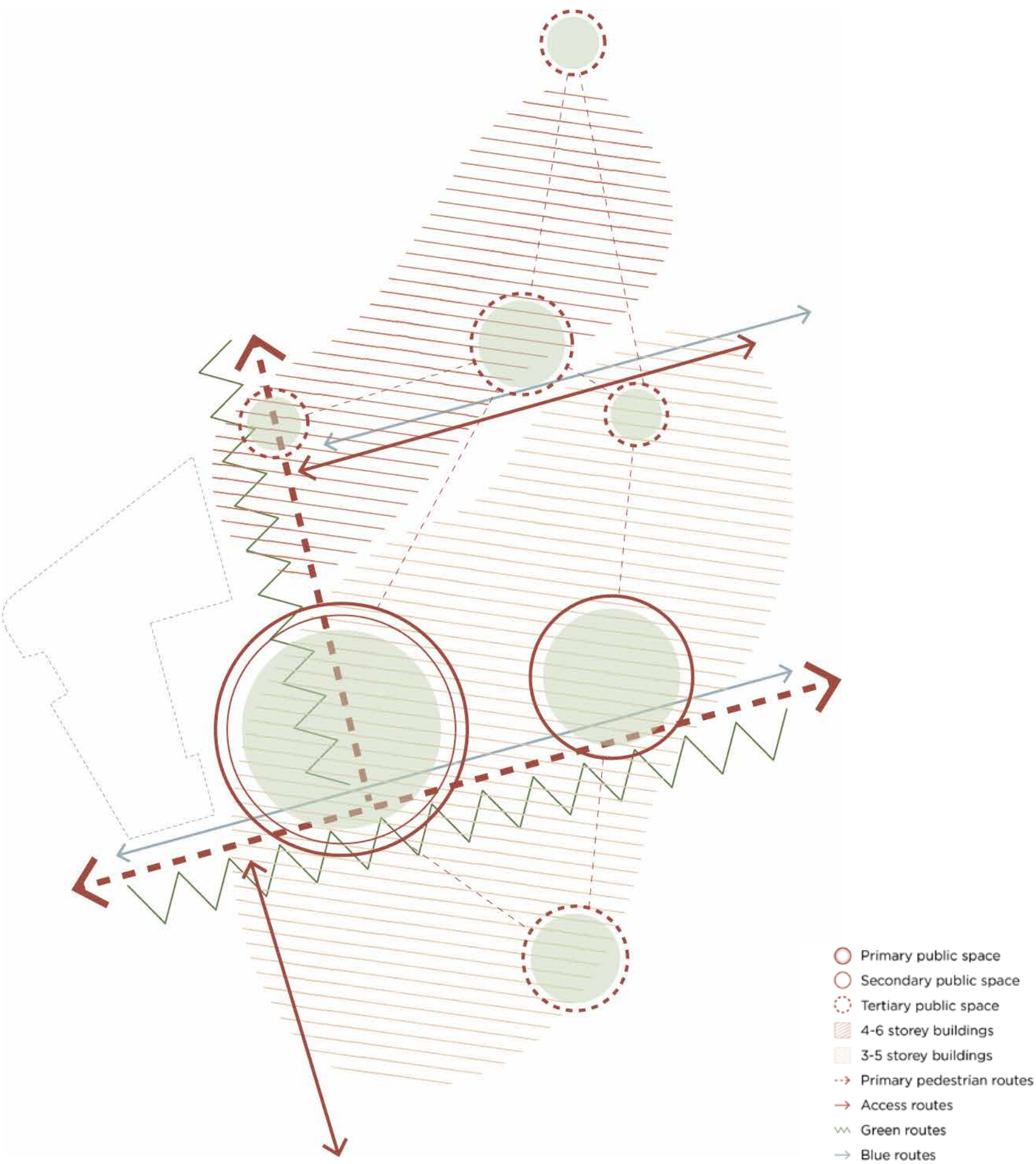
The objective is to create a place which promotes health and environmental welfare through its built environment and landscape.

4. Built Form

The objective is to connect the site with the existing urban context, creating a place which is legible for its users and in keeping with the vernacular of Huddersfield.

5. Future Campus

The objective is to create an academic campus which can project and adapt to the needs of future users as well as to users today.



3.1 Walkability

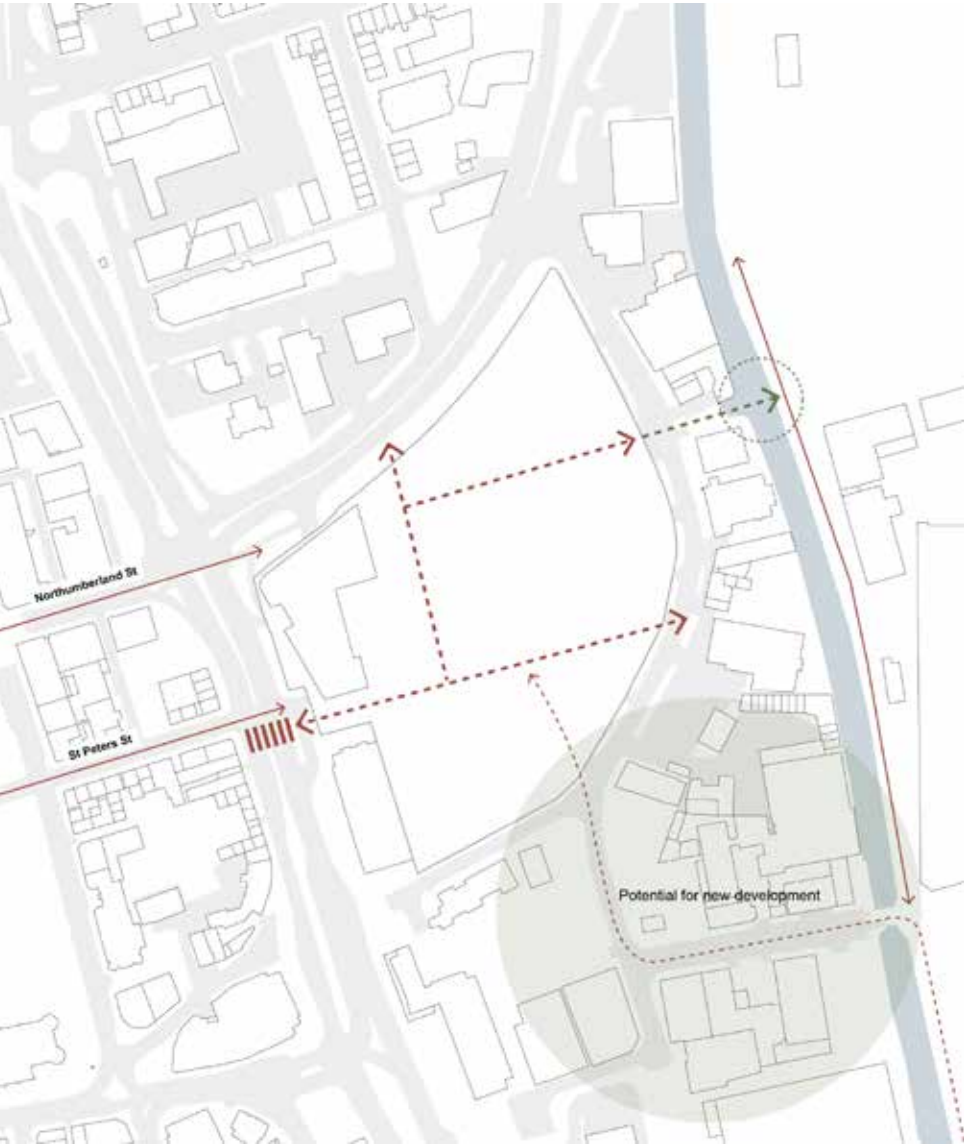
Creating a walk-able campus is a key aspect of designing a sustainable place where people want to be and where people want to engage. The scale of Huddersfield town centre and its proximity to the The University of Huddersfield Queensgate Campus allows for the site to easily be accessed by foot. The site is also within walking distance of key landmarks throughout the Town Centre, including Queensgate Market and Huddersfield train station, as well as being situated on the Station to Stadium route. The southgate site is also of an ample size that every point can be reached easily by foot from a number of locations throughout the town centre.

A walk-able campus will promote the health and well-being aspect of the innovation campus and encourage healthy lifestyles for all its users. Walkability has been considered throughout every aspect of this framework, from the public realm through to the built form.

Pedestrian routes have been considered as the primary routes through the site, stretching from east to west and north to south. A boulevard will become the connective avenue, connecting public spaces and buildings along the route. Key public spaces have been placed at specific points so that when the user is walking through the site, they can access a variety of spaces which connect into each other.

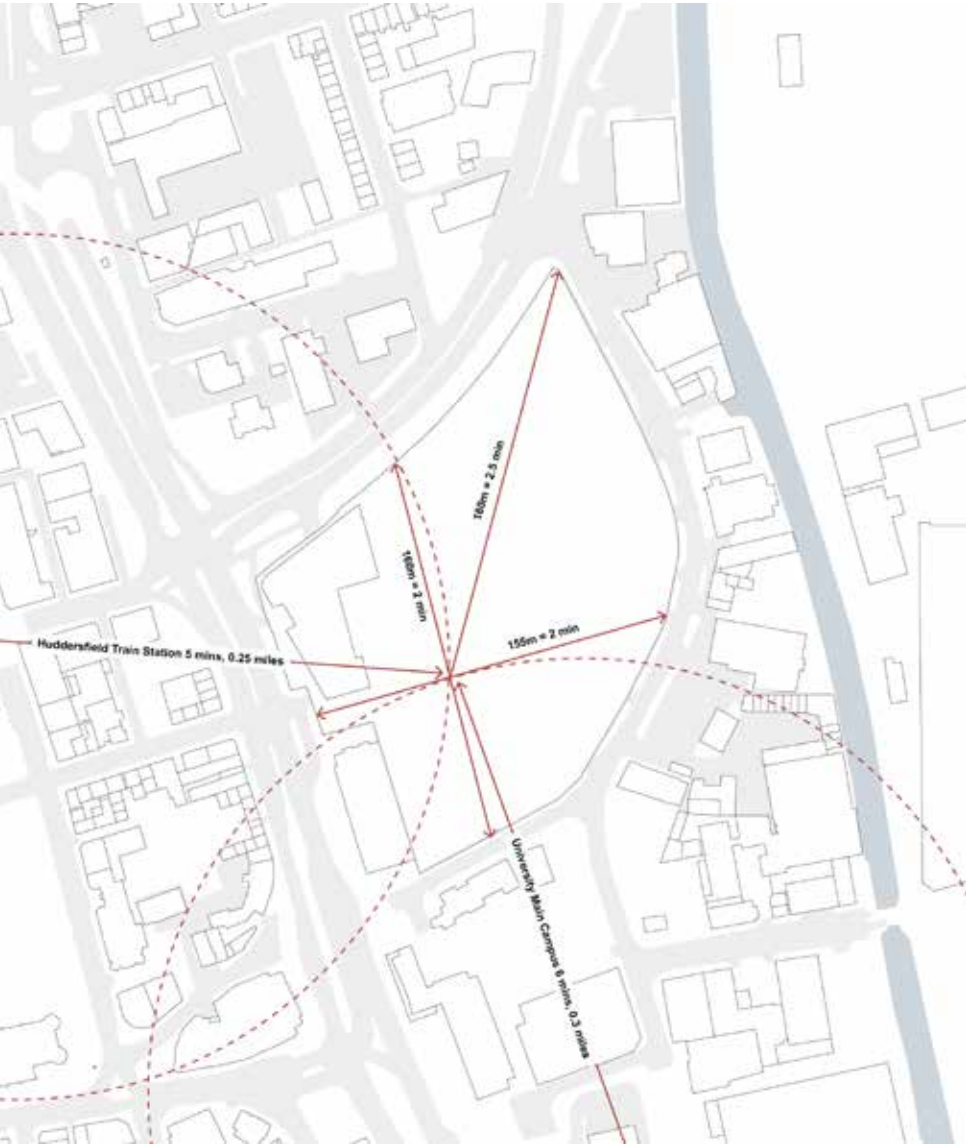
Within the built form of the building walkability will also become a factor. Buildings at ground level should be permeable and open, allowing for visual connection as well as physical. Opportunities to walk through covered spaces should also be present, as well as opportunities to walk through buildings as a connective route. Building heights become a key consideration in terms of walkability. Building heights should be no more than 6 storeys so that buildings can be walk-able and users able to use stairs to access every floor. At this height building users can still be connected to those at ground level and that activity happening on the street.

Pedestrian Routes



- Primary pedestrian routes through site
- Existing pedestrian routes
- Temporary access route, initial phases
- Primary pedestrian routes through site
- Proposed new pedestrian bridge over canal
- Proposed location for a new pedestrian crossing

Walking Distances



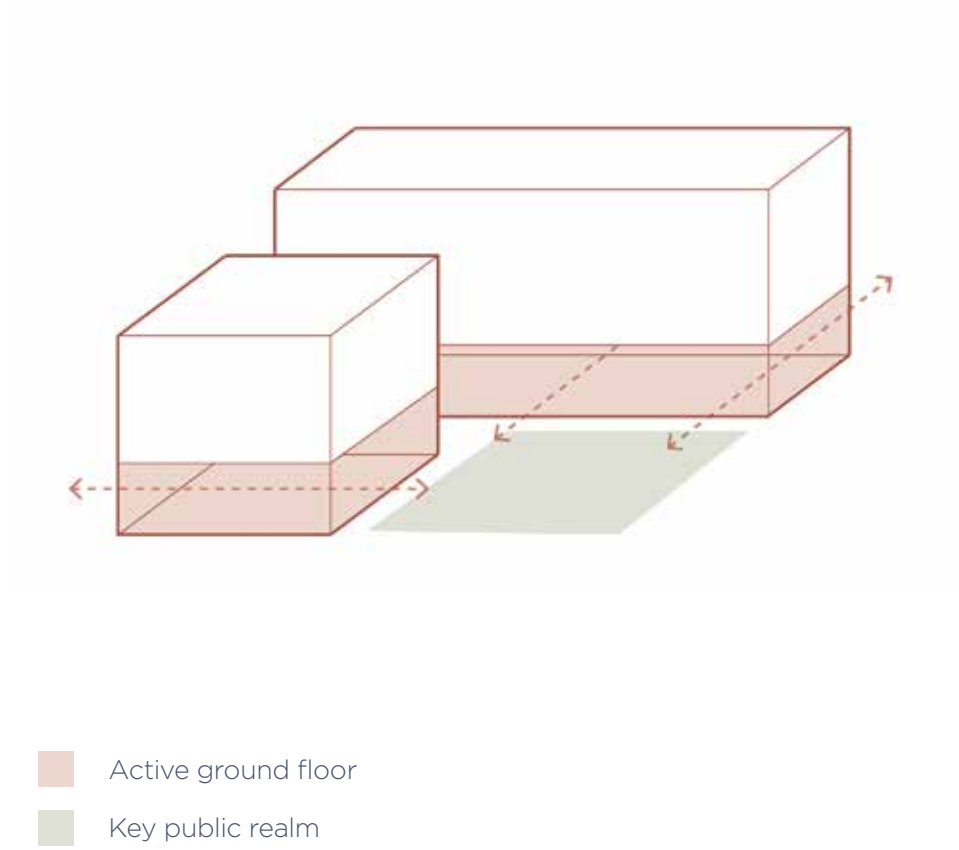
- Key walking distances through site
- Walking radius to key places

Hierarchy of Public Space



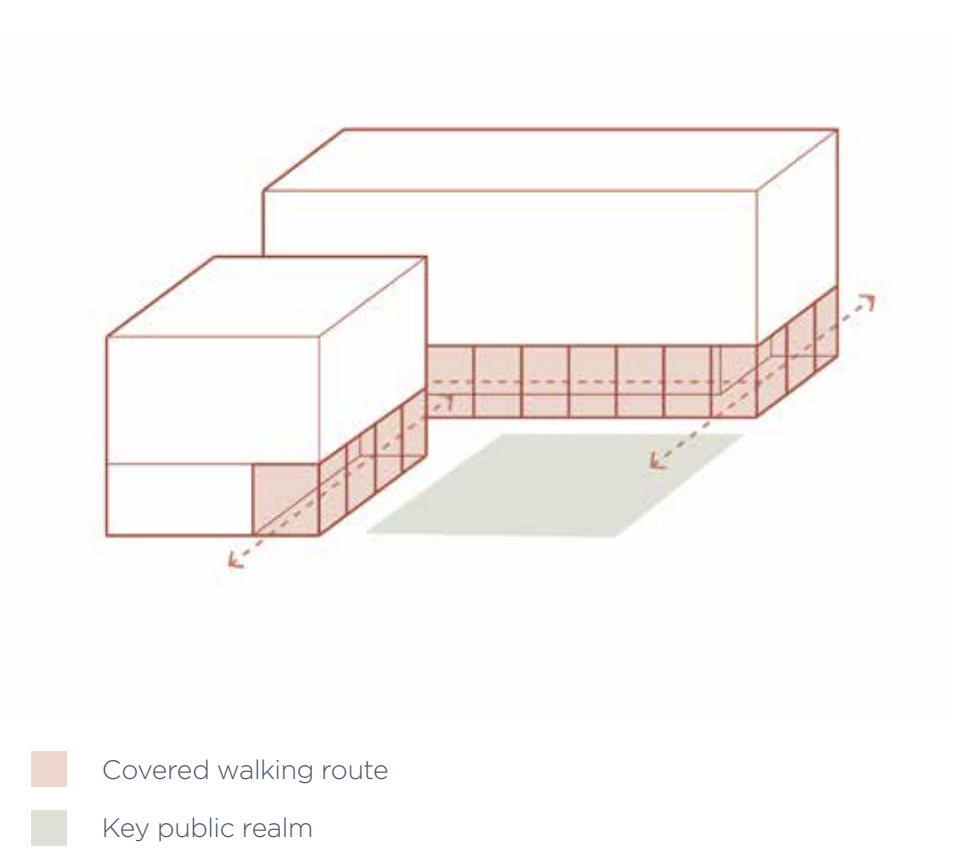
- Primary space
- Secondary space
- Tertiary space

Accessible Ground Floor



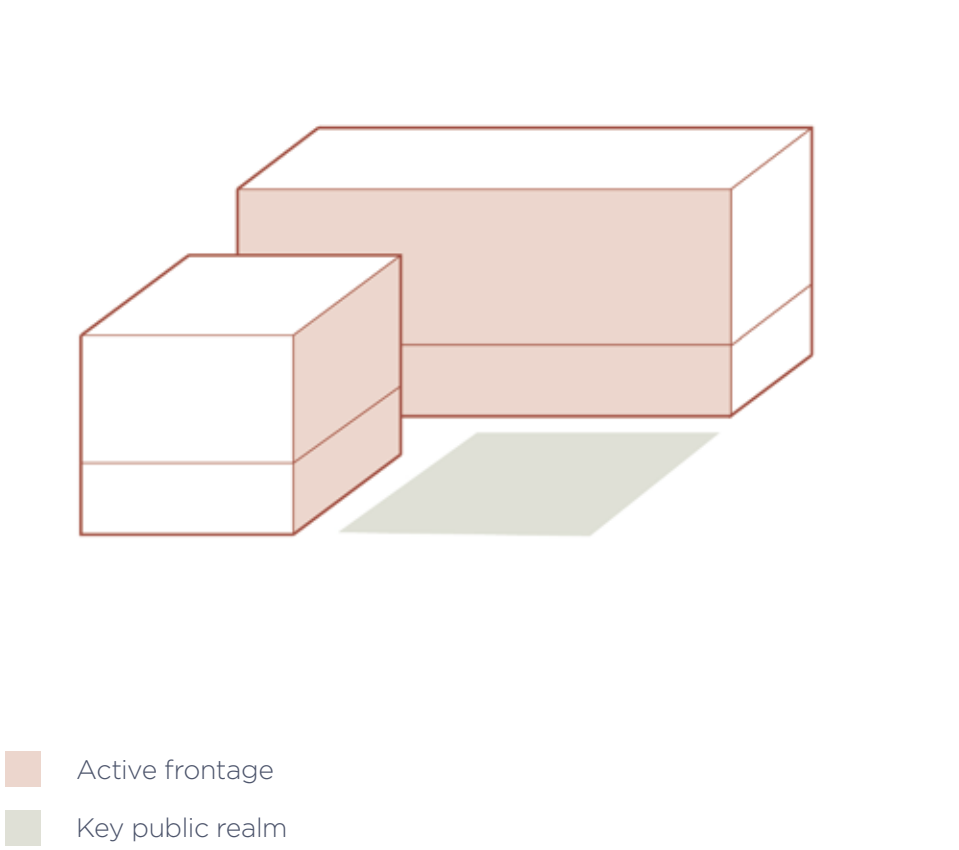
An active and accessible ground floor allows pedestrians ease of access to buildings, or to be able to use buildings as a through route. Transparency within façades will also increase visual connection.

Covered Walking Routes



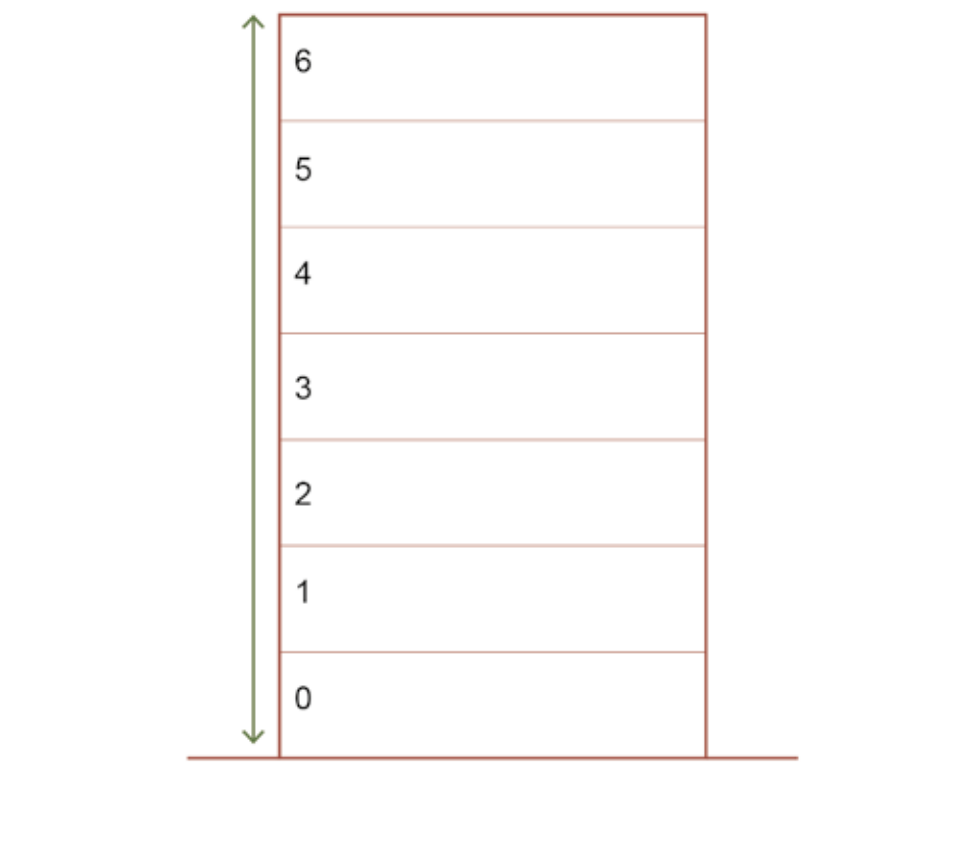
Covered walking spaces to be used at key points to allow for pedestrians to travel through the site with protection from the elements.

Active Frontages



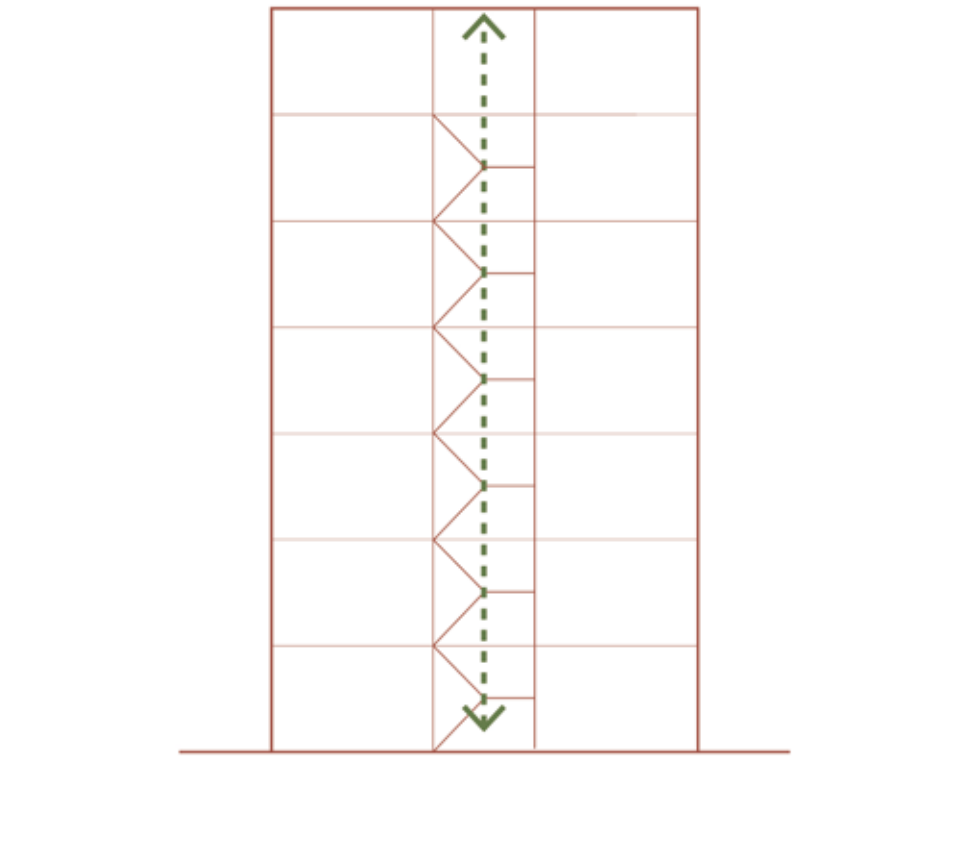
In relation to the hierarchy of public space, key frontages should line the primary and secondary spaces to activate the space. Entrances should be clear throughout the site.

Maximum 4-6 Storey



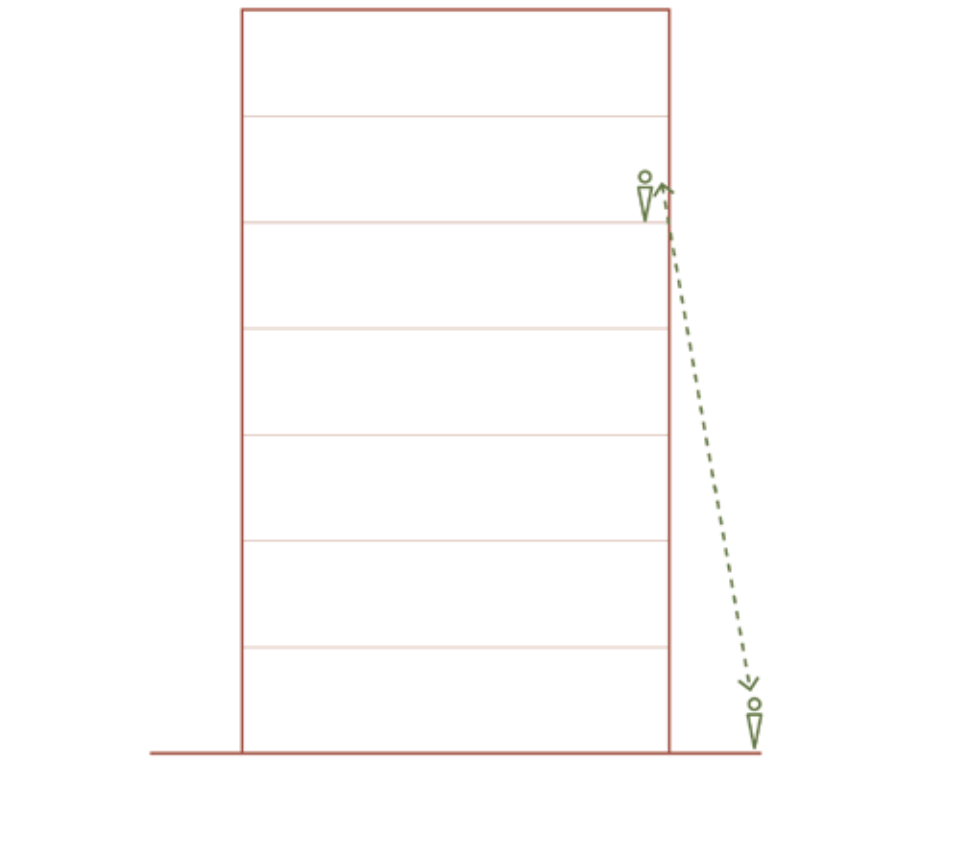
Building heights should be between 4-6 storeys. Buildings at this height are generally more legible to people at ground level and give opportunities to achieve high densities without reverting to less efficient tall buildings.

Accessible Buildings



With the buildings limited to 4-6 storeys this allows for access to all floors to be walk-able and accessed by stairs.

Connection to the street



By maintaining a 4-6 storey maximum height for all buildings, users will feel as though they have a continual connection to activity and nature within the street.

3.2 Human Dimension

Designing spaces catered to the human dimension places value on people and how they will use the space. A series of strategies will be applied throughout the masterplan which will allow the users to subconsciously and consciously experience the spaces inbetween the buildings and the relationship between these spaces in a positive way. These strategies will therefore encourage accessibility for all throughout the masterplan and enable Southgate to become a place filled with activity and engagement.

In creating a space tailored towards human dimensions, one of the key considerations should be the size of spaces created. Public spaces should be designed around how the user feels in space. In order to allow users of the space to maintain visual and auditory connection to other users, dimensions should be kept to an optimum size. Through providing a variety of spaces utilising different shapes and sizes, and with differing levels of privacy, a diverse landscape will be created which gives options for all types of user.

As the user moves through the site, legibility will be clear. An established road hierarchy will reflect the streets within Huddersfield to create a familiarity within the streetscape, allowing the masterplan to compliment and sit well within the existing urban structure. Pedestrian routes will have priority throughout the site, with Pine St becoming the only access road for servicing buildings. Pine St will still however be designed for the pedestrian and cyclists to promote access through the site.

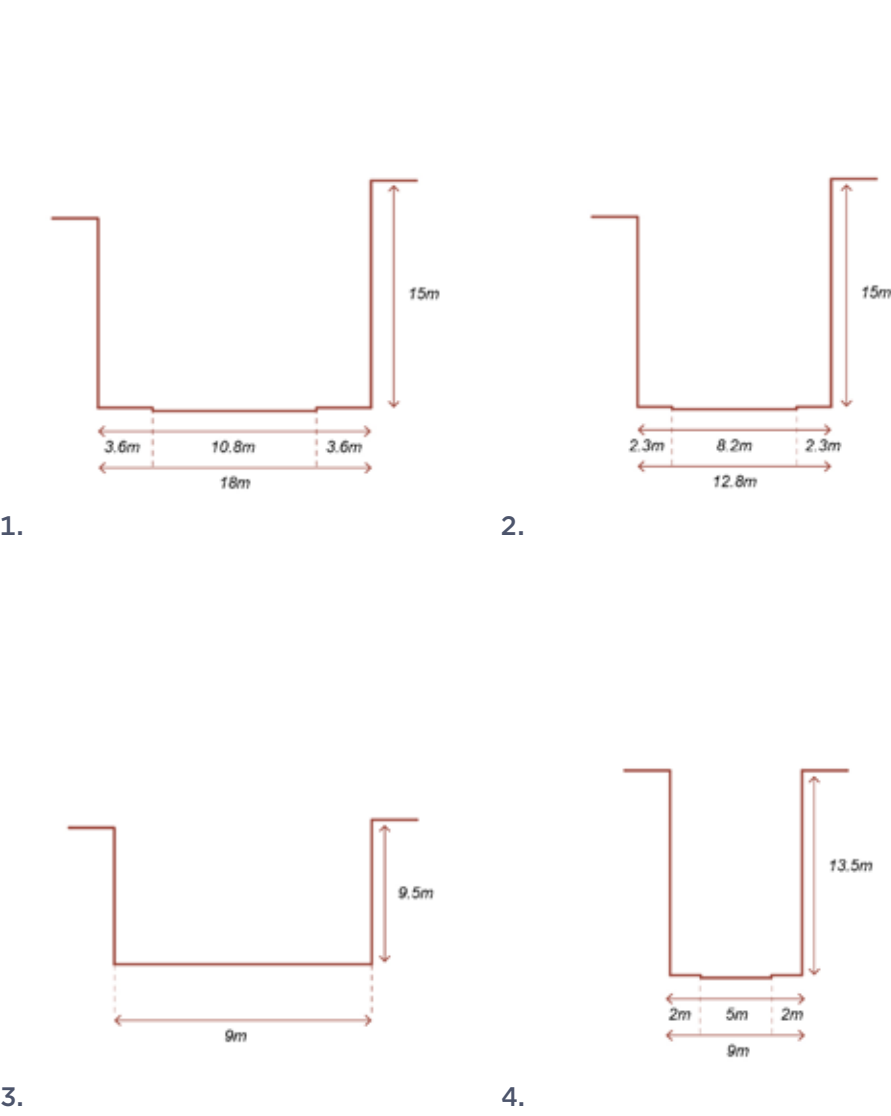
To ensure that the masterplan is active at all times which will also contribute to the security on site, mixed uses will be encouraged throughout. Uses should be well considered throughout the site and placed strategically.

Road Hierarchy



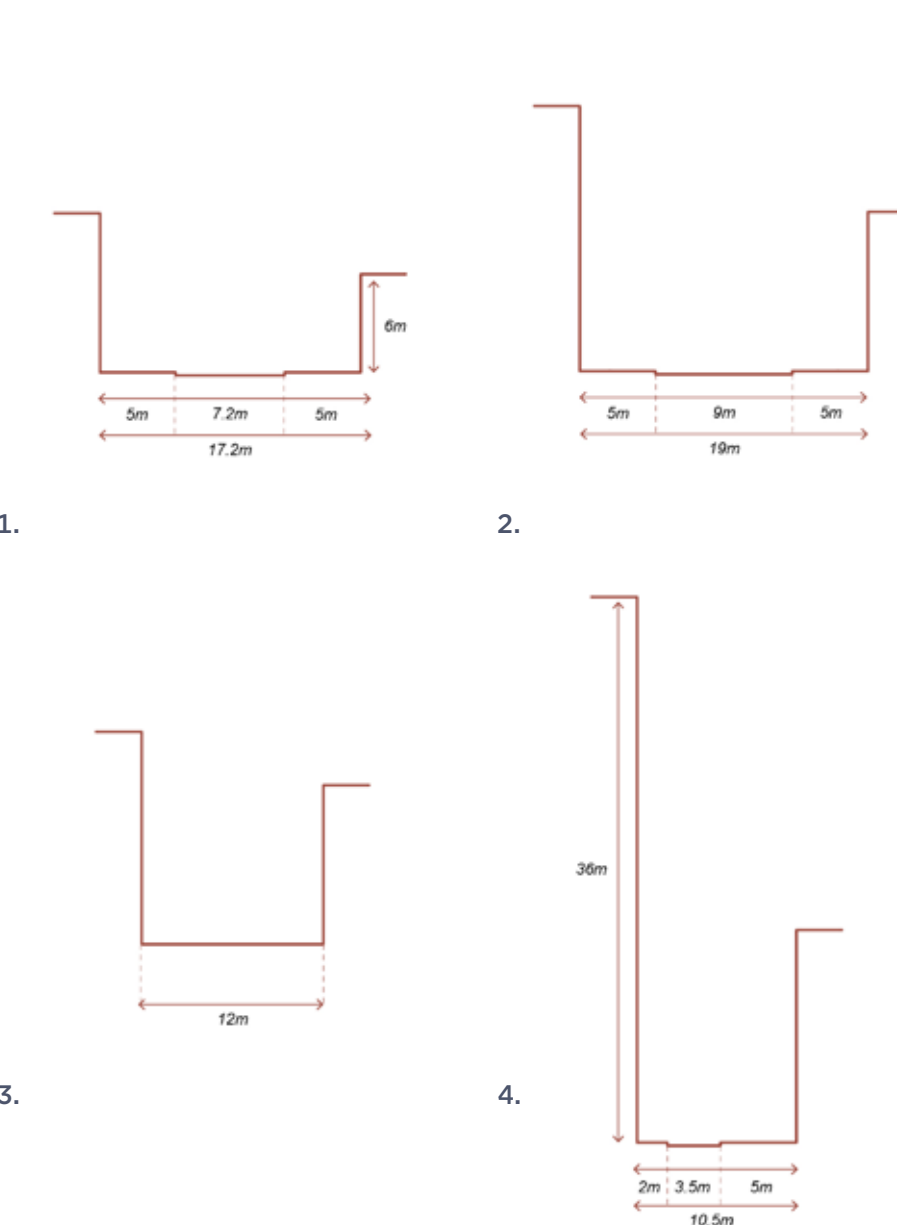
- Primary Road
- Secondary Road
- Tertiary Road

Street Ratios, Existing in Huddersfield



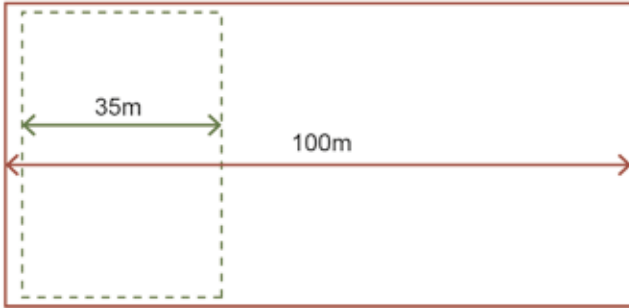
- 1. Northumberland Road
- 2. St Peter's Street
- 3. Church Street
- 4. New Street, Pedestrianised

Street Ratios, Proposed Masterplan



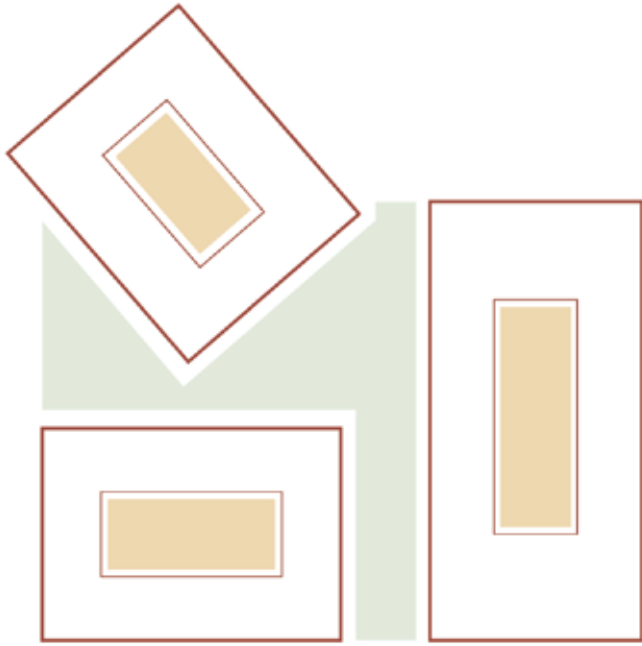
- 1. Primary Street
- 2. Secondary Street
- 3. Pedestrian Route
- 4. Tertiary Street

Optimum Public Space Dimensions



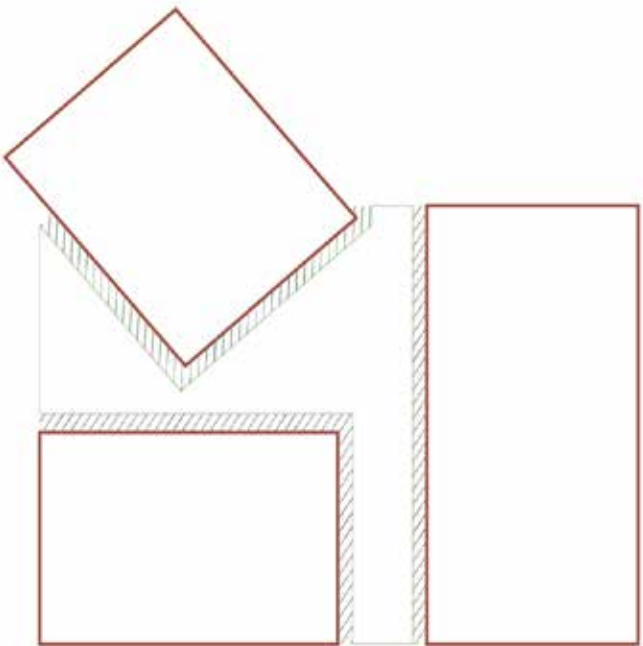
The maximum size for a public space is 100m, and the optimum size is 35m. These dimensions link to the ability for the human eye to appreciate detail at a particular scale.

Division of Public and Private



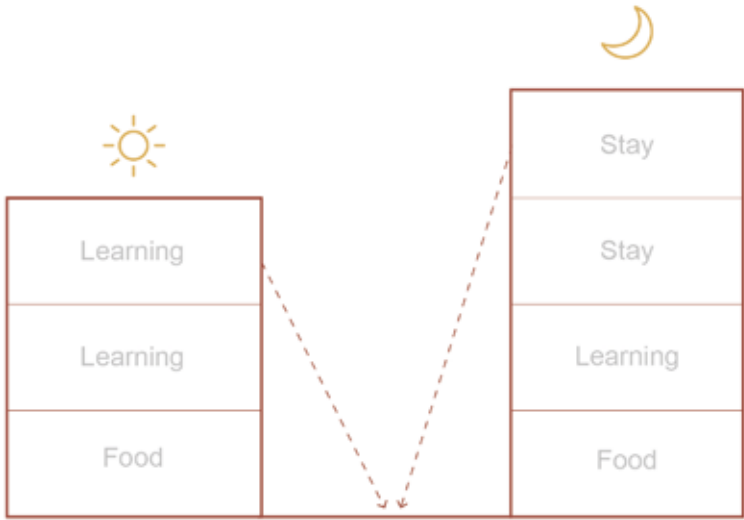
The division between public and private should be properly defined. The boundaries between the two must be clear, distinct and legible so as to be easily read within the urban landscape. Internal courtyard to the perimeter block is a good example of how private spaces can exist within the masterplan. These can then be accessed internally or through ground floor connections.

Creating Soft Edges



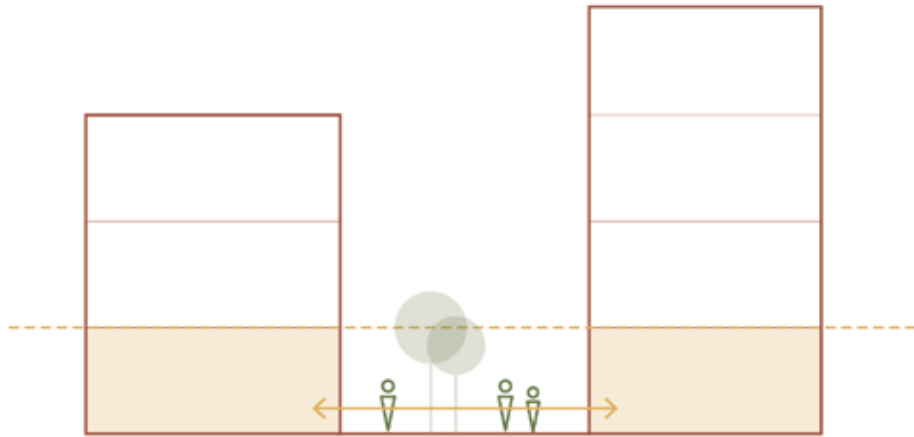
Within the public spaces consideration should be made for the edges of the space. These should be designed to be soft and create a fluid transition between the external and internal. Throughout the site, soft planting strategies can be implemented to blend edges into the existing context.

Mixed Use



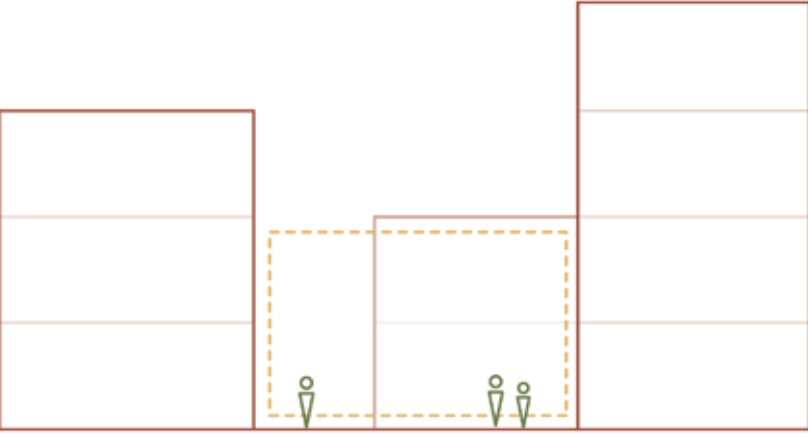
Throughout the site mixed use is encouraged, vertical mixed use is optimal but mixed uses throughout the site is also acceptable. This will create a sense of security within the masterplan.

Activity at Ground Level



As the pedestrian walks through the site, activity at eye level should be clear. This should attract people to walk through the site and use amenities which the masterplan has to offer. This can be achieved through strategic eye level planting or ground floor activity.

Enclosed Spaces



There is a natural human desire to seek spaces which are more enclosed and offer a sense of refuge. These spaces help increase levels of activity and can provide weather protection easily allowing them to be used from season to season. Enclosed spaces should be provided throughout the masterplan and integrated into the pedestrian strategy.

3.3 Sustainability

Sustainability strategies are at the core of the masterplan design. When promoting health and well-being within the masterplan, it is vital that sustainable methods are implemented across the site and are therefore woven into multiple elements of the strategic framework.

Connecting into the local biodiversity and promoting green space will be key. The strategies implemented throughout the masterplan will provide a range of green space throughout both the public realm and the built form. This in turn will encourage the development of local plants and wildlife, as well as supporting and actively encouraging ecosystems.

The masterplan will strive to meet the University of Huddersfield’s 2030 carbon zero/neutral strategy. Therefore, all building processes involved in the development of the National Health Innovation Campus will target these standards. Where possible, buildings should meet environmental standards such as WELL and BREEAM, and aim to be carbon zero/neutral in their output.

Building design will play a key role. A minimum width of all buildings is set out so that all buildings can be naturally ventilated. The layout of building blocks in relation to each other will be considered so that each building can maximise natural daylighting. This will also be a consideration for public space, with primary public spaces facing southwards and being uninterrupted by the shadows of buildings nearby.

Sustainable transport methods other than walking will also be accommodated for on site. A sustainable transport hub will sit central to the site and provide cycle storage, scooter hire and electric car charging points. Cycle lanes will pass through the site which connect into existing cycle lanes in Huddersfield. Opportunities for parking bikes will also be available across the site as well as the sustainable transport hub.

Green and Blue Infrastructure



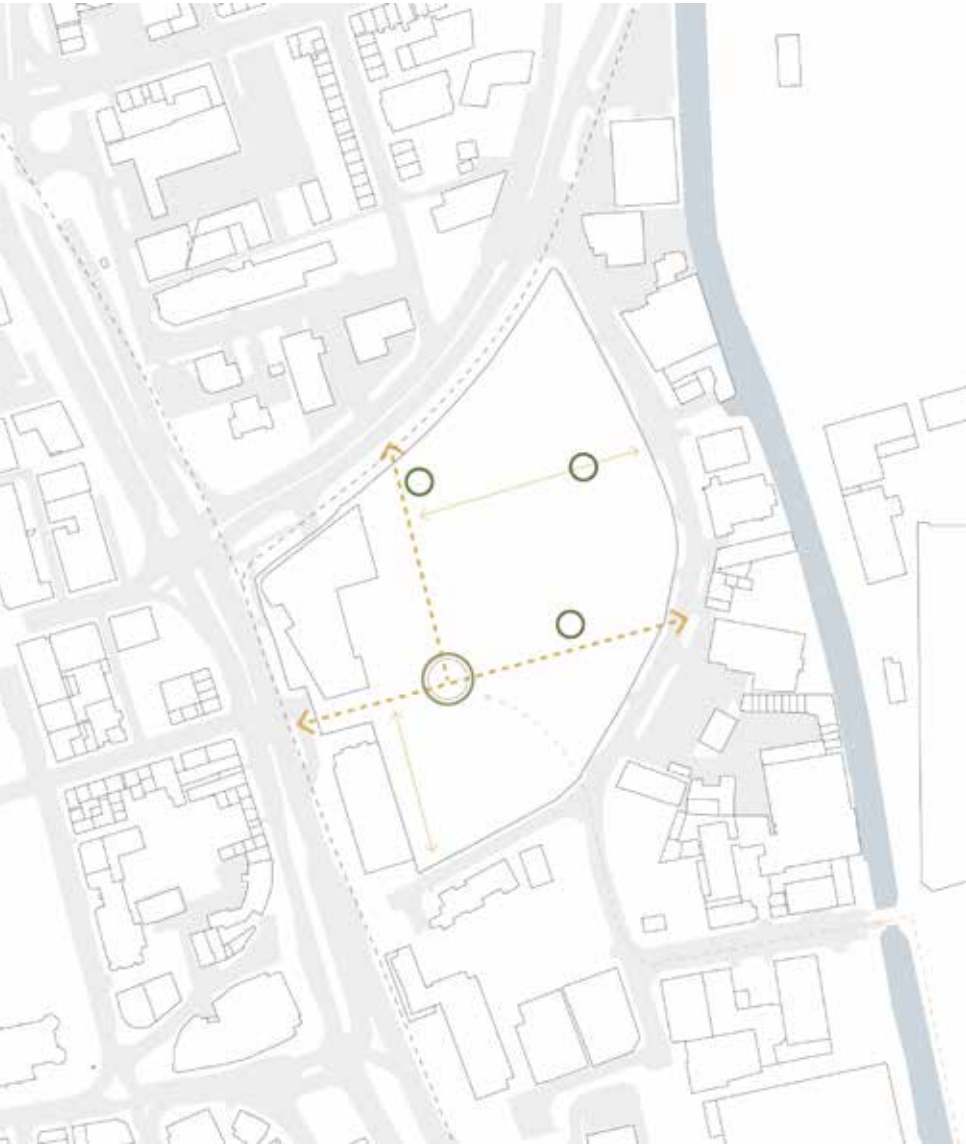
- Green Routes
- Water Routes
- Trees on the streets

Social Sustainability



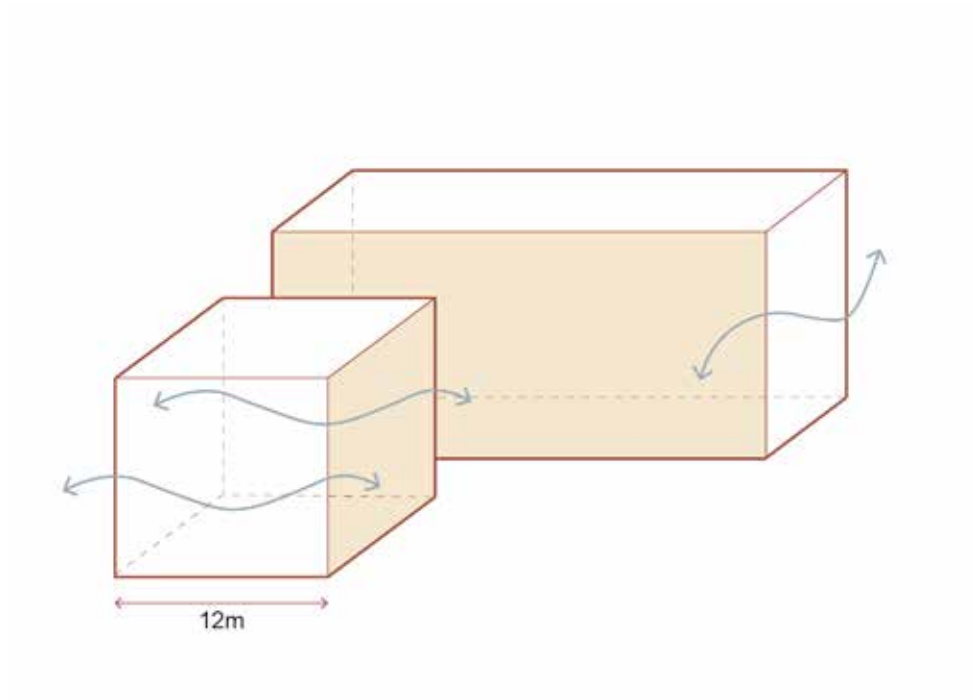
- Public routes through the site
- Local pedestrian routes

Sustainable Transport



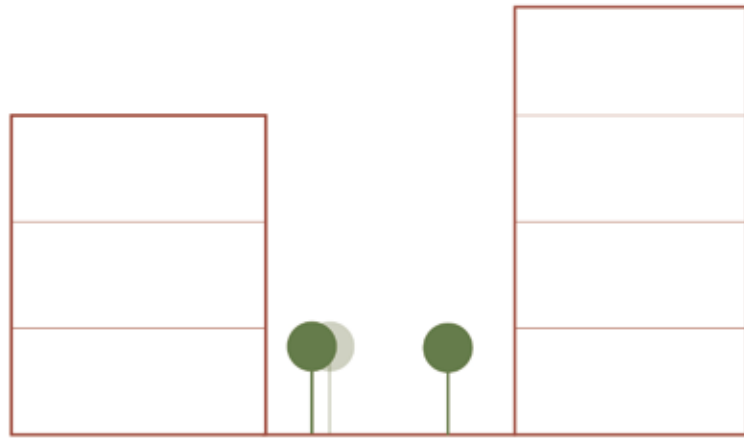
- Key cycle routes through the site
- Local cycle routes
- Sustainable transport hub
- Cycle/Scooter parking

Natural Ventilation and Daylighting



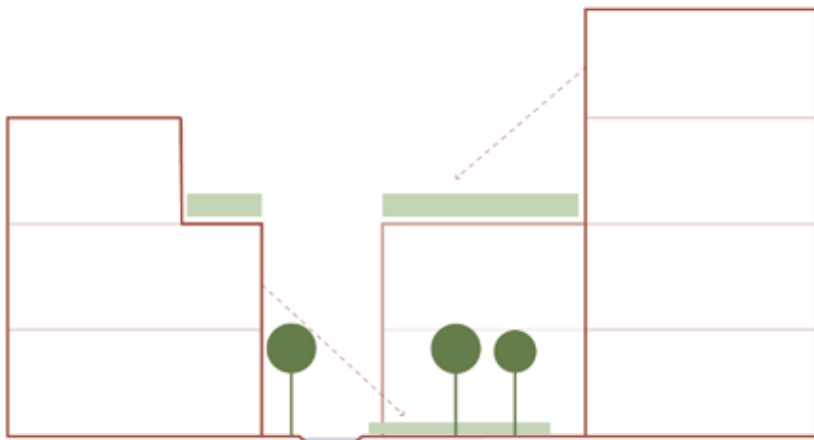
The maximum width of a block should be 12m to allow for natural ventilation and daylighting. Space between blocks should be considered to allow for optimum daylight with minimal obstruction from nearby buildings. This will create comfortable thermal levels within all buildings across the site allowing for healthier learning and social environments.

Trees in the Street



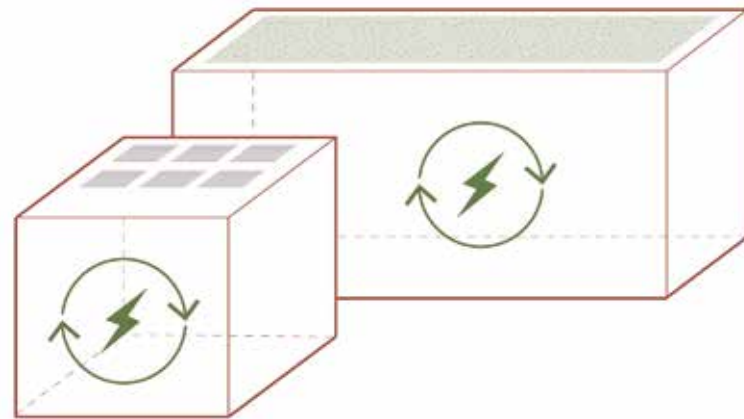
Trees within the street have a positive impact for visual connection with nature as well as providing shade during the summer and shelter in the winter.

Connection to Nature



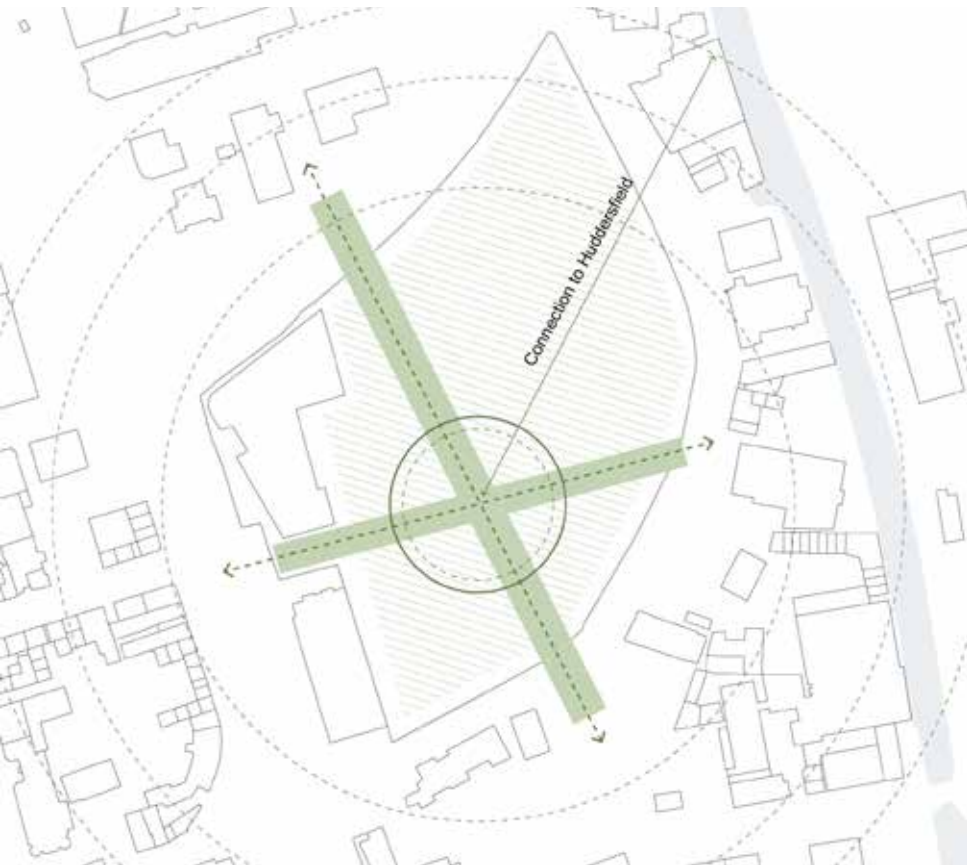
Throughout the site connection to nature from different points will be key, both externally and internally. Connections to nature generally reduces stress and can improve our heart rate, having an almost instantaneous positive impact.

Carbon Zero Building Processes



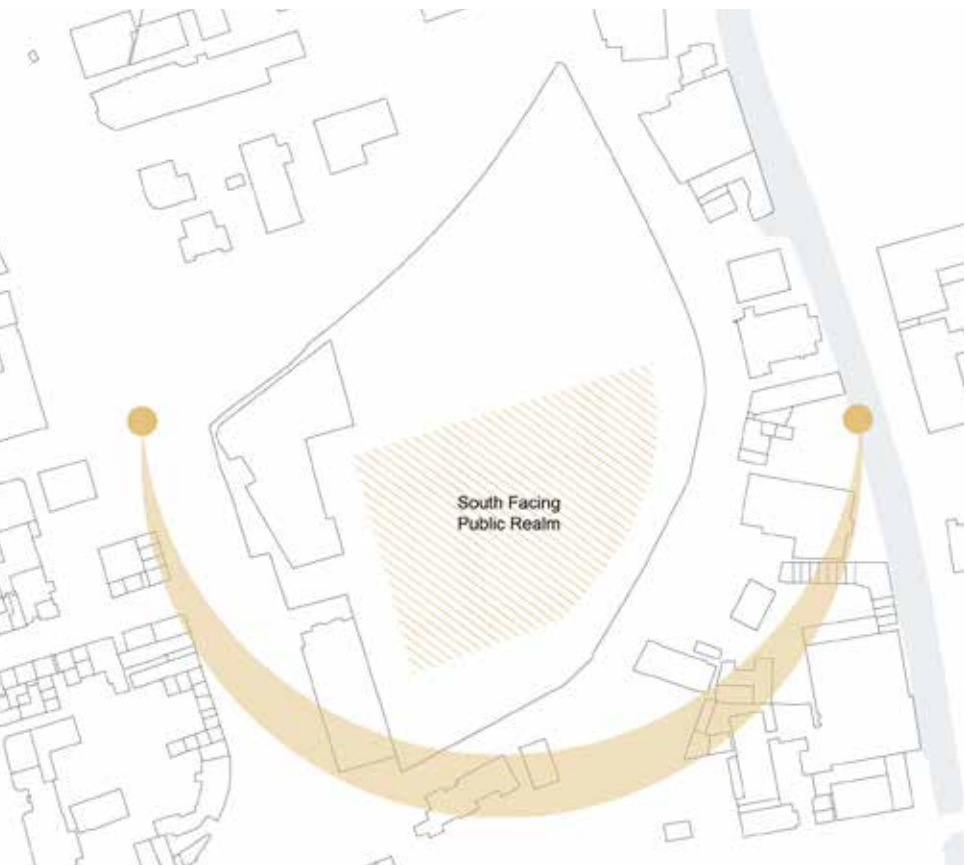
Throughout the building process on site a goal for carbon zero/neutral within the building process should be encouraged in order to build on the University of Huddersfield's 2030 strategy by designing blocks which are capable of using as little energy as possible.

Planting Strategy and Biodiversity



Within the planting strategy for the site there will be a focus on biodiversity and encouraging local wildlife and flora and fauna to inhabit the site. This will be achieved through strategic planting choices and opening up opportunities for local species to dwell within the masterplan by connecting into the local green and blue infrastructure networks.

Maximising Daylighting



By maximising daylight in key areas of the site, daylighting will contribute to natural daylighting of buildings as well as contributing to the creation of pleasant public realm spaces where sunlight is maximised. Key public spaces should be south facing, with no building heights shadowing. Built form should address the sun path.

Sustainable Drainage

Incorporating sustainable methods of drainage within the masterplan is a simple and effective way of preparing the campus for resilience against the effects of climate change. As the ground slopes down towards the canal from the town centre, the site becomes a good opportunity to introduce drainage solutions.

Providing a variety of sustainable drainage methods throughout the site, allows the site itself to become an educational and academic opportunity to learn about these types of systems. The elements can be studied by both students and academics and become test beds for advancing technologies and systems.

Bioswales

Bioswales are shallow channels designed to capture and infiltrate stormwater run off as it moves. The bioswales maximise the amount of time water spends in the swale which then aids the collection and removal of pollutants, silt and debris. These channels are typically vegetated and can therefore contribute to increasing biodiversity within the masterplan.

Rainwater Gardens

Rainwater gardens are smaller than bioswale channels but act in a similar way for collecting rainwater and drainage. These gardens can be implemented in strategic areas across the masterplan. Whereas the bioswale channel will run through the core of the site, rain-gardens will be able to support sustainable drainage throughout.

Permeable Paving

Throughout the masterplan permeable paving can be implemented into areas that would otherwise be paved. By reducing the amount of hard impermeable surface across the site, drainage is encouraged.

Green Roofs

An additional level of consideration for sustainable drainage throughout the site is to provide green roofs. Green roofs allow for rainwater to be absorbed into its system and can significantly reduce the amount of rainwater that would otherwise run off the roof quickly.

Example 1: The Hive Worcester Library, Grant Associates



The Hive is a unique academic, educational learning centre which is a joint university and public library for the University of Worcester and the City of Worcester. This shared public realm has to respond to the concern of seasonal flooding from the nearby River Severn.

The water meadow is a low maintenance landscape solution which deals with sustainable urban drainage. Rainwater and surface water is filtered through the reed bed swales. It is planted with locally sourced seeds so it can bloom when not in use for drainage.

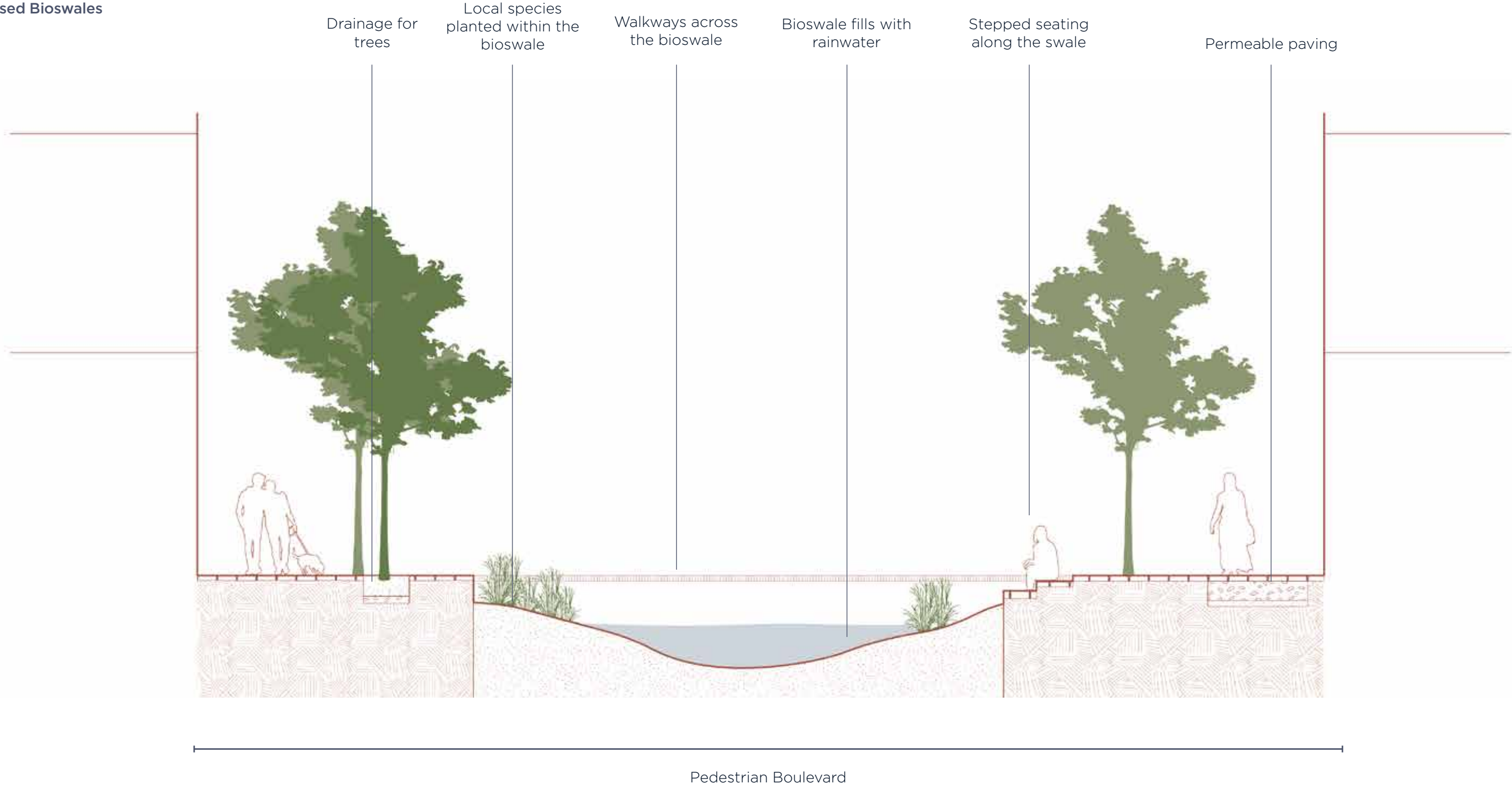
Example 2: Godsbanearealet, Polyform



Godsbanearealet which translates to 'freight train area' is a sustainable city district in Aalborg, Denmark. The industrial heritage of the area has contributed to its identity, and these spaces have been transformed to accommodate sustainable landscaping methods for its future.

Rainwater management is incorporated throughout the masterplan. SUDs are integrated into the site, with lawns and sports facilities placed at specific levels and rain-gardens throughout the site to capture rainfall. Green roofs are placed around the site to help delay water.

Proposed Bioswales



3.4 Built Form

The built form is a key consideration for the formation of place. The masterplan will sit within the context of Huddersfield and will aim to integrate itself into the existing urban structure. The built form will also contribute to the overall health and well-being appeal of the masterplan. Through strategic design, micro-climates can be formed, pleasant spaces created and buildings which encourage biophilia be present across the site.

Building heights is a key consideration throughout the masterplan design. Heights should be respectful of those in the immediate surrounding context. Taller buildings should line Southgate, acting as a acoustic barrier for the site. It is proposed that shorter buildings should be placed at the centre of the site, with slightly higher buildings at the edge. This is to minimise the impact of wind within the masterplan, aiming to create pleasant spaces within the masterplan.

Asymmetrical building footprints are also encouraged strategically across the site. This contributes to the formation of a range of different types of spaces, promoting smaller micro-climates and interest within the public realm. Fronts and backs of buildings should also be well defined, thus allowing the masterplan to be clearly legible for all users. Building service access should be placed in strategic locations, allowing ease of access with minimal disruption.

Throughout the buildings, space should be created for a range of external spaces. This, in turn, will promote positive health and well-being through providing opportunities for access to the outdoors and green spaces within the masterplan. Building roofs should also be considered as opportunities for green spaces to allow a connection to nature on various levels.

Building Heights



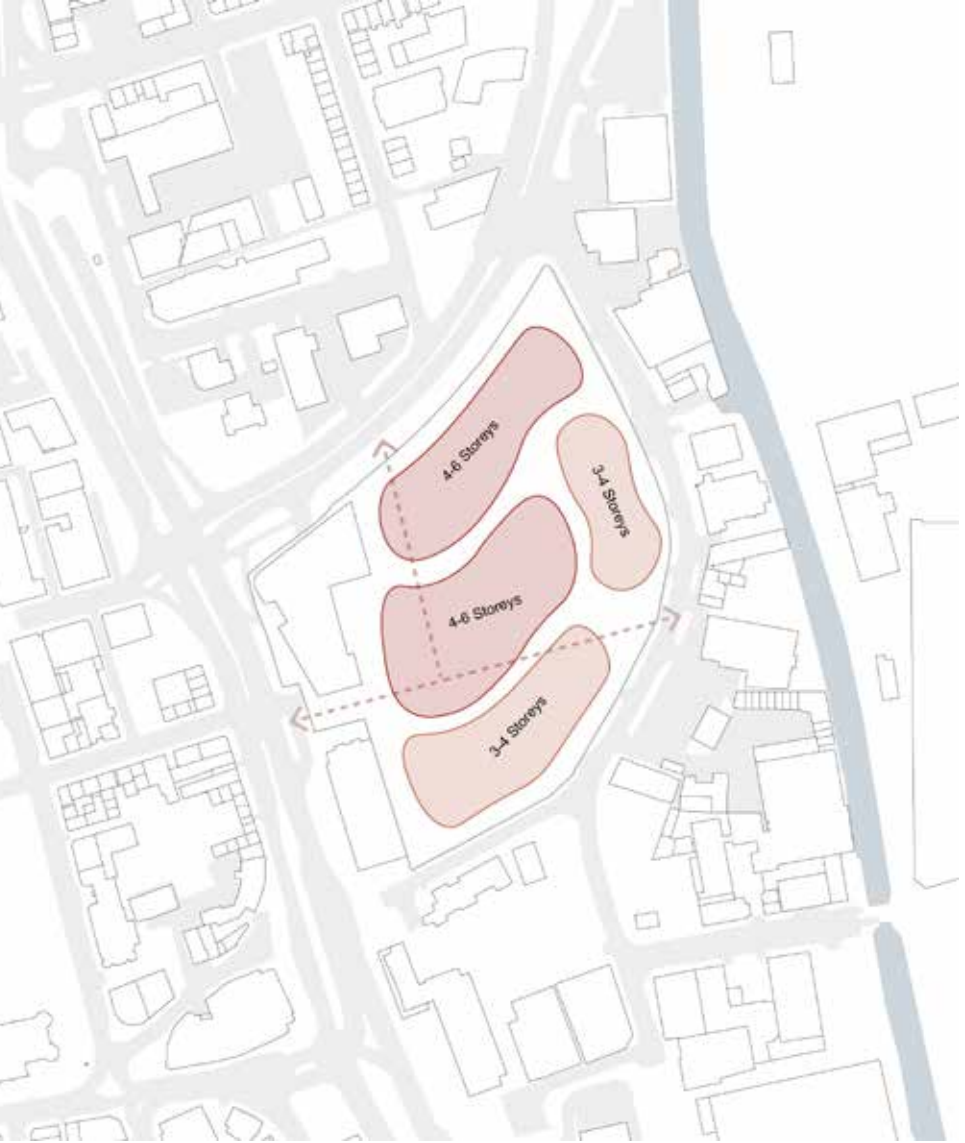
- 1-2 Storeys
- 3-4 Storeys
- 5-6 Storeys
- 7+ Storeys

Maintaining key Views



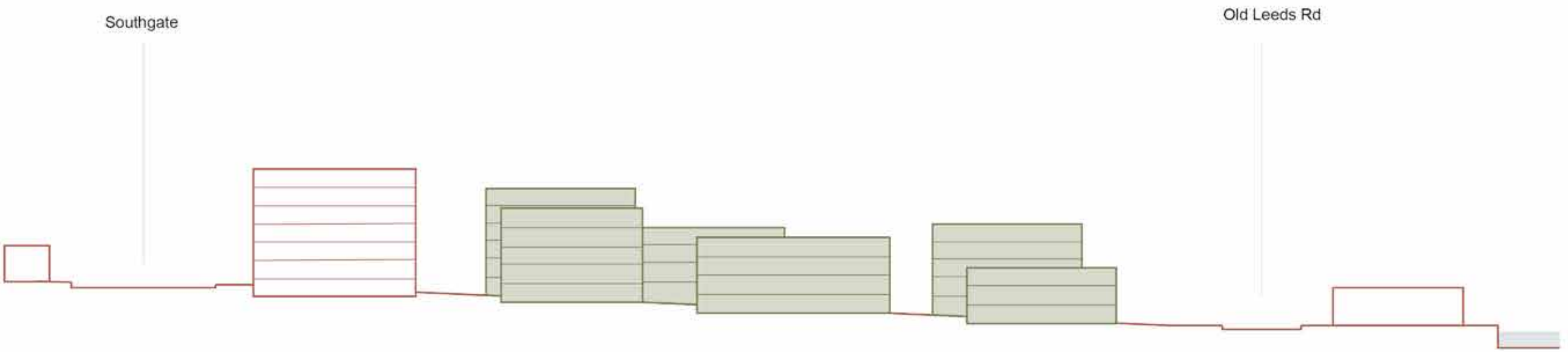
- 1. View along Leeds Rd
- 2. View down Northumberland Street
- 3. View down St Peter's Street
- 4. View from Leeds Rd
- 5. View from Old Leeds Rd
- 6. View up Pine Street

Height Strategy

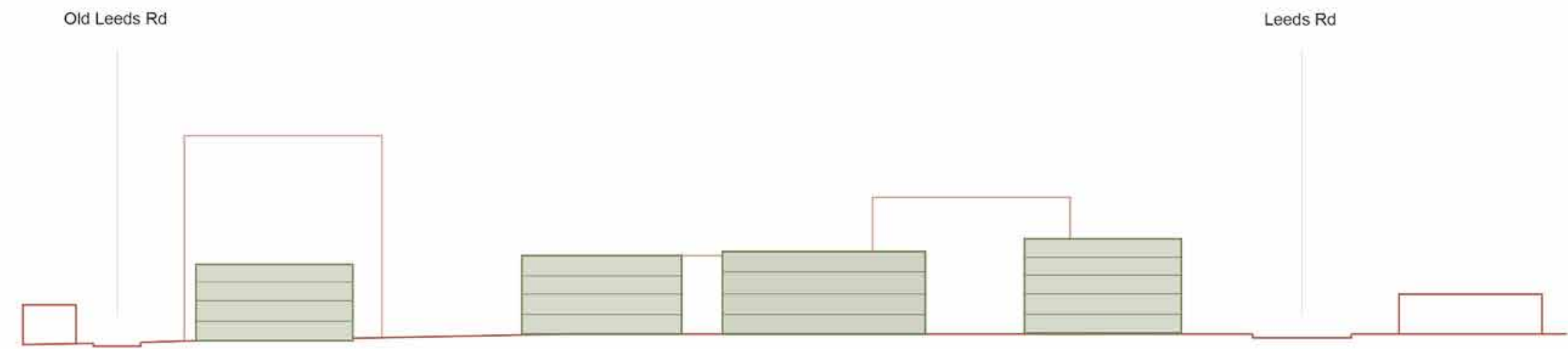


- Proposed 3-4 Storeys
- Proposed 4-6 Storeys

Building Heights, West to East

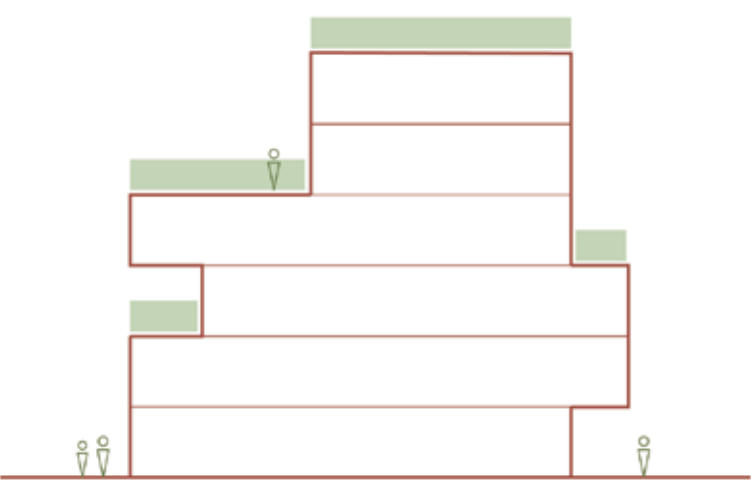


Building Heights, North to South



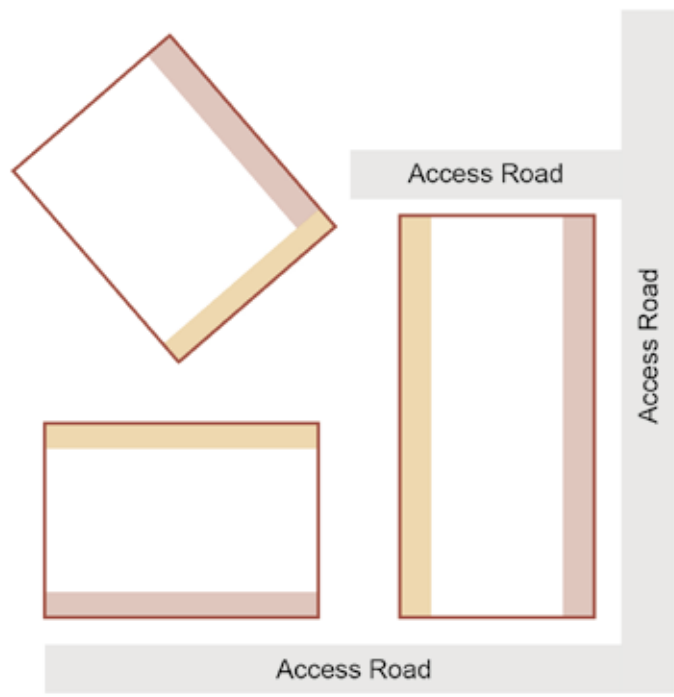
■ Proposed heights
□ Existing

External Spaces within buildings



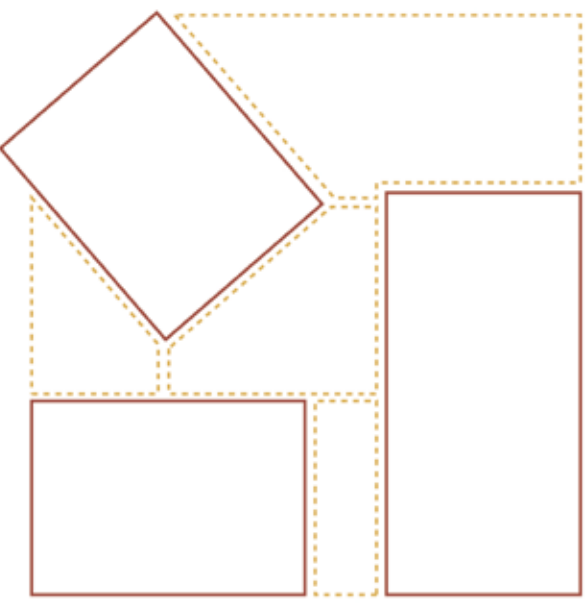
External spaces should exist within buildings as well as within the public realm. This can be achieved through roof gardens and terraces in buildings.

Front and Backs Defined



Fronts and backs of buildings should be obvious, with backs strategically placed where they can be easily accessible. Fronts should face onto key spaces and primary routes, where as the backs should face onto access roads or tertiary streets.

Asymmetrical Geometry



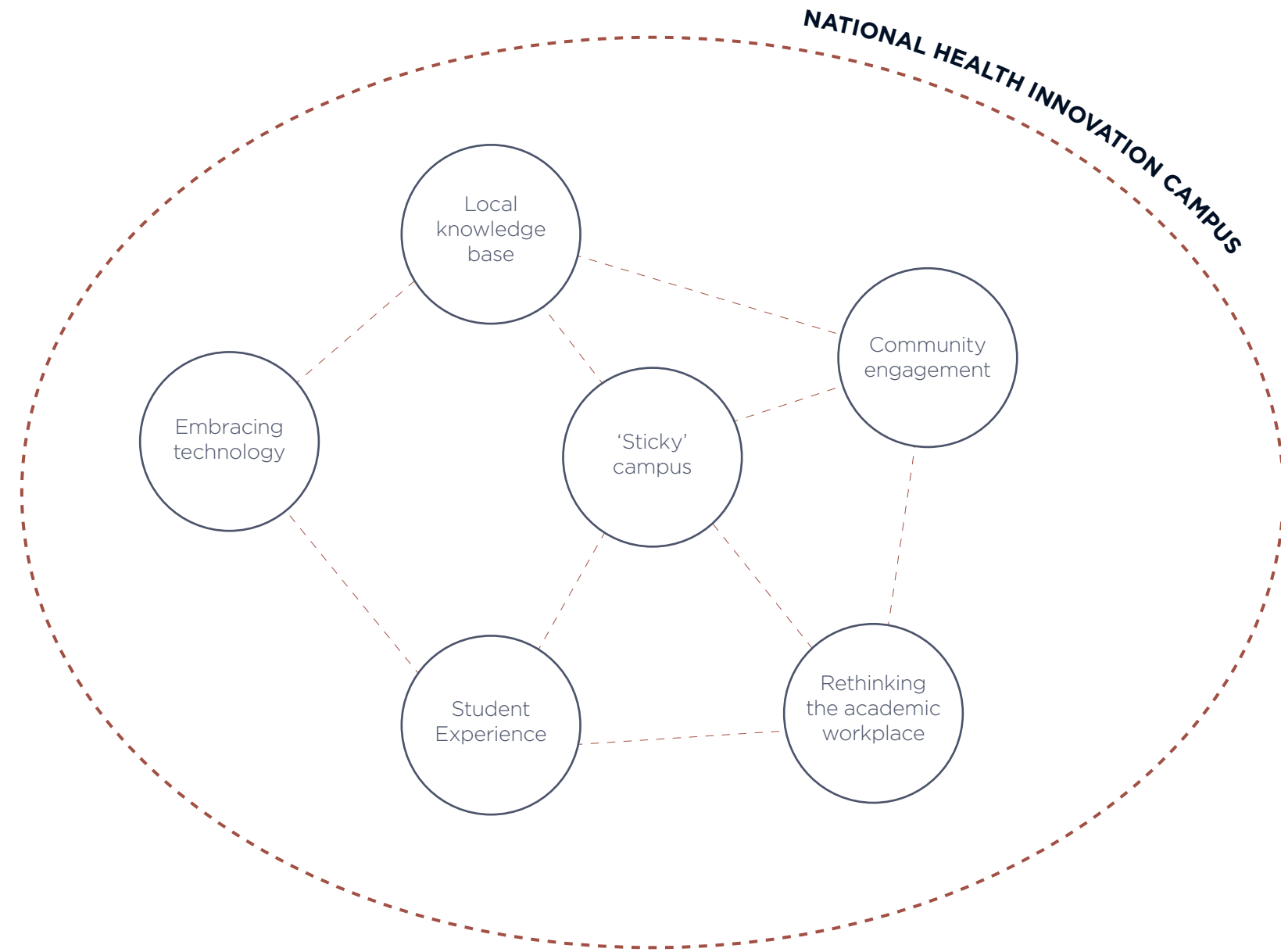
Asymmetrical geometry creates opportunities for a range of different sizes of space. Smaller enclosed spaces can be easily created and add interest for the pedestrian.

3.5 Future Campus

Designing for longevity is a key aspect of this framework. As the masterplan evolves over the next 5-15 years, it is vital that it still addresses key needs of the users. In designing for the academic campus there are certain factors that need to be considered. This element of the framework sets out a series of key ingredients that should be implemented into the strategy for the masterplan.

These key ingredients are:

- A knowledge economy
- Incorporating student residential
- Embracing technology
- Rethinking the academic workplace
- Public good/Private benefit
- ‘Sticky’ Campus



The Knowledge Economy

University campuses are places for learning through a variety of different means. By trade they are places where the student comes to learn and gain knowledge in a chosen discipline. However, the notion for what a university is and can be has changed over the years from an insular academic institution to a place which engages with its students, community and the locality where it is situated.

There are many areas which could be incorporated into the masterplan, some of these are:

SMEs (Small Medium Enterprises)

SMEs account for 99.9% of the business population within the UK. By engaging with the small & local businesses throughout the Health Innovation Campus and wider University campus, the University of Huddersfield can greatly benefit the local economy. This could be through temporary exhibition spaces hosting local artists/musicians, or through concession stands encouraging local food and drink businesses to sell their product throughout the site. This will therefore raise awareness of businesses throughout Huddersfield, and subsequently increase footfall within the town centre (a key incentive of the Huddersfield Blueprint).

Primary Care

As part of the National Health Innovation Campus incorporating primary care could be an essential opportunity for the students of the University as well as for local people. Incorporating these types of facilities on-site will allow for students to be able to learn first hand about primary care scenarios, as well as for local people to engage with the research and development that is happening at the University. This could also be beneficial in encouraging people who take alternative routes into related employment into the University Campus and involve them in University life.

Local skills

By providing opportunities for different skill set across Huddersfield to be able to work or exhibit on campus will further the integration of knowledge and the openness and connectivity of the University.

Open studios and exhibition spaces at ground level or within buildings can become useful tools in opening skills sets to one another.

Research and Innovation

As a University which values and pursues research, opening the campus up to research professionals through collaborations or inviting research hubs and trusts.

Example 1: Paddington Village, Liverpool



Paddington Village masterplan is located within the Liverpool Knowledge Quarter. It is a city of Liverpool led masterplan which hosts a variety of different uses in collaboration with different stakeholders including the University of Liverpool. Buildings on the site include the Rutherford Cancer Centre, a hotel, student residential.

Example 2: Circle Square, Manchester



Circle Square is a new masterplan on the existing BBC site in Manchester. The site sits along Oxford Rd connecting to key academic institutions. The masterplans aim is to become one of Europe's to innovation districts. The site includes office space and innovation centres, student residential, a hotel, MSCP and a central green space.

Incorporating Student Residential

An extension of learning on campus. When university owned they can control the environment of learning within the living of their students. 70% of academic study happens within the students living space.

By owning their own student accommodation universities can gain control of this aspect of study. This can be through the design of the student bedroom and social spaces becoming an extension of the universities values.

Example 3: Birley Fields Campus, Manchester Metropolitan University



Birley Fields campus is part of Manchester Metropolitan University which sits in the heart of the local suburb of Hulme. University owned halls are integrated into the masterplan centring around a major academic development. This provides students with easy access to campus and integrates student living with learning within the development. Students are also able to integrate with the surrounding community.

Embracing technology

In the next 5 years, students who arrive at University will be younger than the iPhone, meaning that they will have grown up in a technological world. There is an expectation for advancing technology and technologies which are reliable and easily accessible.

As technology allows for studying, learning and socialising to be achieved easily outside of the university campus it is imperative that the built environment and landscaping adds value to the experience of both students and academics. There are several means of incorporating developing technologies into the Health Innovation Campus which will allow the University to thrive in both technological advances and social value.

The corona-virus pandemic has shown the possibilities of working remotely, but has also shown like students and academics alike value the experience of attending a physical campus. This provides an opportunity for the development of multi-functional spaces that can embrace technological advances, for example the use of virtual and augmented reality spaces or for use in projecting art work across campus as an interactive exhibition.

There is also opportunity for students and academics to partners with global universities to engage in advancing technologies which would allow the University of Huddersfield to be at the forefront of their respective subjects.

Example 4: Virtual Reality Space, University of Huddersfield



Rethinking the academic workplace

For many years, we have been rethinking our workplaces and how offices function. However, the academic workplace has been left behind in these advancements due its differing nature. Currently, 28% of university campuses are taken up by office space. However, academic staff only spend 30-40% of their time in these offices.

As office and commercial settings begin to evolve, so are the ways in which students are being encouraged to learn. By providing more open, approachable and collaborative settings, students are encouraged to integrate their learning.

However, approaching the design of the academic workplace is slightly different to the commercial setting. In order to achieve a successful work environment there are three key areas which need to be addressed. Within the space there has to be the ability to:

1. Focus without external distraction
2. The need to store and easily access resources such as books and files
3. The need for private meeting spaces between tutors and students

These three key areas suggest the necessity of having choice and flexibility within the academic workplace for lecturers, researchers and students. Providing spaces which are easily adaptable and multi-functional is essential to allow people the opportunities to work in a variety of settings and choose which is best for them. This can be done through creating several different types of clearly defined spaces throughout the campus, such as private learning and breakout spaces.

Example 5: Wirral College, BCA Landscape



Public good/Private benefit

The campus will be not just about the University and its students, but how they as an institution sit within the town of Huddersfield. However, for optimising the site there must be a way to incorporate how the site can be beneficial to the wider public whilst being benefiting from these aspects.

The Southgate site has been an island of unused and underdeveloped space since the demolition of the Sports Centre. This has led to the site being an undesirable place for the public, creating a disconnection between the town centre and developments in the west at both Leeds Road and the Football stadium. The University campus on this site therefore provides an opportunity to re-establish a connection between the East and West (Station to Stadium), whilst also re-establishing a connection between the town centre and its historical backbone: the canal.

This re-connects the town centre to its heritage within the textile industry, whilst also physically providing members of the public with a more desirable link to the canal-side and developments on Leeds Road, as well as any future developments at the Football Stadium. The development of the Health Innovation Campus on the Southgate site is therefore beneficial to both the public locality of Huddersfield, as well as privately for University users.

There are several ways in which private and public aspects of the campus development can be defined in order to prevent anti-social behaviour. This could include way-finding, clever lighting and the creation of semi-private and private spaces throughout the site.

Example 6: Quartermile, Edinburgh



‘Sticky’ Campus

The idea of a ‘sticky’ campus is to create spaces which encourage students to stay on campus, spend their time in spaces during the day instead of going back and forth between home.

More than 50% of students at the University of Huddersfield live and travel from home to study. Therefore, it is of utmost importance that the campus creates opportunities for students to want to stay, engage and integrate with activities on campus.

‘Sticky’ spaces can include a variety of different options. Good workspace is key, allowing students options of where they can work comfortably during the day. This can be achieved through smaller student hubs in buildings throughout the masterplan, or various quiet work zones. Coffee shops, bars and cafés all play a key role in creating a sticky campus, as well as well designed public realm which allows students to want to be in the campus.

Example 7: Manchester Business School



The Manchester Business School refurbishment included new works to the public realm and creating active frontage onto this space. What was once disused back entrances to the school has now become a series of shops, cafés and restaurants which are used by students and the public. The area also accommodates a new public realm with a hotel nearby for use by the university and the public which has helped to active the area.

Example 8: UCLAN Student Social Spaces



The brief from UCLAN was to create social learning environments that were open, transparent and flexible and allow for a range of activities. The space encourages students to dwell and interact with each other on campus, and this social learning space provides a variety of opportunities to do that.

Example 9: UTS Alumni Green, Sydney



The University of Technology in Sydney offers a unique opportunity for students to socialise, learn and enjoy the campus. The alumni green provides spaces for play, seating and stretches of usable lawns. It was essential for the university that this space created a ‘sticky campus’. The space also provides free moving chairs and furniture so that its users can personalise the space for their own comfort.

3.6 Biophilia

The National Health Innovation Campus is a place which aims to promote health and well-being. Therefore, incorporating biophilia into the masterplan framework is a fundamental underlying strategy. Biophilia is humankind's innate biological connection with nature. Through the implementation of natural elements into a design, biophilic design can become a tool which contributes positively to our overall health and well-being.

Within biophilic design, there are 14 patterns which articulate the relationship between nature, human biology and the design of the built environment. Several of the these patterns have been integrated into the strategic framework of the National Health Innovation Campus.

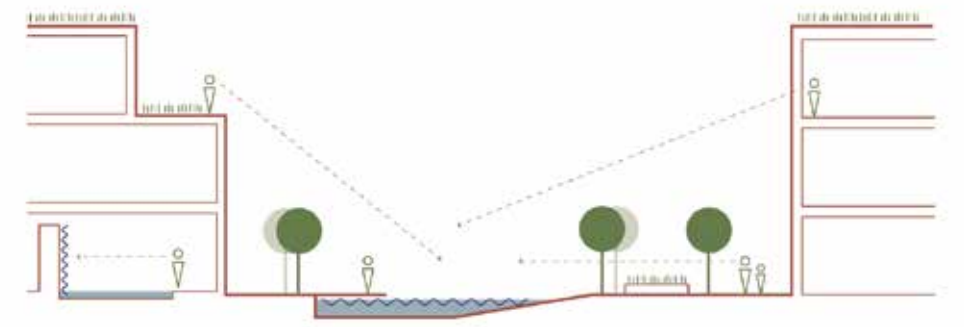
These strategies include both visual and non-visual connection with nature, each being just as vital as the other. Visual connection with nature encourages nature to be seen and experienced for the duration of the day, optimised by spatial layouts and proximity to nature internally and externally. Non-visual connection with nature encourages the sounds and sense of nature to be experienced, allowing for multiple senses to be engage throughout the day.

Another of these strategies is to establish a presence of water within the masterplan. Sounds and proximity to water can contribute positively to health and well-being - introducing moving/running water both externally and internally is encouraged.

To further enhance biophilic principles within the framework, biomorphic forms and patterns will be introduced. The objective of introducing biomorphic forms and patterns is to provide representational design elements within the built environment that allow users to make connections to nature. Precedent has been taken from the surrounding patterns that are evident throughout Huddersfield Town Centre - these patterns have been found within the local architecture, and translated into organic forms to be applied within the masterplan.

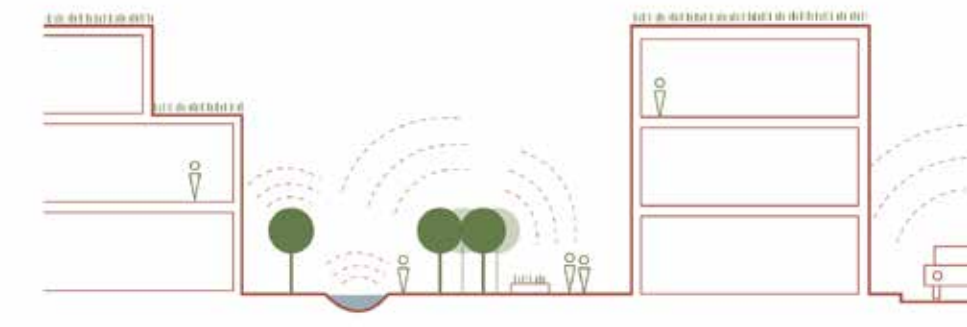
Visual connection with nature

- Real nature should be encouraged above simulated throughout the site and within buildings
- Biodiversity is prioritised above
- Activities should happen in proximity to green space
- Visual connections to be able to be experienced for at least 5-20 minutes a day
- Spatial layouts of buildings should optimise connections to nature
- Digital mediums of viewing nature can be incorporated where it is not as easy to introduce real nature or views.



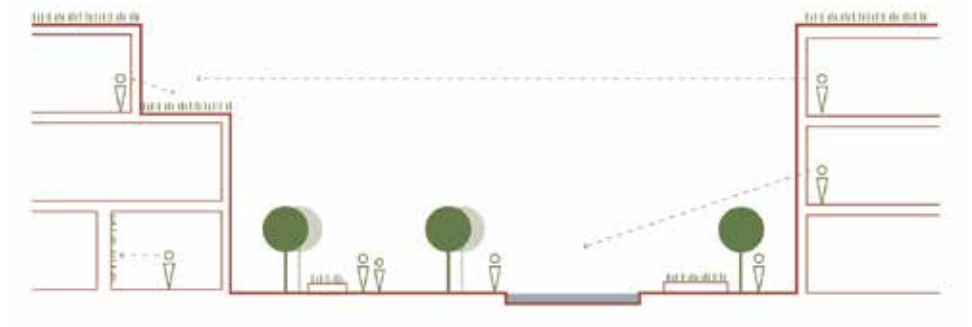
Non-visual connection with nature

- Nature sounds should be prioritised over urban sounds
- Introduced non-visual connections which can be easily accessed for one or multiple locations which allows for engagement for 5-20 minutes at a time
- Interventions should be able to be experienced in multiple ways, enhancing the impact of the experience
- Allow for visual and non-visual connections to be experienced simultaneously which can maximise the potential positive health responses



Presence of water

- The water experience should be multi-sensory to achieve the most beneficial outcome
- Water should be naturally fluctuating over predictable movement or stagnancy
- Features which are high volume or high turbulence can be disruptive so proximity should be considered
- Water features can be water and energy intensive, in line with the campus sustainability strategy this should be considered throughout the design of such features



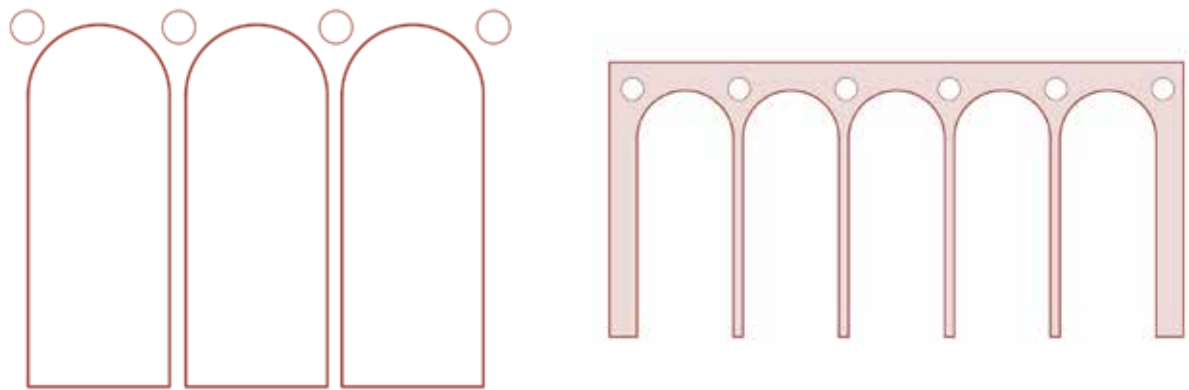
Biomorphic forms and patterns

The objective of integrating biomorphic forms and patterns is to provide representational design elements within the built environment that allows the user to make connections with nature and familiar environments. This connection enhances cognitive performance while helping to reduce stress and is therefore beneficial to the overall aims of the Health Innovation Campus.

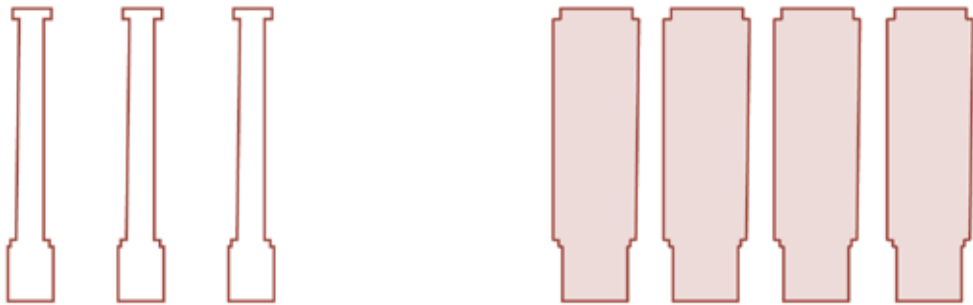
The patterns described throughout these studies could be used throughout the masterplan as either cosmetic decorative components, or as structural functional elements of a design. However, the application of these patterns should not be overused as this may lead to visual toxicity.

The patterns shown have been derived from key buildings around Huddersfield. This helps to create connection with the locality and provide a visual language which can be read across Huddersfield.

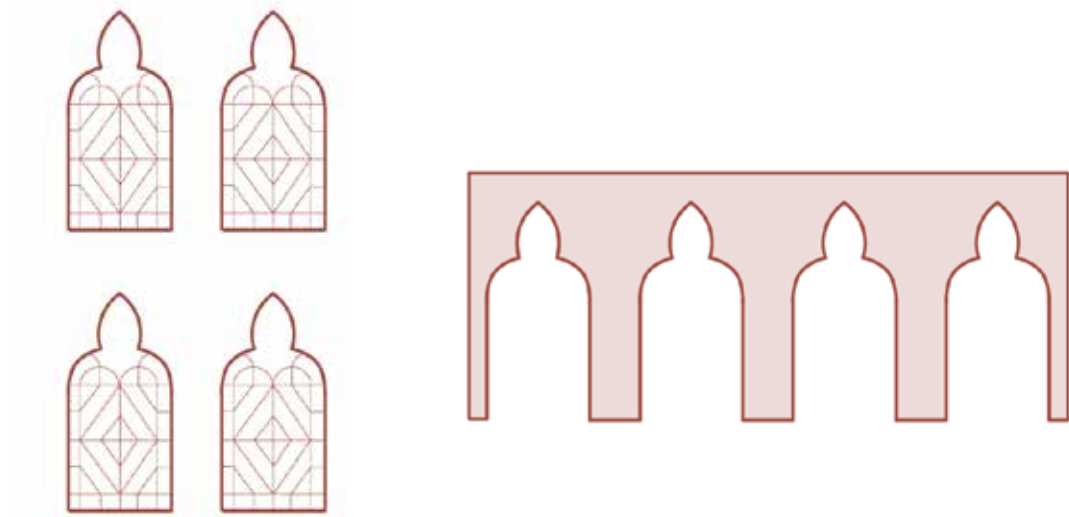
1. Huddersfield Open Market



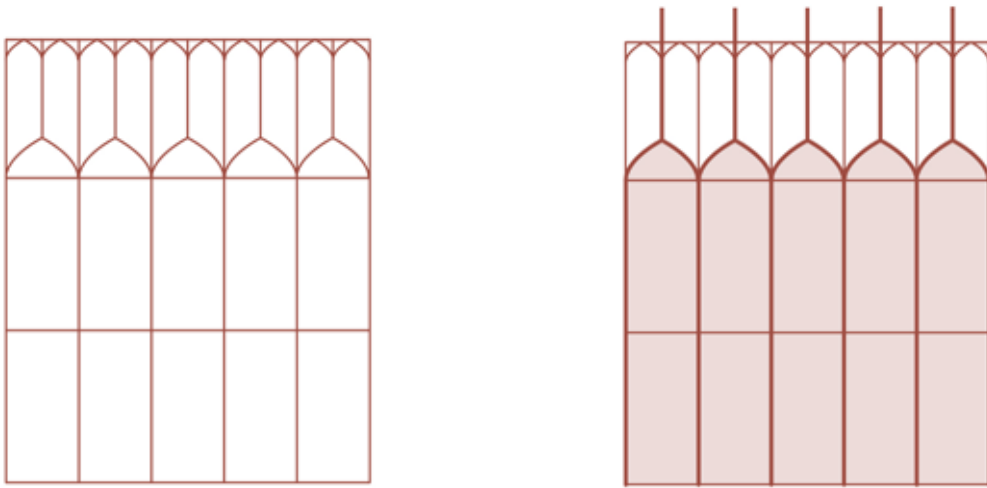
2. Huddersfield Railway Station



3. Ramsden Building, University of Huddersfield



4. St Peter's Church



3.7 Materiality

Existing materiality present throughout Huddersfield Town Centre have been considered carefully within the proposed National Health Innovation Campus Masterplan. This helps solidify the Campus’ positioning as both part of the wider University Campus, as well as a part of the Town Centre. The use of similar materials throughout the campus, similarly to the introduction of similar urban grain, helps to create a feel of familiarity throughout the site. This therefore creates a strong spirit of place within the overall campus.

These aspects have been combined with a materiality palette specific to the University Campus. This therefore allows the user to enter the site and immediately know that this location is a part of the wider University Campus.

Materiality in Huddersfield



Northumberland Street



Church Street



New Street



Market Street



Richard Steinitz Building,
University of Huddersfield



Media Centre, Southgate

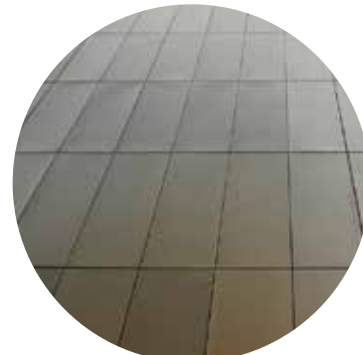


Public Realm, St Georges
Square



Public Realm, Huddersfield
Railway Station

Proposed Palette



Anodised Aluminium
Bronze Cladding



York Stone



Powder Coated Aluminium



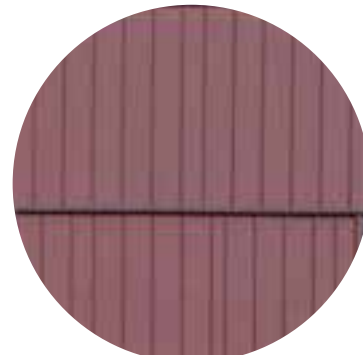
Glazed with fritted designs



Feature stone finishes



Locally sourced York paving



Coloured Rainscreen
Cladding



Aluminium Fins



Engineered Stone



Brise Soleil



Silver grey pre-cast
concrete slabs



Silver granite wide curbs
and trims

Street Furniture

The strategy for the street furniture ties into the existing strategy set out for the University of Huddersfield. The intention is to create a language for the University to connect the campuses. The material palette incorporates the values of health and well-being. Permeable paving has been introduced as a drainage strategy throughout the site, with the use of a natural materials to promote the connection back to nature.

Seating is provided in asymmetrical forms, creating a range of opportunities for sitting and observing. The asymmetrical layout also provides opportunity for integration between users promoting a more sustainable social campus. Lighting will be well considered across the site, to provide security and interest within the landscape.

Railings and Pathways



Modern Street Bollards



Enhanced Cycle Hub



Permeable Paving



Rain Gardens

Seating



Integrated Seating & Planting



Modern, Simple Street Furniture



Modern, Simple Street Furniture



Integrated Lighting



Modern Street Bollards



Modern Street Lighting



Simple Hand Rails



Simple Tree Grills



Integrated Planting



Integrated Seating



Integrated Seating & Planting



Integrated Seating & Planting



Modern, Simple Street Furniture



Integrated Lighting



Integrated Lighting



Modern Street Lighting

3.8 The National Health Innovation Campus

Pedestrian Boulevard

The pedestrian boulevard sits at the heart of the site creating a biodiverse thoroughfare, connecting key spaces and buildings within the masterplan. This representational collage combines the concepts, ideas and principles which have been set out within the framework, in order to imagine what this space could be like.



Pine Street

Pine street is a key artery into the site, providing a service route for buildings as well as key route through the site. The collage imagines this road with the implementation of key strategies from the strategic framework which will breathe life into the street, thus allowing it to become a green, pedestrian friendly area.



4.0 MASTERPLAN DEVELOPMENT

4.0 MASTERPLAN DEVELOPMENT

In order to develop the most appropriate design solution for the site, a series of explorations have been undertaken to support the design process. Each of the following design options applies a rule from the strategic framework and tests its theory on the site.

The options include;

- 1. Maximising the amount of plots
- 2. Maximising active frontage
- 3. Achieving 20% green space
- 4. Maximising streetscape with 12m wide floor plates
- 5. Achieving an enclosed core
- 6. Maximising private courtyards
- 7. 10,000sqft floor plates
- 8. Maximising plot size
- 9. Achieving 40% green space
- 10. Maximum street width 12m
- 11. Achieving levels of privacy

To illustrate the development process behind the proposed options for the Southgate site, as well as illustrate the ways in which they respond to Outline Planning Conditions, one option has been included within this chapter: **Option 8.**

Each option explores three further options which look at different conditions and how this would affect the site, these options are as follows:

A - Considerations of micro-climate

Development that considers site micro-climate, looking at placing taller buildings along the edge of the site and lower buildings at the core

B - Reduced massing to Old Leeds Road

Development that takes into consideration Local Authority aspirations for reduced massing along Old Leeds Rd

C - Total area of 75,000 m²

Development achieves a total area of 75,000 m² as granted by the outline planning permission

STH = Sustainable Transport Hub

The actual overall site development will be dependant upon specific building requirements as they come forward in the future so Option 8 is proposed indicatively at this stage to provide an idea and a contextual framework within which to progress.

4.1 MASTERPLAN OPTIONS

Option 8 - Maximising plot size

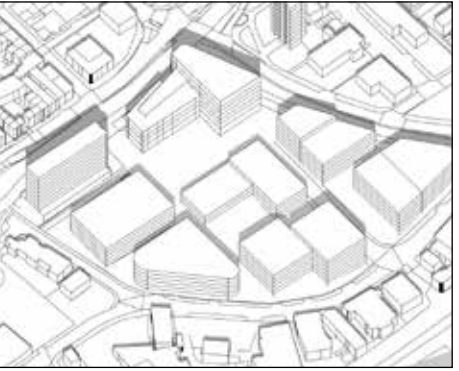
This option maximises the size of each plot allowing for maximum capacity on site. The option allows space for the public realm whilst allowing for larger, fewer plots across the masterplan. This is beneficial if fewer stakeholders want to engage with the site, and those that do require larger buildings.

Similar to option 7, this option provides greater flexibility for plot development due to the larger floor plates.

To achieve the consented 75,000m2 total development.



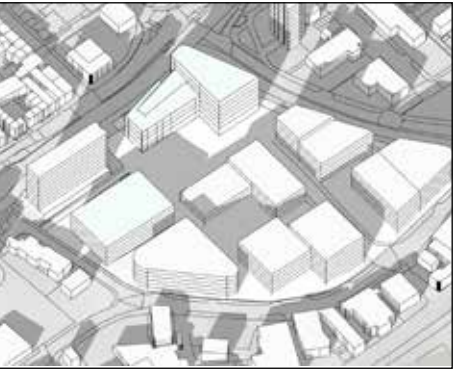
Sun Path



10am, June



3pm, June

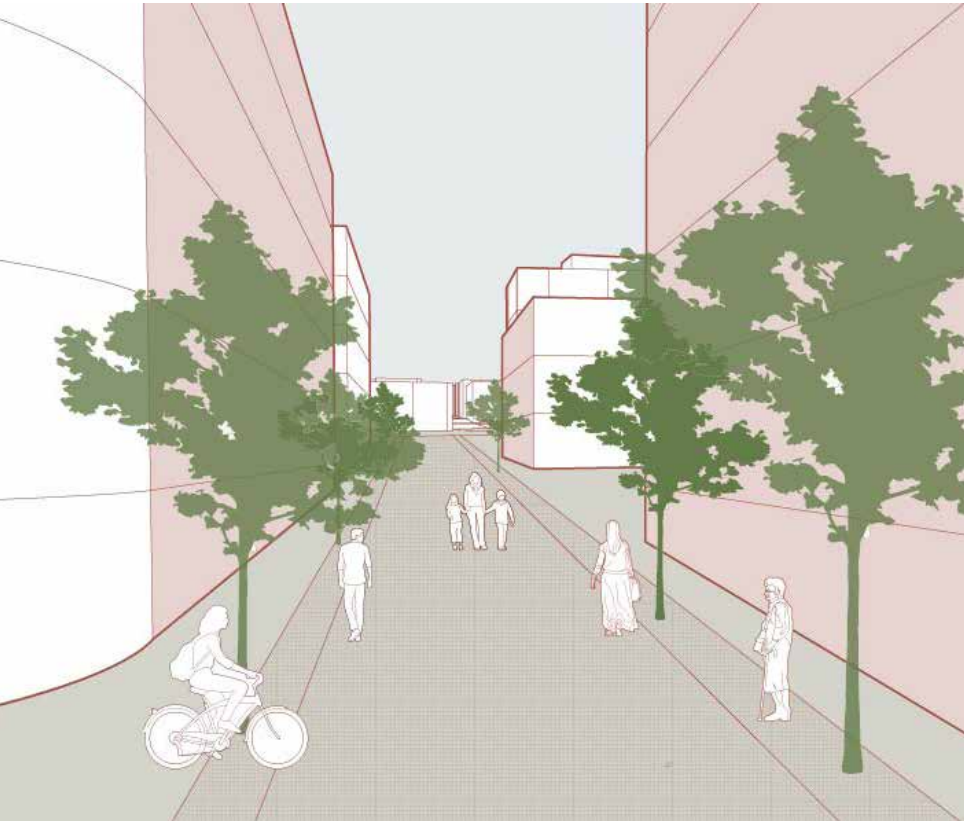


10am, October



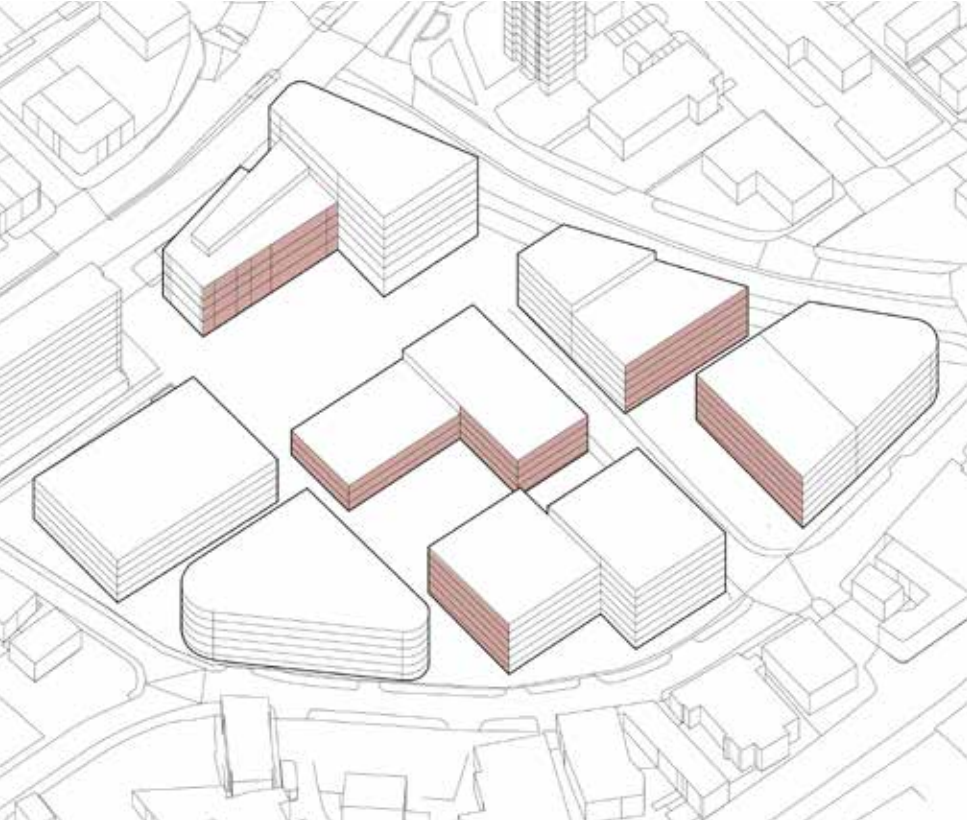
3pm, October

Perspective Views - Option A



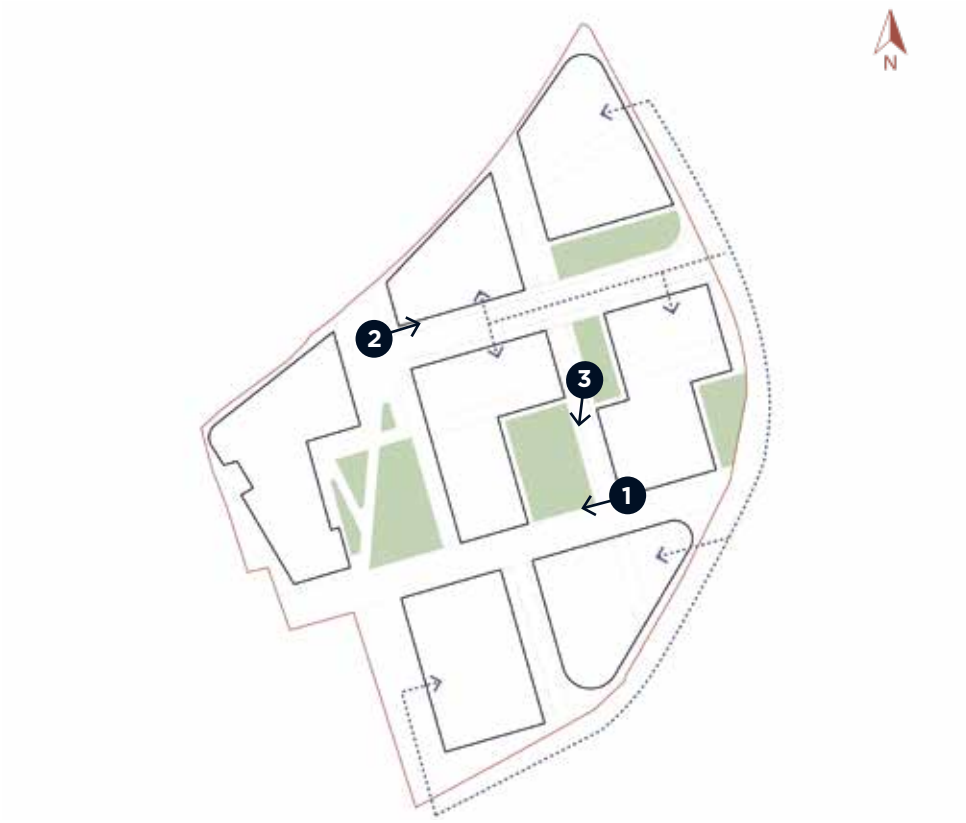
1. View down the pedestrian boulevard

Active Frontage

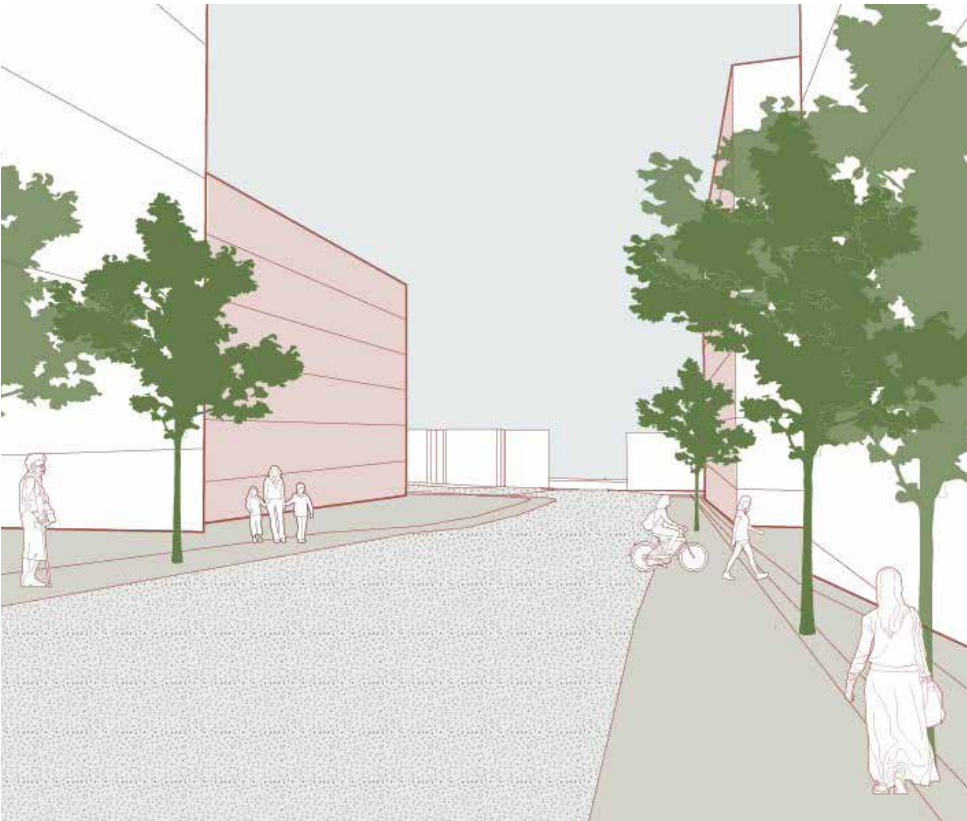


Active Building Frontage

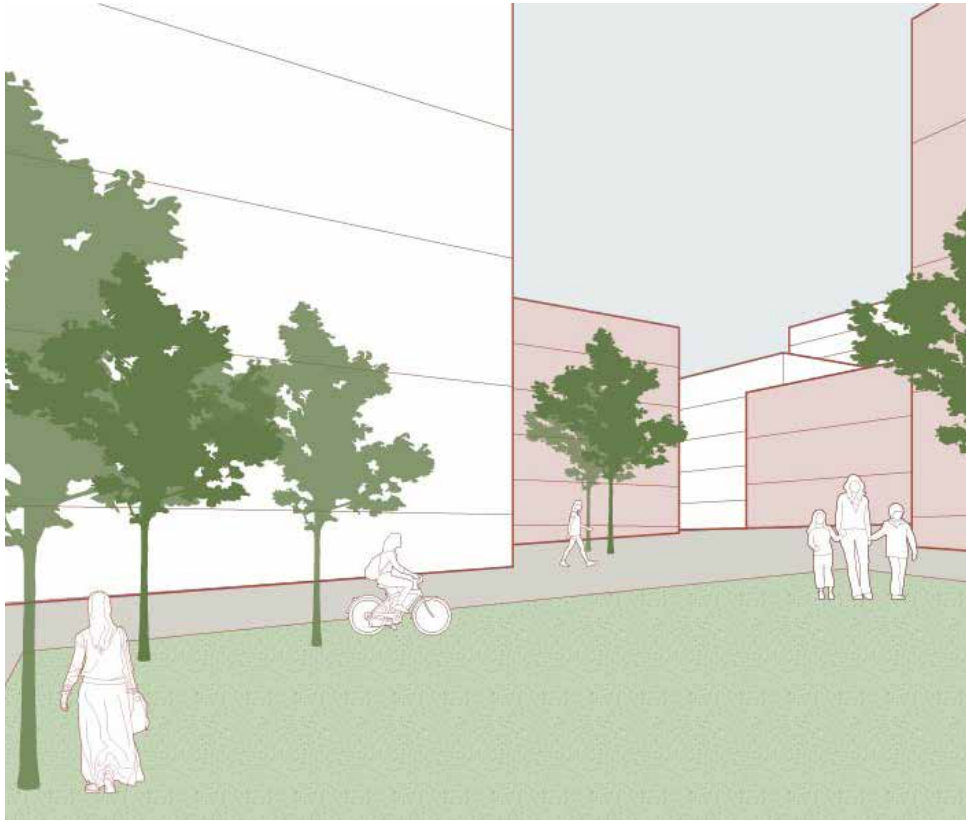
Access Strategy



Building Access



2. View down Pine St



3. View in towards Pine St

4.2 PHASING STRATEGY

A number of options have been considered regarding the phasing of the Southgate site, considering integrating the delivery of the public realm into the process of phasing, and encouraging these spaces to become connections into the proceeding phases.

This option of explores phasing the buildings initially along Leeds Rd to create an edge to the site. Once this edge of the site is completed, the Sustainable Transport Hub (STH) is explored as an option to support the buildings and occupancy which are on site already. The plots are then phased in from the core of the site to enclose the quad, and then out towards Old Leeds Rd. Throughout the phasing the key public spaces, pedestrian boulevard and Pine St are considered as to how they will be phased into the masterplan to create spaces for connecting the plots.

Each strategy creates options for temporary spaces which can be activated in a variety of ways. These are shown using the key below;

 Temporary Spaces



Phase 1



Phase 2



Phase 3



Phase 4



Phase 5



Phase 6

Temporary Spaces

When developing a masterplan, it can take several years until the vision is completely realised. In this transition time, some plots will be developing while others await development. This creates an exciting opportunity to utilise these temporary spaces in a range of different ways to provide local amenity and attract people to the masterplan before it is even complete.

The Southgate masterplan presents a variety of temporary space options throughout the phasing process. With this range of spaces, proximity to town and opportunities to engage with the student population, this presents a wide variety of opportunities for local residents and visitors.

Examples of what can be achieved on the site can be seen adjacent. These examples are all temporary spaces which have been set up for a range of different time scales to make the most of opportunities within the masterplan phasing processes. These examples illustrate event space, outdoor cinemas, bar and food hubs.



Homeground, Manchester

This temporary events space is part of Homeground in Manchester, set on a plot of land which is awaiting development. The theatre and events space holds events, concerts and performances. A temporary stage and seating has been erected for the summer.



Escape to Freight Island, Manchester

As part of the Mayfield masterplan development the site is currently being used as a temporary bar and food space. Some of the best food outlets in Manchester now have stalls here with plenty of outdoor and covered seating for those eating and drinking.



Homeground, Manchester

Another part of Homeground is the bar and food space. Food retailers park their temporary food trucks and a bar has been set up. Picnic tables are scattered throughout the site for easy sitting.



Screenfields, Manchester

Screenfields is an outdoor cinema in Manchester which was a pop up event throughout the development of Spinningfields. By using the public realm space as a cinema it attracted people into the area before the completion of the surrounding buildings.

5.0 CONCLUSION

5.0 CONCLUSION

In summary, this document has been collated in response to the requirements laid out by Kirklees Council in the Outline Planning Permission document, specifically concerning conditions 4, 5 and 6. An analysis of the way in which these conditions have been addressed can be found in section 5.1 of this document.

This comprehensive approach to establishing a unique set of principles and Design Code for the Southgate masterplan has been prepared through rigorously testing the principles against 11 overall design scenario/options, which each presented a differing set of constraints for the Southgate site. This allowed the team to test and refine how the strategic masterplan framework principles can be adopted to present spatial opportunities and contextual solutions for every scenario.

This masterplan has been prepared in a manner as such that does not attach prescriptiveness, but allows for maximum flexibility, responsiveness and design creativity as individual phases of the site's overall development come forward.

5.1 OUTLINE PLANNING RESPONSE - CONDITIONS 4, 5 & 6

CONDITION 4

4. A plan showing the phases of development shall be submitted to and approved in writing by the Local Planning Authority prior to the submission of any application for the approval of Reserved Matters. The phases of the development thereafter shall be carried out in accordance with the submitted phasing plan and any reference to phase or phases in the following conditions shall refer to the phases detailed in the plan thereby approved.

Reason: To define the scope of this permission and to provide clarity in relation to the progression of development across the site.

This is addressed in two options for the phasing strategy of the Southgate Site. These options can be found in Chapter 4.0 (pg 76-79).

CONDITION 5

5. As part of any reserved matters application for each phase, a Masterplan for the application site shall be submitted to and approved in writing by the Local Planning Authority. The Masterplan shall at least include the following details:

i. Define a clear structural layout of the new development, establishing the permeability of the public realm and establishing a clear pattern of gateways and streets/pedestrian route lined with trees;

This has been considered throughout each of the Masterplan Options and is demonstrated both in the conceptual collage images in Chapter 3.0 (pg 64-67), as well as the masterplan option development examples in Chapter 4.0.

ii. Positively address the ring-road network, detailing the strategy for boundary treatments along and the enclosure of the site, particularly to address the level-change across the site, vehicular access points and the hierarchy of site roads and gateways.

This is addressed throughout the Strategic Framework for the development of the Masterplan options, with a more detailed strategy to be outlined at planning stage.

iii. Illustrate the physical and visual connections to the site based on pedestrian desire routes into the site and across the town centre and to the existing University campus;

This has been considered diagrammatically throughout chapters 2.0 Contextual Analysis and 3.0 Strategic Masterplan Development.

iv. This would also need to include a consideration of pedestrian routes through the site to improve the area's permeability to other destinations such as the stadium;

This has been considered diagrammatically throughout chapters 2.0 - Contextual Analysis and 3.0 - Strategic Masterplan Development.

v. Focus external views from the town centre along Northumberland Street, ensuring that the specifications for the 'landmark building' (at indicative site 01) addresses the need to express the connections with the historic core;

This has been addressed in the planning application for the landmark site (Plot 01) - the National Health Innovation Building, as well as carefully considered in the development of masterplan options for the Southgate Site as a whole. Connections to the historical core of Huddersfield have been considered throughout the Contextual Analysis, as well as through a study of biomorphic patterns seen in Chapter 3.0 - Strategic Masterplan Development.

vi. Consider key views/focal points from the surrounding area, including from the canal (a key pedestrian/cycle route) looking towards the Railway Station;

Massing along Old Leeds Road and Leeds Road has been considered throughout the development of each masterplan option, as well as considering historical desire lines from the Canal to the Train Station and the utilisation of Pine Street, as well as through establishing a main pedestrian boulevard.

vii. Indicate how the proposed campus development would architecturally address the integration of Crown Buildings;

This is illustrated throughout the perspective studies for each Masterplan Option and has been carefully considered in the development of each option.

viii. Illustrate how vistas of key site gateways and internal nodes will be addressed to demonstrate active frontages and over-looked/passively controlled pedestrian/access areas;

An investigation into the active frontages and pedestrian areas has been completed for each masterplan option. This is illustrated through the perspective drawings of each, as well as being illustrated through shadow studies.

CONDITION 6

6. As part of any reserved matters application for the first phase, a Design Code for the whole of the site shall be submitted to and approved in writing by the Local Planning Authority.

Reason: To ensure that the development achieves high quality design across the whole site.

A strategic framework and design code for the Southgate site can be found in Chapter 3.0 within this document. The key concepts, materiality and street furniture outlines specifically relate to the Health and Well-being nature of the proposed National Health Innovation Campus and weaves related concepts throughout. A sense of place is thus established through reflecting the nature of the campus, creating a sense of individuality and permeability whilst retaining a feel of being a University Campus.

ix. Outline the service/operational requirements for the building blocks to be considered when determining whether façades of buildings are of sufficiently high-quality and function well, defining the public and private/service areas to maximise the permeability and vitality of the public realm.

This has been considered throughout each option, and has been illustrated in the diagrams showing active frontages and main entrances, as well as access strategy. The permeability of the public realm has been carefully considered within the design of each option.

x. Establish how the structural landscaping will define the public realm, while compensating for the loss of tree groups

This can be seen through the establishment of bio-swaales and clever landscaping. Environmentally conscious drainage systems in place throughout the site as well as semi-permeable paving and the incorporation of plants will define the public realm as well as compensate for the loss of tree groups and increase bio-diversity.

xi. Consider the opportunity to create tree-lined boundaries to Southgate, Leeds Road, and Old Leeds Road to define the edges of the campus site, with similarly expressed key gateways and access points.

The edges of the masterplan will be tree lined, this can be seen illustrated in the diagrams on phasing, seen in Chapter 4.0, pages 82 to 85, with a detailed plan to be provided in a later phase.

The details comprised in the reserved matters for each phase shall comply in all respects with the approved Masterplan.

Reason: To ensure that the development achieves high quality design across the whole site.



ARCHITECTURE /
BUILDING CONSULTANCY
/ INTERIOR DESIGN /
MASTERPLANNING
/ LANDSCAPE DESIGN /
VISUALISATION /
BIM CONSULTANCY
/ PRINCIPAL DESIGNER