



Liverpool Knowledge Quarter

Urban Design Framework & Public Realm Implementation Plan





► Anglican Cathedral



► Blackburne House



► Mount Vernon

Contents



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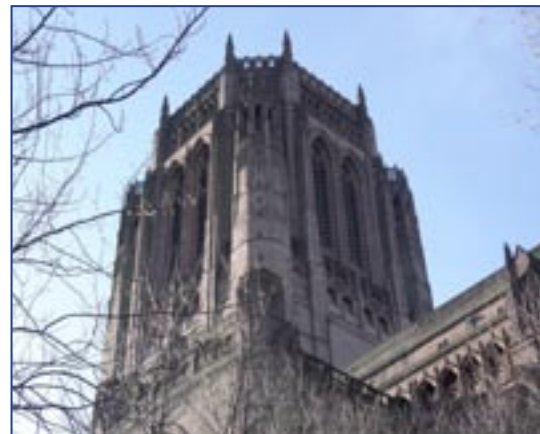


► Strategic concept for Liverpool's Knowledge Quarter

Introduction



► Redbrick University



► Anglican Cathedral



► The Royal Hospital complex

It could be said that the success of Liverpool's city centre regeneration strategy over the past decade has been to 'catch up' in areas where the city had fallen well behind comparative metropolitan cores. In retail, Liverpool's declining position has been reversed and is set for transformation in 2008 as the Grosvenor L1 development opens for business. The renewed commercial office infrastructure and associated rental values are barely recognisable from the heavily dated offer ten years ago. Dramatic growth in hotel space, conferencing and leisure will be crowned with the completion of the King's Waterfront Arena and Convention Centre, a spectacular conferencing and concert venue on the city's waterfront.

During this time, Liverpool city centre has been re-established as a place where people want to live as well as relax and do business. The city centre population has risen from 3,000 to around 20,000.

Two sectors in which the city never fell behind its competitors have helped give momentum to this regeneration. The city has always retained a leading reputation in the associated fields of Higher Education and Medicine, its Universities, School of Tropical Medicine and Teaching Hospital acknowledged as institutions of international calibre. Likewise, Liverpool's profile as a cultural, creative and tourist focus has remained high; the cathedrals, museums, galleries, music venues and theatres attracting visitors from near and far.

Perhaps because Liverpool's learning and cultural institutions perform so well, their physical setting has not always been subject to the same level of strategic regeneration attention as that focused on the restructuring of the waterfront and commercial districts. The Prospectus for Liverpool's Knowledge Quarter highlights the importance of the city centre's eastern sector to economic growth across the Northwest region. This document gives physical form to

that Prospectus by looking at the environment of the Knowledge Quarter and how it can be transformed over the coming decades.

The Knowledge Quarter generates some 15% of Liverpool's Gross Value Added and 7% of all full-time employment but covers just 1% of its land area (source: Prospectus, Regeneris report, 2007). Students, tourists, academic staff, business and research funding are drawn from global networks. Together, the Knowledge Quarter and Hope Street Quarter represent a unique combination of assets. Learning and leisure co-exist alongside high value-added knowledge businesses, in a lively townscape of Georgian squares and magnificent cathedrals. The assets of the area include:

Knowledge institutions

- University of Liverpool
- Liverpool John Moores University
- Royal Liverpool University Hospital

In which we describe the context for our work arising out of the Knowledge Quarter Prospectus which highlighted the importance of the area to Liverpool's economy and the extent to which this is undermined by the physical environment of the area.



► LJMU's new Art and Design Academy on Brownlow Hill; image courtesy: LJMU



Abercromby Square



The Foundation Centre



The Metropolitan Cathedral steps and cafe

- Liverpool School of Tropical Medicine
- Liverpool Science Park
- Proudman Oceanographic Laboratory
- Liverpool Hope University
- Liverpool Community College
- Liverpool Institute for the Performing Arts

Cultural Institutions

- Anglican and Metropolitan Cathedrals
- Royal Liverpool Philharmonic Hall and Orchestra
- Everyman and Unity Theatres
- Blackburne House
- Cornerstone Gallery
- Victoria Museum & Gallery
- Increasingly strong high quality hotel, bar and restaurant offer
- Distinctive architectural and public realm assets
- Proximity to Ropewalks, the Baltic Triangle Independent District and the World Heritage Site

The area also has many physical strengths:

- **A human scale:** The area is compact and can be walked across in 15 minutes. Buildings are generally of a size and density which is sympathetic to the pedestrian.

- **Significant architectural value and character:** Many parts of the area have notable and attractive buildings, in a diversity of styles. A number of new buildings provide high quality and striking additions to the townscape.

- **A rounded offer:** The Knowledge Quarter, notably within the Hope Street area, contains a diverse and vibrant set of leisure pursuits which are a strong complement to its knowledge strengths.

- **Clear and logical routes:** The area benefits from a number of strong landmarks (foremost the cathedrals), and some parts of the Knowledge Quarter are highly legible, making it relatively easy for visitors to find their way around the core area.

The environment is, however, fragmented and these strengths sit alongside environments that are in places degraded and disconnected. The

urban design of the area does not fully reflect its high standard operations, and the public realm does not adequately support the ease of interaction vital to knowledge transfer.

URBED and Landscape Projects have conducted an intensive physical study of the area and propose a Design Framework and prioritised set of projects aimed at matching the quality of environment to the best institutions within it.

An Inspirational Environment

As the Knowledge Quarter Prospectus states: *'Knowledge and knowledge workers are mobile. Academics, researchers, students and knowledge based businesses have a great deal of freedom over where they locate. It is vital that Liverpool and the North West are able to offer outstanding knowledge environments in which to work, study, collaborate and relax. Surveys of leading researchers who have been attracted to Liverpool in recent years confirm that the quality of the physical environment is an issue that we need to address.'*

The area's continued growth depends upon the high quality environments in which people

can move, experience the arts, meet, socialise, stay overnight, live, eat and drink – the social and physical fabric of the Liverpool Knowledge Quarter. The leisure and cultural offer focused on the Hope Street area must be seen as key to Liverpool's effort to attract and retain students, academics, researchers and other knowledge workers. The recent high quality public realm works in and around Hope Street have been highlighted by CABE as a best practice example.'

There has never been a better time to bring about this transformation. Major physical change and development is already underway across the Knowledge Quarter as both universities implement major capital programmes (with a combined estimated value of £300m). The Royal Liverpool University Hospital is also to be rebuilt at a cost of over £400m, opening opportunities to develop much stronger physical and visual links with the universities and School of Tropical Medicine. New opportunities for appropriate private sector investment within the Knowledge Quarter are also being created.

These efforts need to be set within a coherent framework, and complemented with action to

address problems in-between and adjoining these areas, in order to maximise the impact of the planned improvements.

A strong knowledge environment?

The Prospectus identifies environmental qualities that will sustain the success of Liverpool's Knowledge Quarter:

- **A distinct sense of place:** The visitor should have strong sense of having entered a distinct part of the city.
- **Clear but permeable boundaries:** The ideal knowledge environment needs to have a defined quarter with clear, albeit permeable borders.
- **Visual and physical linkages within and between:** Visitors, users, students and staff need to navigate efficiently and safely between buildings and places in the campus area.
- **Open and inclusive spaces:** A vibrant knowledge location must be open and



► University Square



► 'A Case History' by John King, Hope Street



► Refurbished retail and leisure units on Blackburne Place

accessible to all, in order to focus a sense of interaction and allow people to apprehend what is going on in surrounding buildings.

- **Facilitating and encouraging social interaction:** Social and public spaces where people can meet and interact are vital.
- **An engaging feel and structure:** Thriving knowledge locations do not feel sterile and empty, they are active, lived in, comfortable and relaxed, but also have a determined air of progress and endeavour.
- **High quality teaching and working environments:** Learning environments must provide quality teaching and research facilities.

Prospectus Investment Priorities

The Prospectus prioritises improvements to the area's image and marketing; better co-ordination of investments, and pursuit of an integrated programme of public realm enhancements, distilled into the following activities:

Tackling key linkages to the city centre:

To create a strong route from Lime Street station up Mount Pleasant and Brownlow Hill, complemented with more animated active ground floor uses and improvements to the public realm, which enhance pedestrian priority.

Concerted investment in underperforming areas:

The London Road, Brownlow Hill, Mount Pleasant and Hardman Street/Myrtle Street Quadrants are critical to the development of the knowledge economy in Liverpool. They each need investment in image and identity.

Improving routes within the Knowledge Quarter:

Strengthening the quality and legibility of routes within the area, particularly within and across the University of Liverpool Campus.

Developing the physical linkages with other key assets and neighbouring communities:

Promote vitality of the urban environment linking the core area to key knowledge assets, such as the LJMU City Campus on Byrom Street and adjacent neighbourhoods such as Edge Hill, Everton, Kensington and Toxteth.

Overcoming domination by cars: At the moment the car has a major negative impact on environmental quality across the Knowledge Quarter. Further vehicle calming, creative solutions to car parking and improvements to public transport, along with better pedestrian and cycle links, are all required.

Making memorable spaces: Examine the relationship between important buildings and groups of buildings and how they relate to adjacent spaces to create memorable and usable spaces that promote a convivial environment for the exchange of ideas and knowledge.

Promoting awareness of the Knowledge Quarter both nationally and internationally:

It is vital that awareness of the strengths, opportunities and aspirations within the Knowledge Quarter are raised amongst investors and other stakeholders, both in the UK and overseas. The Knowledge Quarter should play an increasingly prominent role in the ongoing repositioning of Liverpool and the North West.

PART 1:

The Area



Liverpool's Knowledge Quarter with the Georgian quarter and the Anglican Cathedral in the foreground

1:1 Historic Pattern

In which we describe the history of the Knowledge Quarter, from rural hinterland to the city to a model Georgian neighbourhood to a riotous working class district to a district of university and institutional campuses.

“From the late C18th and especially after 1816, this ridge of high ground overlooking the crowded town was laid out with regular streets and developed as a favoured residential area. Alongside terraced housing it acquired churches (mostly demolished) and institutions, many associated with education and medicine. In the late C19 the new University College made its home here, and is now a dominant presence. Liverpool’s two C20 cathedrals stand at the North and South ends of the ridge, visual anchors that give coherence to a large and architecturally diverse district.” (Sharples, 2004)



► Liverpool city centre in 1851



► Liverpool city centre in 1765

In this section we explain our understanding of the historic development in and around the study area, most of which occupies a broad, flat plain on the ridge between successively rising steps of two short but steep inclines.

Pre 1800

The eastern part of the study area was for centuries very much a rural fringe of the historic borough of Liverpool, at its boundary with the much larger and even older administrative unit of West Derby. Peripheral status is reflected in place names such as Edge Hill and Boundary Place.

“Lime-kiln lane, now Lime Street, was quite in the country, with fields on the east side... the author recalls one of these fields, called Waterworth’s, remaining unbuilt on as late as 1807”.

Richard Brooke

Even this far back in history, a major institutional use was located here, when the new “House of Industry” was built on Brownlow Hill in 1769, the

parish’s first workhouse moving out of College Lane. The workhouse would expand on this site for the next 150 years, at times housing up to 5,000 of Liverpool’s poor, until it was chosen as the location of the new Roman Catholic Cathedral in 1930.

St. James’ Terrace, or ‘The Mount’, was laid out as one of the town’s first three Public Walks and Promenades around 1775. This was the precursor to a major planned expansion of the city along Rodney Street by William Roscoe and others in 1783-4.

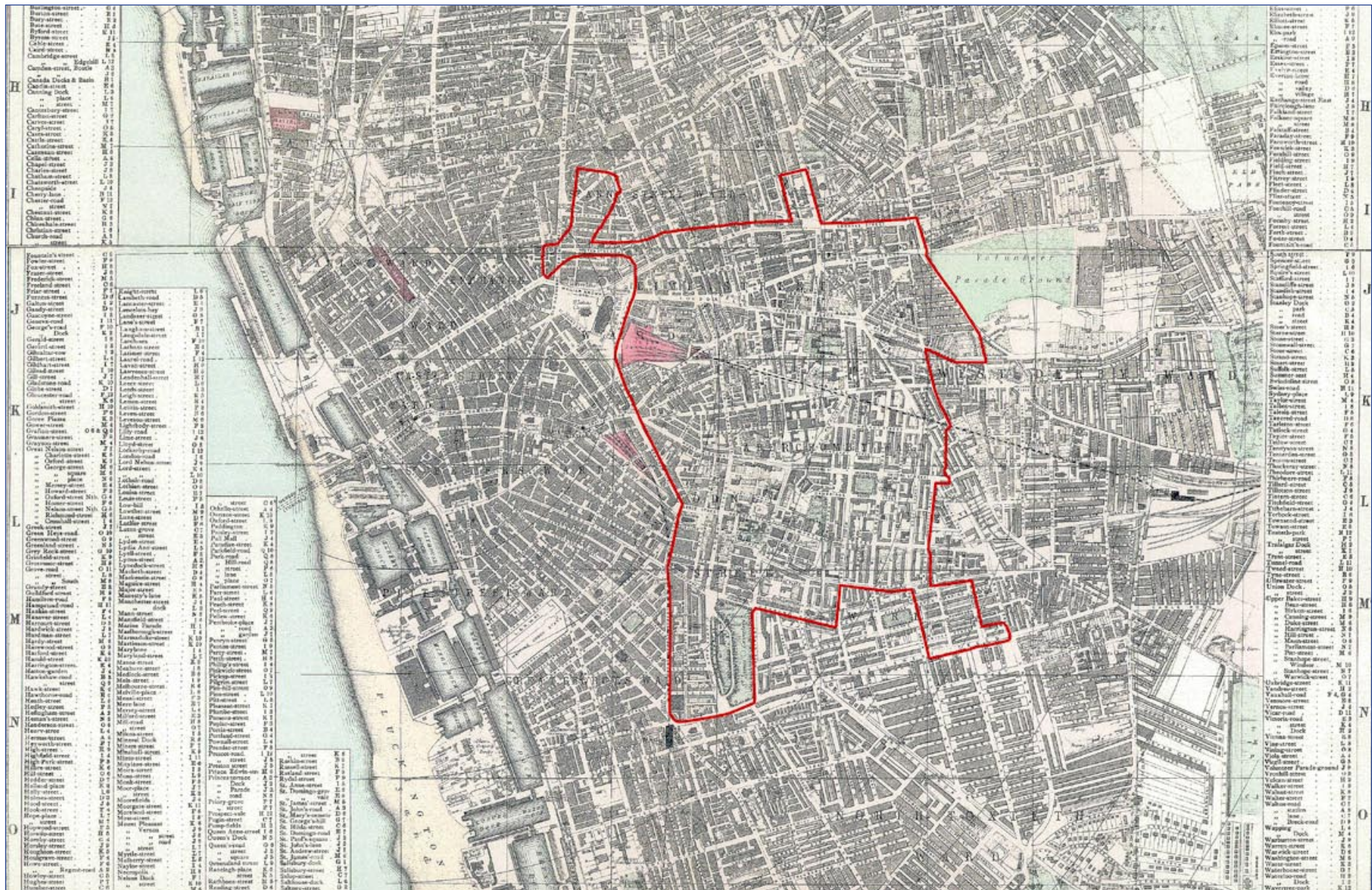
“(Rodney Street’s) length, width and straightness were unprecedented in Liverpool. It was developed piece-meal up to the 1820s with houses for the affluent, escaping the old town centre.”

Sharples, 2004

Just to the east of Rodney Street up the hill, Hope Street was laid out around 1790, with houses appearing at its north end around 1800. For the most part, the rest of the plateau remained open

heath-land, dominated to the south by the Royal and Ancient Park of Toxteth, hunting grounds once owned by the Crown and later by the Earls of Sefton. The boundary of the old Toxteth Park ran along what is now Parliament/Upper Parliament Street, from the Mersey to Lodge Lane (which led to one of King John’s original hunting lodges, and also that of the Victorian Boundary pub). From Lodge Lane the boundary ran along what was then Smithdown Lane, now Smithdown Road.

The old park began to see development along the river from around 1774, when Parliament granted building leases for the 1st Earl of Sefton. The building of St. James’s Church was begun in this year. This church is of particular historic significance as it was the place of registry of many immigrants who settled in the city from the late C18th onwards, including former slaves freed in return for fighting for Britain in the American War of Independence. Although little developed, the study area was crossed by a number of important old roads leading to Liverpool. These included Smithdown Lane itself, which continued



► Liverpool in 1868 with the Knowledge Quarter outlined in red.

► Liverpool's city structure pre 1800



► Liverpool's city structure post 1800



north-west from the boundary of Toxteth Park along the level ground at the foot of Edge Hill. This was the main highway to settlements immediately south of the town. It approached the city centre via Brownlow Hill and the old Crabtree Lane, later to become Falkner Street.

The road to Prescot (Prescot Street and London Road, now the A57) was the first in Lancashire to be improved by formation of a turnpike trust, in 1725, ten years after the opening of the first dock in 1715. This was Liverpool's main land link to ready supplies of coal and other goods, and for distribution of its seaborne imports to the rest of the country.

Other important roads converging on the east side of the study area were West Derby Lane (now West Derby Road), which led into Islington, and Low Hill, Edge Lane, and Wavertree Road.

Early to mid 19th century

"By the 1840s almost the whole of the eastern, elevated half of the Corporation estate had been built up with broad, straight streets of predominantly high class houses."

Sharples, 2004

Lying just above and beyond the main extent of the teeming 18th century town, the area now covered by the Knowledge Quarter was developed in the second wave of Liverpool's expansion. Although containing a handful of major private residences like Blackburne House, it is from this late Georgian period that the underlying structure of long, wide terraced streets, punctuated by set-piece spaces and vistas to landmarks, derives. Much of it was shaped by the architectural and surveying talent of two men, father and son, explaining its enduring spatial harmony.

Decisive change came in 1800, when the Corporation through its chief Surveyor John Foster (Senior), resolved to promote a planned urban expansion, in a form that expressed mercantile Liverpool's classical aspirations. At the heart of Foster's vision were two large and prestigious garden squares, Great George Square (just west of the study area boundary), and Abercromby Square, both to be built on a grand London scale. The former was laid out by 1803 though development around Abercromby Square did not advance far until leases were assembled in 1816. Foster (Senior) produced a design for one side of Abercromby Square in 1819, and the ensemble was finally completed by his son John Foster (Junior) in 1831.

Abercromby Square was the centre-piece of an extensive, regular and symmetrical grid of streets across an area known as Mosslake Fields,

between Crabtree Lane (now Falkner Street) and Brownlow Hill. Beyond the grid-planned area, contemporary developments like Seymour Terrace, designed by Foster (Sen.) in 1810, reflect the same orderly architectural values. His individual buildings like St. Luke's Church, begun in 1811, and his son's dramatic Necropolis at St. James's Cemetery, symbolise the growing confidence of the Corporation as the agent of expressive urban design.

Canning Street was an extension of Duke Street laid out in the 1820s and early 1830s, and built up from the 1840s. It connected to an area between Falkner Street and Upper Parliament Street, laid out in 1827 by Foster (Jun.) on a similar grid model to that pioneered by his father at Mosslake Fields, with Falkner Square at the centre, built up from the 1840s. Other city squares included Islington Square, circa 1840s, and Ranelagh

Place, where the first Adelphi Hotel was built in 1826 at the confluence of routes from the south and east.

A truly seminal change in the first half of the C19th was the opening of the world's first inter-city railway, George Stephenson's Liverpool – Manchester line, at Crown Street in 1830, with a tunnel under the study area to Wapping Dock. By 1835 a further tunnel and cutting took the line to Lime Street, where the first of three stations to occupy the site was opened the following year.

Lime Street was the location of the first of the city's purpose built Infirmary hospitals from 1749. This was replaced in 1824 by a building on Brownlow Hill, leaving the west side of Lime Street to be filled by St. Georges Hall, begun in 1839 as the centre of an ambitious civic forum. The new Royal Infirmary was the forerunner of the major medical institutions that now dominate the study area.

Another important step was the formation of Liverpool's Mechanic's Institution in 1825, which built its imposing technical school on Mount Street in 1835. In 1844 the girls' school of the Mechanical Institution took over Blackburne House. The Mount Street building was later used as the celebrated Liverpool Institute grammar school, and is now Paul McCartney's Liverpool Institute for the Performing Arts (LIPA).

The Scottish Church of St. Andrew's, built on Rodney Street in 1823, heralds Liverpool's status as a magnet for immigration. The city's prestige as a place of arts and culture was assured by the building of the Philharmonic Hall in 1846. A School for the Blind was established on the corner of Hope Street and Hardman Street in 1849.

Thus the study area's essential role and function of civic, medical, educational, cultural and ecclesiastical uses set within a well-ordered district of desirable private residences stems from this period.

► Liverpool's Waterfront in 1851





► 1851 Figure Ground Plan (University Campus Area)



► 1927 Figure Ground Plan (University Campus Area)



► 2007 overlaid onto 1927 (University Campus Area)

Mid to late 19th Century

Built up by the mid C19th, the late Victorian period saw major expansion of the study area's institutional role. The most significant developments took place around 1880, when Liverpool was granted City status, and raised to a Diocese by the Anglican Church.

A year later, the University College was founded, locating its offices and teaching rooms on Brownlow Hill. By 1889 the magnificent Victoria Building was under construction, the embodiment of pride in a Civic University. At the same time, just to the north, a new Royal Infirmary was constructed by the same Liverpool architect, Alfred Waterhouse. The new Diocese set about finding a design for a cathedral to be sited next to St. George's Hall, but this project lapsed in 1888 and the actual site at St. James's Mount was not selected until 1901.

Immigration during this period shaped much of the metropolitan character of the city. The study area and its surrounding streets became the focus for a number of distinct immigrant communities and their facilities. The area around

what is now John Moores University's Byrom Street Campus became known as 'Little Italy' from around the 1870s, as Italian Catholics settled near the Irish Catholic district of Scotland Road. By 1813, one in ten people in Liverpool were Welsh, and the first Eistedfodd was held here in 1840. In the 1870s, some 50,000 Welsh people moved to the city, making it a larger settlement of Welsh people than any in the Principality. Pall Mall and the junction of Marybone and Great Crosshall Street became Liverpool's own 'Little Wales'.

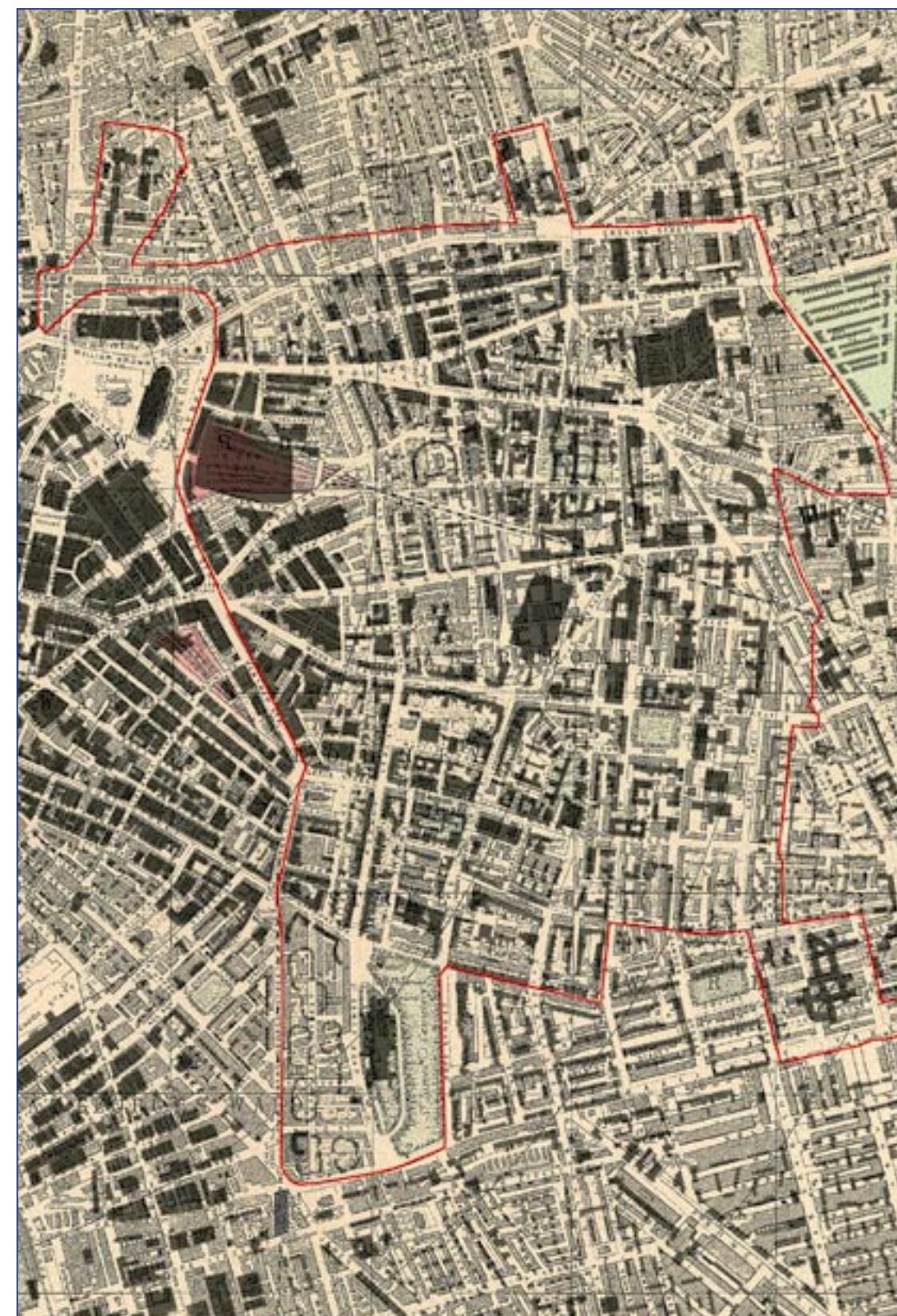
The first wave of Chinese immigrants arrived in 1866 with the establishment of the Blue Funnel Shipping Line, a branch of the Holt Ocean Steamship Company, which ran a line of steamers directly from Liverpool to China. Chinese sailors who decided to stay in Liverpool and work from here settled in an area of the city that was close to the docks in Cleveland Square.

This was the genesis of Europe's first Chinatown district that today abuts the western edge of the study area around Berry Street and Nelson Street. The wealth and opulence of the city at the end of the 19th century can be appreciated in buildings like the lavish Philharmonic Hotel on Hope Street.

Early to mid 20th Century

The turn of the century was a time of almost boundless confidence in Liverpool, the city hosting more foreign embassies and consulates than London, with a civic bearing and ambition fixed as much on New York as the capital. Traffic of architectural and engineering knowledge capital between Liverpool and the United States was two way, the city pioneering the glazed curtain walling and pre-cast concrete used on American skyscrapers, and the underground, underwater and electric overhead railways that made metropolitan rapid transit possible. Within the Knowledge Quarter, the size and splendour of the Adelphi Hotel, 1911-14, "reflect Liverpool's key position in trans-Atlantic trade" prior to WW1 (Sharples, 2004).

Most physical change within the study area centred around growth of the increasingly established public and ecclesiastical institutions. The most striking projects were the inception at either end of Hope Street of the Anglican and Roman Catholic cathedrals. Giles Gilbert Scott's design for the former was underway from 1904. On Brownlow Hill, the Workhouse was cleared in the early 1930s and work began on one of



► The overlay of the 2007 figure ground with the 1868 base plan highlights the dramatic physical change over the last 150 years within the Knowledge Quarter



► Artist Doug Kewley's painting of the Majestic Cinema and the now lost junction of Crown Street and Boundary Place, 1939



► A view of Great George Place c. 1910, with the David Lewis Theatre on the right. Only the Gothic bank building survives today.

the most ambitious buildings ever attempted, to Edwin Lutyens's designs.

Other key physical changes were driven by the steady expansion of the University and Medical Institutions, including the School of Tropical Medicine, begun in 1913, the completion of the Victoria Quadrangle and the Reilly Building, a purpose built Guild of Students, begun 1910.

The social status of housing in the district changed more dramatically than the physical layout, with accelerating flight of wealthy tenants following the First World War and then the Great Depression to more salubrious suburbs. The shift in economic circumstances saw the widespread conversion of large townhouses to more downmarket multiple occupation. Public housing projects were initiated at St. Andrews Gardens in 1935, in the most progressive architectural style of the day.

The Victorian Philharmonic Hall burned down the same year, and was replaced by another forward looking building by Herbert Rowse, reflecting the deco taste dominant in the USA. Commercial developments like the Co-op department store

on London Road and nearby Majestic Cinema embraced 'modern' design. This was the period of Liverpool's population peak and the start of its long decline (only recently stemmed) – it had not fully recovered from the Great War's effect on its wealth and status by the time of the Great Depression and the 'hungry thirties', but its population kept rising until around 1936, when it peaked at some 870,000 (compared to c.430,000 today).

The study area was damaged by WWII bombing, although it escaped the total devastation wrought along the waterfront, where parts of dockland Merseyside, the anchor point of Britain's Battle of the Atlantic and convoy lifeline, received more Luftwaffe bombs per square mile than any area of London.

Ultimately more corrosive to the fabric of the area were the social and environmental conditions between the wars, and the corresponding shift in perceptions of this part of the city as one not really fit for people to live in. Crowded lodging houses, smoke and steam from the open rail cutting, the clank of trams and the folk memory of the Workhouse, all combined to make this

seem a location more fit for institutional use than neighbourly living. Positive qualities of community and townscape were easily obscured. Architectural historian Professor James Stevens Curl recalls Lime Street Station in 1947, before the clean air acts, as "a fascinating, yet horrible vision of a Sublime Inferno". (*Stevens, Prof. J. Stevens Curl, 2007, Victorian Architecture: Diversity and Invention*).

A settled view of the Georgian and Victorian city as 'obsolete' had taken hold by the time the end of WWII and a newly interventionist public mood ushered in the age of comprehensive redevelopment that would radically reshape much of the study area in the mid to late C20th.

Mid to late 20th Century

In the late 1940s, 1950s and 1960s, Liverpool embraced a series of ambitious plans for post-war reconstruction, with a profound and lasting effect on the urban form and function around the study area. The Welfare State promised national investment in health, education and housing. Planning approaches favoured comprehensive development, to open up smoky, congested

central areas. Private car ownership suggested freedom of mobility.

There was a desire on the part of Liverpool's 'city fathers' to retain the teaching hospital and university within the central area, and dissuade any move to a green field campus beyond the city boundaries. As an incentive, the Corporation offered the combined institutions a large swathe of their freehold property in the grid of streets north and south of Abercromby Square – broadly coterminous with Foster's original Mosslake Fields grid plan of 1800.

The 1947 Holford Plan, led by the University's former Professor of Architecture, William Holford, set out a vision that would mark the elevation of universal health care and higher education, and sweep away the soot blackened brick and stone housing of the old city. The University and its Teaching Hospital would have an entire city district set aside for their sole use, with academic and medical functions housed in a spacious precinct of modern concrete and glass buildings.

At this point, the proposed precinct was still a bustling, if grimy, inner urban quarter, home to

a sizeable population of almost 5,000 residents, with countless premises supporting commercial and social functions like shops, pubs, cinemas, schools and churches. Over the next three decades, the University and Hospital would act as 'cuckoos in the nest', displacing all other land uses, and erasing hundreds of buildings across scores of streets, a cost the city felt necessary to secure the huge benefits the two institutions conferred within the city boundary.

In place of the densely variegated mix of activities within an ordered web of streets emerged a specialised area of singular buildings within open surroundings, much of it given over for highways use and, increasingly, for parking. In addition to the University of Liverpool, a number of established places of learning, such as the celebrated Art School and technical colleges, coalesced in the latter half of the century to form what is now Liverpool John Moores University. It is housed in a diverse estate spread in buildings of a range of ages and sizes across the Knowledge Quarter. At two points these form clusters given the name campus, at Mount Pleasant and Byrom Street.



► The Holford Plan with land uses

1:2 Topography



► View down Oxford Street/Mount Pleasant

Topography is a defining factor in the functioning of the Knowledge Quarter. To the east and west of the relatively level central section, the land rises steeply upwards from the River Mersey.

Pedestrian and cycle access from the core commercial centre and public transport hubs thus necessitates a climb up fairly steep streets. This is important as it lends a certain sense of detachment to the area, differentiating it within the city. There are positive and negative aspects to this separation.

The tradition of cultural, ecclesiastical and academic concerns being cloistered away from worldly transactions is long and fruitful. Their situation above and away from the main shopping area gives streets around Hope Street and quiet spaces like St. James's Gardens an air of timeless calm.

Certain points along the ridge afford broad panoramas of the city centre and waterfront. Incidental view points include the precincts of both cathedrals, and the high ground along Edge

In which we describe the position of the Knowledge Quarter on a shelf of land separated by a steep slope from the heart of the city centre.

Hill and Low Hill. Within buildings of even modest height, there are often fine views from upper storeys, extending on a clear day across the Wirral peninsula and North Wales, as far as the mountains of Snowdonia.

Separation is negative where it becomes a barrier to access and interaction, and stands between opportunity and need. We believe these to be problems at present, but the core problems are not fundamentally ones of topography.

Around the Knowledge Quarter, topography only exerts a negative impact where it exacerbates the serious 'deterrent' effect of poor street form and traffic severance on journeys by pedestrians and cyclists. The topographical context may reinforce a sense of dislocation and partial isolation from the life of the city centre and adjacent communities, but it is not the cause of it.



► View down Parliament Street towards the River Mersey

Comparing the plan of topography and steep streets with the plans of inherent townscape quality and 'Shatter Zones' elsewhere in this study shows how the most challenging streets to walk or cycle up tend to coincide with the weakest environments, which all but surround the study area and erode much of its edge. This emphasises the need for the Knowledge Quarter Framework to pay extra attention to the quality and safety of the streets where the land rises most sharply.



► View down Duke Street



► St James Cemetery



► Oldham Street



► Topography plan



1:3 Urban Form

In which we describe the figure ground plan of the Knowledge Quarter and what it tells us about the density of development in the area, the enclosure of space and the grain of development.

When analysing the urban form of the area today the starting point is to look at the figure ground plan. This shows just the buildings of the area taking away all other detail to reveal the structure of the area. This plan is useful in illustrating the following issues:

- The density of development.
- The enclosure of space.
- The grain and variety of the built form.

The plan on page 15 shows the figure ground for most of Liverpool's inner city area. It shows a spectrum of urban quality from high quality to very poor. For example, there are areas that are very well defined, such as the traditional residential terraced neighbourhoods of Edge Hill and Kensington, or the multi-functional Ropewalks and the traditional commercial area around Chapel/Tithebarn Street and Water/Dale Street. These are areas that clearly stand out from the plan. The streets and public spaces are clearly visible because they are enclosed by buildings with continuous street frontage. Other parts of the plan show very poorly defined urban form either as a result of gap sites, or more often poorly planned buildings. These are the parts of the plan where the 'ground', the white space, predominates. Here it is much more difficult to recognise streets, spaces and urban blocks. This is particularly true of the residential areas north of Islington and Kensington, Toxteth, and the eastern and northern parts of the Liverpool University Campus.

Density of development

While it does not show the height of buildings the plan shows the footprint of buildings and the density of ground coverage. Again, on the figure ground plan we can make out a variety of footprints. These reach from very large footprints, such as the Royal Hospital, the Women's Hospital, both cathedrals, Lime Street Station and the St. John's Shopping Centre to smaller footprints, which include all traditional, terraced housing areas, Ropewalks and China Town.

Most successful urban areas are built up densely, shown by the area of black on the plan. Large open areas sometimes relate to parks and public spaces, but more often relate to vacant sites or areas where the urban form has been damaged by infrastructure such as major roads.

The plan illustrates that the traditional neighbourhoods, such as Kensington, Canning Street and Toxteth (in areas where no clearance has taken place) and the inner city between Chapel/Tithebarn Street to the north, The Strand/Strand Street to the west, Canning/Duke Street to the south and Renshaw/Berry Street to the east are relatively densely built. The figure ground also shows that the new Paradise Street L1 development has been sensitively integrated into the existing urban fabric, picking up the traditional network of roads, building lines and block sizes typical for this area.



Within the Knowledge Quarter the density and amount of ground coverage breaks down, especially within the Liverpool University Campus area. This is mainly due to the impact of the Holford Plan, where implemented. Traditional terraced and townhouses were replaced with larger footprints, such as the Royal Hospital, the Life Science Building, the Chadwick Tower & Laboratory and the Donnan Laboratories. This leaves this area with a low density of development with object buildings surrounded by formless open space and surface car parking.

Enclosure of space

Open spaces in urban areas need to be clearly defined by buildings to be successful. Therefore spaces which are well-defined show up clearly on the figure ground plan such as St. John's Garden, Derby Square, Monument Place on London Road, Abercromby and Falkner Squares. These spaces are well-defined by building lines as are most of the streets within the city centre and the Knowledge Quarter itself.

The enclosure of space breaks down in the areas affected by major 1960's highway schemes and housing clearance/redevelopment. Here there are no clearly visible urban spaces on the plan



indicating that the urban fabric has broken down. Areas are often referred to as 'Shatter Zones' where traditional building blocks and the street network have been altered dramatically or even removed altogether and the spaces have become poorly-defined. This leaves such areas with a surfeit of space, much of which is unpleasant or dangerous to use, but a lack of attractive enclosed public spaces. The knock-on effect of this is that the areas tend to lack activity making them unpleasant to walk or cycle through. Such areas include the Islington corridor, which forms the northern boundary of the Knowledge Quarter, the Royal Liverpool Hospital complex and the eastern part of the Liverpool University Campus, both forming the eastern boundary and Copperas Hill in the physical centre of the Knowledge Quarter. These Shatter Zones have the effect of cutting off the Knowledge Quarter from its surrounding neighbourhoods, which is described in more detail in section 'townscape'. Bridging the Shatter Zones is one concept of the Knowledge Quarter masterplan and will be dealt with later in this document.

Grain and variety

The grain is characterised in terms of its tightness or looseness, and also whether it is fine or coarse.

Left: Islington and New Islington cut off the Knowledge Quarter from its mainly residential hinterland. The busy carriageways make it unpleasant for pedestrians and cyclists to cross. **middle:** The Georgian terraces along Seymour Street form a clear built edge. **right:** Great George Place today at the western gateway of the Knowledge Quarter with the Gothic bank building as the only building surviving the area's transformation.



A tight grain exists when public thoroughfares and spaces are very clearly defined by development. Fine grained areas are made up of a large variety of small buildings of different designs and dating from different eras. Coarse grained areas are dominated by large buildings of similar design. In general tight and fine grained places feel comfortable to be in, whilst those which are loose and coarse are less successful and are able to sustain less activity and diversity.

Liverpool's inner city is rich in buildings of different building ages, forms, sizes and styles and so is the Knowledge Quarter within it. Today we are left with a variety of buildings reaching from the traditional smaller terraces and the post-war modernists' architecture to again more sensitive modern infill developments recently such as the Foundation Building and the Art and Design Academy, both on Brownlow Hill.

A fine grain defines most of the southern Knowledge Quarter, namely the conservation areas Georgian Quarter and Rodney Street. The northern part of the area is much coarser in grain with buildings such as the Royal Hospital, the Royal Mail Sorting Office, Lime Street Station, the Mount Pleasant multi-storey car park and the Metropolitan Cathedral's Crypt.



► Figure Ground Plan

1:4 Built Heritage

In which we describe the large parts of the Knowledge Quarter and its surroundings that have conservation area status as well as the large number of listed buildings in the area.

Conservation Areas

Conservation areas are shown in pale red on the plan opposite. The southern half of the Knowledge Quarter contains larger stretches of fine historic buildings in their original setting, undamaged from the impact of bombing and post-war clearance. The conservation areas of Canning Street, Duke Street, Mount Pleasant and Rodney Street cover most of these areas, which link the Knowledge Quarter with its mainly residential neighbourhoods.

The special character of these areas does not just come from the quality of their buildings alone. The historic layout of roads, paths and boundaries; characteristic building and paving materials; a particular mix of building uses; public and private spaces, for instance gardens, parks and squares, trees and street furniture, which contribute to particular views contribute to the quality of the area as much as the buildings. The conservation areas therefore give broader protection than listing individual buildings: all the features within the area (listed or otherwise) are recognised as part of its character and the local authority has control over demolition, minor developments and trees.

The Knowledge Quarter is also surrounded by conservation areas. Directly adjacent at its eastern boundary lie the Edge Hill and Kensington Fields conservation areas. The herringbone pattern of terraced streets around Kensington Fields has just been granted conservation area status. To the north, Shaw Street conservation area covers the Liverpool Hope University campus. The North Western Hotel and Empire Theatre on Lime Street are part of the William Brown Street conservation area, which is directly adjacent to the western study area boundary.

Listed Buildings

Listed buildings are chosen by English Heritage and protected through a number of legal procedures. Listing ensures that the architectural and historic interest of the building is carefully considered before any alterations, either outside or inside, are agreed. The main criteria for listing are the architectural and historic interest, close historical association with buildings or events and group value (squares, terraces or model villages). Listed buildings are graded to show their relative importance:

- Grade I: buildings of exceptional interest (shown in red)
- Grade II*: particularly important buildings of more than special interest (shown in orange)
- Grade II: buildings of special interest, warranting every effort to preserve them (shown in yellow)

The study area is rich in listed buildings. Over 700 are listed at Grade II, approaching half of the properties in the area. 26 buildings are rated Grade II*, and there are also two Grade I listed buildings, the Anglican Cathedral and the Oratory, with Grade I listed St. George's Hall immediately adjacent to the area.

Most of the listed buildings are within the conservation areas. Seymour Terrace, Lord Nelson Street and the cluster of listed buildings around the old Royal Infirmary and University Victoria Building are the only significant groups of listed buildings not set within a conservation area.

The listing of Lewis's department store means three sides of Ranelagh Place have statutory protection, with the former University Club on the triangular south east junction also a fine building deserving of protection.

Otherwise, listed buildings beyond conservation areas are scattered fragments of pre-clearance townscapes, such as Sacred Heart Church on Low Hill, the recently listed Bridewell on Prescott Street, and the quirky 'Octagon' Villa on Grove Street.



► Falkner Street



► LJM Faculty of Art and Design



► Chatham Building

World Heritage Site (WHS)

A cultural World Heritage Site is an historic monument, group of buildings or site which is of outstanding universal value to the international community. In 2004, Liverpool Maritime Mercantile City was inscribed as a UNESCO World Heritage Site.

Crucial to the understanding of the Outstanding Universal Value of the World Heritage Site is that the overriding reason for its inscription is the theme: 'Liverpool - The supreme example of a commercial port at the time of Britain's greatest global influence.' The Statement of Significance in the Nomination Document made the justification for Liverpool's inscription on the basis of:

- Liverpool's role in World History;
- Liverpool's Tradition of Innovative Development;
- Liverpool's Outstanding Urban Landscape; and
- Liverpool's Collections.

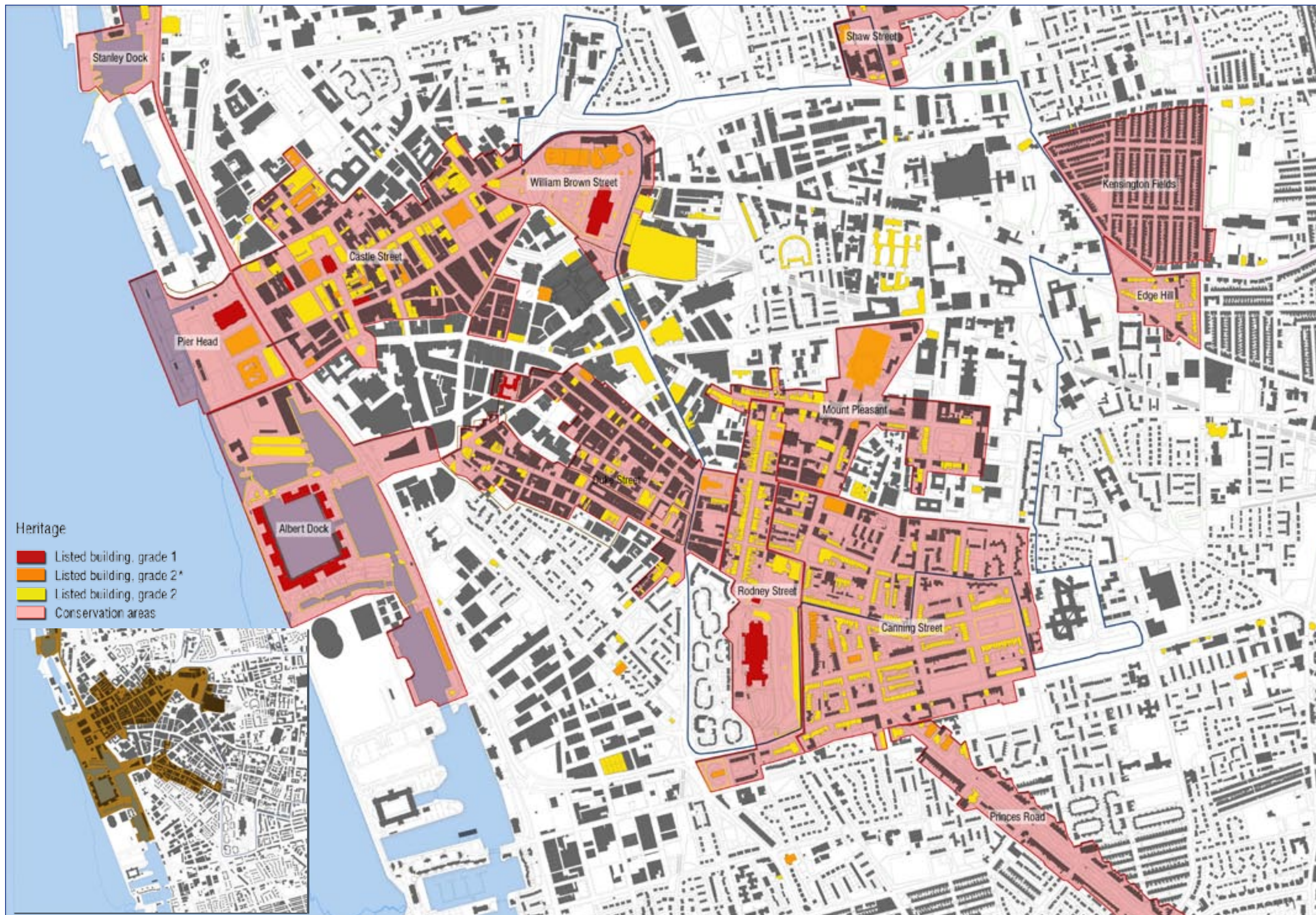
In order to receive World Heritage Status Liverpool had to meet some criteria, which were the fact that:

- Liverpool was a major centre generating innovative technologies and methods in dock construction and port management in the 18th and 19th centuries. Through this it contributed to the building up of the international mercantile systems throughout the British Commonwealth.

- The city and the port of Liverpool are an exceptional testimony to the development of maritime mercantile culture in the 18th and 19th centuries, contributing to the building up of the British Empire. It was a centre for the slave trade, until its abolition in 1807, and to emigration from northern Europe to America.

- Liverpool is an outstanding example of a world mercantile port city, which represents the early development of global trading and cultural connections throughout the British Empire.

Liverpool's World Heritage Site covers the Wapping Dock, the Albert Dock and Pier Head and stretches along New Quay/Bath Street to include Stanley Dock in the north. It covers all of the Castle Street and most of the William Brown Street conservation area. From Hanover Street at the bottom to Berry Street at the top the World Heritage Site includes the majority of Duke Street, Henry Street and Lydia Ann Street. The Lime Street Station building is also part of the WHS. The WHS is the subject of a management plan agreed with UNESCO; a statutory planning document is in preparation to reinforce development control standards in and around the area.



1:5 Building and Townscape Quality



► Townscape quality: Blighting impact 1 out of 5



► Negative impact 2 out of 5



► Neutral impact 3 out of 5



► Positive contribution 4 out of 5



► Maximum contribution 5 out of 5

In which we describe the visual assessment that we have undertaken in the Knowledge Quarter which has rated all buildings from 1 to 5 in terms of their contribution to the townscape of the area.

We have conducted a detailed, block by block visual assessment of townscape quality across the study area. Each block, and in many cases individual buildings within them, has been rated on a scale between 1 and 5, to provide a consistent measure of their architecture's underlying effect on the overall townscape.

Blocks and buildings rated 5 and 4 make strong and positive contributions respectively. Those rated 3 are neutral, neither contributing to nor detracting from townscape quality. Ratings of 2 and 1 denote negative and 'blighting' impacts.

The survey is not so much designed as a judgement on each property, as a means of building up a well grounded picture of patterns of townscape quality around the Knowledge Quarter. Differentiating the buildings and blocks that contribute to townscape (those rated 4 and 5) from those that make no contribution or detract (those rated 1, 2 and 3) highlights an interesting pattern around the study area.

A core of strong townscape exists between the cathedrals, reaching east to Abercromby and Falkner Square, and continuing to the south along Princes Avenue. This core barely connects to the positive townscape of the Bold Street and

Ropewalks area to the west, which includes Renshaw Street, Ranelagh Place and Lime Street.

A spur of good townscape reaches along London Road from Lime Street to Monument Place and Pembroke Place, connecting with the positive area around the Royal Infirmary and University Victoria Building. This area of institutional uses includes the Reilly Building and Harold Cohen Library on Ashton Street.

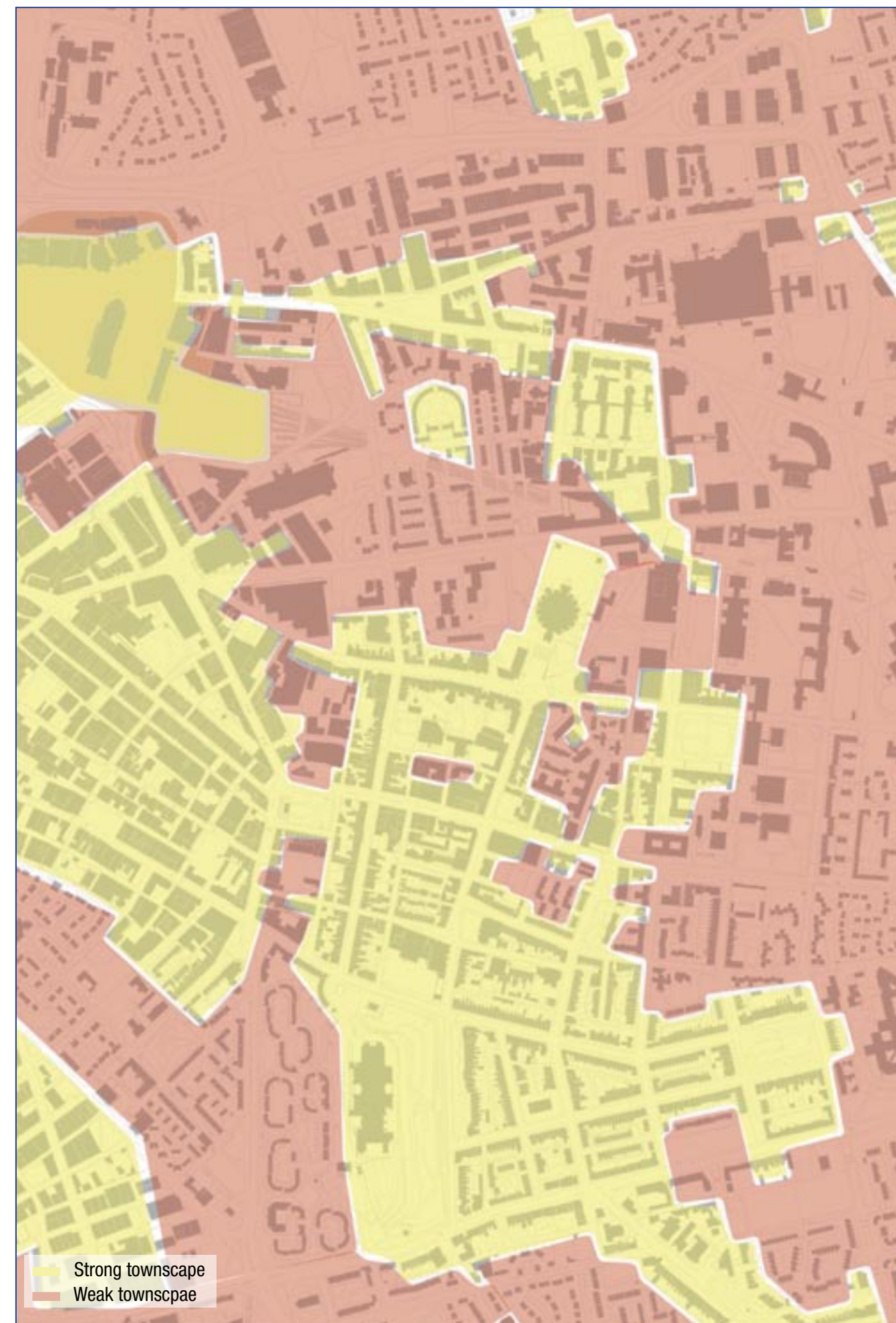
Other fragments of quality townscape are located at St. Andrew's Gardens, and on the very edge of Kensington where the Bridewell and Sacred Heart Church are outposts of the intact Victorian neighbourhood around Kensington Fields.

A great deal of the area is therefore making no contribution to the city's townscape quality, including:

- most of Brownlow Hill;
- the Royal Hospital precinct;
- Norton Street Coach Station;
- LJMU City Campus and context;
- much of the area around Lime Street Station; and
- the majority of the University of Liverpool Campus.



► Inherent townscape quality: All levels 1 to 5



► Zones of strong and weak townscape

1:6 Building Heights

In which we describe the building heights in the area including the mainly residential scale of much of the Knowledge Quarter with some significant landmark buildings and a series of less sympathetic taller structures.

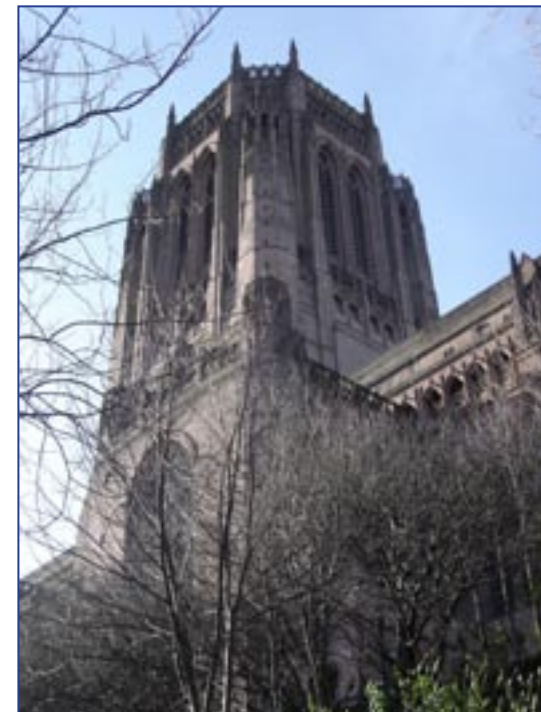
The plan opposite shows the result of the heights survey, which we have undertaken for the Knowledge Quarter and its immediate surroundings. It shows that the scale of buildings across the south side of the study area is quite consistent, mostly made up of townhouses averaging three to five storeys in height. There is a block pattern of taller frontages on primary streets, and lower buildings to the rear, often former stable blocks.

In the southern and central part of the Knowledge Quarter, those buildings that break higher than this block pattern are important public buildings like the Philharmonic Hall, the former Women's Hospital, various churches and of course the two cathedrals. The massing of buildings around the conservation areas is broadly consistent, with most buildings respecting the urban scale of the Foster Plan.

The cathedrals punctuate each end of Hope Street. Views to them are well framed and relatively unobscured, although some recent new developments like the Foundation Building on Brownlow Hill, No.'s 1-51 Arch View Crescent and to a lesser extent the Science Park on Mount Pleasant have begun to intrude on views from close range.



► Russell Street



► Anglican Cathedral

A number of mid to late 20th century taller buildings associated with the Royal Hospital and universities are scattered across the central and northern parts of the area, with limited sense of coherence to their placement. Most of these have a broadly neutral visual impact, being well away from sensitive views, but the squat LJMU tower on Clarence Street mars the view along Rodney Street from the north.

The Royal Hospital could be seen to generate an axis with the two cathedrals, though its slab like form does not offer any obvious relationship. Its proposed replacement on West Derby Street may be able to address this latent axis more directly with a tall element at its western apex.

There are jarring changes of scale along Brownlow Hill. The east end is disconnected from the well composed Victorian urban form around Edge Hill and Kensington Fields by a virtual

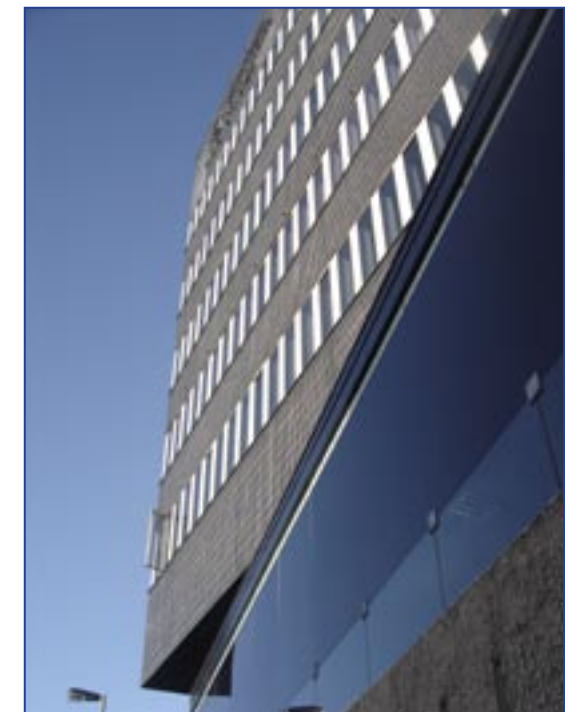
wasteland of surface parking and muddy verges. Entering the University Campus, the buildings vary widely in height. The tall 1960s Bio-science podium block has a new single story extension on a prominent corner site. There are single and small two-storey units around the Alsop Arcade, opposite a series of blocks at discontinuous heights along the north side. A civic scale is briefly achieved around University Square and the Victoria Building, extending as far as the new LJMU Art and Design Academy, but falls away beyond the cathedral until heights suddenly decline to suburban domestic levels around the Clarence Street junction, and single-storey primary school buildings set back within surface level playgrounds take up the south side.

This suburban scale is then uncomfortably juxtaposed with major buildings on the edge of the central business district, including the Mount Pleasant multi-storey car park, the Adelphi Hotel and Lewis's Department Store, the Royal Mail Sorting Office and Lime Street station. The area around Copperas Hill is home to much surface parking and 'left over' open land.

The current domestic form represents a diminution from the metropolitan scale of inner city living achieved at St. Andrew's Gardens,



► pedestrianised Bedford Street North



► LJMU tower on Norton Street

whose streamlined brick tenement blocks used to stretch to Brownlow Hill until partial demolition in the early 1990s.

Another area of stark juxtaposition in scale is around the LJMU Byrom Street campus, where tall and long modernist slab blocks are surrounded by domestic estates of suburban style bungalow housing. This discord continues along Islington, where low rise, low density estates and single story business sheds isolate a surviving fragment of civic splendour around Shaw Street and the Collegiate.

It is a lack of scale rather than excessive building height and mass that has most negative impact in terms of building heights. When placed along main routes, single storey and small buildings tend to weaken the sense of spatial continuity and enclosure of the streets and spaces around them.



In which we describe the local and long range views within the area as well as the landmarks that punctuate these views and contribute to the city's skyline.

Liverpool has a very dramatic and varied townscape. The plan to the right shows the main landmarks together with important long range views and vistas and local views.

Many of the local landmarks and street vistas that punctuate the study area are arranged along its edge, particularly the western interface with the city centre:

- **St. James Church Tower** – this punctuates the southern end of Great George Street;
- **The Blackie and Chinese Arch** – the Blackie Portico closes the vista from the Leece Street/Renshaw Street/Bold Street/Berry Street junction by St. Luke's place;
- **St. Luke's 'bombed out' Church** – the tower is a prominent landmark at the top of Bold Street, and also acts as the pivot on the axis between the Blackie and St. George's Hall;
- **Adelphi Hotel and Lewis's** – Ranelagh Place is the confluence of key routes to & from the elevated ground;
- **ABC Cinema** - this curved facade frames St. George's Place viewed from Lime Street;
- **St. George's Hall** – the southern portico closes the vista from St. Luke's place;
- **Wellington Monument** – The monument marks the culmination of the Pembroke Place and London Road approaches to the city centre; and
- **William Brown Street buildings** - each is a landmark in its own right.

The spire of **St. Francis Xavier Church** is one of the few strong landmarks to the north of the area, standing out clearly when viewed from the top of William Brown Street up Islington. 'SFX' sits along side the former Collegiate School front; together with the surviving buildings on Islington Square. These form a fine group looking north along Moss

Street from the NW corner of the Royal Hospital site, and when travelling along Islington.

Sacred Heart Church is a local landmark, best viewed from the south along the old Mount Vernon Street. The tower of **St. Mary's Church Edge Hill** is aligned on the vista up Brownlow Hill, although the building of Archbishop Blanch High School over the old route of Paddington currently denies movement along the desire line. South of the area, the spire of the **Welsh Presbyterian Church** on Princes Road is a fine landmark.

Within the study area the main landmarks are of course the two **cathedrals**, which aid orientation from almost any point. A cluster of distinctive landmarks reinforce identity around the **Mount Street junction** of Hope Street – the LIPA building, the suitcase sculpture, and Blackburne House are located just south of the even better known **Philharmonic Hall** and **Hotel**.

Mulberry Street provides a surprisingly well punctuated secondary axis. The south end closes on the façade of the **former Women's Hospital**, while the north end focuses on the clock tower of the **Victoria Building**. The **Reilly Building** is well placed to close views south along Ashton Street. At Ranelagh Place, the clock tower of the **Vines Hotel**, the **Adelphi Hotel** and **Lewis's** Department store with its famous 'exceedingly bare' of Liverpool resurgent, form a collection of landmarks. The glazed stairwell tower on the corner of the art-deco **Co-op building** on London Road does the same when viewed along Great Newton Street and Anson Street. The curved north wall of **St. Andrews Gardens** is a striking local landmark when seen from Monument Place. The equestrian **statue of George III** on Monument Place is a distinctive piece of public sculpture, although not on its original axis in the centre of the space.

1:7 Townscape



► Hope Street

Long range landmarks, views and vistas

Thanks to its elevated position and long, wide streets the study area affords a number of longer range vistas and views. A number of these are focused on the iconic clock towers and sculptures of the **Royal Liver Buildings** at the Pier Head. The copper clad dome of the **Port of Liverpool Building** is also visible from some points. Key views of the Pier Head group are available from most of the main east-west routes, including:

- Prescott Street and the gateway to the study area at the junction of Kensington/Low Hill/Hall Lane – good views of the Royal Liver Building clock tower;
- Oxford Street - also offers good views to the Liver Building;



► The Civic Group with the West Tower in the background



► Hope Street and the Metropolitan Cathedral

- Hardman Street from the junction with Hope Street – views of the Pier Head, although starting to become obscured by development, such as the FACT centre; and
- Upper Duke Street – views of the Port of Liverpool Building dome.

Given the topography it is perhaps surprising that there are not more views to the **River Mersey** from the streets of the study area – the built up nature of the city centre along the waterfront precludes this. Perhaps the best glimpsed vista to the water is afforded from the top of Mount Street, near the Hope Street junction. A wider vista of the river is available from the precincts of the cathedrals, although these spaces are not designed as view points and are not especially welcoming or well animated.

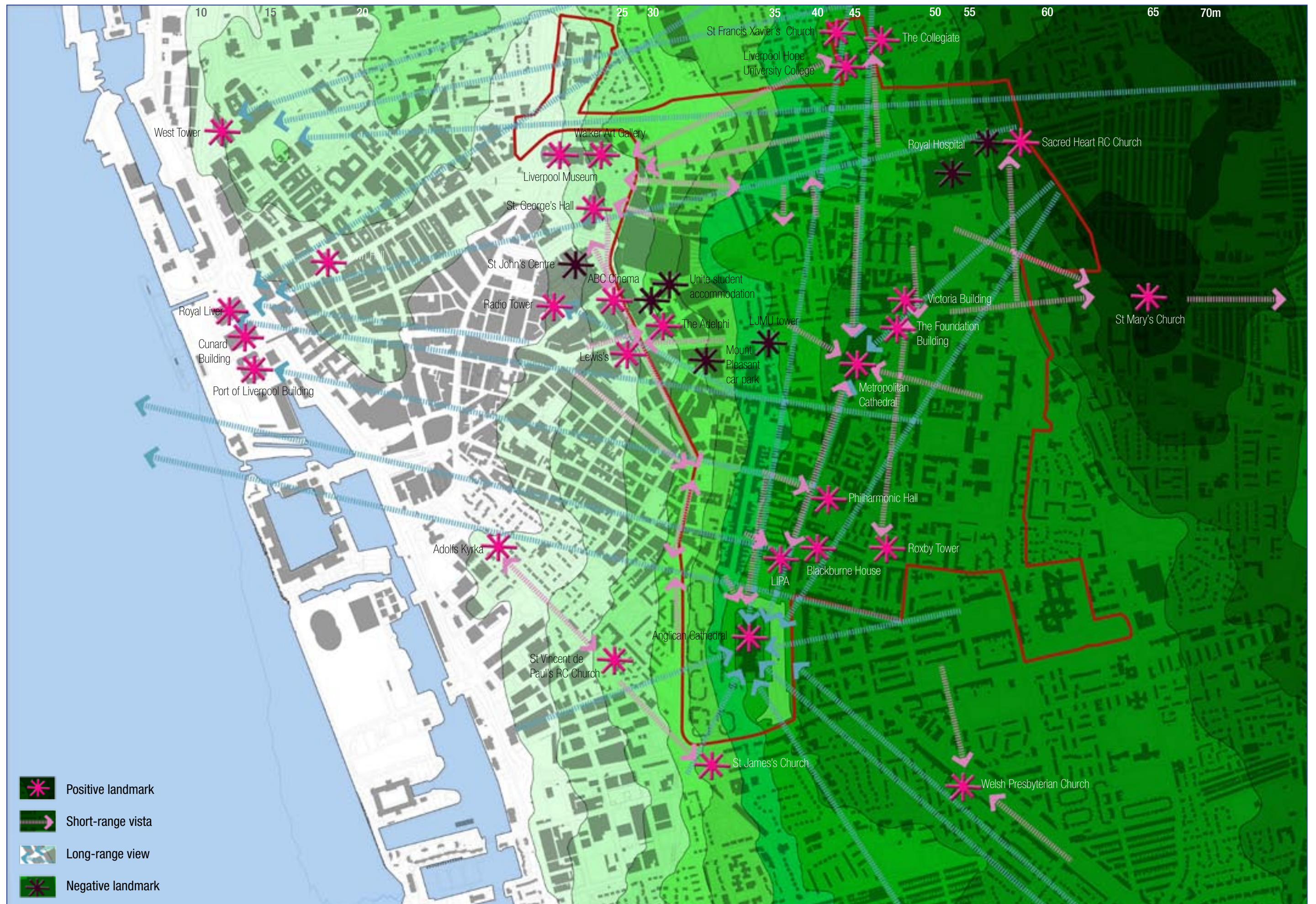
The commercial centre of the city is marked by several tall towers. The most distinctive is **St. John's Beacon**, clearly visible at various points and quite dramatic when approaching the city centre at the bottom end of Mount Pleasant. Also impressive is the **cluster of towers at the north end of Old Hall Street** – these make a charismatic group when viewed from the top of Islington and the newest tower, **West Tower**, punctuates views across the area when approached from the east along the A57.

The presence of the two cathedrals also means the study area itself contains instantly recognisable landmarks visible for many miles. The **Anglican Cathedral** is visible on most approach routes from

the south, notably along Park Road, Windsor Street and Princes Road. Similarly, the **Metropolitan Cathedral** is framed by the buildings on Edge Lane, the city's key road access from the east. The high points around the east and north edge of the study area, such as **Everton Park**, **Low Hill** and **Mount Vernon** afford spectacular vistas of both cathedrals and the waterfront landmarks.

Negative landmarks

Viewed from the Anglican Cathedral end of Rodney Street, the **LJMU tower** on Clarence Street detracts from the scale and perspective of the Georgian townscape along its entire length. Regrettably, some of the newest buildings in the area are also among the most negative landmarks. The **Unite student blocks** on Skelborne Street dominate the key gateway between Lime Street and the Knowledge Quarter, on a scale that demands radically higher design and material quality than delivered. Lord Holford's brutalist **Royal Liverpool University Hospital** design has its admirers, but its impact on the A57 approach, where it punctuates the view along Kensington with a concrete boiler house and oil stained chimney, takes an effort to like. The **Mount Pleasant multi-storey car park** and the linked former cinema and nightclub building sit on one of the study area's most prominent gateway sites, at the threshold of the city centre core and the Knowledge Quarter. The dead frontage of the car park complex does nothing to entice pedestrians to climb Mount Pleasant or Brownlow Hill.



1:8 Character Areas

In which we describe the distinctive character areas that make up the Knowledge Quarter and its surroundings.

Campus University

The University of Liverpool's precinct plans culminated in what Nikolaus Pevsner described as 'an architectural zoo' across the eastern fringes of the city centre. Larger footprint buildings at varying heights are set in areas of ragged semi-landscaped space, a tired public realm further marred by wide areas of surface parking. Spatial continuity and enclosure are weak. The American model of a green-field campus university, with set-piece buildings surrounded by serene areas of space functions uncomfortably in this more compressed inner-city context – buildings in space become buildings in a car park. The character is enlivened in term time days by the presence of thousands of students, staff and visitors. This is in stark contrast to the ghost town aspect taken on by the campus each night, at weekends and during the university holiday months. The singular focus on academic uses means there are almost no activity generators on the campus other than the university itself.



► Myrtle Street and Eleanor Rathbone Building



► Metropolitan Cathedral entrance

Cathedrals

Although architecturally contrasting, the spaces around each cathedral share some common characteristics. Both are on magnificent elevated sites commanding sweeping views to the river across the city centre, dominated by the cathedral buildings. Neither location, however, generates spaces that take advantage of their position and architectural charisma. Surrounding development in both cases is made up of polite but nondescript university offices and social housing. Interesting but under-used green spaces adjoin each cathedral.

Islington and London Road

London Road has historically been an important transport hub for people travelling to the north and east of the city. It is also a gateway by rail from Lime Street and the National Express Coach Station at Norton Street.

It was until the 1960s part of the city's core retail offer, and although its role has slipped down-market, investment in the area under the City Challenge programme in the early 1990s secured the area's sustainability. It is now a thriving discount and wholesale area, with a busy street market in Monument Place on Thursdays and Saturdays. It acts as a local centre to the established inner city residential areas to the north and south, a role which has been reinforced in recent years with the building of several new apartment blocks and student residences, with more in the planning pipe-line. Close to the Royal Hospital, Pembroke Place is home to the



► Stafford Street



► Monument Place

School of Tropical Medicine, which is enjoying major investment, and the Glaxo and Roy Castle research centres.

On the main frontages of London Road the urban form retains the architectural character, if not always the condition, of its more prosperous years, with intact blocks of Georgian buildings in good repair along adjacent Seymour Terrace and Lord Nelson Street, complementing the equestrian statue of George III in Monument Place, and individual Georgian pubs and dwellings. Fine Victorian and early C20th banks and shops flank the triangular public space, notably the TJ Hughes department store, (originally built for Owen-Owen). A number of grand corner blocks, such as the turreted Nat West Bank with its distinctive clock tower, punctuate the roof scape. The 1930s modernist Coop Department store is one of the most progressive buildings of its era in the city. This built quality is let down by basic maintenance, cheap signage and a failure by the city to maintain the standard of public realm improvements undertaken under the City

Challenge investment – damaged street trees have not been replaced, and block paving has been patched with bitmac. Happily, private investment in new buildings and refurbishment appears quite buoyant.

North of the main frontage is the Islington light industrial and wholesaling area. This retains its historic street pattern but few of its buildings, having been redeveloped in the 1960s and 70s to rehouse businesses evicted for the inner-motorway scheme. Paved with black bitmac and home to a series of concrete sheds, Islington is degraded in character, although a lively tertiary employment area during trading hours – it is the subject of a detailed Planning Framework prepared recently and is expected to see considerable change in the short to medium term. <http://www.liverpoolvision.co.uk/documents/masterplans.asp>

The lower (western) end of London Road is blighted by poor infill buildings, gap sites and an air of disrepair, in part because of uncertainty over the Merseytram project, Line 1 of which has permission, but not government funding. The area houses a Salvation Army hostel and drug dependency centres which can make its environment seem intimidating during the evenings.

As a key gateway to the Knowledge Quarter, London Road is a let down, not because of any insurmountable structural weakness in the built environment, but due to low standards of private maintenance, indifferent public realm maintenance and unexceptional development control. It does not at present provide a worthy setting for the internationally acclaimed School of Tropical Medicine, or the adjacent World Heritage Site.



► Canning Street

Georgian

This area has the most consistently coherent and high quality character within the Knowledge Quarter, thanks to John Foster's planned grid layout and the basic 'design code' standards imposed by the corporation as freeholders on the original builders. The architectural theme is mainly classical, usually in brick, with some stone faced buildings. Hope Street, Abercromby Square and nearby Falkner Square are among the 'jewels in the crown', well kept, but also well kept secrets.

Lime Street

This area is the interface between the Knowledge Quarter and the city centre's core retail and cultural offer, as well as the primary public transport gateway to Liverpool. It looks onto the civic group around William Brown Street and the important set piece junctions at Ranelagh Place and St. Luke's Place.

The western edge is the strong north-south axis formed by Renshaw Street and Lime Street, punctuated by a series of powerful vistas to landmarks and spaces, as well as fine listed buildings like the Crown, Vines and Adelphi hotels.



► Grand Central Hall on Renshaw Street



► Character areas



► St Andrew's Gardens

St. Andrew's Gardens

This denotes the inner-city residential area focused around the 'bullring' tenement block of St. Andrew's Gardens, now given over to student use. This is an established community of long term residents who have retained their relationship with the city centre through several generations of change and at least three waves of planned clearance and redevelopment. Properties are well maintained and the small gardens carefully tended.

Later development does not attempt to match the scale or design ambition of the bullring. Some of the post-war houses are similar to 'pre-fab' typologies, while recent social and private housing is suburban in scale and generic in style, with 1990s bungalows situated incongruously next to the tall tenement block.

Both post-war types appear to function well as homes, and offer some sense of overlooking and enclosure to the streets, although the sense of security is undermined along Great Newton Street

by the inactive western edge of the University Campus. The campus has for many years turned away from this community - commendably this is changing with the university's decision to reconnect Dansie Street and Dover Street for pedestrians.

The least successful addition is the inward looking courtyard to the south of the railway, which is effectively a 'gated community' model, adding little in the way of natural surveillance or activity to the public realm. New student blocks such as Greek Street are lumpen, and provide no active uses at ground floor level, in contravention of the city's adopted design guide standards.

There are also some relatively recent 'cul-de-sac' layouts entirely inappropriate for their setting, as they present hostile blank wall frontages to main public thoroughfares on Brownlow Hill and Russell Street. The primary schools buildings are valued facilities but do not relate to their context in design terms, breaking the building line along Brownlow Hill.



► Trowbridge Street



► The old Infirmary Building

Redbrick University

The character of this area is defined by the two Alfred Waterhouse designed buildings for the University and Royal Infirmary. Later buildings respond to the red-brick materials and solid scale, although some exhibit a contrasting classical rather than gothic style. The stripped modern classicism of the Harold Cohen library is a departure from the red-brick, but its progressive 1930s design sits comfortably here.

Royal Hospital

Once a dense network of streets leading in all directions, this super-block sized chunk of the city centre is entirely dominated by the massive concrete structure of the Royal Hospital podium and slab, and its numerous associated buildings. Its design was overseen by William Holford, but any coherence enjoyed by the original buildings of the precinct has been disrupted by the thicket of subsequent alterations and ancillary structures added since the Hospital opened in the 1970s.

The precinct spurns the established building line of even the main streets around it, destroying comfortable pedestrian movement through and around the site. The severance effect, exerted on north-south movement from the University Campus, and on east-west movement between Kensington and the city centre, is acute. Most movement is focused on the main entrance, set well back from Prescott Street, which serves taxis, private vehicular drop-off, pedestrians and 'blue-light' emergencies. This leaves relatively little activity on the West Derby Street side, the key interface between the teaching hospital and University Campus.



► The Royal Hospital



► Great George Place

Western Gateway

Great George Street was until the 1960s a busy approach route from the Park Road side of Toxteth, flanked by Georgian streets that once led up the ridge to the Anglican Cathedral, and down to the docks via the grandeur of Great George Square. At the city centre gateway, Great George Place, the palatial David Lewis Theatre overlooked a triangular public space containing a small pavilion and gardens.

The abortive inner-motorway and comprehensive redevelopment programmes swept most traces of this rich fabric away. A generation later, the buildings that replaced the traditional streets are now themselves considered obsolete, and the street is dominated by traffic, with minimal animation.

Developer Urban Splash has received planning permission for an audacious reworking of the area of cleared social housing on the west side, with designs that will create a major impact on this corner of the Knowledge Quarter.



► Walker Art Gallery

Civic Forum

St. George's Hall and the cultural facilities on William Brown Street form an opulent civic forum at the Lime Street interface between the Knowledge Quarter and the city's commercial core. Heavy traffic and inadequate crossing provision weaken the relationship between this area and its context, which is wrapped in excessively heavy road infrastructure. Insensitive architecture also detracts from the impact of the group – the multi-storey car park of St. John's Precinct vies with the TGWU building to be least worthy of its World Heritage Site neighbours.

Marybone

This area at the city centre end of the old Scotland Road district has a rich history. It was once the site of an ancient Celtic cross marking a site where St. Patrick was reputed to have preached before sailing for Ireland, and was also the foothold for the Welsh and Italian communities who settled in the C19th city. It led to Richmond Row, on a vital 'desire line' link between the Pier Head and Everton Brow, now all but buried under development.

Marybone still contains a well established inner-city neighbourhood whose residents value their area's heritage and convenient location, although few historic buildings survived the 1960s highways and housing clearances. The physical fabric is a mix of well refurbished post-war towers, brutalist highways infrastructure, domestic scale 'suburban' housing from the 1980s and contemporary student and apartment blocks, interspersed with surviving fragments of the Georgian and Victorian city.



► Churchill Way



► LJMU campus on Byrom Street

This is the location for John Moores University City Campus. This is a collection of buildings around Crosshall Street. At the eastern end is the Byrom Street complex, LJMU's largest single concentration of accommodation. At the Tithebarn Street end LJMU have built a very fine library building that responds to its curved corner site and offers an extensive active frontage. Unfortunately, the link between is a dire experience for those on foot, with high traffic speeding along Crosshall Street, dead ground floor elevations and exposed concrete walkways across the multi-lane inner ring road.

Ropewalks and China Town

Berry Street is part of Liverpool's China Town, and forms an edge between the C18th Duke Street WHS 'Ropewalks' area and the Knowledge Quarter. Recent public realm work has helped support the reasonably good permeability of this interface, although the reconfigured junction at St. Luke's Place tempts speeding traffic with excess carriageway width, and requires a much longer pedestrian phase. The crossing at Duke Street is better. Nelson Street, which leads from Duke's Place through the imposing Chinese Arch, has taken on a new strategic importance as a direct pedestrian link via the Baltic Triangle area to the new Arena and Convention Centre at King's Dock. Duke Street will soon provide a direct pedestrian link to the new shops and amenities around Paradise Street.



► Lamp post on Berry Street

1:9 The Regeneration Context

In which we describe the socio-economic context of the Knowledge Quarter and the regeneration initiatives taking places within and around the area.

The Knowledge Quarter both contains and is immediately adjacent to long established inner city residential areas. Marybone and St. Andrew's Gardens contain social rented and private housing, as do the Georgian streets around Hope Street.

To the north, across the wide inner ring road, are low density 1980s estates of mainly social housing, stretching along the ridge to Everton.

East lie the communities of Kensington and Edge Hill, which are housed in a mix of sturdy late 19th century by-law terraces, 20th century social housing, and their low density 1980s replacements. The historic Victorian terraces of Kensington Fields have just been designated as a conservation area, while those of Edge Hill may be demolished under the Housing Market Renewal programme.

Toxteth's historic Canning area of Georgian streets and squares, lined with townhouses built for the city's wealthy 19th century merchant class contains pockets of later infill developed on blitz and clearance sites. The tenure of this area is highly mixed, with high value owner occupation increasing alongside established social and private rented properties. Further south across Upper/Parliament Street are neighbourhoods of Toxteth around Granby and Princes Park, whose vitality has been blighted by poverty and clearance projects.

The Government's Index of Multiple Deprivation 2004 (IMD) shows Liverpool's edge of city centre neighbourhoods as the subjects of deep and multi-dimensional problems of poverty. Poor health is particularly acute, as are unemployment and low income. The Knowledge Quarter and city centre are ringed by places within the most severe 1% of multiple-deprivation nationwide.

As the plans to the right show, there are clear spatial patterns across the city, with strong clustering effects delineated by sharp cut-offs. With its location between these impoverished districts and the many opportunities of the city centre, the Knowledge Quarter has an important role as a place that promotes inclusive access for its neighbouring communities and helps connect opportunity with need.

Regeneration Initiatives of the Past

In the light of the ingrained deprivation found around the city centre, it is sobering that Liverpool has been the recipient of numerous regeneration initiatives and funding streams, some of which have made a hugely positive impact, whilst others wrought more harm than good. The Knowledge Quarter contains examples of both types of consequence. The 1990s City Challenge programme can be thanked for saving Seymour Terrace and turning round the London Road area, rescuing Monument Place, St. Andrew's Gardens and the Coop Department Store building. The same partnership invested in

Hope Street, restoring Blackburne House as the Women's Centre, and kick-started the private sector confidence in abundance today. During the 1980s, housing improvement grants allowed area wide refurbishment and face-lifting of the Georgian area around Canning, which had suffered a collapse in investment in the lead up and aftermath of the 1981 riots.

Further back in history, the radical remodelling that took place in the 25-year period of post-war comprehensive clearance and redevelopment did such damage that much subsequent regeneration over a similar timescale has been concerned with repairing the worst excesses. For example, the modern Women's Hospital (1995) replaced the deck-access Falkner Estate, a late 1970s development on the site of cleared Georgian houses east of Falkner Square. Such accommodation had failed its residents within a few years of construction. The negative physical impacts of the abortive inner motorway, Royal Hospital and Holford Campus plans are highlighted elsewhere in this document.

Regeneration Initiatives Today

Key area based schemes in and around the Knowledge Quarter include:

City Centre Movement Strategy - The Liverpool City Centre Movement Strategy (CCMS), part of the Merseyside Local Transport Plan and the City Centre Regeneration Framework, sets out the vision for the current improvements being seen in the highway environment within Liverpool City Centre. The CCMS is a £73m programme of works proposed by Liverpool City Council, Liverpool Vision and Merseytravel to improve the roads, streets and public spaces in



► St Andrew's Street



► St Andrew's Gardens

Liverpool city centre. Of the three areas in the strategy the eastern area is most relevant to the University. The City Centre Movement Strategy East Scheme Identification and Implementation Report, produced in July 2004 includes a street hierarchy including; Strategic Streets; City Streets and Pedestrian Lanes. This is being applied to a number of schemes within the University area, which include Brownlow Hill, Moss Street/Daulby Street corridor, Mount Pleasant/Hope Street junction, West Derby Street and Crown Street.

Islington Planning Framework – A planning strategy has been drawn up for this area, providing a detailed framework for improving the built environment as investment patterns change. This retains the historic street grid and proposes a stronger frontage to Islington, with more productive use of land.

Royal Liverpool University Hospital – The Hospital Trust is seeking to build a new hospital and then redevelop the existing facilities. The proposals offer a major opportunity to repair the movement network and streetscapes around this strategic site.

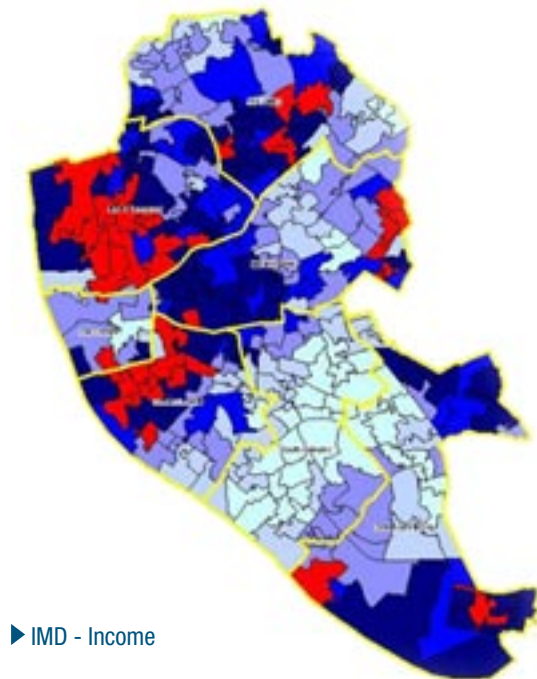
University of Liverpool Campus Urban Design Framework – The University have developed a strong vision to guide physical change across their city centre estate over the next fifteen years, with some flagship projects already underway. The Victoria Museum and Gallery and a series of public realm enhancements signal the strength of this vision. The aim is to embody an environment worthy of a world class institution, and revitalise the role of Civic University, as higher education plays an ever more prominent part in the life of the city.

John Moores University Masterplans – The Mount Pleasant and City Campus areas are the subject of emerging design studies and investment plans, with the Art and Design Academy the first of a number of important projects.

Central Village – Adjacent to the western Renshaw Street edge of the Knowledge Quarter is an area of former rail land around Central Station, where a large mixed use development is proposed. This will increase levels of activity along this interface and should improve east-west links around Newington to Bold Street.

Great George Street – Urban Splash have secured planning permission for a landmark development reinstating the western frontage of Great George Street and Place, at the south-west gateway to the Knowledge Quarter. An effect of the scheme should be to support pedestrian activity into the city centre from the south and draw visitors towards the Baltic Triangle and Independent District.

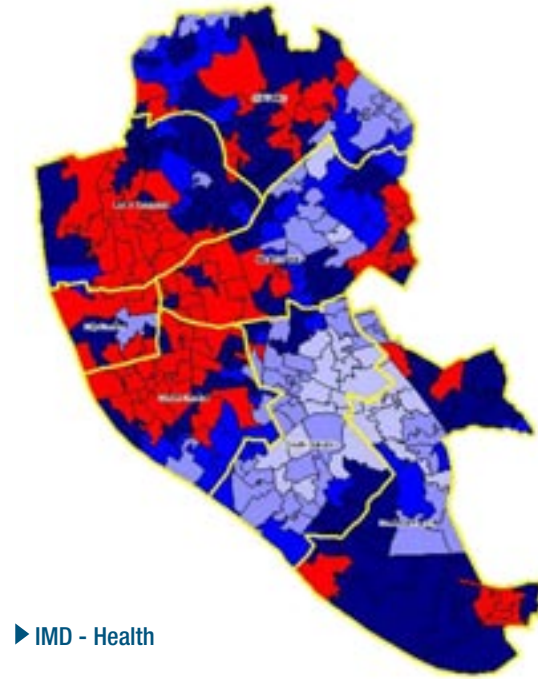
Metropolitan Cathedral – The area around the cathedral has been redeveloped in recent years to provide vastly improved access from Hope Street. The Liverpool Science Park, University Foundation House, LJMU Art and Design Academy and the new cathedral café represent outcomes of the Archdiocese of Liverpool's development strategy. Forthcoming elements will have further impact. A new access and reception facility in the Lutyens Crypt is proposed, to support visitors as this unique space becomes more intensively used for events and exhibitions. On the west side an open area will be more creatively managed as a habitat, recreation space and green route.



Pembroke Place - The former Royal Infirmary has been refurbished to provide teaching and research facilities for the Liverpool Primary Care Trusts and Universities at the costs of £12 million by the time of its completion in 1999. It includes The Foresight Centre which offers conferencing facilities. Liverpool School of Tropical Medicine sees the erection of a new research building, including the part pedestrianisation of Pembroke Street and the erection of a new high level link bridge to School of Tropical Medicine at the costs of about £26m. The project will be completed by Spring this year.

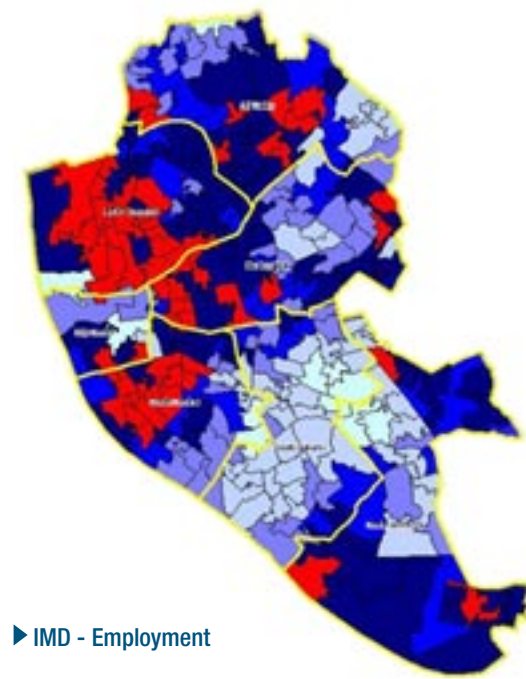
Area behind Lime Street Station - An area behind Lime Street Station and the Britannia Adelphi Hotel is part of an area identified as one of a number within the NWDA Strategic site – University Edge which have the potential to be developed in support of the City's Knowledge Quarter.

Oldham Street SPD - Liverpool City Council adopted the Oldham Street area SPD in 2006. The guidance provided in this SPD supplements the Liverpool UDP and builds on a planning brief prepared in 2002 for Liverpool Vision. The SPD ensures that the area develops in a coherent and coordinated manner and sets out key land use planning requirements, principles and criteria that the City Council will use, alongside other considerations, to evaluate and determine planning applications within the Oldham Street area.



Anglican Cathedral – The Diocese have enhanced the provision for visitors to the cathedral with the 'Great Space' interactive exhibition and high quality bookshop and café facilities. There is an ambition to make the external environment more accessible and welcoming. Work is well underway with the Friends of St. James's Gardens to improve the dramatic space on the east side, with the aim of creating better access from Hope Street, potentially including a pedestrian bridge. The west side is in need of a comprehensive plan to better integrate the cathedral within a setting worthy of the building.

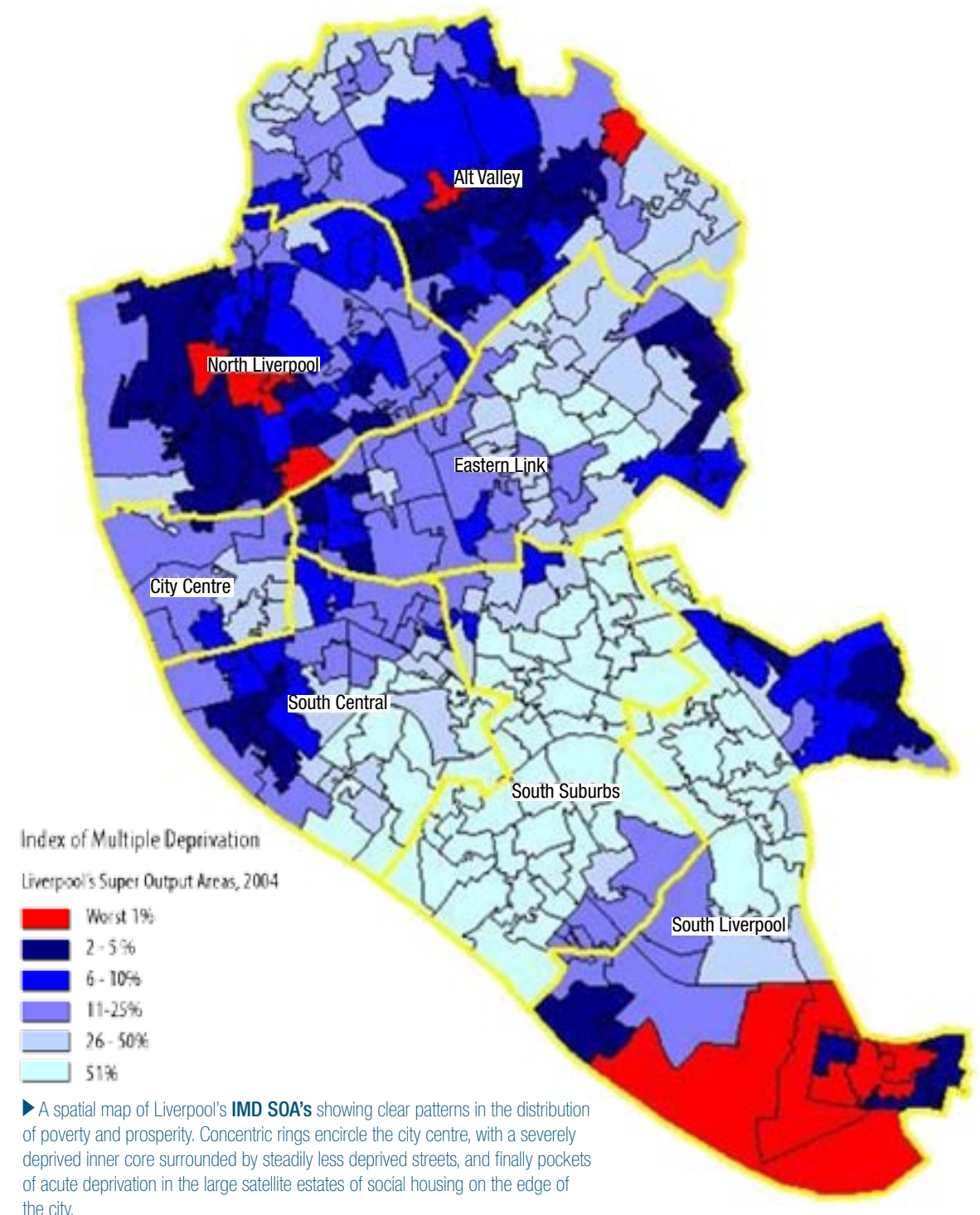
Kings Waterfront – Liverpool's long awaited Arena and Convention Centre (ACC) is open for business, and promises to generate substantial new visitor numbers. The Kings Waterfront developments also include hotel, leisure and residential buildings. The combined effect will be a substantial pole of conferencing, tourist and business activity along the waterfront, only a short walk from the western edge of the Knowledge Quarter. The ACC will be able to host significant national and international events like party conferences, academic congresses and political summits, which offer a natural complement to the activities and facilities in the Knowledge Quarter. Nelson Street has been identified as an important linkage on the natural desire line between the King's Waterfront and Cathedral area.



Baltic Triangle and Independent District – The historic warehousing district between the Knowledge Quarter and King's Waterfront has been the subject of a Planning Framework, setting out the area's role and a framework for change. Included within the boundary is the emerging 'Independent District', which contains a cluster of ex-industrial buildings converted to flexible gallery and production space for artists and creative enterprises. The landmark Buddleia 'Contemporary Urban Centre' is an impressive restoration of a vast Victorian warehouse, split into a complex of cultural uses. There are obvious linkages with the activities of the Knowledge Quarter.

Toxteth TV and Carnegie Library – Grassroots initiatives like Toxteth TV and the Buddleia Contemporary Urban Centre in the nearby Independent District are signs of the city's cultural vitality. As creative enterprises have been displaced from city centre bases by rising land values, new creative quarters continue to emerge. Toxteth TV is a media training and production facility aimed especially at young people who are disengaged from formal education, housed in an award winning collection of refurbished and newly designed buildings.

It has proved a catalyst for regeneration and offers scope for strategic extension of the Knowledge Quarter's Hope Street cultural spine. This can be conceived running southwards along Windsor Street, and towards the Princes Park



and Lark Lane/Sefton Park area, traditionally one of the city's bohemian creative districts. The hub of learning and creative activity at the top of Windsor Street will be reinforced by a confirmed lottery funded scheme to refurbish the historic Carnegie Library and introduce new ICT provision. The interface of Windsor Street and the Knowledge Quarter promises to be an important point of interaction with inner-city communities.

Shaw Street and Project Jennifer – At the north end of the Hope Street spine Liverpool Hope University have developed their Everton

Campus. Alongside Urban Splash and other private investors, a cluster of neglected historic landmarks have been brought back to productive use. The Cornerstone Gallery is a relatively unknown recent addition to Liverpool's creative infrastructure. Further investment along Shaw Street is expected. There is scope to see the Liverpool Hope University Everton Campus as an extension of the Hope Street spine, echoing the role of Windsor Street as a 'portal' to the Knowledge Quarter for those in the deprived communities north of the city centre.