



CONTEXT

Amenity open space can radically alter identity and therefore public perception.

Pivotal or edge condition?



Improving connectivity will be critical to the success of the Naas Road Framework.

NATIONAL, REGIONAL, FUNCTIONAL AREA AND LOCAL POLICY CONTEXT

In summer 2007 South Dublin County Council initiated a procurement process to appoint consultants to establish an "Naas Road Urban Design Masterplan".

In the briefing document, South Dublin County Council identified the lands in question as being under- and/or poorly used and yet occupying very significant locations on major arteries within the South Dublin County Council functional area. The ambition was to reimagine how these lands would function and be perceived – all with a view to improving efficiencies, releasing value and potential, and contributing to an overall more sustainable future the County. This Development Framework is the outcome of that process.

A process of public consultation was initiated by South Dublin County Council in 2007 and that identified the following key concerns:

- The preservation of existing residential amenity
- The preservation of the amenity value of open space in the area
- The promotion of employment opportunities
- The continuing traffic congestion
- Uncertainty as to the future proposals for the area.

The results of this consultation process was provided as part of the consultants' briefing information.

South Dublin County Council had also received various pre-application submissions from landowners. These ranged in scale and ambition. In respect of one – from SIAC – a development brief was agreed by the elected representatives. Typically the other proposals foresaw greatly increased densities.

During summer 2008 Dublin City Council undertook an equivalent

study of adjacent area to the east – focussed on the Kylemore and Longmile Road junction. Their document was released February 2009. Principles in respect of linkages are consistent with those in this Development Framework.

Throughout Autumn 2008, a series of informal meetings took place with landowners and that identified the following:

- A strong conviction from the market that the area was appropriate for investment
- An aspiration that rezoning would lead to increased densities and higher value uses
- A strongly articulated view that the area was ideally sited for a wide range of uses, including a district centre

A briefing meeting was held with the NRA and their concerns identified, specifically:

- Existing M50 improvements would not accommodate any increase trip generation from the area onto the national network
- The Newlands interchange would allow for the transformation of the N7 west of the Red Cow to what would be essentially motorway status
- General concern that any development would impact negatively on the national network

Against this background KCAP and McGarry Ní Éanaigh Architects were commissioned to prepare this Development Framework.

National Policy

National Development Plan 2007 – 2013

The National Development Plan Transforming Ireland – A Better Quality of Life for All sets out the roadmap to Ireland's future.

To optimise the choices for a better long-term future a clear roadmap is necessary, marking out landmark challenges such as:

- Removing the remaining infrastructure bottlenecks that constrain the economic development and inhibit balanced regional development and environmental sustainability;
- Further equipping children and youth with the skills and education to grasp the opportunities as presented;
- Creating and sustaining high value employment opportunities; and
- Redistributing the product of wealth to foster an inclusive society, including adequately catering for those who have already contributed to Ireland's success over previous decades.

This National Development Plan integrates strategic development frameworks for regional development, for rural communities, for all-island co-operation, and for protection of the environment with common economic and social goals.

National Spatial Strategy 2002-2020

The National Spatial Strategy (NSS) 2002-2020 recognises the need to enhance the competitiveness of the Greater Dublin Area at an international level and in order to achieve this, the Strategy identifies the areas as an area for consolidation. This consolidation includes the public transport system and notes that investment in public transport will assist in promoting a more efficient

and competitive Dublin area.

Sustainable Development: A Strategy for Ireland (1997)

The national strategy for sustainable development provides a framework for the achievement of sustainability at the local level. It calls on planning authorities to incorporate the principles of sustainability into their Development Plans and to ensure that planning policies support its achievement.

Comment

The County Development Plan incorporates the aims of this policy document and therefore, the Development Framework complies with the overall sustainability strategy.

Towards Sustainable Local Communities: Guidelines on Local Agenda 21, 2001

Local Agenda 21 aims to promote sustainable development at local and regional level. 'Towards Sustainable Local Communities: Guidelines on Local Agenda 21' sets out a range of options for action covering economic, social and environmental issues which should be considered by local authorities in developing and advancing Local Agenda 21.

In relation to planning and development these include a number of actions:

- Reducing the demand for additional transport infrastructure by reducing the need to travel.

- Resisting scattered settlement patterns, which are costly to service.
- Having a clear demarcation in development plans between urban and rural land use to help prevent urban sprawl and help maintain the rural landscape.
- Adopting "neighbourhood" community planning and promoting higher residential densities, particularly in redeveloping brown field sites, and in proximity to town

centres, public transport nodes and access points.

- Increasing emphasis on adequate open space for out-door recreation and on planting and landscaping.

Comment

The tenets of Local Agenda 21 are incorporated in to the overall County Development Plan. The best principles of Agenda 21 are incorporated in to the Development Framework.

National Anti-Poverty Strategy (NAPS)

The revised National Anti-Poverty Strategy 'Building an Inclusive Society' provides a framework for anti-poverty initiatives within local authorities and its implementation enhances the work that local authorities already carry out. The main objective of NAPS is to 'reduce substantially and, ideally, eliminate poverty in Ireland and to build a socially inclusive society'. The Development Plan, with its range of strategies to promote access to housing, social and community facilities, public transport etc., has an important role in advancing some of the main objectives of NAPS for disadvantaged communities in the county.

Comment

The consultation phase of the Framework ensures an inclusive public participation in line with NAPS.

National Climate Change Strategy (2000)

The Strategy provides an integrated co-ordinated framework for achieving the national target of reducing greenhouse gas emissions by 2012.

Comment

The Development Framework includes policies to meet the relevant conditions and commitments of climate change guidance, internationally and nationally.

National Roads Authority

The National Roads Authority (NRA) Policy Statement on Development Management and Access to National Roads, published in May 2006, sets out the national policy with regards to access to the national road network (including motorways). Sub-section 1.4 of the document summarises the NRA objectives to protect and maintain the intended transport function of the network of national roads.

Regional Policy

Regional Planning Guidelines Greater Dublin 2004-2016

At a regional level, the Regional Planning Guidelines (RPG) for the Greater Dublin Area 2004 -2016 states, "In the Metropolitan Area, public transport and other sustainable modes should be given precedence over the requirements of the private car in all relevant policy and decision making" (Recommendation 7.1). This RPS guidance has been upheld in the development of the transport strategy for the subject site.

Dublin Transportation Office Platform for Change and Transport 21

The Dublin Transport Office (DTO) Strategy 2000-2016 Platform for Change, and Transport 21, the successor to Platform for Change have provided the public transport context to the assessment of the public transport proposals for the proposed development. The major infrastructure plans contained in Transport 21 for rail, light rail, metro bus and road have formed the underlying assumptions for public transport improvements for the site and all relevant schemes as they apply to the area have been supported in the development's transport strategy.

Dublin Transportation Office Mobility Management Plans

The Dublin Transport Office (DTO) document, The Route to Sustainable Commuting: An Employer's Guide to Mobility Management Plans, published in March 2001, sets out regional guidance that promotes and encourage the use of sustainable modes of transport as alternatives to the private car.

South Dublin County Council Policy - Functional Area

South Dublin County Council Development Plan 2004 - 2010

At a local policy level, The South Dublin County Council Development Plan which came into effect in 2004 contains a key aim (7.0) - To promote ease of movement within and access to South Dublin, by integrating land use planning with high quality, sustainable and integrated transport systems for people and goods within the County".

South Dublin County Council Corporate Plan 2001 - 2006

In March 2001 the County Council adopted a Corporate Plan for the future development of its services, "Managing the Future 2001 - 2006". The Development Plan was drawn up to reflect the objectives of the Corporate Plan and to act as the land-use basis for securing its implementation. Now Redrafted and entitled Corporate Plan Connecting with Communities 2004 - 2009

Comment

The Development Framework is cognisant of the aims and objectives of the Council Corporate Plan. E.g. - Promote a more compact urban form and higher residential densities in the vicinity of strategic public transport corridors and in urban centres. (section 5.2)

South Dublin County Development Board Strategy 2002 - 2012

In 2002 the South Dublin County Development Board published an overall Strategy for South Dublin, entitled 'South Dublin: A Place for People'. It is a 10 year strategy for the social, economic and cultural development of the county up to the year 2012. It aims to improve the quality of life of people who live or work in, or visit, South Dublin County.

The vision underpinning the Strategy is to achieve the following: "A county confident in its sense of identity, creating social, economic and cultural inclusion for all and providing access to lifelong learning and health services to support self-sustaining development. The County we envision will be environmentally friendly and based on the values of equity, creativity, participation and inclusiveness".

Comment

Strategic goals and objectives set out in the Strategy are taken into account in the preparation of the Development Framework.

South Dublin County Council Policy - Naas Road Area

Naas Road Development Framework 2010-2016

This Document

LZO 5. N7 Gateway Corridor - Upgrading

Facilitate appropriate high-quality mixed-use development (including offices and residential development) on lands adjoining the Naas Road/ N7 between Citywest and the Dublin City boundary, for the purpose of upgrading this major gateway corridor into the city. This area will be the subject of a detailed urban design Masterplan.

Other Relevant Secondary Policy Sources

Retail Planning Guidelines for Planning Authorities, 2005

These Guidelines update and replace the Retail Planning Guidelines published in January 2001. The Guidelines provide a retail hierarchy for the State and objectives in managing recent pressures in the retail market. The major change from the 2001 to the 2005 Guidelines is in relation to the retail warehouse cap. The revised Guidelines indicate that the previous cap of 6,000 sqm for a retail warehouse may be lifted within the functional areas of the four Dublin local authorities and in the other National Spatial Strategy Gateways.

Sustainable Housing - Design Standards for New Apartments 2007

The primary aim of these guidelines is to promote sustainable urban housing, by ensuring that the design and layout of new apartments will provide satisfactory accommodation for a variety of household types and sizes - including families with children - over the medium to long term.

Delivering Homes, Sustaining Communities 2007

The statement outlines an overarching vision to guide the development of the Irish housing sector over the next ten years, by delivering more and better quality housing responses and by doing this in a more strategic way focused on the building of sustainable communities.

Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) 2009

The aim of these guidelines is to set out the key planning principles which should be reflected in development plans and local area plans, and which should guide the preparation and assessment of planning

applications for residential development in urban areas. Incorporating the Best Practice Design Manual Part 1 and 2 - 2008

URBAN VISION

The study area occupies an unusual position - pivotal in terms transport nodes, relatively remote from the political focus of South Dublin County Council, yet being part of a loosely defined edge condition to Dublin city. The study area straddles what might elsewhere have been a spatial and administrative boundary - Dublin's orbital M50. The study attempts to rationalise this contradictory location and propose new identities and 'place' the area.

Perception of the study area is generally negative. A key instrument in this framework process is the degree to which perception can be altered so as to expedite change - cause and effect are interwoven and not necessarily linear.

Market forces are the key drivers in the Irish planning context. This framework must be principles-driven and robust enough to accommodate market change.

Until recently the area was the preferred centre for the distribution industries for the Dublin region. Recent trends have been to move these uses to outside the M50 where access is better and site increments much larger. This trend will continue, releasing opportunities in the study area

- the Development Framework attempts to articulate those opportunities. The legislative planning framework is the Development Plan. This development framework recognises the Development Plan cycle yet also suggest visions for the area beyond that. It is not to presume finite consequences, but to imagine, identify, and present attainable and desirable outcomes.

The ambition of the Naas Road Development Framework is to establish the foundation for profound and lasting change. It is to inspire and initiate ongoing transformation and repairs of the urban fabric.

The Naas Road Development Framework is a flexible, long-term plan that has the ability to respond to change over time and covers a ranges of issues, topics and scales. One of the key purposes of the Naas Road Development Framework is to set out strategic objectives and priorities as guiding principles to inform inter alia landuse, structure, activity and spatial quality.

Fundamental to the Development Framework is the aspiration to establish a dynamic, well-served, well-connected and creative place to live, work and enjoy. Underpinned and

inspired by two profound urban concepts, that of Compact City and Open City.

Compact City

A city is a composition of spaces, activities, patterns of mobility, functional structures and social interaction. The nature and character of the city is defined by the density and spatial configuration of these components. The concept compact city has been defined on many occasion by various scholars, in general terms it is a city of relatively high density and mixed use, that is based on an efficient public transport system that also includes and supports walking and cycling within its framework.

Open City

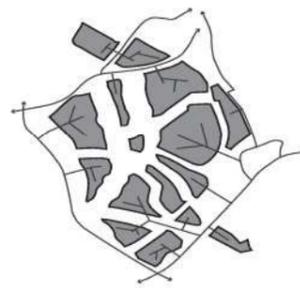
The open city concept that steps in to explore the functionality of the city from within, is the work of great urbanist Jane Jacobs. An open city is that which is achieved spatially once a critical level of density and diversity is reached; where public and private functions are mixed, therefore creating the richness and chance for unexpected interactions allowing discoveries and innovations to take place.



today's built footprint



Ambition



disconnected city

vs.



open city

KCAP/MCGNIE/JMP/BG



Naas Road

Naas Road Development Framework



Robinhood Road



The Grand Canal

FRAMEWORK PERIMETER

The original study area was loosely defined as extending east west between two obvious edges, one infrastructural (Newlands N7 junction), the other administrative (boundary with Dublin City Council). The north south extent was based on a 500 metre catchment from the Naas Road and public transport spine.

Other parameters that identify meaningful edges such as infrastructure, landscape and interfaces between different uses, were analysed and a larger study area resulted. Underlying this process and decision was the need to identify an increment large enough for structural transformation, coherent in terms of its external relationships, and yet manageable in terms of its ambition and delivery. The new framework perimeter is not a strict border between areas but it sets a meaningful context for any development within the framework.

The newly found perimeter contains an area of circa 740ha (c. 1829 ac.) currently in a mixture of brown and greenfield state. The northern boundary of the subject lands follows the line of the Grand Canal westwards from the City Council boundary at the 6th Lock to the M50, then follows the M50 southwards to Monastery Gate, continuing westwards along Monastery Road and Knockmeenagh

Lane to Newlands Cross. The western boundary follows the Belgard Road from Newlands Cross to Ballymount Road. The southern boundary follows the extent of Ballymount Park, then follows the M50 south to Greenhills Road, turns east to incorporate Greenhills Cross Industrial Estate. The eastern edge follows the administrative boundary between South Dublin County Council and Dublin City Council from Greenhills Road to meet the Grand Canal at the 6th Lock adjacent to the Bluebell Industrial Estate.

The new perimeter describes an increased area within the M50 and a slightly decreased area outside the M50. This result supports the vision that priority for further urbanisation of Dublin should be within the M50. It is here that an overlap of difficult ingredients such as disconnectedness, small landownerships and inefficient use of ground shows the greatest potential for change.



Ambition



edges today



The Grand Canal at Killeen Road



Park West



Green Hills park

CONNECTIVITY

Improving connectivity, integration and permeability will be critical to the success of the Naas Road Development Framework.

Reflecting its current use and the ad hoc nature of past development, the area is currently characterised by cul-de-sac industrial and commercial development accessed off a limited number of busy through routes. The result is an illegible environment that is confusing to drivers and inconvenient, uninviting and arguably in many places unsafe for cyclists and pedestrians. This situation is compounded by the limited number of junctions and crossings on the Naas Road, creating a significant barrier to movement across the site.

The aim of the Development Framework is to 'repair' the urban fabric of Naas Road - creating a legible layout with short blocks and multiple direct connections that offers a choice of routes to, from and within the area. Wherever possible the Framework seeks to connect with surrounding residential and commercial development (whether existing or proposed) to integrate them into resolved walkable neighbourhoods with shared facilities.

Given the heavy congestion of the N7 and M50, and the challenges of climate change

and peak oil, it is vital that the Naas Road becomes an area where future residents, employees and visitors are not reliant on the private motor car as their primary means of transport. Failure to do so will severely limit the scope for transformational change in the local environment and the viability and resilience of future development. The area benefits from good public transport connections to Tallaght and Dublin City Centre and is within relatively easy cycling distance of both centres. Significant improvements to the walking, cycling and public transport network will be required, both on and off site, in order to achieve the modal shift required to realise the full vision.

It is recognised that it will take time to fully realise the necessary improvements to the street network and transport infrastructure. The Framework therefore identifies priority connections that in the short-medium term can best improve permeability, opening up key areas of the site for development and assisting in changing the character of the Naas Road from major distributor to urban boulevard.

A wide range of stakeholders will have a role to play alongside South Dublin County Council in improving the area's connectivity, including

landowners, Dublin City Council, the National Roads Authority and, in particular, the Dublin Transportation Office, who will be required to co-ordinate improvements to the wider transport network.

The city as a tree

'Ladders' describe an access system to areas within the city which become impassible/inaccessible for the public in general - essentially gated. Access is linear and sequential only. The areas behind the gates become guarded zones, usable only to a small amount of people or sometimes even for no one.

Open city

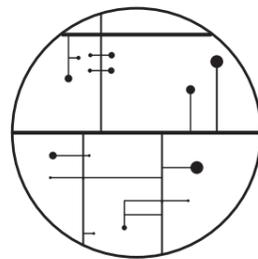
In a 'Network' the city is accessible and stays usable for all. This particular character of connectedness is multi-layered and multi-valent, facilitating emergent systems of exchange, synergy and sustainable development.



connectivity today

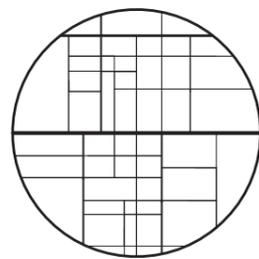


Ambition



Ladders

vs.



Network

KCAP/MCGNIE/JMP/BG



Naas Road

Naas Road Development Framework



Robin Hood Road



Woodford Downs

OPEN SPACE

The area lies between the Liffey valley and Dublin mountain foothills - a gently undulating landscape with an east west grain resulting from glacial deposits. Much quarrying and excavation over time reduced whatever subtle legibility the topography gave. What remains is the Clondalkin ridge and the depressions along the two rivers - Camac and Robinhood.

As a built entity Dublin's western edges are not spatially defined. The current sprawl has been market driven and has overtaken the last notional edge definition - the three open space fingers separating Tallaght, Clondalkin, and Lucan. The westward leapfrogging of development along major arteries has produced a low density pocketed landscape with little overall coherence. What open space exists is often ambiguous in its reading - frequently walled or buried in backland conditions. The existing green belt zoning south of the N7 being the largest single existent open space increment - a green lung reaching from the west. Its edge definition is now under threat.

The study area lies within the catchment of the Camac River and particularly its tributary, the Robinhood River. The surface water network is essentially those rivers with significant lengths

of the network in culverts. The network development was piecemeal on foot of individual and unconnected developments. As in the greater Dublin area, the surface water network is now straining with repeated symptomatic flood events in the areas. Presently the river network is almost invisible and does little in terms of identification.

The eighteenth century Grand Canal is a powerful event in the landscape - its plan alignment being a structuring east west element connecting city with the its western hinterland. Access and uses along the Canal are problematic but the potential to structure and characterise is enormous.

These three elements, the green belt, the Robinhood river and the canal are key to an ambition to let open space play a meaningful and strategic role in urban development.

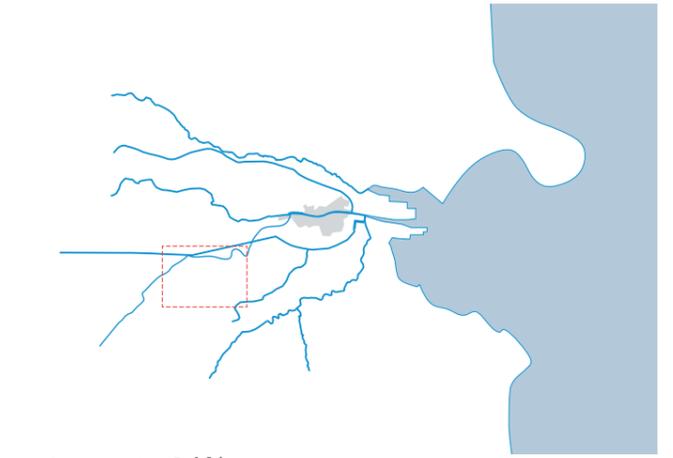
Perception of open space in an urban context is observed as being negative; in many situations in the surrounding areas it is dealt with as a backlands or leftover space, rather than as a quality. This Development Framework has the ambition to change this relationship and use open space as a powerful tool to unfold identity, invite for uses and in general be an important factor in quality of urban life.



green lungs Dublin



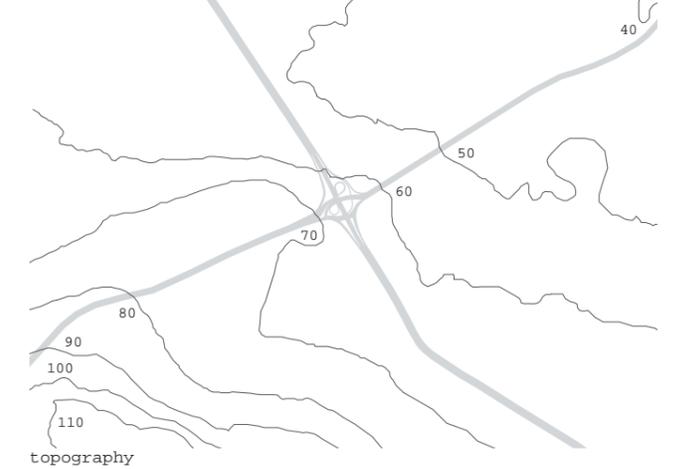
parks, sports grounds & greenfields



watercourses Dublin



river Camac & Robinhood flooding areas and underground water



topography

open space today



Ambition



View to Kilakee and Cruagh Mountains



Ballymount Park



The Grand Canal 9th Lock gate

MIXED USE

The traditional Development Plan zoning methodology has over time resulted in generally single function areas - the absence of a mix of uses generates sterile discrete environments and the very separation of uses itself produces unnecessary and ultimately unsustainable traffic generation.

The Naas Road Development Framework is structured around the principle of the walkable neighbourhood - placing homes and businesses within easy walking distance of each other and of retail, leisure and community facilities; i.e. within 400 metres or a 5 minute walk, extended up to 800 metres (10 minutes) for certain higher order services such as secondary schools or light rail.

The emphasis on walkable neighbourhoods does not prevent certain areas within the Development Framework being used for a single purpose, such as the concentrating of industrial uses in the Oak Road Character Area adjacent to the M50. Wherever possible however the Framework seeks to mix commercial uses, including light manufacturing, with residential. This approach is challenging to traditional zoning methods of planning and to the business models of certain types of developer, but is a defining characteristic of successful urban places.

The mix of uses will vary by neighbourhood, dictated by geography, connectivity, accessibility and the amount of commercial or industrial development. With the exception of the industrial areas in the north east and south of the Framework area, every neighbourhood will incorporate an element of residential development. This will be easily accessible by public transport (bus or LUAS) and served, at the very least, by convenience retail.

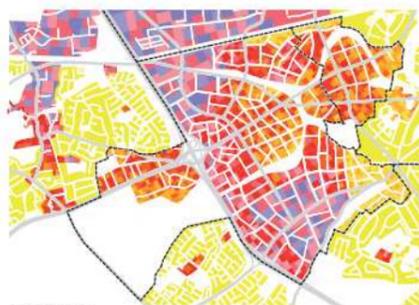
The greatest mix of uses and highest density of development will be concentrated around the Naas Road to maximise connections, take full advantage of public transport links and change its character from major distributor to urban boulevard.

One of the principle aims of the Framework is to create a legible layout that offers a choice of routes to, from and within the area. Over time the development of this street network will allow for the development of a fine urban grain with active frontages and adaptable buildings that allow easy change of use as the area evolves. Where existing uses are retained, the urban structure will need to be flexible enough to allow those sites to be incorporated as part of a wider neighbourhood; should the site ever become available or change use at a later date.

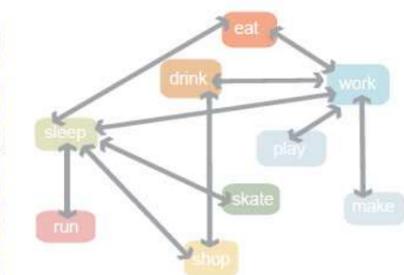
Where appropriate, the Framework seeks to maximise the integration of surrounding residential and commercial development within neighbourhoods, establishing new connections and allowing shared facilities. Key areas for integration include neighbouring residential areas in Greenhills and Dublin City Council's proposals for the development of a Prime Urban Centre in Kylemore.



uses today



Ambition



Zoning



Mixed use

KCAP/MCGNIE/JMP/BG



Red Cow hotel

Naas Road Development Framework



Turnpike Road



Robinhood Road

DENSITY

The availability of low cost land and a dependance on the private car and market forces, has resulted in low density fringe development disproportionate to Dublin's urban core. The cultural history of dispersed settlement in Ireland has delayed the coming to terms with the consequences of this pattern of development.

The typical current floor area ratio ranges from FAR 0.3 in residential areas to FAR 0.7 in industrial areas. A floor area ratio of FAR 1.0 is exceptionally found in the industrial areas inside the M50

A dense city model has the advantage of a small ecological footprint and more efficient use of the infrastructure network. It is a model that can lead to efficient land-use and mobility concepts and has the advantage and potential of creating a walkable city - a concept that directly responds to the idea of connectivity.

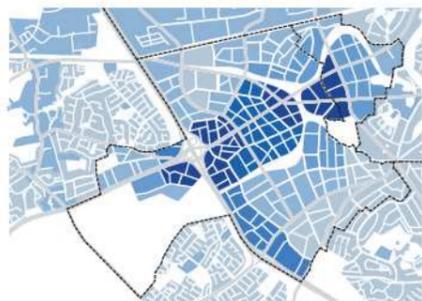
The study is predicated on the intensification of those areas of the site within the M50 ring - simply put the building out of existing brownfield sites must taken precedence over further westward expansion. Consequently those parts of the site outside the M50 require consolidation and rationalisation rather than being earmarked for strategic development.



ground

population per hectare

footprint and density today



Ambition



Dispersed City (LA, 1980 pop.8.37m)

vs.



Compact City (Buenos Aires, 1980 pop.8.37m)



Various situations east and west of M50



SUSTAINABILITY

The Naas Road Framework embodies a commitment to the highest standards of sustainability. Sustainability is concerned with how we live: specifically, with achieving widespread social and economic progress while protecting and enhancing the environment. Against a backdrop of a growing 'environmental imperative', humanity is challenged to find ways to live happily, healthily and well while breaking our dependence on resources that are both ecologically damaging and increasingly scarce.

The ultimate goal is a culture of sustainability: that people are able to live, work, pursue their interests and nurture their relationships in ways that are effortlessly and naturally benign. Development alone cannot create a culture of sustainability. It is important to recognise that people can be helped to live more sustainably, and well, by the way that places are conceived, designed, and used. This philosophy underpins the Naas Road Development. A vision for long-term urban transformation on the Naas Road needs to strike a balance between setting a clear direction towards sustainability outcomes and maintaining flexibility for development to respond to rapidly changing social, political, commercial, environmental contexts as the vision is realised through development over several decades. It is inherently difficult to predict the nature of those changes, but factors likely to influence the way people live and places function over the next 20-30 years include:

- increasingly strong and wide-ranging legislation at European, national and local levels to protect the environment and require developers to minimise negative environmental impacts;

- evolution of comprehensive carbon-pricing regimes designed to help tackle climate change by making fossil fuel energy more costly and promoting energy conservation and a switch to 'greener' alternatives;

- 'peak oil', leading to higher prices and greater volatility in supplies of oil and petrochemical products.

Against a backdrop of uncertainty about the future, the rational approach to take in establishing a resilient framework plan that minimises development risk, maximises returns and creates a lasting framework for change is, at minimum, to 'future proof' the plan as far as possible for the need to enable people to live more sustainably.

But there is also a more positive and ambitious case to be made for sustainable development which recognises that many of the qualities of place that enable people to live prosperously within environmental limits also help to create attractive, popular, high-value developments and more socially and economically integrated communities. These characteristics of 'sustainable urbanism' include: sufficient intensity to sustain a rich local mix of uses; housing that is mixed in type, tenure and income and provides 'a place to start and a place to stay'; adaptable building typologies accommodating changes of use over a lifetime; a legible and permeable form for walking and cycling; high-quality and varied public realm; productive landscapes for people and wildlife; and local food culture.

If those responsible for shaping the Naas Road area in the years to come - landowners, developers, design professionals, public authorities, residents and

businesses - commit to the delivery of a robust vision for sustainable development, they are likely to be rewarded with the emergence of a brand, identity and a competitive position. This brand is powerful when it is based on authenticity. Rather than clever technologies or iconic designs, this is what makes for 'exemplary' sustainability.

In that context, the Naas Road Framework addresses sustainability on two levels:

- integrating into the framework plan for the transformation of Naas Road Gateway key 'fixes' based on sustainable urban design principles, enhanced connectivity, walkable mixed-use neighbourhoods with distinct characters, and managed transformation through multiple phases from its current fragmentation into a more intense and welcoming urban environment; and
- identifying a series of principles and key issues for consideration in the implementation of the development framework, including energy and resource management, urban ecology, community involvement, building typologies and 'behaviour change' for sustainability (including modal shift).



Tramway Strasbourg FR



Buslane Antwerp BE



Cycling lane Vondelpark, Amsterdam NL



Flooding landscape



Grips schoolgarden Berlin DE



Beguinage Bruges BE



GWL terrein KCAP Amsterdam NL



Sihlcity Zurich CH



Kennedy business center KCAP Eindhoven NL