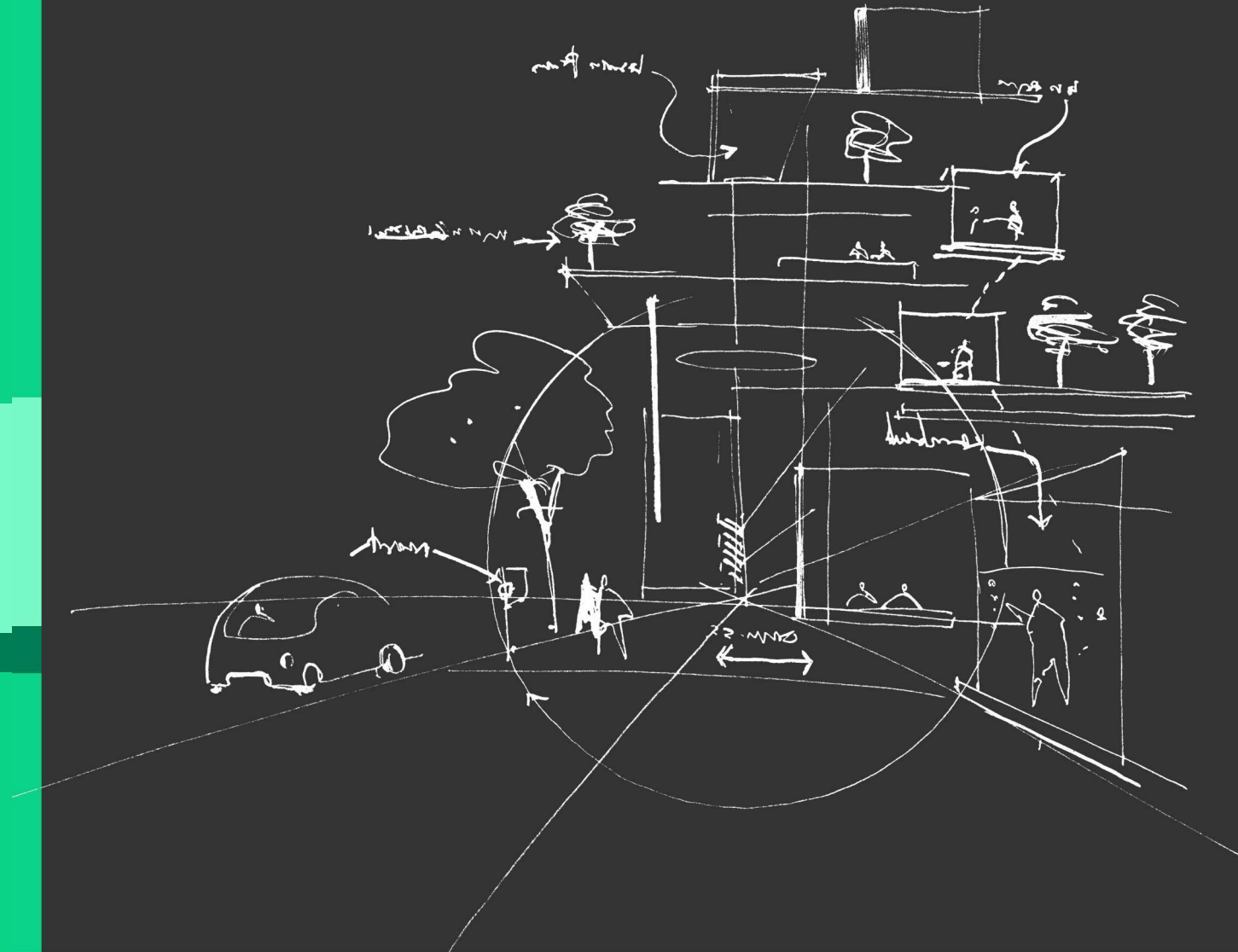


West Yorkshire Mass Transit

Approach to Placemaking



West Yorkshire Mass Transit Approach to Placemaking

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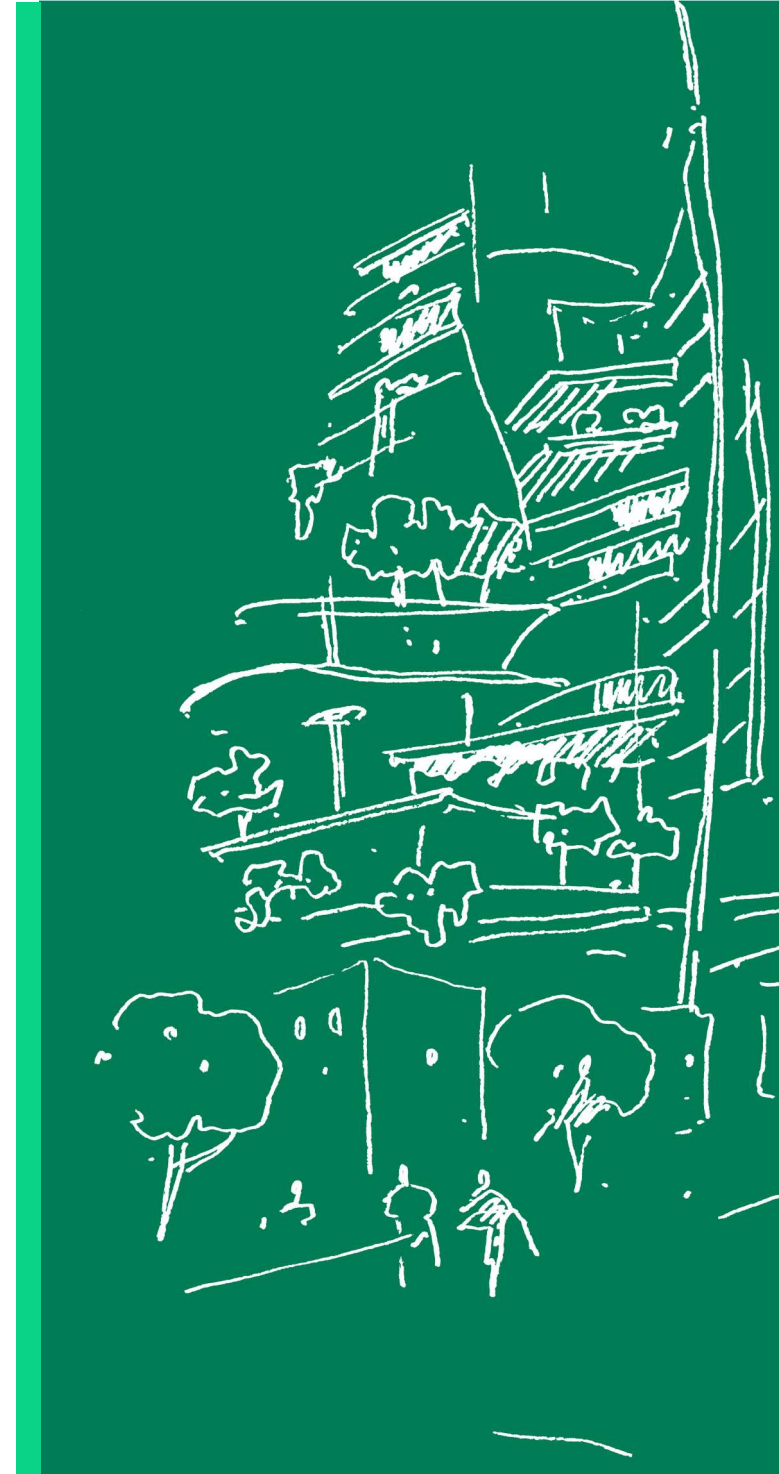
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1. Introduction

Our approach to placemaking puts people and places first, and this document sets out how this will be reflected through governance and design.

West Yorkshire Mass Transit Vision 2040

The West Yorkshire Mass Transit Vision is for a bold and ambitious new form of transport. Alongside walking, cycling, bus and rail, Mass Transit will help communities thrive, the economy to flourish and bring people and places closer together.

Mass Transit can:

- Help combat climate change.
- Connect West Yorkshire's important places.
- Help rebalance the economy.
- Improve health and well-being.
- Support economic recovery.

Understanding the places the Mass Transit system could connect is central to planning an effective and efficient transport system.

This Approach to Placemaking document sets out how a Mass Transit system can respond to the people and places it connects.

Placemaking and the purpose of this document

This Approach to Placemaking document will:

- Inform and set the approach to the design development work through the use of placemaking design principles.
- Ensure that Mass Transit works with the grain of local places to enhance their existing character.
- Steer the integrated design and business case teams to ensure the value of placemaking is prioritised in scheme development.
- Provide information on good green infrastructure and a placemaking design toolkit.

Structure of this document

Chapter 1 sets out the role of placemaking in delivering the West Yorkshire Mass Transit Vision. It refers to the four design principles set out in the Vision and how placemaking delivers on those design principles.

Chapter 2 sets out the Placemaking design principles that are to be used by designers, and how they are to be used to deliver successful placemaking. It refers to the need for inclusive design and for social and cultural values to be given due consideration.


Chapter 3 sets the Approach to Placemaking in the context of West Yorkshire providing an overview of the distinctive places and landscapes through which the Mass Transit system could pass.

Chapter 4 are the typologies which show how the Approach to Placemaking applies to different character areas/typologies. It sets out how the design principles are to be applied to the design, demonstrates the parameters and thinking beyond just the route, putting the proposals into a wider physical and social context.

Chapter 5 sets out the approach to green infrastructure and how the principles of connectivity and multifunctionality can be used to deliver a wider range of benefits.

Chapter 6 is the Placemaking Tool Kit which provides a high-level set of tools for use in the design development, capturing how the design principles are to be applied and to support the Vision.

Appendix A presents the Pilot Study and is a separate document. The Pilot Study was undertaken on the Bradford to Leeds corridor to test the emerging Approach to Placemaking on a corridor. The study assisted in the refinement of the placemaking design principles, established the need to present typologies and examples of how the placemaking design principles are to be applied to each typology, the need to draw out more information on green infrastructure in its broadest interpretation and to provide a high-level toolkit for designers.



"Our vision for West Yorkshire is to be recognised globally as a great place to live with a strong successful economy.

Where everyone can build businesses, careers and lives, supported by a superb environment and world class infrastructure."

West Yorkshire Mass Transit Vision – working draft for engagement, January 2021

The role of placemaking in delivering the vision and addressing the challenges

The West Yorkshire Mass Transit Vision 2040 sets out the objectives of boosting productivity, enabling inclusive growth and the need to tackle the climate emergency. The Vision also sets out the challenges associated with those objectives and what Mass Transit can do to overcome those challenges.

Our regional objectives

Boost productivity

Helping businesses to grow and invest in the region and their workforce, to drive economic growth, increase innovation and create jobs.

Enable inclusive growth

Enabling as many people as possible to contribute to, and benefit from, economic growth in our communities, towns and cities.

Tackle the climate emergency

Growing our economy while cutting emissions and improving our environment.

Our challenges

West Yorkshire's productivity is lower than the rest of the country. We need the economy to grow. We need to share better the benefits of growth.

West Yorkshire's population and the number of people working is forecast to grow. More people means more travel. We need new housing and new places for people to work.

Transport needs to add to people's quality of life, not detract from it. Traffic noise and congestion affect day-to-day lives. Traffic lights local communities.

Poor transport limits what people can do.

There is an urgent need to reduce transport's greenhouse gas emissions. Transport contributes to poor air quality. We need cleaner air.

Our Objectives for Mass Transit

Connect West Yorkshire's important places. Help people travel to jobs and education in a reliable, efficient and affordable way. Increase the job and training opportunities people can easily get to.

Support economic recovery. Improve connections between areas of housing growth and employment, education, health and leisure opportunities. Improve connections to new employment sites. Improve connections to new employment sites.

Improve health and wellbeing. Make travelling around West Yorkshire a more pleasant experience. Support improved public realm. Provide an attractive alternative to car travel.

Support levelling up and help rebalance the economy. Reduce transport barriers which limit travel horizons and so increase access to employment, education, health, leisure and other services. Improve connections to local and district centres. Be fully accessible to all. Support redevelopment and regeneration.

Help combat climate change, provide climate resilient infrastructure and improve air quality by being low emission and providing an attractive and sustainable alternative to car travel.

Addressing the challenges – the role of placemaking.

Here we show how placemaking can contribute to addressing those challenges.

Recognise important places – identify places and celebrate their social and cultural values.

Improve connections – homes, employment, education, health and leisure are identified as distinct places.

A pleasant experience – deliver locally distinctive public realm enhancements which are welcoming, attractive and stimulating, and improve health outcomes.

Reduce transport barriers – Mass Transit to connect where people live and want to go and eliminate barriers between transport modes.

Connectivity – improve connections beyond the 'stop' as part of a seamless network of active travel in adjacent areas.

Accessible to all – overcome physical, social and cultural barriers.

Development – respond to and influence redevelopment and regeneration plans and proposals.

Carbon Zero – create attractive and welcoming places that make sustainable travel a natural first choice.

The four design principles

The four design principles set out within the West Yorkshire Mass Transit Vision have been shaped by the goal of creating a 21st century transport system which helps meet the priorities of tackling climate change, boosting productivity and enabling inclusive growth.

How placemaking delivers on those principles

Mass Transit will be a new form of transport for West Yorkshire. It will be integrated into the urban fabric of every community it serves.

The Approach to Placemaking has an important role in delivering on the four design principles as set out below.

People first

- Designed for people
- Reflect the diverse communities
- Inclusive safe spaces
- Enjoyable and stimulating

Environmental responsibility

- Attractive alternative to private vehicles
- Resilient
- Landscaping, biodiversity and green infrastructure
- Health outcomes

Better connected

- Integrate services
- Ease of use

Celebrating West Yorkshire

- Celebrate the place
- Enhance urban spaces
- Respect neighbourhoods
- Symbol of pride

West Yorkshire Mass Transit Vision 2040

A new transport system to support the Northern Powerhouse

Our four design principles

People first

- Designed for people of all ages and abilities, and safe and secure for all.
- Reflect the region's diverse communities and cultures.
- Easily accessible low-floor vehicles with multiple doors for quick and easy boarding.
- Inclusive safe spaces around stops.
- Affordable, easy to use, enjoyable and stimulating.

Environmental responsibility

- Zero-emission at the point of use.
- An attractive alternative to car travel.
- Infrastructure resilient to climate change.
- Landscaping to promote biodiversity, improve air quality and overall health.
- Sustainable management of surface water.

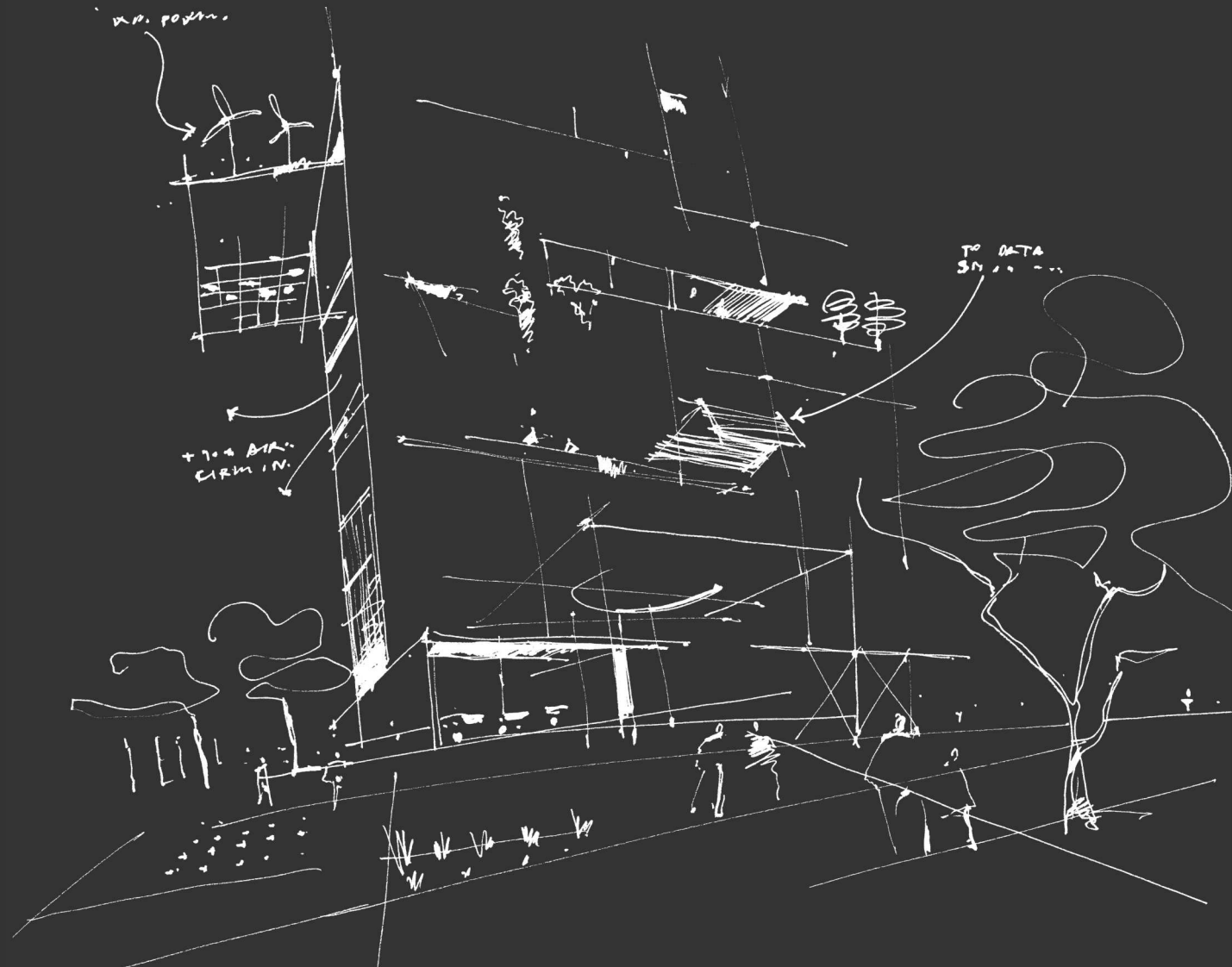
Better connected

- Integrated with local bus services. Bus and Mass Transit will share infrastructure where needed and practicable, while avoiding competition.
- Connected to local rail services, yet independently operated. Link to HS2 and Northern Powerhouse Rail.
- Cycleways that complement Mass Transit routes.
- New and enhanced Park & Ride.
- A sense of permanence and ease of use.

Celebrating West Yorkshire

- Celebrate our built and natural environment.
- Add to, and enhance, our urban spaces and support regeneration.
- Respect existing spaces and neighbourhoods, building on their strengths.
- Build and retain skills.
- Be a symbol of pride for West Yorkshire.

2. The WYCA Mass Transit Approach to Placemaking



2. The West Yorkshire Mass Transit Approach to Placemaking

Introduction

This chapter sets out the Approach to Placemaking principles which have been written specifically for the West Yorkshire Mass Transit system. They are derived from the Vision, objectives and the four design principles discussed in the previous chapter and set out how placemaking supports the delivery of those objectives.

The Approach to Placemaking principles requires a collective and multi-disciplinary approach, identifying opportunities to strengthen the connections between the people and the places they use and share.

This Approach to Placemaking emphasises the need to consider the physical environment and the social context. Good placemaking pays particular attention to the cultural and social identities that define a place, as well as the physical place.

The Approach to Placemaking principles set out on the following pages cover three main aspects:

- Process.
- Physical and cultural environment.
- Social and cultural values.

In evaluating public spaces around the world, the Project for Public Spaces (PPS) has found that to be successful, they generally share the following four qualities:

- They are accessible.
- People are engaged in activities there.
- The space is comfortable and has a good image.
- It is a sociable place where people meet.



What makes a great place – Project for Public Spaces



Social and cultural values

It is important to undertake research based on the different demographics that reside within the corridors and in the surrounding areas. The information collected should ask what those people find important, what do they like about their local area, what do they think is missing, and what potential does the Mass Transit system have for them.

Groups to be consulted should include people from a range of different ethnicities, ages and genders alongside people with all types of disabilities to understand the different causes of deprivation within each area. This is an important link between the approach to placemaking and the approach to equality, diversity and inclusion.

Engaging with groups effectively will draw out local knowledge with the potential to add social value from the scheme to local communities. There may be 'hidden' value in the design that could be made more prominent or captured to knowledge share with others.

It will be important to maintain stakeholder engagement throughout the process to ensure the Mass Transit system achieves its maximum potential and leaves a lasting legacy. The delivery of Mass Transit will be a long-term project.

The Mass Transit system guidance, as set out in the Approach to Placemaking and Design Philosophy, will give due weight to the environmental and social values of the system so that those values are captured, measured and are understood in their broader and long-term context.

Design solutions should be culturally relevant to their context. In some cases, spaces will need to be seen within a city, town or neighbourhood context and the designs should respond to the identity of that city, town or neighbourhood. The design of spaces should also respond to the aspirations of the people who will use the place, reflecting their social and cultural values.

Culture

heritage, history, events



The scheme should enhance or blend with what already exists, make the design specific to distinct areas.

Diversity & Inclusion

equality, age, values



Research should inform the the Mass Transit system team on who will be using the facilities the most at different points along the route.

Facilities

museums, galleries, places of worship



The scheme should raise awareness of the communities' social and cultural values and positively impact the places that exist.

Identity

tangible and intangible



Understand the factors that influence the perception of places and how the scheme can make a positive impact.



Process

Governance will:

- Establish shared placemaking objectives and values across all authorities and departments.
- Understand that an urban Mass Transit system must sit within the broader outcomes of the regional context.
- Consider placemaking objectives as equally valuable as the transport objectives.
- Promote collaborative working across disciplines.

Community engagement will:

- Ensure the needs, aspirations, health and well-being of all are considered at the outset.
- Draw upon the talent, knowledge and assets of the various communities, providing insights into the functioning of spaces and the potential opportunities.
- Engage with stakeholders, partners and representatives from all the different groups in society, and maintaining this throughout so the Mass Transit system, achieves its maximum potential and leaves a lasting legacy.
- Ensure that the community are involved in the development of proposals and is able to influence the design vision such that they feel that the places are for them and help to meet their needs. This will also create, integrate, protect and/or enhance a sense of community and promote equality.
- Ensure that the community is able to work with the Mass Transit system teams to identify issues and to be able to overcome obstacles.

Partners

The Mass Transit system engages with a wide range of partners and stakeholders delivering additional value, notably around culture, diversity and identity by including local institutions, museums, schools and others.

Environmental and social value

The Mass Transit system guidance, as set out in the Approach to Placemaking and Design Philosophy, will give due weight to the environmental and social values of the system so that those values are captured, measured and are understood in their broader and long-term context.

Physical and cultural environment

Health and Wellbeing

- The Mass Transit system will deliver a range of health and well-being benefits including access to safe, reliable and economically viable transport choices.
- Physical activity is supported by high quality walking and cycling provision for all.
- Streets, public spaces and the public realm, are well defined, welcoming, safe, inclusive and accessible to all.
- Existing and proposed places provide opportunities for community development, local business growth and access to jobs, services and facilities via walking, cycling and public transport.
- Places are provided with natural features to promote biodiversity as well as green spaces to support good mental health, stimulation and contribute to improved air quality.
- The Mass Transit system will help connect the uses and activities listed above within the region and at a neighborhood scale.

Connectivity

- Mass Transit is one part of a seamless network of active travel and movement choices.
- Well designed and safe active travel routes are provided to connect people to the wider active travel and public transport network, and public transport stations alongside stops to avoid dependence on private motor vehicles.
- The Mass Transit system connects where people live to places of work, services and facilities.
- The Mass Transit system connects existing places and promotes opportunities for social interaction and a range of activities for all people.
- Stops and interchanges are positively integrated and well connected to adjacent streets and spaces.
- The Mass Transit system reduces the need to travel by car from new developments by promoting good walking and cycling connections between the Mass Transit system and new developments.
- New development proposals are adapted to accommodate the mutual benefits of the transport system.

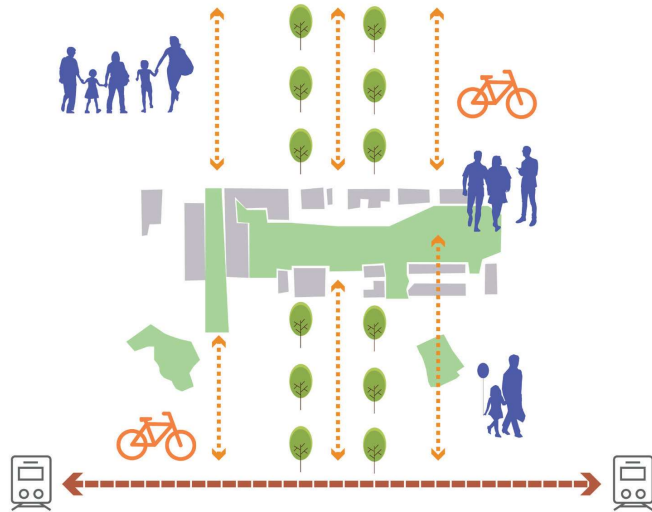
Identity

- It is important to understand how an existing place works, its physical attributes, community and cultural resources. This ensures that the positive and distinctive qualities of a place are valued, respected and supported by the system.
- Work with communities to identify, protect and enhance their local assets and unique features.
- The system supports places with a mix of uses and tenures to help support a diverse community and vibrant public realm which are well used by all throughout the day.
- The system identifies and supports individual places to generate a range of activities with a full range of opportunities for social interaction which is inclusive.
- The system supports or generates a series of great places, at all scales, from across the region and along individual routes.
- The unique features, particular sensitivities and opportunities are identified and responded to in a positive manner.
- The design of streets and spaces recognises cultural diversity and responds with a distinct identity which covers both physical and social attributes.
- The system retains or creates space by buildings with active edges such as shopfronts, to encourage a range of activity within the streets and spaces.
- The physical character of the area is assessed fully and understood so that the system retains and develops the existing distinct character including density, form and materials.

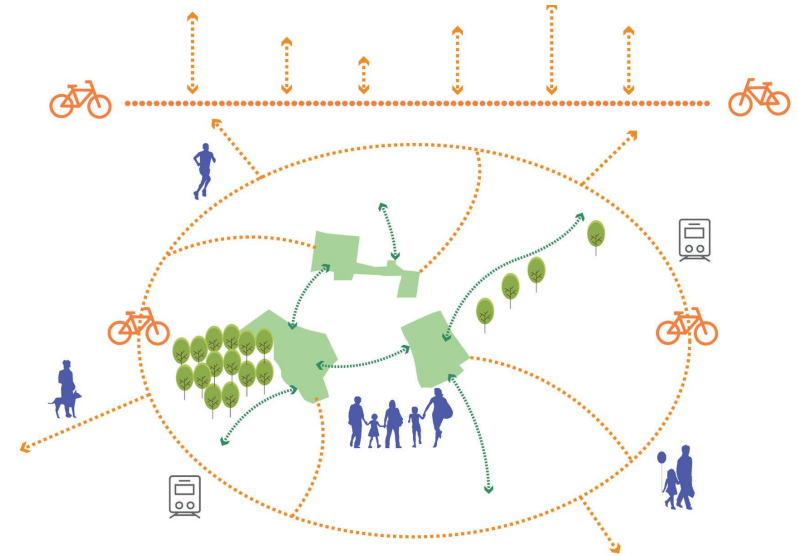
Adaptable & Resilient

- Green infrastructure including wildlife, is considered in its broadest context from the outset and well-integrated through the whole system.
- New green infrastructure needs to form part of a continuous network improving links between fragmented natural or man-made assets.
- Adaption to climate change is considered from the outset and sustainable design principles are adopted through the whole system.
- Management of places is considered early so that solutions are robust and durable.
- The system seeks potential long-term flexibility within the design to adapt to changes of use and movement where possible.
- Small interventions are just as important as the bigger components of the system as they all need to work together.
- The system considers short term trials and interventions to test solutions.

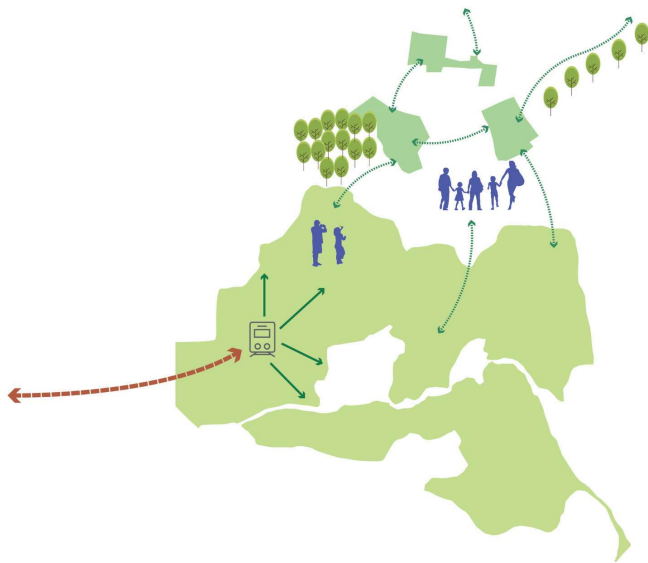
Applying the principles



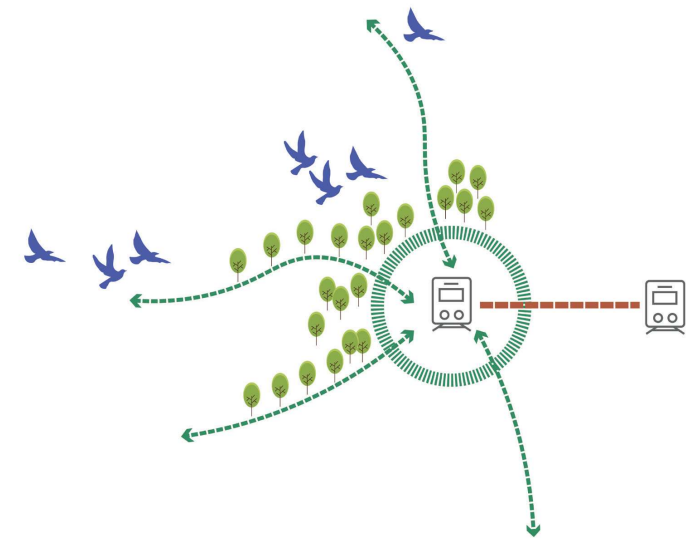
Consider secondary streets and the wider context. Subtle changes and enhancements could in turn bring transformational change to an area, as part of a phased long term plan.



Consider a web of attractive cycle routes which connect residential areas with leisure and employment opportunities.

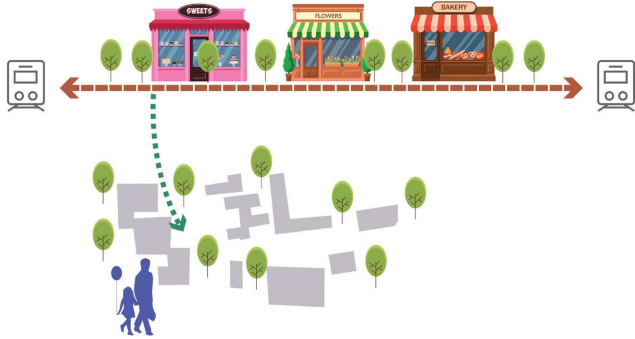


Mass Transit could enhance access to green infrastructure across a green space network, as well as out to the wider rural environment.



Mass Transit could support green infrastructure, environmental enhancement and biodiversity net gain targets.

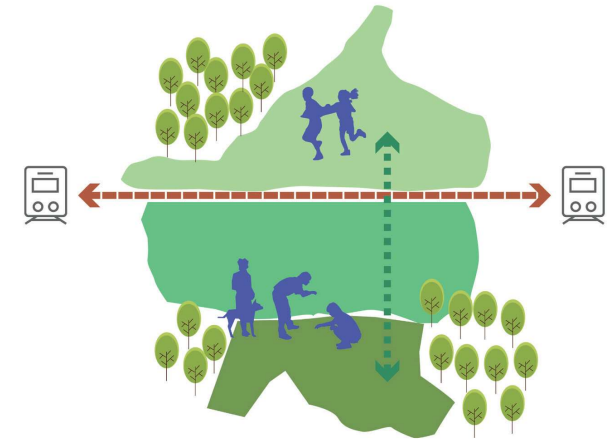
Applying the principles



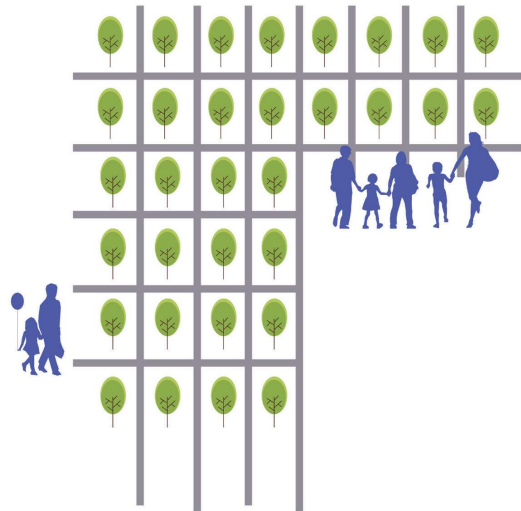
Mass Transit could enhance access between residential areas and local centres.



Consider existing parks and open spaces as well as the existing footpath and active travel network all of which could be enhanced and connected.



Existing parkland needs to be sensitively incorporated within the proposals and could, in some instances, be extended.



Tree planting contributes to slower vehicle speeds in densely populated places.



Consider communities: diverse cultures and people of all generations. Think about their daily, weekly and occasional journeys: for work, leisure, to/from school and to key services, interconnectivity with public transport choices.

Applying the principles



Enhance the connection between communities and the local environment. Understand new development areas and incorporate residential and employment land as part of the route.

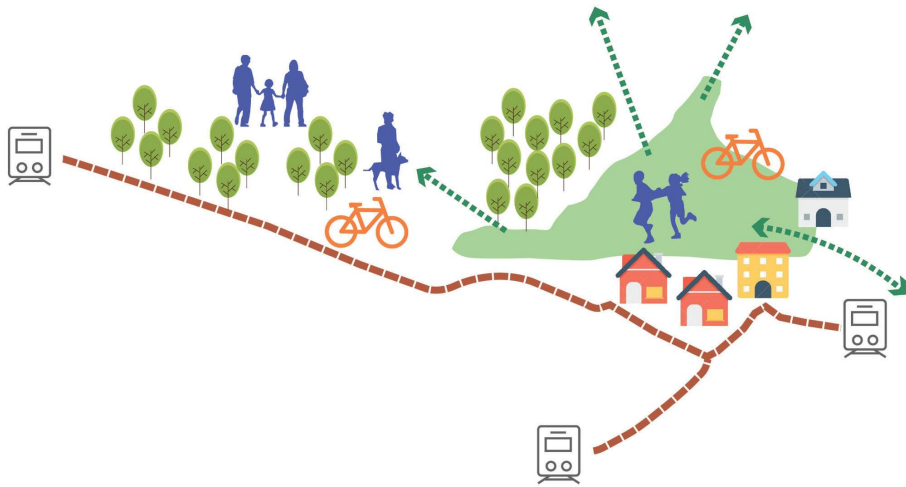


Think holistically how existing local centres could be improved sustainably as part of the project.

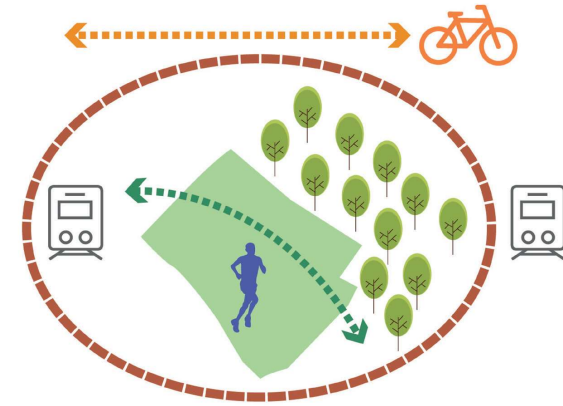


Celebrate existing cultural assets and break the ring of current road infrastructure which forms a barrier to movement within the city centres. Improve the setting of heritage and cultural places which provide a hub for social interaction.

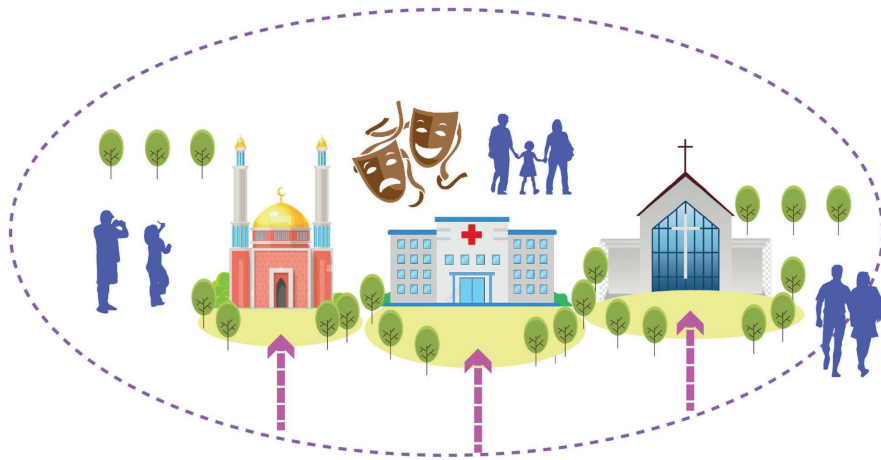
Applying the principles



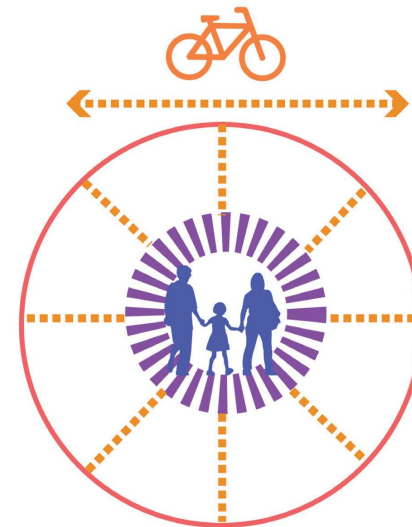
Local centres are important but the places between them also need to be considered. Some of these areas are existing and others form a part of future growth plans across the region.



Safe, attractive routes throughout the seasons could reduce reliance on private motor vehicles.



Enhance access to local facilities. Develop the setting of important cultural and heritage assets.

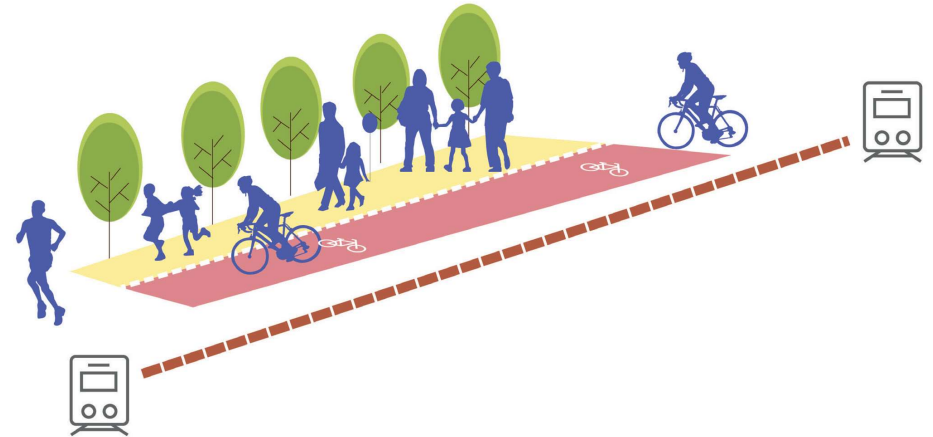


Create vibrant local centres which can be easily accessed by pedestrians and cyclists.

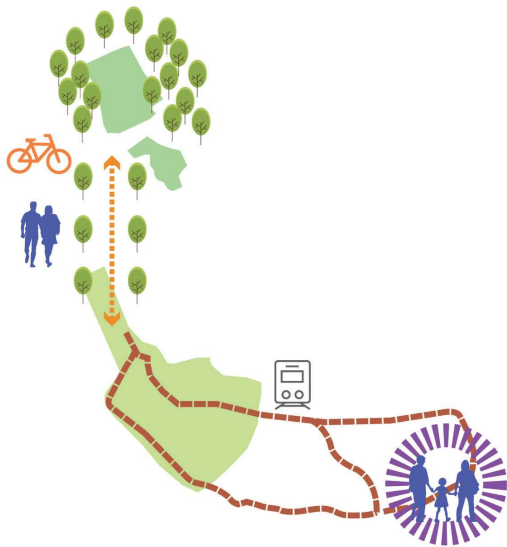
Applying the principles



Take advantage of land and townscape features which characterise the local environment: exploit views out to the valleys, for example. Connect with networks such as the green-ways.



Prioritise pedestrian and cycle focused environments as part of the corridor design.



Place community health and social well-being at the forefront of the design. Focus on the relationship between people and place.



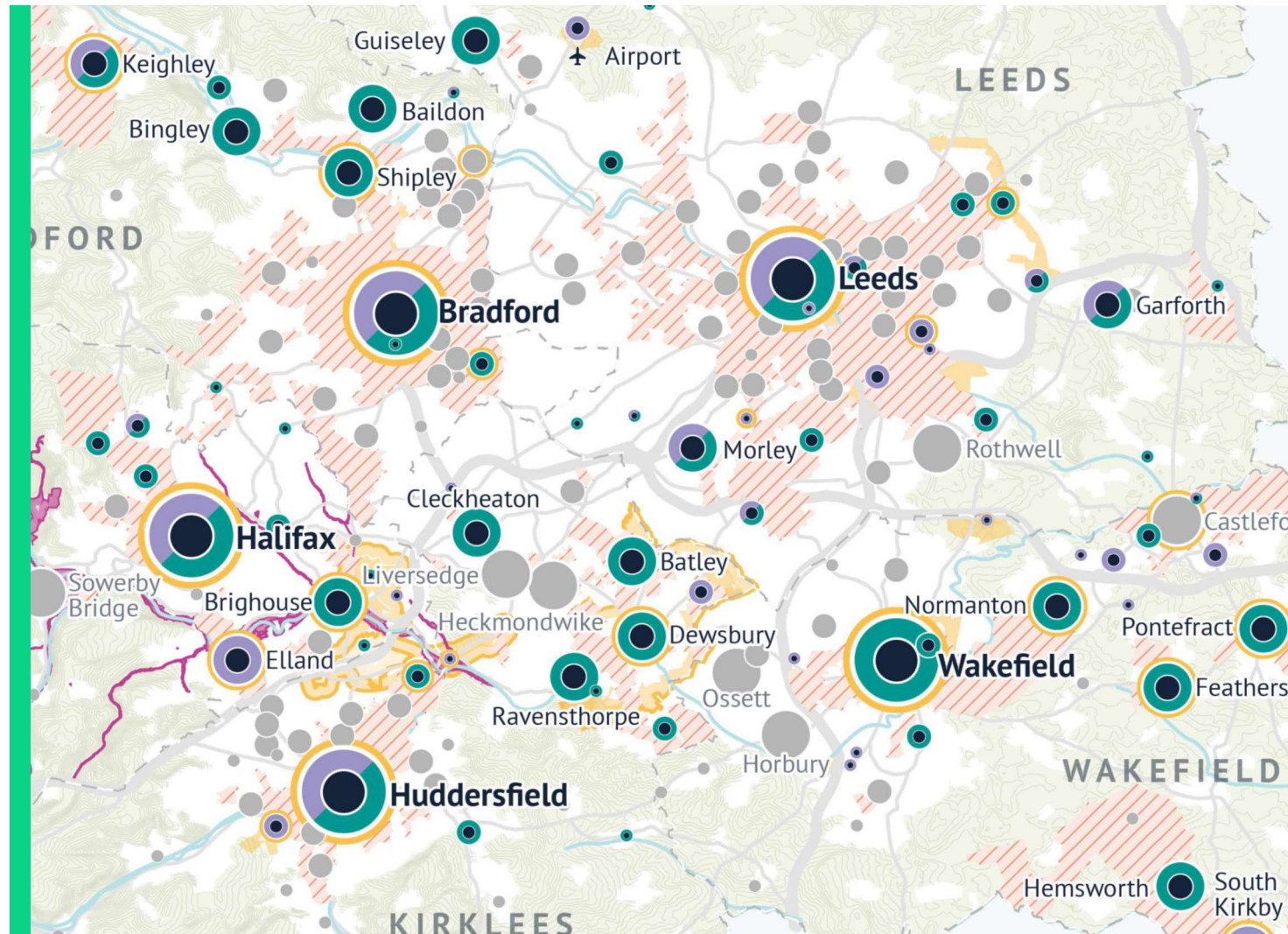
Opportunity to enhance existing local centres and high streets. Activate frontages and create space for outdoor seating and activities.

3. West Yorkshire



3. West Yorkshire

West Yorkshire is a diverse region – both geographically and socially. Topography, geology, settlement patterns, landscape & townscape character, vegetation, and communities all vary significantly. Within this chapter we seek to define the essence of ‘place’ as a basis for understanding what is distinctive about the area, and to ultimately define the characteristics and identities of the sub-areas that collectively contribute to the whole. This is important in order to recognise the regional variations and to acknowledge that a ‘one size fits all’ approach is not considered appropriate when adopting a wider approach to placemaking.



Extract from WYCA Mass Transit Vision document

Understanding the Place

The inherent sense of place is shaped by landscape, industrialisation (a product of the landscape) and by social and cultural influences which add a patina of identity.

Generally, the topography descends from the high moorland terrain of the South Pennines to the west down towards a flatter, more gently rolling topography to the east. The valleys of the Pennine foothills are dominated by former textile mills and associated industrial townships. Beyond the central band and the suburbs of Leeds, toward the east the landscape and towns are shaped by the coal mining industry, to the southwest by agriculture and rural settlements and to the north east by the Vale of York. Despite being outdated, the The National Landscape Character Assessments (NCAs) are a useful starting point to broadly define areas of distinct character. We have divided the area to be potentially covered by the Mass Transit network, into two broad separate areas based on a range of factors which include:

- Topography
- Geology and soils
- Trees and woodland
- Field patterns and boundary features
- History of the area
- Settlement and development patterns
- Roads, railways and rights of way
- Commonly used building materials and building design

There are two main character areas across the network area (see Chapter 5):

1. Yorkshire Southern Pennine Fringe
2. Yorkshire Coalfield: Wakefield & the five towns

Each of these areas has been assessed both in respect of inherent landscape and townscape character, existing placemaking objectives and placemaking strategies and guidance.

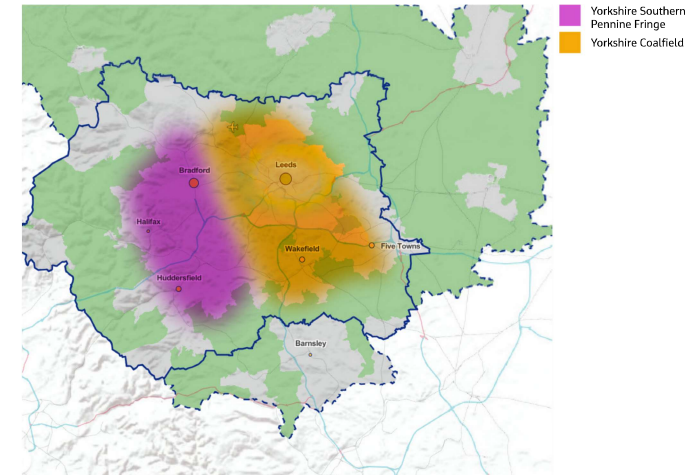
These, combined with fieldwork have enabled the identification of a more nuanced approach to placemaking which responds to the specific character traits, identities, constraints, and opportunities that each area presents. The objective here is to maintain the distinctiveness and identity of these areas and not impose a 'one size fits all' approach.

These areas include two distinct urban centres: Leeds and Bradford and a number of significant towns and local centres.

Therefore, for the purposes of placemaking we have divided the region as follows:

1. Yorkshire Southern Pennine Fringe: Bradford, Calderdale, and Kirklees
2. Yorkshire Coalfield: Wakefield & the five towns
3. City of Leeds
4. City of Bradford
5. Town centres, local centres and commercial areas (including out of town retail)

The following pages illustrate examples of how these variables in landscape/townscape character, materiality, vegetation, topography, and social and cultural variations can be harnessed to maintain sense of place and the unique identities which make up the West Yorkshire region. It is intended to act as a guide for planners, designers, and stakeholders and to influence decision making during the design phases of the Mass Transit project. The opportunities for placemaking presented on the following pages are general.



Character area map

Typologies: Nodes



City Centre



Town Centre



Local Centres



Commercial

Yorkshire Southern Pennine Fringe: The Wider Landscape

The most striking aspect of the landscape is the mingling of predominantly 'gritstone' industrial towns and villages with the strong valley forms and pastoral agriculture of the Pennine foothills. The gritstone industrial buildings and settlements bring a sense of visual unity to the landscape and townscape. The landscape is dominated by industrial buildings and structures such as factories, chimneys, railways, and canals. Travellers crossing the landscape from west to east experience a change from pastoral treeless hill tops, where drystone walls are the predominant field boundary, to wooded valleys, where large urban settlements such as Bradford, Huddersfield and Halifax are focused in the valleys and were built up around the former textile industry.

The district is serviced by major roads, including the M62 and M606, which in turn influences the surrounding landscapes, particularly on tranquillity and perceptual qualities. The urban expanse of the area includes the main centres of Huddersfield, Halifax, and Bradford together with a number of smaller, settlements of Brighouse, Batley, Dewsbury, Heckmondwike, Elland, Cleckheaton, Bingley and Keighley. Away from the larger urban settlements, some small villages of a traditional gritstone character remain. Most of these settlements have their roots in historic mill towns and mining heritage. These settlements comprise a distinctive gritstone vernacular and cobbled streets containing a complex mix of buildings, which are generally arranged in a linear fashion along roads tracing the contours of the valleys, and so have the effect of dividing the area into a particular pattern of predominantly linear spaces. This linearity of urban form is further emphasised through historic rail and canal transport routes, such as the Leeds-Liverpool canal, Calder-Hebble Navigation, Huddersfield Broad Canal, and the Huddersfield Narrow Canal.

Sources:

- National Landscape Character Assessment, 37 Yorkshire Southern Pennine Fringe, 2010.
- Kirklees Landscape Character assessment, 2015.
- Calderdale District Landscape Character Assessment and Review of Special Landscape Area Designation, 2016.
- Bradford City Council, Landscape Character Supplementary Planning Document Introduction and Methodology.

Cultural/social indicators:

- Varied townscape in respect of condition and opportunities for regeneration.
- Diverse multiculturalism evident across the area – particularly in the former industrial towns e.g. Bradford, Dewsbury, Batley, and Huddersfield.

Materiality:

- Gritstone, sandstone & granites.
- Mixed deciduous woodland, upland/moorland species mixes.

Opportunities for Placemaking:

- **Health & Wellbeing:** Introduce healthy streets through opportunities for active travel – improved walking environment and cycling infrastructure.
- **Connectivity:** Underinvestment in walking and cycling infrastructure mean there is a good opportunity for contributing to an improved wider connectivity network, linking key destinations means new regeneration/redevelopment opportunities.
- **Identity:** strong sense of heritage and strong multi-cultural influences are to be celebrated and brought to the fore.
- **Resilience:** Green infrastructure noticeably absent from the urban environment – opportunities for street greening, potentially linking to the wider natural environment setting, plus appropriate integrated Sustainable drainage systems (SuDS), are to be explored.



Yorkshire Southern Pennine Fringe: The cities and towns

This character area covers a large swathe of West Yorkshire and captures towns and cities including Huddersfield, Halifax and Dewsbury as well as smaller towns like Elland, Brighouse, Mirfield and Batley.

These places have strong individual identities although many settlements are joined or are only separated by a relatively narrow area of Green Belt. Each place has its own distinct features and attractions. These relate to employment, landscape quality, cultural and social factors.

Materiality references the warm sandstone tones with granites and porphyry in the public realm. The former industrial uses are still evident in urban areas with large mills like this example of Lister Mills opposite being brought back to life for residential use. The undulating topography gives interesting layering of buildings and street layouts.



Material influences – modern addition with in keeping materials and residential conversion of old building



Material influences – natural tones of local stone

This is a culturally diverse area with many South Asian influences woven into urban settings from architecture to community events.

Topographically, the deep valleys and expansive moorlands create a distinctive feel. Green infrastructure is varied and good examples of deciduous woods can be seen along the canal corridors, tributary valleys and grazing pasture enclosed with drystone walls.

Valleys

Stone walls

Woodlands



Green infrastructure of the canal corridors, wooded valleys and moorland valleys



Social and cultural influences – Piece Hall cultural hub, South Asian influences and community arts events

Yorkshire Coalfield: Wakefield & the Five Towns

The impact of widespread industrialisation and development on the landscape and settlement pattern is clear. The geological deposits of coal and iron, along with the water supply, brought mass industrialisation to the area to exploit these resources. A generally low-lying area, with hills and escarpments above wide valleys, the landscape embraces major industrial towns and cities as well as villages and countryside. A significant portion of the area is currently designated as greenbelt land; this maintains some distinction between settlements.

Much of the area has been mined for coal and there are large areas of land which have been blighted by spoil tips. The highest land is in the western side of the district, the towns of Ossett, Horbury and Wrenthorpe village are located on this. Wakefield City and Castleford are centred at crossing points of the River Calder and Aire respectively. The towns of Normanton, Pontefract and Featherstone expanded largely as a result of the coal industry, and its subsequent collapse has left parts of the area in economic decline with opportunities for regeneration.

The area to the north and west of Wakefield, including Ossett and Horbury, is an area of undulating land defined by the River Calder and the District boundary. The M1 cuts through in a north-south direction, is a dominant feature in the valley and acts as a significant barrier. Much of the surrounding countryside exhibits many characteristics of the urban fringe.

The towns of Normanton and Featherstone underwent significant expansion in the last century as a result of the coal and clay industries. The landscape is typically urban fringe with some degraded areas as a result of derelict workings, urban sprawl and more recent expansion of housing and industrial developments.

The towns of Castleford and Pontefract are bisected by the M62, which runs east-west forming a dominant feature in the valley and acting as a significant barrier. The area is predominantly urban, and there are large areas of derelict land. Much of this is allocated for employment development, such as the former Glass Houghton Colliery site.

Much of the urban expansion took place during the late 19th and early 20th centuries and is characterised by rows of red brick housing terraced with older sandstone buildings and stone municipal buildings.

Sources:

- National Landscape Character Assessment, 38. Nottinghamshire, Derbyshire, and Yorkshire Coalfield, 2013.
- Landscape Character Assessment of Wakefield District, 2004.

Sense of place indicators:

- Rolling topography.
- Evidence of mining industry.
- Grazing pasture and arable fields enclosed predominately with native hedgerows.
- Towns characterised by brick built C19th & early C20th buildings, some grit and sandstone.

Cultural/social indicators:

- Varied townscape in respect of condition and opportunities for regeneration.

Materiality:

- Brick, clay, some sandstone & granites.

Green infrastructure:

- Mixed deciduous woodland, native hedgerow species, wetland, and grassland habitats.

Opportunities for Placemaking:

- **Health & Wellbeing:** Promote access to open spaces and green infrastructure for all.
- **Connectivity:** Good strategic rail and road connections exist. Opportunities to improve walkability and to create comfortable cycleways
- **Identity:** strong sense of heritage and cultural institutions
- **Resilience:** Good level of green infrastructure to be augmented further linking to good network of green spaces and green infrastructure, plus introduce appropriate integrated SuDS.



Wakefield and the Five Towns is a centre for culture and creativity. There are good transport links and the availability of land to accommodate housing and employment has put it in a strong position to grow. Wakefield has never been dependent on one form of activity. Agricultural markets, woollen manufacture, coal mining and engineering, as well as public administration, have all been important at various times. In contrast, the Five Towns are former coal mining settlements but have adapted and now the main industries are chemicals, glass and confectionary.

There is a range of architectural styles across the region but they largely retain similar features, textures and tones. Sandstone is used for important civic buildings while brick is common for residential buildings. Public realm is a mix of sandstone, granite and concrete.

Traffic calming measures have helped to improve the pedestrian experience in Wakefield and the public realm has been well considered.



Art deco detail



Civic architecture with intricate detail and texture



Material influences – natural tones of local stone and wood



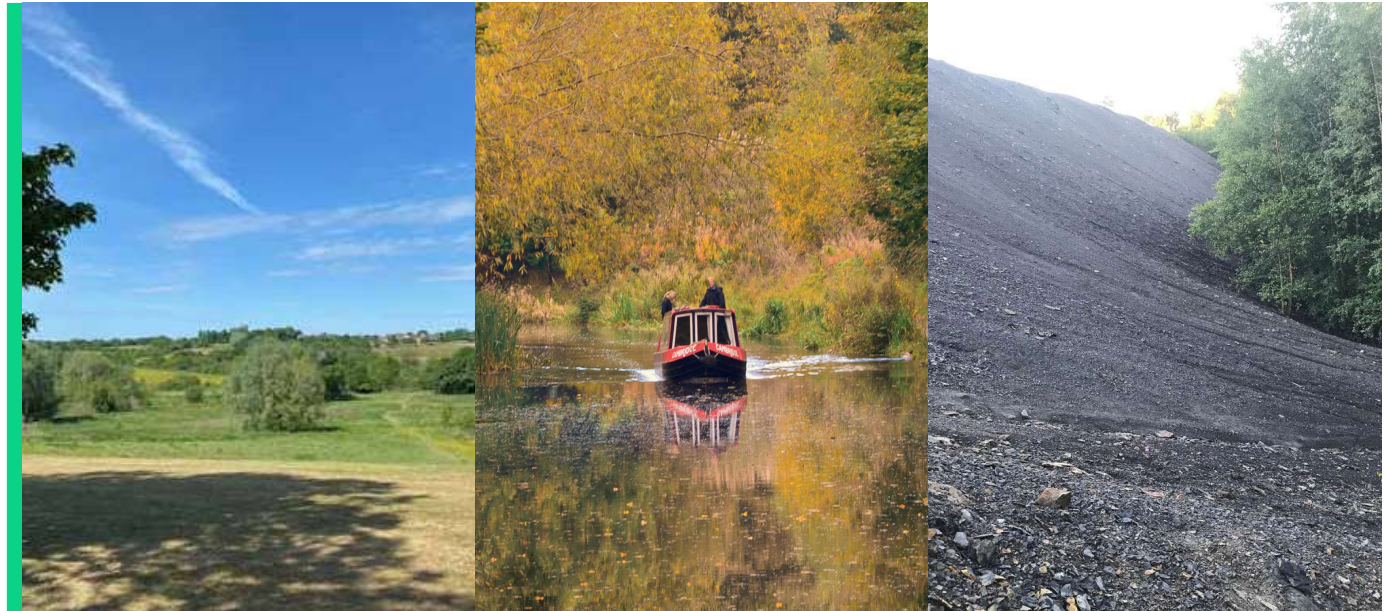
Brick Georgian facade

The northern coalfield towns such as Normanton, Pontefact and Featherstone largely developed in the late 19th century due to the coal mining industry. This has left its mark on the landscape and is part of the heritage but there are pockets of colour and interest in the landscape beyond the spoil heaps.

The landscape is largely industrialised and any remaining landscape is flat open farmland but along corridors like the Calder Navigation, green links flourish and provide routes for wildlife as well as attractive scenery.



Social and Cultural: The Rhubarb Triangle, The Hepworth and coal mining show the diversity in the region



Green infrastructure including country parks, the Calder Navigation and colliery spoils planted with birch trees

City of Leeds

Leeds is one of the largest cities in the UK. It is a modern cosmopolitan metropolis, that is multicultural, complex, and diverse. The main urban concentration is centred around the Leeds city centre, Horsforth and Pudsey area, there are also a number of free-standing market towns and settlements, such as Otley, Scarcroft, Thorne and Boston Spa, Ledsham and Harewood. The settlements in the south and south-eastern parts of the district, such as Garforth, Allerton Bywater, Great Preston, Rothwell, and Morley have arisen largely from mining and industrial activities.

The diverse geology around Leeds means that building materials change throughout the district, from the creamy coloured stone and red tiled roofs in the northeast of the area, through the harsher Millstone Grit of the urban and industrial area. The Millstone Grit, traditionally used as a building material in and around Leeds, formed the basis of the rapid expansion of urban Leeds, with many warehouses, mills, factories, town halls, hospitals, and large mansions.

In the eastern area of the district, the Magnesian Limestone has had a long history of use as a building stone and has been used in the building of the many large houses and churches. Country houses such as Ledston Hall, the churches and cottages in Aberford, Ledsham, Bramham and Boston Spa are built of this softer stone, although since the Industrial Revolution, brick has supplanted the traditional stone as a building material. Brick, along with modern metallic cladding, terracotta and glazing cladding systems, is now used extensively, along with a range of other materials, in modern residential, commercial, and industrial development.

One of the major landscape features in the Leeds district is the extensive area of historic parklands, both around the urban fringe, such as Temple Newsam and Roundhay, and further afield, such as Harewood and Bramham. All of these parklands were designed around large houses or mansions. Harewood and Bramham are the largest of these estates.



One of the most significant developments in the 20th century has been the construction of a major road and motorway network within and around Leeds. The canal and rail systems of the 18th and 19th centuries tended to follow the valleys and helped concentrate residential and industrial areas along the valley bottoms. The modern day road network does not follow such constraints, and major roads and motorways around Leeds, such as the M1, the M62 and the M621, now form prominent features.

Surrounding Leeds is a rural area of rolling topography, comprising a varied tapestry of vegetation types and habitats.

Sources:

- Leeds Landscape Assessment, 1994

Sense of place indicators:

- Modern commercial & multicultural urban metropolis.
- Traditional and contemporary architecture.
- Commercial service sector offices alongside former industrial buildings.
- High density, high rise city centre urban living.
- Suburban residential.
- Suburban C19th parks.

Cultural/social indicators:

- Cultural institutions, museums and galleries.
- Multicultural communities .
- Retail centre plus out of town retail.
- Materiality: Brick, sandstone, modern metallic cladding, terracotta and glazed cladding systems.

Green infrastructure:

- Mixed deciduous woodland, native hedgerow species, wetland, and grassland habitats.

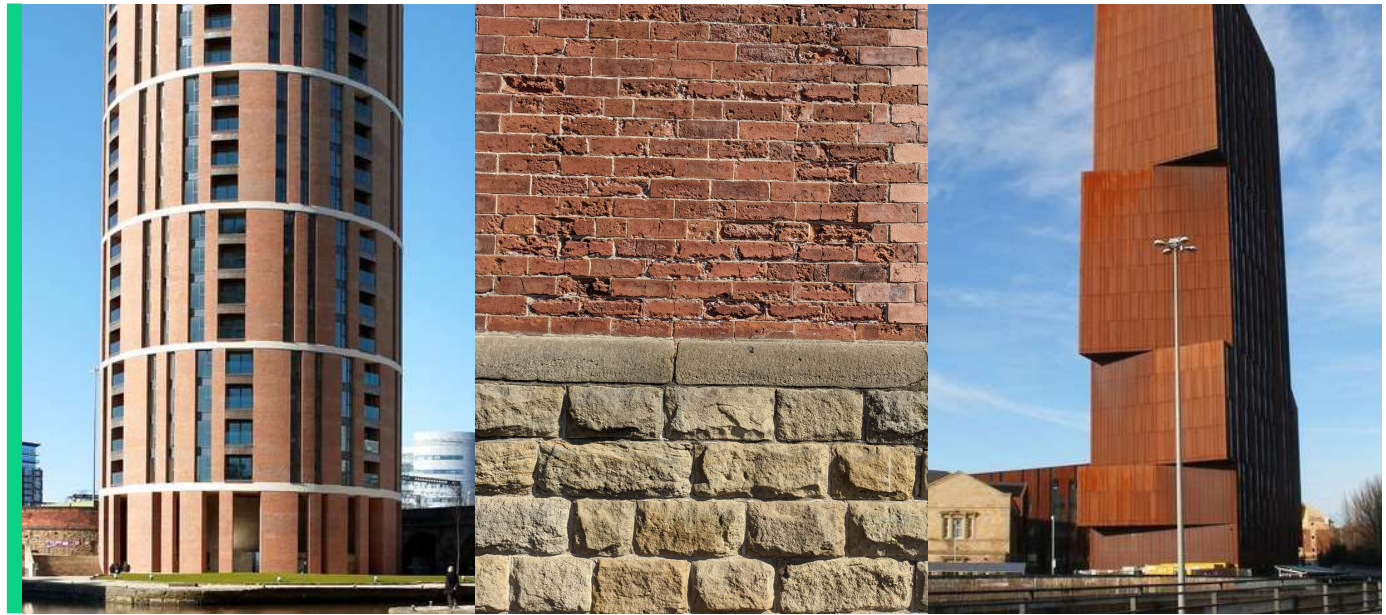
Opportunities for Placemaking:

The key objectives for placemaking within Leeds are derived from the City's Vision and Best Council Plan 2020-25 with the city's Inclusive Growth Strategy, Health and Well Being Strategy and Climate Emergency declaration as key drivers. The Our Spaces Strategy articulates this for the City Centre and does establish principles but is not the driver.

- **Health & Wellbeing:** Leeds promotes spaces that are designed around and are for people. They will be comfortable, stimulating, relaxing, healthy and safe. They will also be inclusive, designed for all ages and abilities and reflect Leeds's diverse communities.
- **Connectivity:** Leeds spaces will be highly connected, considering pedestrians first, clearly legible and easy to navigate.
- **Identity:** Spaces will be places for cultural activity, from small interactions to major events. They will celebrate Leeds's built and natural assets, from the edges of the River Aire to the magnificent architecture of the city centre.
- **Resilience:** Spaces are to provide valuable economic infrastructure that supports businesses and provides a canvas for new investment. They will be resilient to climate change, with green environments for cooling the air, sustainably managing surface water, absorbing carbon and filtering polluted air.

Leeds is one of the UK's fastest growing cities, it has a thriving retail core and an exciting independent food scene. It is the largest financial centre in the UK outside of London and it plays a critical role in driving economic growth for the region. It is a cosmopolitan city with a diverse population. There is a range of architectural styles from the historical civic buildings to the more recent mixed use high rise buildings.

There is a varied palette of materials used across the city. Here is a brief selection of the main types including Portland Stone, red brick, granite, metal cladding systems and glazing. This variety of scale, use and materiality contributes to the city's texture and vibrant streetscape. There are earthy tones of natural materials juxtaposed with more uniform glazing and cladding.



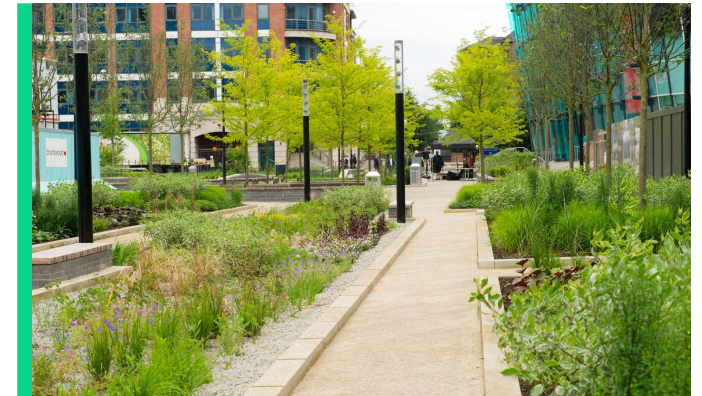
Contemporary and traditional buildings using similar tones but very different styles



Contrasting textures

Leeds is within close reach of the moorlands, mountains and rivers of the North Yorkshire Moors, the Yorkshire Dales and the Peak District. This influences and permeates the fabric of the city through materiality, the green spaces and can be felt both socially and culturally.

Leeds is a hub in West Yorkshire for the arts. This is seen in formal settings such as museums and galleries as well as the Northern Ballet and the Playhouse. It is also evident across the city in less formal situations like street art and live music.



Social and Cultural: Social inclusion and performances on stage

Green infrastructure: Roundhay Park and Sovereign Square

City of Bradford

Bradford City Centre is at the heart of a great European city with an immediate population of around 550,000 people. Once the world centre for the worsted trade it is now reclaiming its position as one of the UK's leading provincial cities.

It was originally a settlement in Saxon times centred on what is now Kirkgate, Westgate and Ivegate at the junction of three valleys in the basin of the River Aire. The town was the centre for trade and industry for a limited local area, and it was not until the Industrial Revolution that the area's abundant supply of iron ore, coal and soft water could be exploited and a small, local textile industry mushroomed as the town grew into a major industrial centre. Improved connections were key to Bradford's growth, namely the opening of the Bradford Canal (linking to the Leeds-Liverpool Canal) in 1774 and the arrival of the railway in 1846. Bradford was the fastest growing city in the country and became Britain's seventh largest city rivalling the other great textile city of the era, Manchester. In 1841 it was estimated that two-thirds of the country's wool production was processed in Bradford – ten years later it was the undisputed wool capital of the world. The city exploded with life as thousands of people flooded in including German and East European merchants who were central to the textile trade by the late 1800s.

The vision for Bradford City Centre received widespread exposure. Bradford Centre Regeneration and Bradford Council have since been working to make the vision a reality.



The Victorian buildings of Bradford City Centre and the ornate monuments in Undercliffe Cemetery stand as testament to the fortunes that were made in Bradford. The boom years left an unrivalled architectural legacy. Bradford's prosperity started to wane in the 20th century as import tariffs robbed it of its international markets. Decline was long and protracted but there was still enough employment to attract Commonwealth immigration in the 1950s and 60s to work in the mills.

The confidence of the 1960s saw large parts of the centre rebuilt and the city went through a further period of growth in the late 1980s and early 90s securing investment including the National Museum of Photography, Film and Television and the refurbishment of the Alhambra Theatre. However this progress was not maintained and the city went through a difficult period in the late 1990s.

Since that time Bradford has reinvented itself, recently under the banner 'One Landscape – Many Views'. The Bradford Centre Regeneration Masterplan and the launch of the Urban Regeneration Company are an important part of this renaissance. So too is the market confidence that has returned to the city centre. However as the 1960s illustrated, periods of growth can do damage as well as good with the road network being a prime example of this.

Traditionally the city centre was a dense mix of commercial and industrial development alongside workers' housing, administrative functions, cultural uses and shopping. In the last 50 or so years the housing and industrial uses have all but disappeared while the retailing, commerce and administrative uses have broadly held their own and uses such as the university and cultural facilities have expanded.

The Design Guide assesses how the urban fabric has been frayed through economic decline, the loss of buildings replaced by surface car parking and through unsympathetic development. The Guide states that one of the most important issues is the treatment of the public realm. The streets and squares of a city are the places that shape its character, personality and its appearance. Good quality public spaces are enclosed by well proportioned buildings that spill their life onto the street.

Sources:

- National Landscape Character Assessment, 37 Yorkshire Southern Pennine Fringe, 2010.
- City of Bradford Metropolitan District Council, City Centre Design Guide, 2006 and City Centre Conservation Area Assessment, 2005.
- Bradford City Council, Landscape Character Supplementary Planning Document Introduction and Methodology, 2008.

Sense of place indicators:

- Grand Victorian architecture with ornate façades but also notable unsympathetic modern development.
- Wide streets, varying topography and materiality: local sandstone, yorkstone and porphyry paving.

Cultural/social indicators:

- Cultural institutions, museums and galleries.
- Multicultural communities.
- City centre retail.

Green infrastructure:

Extensive network of parks surrounding the city centre.
Opportunities for further tree planting within the street-scene.

Opportunities for Placemaking:

The key objectives for placemaking within the City of Bradford region are derived from the Design Guide.

- **Health & Wellbeing:** Bradford has ambitious plans for public realm enhancement alongside a low emission zones policy and the altering of road infrastructure.
- **Connectivity:** Bradford is well served from Leeds but connecting the suburbs and local centres through improved pedestrian linkages with facilities in the city centre is an important part of making this work for all. Better connectivity between Bradford Forster Square and Bradford Interchange would open up a range of routes to more people.
- **Identity:** There is an opportunity to reclaim the original qualities of the urban fabric, taking cues from the built environment and designing places to that grand scale. The community is able to influence the design vision and get involved establishing a sense of ownership.
- **Resilience:** Public realm improvements are an opportunity to identify and elaborate on a local identity delivering the Bradford City Centre public realm strategy.

Bradford City Centre retains areas of great architectural and heritage value but also areas where the historic fabric of the city has been badly damaged. The built form of the centre is predominantly Victorian and dates from Bradford's boom years in the second half of the 19th century. At its best Bradford's Victorian townscape rivals any of the great cities in the UK. The city centre includes four conservation areas and around 100 listed buildings.

The City Centre is the largest conservation area covering the heart of the city. The area has medieval roots, still seen in the pattern of streets and names such as Ivegate and Kirkgate. It was however rebuilt in the late 19th century when Bradford was the rapidly growing international centre of the wool trade. Fortunes were made in 19th century Bradford and the merchants invested some of this wealth into warehouses, banks, commercial buildings and public institutions such as the Wool Exchange, City Hall and St. Georges Hall. These buildings were designed in the honey-coloured local sandstone by local architects.

To the east of the centre lies Little Germany, built on sloping land by worsted merchants. The buildings are ornate 'piece' warehouses creating, arguably the finest merchant's quarter in the country. 55 of the area's 85 buildings are listed and its character is based on sloping streets with the taller warehouses situated lower down the hill creating a dramatic townscape.

The Cathedral Precinct is one of the oldest parts of Bradford and the Cathedral is perhaps the most important building. The area was one of the first parts of the city to industrialise with the arrival of the Bradford Canal in the 1770s. The lower part includes some important commercial buildings while the slopes west of this were once housing and are now surface parking. There are 16 listed buildings in the area.

To the west of the city centre the Goitside conservation area takes in many of the 'stuff' warehouses. The Goit is a medieval water channel built to power a corn mill and the area was already industrialised at the start of the 19th century. It was completely redeveloped in the late 19th century since then it has remained largely untouched. It contains only 6 listed buildings, however the group value of the buildings is far greater because it remains a largely complete urban landscape, typical of 19th century Bradford.



City Hall and the Wool Exchange

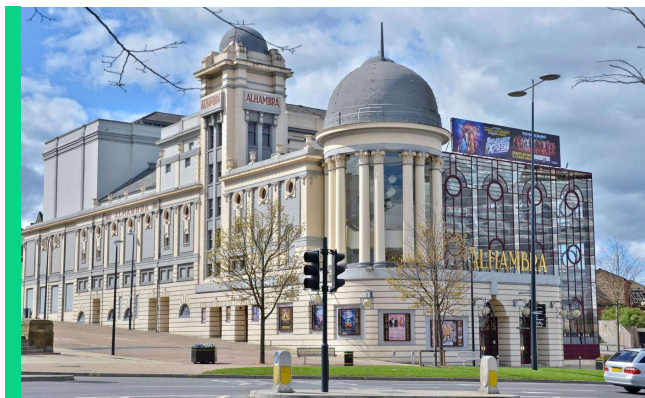
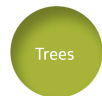


St George's Hall and an example of the porphyry paving



One of the most important factors in understanding the form of Bradford is topography. The city was built at the confluence of four streams flowing northwards into the Bradford Beck. These streams create a natural bowl in a valley that flows down from the west to a relatively flat area around City Hall before flowing onwards down the valley to the north.

The oldest roads into Bradford pass over four hills. However the roads built in the Victorian era travel along the valley floor, notably Manchester Road, Leeds Road, Valley Road and Thornton Road. Because of the topography of the city, most of these arrival routes do not provide good views of the centre. By contrast the high roads provide commanding views on arrival to the city centre.



Social and Cultural: Scenes from the 2025 winning bid, Undercliffe Cemetery and the Alhambra Theatre.

Green infrastructure: The Tong Valley and Horton Park: one of a number of green spaces around the edge of the city.

The towns and local centres

Bramley - Local Centre

Bramley's history began as an independent settlement which was completely absorbed into the greater urban area of Leeds in the second quarter of the 20th century. Many of the features of the area's long history are apparent today and are dominant enough to ensure its independence from much of the suburbs around it.

Bramley has a special character and appearance which has merited a part of it being designated a conservation area. Unfortunately much of the historic town centre had already been affected by inappropriate redevelopment in the 1970s and 1980s that did not respect the historic integrity of the area. From the late 1960s to the late 1970s there was general eradication of yards and buildings, mostly on the north side of Town Street. These were to be replaced by the Bramley Shopping Centre. The character and appearance of Bramley was then altered significantly, and the area once of industrial and commercial buildings along much of Town Street was reduced to the few that remain today.

Town Street, St Peter's Church, Bramley Baths and Bramley Park are all important local assets. Millstone grit and slate tiles are the predominant historic palette of materials.

There is the potential to help re-balance the inappropriate modern development: the shopping centre (in particular the car park) is visually dominant. There could be clearer legibility and an improved pedestrian experience through priority junctions, reduction of carriageway widths, public realm interventions, planting (including SuDS) and the use of appropriate hard landscape materials. A strategic goal should be to connect Bramley with the wider local cycle and active travel.





Dewsbury - Town Centre

The town of Dewsbury has a recorded history from Saxon times but remained a small settlement throughout the Middle Ages. The population did not grow dramatically until the 18th and 19th centuries when industrial growth and the prosperity of the town were based on the fortunes of the heavy woollen industry and associated manufacturing. The rapid expansion of the town grew from its historic medieval core around the Market Place. The immense wealth generated during the 19th century left a legacy of fine Victorian and Edwardian municipal and commercial buildings and townscapes.

The general consistency of the ashlar building materials and its location on the sloping land towards the Dewsbury Beck and the River Calder create the particular qualities and attractions of the heritage townscape. Much of the town centre, bounded by the Inner Ring Road is a Conservation Area. The urban form of Dewsbury has been structured by the hills, the river and its tributary, and the main historic entrances and gateways into the town.

The Mass Transit scheme will need to take the local character and listed buildings into account and the setting of heritage assets is a key consideration. Active travel should be promoted and the existing public realm should feature as a hub for wider pedestrian focussed links and activity. There are numerous local facilities: educational, commercial and leisure and there is a railway and bus station. Connections, including legibility, to the River Calder and Calder Greenway should be improved and the unique setting with views out to the valleys could be exploited as part of the design. The ring road and vehicle dominance is an issue that impacts on tranquillity, access and the potential scenic qualities of the town.





Laisterdyke - Local Centre

Laisterdyke is a settlement formed off the Leeds Road and A6177 Sticker Lane. It comprises a mixture of housing, small scale retail, a retail park and car show rooms. There is a small cluster of shops and apartment buildings. The buildings are predominantly 2 and 3 storey in height and feature a mix of materials - sandstone to older properties, brick and render to more recent, metal clad showrooms and large retail units. There are some green interventions: largely street trees of varying quality.

The scale of urban block is irregular - small scale takeaways to high end large car showrooms. There is a coarse grain of varying scale, use and massing created by variety of residential, car showrooms, retail units, industrial etc. This adds to the dispersed feeling with pockets of open space for car parking and infrastructure. There exists a number of under developed, vacant and open sites which contribute to a more open and inconsistent grain.

Reducing the road width would give opportunities for improving public realm and creates space for other activities e.g. Mass Transit, green infrastructure and active travel. Narrower carriageways encourage reduced speeds, especially on such long straight routes like Sticker Lane. This would encourage active travel through increased levels of comfort for users. Public realm improvements are an opportunity to identify and elaborate on a local identity.

Increasing pedestrian and cycle based activity will help to activate areas that lack footfall. This can support the creation of a central place where the Mass Transit can add to and become an anchor point in the community. Tree planting can offer a softer street-scene with various benefits for wildlife and residents. Rain gardens improve resilience and help manage surface water run off. Other benefits include adding to street greening, increasing pollinators and potentially improving air quality.

Laisterdyke has an opportunity to use Mass Transit to explore the local heritage and culture of the area. Forming a central hub will help to create a sense of place. This could bring the community together to reflect on their experiences of their locality and look forward to their aspirations for the suburb.





Pudsey - Town Centre

Pudsey began as an independent settlement which was integrated into the greater urban area of Leeds in the middle of the last century. Many of the features of the settlement's long history are apparent today and retain enough dominance to ensure Pudsey exists as a distinct settlement despite the encroachment of suburban Leeds.

Pudsey is located on sources of sandstone and millstone grit which were understandably employed for the construction of most buildings. Up until the 19th century stone quarrying was one of the major industries within the Pudsey area. The dominant roof materials are heavy stone slate and Welsh slate. This variation of traditional material adds interest to the roof-scape, whilst still allowing it to retain its historic and traditional appearance.

The current townscape qualities have much potential despite some detracting features. Awkward infill buildings of low quality are intermittently placed between high quality historic buildings, however, the compact and accessible grouping of facilities does make the centre of the town feel vibrant and active. There is a range of facilities: library, town hall, playground, skate park and park, leisure centre, health centre, a number of schools and a bus station with good links to Leeds and Bradford.

Generally the quantity and quality of the pedestrian areas are compromised due to vehicle dominance. Reducing street clutter and improving pedestrian experience can increase footfall and dwell time on the high street. There are numerous opportunities to improve the traffic dominated environment: the pavements are in places very narrow and uncomfortable for pedestrians. By introducing Mass Transit and rationalising traffic, pedestrian connectivity can be improved and space can be offered for green infrastructure. The presence of swathes of green will improve air quality, drainage and social well-being.

Introducing seating areas and pocket parks to create a safer more attractive environment will help encourage people to consider active travel. These areas would help support those who need to rest but will also encourage a sense of community spirit in facilitating social interaction. The identity of Pudsey and its sense of place can be reflected through the use of appropriate materials referencing the heritage in the conservation area and drawing upon the existing qualities and facilities of the place.





Wortley - Local Centre

Wortley is essentially suburban dominated by post war urban regeneration and terraced housing with some post war interventions. The railway line which runs parallel, but offset from Tong Road creates a strong boundary and barrier. There is sparse residential housing to the north of the railway line and warehouse scale commercial buildings to the south east. Housing to the south west is slightly more regular in layout with a mix of 20th century terraced housing, post war clusters of terraced housing and more recent semi detached homes.

The area prioritises vehicles with on-street parking which makes the carriageway feel wider and crossing distances longer. It is lacking in active frontages along Tong Road. Typically, gables, the rear of houses or buildings are stepped back from the main road. There is a mixed scale of housing: terrace houses, low level apartments and apartment towers, all of which are predominantly red brick throughout with occasional rendered properties and metal clad industrial units.

The street-scene does feature some attractive mature trees but generally there is a lack of maintenance visible in private areas. There are numerous commercial and educational facilities as well as a community centre.

Tong Road is a busy, wide thoroughfare with clusters of mature trees and small areas of green space. There is an opportunity to enhance and link these areas creating a network or green spaces in a car dominated area. This can help inform the identity of the area changing negative perceptions into something of an asset. These areas can accommodate rain gardens to help attenuate rain water and help improve air quality.

Mass Transit provides an opportunity for a stop to anchor a centre or hub where public realm improvements can create community focus. In conjunction with a stop, a clustering of activities can help create a central hub. Promoting active street frontages can also bring people together. Pedestrians using an area and feeling comfortable in the space will help increase activity. Working with community groups, the design should seek out the identity of the place and the people who live there, listen and help build the narrative of Wortley.

Improving pedestrian and cycle infrastructure and linking with the cycle super highway will support Leeds in its goal of being net zero carbon by 2030. The cycle superhighway is less than a mile away and Leeds Train Station is a further 1.5 miles away, providing opportunities to link with areas of employment further afield.



Commercial

Low Moor - Commercial

The South Bradford character area is heavily influenced by its proximity to Bradford, consisting of the land left between the extent of the Bradford urban core and the Bradford district boundary. Although it is split in two by the settlements of Wyke and Low Moor. There has been extensive coal mining activity, with disused mine-shafts scattered throughout the area but concentrated particularly between Oakenshaw and Low Moor. Coal was mined for centuries around Royds Hall Beck and remains of bell pits can be found nearby. There are also scattered areas of collier spoil, two disused railway sidings and the site of an old ironworks. Despite its urban location and industrial influences the South Bradford Character Area has a surprising amount of nature conservation interest, including Bradford's first designated nature reserve named Railway Terrace/ Raw Nook in Low Moor.

The commercial/industrial area within Low Moor is well served by rail and road links. Out of town retail and employment areas are typically heavily reliant on cars. It creates an access issue which requires high capacity highways at peak travel times but also the challenge of parking during the day. Vast areas of hard surfaces are installed reducing green space which in turn, puts a strain on surface water drainage systems.

With so much focus on car parks, this typology tends to lack any distinguishable character or identity. With the introduction of Mass Transit, this typology will be better connected and less reliant on cars. Green infrastructure can be better connected and aid resilience, thus improving a sense of health and well-being. Active transport links between residential areas and employment areas should be supported. Short journeys by bike or on foot should be encouraged and made as accessible and comfortable as possible.

A reduction in the use of private motor vehicles is crucial and needs to be considered alongside the use of commercial vehicles servicing these types of areas. Establishing spaces where people can gather for informal games, seating, and social interaction would promote health and well-being.

In terms of establishing identity, green boundaries to car parks should be increased and green links created through these areas. This will reduce hard surfacing and provide improved visual amenity. Areas can be distinguished, at a local scale, by a style of approach to permeable surfacing and planting palette. Permeable options can be quite subtle or can be striking, helping to create a sense of place. New green infrastructure could be achieved through a reduction in carriageway width and integrating tree planting and SuDS.





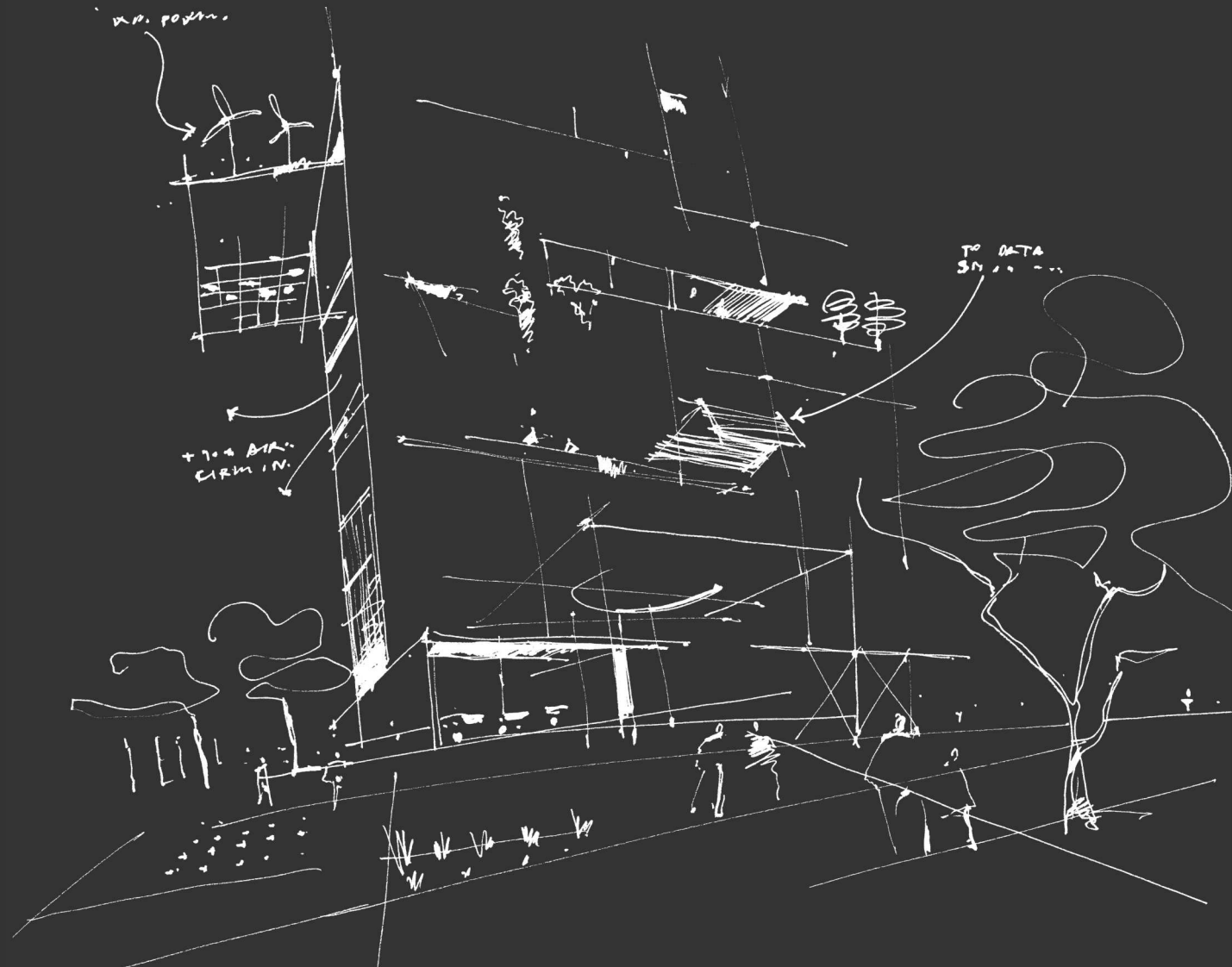
Thorpe Park - Commercial

Out of town retail is by character, car dominated. The introduction of Mass Transit offers the opportunity to reduce this reliance and return spaces to green infrastructure.

Opportunities for active travel linking residential areas with areas of employment and leisure should be encouraged. Making these options as comfortable and direct as possible make it a feasible choice for more people especially shorter journeys.



4. Typologies



4. Typologies

This chapter sets out how the Approach to Placemaking applies to different typologies.

The typologies are generic, as opposed to place specific, but capture some of the essential and relevant place specific attributes which have been derived from the previous chapter.

It sets out how the approach to placemaking is to be applied to the design of each typology, demonstrating how the design principles are adapted and the distinct issues of each.



Introduction

Spaces and places across the system can be defined as fitting within one (or more) typologies. The typologies can be categorised as nodes or corridors.

The typologies establish the function and role these places have, and help identify the potential opportunities that exist for creating great places, for placemaking enhancements and for delivering wider social, economic and environmental benefits.

For each of the typologies, an example is presented to demonstrate how the placemaking principles can be applied to these locations. These are indicative to help demonstrate the principles and are to be used as a guide to help identify opportunities for placemaking and inform decision making in respect of potential options and priorities.

Reference should be made to the Mass Transit Design Philosophy document which sets out the user hierarchy for the highway space and what the priorities are within each of the different typologies. For example pedestrians are considered higher priority than general traffic within the Urban Highway typology but the opposite is true within the Interurban typology corridor.

Chapter 2 of this Approach to Placemaking document set out four placemaking principles which make up the strategy. These are applicable to most locations and conditions across the network but are applied with varying weight and focus to specific typologies. They are colour coded as follows for ease of reference and the opportunities for delivery on each of the placemaking principles are identified for each typology:

4 PRINCIPLES OF PLACEMAKING

	HEALTH & WELLBEING
	CONNECTIVITY
	IDENTITY
	ADAPTABLE & RESILIENT

Typologies: Corridors



Rural

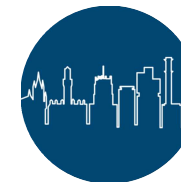


Interurban



Urban

Typologies: Nodes



City Centre



Town Centre



Local Centres



Commercial

Typical Urban Corridor



Improved active frontage

Tree planting

Segregated cycleways

Rain gardens

Segregated Mass Transit

Typical urban highway with cycleway and Mass Transit



Typical Urban Corridor

The visualisation demonstrates a typical approach to an urban corridor. There will be varying widths and contexts, and these will set out the user priority and placemaking to be applied. Depending on street layout of segregated Mass Transit or shared with general traffic, placemaking will have suitable interventions to integrate it into the existing urban fabric.

Typically, the urban routes are appropriate for active travel provision, with the opportunity for mobility hub provision, improvements to pedestrian zones and the incorporation of green infrastructure.

The options on urban highways for segregated Mass Transit or shared Mass Transit have their own set of challenges. The approach of segregated transit will achieve the best results for journey time reliability but there will be some compromises required. This could include removing general traffic completely from a route or using pedestrianised streets.

Typical Interventions

- 01** Active transport: Improve walkability and prioritise new cycleways where the space constraints allow. Support existing protected cycleways and increase their reach where possible.
- 02** Improve pedestrian connectivity: Ensure Mass Transit creates permeability in urban corridors to allow pedestrian connectivity.
- 03** Pedestrian orientated spaces: Allow enough space to comfortably accommodate the flow of pedestrian traffic.
- 04** New Green infrastructure: Integration of tree planting and SuDS to key streets and spaces. Taking back spaces like the Mass Transit corridor and greening them provide an opportunity to link with other green spaces, connecting and building on a series of urban oasis.



Mass Transit in the central area segregated from traffic



Pedestrian orientated Mass Transit design

Typical Rural Corridor



Grass tracks

Connecting communities

Segregated cycleways

Tree planting

Typical rural section with Mass Transit and cycleway

Typical Rural Corridor

The visualisation demonstrates a typical approach to a rural corridor.

Typically, the rural corridors are appropriate for some improvements to pedestrian and cycling facilities and the incorporation of green infrastructure. In some instances, there will be opportunities to maintain a green track with adjacent pedestrian and cycle provision with appropriate lighting. The route should be inkeeping with the surrounding landscape. Hedgerows and stone walls should be retained wherever possible to preserve the local rural character. Where there is loss of boundary character to allow for cross section width, the interventions should aim to replace with appropriate alternatives.

Interventions

- 01 Active transport: Improve walkability and prioritise new cycleways in rural areas connecting settlements.
- 02 Connectivity: Network of wayfinding routes and trails to encourage activity.
- 03 Identity: Respect existing dwellings and consider filtering views with tree and understorey planting.
- 04 Surfacing to be appropriate to local context.
- 05 Strengthened and connected green infrastructure.

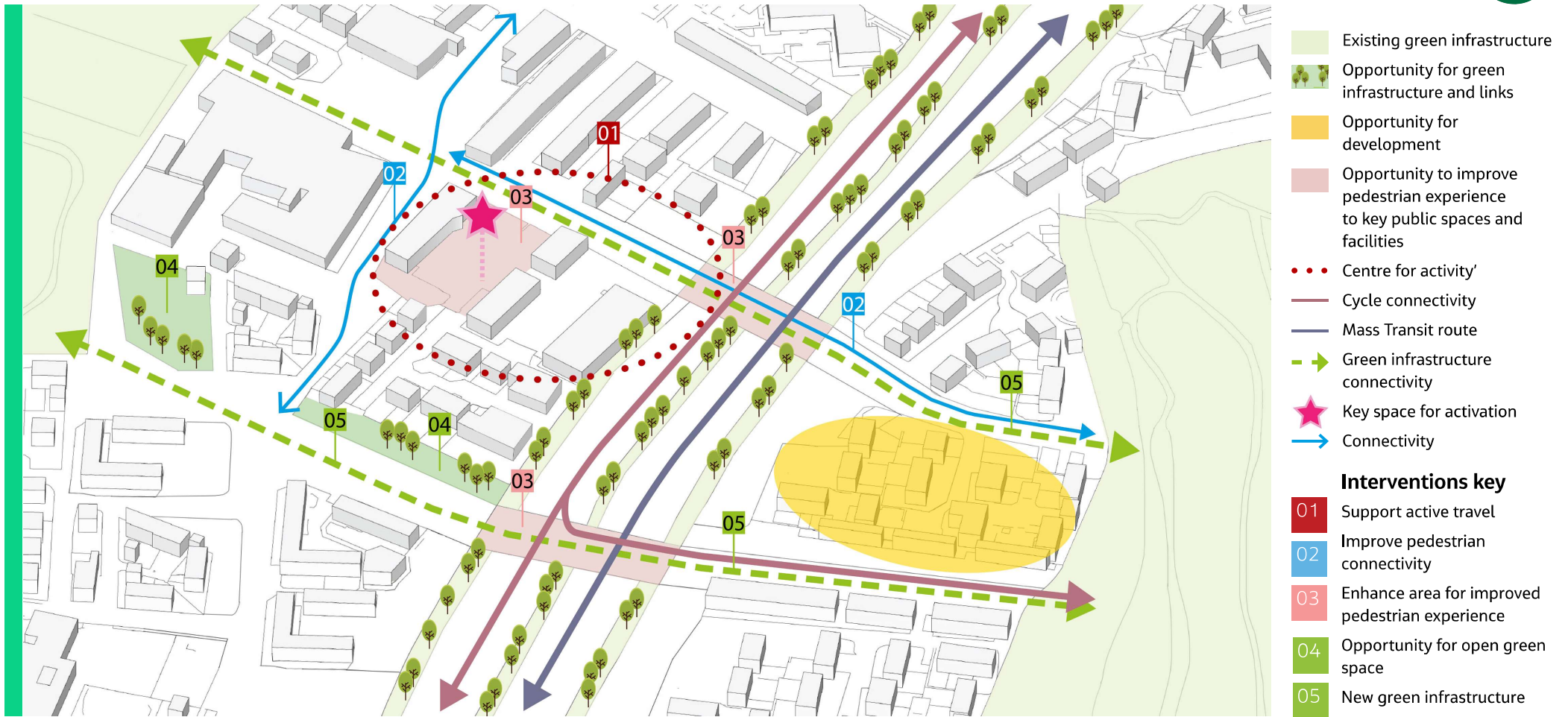


Green tracks



Segregated rural cycleway

Typical Interurban Corridor



Interurban corridors are often characterised by single or dual carriageway roads through urban areas with a focus on movement. They can be relatively straight with long sections between large scale junctions. Land uses either side may have little activity which faces the road; in places residential development can be set back with

a separate access road, and in others, larger commercial development blocks offer little diversity. Grass medians and verges and tree planting can make these corridors relatively green in appearance. By contrast, medians may have been replaced with hard surfaces for bus priority.

Typical City Centre

This typology covers the cities and major towns of West Yorkshire. There is variation across the range of city centres but this example aims to highlight the important areas to focus placemaking attention on. Bradford, Halifax, Huddersfield and Dewsbury are distinct in character and vary culturally and in scale. Leeds feels different in a number of ways, as the largest city in Yorkshire and as a one of the UK's most important financial centres. Wakefield has a different character again, and its own set of unique qualities that contribute to the varied landscape across the region.

The cities and major towns of West Yorkshire are rich in heritage and culture. There is variation in topography, architecture and materials but some unifying challenges include regeneration and the need to meet targets related to sustainability. Some other challenges are around the need for better connectivity and movement while others relate to trying to fit modern infrastructure into a dense city centre rich in heritage. The proposed interventions can be applied to improve user experience and to integrate Mass Transit into its context.

Opportunities

- 01** Pedestrian orientated spaces: Create pedestrian priority spaces to improve movement, avoid vehicular conflict, accommodate street level activities and improve the overall experience and usability of the public realm.
- 02** Active transport: Improve walkability and enhance existing cycleways, increasing their reach where possible. Link with key areas in the city creating a fully inclusive network of routes.
- 03** Improve pedestrian connectivity: Enable better pedestrian connectivity and reduce/avoid severance caused by highways and/or other major transport infrastructure.
- 04** Opportunities for development and activation: Activate underused spaces breathing life back into disused infrastructure and spaces. Disused tracks, car parks or vacant land all provide opportunities for regeneration.
- 05** Materiality: Assimilate new interventions into the existing townscape & public realm through the use of appropriate palette of materials & planting.
- 06** Activity, vibrancy & regeneration: support the day to day activities which allow spill out to the public realm and add to a vibrant, active sense of place.
- 07** Reduce car reliance & usage: Support development that reduces reliance on car usage.
- 08** Opportunities for green space: Bradford and Leeds have quality open space but lack high quality central green spaces. Seek opportunities to create green focal points for activity and contribute towards the cities' green aspirations.
- 09** New Green infrastructure: Reduction in carriageway width where possible and integration of tree planting and SuDS to key streets and spaces.

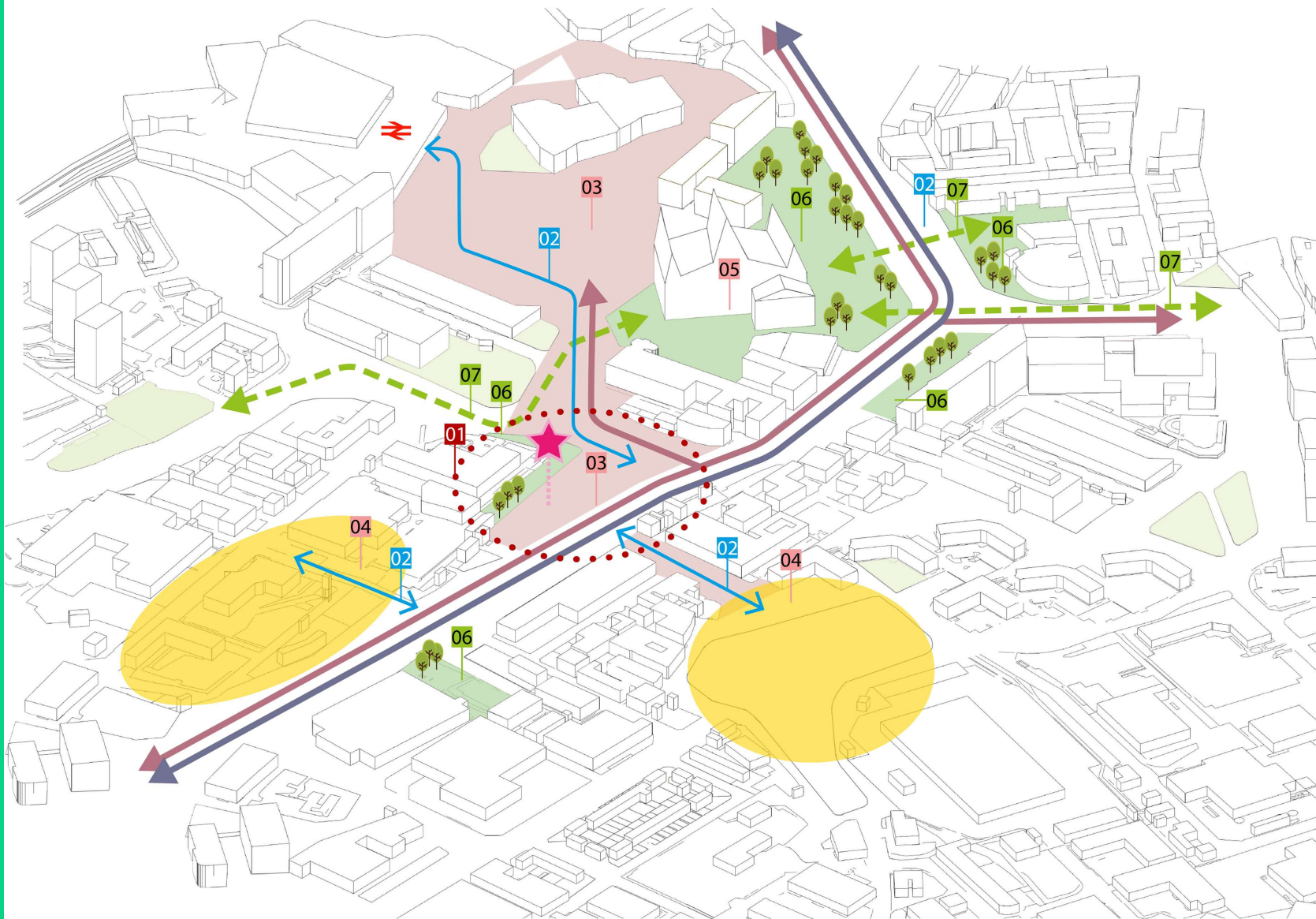


Inclusive active travel



Rain garden

Example City Centre



- Existing green infrastructure
 - Opportunity for green infrastructure and links
 - Opportunity for development
 - Opportunity to improve pedestrian experience to key public spaces and facilities
 - Key route
 - Cycle connectivity
 - Mass Transit route
 - Green infrastructure connectivity
 - Key space for activation
 - Train station
 - Connectivity
- Interventions key**
- 01 Support active travel
 - 02 Improve pedestrian connectivity
 - 03 Enhance area for improved pedestrian experience
 - 04 Activate underused spaces
 - 05 Maintain identity of listed buildings and features like stone walls
 - 06 Opportunities for open green space
 - 07 New green infrastructure

Typical Town Centre

Smaller urban centres and market towns play an important role in communities. Connected to adjacent residential areas, they provide local shops, schools, employment opportunities alongside community and healthcare facilities.

They may be more culturally distinct, with the streets and spaces used in different ways, reflecting the people who live there. They may also be distinct in the form of their built environment with important local buildings and architecture.

Investing in a coordinated placemaking approach between retail or market place and Mass Transit will ensure the identity of the town comes through.

Opportunities

- 01** Active transport: Consider pedestrianising routes that are underused by traffic and bring disused railway lines back to life by allowing pedestrian access. Mass Transit will help reduce the need for cars. Some thought will be given to what will happen with reduced traffic on infrastructure and its opportunity to implement reallocation of road space to other uses. These spaces can be used as pocket parks, active travel routes or wildlife corridors. Wide highways dominate and define the town centre. These spaces need to work harder to justify occupying large areas of towns. Integrating active travel or reducing the carriageway width can contribute to a more positive public realm.
- 02** Pedestrian orientated spaces: Support community events in the hub area where the public can gather and enjoy a comfortable inclusive space.
- 03** Improve pedestrian connectivity: Ensure pedestrian crossing facilities are provided at regular intervals along the routes. Pedestrian crossings could be installed along with traffic calming measures.
- 04** Materiality: Assimilate new interventions into the existing townscape and public realm through celebrating local heritage, the use of appropriate palette of materials and planting.
- 05** Exploring local identity: Work with local partners to elaborate on the local identity and present it with the public realm improvements.
- 06** People first: Support the revitalisation of local high streets and centres by creating people centric spaces that are accessible, active and vibrant.
- 07** New Green infrastructure: Introduce green infrastructure to the retail core. This will help to create active travel links through the town centre and aid sustainability goals. It will create a more comfortable public realm by helping with shade during summer months, providing shelter and encouraging wildlife into the town. It could incorporate sustainable drainage which could slowly attenuate rainfall during peak periods.
- 08** Reduce car reliance & usage: Support development that reduces reliance on car usage.



Trees in the historic core to add a layer of texture and improve the overall green imbalance

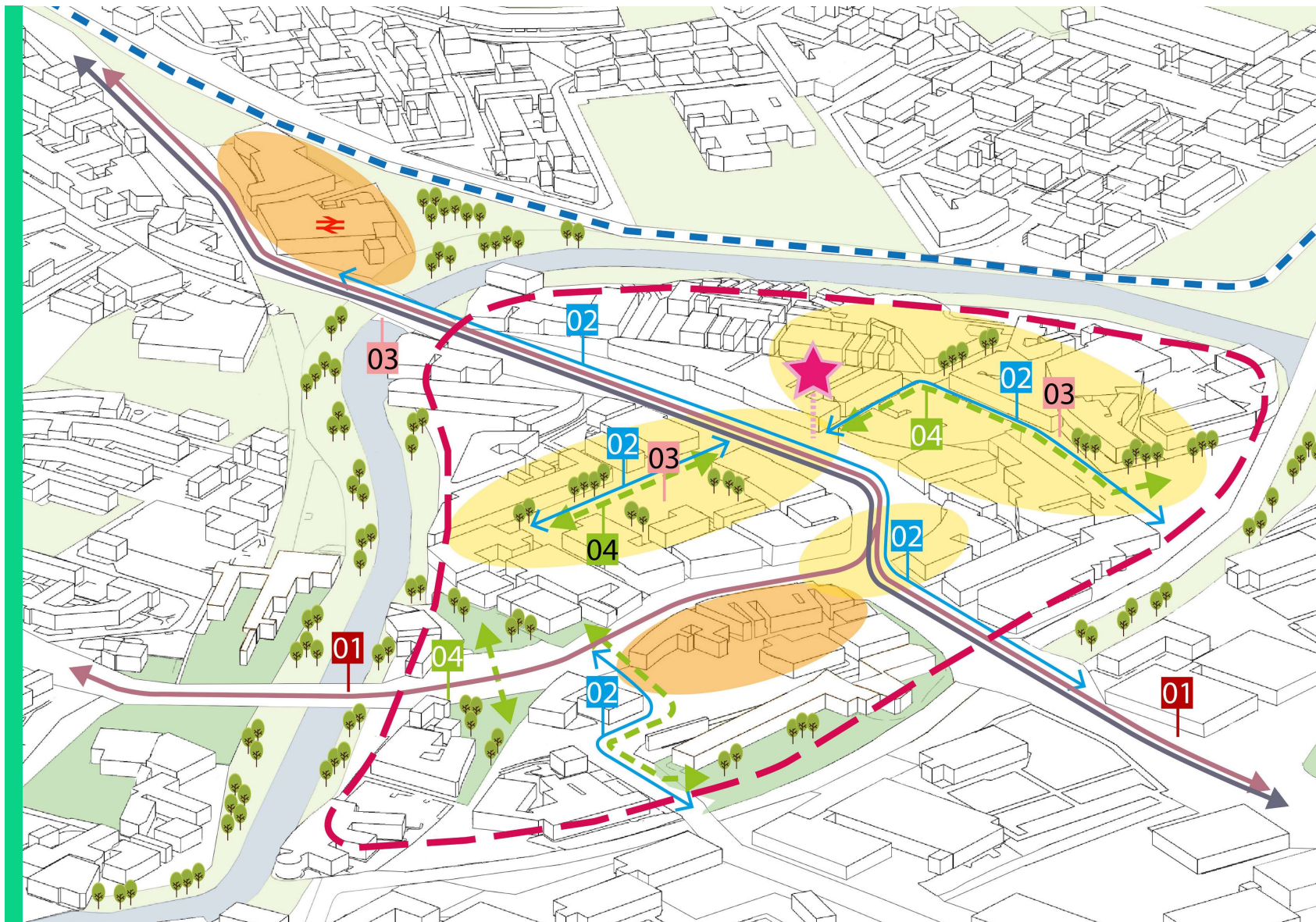


Add vibrancy through enhancing the evening/night offer



Flyover opportunity Credit: "Friends of the Flyover", Liverpool

Example Town Centre



- Existing green infrastructure
- River
- Opportunity for green infrastructure and links
- Proposed green infrastructure and links
- Key pedestrian areas
- Key public transport hubs
- Centre for activity
- Train line
- Mass Transit route
- Cycle route
- Green infrastructure connectivity
- Key space for activation
- Train station
- Connectivity

Interventions key

- 01** Active transport: improve walkability and enhance cycleways. Consider removing traffic from certain routes.
- 02** Improve pedestrian connectivity: crossing points
- 03** Pedestrian orientated spaces with community identity at its heart. Maintain identity of features like listed bridges
- 04** Improve green infrastructure to key pedestrian areas and routes

Typical Local Centre

Local centres play an important role within the community setting. Often close to educational institutions, local employment and local shops, they can be traffic dominated or lack character and distinctiveness. Varying size from a few local shops on a corner, to larger areas with shops and takeaways, they serve the day to day needs of residents and those passing through. Equally important is that they are often associated with bus stops and bring a level of activity to the streets.

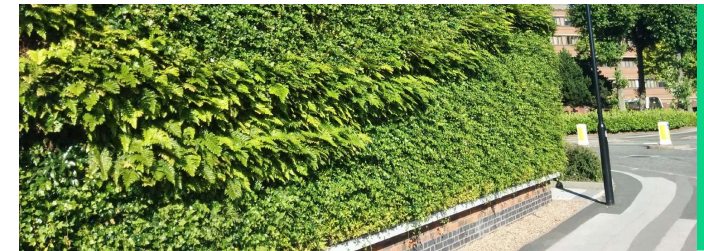
Providing access to Mass Transit and improved access to active travel opportunities improve footfall which supports these important facilities, which can be further supported by good quality public realm, creating community focus.

Interventions

- 01** Active transport: Improve walkability and provide cycleways. Support local centres in connecting with other cycleways creating a fully inclusive network of routes.
- 02** Public realm enhancements: Reduce the width of carriageways and allow other activities to take place.
- 03** Pedestrian Orientated spaces: Car parks dominate the pedestrian experience. Improve overall experience by creating a more welcoming approach for pedestrians by removing cars and relocating parking to the rear of retail.
- 04** Identity & activation: The retail street is a focus in the area. It draws people together but cars and car parks dominate centres. Establish a community hub adding to activation (the experiences and outcomes of placemaking) and sowing the seed to work with partners to elaborate on the identity of these places. Adding to the distinctiveness of a place helps to create a sense of community ownership and pride in place.
- 05** New Green infrastructure: Reduction in carriageway width where possible and integration of tree planting and SuDS to key streets and spaces. Although local centres have areas of grass, they are lacking in street trees and variety of vegetation.
- 06** Reduce car reliance & usage: Support development that reduces reliance on car usage.



Reducing reliance on cars by providing car club spaces as an alternative



Enhance blank façades

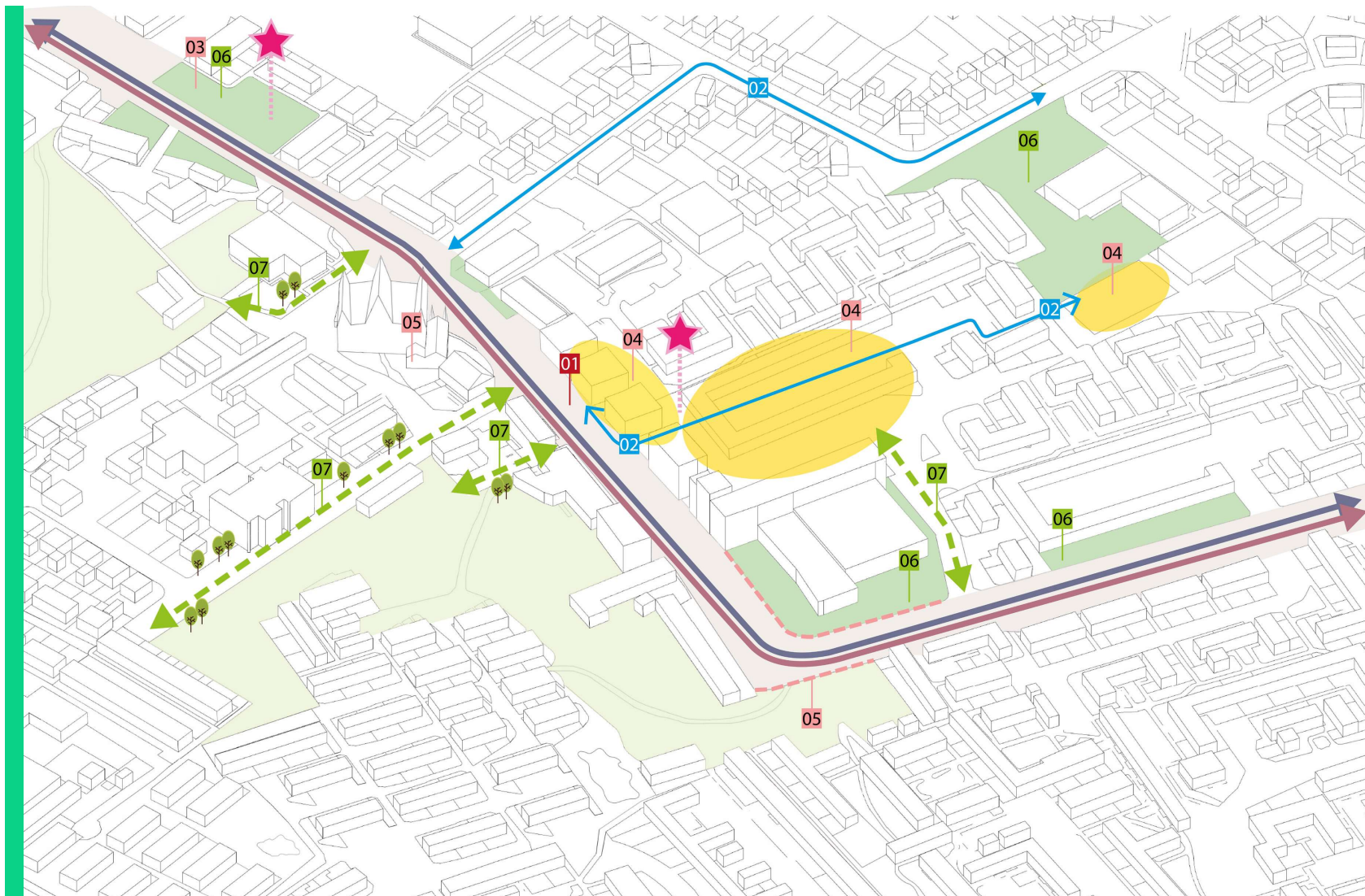


Pedestrian oriented spaces to shopping centre courtyard ©John Sturrock



Street food market extending activity hours

Example Local Centre



- Existing green infrastructure
- Proposed green infrastructure and links
- Opportunity for development
- Key route
- Cycle connectivity
- Mass Transit route
- Key space for activation
- Green infrastructure connectivity
- Connectivity

Interventions key

- 01 Support active travel
- 02 Improve pedestrian connectivity
- 03 Enhance area for improved pedestrian experience and local character
- 04 Support development that reduces reliance on car usage and helps improve the streetscape and sense of identity
- 05 Maintain identity of listed buildings and features like stone walls
- 06 Opportunities for green space
- 07 Opportunities to link green infrastructure

Typical Commercial Areas

Commercial areas are often defined by large buildings surrounded by parking and roads, with security fencing and signage and damaged surfaces. They are nevertheless important places where people work.

They are also often associated with features of heritage importance; railways lines and canals, distinct buildings, boundaries walls and paving, which all contribute to a sense of place which forms the basis for retaining such character.

With the introduction of Mass Transit, this typology will be better connected and less reliant on cars with the opportunity to reduce the extent of hard surfacing. There is the opportunity to retain heritage identity. Green infrastructure can be better connected and aid resilience, softer landscape spaces can be created offering an improvement to the sense of well being.

Interventions

- 01** Active transport: Support active transport links between residential and employment areas. Short journeys by bike or on foot should be encouraged and made as accessible and comfortable as possible.
- 02** Reduce car reliance & usage: Support development that reduces reliance on car usage.
- 03** Identity & activation: The retail and offices are a focus in this typology. They draw people together but cars and car parks dominate the surrounding areas. Establish social spaces where people can gather for informal games or seating. Activation of spaces helps the identity come through and develop.
- 04** Identity: Increase green boundaries to car parks and create green links through these areas breaking down the hard surfacing and providing a visual improvement. Areas can be distinguished by a style of approach to permeable surfacing and planting palette. Permeable options can be quite subtle or striking, helping to create a sense of place.
- 05** New Green infrastructure: Reduction in carriageway width where possible and integration of tree planting and SuDS to key streets.
- 06** Green infrastructure: Maximise sustainable drainage options and use topography to help accommodate swales and water bodies.

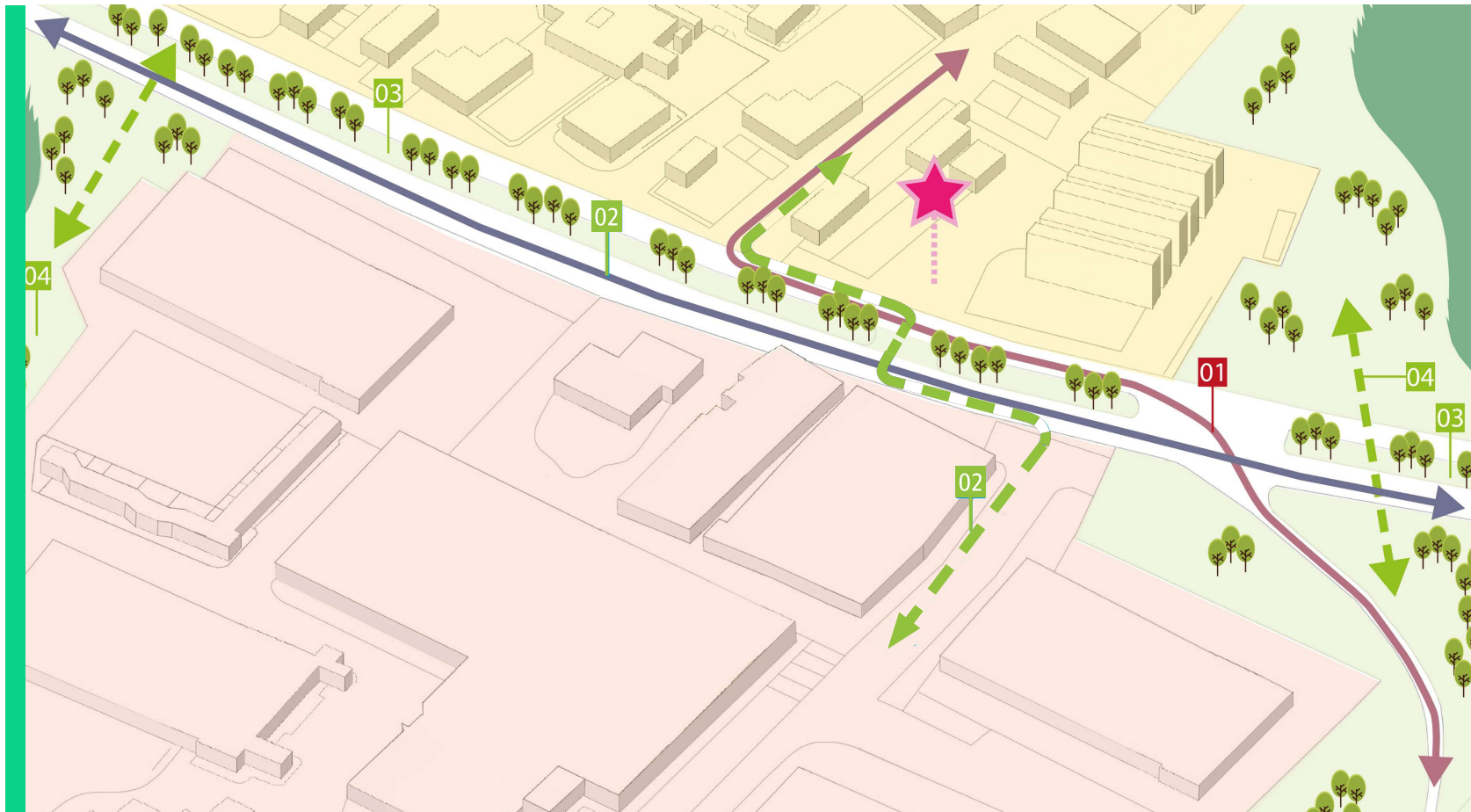


Sustainable drainage: Rain gardens



Social spaces providing activation

Example Commercial Areas

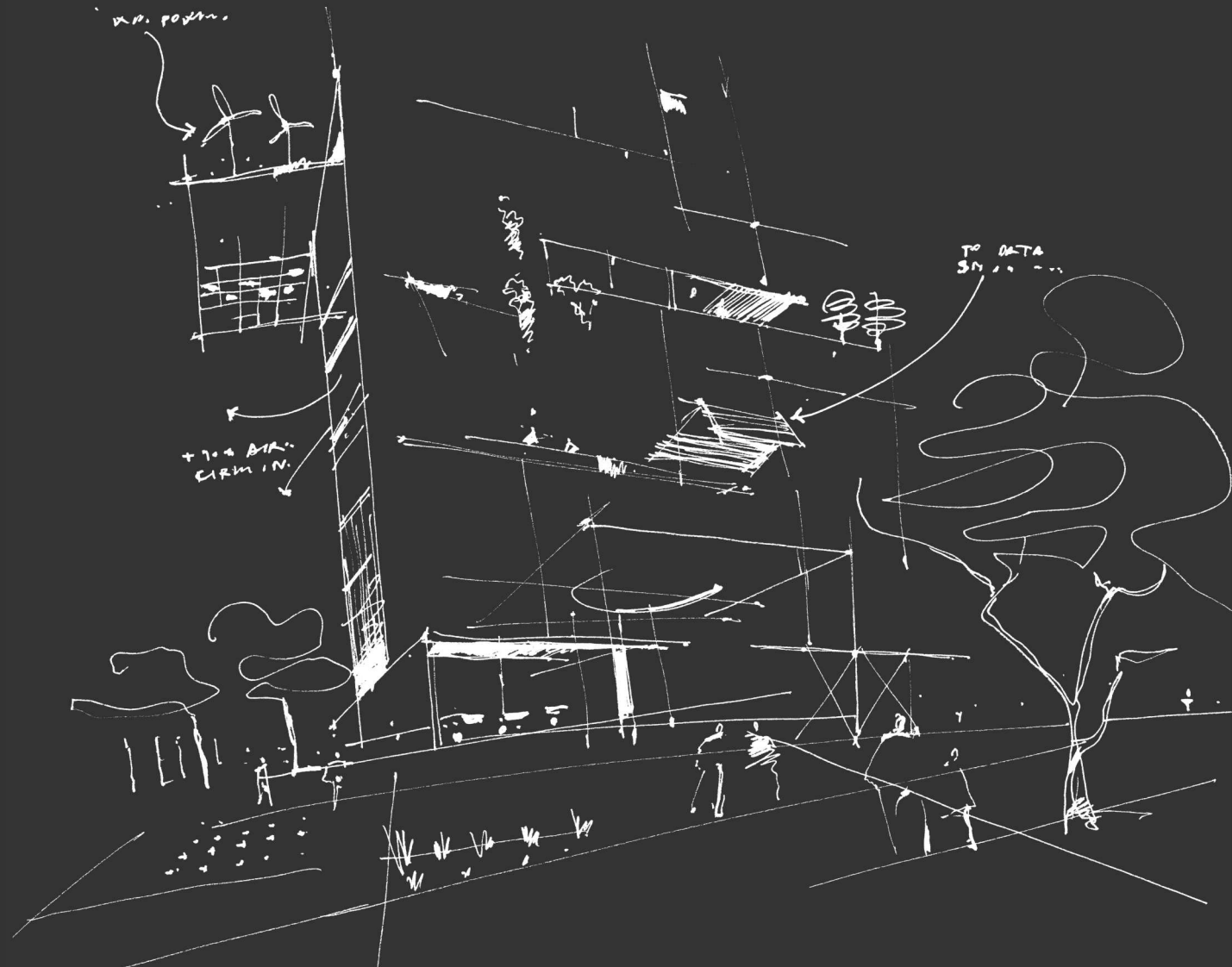


- Commercial
- Retail
- Existing green space
- Existing tree coverage
- Opportunities for green infrastructure
- Key area to create sense of identity and unique local character
- Cycle connectivity
- Mass Transit route
- Green infrastructure connectivity

Interventions key

- 01 Support active travel linking commercial and retail whilst enhancing cycle routes
- 02 Support development that reduces reliance on cars
- 03 Maximise use of sustainable drainage
- 04 Link existing green areas/ Green infrastructure

5. Green infrastructure



5. Green infrastructure

Green infrastructure is the use of naturally regulating systems to create a robust and sustainable developed landscape. Green infrastructure should not be considered as the token inclusion of 'wildlife friendly' or sustainable drainage nice-to-have elements within the design. Rather, it should be considered as the backbone of a sustainable place.



Natural Systems

There are three naturally regulating systems that form a green infrastructure approach:

- Biodiversity
- Water
- Soils

By creating a place that allows these three systems to naturally function and self-regulate, multiple and integrated benefits can be gained. This includes for example better air quality, reduced urban heat, decreased flood risk, reduced noise, improved access to greenspace for exercise and mental health and a stronger sense of place.

There are two principles that must be addressed to create good green infrastructure:

- Connectivity
- Multifunctionality

If these are done well, and considered from the beginning of the design process, the benefits of green infrastructure are much easier to achieve.

Connectivity

During the design process, green infrastructure can be delivered as a series of design interventions and it is important that these are delivered strategically rather than sporadically. The three systems of green infrastructure – Biodiversity, Water, and Soils – function best when integrated into a wider network; a network that could stretch beyond the local area to a city or region-wide scale. This means that early in the design process, the design team should identify the networks and features outside of the developing scheme boundary that the design could potentially connect. Most importantly, the new design should not sever existing links.

Networks and features to identify and connect could include:

- Ecologically rich sites such as nature reserves.
- Publicly accessible open greenspace, such as parks, allotments, or recreational fields.
- Existing green corridors, tree-lined streets and public space with planting.
- Cycle routes, exercise routes, public footpaths, and important walking routes between destinations and residential areas.
- Rivers, canals, open water waterbodies, and other waterways.

Once potential connections have been identified, the types of interventions required, and their location within the design, can be determined as part of the green infrastructure strategy.

Multifunctionality

The value of green infrastructure is that it can deliver numerous benefits in exchange for a small investment. To do this, each intervention must be designed in such a way to realise these benefits. For example, planting along a footpath will provide habitat for wildlife, but can make the footpath feel less safe if not designed appropriately. The descriptions of green infrastructure interventions below will help designers identify where and when such considerations should take place.



Green Surfaces

Many green infrastructure benefits can be gained simply by maximising the surface area of vegetation and soil within a scheme. Surfaces that consist of vegetation and soil absorb noise rather than reflecting it, sequester carbon, and cool the local area by holding moisture and gradually releasing it through evapotranspiration – a process that draws heat energy out of the air. Green surfaces should be seen as a key indicator of the environmental performance of the design.

Green Corridors

Green corridors consist of a series of open green spaces, forming a connected linear network. Green corridors are a high performing way of integrating a design into the wider green infrastructure network. They can form pathways for wildlife and people, provide open space for recreation and rest, create space for sustainable drainage, reduce flash flood risk and cool urban temperatures, and act as pathways for air circulation within urban areas, leading to improved air quality. A design could create a new green corridor as well as adding a needed connection to any existing corridors that cross the system. The type of open space within a green corridor (nature reserve, park, play space, pocket park, or even a well planted urban or infrastructure landscape) can vary, and is likely to function better and be used more frequently where a variation of use is provided. Note that green corridors can include privately owned open space as well as public open space, though clearly this restricts the scope of benefits for public accessibility and recreational use.

Street Trees

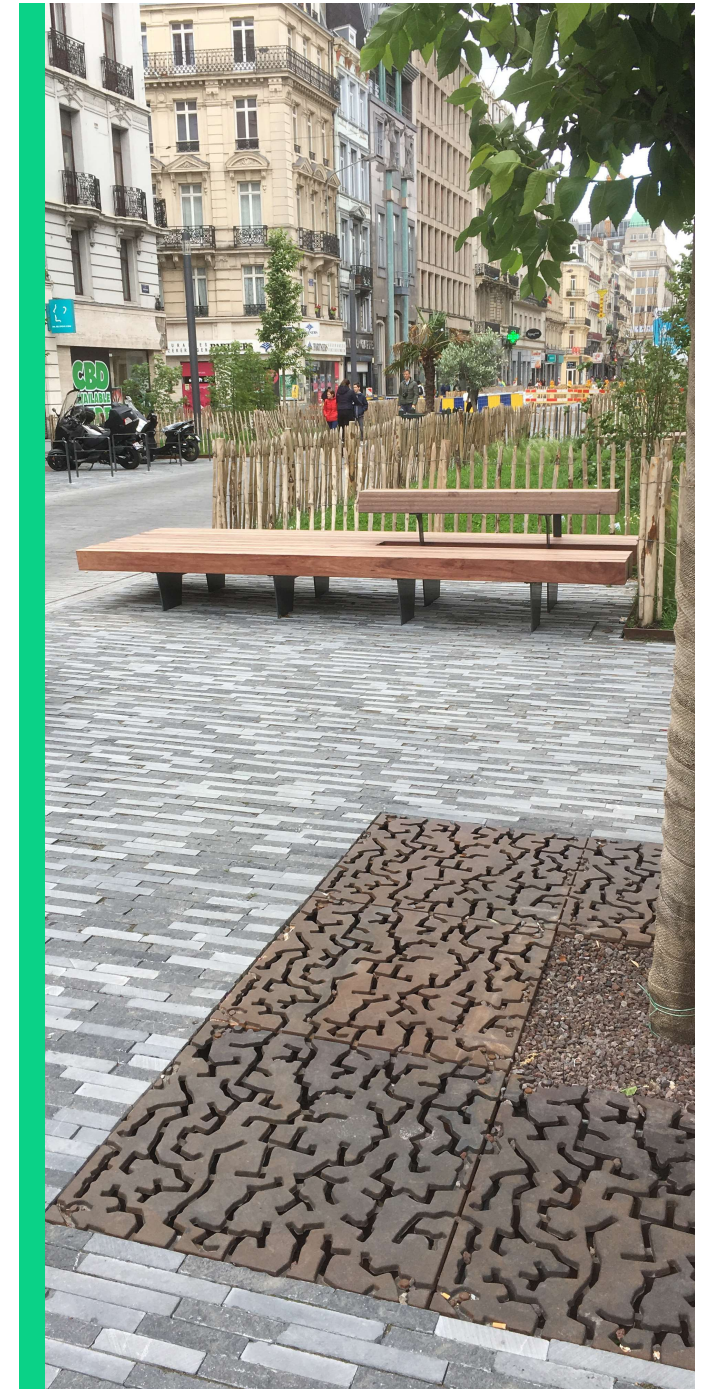
Street trees provide shade and shelter, so should be located where people gather, and along important access routes. A designer should also look for opportunities to shelter buildings from direct midday summer sun. People are more likely to use urban landscapes that have natural elements within them, so a tree-lined route or space is likely to be well populated, leading to greater sense of community. Street trees can also be a part of a sustainable drainage system, the tree itself intercepting rainfall, and the soil within the tree pit functioning as a temporary store for runoff.

Achieving the benefits of successful tree planting depends on getting the planting right and on maintenance. Tree pits need to be large enough to give the roots space to grow, with adequate access to air and water. This could require the use of proprietary under-paving systems that replace regular sub-bases, something that should be considered early in the design so that subsurface clashes can be avoided. Maintenance will be required as the tree establishes.

There is scope to encourage community involvement in tree planting and maintenance, through public or private sponsorship, as well as an opportunity for local people to learn new skills that relate to the management of their own environment.

Street trees can improve air quality, but their ability to do this is very much dependent on the arrangement of the trees in relation to the existing environment. Trees can form barriers to air pollution protecting people from harmful sources and generate turbulence, which is good for air quality, but they can also trap polluted air and impede air circulation in an enclosed space.

Similarly, arrangements for street trees should be avoided that significantly reduce the natural surveillance of areas within the public realm. Trees along pathways should be set back from pathways, with gaps between to allow views through, and high canopies to allow visibility beneath.



Verges, Central Reservations, and Islands

Verges, central reservations and islands can provide extensive green surface area, whilst enhancing a sense of location and a sense of change through a journey. Ornamental planting can be used to give junctions and arrival points a strong identity, as well as help establish a strong characteristic for a route. Wildflower planting can also be used to provide further habitat and increase visual interest. Both kinds of planting can be used to connect other sites of value for wildlife, whilst increasing the attractiveness of the space. Ornamental planting tends to be more appropriate to locations in close proximity to people, while wildflower beds tend to be more appropriate to areas of larger scale where less formality is required. The types of soil required for wildflower beds is very different to that of ornamental planting and lawns. However, there is an opportunity to reuse existing soils and landscape fills to produce wildflower meadows. The maintenance requirements of wildflower meadows are also very different to that of regular lawns, something that should be agreed with the long-term maintenance team during design.

Verges, central reservations, and islands are perfect locations for sustainable drainage, further increasing the storage of water on site, leading to cooling. Swales, and rain gardens that temporarily hold surface runoff will reduce flash flooding and provide more habitat connections.

Blue Corridors

Blue corridors are connected linear networks of aquatic habitats. These could follow a river, stream or canal or be a series of sustainable drainage interventions such as flood storage ponds or ornamental lakes. In some cases, a design may have the opportunity to connect water bodies or channels by installing new sustainable drainage interventions. Blue corridors hold water, allowing cooling of urban temperatures through evapotranspiration. They also offer opportunities for attractive walking and cycling routes, though these must be designed to feel safe and legible if they are to be used frequently.

Soils

Soils are a valuable resource. They capture and hold carbon and water and provide the basis for a diversity of flora and fauna. Soil health develops through time; for this reason, soils should be maintained in-situ where possible. Available soils within the system, even those of a perceived poor quality, such as within brownfield land, should be utilised as an opportunity to increase the diversity of habitats within the design. The biodiversity system depends on a diverse mosaic of habitats, rather than monocultures. It is important to involve soil specialists and ecologists at an early stage so that an audit can be made of what soils and habitats exist.



Footways and Cycleways

Footways and cycleways connect people to their destinations. This may be wholly within the system boundary, and it may be that the design is only a part of that journey. Adding elements of green infrastructure to pathways will increase their attractiveness and their use, which is likely to lead them to feel safer. However it is not simply a case of adding plants or trees in an unstructured way. Planting schemes should avoid creating hiding places that abut the pathway and should allow visibility along the path as well as in and out. Pathways should be inclusive, offer wayfinding where appropriate, and stopping points with seating for rest at locations of interest. It is important that the user of a pathway understands where they are in the wider landscape.

Inclusive, legible and safe, pathways can be combined with tree planting, shrub planting, sustainable drainage such as swales, and rest points, to form corridors that connect wildlife and access networks.

Pocket Parks

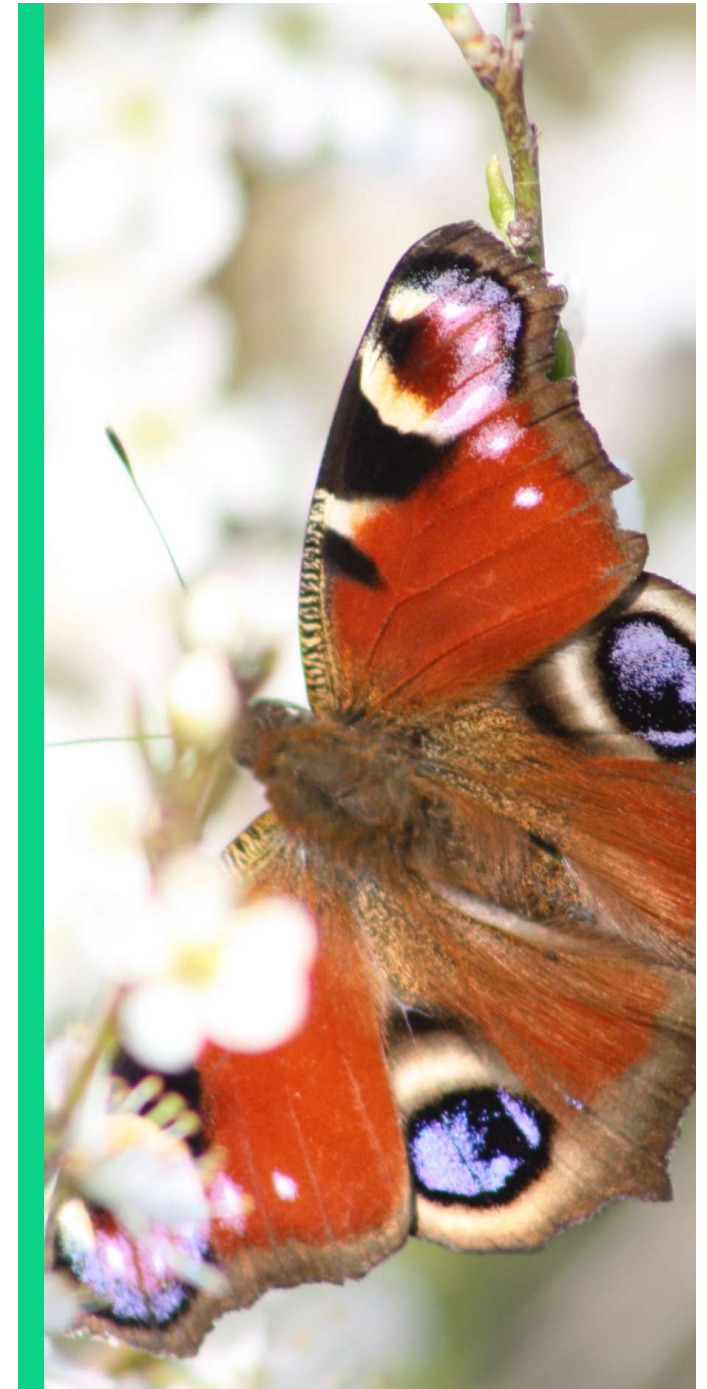
Pocket parks can be formed from unused or underutilised spaces within the urban environment. They can be utilised for food growing, education, or as a way to access nature and de-stress. Pocket parks are most successful when communities are engaged early – they can be the focal point for community groups, schools, and so on. These spaces should be easily accessible and offer a rich sensory experience for all abilities. Pocket parks within existing brown space could offer unique opportunities to place focus on heritage in the design as well as create unique habitats and these should be considered before the space is cleared for reuse.

Noise and Air Barriers

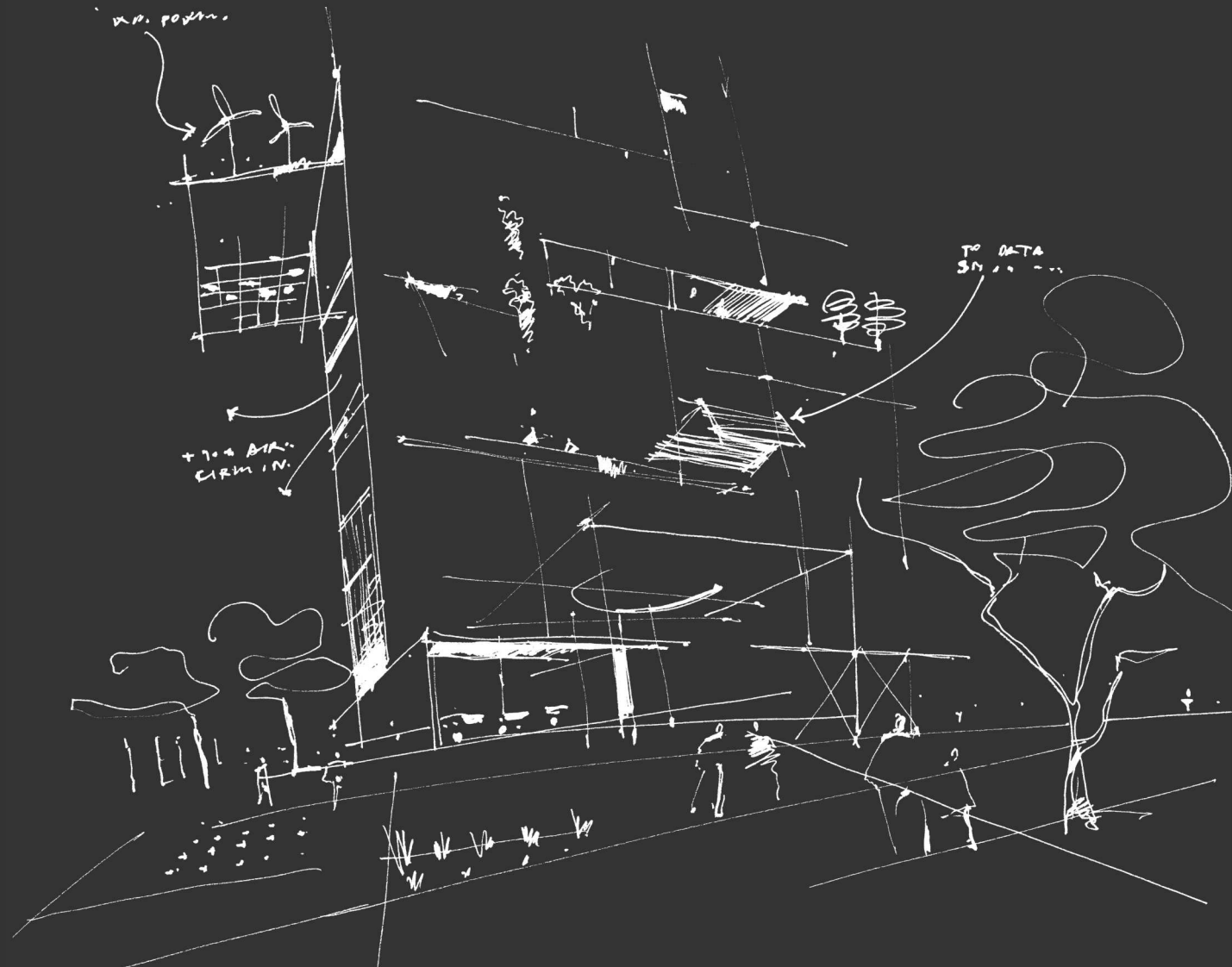
Planting can be used to create sound buffers at a large scale, by planting dense groups of broadleaved trees and shrubs near a source of noise, and at a small scale by creating living walls or willow walls. Dense linear planting, such as willow walls, living walls, evergreen hedgerows, and treelines can be used to shield sensitive receptors from poor air quality, as well as creating a linear connecting feature.

Play

Green infrastructure can be incorporated into play facilities and educational settings, providing children with an opportunity to interact with and learn about nature. In parkland settings there is scope for large areas of wildflower seeding, pollinator rich planting, as well as planting that stimulates all the senses and provides a vivid experience for those of all abilities. Even in urban settings, there is the opportunity to incorporate these features in a way that benefits the users of the space, by providing stopping points for insects and birds, and increasing the overall area of green surfaces. Providing trees for shade will encourage the use of play spaces, but only if they are arranged in such a way that natural surveillance is not reduced.



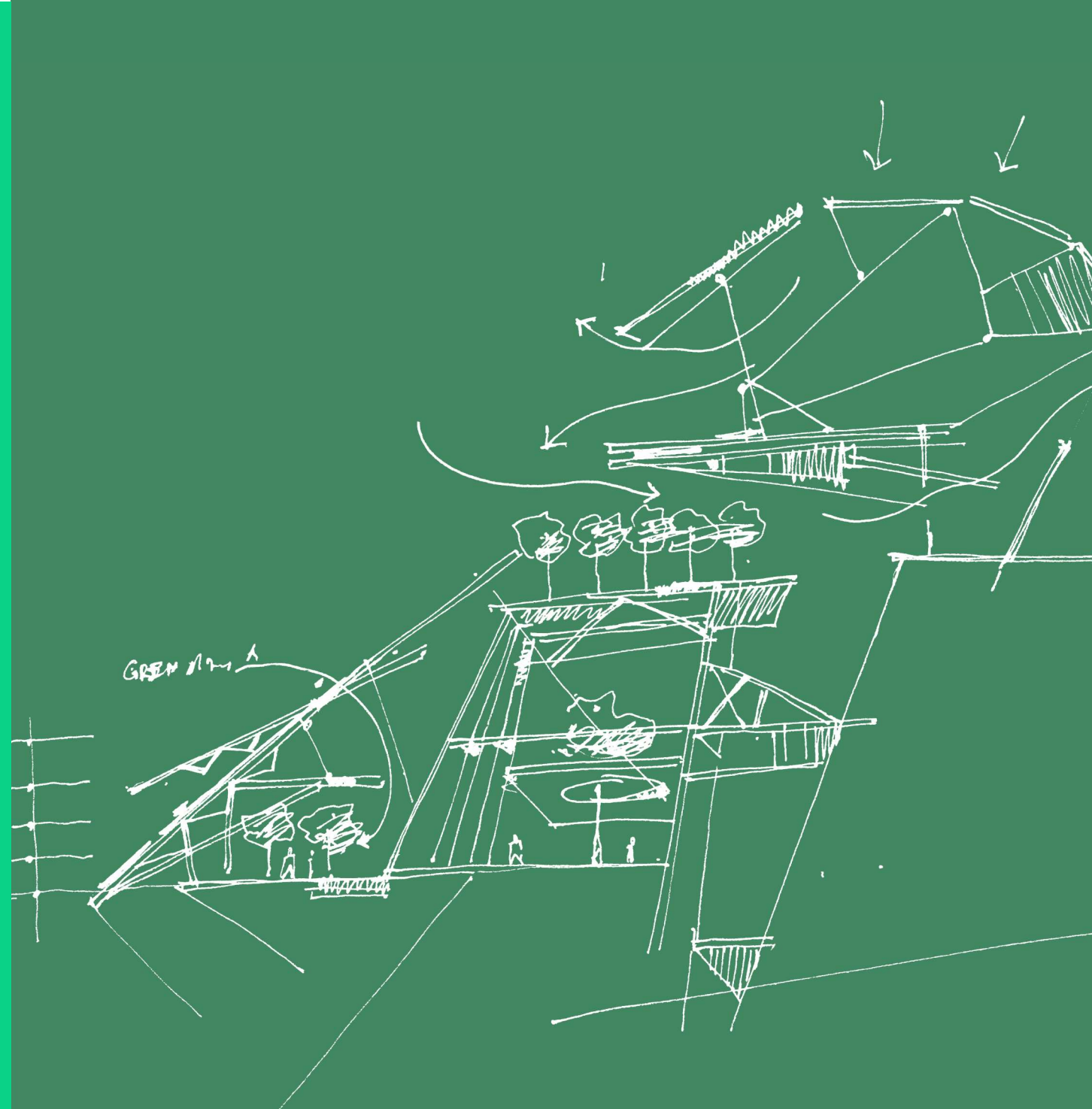
6. The placemaking design toolkit



6. The placemaking design toolkit

This chapter provides a number of tools that show how the design principles are to be applied so that the requirements for delivering good places can be achieved.

The tools support the more detailed considerations which will be needed during the later design stages and are derived from the placemaking design principles.



Response to cultural requirements

Consultation with local communities to understand how people use the streets and spaces is required. For example, the responses to the following questions could inform the design:

- Are the footways in front of premises used for selling goods/produce?
- Are the footways and public spaces used as places to meet and congregate?
- What festivals/events/processions/religious ceremonies take place that could influence the scale and arrangement of spaces?
- How could different cultures influence creativity and a sense of place within the public realm?

Identity

The most cherished and memorable places have their own identity or sense of place. New infrastructure design at this scale can have a beneficial impact on identity. The creation of new places should ensure that those impacts are beneficial. Consideration should be given to:

- Uniqueness
- Local character
- Integration of art
- Respecting heritage features
- Respecting a diverse range of cultures

Designing in Resilience

Designing in resilience is paramount.

- Planting design. Tolerance to climate change and disease through careful specification and broad species selection.
- Risk from flooding. Utilise existing green spaces to hold flood waters and allow water to run into rain gardens and soak into the soil. Beyond designing existing green spaces for attenuation, reduce the amount of hard paved areas by considering permeable paving or more green infrastructure to contribute to local flood reduction.
- Robust material selection for the long term. Surface materials (along with associated sub-base, laying material and jointing) should be designed with anticipated future uses in mind.
- Street furniture must be robust enough to withstand anticipated intensive use. Softwood components must have a suitable life

expectancy without onerous ongoing maintenance. Hardwood components should be sustainably grown and sourced without minimal ongoing maintenance.

The layout of zones within the street

Consideration should be given to all components within a typical street cross section. Consider:

- Clear pedestrian routes.
- How cycle tracks are aligned in proximity to stops and parking/loading bays in terms of 'buffer' strips for passenger alighting and door opening.
- The appropriate integration of loading bays, parking bays and taxi ranks.
- Appropriately located and clustered zones for cycle parking, information signs, litter bins, bike/scooter hire so clear routes are maintained.
- Providing suitable space at building edges to support active edges.
- The position of new street trees and surface water management components.
- Appropriately positioned seating opportunities.

Retention of good/high quality street trees

Existing, large mature street trees could easily be over 100 years old and every effort should be made to retain existing healthy trees. Considerations should include:

- Management works to the trees to support their long-term development.
- Improving tree pits with the removal of hard surfaces restricting or damaging tree trunks, increase the open area plan size where possible for water and air movement, or apply an appropriate flexible surface material.
- Review any damaged footways as a result of root growth.
- Works to trees may be required such as limb removal, canopy lift, canopy reduction.

A tree survey will provide information in the condition, quality, size, likely extent of root growth and long term growth potential. Exploratory trenches using vacuum excavation can be used to understand the presence of roots with greater accuracy.

New utilities should avoid root zones.



Proposed Street Trees

The magnificent, mature, high quality broadleaf trees that exist in our urban areas today were considered and planted well over 100 years ago. Some of the oldest London Planes planted in central London are over 200 years old. The accompanying tree planting associated with such a bold Mass Transit system needs the same long term thinking. Trees planted today must have adequate space above and more importantly below ground with sufficient soil volume as part of an appropriate tree pit design. With correct tree pit design, future root growth will not damage footway surface materials. Tree planting should promote a positive influence on the local environment improving air quality, stormwater runoff, health and well-being, habitat provision and species diversity.

Existing below ground utilities

Most of our urban areas contain a maze of utilities beneath footways and carriageways. The closer to an urban centre and more intensely populated areas, the more utilities exist. Engage specialist consultants early on to manage the impacts and control diversion costs.

- Consider utility diversions as part of overall infrastructure implementation.
- Consider positions of new trees in relation to services.
- Utilise root barriers to allow reduced distances to apparatus.
- Engage with specialist suppliers of tree pit products.

Parking and loading bays

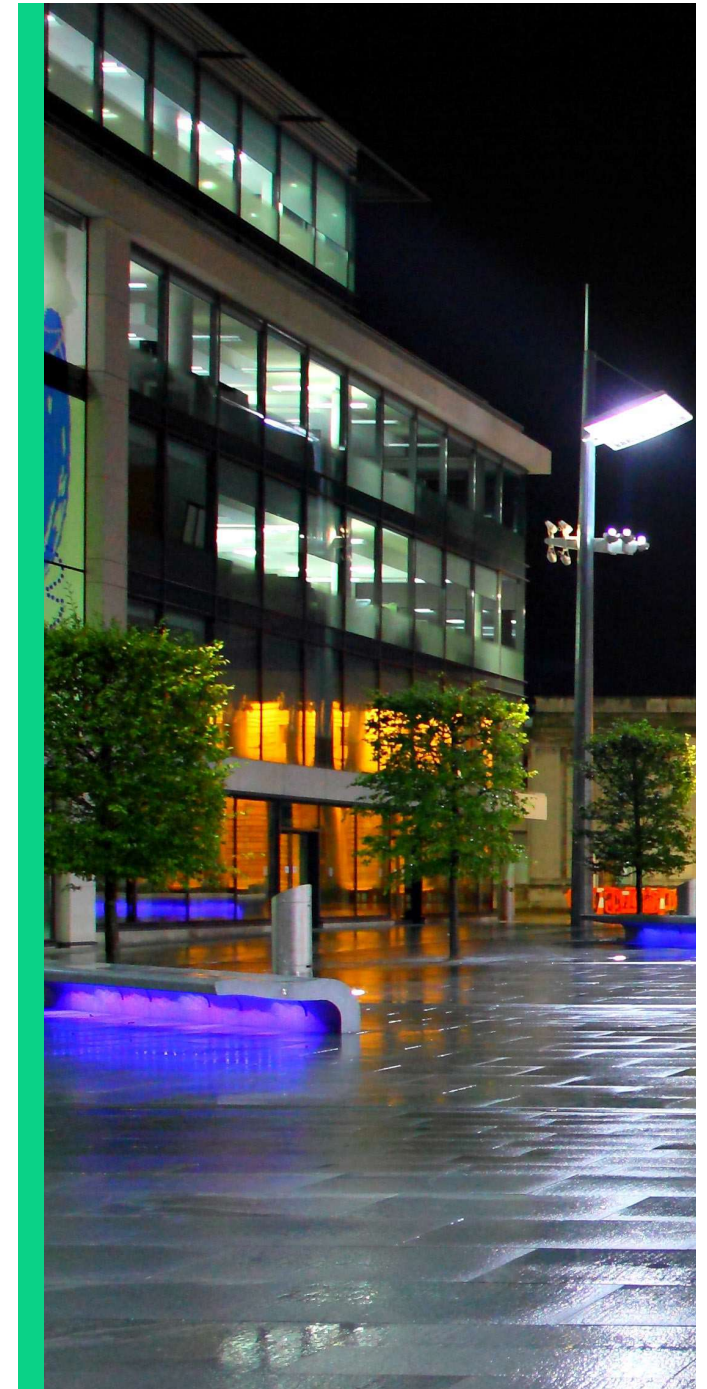
A frequent point of contention in the design of urban spaces is the provision of parking and loading and this should be carefully considered at strategic and detailed design stages.

- Longer stay parking should be allocated to car parks.
- On street parking should be high turnover unless resident parking permits are in place.
- Create multi-functional uses, for example a loading bay during the day and a taxi rank in the evening. Parking/loading bays should be easily closed off for events.
- Low intensity use loading bays should appear and function as footways when not in use.
- Ensure the size of all parking and loading bays are fit for today's standards and vehicle dimensions.

Heritage components

These features are important components that contribute to the character and identity of a place. The system should respect them and integrate them accordingly. Some features such as historic light columns can be re-positioned relatively easily, and it is an opportunity to refurbish them and sympathetically modernise the luminaire to meet today's standards. Other features such as walls and historic railings are likely to be more challenging to realign and re-construct. Features include:

- Scheduled monuments.
- Listed buildings and features.
- Light columns.
- Walls and railings.
- Monuments and statues.
- Natural stone paving and kerbs.



Lighting

The lighting design within an urban area subtly influences the feel of a place by day as well as night and should therefore be given due regard.

Scale and height of the light columns must be appropriate for the context. For example, a 12m high column is not likely to be appropriate for a pedestrian focussed high street with 2/3 storey building heights.

Quantity is determined by a combination of the required light levels for a given setting and function as well as column height. In terms of quantity, the lighting design team must also consider the 'place' to ensure the spaces are not cluttered with infrastructure.

The detail of where light sources are positioned should be specific to the context and function and it should not be presumed that a standard detail is appropriate everywhere. There could be important views along a street within a Conservation Area for example, that may be adversely affected if interrupted by multiple vertical components. In this instance columns positioned at the back of the footway or luminaires mounted on buildings may be appropriate. Conversely, there may be some benefit in helping define spaces with regularly spaced columns associated with a kerb line, for example.

The type of the luminaire and column should take account of the local urban character. Colour should be considered alongside other components such as street furniture, signals infrastructure and potentially existing local design guides.

Consider whether there is an existing pattern or style and use of material or finish such as stainless steel, polyester powder coated or cor-ten.

Consider the mounting of CCTV, festive/temporary lighting, WIFI provision as a multifunctional column to minimise street clutter.

Landscape maintenance

Understanding the broad maintenance responsibilities and requirements for various components early on in the design process is beneficial in terms of the positioning of certain elements, material selection and specification of soft landscape. Points to consider are:

- Do the managing authorities have the maintenance knowledge and 'buy in' for managing areas of wildflower?
- New planting that makes an important contribution to the public realm should sit within public ownership so that there is control over the maintenance.
- Monitoring and managing new integrated SuDS combined with planting may require a change to existing procedures.





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