11.2 New Off Quay Building – Small Commercial Units (office / leisure / studios)

- Max two stories high
- Ground floor height min 5M to allow insertion of mezzanine structure
- Building subdivided into minimum eight units
- Units arranged vertically – each 2 floors plus mezzanine
- Prime active frontage to Public Square
- Potential arcade to Public Square
- Secondary active frontage to rear Grove
- Elevation to Public Square to be highly visually open
- Western elevation 4.5 M from Quay Wall – site of ramp along Riverside walk
- Site contamination issues of adjacent site to be addressed
- Parking allocation within Central Car Park

BUILDING FOOTPRINT
COMMERCIAL / OFFICE 1196 sqM
COMMERCIAL / LEISURE 0 sqM
RESIDENTIAL 0 sqM
PARKING REQUIREMENT
24 spaces*
0 on site
24 off site
11.3 Foundry Lane Point – Mixed Use Building (office / leisure / residential)

- Maximum three stories high
- Third story to be set back min 1.8 M around North end of building
- Ground floor height min 4.5M to allow insertion of mezzanine structure
- Corner point to Foundry Lane junction emphasized with increase in height
- Active frontage around corner point
- Commercial units at ground floor along Foundry Lane
- Active frontage along Foundry Lane
- Commercial units at ground floor around Public Square
- Active frontage around Public Square
- Internal / basement car park
- Car park access through Northern façade via Foundry Lane
- Floor plates min 8 M deep
- Light / ventilation well to centre of building
- Part site contamination issues to be addressed.
- Alternative option for building footprint if known contamination to be avoided (ref building footprint plan)
11.4 Riverside Blocks 1 & 2 – mixed use (office / leisure / high density residential / live - work)

- Residential blocks arranged in terraces along secondary streets/groves between Foundry Lane and Riverside Walk
- End units fronting Riverside Walk and Foundry Lane to offer commercial space
- Integral / concealed internal parking garage accessed off Foundry Lane
- Building to contain landscaped central outdoor space over parking garage
- Residential element to comprise larger family units
- Maximum of 15 residential units per block
- 2 No. cycle parking provision for each unit contained within block
- Residential units to be accessed from pedestrian groves and central outdoor space
- Corner units to offer live / work potential
- Ground floor residential element to offer live / work potential
- Outdoor space to provide a mixture of private and communal areas for residents
- Parking garage to offer service access to commercial units
- Buildings and Groves between to be orientated no more than 20 degrees from South
- Central lanes/groves to be pedestrian zones - restricted vehicle access (ref section)
- Distance between buildings (across Groves) to be min 7M (ref section)
- Residential terraces maximum 3 stories high – third story set back min 1.8M
- Commercial elements to Foundry lane – max two stories high
- Commercial elements to Riverside Walk to be single story (plus mezzanine)
- Corner points of buildings onto Riverside Walk and Foundry Lane to be 3 stories high
- Ground floor height to Riverside walk min 5 M to allow insertion of mezzanine structure
- Site levels from Foundry Lane to Riverside Walk to be reflected in building topography / roofscape
- Active frontage to Riverside Walk and Foundry lane
- Space for centralized refuse and recycling to be accessible from Foundry Lane
11.5 Riverside Blocks 1 & 2 – mixed use (office / leisure / high density residential / live - work)

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Area (sqM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Footprint</td>
<td>1590</td>
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<tr>
<td>Commercial / Office</td>
<td>385</td>
</tr>
<tr>
<td>Commercial / Leisure</td>
<td>480</td>
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<tr>
<td>Residential</td>
<td>1520</td>
</tr>
<tr>
<td>Parking Requirement</td>
<td>32 spaces*</td>
</tr>
<tr>
<td>On site</td>
<td>32</td>
</tr>
<tr>
<td>Off site</td>
<td>0</td>
</tr>
</tbody>
</table>

Fig 67 Layout of Riverside Block 2

Fig 68 Aspect to Riverside Walk

Fig 69 Section through Riverside block showing integral car parking and residents green space.
11.6 Riverside Block 3 – mixed use (office / leisure / residential / live - work)

- Residential element located above ground floor level
- Commercial units to central grove and Riverside walk
- Active frontage to Riverside walk
- Integral / concealed internal parking garage accessed off Foundry Lane
- Car parking garage can be exposed to buffer zone between Byker bank
- Maximum 3 stories high
- Ground floor height to Riverside walk min 5 M to allow insertion of mezzanine structure
- Site levels from Foundry Lane to Riverside Walk to be reflected in building topography / roofscape
- Space for centralised refuse and recycling to be accessible from Foundry Lane
- Maximum 20 residential units

**BUILDING FOOTPRINT**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Area</th>
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</thead>
<tbody>
<tr>
<td>Commercial / Office</td>
<td>200 sqM</td>
</tr>
<tr>
<td>Commercial / Leisure</td>
<td>180 sqM</td>
</tr>
<tr>
<td>Residential</td>
<td>1630 sqM</td>
</tr>
</tbody>
</table>

**PARKING REQUIREMENT**

- 26 spaces* on site
- 0 off site

*Fig 70 layout of Riverside Block 3

*Fig 71 Aspect To Riverside Walk

*Fig 72 Aspect To Foundry Lane
11.7 Foundry Lane Studios – Medium Size Commercial Units (office / studios)

- Two storeys plus roof space fronting Foundry Lane
- Individual unit approx 110 sq M each
- Units to be arranged vertically with each containing 2 plus floors
- Building line tight to Leighton Street
- Active frontage to Foundry Lane
- Roofscape to reflect individual unit footprints
- Upper floor rear of units to have limited aspect to Brewery Yard – overlooking issues to be addressed
- Corner unit adjacent Brewery Yard Stairs to relate to building fronting Cosyn Place
- Corner unit floor levels to relate to landing levels of Brewery Yard Stairs
- Elevation to Brewery Yard stairs to overlook stairs
- Refuse collection point at bottom of Leighton street
11.8 Leighton Street - Townhouses

- Three storey large sized units with aspect over Horses Field
- Building line tight to Leighton Street
- Secondary aspect of upper floors to Brewery Yard
- Access from Leighton Street and Brewery Yard
- Integral parking for one car within each unit
- Parking access off Leighton street (Controlled vehicle access to Leighton Street)
- Buildings and roofscape to reflect topography of Leighton Street
- Refuse collection point at bottom of Leighton street

**BUILDING FOOTPRINT** 249 sqM
**COMMERCIAL / OFFICE** 0 sqM
**COMMERCIAL / LEISURE** 0 sqM
**RESIDENTIAL** 747 sqM

**PARKING REQUIREMENT**
- **ON SITE** -6 spaces*
- **OFF SITE** - 1 spaces*
11.9 Brewery Yard – Residential

BUILDING FOOTPRINT 187 sqM
COMMERCIAL / OFFICE 0 sqM
COMMERCIAL / LEISURE 0 sqM
RESIDENTIAL 374 sqM
PARKING REQUIREMENT
-ON SITE -0 spaces*
-OFF SITE -7 spaces*

- 2 storeys above Brewery Yard
- Dual aspect over central green space to East and riverside to West
- Building corner to Brewery Yard Stairs emphasised
- Private green space to area adjacent rear of Foundry Lane studios
- Parking allocation within Central Car Park
- Vehicle entrance via ramp from Byker Bank opposite scrap yard entrance
- Junction at top of Leighton Street to be closed
- Vehicle entrance to be discrete / minimal
- Main pedestrian entrance / exit via lift to Cosyn Place
- Main pedestrian entrance / exit to be architecturally strong viewed from Cosyn Place
- Parking Structure set back from Byker Bank to provide active frontage
- Level of top of parking structure to be no higher than 19.7M above Ordnance Datum
- Existing site levels and retaining structure to be utilised
- Roof of Parking Structure to be landscaped for use by buildings around perimeter
- Space for centralised refuse, recycling and potential energy centre

- Residential element located on top of Parking Structure deck along Leighton Street and Byker Bank - to have presence along Brewery Yard elevation
- 60 % parking can be exposed along Brewery Yard elevation
- Overall building form to accentuate corner point at Byker Bank / Leighton Street
- Commercial element to front Cosyn Place
- Maximum 2 stories above Brewery Yard
- Form to reflect former line of Cosyn Street
- Elevation to Cosyn Place to be visually open
- Elevation to Brewery Yard stairs to overlook stairs
- Potential for commercial space or central facilities – ground floor Byker Bank
Areas such as the Ouseburn Valley where disparate buildings and spaces have developed over time are often given cohesion by virtue of continuity in the materials the buildings are constructed from. With modern intervention the Ouseburn Central area has lost this homogeneity.

This design guide sets out a coordinated palette of materials for use in the designing buildings for the site. It is hoped that in adopting this limited palette of materials a wide range of architectural styles can be unified, and the central area is read as a cohesive whole.

The materials palette has been selected on the basis of historical continuity and existing character of the valley, sustainability in design and simplicity.

12.1 Materials Sample Board

12.1.1 Glass

12.1.2 Brick

12.1.3 Timber (natural appearance)

12.1.4 Steel

12.1.5 Reclaimed Stone

12.1.6 Reclaimed Slate

12.1.7 Green Roof

12.1.7 Lead Roof / Lead Appearance
**13.0 SUSTAINABLE DESIGN PERFORMANCE REQUIREMENTS**

**13.1 MICROCLIMATE PERFORMANCE**

**Introduction**

The detailed design of buildings and outdoor spaces in the Ouseburn Central Area will need to be coordinated on a site wide basis to enable a comfortable, safe microclimate that is conducive to delivering successful outdoor spaces and energy efficient buildings. The orientation of streets must allow daylight access to open areas and buildings, and the massing of buildings must be designed to ensure that over-shadowing and negative wind impacts are minimised. Analysis of future detailed master plans and proposals for single buildings will be required to identify mitigation and to ensure that proposals do not have a negative impact on the wind microclimate and spaces around buildings. Moreover, assessments must be carried out on the overshadowing effects of buildings on existing buildings and open spaces, particularly those that rely on direct solar access.

**Wind**

**Intent**

The design intent is to provide public and private outdoor spaces that are safe and enjoy external wind conditions appropriate to their intended use.

**Requirement**

All development will need to demonstrate that public open spaces interacting with landscape elements and buildings comply with Lawson wind performance requirements stated below:

**Lawson Wind Criteria**

The acceptability of windiness is subjective and depends on a number of factors, most notably the activities to be performed. A number of criteria exist for use with wind analysis and are useful to define windiness in terms of acceptability for particular activities. The most flexible and comprehensive are those due to TV Lawson of Bristol University. These criteria are extracted from “The evaluation of the windiness of a building complex before construction”, TV Lawson, London Docklands Development Corporation. These have been used widely in the UK and around the world.

**Comfort Criteria**

Limiting comfort criteria are described for various activities in order of increasing windiness as follows:

<table>
<thead>
<tr>
<th>Wind Velocity</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 0 - 4m/s      | “Long term “Sitting”
Reading a newspaper and eating and drinking |
| 4 - 6m/s      | “Standing” or short term “sitting”
Appropriate for bus stops, window shopping and |
| building entrances | |
| 6 - 8m/s      | Walking and “strolling”
General areas of walking and sightseeing |
| 8 - 10m/s     | “Business walking”
Local areas around tall buildings where people are not likely to linger |

The comfort criteria describe conditions where the associated wind speeds are exceeded for less than 5% of each season or year. Gust speeds may be up to 85% greater than the mean speeds above.

It should be noted that these are limiting criteria for comfort conditions. For ideal conditions the windiness will be a category better than outlined above, particularly for more sensitive activities such as external eating. A target wind speed of 2.5m/s is perhaps more appropriate for very regular use for eating outside. Windiness greater than “Business Walking” may be acceptable for motor vehicles. Windiness can clearly help to disperse concentrations of vehicle emissions. Clearly it is possible to sit at times in an area characterised as “business walking” but this will happen relatively infrequently.

**Distress Criteria**

There is a distress criterion for “General Public” access of 15 m/s (equivalent to a limiting gust speed of 62 mph gust) to be exceeded less often than once a season or year. This is intended to identify wind conditions that less able individuals or cyclists may find physically difficult.

A further distress criterion for “Able Bodied” access of 20 m/s (equivalent to a limiting gust speed of 83 mph where it is physically impossible for an able bodied person to remain standing) to be exceeded less often than once a season or year is also defined.

- > 15m/s
  - “General Public” Access
  - Less able and cyclists find conditions physically difficult
- > 20m/s
  - “Able Bodied” Access
  - Able-bodied persons find conditions difficult. Physically impossible to remain standing during gusts.
Design Strategy
The following recommendations are made:
Discourage winter winds to enter the site with building massing and planting arranged to block winter winds coming predominantly from the north - north east direction.
Design a range of public spaces that can cater for different seasons:

Public space for summer time: allows summer winds to flush through and provides shade.

Public Space for winter time: controls winter winds access and provides direct sunlight access.

Sunlight and Daylight

Intent
The design intent is to provide public and private outdoor spaces that are safe and enjoy external sunlight and daylight conditions appropriate to their intended use.

Requirement
As a minimum, all development will need to demonstrate compliance with sunlight and daylight requirements from British Standards and Building Research Establishment Guidance as identified by NCC.

Design Strategy
Develop dispositions of buildings that comply with sunlight/daylight requirements and at the same time provide well defined public spaces, active frontages to streets where appropriate and a safe environment for pedestrians.
All residential uses should be orientated with main living spaces within 20° of south to maximise benefits of solar access. Internal courtyards and enclosed or semi-enclosed open space must be designed such that there is enough distance from one facade to the other to allow for direct solar access and avoid areas of permanent shade.

13.2 Energy

Introduction
Following the London Borough of Merton’s introduction of the requirement for all buildings over 1000m² to provide a minimum of 10% of their energy use from renewable energy systems, many other local authorities have introduced similar requirements, with plans for more stringent targets over time.
Given the intention for the Ouseburn Central Area to be recognised as a sustainable urban village, it is considered that the development should achieve and demonstrate a better energy and carbon standard that the minimum requirements set by Part L of the Building Regulations. Moreover, if the development is to provide a model for new and sustainable urban lifestyles in Newcastle, then it is important that energy aspects of this are clearly demonstrated to the residents and visitors.

An important of achieving energy and carbon savings in the Ouseburn Central Area involves addressing total energy use: not only how the buildings are designed, but how the design can influence and encourage the cooperation of building users and their lifestyle choices. It is important to influence the full range of energy stakeholders who will contribute to the overall energy use of the Ouseburn Central Area. For example, in order to influence the occupants, an energy billing system is proposed to allow metering and the future imposition of rules such as any energy consumed beyond a ‘Carbon Allocation’ fair share consumption to be charged at higher rates. This is coupled with requirements for any fit-out to include A-rated appliances (for energy and water efficiency) inform occupant (and contractor) choices.

The following design guidelines set out to achieve these aims.

Building Regulations Enhancement

Intent
The intention for the Ouseburn Central Area is to achieve a high standard of carbon efficiency that can be improved over time, rather than simply achieving the minimum standards required by Part L of the Building Regulations.

Requirement
The requirement is for all buildings to achieve and demonstrate in their Building Regulations submission a 20% reduction in carbon emissions over the current maximum allowance permitted by the relevant section of Part L.

Strategies & Technologies
The following diagram illustrates how each stakeholder has to be influenced to deliver buildings that achieve the energy standards required for the Ouseburn Central Area.