

APPENDIX

- Appendix 1: Daylighting and Sunlighting Standards
- Appendix 2: Parking Standards
- Appendix 3: Guidelines for the Preparation of
Mobility Management Plans
- Appendix 4: Report on Site Contamination Requirements
- Appendix 5: Sustainability Toolkit
- Appendix 6: Content of Application for Section 25 Certificate
- Appendix 7: Local Employment Charter
- Glossary
- Image Credits
- Team

APPENDIX 1: DAYLIGHTING AND SUNLIGHTING STANDARDS

11.1 Achieving satisfactory standards of daylight and sunlight access in a high-density urban development can prove very difficult. However, daylighting and sunliting is an important quality of life determinant for future residential occupants and adequate provision can help reduce energy and heating demand. The higher densities proposed as part of the Poolbeg Planning Scheme and the requirement for good quality daylight and sunlight access may be competing priorities for designers and will demand inventive and innovative design solutions.

11.2 National and local planning guidance, such as the Draft Planning Guidelines on Sustainable Residential Development in Urban Areas (2008) and Variation 21 to the Dublin City Development Plan 2005-2011 (which policies LU8 and LU9, respectively, of the Master Plan (2008) are committed to implementing in the Docklands), make reference to guidelines and standards on daylight and sunlight access which are useful when designing new developments to ensure appropriate access to sunlight and daylight.

11.3 In this regard, development should be guided by the principles of British Standard, BS 8206, Part 2 (1992) and 'Site Planning for Daylight and Sunlight, a Good Practice Guide (Building Research Establishment Report, 1991).

11.4 Developers shall demonstrate that residential development, in particular, will have good access of daylighting and adequate access to direct sunlight. All Applications for Certification are required to be accompanied by a Daylight, Sunlight and Shadow Impact Study. Daylighting and sunliting is also a requirement of the Sustainability Toolkit (appendix 5).

11.5 As a guide to what is meant by good daylight and sunlight access, living spaces should have an average daylight factor of the order of 5 percent and these living spaces should have access to 3 hours of potential sunlight at the equinox. The lowest absolute acceptable average daylight factor for living spaces will be of the order of 2 percent. These figures are consistent with the guidance offered by the current British Standard, BS 8206, Part 2, 1992. All Section 25 Applications will be required to demonstrate that proposed dwellings meet these standards, or if they do not meet these precise standards, that they can otherwise be shown to achieve good sunlight and daylight access.

11.6 It should be noted that, where extensive areas of glazing are proposed, this can lead to difficulties with meeting thermal performance standards either through solar gain or increased heat loss. It will, therefore, be required that where average daylight factor exceeds 6 percent, developers will be required to provide evidence that thermal performance standards are met.

11.7 All Section 25 Applications shall demonstrate that good access to sunlight in streets, private open spaces, play-spaces and public open spaces will be provided. Where possible, these spaces should have access to at least three hours of sunshine a day for the majority of the year. In all cases, developers must demonstrate that a minimum of 60 percent of the ground surface any street, private open space, playspace or public open space will receive sunlight at the equinox.

APPENDIX 2: PARKING STANDARDS

12.1 The table below outlines the car parking standards for various land uses within the Poolbeg Planning Scheme.

Land Use	Phase	Car Spaces
Office	1	1 per 200sqm GFA (Gross Floor Area)
	2	1 per 400sqm GFA
Residential	1 + 2	1 per dwelling
		1 per dwelling (two or more bedrooms)
		1 per 2 dwellings (one bedroom)
Retail Supermarkets	1 + 2	1 per 30sqm GFA
Other Retail and Financial Offices (e.g. banks)	1 + 2	1 per 75sqm GFA
Hotels and Guest Houses	1 + 2	1 per 3 rooms
Clinics and Group Medical Practices	1 + 2	1 per consulting room
Schools	1 + 2	1 per 2 classrooms
Restaurants, Cafés and Take Aways	1 + 2	None
Public House	1 + 2	None
Other Cultural, Recreational or Leisure Use	1 + 2	Dependant on nature and location of use

12.2 The table below outlines the cycle parking standards for various land uses within the Poolbeg Planning Scheme.

Land Use	Phase	Cycle Spaces
Enterprise and employment	1 + 2	1 per 100sqm
Shop and main street financial offices	1 + 2	1 per 150sqm
Residential (houses and apartments)	1 + 2	1 per unit
Hotels	1 + 2	Under 50 bedrooms: 1 per 6 bedroom Over 50 bedrooms (minimum of 10 cycle spaces): 1 per 10 bedrooms
Clinic and group medical practices	1 + 2	1 per 2 consulting rooms
Restaurants and cafés	1 + 2	1 per 150sqm
Public houses	1 + 2	1 per 150sqm
Primary schools	1 + 2	1 per 6 pupils
Other education buildings	1 + 2	1 per 3 pupils/students
Cultural and recreational buildings	1 + 2	1 per 100sqm
Multi-storey park	1 + 2 1 + 2	At least 15 percent of the number of car parking provided
Public transport interchanges	1 + 2	2 per 100 passengers peak flow
Other Cultural, Recreational or Leisure Use	1 + 2	Dependant on nature and location of use
Public buildings		10 percent of the number of visitors per day
Other Cultural, Recreational or Leisure Use		Dependant on nature and location of use

APPENDIX 3: GUIDELINES FOR THE PREPARATION OF MOBILITY MANAGEMENT PLANS

Introduction

13.1 The Dublin Docklands Development Authority (the Authority) is a strategic partner in the delivery of public transport, along with Dublin City Council as Roads Authority and transport operators. The Authority supports the delivery of sustainable transport infrastructure to facilitate the enhancement of public transport and walking and cycling networks within the Dublin Docklands Area. The Authority seeks to facilitate and support sustainable transport and travel choices, nominally public transport, walking and cycling.

13.2 In supporting the development and promotion of more sustainable travel options, the Authority aims to reduce the number of people commuting by private car. In order to achieve this, the Authority is supporting a number of travel demand management initiatives to improve awareness of sustainable alternatives to the private car. One such initiative is the development and implementation of mobility management plans.

What is a Mobility Management Plan?

13.3 A Mobility Management Plan (MMP) consists of a package of measures put in place by one organisation or group of organisations (e.g. within an office park) to encourage and support more sustainable travel patterns among staff, visitors and customers.

13.4 A MMP is a long term management strategy for any organisation or site that seeks to identify the feasibility and attractiveness of a range of options which may relate to mode choice and work style, with the objective of increasing travel choice and reducing single occupancy car based commuting, in particular during peak transport demand periods. It is a strategy that should be agreed at senior management level and regularly reviewed.

13.5 MMPs should bring a range of valuable benefits:

- Better site access and travel choice;
- Active travel opportunities in the form of walking, cycling and use of public transport, support healthier, less stressed staff that through increased choice can enjoy cost and time savings;
- Better business efficiency with improved travel choices and healthier and more productive workforces together with cost savings from reduced demand for parking;
- Local community's gain quality of life improvements from reduced congestions, shorter journey times, reduced car parking by non-residents and better air quality.
- Delivering environmental improvements and demonstrating environmental and equality considerations

When is a MMP required?

13.6 The Authority will request a Mobility Management Plan for any proposed commercial development under the Planning Scheme which exhibits the potential to generate more than 500 vehicle trips per day and/or more than 100 trips in the peak period. Similarly, where the potential total employment in the development exceeds or will exceed 300 workers, a MMP will be requested. Such developments include:

- office and commercial buildings,
- multiple occupancy retail centres; and
- cultural and recreational centres.

What is required from a MMP?

13.7 The MMP document should articulate the following key stages:

- Management – MMP coordinator, management (e.g. steering group), development timetable, delivery and any required handover at key stage e.g. occupation
- Site Assessment of existing travel environment
- Travel survey considering staff, visitors
- Setting of objectives and SMART targets i.e. Specific, Measurable, Achievable, Realistic and Time-bound
- Marketing e.g. web, travel info, personalised travel planning
- Action Plan and Package of measures
- Monitoring and Review

13.8 It is important that measures to support sustainable travel options are designed in from the outset. It is equally important that momentum is maintained by insuring that there is an appointed mobility management plan coordinator that is identifiable at all stages of development from initiation to post occupation. The following outlines some (but not all) of the measures that might be included as part of the Mobility Management Plan:

- Public transport provision: Bus/Rail ticket subsidies (e.g. commuter tax saver scheme), Support of bus links and/or shuttle bus to public transport nodes;
- Walking and cycling: Company bicycles, Interest free loans for bicycles and associated equipment, Bicycle mileage rate allowance;
- Supportive working arrangements: flexible working arrangements, Provision of car fleet for use by employees during business hours, Provision of web based retail;
- Parking: Car parking management and restriction; Priority parking for car-sharers; Shared parking provision (dual use of facilities);
- Promotion: Provision of relevant information on alternative choices
- Management: essential to keeping momentum

13.9 There are two categories of MMP that the Authority may request. The first relates primarily to developments where the end occupier(s) are unknown, and hence the numbers of employers and employees, travel needs and trip

characteristics are uncertain. The second category applies to situations where the occupier is known at the outset.

Category 1 (Employers/Employees Unknown)

13.10 In such instances, the applicant will be required to:

- Submit an estimate of the numbers of employees and their characteristics based on, for example, conditions at similar developments and the extent and floor area types (uses) to be provided;
- Prepare a statement on the nature and extent of facilities that will be considered for provision, and that would serve to encourage non-motorised transport;
- Set out the anticipated targets in respect to modal choice, in accordance with the standards set out in the transportation strategy and Environmental Impact Statement within the Poolbeg Planning Scheme; and
- Provide an outline of the various schemes that may be appropriate to facilitate a change in travel patterns to and from work.

Category 2 (When the Occupier is Known)

13.11 The applicant will be required to submit:

- Results of any Transport Impact Assessment (TIA);
- Targets for the desired modal shift consistent with the targets set out in the transportation strategy and Environ-

mental Impact Statement within the Poolbeg Planning Scheme;

- The phasing of targets and measures should be outlined and should reflect the phasing of the development to allow the provision of transport infrastructure and key measures (e.g. cycle parking, showers) to be designed in as outlined in the Poolbeg Planning Scheme.
- An outline of the marketing approach and various schemes that the organisation plan to make available to its staff to encourage the desired change in their travel patterns to and from work;
- A Staff Travel Survey – as soon as development is occupied. This shall include details of current and projected commuter trends and needs based on origin/destination information;
- Demonstration of appropriate handover to insure continued management of the MMP.

Co-ordination and Information Update

13.12 The selection of a co-coordinator from among members of staff in the proposed development is an essential part of the MMP. For large employment organisations, a full time Transport Manager may be required to oversee the implementation of the plan.

13.13 Regular updated information on the various schemes/initiatives and incentives in the MMP as well as updated information on new public transport routes/timetables

etc. ought to be provided for employees by the Coordinator/
Transport Manager.

Monitoring

13.14 A baseline evaluation will be carried out at an appropriate stage; for a new development this may take place 1 year into the operation of the MMP, at which stage it will be reviewed and appropriately adjusted.

13.15 The MMP will continue to be monitored at appropriate intervals by an appropriate independent specialist or consultant at the expense of the applicant. The results of such monitoring will be forwarded to the Authority at intervals determined during the initial consultations and negotiations.

APPENDIX 3: GUIDELINES FOR THE PREPARATION OF MOBILITY MANAGEMENT PLANS

APPENDIX 4: REPORT ON SITE CONTAMINATION REQUIREMENTS

14.1 The Report on Site Contamination required under section 9.0 should contain the following minimum headings:

(1) Desk Study

14.2 This part of the report should include:

- Contents
- Summary
- Introduction
- Objectives
- Details of research (including the source of information consulted, which may be listed in an appendix for the convenience)
- Details of past site investigations
- Information obtained on geology and hydrogeology
- Discussions on all relevant aspects of the site arising from the above
- Conclusions
- Recommendations
- Appendices

(2) Site Investigation Report

14.3 The format of this part of the report should follow the same layout whether it is a basic or detailed investigation. It may be decided to produce separate factual and interpretative reports.

14.4 The factual report should include at least the following:

- Contents
- Summary
- Introduction
- Objectives
- Methodology
- On-site Investigation
- On-site Observations
- Samples and Analysis
- Analytical results
- Appendices

14.5 An interpretive report should follow the broad principles of the factual report, but should include an update Risk Assessment, Risk Management Strategy and detailed remediation proposal for contamination and underground structures, etc.

(3) Overall Conclusions arising from 1 and 2 above

(4) Methodology Statement for Site Remediation

Poolbeg Planning Scheme Sustainability Toolkit

15.1 Dublin Docklands Development Authority has made a commitment that the Poolbeg peninsula will be developed as an international exemplar of sustainable development against which other urban regeneration schemes can be benchmarked. The Authority recognise that sustainability is a location dependent, whole society concept, applying to environmental, social, economic and physical factors. In essence, sustainable communities are not only present in a single location but influence all of society through their interactions, their resource requirements and their longevity through generations of human life.

15.2 The Authority also recognise that increased pressure on resources worldwide and subsequent cost and quality of life implications for residential and business communities has resulted in a growing desire for a more sustainable standard of living and working. The creation of a more sustainable built environment and community, existing in harmony with the surrounding community, natural and historic environment, will prove beneficial to the new resident and working population on the peninsula and will provide a value-added product for developers to promote and grow their businesses.

15.3 To achieve this over-arching approach to sustainability, and in order to ensure that development within the Planning Scheme area represents the cutting edge of sustainable design, construction and built performance, a Sustainability Toolkit has been developed.

15.4 The Sustainability Toolkit is a mechanism to guide the design of development and to assess it for the purposes of obtaining a Section 25 Certificate. The Sustainability Toolkit will help developments to attain a higher level of sustainability performance than that set out in Building Regulations and current best practice.

15.5 The Sustainability Toolkit has been informed by a baseline sustainability study, conducted in regard to sustainability in the context of the Poolbeg peninsula. This examined the existing value of the peninsula and elements that needed to be conserved and protected. The study reviewed best practice case studies of sustainable development around the globe from conceptual large-scale projects such as Dongtan Eco-City in China to existing and smaller-scale developments such as the Beddington Zero Energy Development in the UK. In addition to this, a review was conducted of the range of evaluation mechanisms in existence, which measure the environmental performance of the built environment, these ranged from the BREEAM and EcoHomes systems in the UK to the Green Star system in Australia and the LEED system in the United States. While the focus of many of these systems is on energy, some include the broader aims of sustainability, such as the One Planet Living system, which is sponsored by the World Wildlife Fund. The review of best practice case studies and evaluation mechanisms concluded that none fully reflected the aims of the Planning Scheme and the means by which they could be delivered in the Irish property development market. Therefore, the decision was taken to develop a

bespoke mechanism to deliver the sustainable regeneration of the Poolbeg peninsula.

15.6 The Sustainability Toolkit has been provided in a format such that a developer can see, with the highest level of transparency, the levels of performance required in each specific area to achieve the level of sustainability required by the Planning Scheme. It will enable design teams to incorporate the requirements directly into their designs and specifications.

15.7 Further details of the application of the Sustainability Toolkit and the requirements for Section 25 Applications can be found in section 10.0 of the Planning Scheme.

Theme: TRAFFIC AND TRANSPORT

Minimum performance requirements must be met by all new build development. Minimum performance requires that **all 11 points** must be achieved.

TT.1	Minimisation of Trips	Minimum Performance
TT 1.1	Residential / employment mix	<ul style="list-style-type: none"> - Demonstrate that the design of the development provides for self containment through the provision of an adequate level of employment opportunity in the area in order to minimise commuter employment outside Poolbeg Planning Scheme Area. - Demonstrate the approach of the development to minimisation of internal trips through strategic location of retail/commercial outlets, services and amenities (e.g. crèches, schools) close to public transport hubs <p>Land use mix is specified in the Poolbeg Planning Scheme, refer to the detail and policies listed in Section 5.0 Distribution and Location of Uses (1 point)</p>
TT 1.2	Suitable and accessible amenity mix	<ul style="list-style-type: none"> - Demonstrate how the provision of provision of an adequate level of amenities and services in the area has been provided in order to minimise car trips outside the development. <p>Community facilities are specified in Poolbeg Planning Scheme 2008, refer to the detail and policies provided in Section 5.0 Distribution and Location of Uses (Provision of Community Facilities). (1 point)</p>
TT 1.3	Vehicle consolidation centres	<ul style="list-style-type: none"> - Undertake (in co-operation with other prospective developers if relevant) an independent feasibility study into the opportunity for provision of an on/off site freight vehicle consolidation centre. This must include consultation with relevant 3rd party logistics providers (1 point)

Enhanced performance requires an additional **3 points** to be gained from any combination of requirements on the enhanced performance list.

Enhanced Performance	Evidence	Score
	Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.	
	Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.	
- If recommended in the feasibility report demonstrate steps to implement a site-wide freight vehicle consolidation centre (2 points)	Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.	

TT.2	Promotion of Slow-mode use	Minimum Performance
TT 2.1	Permeability of the development	<ul style="list-style-type: none"> - Demonstrate how new internal streets provide connections between key origins and destinations in the development. This includes routes to non-development and external destinations (e.g. Irishtown Nature Park, South Bull Wall Promenade) - Demonstrate how a restriction of vehicular through traffic has been achieved, as much as is feasible - Demonstrate how the Traffic Impact Assessment and Mobility Management Plans required by the Planning Scheme have been developed to achieve the delivery of a sustainable traffic and transportation network. <p>(1 point)</p>
TT 2.2	Pedestrian and cycle-ways	<ul style="list-style-type: none"> - Provide internal, direct, continuous pedestrian and cycle routes separated by grade or physical buffers from motorised traffic (this is a requirement for all paths and cycleways) - Colonnades and sheltered area to be provided where suitable along pedestrian walkways and cycleways - Provide safe pedestrian and cycle crossings - Provide 'car free' corridors or paths and cycleways separate from motorised traffic routes. These should be considered in conjunction with the 'green' or ecological corridors proposed in the Biodiversity and Ecology Toolkit. <p>(1 point)</p>
TT 2.3	Provision of support infrastructure	<ul style="list-style-type: none"> - Provision of secure and safe bicycle lock-ups at all residential and commercial centres and transport hubs. Similar provisions must be made for Public Buildings and the proposed District Centre in accordance with those specified in Appendix 2 of the Planning Scheme. <p>(1 point)</p>
TT 2.4	Promotion of Sustainable Traffic and Transport	<ul style="list-style-type: none"> - Employ or share the costs of the employment of a travel plan officer to manage and promote sustainable travel and transportation within the development (this role could be combined with other duties e.g. Waste, Biodiversity and Energy Management) <p>(1 point)</p>

Enhanced Performance	Evidence	Score
	<p>Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.</p>	
	<p>Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.</p>	
<p>- Adequate changing and shower facilities to be provided at all work places at the rate of 1 shower per 30 employees (2 Points) - Provision of basic bicycle maintenance facilities at bicycle parking sheds/racks such as simple hand tools (2 points)</p>	<p>Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.</p>	
	<p>Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.</p>	

TT.3 Public & Sustainable Transport Options		
		Minimum Performance
TT 3.1	Provision of public transport options	- Provision of Public transport infrastructure in accordance to that specified within the Planning Scheme document. (1 point)
TT 3.2	Diversity of transport type	- Car club to be investigated and discussions to be held with potential operators to establish spatial requirements and viability per development area/population for all land-uses. - Developers to reserve 1% of total car parking spaces for any future car club scheme. - Provision of appropriate facilities to facilitate the proposed Dublin City Council 'Bicycle Share' scheme. Consultation with DCC should be entered into prior to this commitment. (1 point)
TT 3.3	Carbon intensity of private transport options	- Demonstrate how incentives such as but not limited to refuelling points and priority parking for alternatively fuelled (biofuel/hydrogen/electric) private vehicles have been accommodated into the development. (1 point)
T.4 Facilitation of Traffic & Minimisation Conflicts		
		Minimum Performance
TT 4.1	Minimisation of car-parking spaces	- Car parking will be as specified within Section 7.0 and Appendix 2 of the Poolbeg Planning Scheme. (1 point)
TOTAL SCORE		

Enhanced Performance	Evidence	Score
	Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.	
<p>- Car club to be established and car space(s) to be provided as per recommendations in viability report. (2 point)</p> <p>- Set up Bicycle Share scheme within the development. (2 point)</p>	Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.	
<p>- Provision of incentives such as but not limited to refuelling points and priority parking for alternatively fuelled (biofuel/hydrogen/electric) private vehicles. (1 point)</p>	Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.	

Enhanced Performance	Evidence	Score
	Submit details of approach with Section 25 application as a constituent, but separate, element of any the Traffic Impact Assessment or Mobility Management Plan Report, or alternatively in the form of a supporting document to the Section 25 Application.	

Have all minimum performance criteria been satisfied?
 Have three points or greater been achieved from the enhanced performance list?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Theme: SOCIAL, COMMUNITY, EMPLOYMENT AND AMENITY

Minimum performance requirements must be met by all new build development. Minimum performance requires that **all 13 points** must be achieved (Some points may not be relevant to the type of development proposed ie maybe specific to residential, where this is the case these must be demonstrated to and agreed with the Authority prior to submission of a Section 25 Application).

SC 1	Provision of a Secure Healthy Lifestyle	Minimum Performance
SC 1.1	Access for all	<ul style="list-style-type: none"> - Demonstrate compliance with National Disability Authority (NDA) 'Building for Everyone' Guidelines (http://www.nda.ie) and adherence to the UK Lifetime Homes principles for 60% of new development (http://www.lifetimehomes.org.uk/) - All development should comply with Part M of the Building (Amendment) Regulations (S.I. No. 179 of 2000) - Demonstrate where relevant that measures have been taken to ensure that persons with disabilities can safely and fully participate in the Docklands transport network as per Policy 7.66 of the Poolbeg Peninsula Planning Scheme <p>(1 point)</p>
SC 1.2	Access to public and private outdoor space	<p>Demonstrate that open space is being provided in line with Section 5.0 of the Planning Scheme and to the standards required by Variation 21 of the Dublin City Development Plan 2005-2011.</p> <p>(1 point)</p>
SC 1.3	Access to a play space	<ul style="list-style-type: none"> - All residents should be provided with adequate access to play space and amenity space on the Peninsula. The Developer must adhere to the Playspace requirements of Section 5.0 of the Planning Scheme and to the standards required by the DDDA Play Space Guidelines <p>(1 point)</p>
SC 1.4	Promotion of a sustainable lifestyle	<ul style="list-style-type: none"> - Information packs to be provided to homes and businesses that cover public transport, local facilities, energy efficiency, crime prevention, car clubs, car pooling where applicable, water conservation, local ecology and biodiversity resource and refuse separation, collection and composting. Sustainable design features of the development and sustainable construction methods should also be detailed in the pack. <p>I've now referenced this in Section 6.0</p> <p>This can be delivered in tandem with the functions of the Energy, Waste or Water Conservation/Management Officer and can be in the form of a consolidated document for residents of the new Poolbeg Community.</p> <p>(1 point)</p>

Enhanced performance requires an additional **5 points** to be gained from any combination of the requirements specified on the enhanced performance list.

Enhanced Performance	Example of Evidence	Score
<p>- Demonstrate compliance with National Disability Authority (NDA) 'Building for Everyone' Guidelines (http://www.nda.ie) and adherence to the UK Lifetime Homes principles for 90% of new development (http://www.lifetimehomes.org.uk/)</p> <p>(3 points)</p>	<p>Details to be submitted with Section 25 application</p>	
<p>- Demonstrate where open space is provided that it is 10% (or in excess of this) greater than the standards specified in Variation 21 of the Dublin City Development Plan 2005-2011</p> <p>(1 point for residential only)</p>	<p>Details to be submitted with Section 25 application</p>	
<p>Demonstrate where additional playspace of 10% (or in excess of this) is provided above the standards required by the DDDA Play Space Guidelines.</p> <p>(3 points)</p>	<p>Details to be submitted with Section 25 application</p>	
<p>A website should be produced, with due regard for existing information sources. This should contain information on:</p> <ul style="list-style-type: none"> • Sustainable Living in the Poolbeg Peninsula under headings of the Sustainability toolkit. • Provision of ongoing data with regard to Energy use, Water use and Waste Production at the Peninsula. • Provision of links to other advisory sites such as the Sustainable Energy Ireland website and the Change.ie website. <p>This should be maintained by the Water, Energy, Waste, Transport Management Officer where provided in conjunction with the other performance areas of the Toolkit.</p> <p>(2 points)</p>	<p>Details of what will be include in pack to be submitted with Section 25 application</p>	

SC 1	Provision of a Secure Healthy Lifestyle	Minimum Performance
SC 1.5	Healthy and Comfortable Living Environment	<p>- Demonstrate that the development should be guided by the principles of British Standard, BS 8206, Part 2, 1992 and 'Site Planning for Daylight and Sunlight, a Good Practice Guide (Building Research Establishment Report, 1991).</p> <p>- Developers shall demonstrate that residential development, in particular, will have good access of daylighting and adequate access to direct sunlight. As a guide to what is meant by good daylight and sunlight access, living spaces should have an average daylight factor of the order of 5 percent and these living spaces should have access to 3 hours of potential sunlight at the equinox. The lowest absolute acceptable average daylight factor for living spaces will be of the order of 2 percent. These figures are consistent with the guidance offered by the current British Standard, BS 8206, Part 2, 1992. All Section 25 Applications will be required to demonstrate that proposed dwellings meet these standards, or if they do not meet these precise standards, that they can otherwise be shown to achieve good sunlight and daylight access.</p> <p>- It should be noted that, where extensive areas of glazing are proposed, this can lead to difficulties with meeting thermal performance standards either through solar gain or increased heat loss. It will, therefore, be required that where average daylight factor exceeds 6 percent, Developers will be required to provide evidence that thermal performance standards are met.</p> <p>- All Section 25 Applications shall demonstrate that good access to sunlight in streets, private open spaces, playspaces and public open spaces will be provided. Where possible, these spaces should have access to at least three hours of sunshine a day for the majority of the year. In all cases, Developers must demonstrate that a minimum of 60 percent of the ground surface any street, private open space, playspace or public open space will receive sunlight at the equinox.</p> <p>- Demonstrate that the development will adhere to the guidance in relation to noise intrusion in residential and other buildings contained within BS8233:1999 – Sound Insulation and Noise Reduction for Buildings – Code of Practice.</p> <p>- Demonstrate that the mitigation required with regard to construction and operational noise detailed in the Poolbeg Planning Scheme EIS will be adhered to during the development of the project.</p> <p>- Demonstrate that the development complies with the requirements of any adopted documents resulting from current consultation documents from the Department of the Environment, Heritage and Local Government and any future Noise Action Plan or similar adopted by Dublin City Council.</p> <p>(1 point)</p>

APPENDIX 5: SUSTAINABILITY TOOLKIT

Enhanced Performance	Example of Evidence	Score
<p>- Demonstrate that 50% of living spaces spaces have been provided with access to 4 hours of potential sunlight at the equinox (Note the 50% shall be based on floor area not number of rooms and there shall be a clear demonstration of consideration of heating and ventilation to compensate for potential overheating in summer periods)</p> <p>(2 points)</p>	<p>Design details and supporting calculations to be submitted with Section 25 application in the form of a Daylight, Sunlight and Shadow Impact Study as required by the Planning Scheme, and in a separate format regarding noise as an element of the Section 25 Application.</p>	

SC 1.6	Provision of a secure environment	<p>- All developments shall demonstrate that they have followed the 'Secured by Design' principles (http://www.securedbydesign.com/).</p> <p>- Consultation must also be undertaken with the Crime Prevention Design Advisor at the National Crime Prevention Unit.</p> <p>(1 point)</p>
--------	-----------------------------------	---

SC 2	Balanced Communities and Social Inclusion	Minimum Performance
------	---	---------------------

SC 2.1	<p>Community facilities</p> <p>We try not to use the word amenity because of its general and non-specific nature</p>	<p>- Community facilities are to be provided as specified in the Poolbeg Peninsula Planning Scheme, refer to the detail and policies provided under Provision of Community Facilities in Section 5 of the Planning Scheme. These may include, among others:</p> <ul style="list-style-type: none"> • Education Institutions • Pre-school and after-school care. • Healthcare Facilities • Post Office • Library <p>(1 point)</p>
--------	--	--

SC 2.2	Suitable private, social and affordable housing mix	<p>- All residential development must include 20% for social and affordable housing. Refer to Section 5.0 of the Poolbeg Peninsula Planning Scheme.</p> <p>- The distribution of Social and Affordable Housing within the Planning Scheme area must be in adherence to the requirements of the DDDA and consultation with the DDDA must be conducted regarding this prior to submission of the Section 25 Application.</p> <p>- Demonstrate that integrated community living has been promoted by the Development.</p> <p>(1 point)</p>
--------	---	--

Design details and evidence of consultation to be included with Section 25 application

Enhanced Performance

Example of Evidence

Score

Provision of community gain infrastructure in addition to those termed Community Facilities in the Planning Scheme shall be termed Community Gain. The specific level of performance required for enhanced performance against these objectives will be balanced across the Planning Scheme area. Consultation with regard to Community Gain infrastructure must be conducted prior to submission of the Section 25 Application and shall be the subject of the Section 25 Certification requirements. These may include, among others:

- Community Centre
- Youth Club
- Crèches
- Sports Facility
- Heritage Centre
- Biodiversity Centre
- Multi-denominational Facility
- Cultural/Arts Facility

(to be determined by the Authority)

SC 3	Economy, Employment and Education	Minimum Performance
SC 3.1	Education	- The implementation of education and crèche requirements as per the policies outlined in Section 5 of the Poolbeg Peninsula Planning Scheme and in accordance with the requirements of The Department of Education and Science. (1 point)
SC 3.2	Use of local employment	- Demonstrate the Implementation of the Local Employment Charter and other opportunities that promote employment for the existing and local community. Details of the Charter can be found in Appendix 7 of the Poolbeg Planning Scheme Document. (1 point)

SC 4	Preservation and Connection to Local Heritage	Minimum Performance
SC 4.1	Promotion of public access to protected structures	- Demonstrate that uses and measures are implemented by the development which encourage public access to protected structures and heritage areas where this is relevant. This should be provided with due regard for the heritage aims of the Planning Scheme as outlined in Section 8 of the Planning Scheme. (1 point)
SC 4.2	Retention of features of local heritage interest	- Demonstrate that local structures and areas of heritage interest have been preserved. Demonstrate that information is provided on structures and heritage areas through the use of signs, plaques, etc. and, where applicable, sensitive lighting has been applied. (1 point)
SC 4.3	Consideration of cultural heritage resources	- Place and street names should reflect the character of the peninsula and be provided in the Irish language - Demonstrate that the design process has involved the input and advice of an appropriately qualified conservation specialist throughout the development process (1 point)

TOTAL SCORE

Enhanced Performance	Example of Evidence	Score
<p>- The developer must demonstrate the use of local employment during the construction phase of the project. (to be sourced within 2 km of the Section 25 Application Area) above the requirements of the Local Employment Charter.</p> <p>- Demonstrate how the development facilitates the promotion of local employment during the operational stage of the development with specific commitments and approaches identified.</p> <p>(2 points)</p>	<p>Details/commitments to be submitted with Section 25 application</p>	

Enhanced Performance	Example of Evidence	Score
	<p>Details to be submitted with Section 25 application</p>	
	<p>Details to be submitted with Section 25 application. This can be provided as an element of the Architectural Heritage Impact Assessment required by the Planning Scheme.</p>	
<p>- The developer must demonstrate the use of some local specialist craft skills distinctive to the area.</p> <p>Do you want to suggest what these may be? I'm slightly concerned that this could be very easy for the developers to meet, compared with the enhance daylighting standard, for example.</p> <p>(1 point)</p>	<p>Details to be submitted with Section 25 application</p>	



Have all minimum performance criteria been satisfied?
 Have three points or greater been achieved from the enhanced performance list?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Theme: MATERIALS AND WASTE

Minimum performance requirements must be met by all new build development. Minimum performance requires that **all 15 points** must be achieved. (Where points are not relevant, such as in the case where there are no existing buildings for recovery or demolition required on the site, these need to be explicitly addressed by the Developer and notified to and agreed by the DDDA along with evidence of satisfying the requirements prior to Section 25 Application.)

MW 1	Reuse of Materials	Minimum Performance
MW 1.1	Material reclamation & reuse	-Proposals and methodologies for dismantling and reuse of sound elements of existing buildings should be submitted as part of Section 25 applications (1 point)
MW 1.2	Recycled content	-10% of new materials used to be derived from recycled and reused content in products and materials selected (excluding concrete mixes). These shall be identified and agreed in advance with the Development Authority. (It is suggested that the WRAP Recycled Content Toolkit could be used to calculate this). (See: http://rctoolkit.wrap.org.uk). - At least 30% of the concrete used in all developments shall incorporate recycled aggregates, cement containing recycled industrial by-products or both. (1 point)

Enhanced performance requires an additional **7 points for residential and 8 points for commercial** to be gained from any combination of the requirements specified on the enhanced performance list.

Enhanced Performance	Example of Evidence	Score
<p>-15% of new materials used to be derived from recycled and reused content in products and materials selected (excluding concrete mixes). These shall be identified and agreed in advance with the Development Authority. (It is suggested that the WRAP Recycled Content Toolkit could be used to calculate this). (http://rctoolkit.wrap.org.uk). (1 point)</p>	<p>Report as described to be submitted with Section 25 application. This report could form a constituent element of the Construction and Demolition Waste Management Plan.</p>	
	<p>Submit details with Section 25 application. These details could be provided in the form of a report produced by the WRAP website.</p>	

MW 2	Responsible Materials	Minimum Performance
MW 2.1	Material type	-50% timber and timber products should be sourced from a Forest Stewardship Council (FSC) source (or suitable alternative) and the balance from a known temperate source. -60% of construction materials must achieve an A rating under the BRE's Green Guide to Specification. (http://www.bre.co.uk/greenguide/). If not feasible a justification must be provided for this. (1 point)
MW 2.2	Local Sourcing of Materials	- All construction materials to be procured from sources situated as local to the site as possible, where economically feasible. Evidence of how this approach will be taken during materials procurement to be provided by the developer. (1 point)
MW 3	Human Health	Minimum Performance
MW 3.1	Potentially harmful materials	-Zero use of Urea-Formaldehyde Foam Insulation -Zero use of VOC or solvent based paints (1 point)
MW 4	Future-Proofing	Minimum Performance
MW 4.1	Specification of internal services for alteration and re-fitting	-Commercial buildings greater than 500 m2 must demonstrate that they will be designed to provide easily accessible small power and data distribution to allow for flexibility and variation of use over the building lifetime. (1 point)

Enhanced Performance	Example of Evidence	Score
<p>-90% structural timber from FSC or suitable alternative and the balance of timber products from a known temperate source. (1 point)</p> <p>-At least 80% of construction materials should be classified as 'A-rated' using the BRE's Green Guide to Specification (http://www.bre.co.uk/greenguide/). (2 points)</p>	<p>Proposed suppliers and materials specifications to be identified at Section 25 application.</p> <p>Approach to be described within the Section 25 application.</p>	
Enhanced Performance	Example of Evidence	Score
<p>-Zero use of urea-formaldehyde in composite wood and laminate adhesives. (2 points)</p>	<p>Material Safety Data Sheets (MSDS) for sheets of foam insulation, paints, and, if applicable, composite wood and laminate adhesives to be provided at Section 25 application stage</p>	
Enhanced Performance	Example of Evidence	Score
<p>-Flexible comfort cooling (where applicable) and controls that allow for mixed-mode ventilation are provided. These should be designed to minimise energy use. (2 points)</p>	<p>Submit details with Section 25 application. This must be in line with the information submitted under the 'Energy' section of the toolkit and accompanied by a Building Services or Mechanical and Electrical Services report illustrating how ventilation has been modelled using a thermal and building simulation software package.</p>	

MW 4.2	Design for deconstruction	- Bills of quantities and as-built records must be retained by the property management company and/or building owner to facilitate identification of re-usable and recyclable building elements to facilitate de-construction (1 point)
--------	---------------------------	---

MW 5	Waste Minimisation and Prevention	Minimum Performance
MW 5.1	Creation of site waste management plan	-The developer must create and maintain a site waste management plan that details all the actions taken throughout the life of the project (from pre-design to completion) that aim to minimise waste generated on site. The developer must create a site waste management plan following “Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects” produced by the Department of the Environment, Heritage and Local Government. (1 point)
MW 5.2	Hazardous Waste, Contaminated Land and Spoil Management	- The Developer must create an explicit Hazardous Waste, Contaminated Land and Spoil Management Plan illustrating the selection of the most environmentally practicable methods for treatment in-situ or off-site of any Hazardous Waste Arisings. (1 point)
MW 5.3	Demolition waste material	- Demonstrate 80% recovery of demolition waste not including hazardous waste, e.g. asbestos. Recovery can include reuse and recycling activities. (1 point)
MW 5.4	Construction waste materials	-Demonstrate 80% recovery of construction waste (can include reuse and recycling activities) (1 point)

Design approach of architectural and engineering team must show evidence of end-of-life treatment of building elements and materials in a Building Design for Decommissioning Report and how the development demonstrates an improvement on common practice.

(2 points)

Submit details/report on how this will be achieved with the Section 25 application

Enhanced Performance	Example of Evidence	Score
	Submit details with Section 25 application in the form of a site waste management plan	
	Provide Hazardous Waste, Contaminated Land and Spoil Management Plan with section 25 Application	
<p>- Demonstrate 90% recovery of demolition waste not including hazardous waste, e.g. asbestos. Recovery can include reuse and recycling activities.</p> <p>(2 points)</p>	Submit details with Section 25 application in the form of a site waste management plan.	
<p>-Demonstrate 90% recovery of construction waste</p> <p>(2 points)</p>	Submit details with Section 25 application in the form of a site waste management plan.	

MW 6	Operational Waste Management	Minimum Performance
MW 6.1	Operational waste management	<p>The developer must demonstrate how the waste targets as set out in the Dublin Waste Management Plan 2005 -2013 will be facilitated:</p> <ul style="list-style-type: none"> - 60% of household waste generated on site will be recycled by 2013 - 40% of commercial waste generated on site will be recycled by 2013 <p>In order to comply with these targets the Developer must create an Operational Waste Management Plan and demonstrate how it will be implemented. It should include the following information:</p> <ol style="list-style-type: none"> 1. A baseline waste arisings analysis. Details of segregation of waste and how this will be facilitated (internally and externally) for at the most one week 2. The developer shall provide plans of easily accessible (not more than 30m from a residential doorway / apartment block doorway) domestic recycling/waste storage points 3. Detail the likely flow of waste materials from generating point to possible final destinations 4. Feasibility of novel waste storage facilities to minimise noise and odour nuisance and improve collection efficiencies (This report shall be linked to the freight consolidation proposals) 5. Detail of adequate and safe turning areas for waste collection vehicles (As a minimum, waste collection points should be within 15m from a suitable vehicle access point and access pathways between two points must be flat and suitable for staff to service waste receptacles) 6. Details of waste volume reduction equipment in any premises that is likely to produce larges amount of bulky commercial waste 7. Details of the provision for adequate delivery and storage areas for goods and raw materials to minimise resource wastage during handling and storage. 8. Proposals to introduce home composting units to residential properties with gardens or balconies 9. A litter management plan 10. A monitoring programme to assess developments waste generation rates 11. Evidence of input from Local Authority or alternative waste collection operators into the operational waste management strategy 12. Provide a feasibility study for in-situ biodegradable waste management options justifying decisions where no in-situ treatment and re-use is recommended <p>(1 point)</p>

APPENDIX 5: SUSTAINABILITY TOOLKIT

Enhanced Performance

-Provision of satellite bulk waste collection areas eliminating conventional waste collection vehicles from development

(2 points)

- bulk waste collection provided in conjunction with the freight consolidation operations

(1 point)

- Provide a Biodegradable Waste Action Plan detailing installation and operation of facilities to ensure any biodegradable waste can be treated and used on site. E.g. community composting for residents

(4 points applicable to residential only)

-Prior to operation, contract agreements with commercial outlets must demonstrate some form of packaging take back and reuse. E.g. beverage containers, or reusable delivery crates

(3 points applicable to commercial only)

Example of Evidence

Submit Operational Waste Management Plan with Section 25 application

Score

MW 7	Monitoring, Information and Awareness	Minimum Performance
MW 7.1	Waste Information and Awareness	- Developer to employ an onsite waste minimisation officer to implement waste management strategy (this could be incorporated into an existing environmental or management role e.g. Energy, Biodiversity or Traffic Officer). (1 point)
MW 7.2	Provision of Waste Routes and Separation Data to Occupants / Users	- Guidance notes/labels to be provided on what to put in each bin, where and how to store it and how often to empty - Recycling awareness campaign in apartment blocks and commercial properties (1 point)
MW 7.3	Tracking and Management of Waste Disposal and Recycling records	- Monitoring & targeting system to be implemented in residential blocks and commercial properties with results publicly displayed to display performance against recycling targets (can be incorporated into energy monitoring and targeting system) (1 point)
TOTAL SCORE		

Enhanced Performance	Example of Evidence	Score
	Submit details in Operational Waste Management Plan with Section 25 application	
	Submit details in Operational Waste Management Plan with Section 25 application ment blocks and commercial properties	

Have all minimum performance criteria been satisfied?
 Have three points or greater been achieved from the enhanced performance list?

YES	NO

Theme: ENERGY CONSERVATION, USE AND GENERATION

Minimum performance requirements must be met by all new build development. Minimum performance requires that **all 15 points** (if relevant) must be achieved (Some points may not be relevant to the type of development proposed ie maybe specific to commercial and not relevant to residential etc, where not relevant these must be explicitly justified to, and agreed with, the DDDA prior to the submission of the Section 25 Application).

EN 1	Site Topography, Orientation and Passive Design	Minimum Performance
EN 1.1	Low and zero energy ventilation and cooling	<ul style="list-style-type: none"> - Demonstrate the application of low energy ventilation strategies. - Demonstrate the use of dynamic thermal modelling to optimise low and zero energy ventilation potential - Demonstrate how the utilisation of exposed thermal mass in the design has been considered <p>(1 point)</p>
EN 1.2	Glazing strategy for daylighting and solar Gain	<ul style="list-style-type: none"> - Commercial > 1000m²: Conduct a detailed shading analysis and optimise the trade off between natural daylighting and heating with solar glare and overheating - Domestic: Where practical, locate the majority of daytime occupancy areas at south-facing facades, and consider locating daytime occupancy areas on upper floors - Specification of all residential units as dual aspect and in accordance with Achieving Livable Sustainable New Apartment Homes (Variation 21 to the Dublin City Development Plan 2005-2011) <p>Approach to Daylighting and Sunlight to follow the Policy set out in Section 6.0 and Appendix 1 of the Poolbeg Planning Scheme.</p> <p>(1 point)</p>
EN 1.3	Shadow analysis	<ul style="list-style-type: none"> - Perform a shadow analysis of the proposed development and indicate how this has influenced design. <p>(1 point)</p>
EN 1.4	Building envelope and insulation	<ul style="list-style-type: none"> - Area-weighted average elemental U-values: Roof: 0.15, Floor: 0.20, Walls: 0.25, Windows: 1.5, Doors: 1.4 - Air leak pressurisation test must achieve 8 m³/hr/m² at 50 Pa (ref: Building Regulations Part L Technical Guidance Document 1.3.4.4) <p>(1 point)</p>

Enhanced performance requires an additional **3 points** to be gained from any combination of requirements on the enhanced performance list.

Enhanced Performance	Example of Evidence	Score
- Demonstrate that the building(s) is predominantly naturally ventilated (1 point)	Details to be submitted with Section 25 application.	
- Demonstrate dual-aspect work spaces for commercial development (1 point)	Details to be submitted with Section 25 application.	
	Details to be submitted with Section 25 Application	
- Area-weighted average elemental U-values: Roof: 0.15, Floor: 0.15, Walls: 0.15, Windows: 1.2, Doors: 1.2 (1 Point) - Air leak pressurisation test must achieve 5 m ³ /hr/m ² at 50 Pa (ref: Building Regulations Part L Technical Guidance Document 1.3.4.4) (1 point)	Details to be submitted with Section 25 application in the form of insulation and air pressure test values table Results of post-construction air-pressure validation test to be forwarded to DDDA	

EN 2	Energy Services Specification	Minimum Performance
EN 2.1	Lighting specification	<ul style="list-style-type: none"> - All new build to incorporate CFL & FLT fittings and bulbs; no tungsten filament bulbs - Specification of appropriate levels of lighting for specific use (LUX levels) - Specification of appropriate lighting type (colouration etc.) for specific use - Investigate the use of electronic ballast lighting and LED lighting. - Design of exterior lighting to limit light lost to the sky - the design of lighting (including internal and external lighting in buildings facing these areas) in locations providing significant habitats for protected species should minimise light pollution and ecological impact through use of appropriate lighting levels and specification <p>(1 point)</p>
EN 2.2	Heating specification	<ul style="list-style-type: none"> - Heating Delivery and Control systems must be specified in each development to facilitate connection to a District Heating Scheme. - Electric heating is not permitted - Boilers must have a net seasonal efficiency of 90% or greater - Specification of Low-NOx emission boilers must be demonstrated <p>(1 point)</p>
EN 2.3	Ventilation and air conditioning	<ul style="list-style-type: none"> - Minimisation of air conditioning requirement should be demonstrated - Variable speed drives and high efficiency motors to be incorporated into design of A/C equipment - Consider chilled beams, chilled ceilings and ground-coupled cooling - Notwithstanding EN1.1 consider the use of whole building ventilation with heat recovery for domestic development. <p>(1 point)</p>

APPENDIX 5: SUSTAINABILITY TOOLKIT

Enhanced Performance	Example of Evidence	Score
	Details to be submitted with Section 25 application in the form of a lighting specification	
	Details to be submitted with Section 25 application in the form of a heating specification	
	Details to be submitted with Section 25 application in the form of a cooling and ventilation specification	

EN 3	Distribution and Control of Energy	Minimum Performance
EN 3.1	Building energy and environmental management systems	- Commercial > 1000m2: Specify a comprehensive Building Management System and an energy monitoring & targeting system (1 point)
EN 3.2	Lighting control systems	- Commercial: Lighting is zoned to allow separate control. - Exterior lightings to have PIR controls and timers or daylighting sensors - Commercial: PIR controls, timers and daylighting sensors where appropriate (1 point)
EN 3.3	Heating control systems	- Variable control at point of use to be provided. - Thermostatic (motorised Thermostatic valves or TRVs) and timer heating controls - Commercial: heating is zoned (and connected to the BMS where provided) to allow separate control (1 point)
EN 3.4	Ventilation and air conditioning control	- Where Mechanical Ventilation and Air Conditioning is provided, central control must be facilitated. - Commercial: Timer and zonal control linked to BMS - Where Mechanical Ventilation is specified, systems incorporating Heat Recovery must be specified. (1 point)
EN 3.5	Provision of occupant efficiency information	- Building occupant handbook with equipment and energy-specific control and advisory information to be developed & supplied to all tenants - Inclusion of behavioural information - Commercial > 1000m2: Building energy manager to be assigned with regular report structure in place (1 point)
EN 3.6	Metering	- Sub-metering on all substantive energy uses and by zones. - Domestic heat and electricity meters to be provided in accessible locations to all occupants - For Commercial areas < 1000m2: Smart meters to be specified (1 point)

APPENDIX 5: SUSTAINABILITY TOOLKIT

Enhanced Performance	Example of Evidence	Score
	Details to be submitted with Section 25 application in the form of a BMS specification	
	Details to be submitted with Section 25 application in the form of a lighting specification	
	Details to be submitted with Section 25 application in the form of a heating specification	
	Details to be submitted with Section 25 application in the form of a cooling and ventilation specification	
	Details to be submitted with Section 25 application	
	Details to be submitted with Section 25 application in the form of a BMS specification	

EN 4	Energy Use	Minimum Performance
EN 4.1	Primary energy source	<p>- Dwellings must achieve a modelled Energy Performance Coefficient of 0.5 (or 0.1 better than current building regulations) (ref: Building Regulations Part L Technical Guidance Document 1.1.2)</p> <p>(1 point for residential only)</p> <p>Note: Part L does not specify an Energy Performance Coefficient for non-dwellings however an appropriate requirement will be included in the toolkit if this situation changes</p>
EN 4.2	Utilisation of renewable and sustainable resources	<p>- a renewable energy contribution of 10 kWh/m²/a must be achieved contributing to energy use for domestic hot water, space heating or cooling or 4 kWh/m²/a contributing to electrical energy or a combination of both must be provided by suitable on-site renewable technology</p> <p>-Connection to any existing District Heating Scheme must be implemented unless clearly unfeasible. If connection to the district heating scheme IS NOT implemented, it must be demonstrated why this is unfeasible. The development must in any eventuality be designed to allow easy connection to a future District Heating scheme. This requires the provision of centralised block or neighbourhood heating sources with space provisions and access provisions for the Heat Exchangers and take-off pipes required to connect to any future District Heating Scheme.</p> <p>- If connection to the District Heating Scheme IS NOT implemented: an additional 10 kWh/m²/a contributing to energy use for domestic hot water, space heating or cooling (20 kWh/m²/a total) or an additional 4 kWh/m²/a contributing to electrical energy must be provided by suitable on-site renewable technology (8 kWh/m²/a total)</p> <p>(1 point)</p>

TOTAL SCORE

Enhanced Performanc	Example of Evidence	Score
<p>- Dwellings must achieve a modelled Energy Performance Coefficient of 0.3 (ref: Building Regulations Part L Technical Guidance Document 1.1.2) (3 points for residential only)</p>	<p>Details to be submitted with Section 25 application in the form of a an energy modelling report</p>	
<p>- If connection to a District Heating Scheme IS implemented: 20 kWh/m2/a contributing to energy use for domestic hot water, space heating or cooling or 8 kWh/m2/a contributing to electrical energy or a combination of both must be provided by suitable on-site renewable technology (2 points)</p> <p>- If connection to the District Heating Scheme IS NOT implemented: an additional 20 kWh/m2/a contributing to energy use for domestic hot water, space heating or cooling (40 kWh/m2/a total) or an additional 8 kWh/m2/a contributing to electrical energy must be provided by suitable on-site renewable technology (16 kWh/m2/a total) (2 points)</p>	<p>Details to be submitted with Section 25 application in the form of a renewables /alternatives report</p>	

Have all minimum performance criteria been satisfied?
 Have three points or greater been achieved from the enhanced performance list?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Theme: BIODIVERSITY AND ECOLOGY

Minimum performance requirements must be met by all new build development. Minimum performance requires that **all 11 points** must be achieved.

BE 1	Conservation of Existing Value	Minimum Performance
BE 1.1	Loss of Protected, notable or valued species of flora and fauna as a result of the development	<ul style="list-style-type: none"> - Demonstrate the provisions in place to ensure no reduction in size of protected species populations occurs as a result of development. - Demonstrate that priority has been given to conservation of ecological value in-situ rather than reinstatement or compensation of protected, notable or valued species where practicable - Demonstrate the examination of existing baseline ecological characteristics and design to retain locally sensitive species within the site and surrounding areas as much as practicable - Adherence to any relevant EIS mitigation measures identified in the Poolbeg Peninsula Planning Scheme EIS <p>(1 point)</p>
BE 1.2	Measures to protect ecology during construction	<ul style="list-style-type: none"> - Identify key areas of value prior to development of construction commencement on-site - Ensure any site disturbance or impact on ecological features during construction is minimised through Construction Environmental Management Plan and ecological watching brief <p>(1 point)</p>
BE 1.3	Provision of 'Buffer Areas' to protect areas of high ecological value	<ul style="list-style-type: none"> - Incorporation of ecological buffer zones between areas of ecological importance and new development <p>(1 point)</p>

Enhanced performance requires an additional **4 points** to be gained from any combination of the requirements specified on the enhanced performance list.

Enhanced Performance	Example of Evidence	Score
<ul style="list-style-type: none"> - Demonstrate how the development has been designed to accommodate existing native species in-situ or within metres of original location - Demonstrate that habitats for all locally sensitive species have been retained on site <p>(2 points)</p>	<p>Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself. (with reference to the landscaping approach of the development)</p>	
	<p>Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.</p>	
<ul style="list-style-type: none"> - Demonstrate how ecological buffer zones within the development open space/landscape strategy have been created around new open spaces which have been identified by the developer as designed primarily to function as areas of ecological value <p>(2 Points)</p>	<p>Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.</p>	

BE 2	Creation of Ecologically Sustainable Peninsula	Minimum Performance
BE 2.1	Provision of linked new green areas and/or green 'stepping stones' for biodiversity migration / transfer	<ul style="list-style-type: none"> - Provide ecological connections between 50% of all green spaces on the development area - Provide links to valuable habitats offsite from at least one green space on site (1 point)
BE 3	Introduction of appropriate habitats	Minimum Performance
BE 3.1	Introduction of native plant species	<ul style="list-style-type: none"> - Program for introduction of appropriate native flora species to be drawn up. Implementation to be achieved within 1 year of development completion (1 point)
BE 3.2	Creation of habitat within the development	<ul style="list-style-type: none"> - Demonstrate the introduction of new habitat types on to the site including at least one identified to be sympathetic to the locality or of local importance. - Identify areas to be managed primarily for ecology, with low maintenance and low human disturbance. - Incorporate bat boxes / tubes into buildings as advised by a bat specialist (if bats present at the site) - Incorporate ledges for peregrine falcons on buildings, as appropriate - Plant wildflower gardens to encourage bees, butterflies and other invertebrates - Introduce planting on the sides and roofs of buildings as appropriate (designed with due regard for rainwater collection targets and solar energy targets). (1 point)
BE 3.3	Multiple functions for greenspaces	<ul style="list-style-type: none"> - Demonstrate that where sustainable urban drainage systems (SUDS) are feasible that they have been designed with ecological protection/enhancement in mind (1 point)

Enhanced Performance	Example of Evidence	Score
<ul style="list-style-type: none"> - Include provision for ecological corridors linking over 80% of green areas within the site - Provide a continuous strategic ecological link across the whole site linked into the wider habitat network (within and adjacent to the Planning Scheme) <p>(2 points)</p>	<p>Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself. (with reference to the landscaping approach of the development)</p>	
Enhanced Performance	Example of Evidence	Score
<ul style="list-style-type: none"> - Introduction of new defined habitat types on to site including at least 2 different types identified to be sympathetic to the locality or of local importance. <p>(1 point)</p>	<p>Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.</p> <p>Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.</p>	
<ul style="list-style-type: none"> - Where shading is identified as desirable for building facades, provide support for plants (wires / frames etc) and plant species suitable for vegetating those facades <p>(3 points)</p>	<p>Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.</p>	

BE 4		Long-term maintenance and monitoring of ecological value	Minimum Performance
BE 4.1	Biodiversity Management Plan for Landscaped and Valuable Areas		<p>- Develop Biodiversity Management Plan which includes measures aimed at maintaining ecological function of existing and new areas and impact of development on existing and surrounding ecology. This should include as a minimum:</p> <ul style="list-style-type: none"> • Identification of areas (existing and new) to be managed primarily for ecology, with low maintenance and low human disturbance. This should include Irishtown Nature Park, parts of the proposed beach park and areas to the East of the Peninsula. • The approach to the biodiversity and green space maintenance and management to maintain the ecological value of the peninsula and Dublin Bay • A confirmation of adherence to the objectives of the Dublin City Biodiversity Action Plan 2008-2012 • Methods used to eradicate invasive alien species e.g. Japanese Knotweed, from the site. <p>(1 point)</p>
BE 4.2	Ongoing Periodic Monitoring of Biodiversity		<p>- Include for provision of a biodiversity survey every 3 years for 1st 9 years after completion to measure impact of development</p> <p>- Results used to trigger changes in management regime and remedial actions</p> <p>(1 point)</p>
BE 5		Access and Interpretation	Minimum Performance
BE 5.1	Biodiversity Management and Awareness		<p>- Provision or co-sponsoring of Biodiversity Management Officer to oversee the conservation of existing and the maintenance of new areas of ecological value (this could be combined with another role such as Energy, Waste or Transport management officer)</p> <p>(1 point)</p>
BE 5.2	Publicity and Communication Methodologies for Protection and Information		<p>- Information boards on flora and fauna species to be included in all parks and valuable green areas displaying information on species present, value of species and conservation requirements etc.</p> <p>(1 point)</p>
TOTAL SCORE			

Enhanced Performance	Example of Evidence	Score
	Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.	
<p>- Include for provision of a biodiversity survey every 1 year for 1st 10 years after completion to measure impact of development</p> <p>- Results used to trigger changes in management regime and remedial actions</p> <p>(2 points)</p>	Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.	
Enhanced Performance	Example of Evidence	Score
	Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself. itself.	
<p>- Establishment of local natural history/conservation volunteers group (or similar) to promote and protect biodiversity in the area and to work with the Biodiversity Management Officer. This should be conducted with due regard for and in conjunction with the Dublin City Council Biodiversity team and their initiatives.</p> <p>(1 point)</p>	Details on how this approach is administered to be provided with Section 25 Application as a constituent part of the Ecological and Habitats Assessment if the site borders a designated nature conservation area or a constituent part of the Section 25 application itself.	



Have all minimum performance criteria been satisfied?
 Have three points or greater been achieved from the enhanced performance list?

YES	NO

Theme: WATER CONSERVATION, USE, RECOVERY AND GENERATION

Minimum performance requirements must be met by all new build development. Minimum performance requires that **all 9 points** must be achieved.

WR 1	Internal Water Conservation & Demand	Minimum Performance
WR 1.1	Low-flow bathroom / washroom fittings	<ul style="list-style-type: none"> - Dual flush toilets with a 6/4 litre dual flush and spray/aerated tap fittings with a maximum flow rate of 8.5 l/min to be installed in all residential, hotel, leisure and commercial properties. - Showers with a maximum flow rate of 9 l/min to be installed in all properties. - Instructions for operating dual flush toilets to be provided in residential units and visibly displayed in hotel, leisure and commercial premises. - Spray/aerated automatic shut off taps and infrared sensor urinals to be installed in all commercial premises <p>(1 point)</p>
WR 1.2	Low-demand appliances	<ul style="list-style-type: none"> - Economiser washing machines and dish-washers, typically less than 40 litres per use and 12 litres per use respectively, to be specified for all relevant buildings types (where being provided by developer) and to be recommended to new occupant (where not being provided by developer). Investigate possible agreements with potential suppliers <p>(1 point)</p>
WR 2	External and Public Water Demand	Minimum Performance
WR 2.1	Minimisation of external use requirements	<ul style="list-style-type: none"> - If installed, automated irrigation systems will be designed to be controlled by soil moisture - If installed, automated irrigation systems will be designed to minimise water loss by using modern irrigation techniques such as drip and sub-soil irrigation, and avoid spray irrigation techniques - Any external irrigation should use recovered rainwater as it's primary water resource <p>(1 point)</p>

Enhanced performance requires an additional minimum **2 points** to be gained from any combination of the requirements specified on the enhanced performance list.

Enhanced Performance	Example of Evidence	Score
<p>Two of the following measures required:</p> <ol style="list-style-type: none"> 1. Dual flush toilets with a 4/2 litre dual flush to be installed in all residential, hotel, leisure and commercial premises 2. Wash hand basins with a maximum tap flow rate of 6.5 l/min to be installed in all residential, hotel, leisure and commercial premises 3. Waterless urinals to be provided in commercial premises <p>(1 point for two measures) (2 points for three measures)</p>	<p>Submit details of fixtures and fittings specification with Section 25 application</p>	
	<p>Submit details with Section 25 application</p>	

Enhanced Performance	Example of Evidence	Score
	<p>Specification details of potential systems to be submitted with Section 25 application</p>	

WR 3	Internal and External Water Source and Supply	Minimum Performance
WR 3.1	Rainwater and Grey-water Recovery	<ul style="list-style-type: none"> • Rainwater harvesting systems to be installed locally to each development building to primarily meet associated toilet flushing demand. • Should overflow occur, external washing and irrigation demands should be met by this additional rainwater capacity. <p>Type of system, e.g. roof-mounted tank, ground level tank or simple water-butt, will depend on the proposed plumbing and strategy for each building, and proposed external washing and irrigation requirements. (Buildings above 25m high may need to consider part-building solutions for re-use of rainwater for toilet-flushing).</p> <ul style="list-style-type: none"> - All rainwater harvesting systems to have a safe-fail overflow into the proposed surface water drainage system. - A maintenance programme regarding rainwater systems will be required. This can form an element of other Building Management reporting or contractual requirements. <p>(1 point)</p>
WR 3.2	Storage and delivery systems	<ul style="list-style-type: none"> - Leakage within the potable water distribution system to be minimised and managed through measures such as: <ol style="list-style-type: none"> 1. Specifying Demand Management Areas and implementing bulk flow meters to allow leakage to be identified. 2. Reduce pressure within the system using pressure reducing valves as much as practicable whilst still meeting pressure requirements. 3. Ensure the system is as accessible as possible for ongoing maintenance, i.e. locate systems away from foundations, keep systems shallow and provide accessible testing points where practicable. - Existing pressure within the mains supply system should be used to supply buildings as much as possible. However, if pressure within the system is insufficient to meet building demands, consideration should be given to using centralised storage to negate the need for extensive system upgrading works. (Note treatment should be provided at the outlet of centralised storage tanks if required) - Measures for reducing leakage and minimising pressure to be investigated and presented in a water supply strategy. <p>(1 point)</p>

Enhanced Performance	Example of Evidence	Score
<p>- Provision of Grey-water (sink, shower washing machine etc.) recovery in commercial or residential schemes for toilet flushing where considered feasible (rainwater contribution to be considered and utilised externally where grey-water systems displace the need for rainwater contribution to toilet-flushing).</p> <p>- Comprehensive maintenance programme required to accompany any grey-water harvesting systems.</p> <p>(2 points)</p>	<p>Specification details of potential systems and maintenance programme to be submitted with Section 25 application</p>	
	<p>Details of the water supply strategy to be included with the Section 25 application</p>	
	<p>Details of the proposed monitoring programme to be submitted at section 25 application stage.</p>	
	<p>Evidence of both can be included as a constituent 'Water Conservation' element of the Stormwater Attenuation Plan and Sustainable Drainage Strategy.</p>	

WR 4	Sustainable Drainage	Minimum Performance
WR 4.1	Sustainable Urban Drainage Systems	<p>- Sustainable Urban Drainage Systems (SUDS) to be implemented for each area of development in accordance with CIRIA and Greater Dublin Strategic Drainage Study guidelines. And with due recognition for WR 4.4 below.</p> <p>- Surface water run-off should be managed as close to its source as possible and the following source control management measures and SUDS techniques should be adopted, unless there are practical reasons for not doing so.</p> <ul style="list-style-type: none"> • Green roofs and walls (with due recognition for the requirements of WR3.1 above). • Permeable public realm surfaces • Infiltration trenches (shallow, excavated trenches filled with stone to create an underground reservoir) and filter drains (used for draining roads) • Swales (grassed depressions which lead surface water overland from the drained surface to a storage or discharge system) and basins (designed to hold back storm runoff for a few hours and to allow the settlement of solids). • Rainwater attenuation in ponds, water features or wetlands <p>(1 Point)</p>
		<p>Where source control SUDS techniques are not appropriate or feasible due to ground conditions peak run-off rates should be minimised through use of other SUDS techniques. A sustainable drainage strategy to be developed for each area of development which should:</p> <ul style="list-style-type: none"> - assess feasibility of maximising soft landscaped areas, use of above ground conveyance systems (ie swales) and buffer strips adjacent to large impermeable areas to reduce run off rates - assess options for on-site attenuation including use of soft landscaped areas - A Stormwater Attenuation Plan incorporating a Sustainable Drainage Strategy is required for each proposed development within the planning scheme area <p>(1 Point)</p>

Enhanced Performance

- Use of intensive or extensive living roof on 50% of roof area to minimise surface water run off rates (to be examined in parallel to rainwater recovery and potential utilisation of solar thermal and photovoltaic technologies).

(2 points)

Example of Evidence

A Stormwater Attenuation Plan incorporating a Sustainable Drainage Strategy is to be submitted for all Section 25 applications within the Planning Scheme Area.

Score

WR 4.3	Protection of water quality	<ul style="list-style-type: none">- Use of above ground SUDS systems to be installed where feasible, as assessed in the sustainable drainage strategy- Petrol interceptors to be installed to intercept surface flow from all vehicular areas in excess of 400m² or 25 car parking spaces and from all delivery areas- Below ground car parks to discharge to the foul water sewerage system- Demonstrate compliance with the requirements of the Greater Dublin Strategic Drainage Strategy <p>(1 point)</p>
WR 4.4	Protection against flood risk	<ul style="list-style-type: none">- Developer to assess flood risk potential to proposed development and determine suitable mitigation measures, where necessary, to reduce flood risk potential- Developers to submit a Flood Risk Assessment to support proposals for development within the Planning Scheme. <p>(1 point)</p>

TOTAL SCORE

- Petrol interceptors to intercept all surface water from all vehicular areas
(1 point)

Drainage strategy to be submitted with Section 25 application

Flood Risk Assessment to be submitted for all Section 25 applications within the Planning Scheme Area.

Have all minimum performance criteria been satisfied?
Have three points or greater been achieved from the enhanced performance list?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 6: CONTENT OF APPLICATION FOR SECTION 25 CERTIFICATE

16.1 Applications for Section 25 Certificates must be accompanied by the following documents, where applicable.

- **Overall Site Master Plan** (for all proposals). This should illustrate the proposed mix and distribution of uses.
 - **Sustainability Toolkit** (for all proposals). This should be fully completed and accompanied by a supporting report which validates the level of compliance achieved and describes how the developer will implement the measures they have committed to in their completed Toolkit. Further details about this study are provided in section 10.0 and appendix 5.
 - **Flood Risk Assessment** (for all proposals). Further details are provided in section 9.0.
 - **Stormwater Attenuation Plan** (for all proposals), incorporating a Sustainable Drainage Strategy. Further details are provided in section 9.0.
 - **Site Remediation Report** (for all proposals). This report should be produced by a qualified, expert consultant. Further details are provided in section 9.0. The minimum headings for this report are provided in appendix 4.
 - **Daylight, Sunlight and Shadow Impact Study** (for all proposals). This should consider existing and potential development and the impact on residential development and open spaces. Further details about this study are provided in section 6.0 and daylight and sunlight standards are provided in appendix 1.
 - **Housing Quality Assessment** (for residential development proposals). This assessment is specified in section 15.9.1 in Variation 21 to the Dublin City Development Plan
- **Retail Impact Assessment** (if significant retail development is proposed). Further details are provided in section 5.0.
 - **Design Quality Statement** (for proposals containing either special buildings or buildings in the 14-15 storey height band). Further details about this statement are provided in section 6.0 above.
 - **Mobility Management Plans** (for commercial development proposals which exhibit the potential to generate more than 500 vehicle trips per day, and/or more than 100 trips in the peak period, and/or where the potential total employment in the development exceeds or will exceed 300 workers). Further details about this study are provided in section 7.0 and appendix 3.
 - **Ecological and Habitats Assessment** (if the site borders a designated nature conservation area or may accommodate a protected species). Further information is provided in sections 2.0 and 8.0.
 - **Architectural Heritage Impact Assessment** (for works undertaken to, or in close proximity to, protected structures). Further details about this study are provided in section 8.0.
 - **Archaeological Management Plans** (if the site is in Zone of Archaeological Interest). Further details about this study, which should be carried out by an archaeologist licensed by the DoEHLG, are provided in section 8.0.

The Project

17.1 The Local Employment Charter was established by the Dublin Docklands Development Authority to ensure that local residents get their fair share of employment from the many construction projects in the area.

17.2 The Charter specifically seeks to help the local community by reducing the number of unemployed residents in the local area.

Requirement

17.3 20 percent of all construction jobs on projects undertaken within the Authority's remit have to be filled by local residents.

18.1 Affordable Housing:

Housing provider under the Dublin Docklands Development Authority's Affordable Housing Scheme or under any other similar statutory or State approved scheme.

18.2 Building Storeys:

Building storey heights specified in this Planning Scheme are inclusive of the ground floor storey and exclusive of below-ground storeys. For example, a building specified as being four storeys comprises a ground floor and three upper storeys. It may include a level of underground car parking.

Building heights specified in this Planning Scheme are inclusive of set-back storeys.

A mezzanine floor is classed as a separate storey.

Rooftop plant rooms, where they cover more than 50 percent of the floorspace of the roofspace and/or where they are taller than 50 percent of the height of the top storey of development, are defined as a separate storey.

18.3 Coarse Grain:

Development of large sites facilitating large buildings (e.g. corporate headquarters).

18.4 Curtilage:

Curtilage means the area of site attaching to a proposal or building in which an applicant for a Section 25 Certificate has sufficient interest to make the application. It does not apply to public roads, public pavements or existing water bodies such as rivers, canals or harbours.

18.5 Fine Grain:

Development of small plots of land facilitating multiple access points and mixed use.

18.6 Gross External Floor Area (or Floorspace):

This is the whole area of a building taking each floor into account. The gross external area will include perimeter wall thickness' and external projections, areas occupied by internal walls, lift rooms, plant rooms, tank rooms, fuel stores, whether or not above roof level and open-sided covered areas. A full definition is provided in the Glossary.

18.7 Gross Internal Floor Area (or Floorspace):

Floorspace figures referred to in the Planning Scheme are total gross internal area figures. The sum of the floor space within the external walls of the building(s), include plant and tank rooms and car parking areas above ground level. In the case of a group of buildings with a common curtilage, the floor areas will be aggregated.

18.8 Land Use Definition:

Residential development comprises: residential accommodation, cultural uses, hotels, local shopping (e.g. corner shops) and community facilities (e.g. schools, health centres, community centres, libraries and youth clubs).

Commercial development comprises: office development, retail development, leisure and entertainment development that is operated commercially (e.g. gyms).

18.9 Measurement of Land Use Mix:

The mix of uses in the Poolbeg Planning Scheme is based on floorspace (not, ground floor area or development footprint). This follows the approach used in the Master Plan (2008).

18.10 Own Front Door Accommodation:

Residential units having their own individual access from the public realm, as opposed to buildings with common circulation in the form of desk access, halls, corridors etc.

18.11 Plot ratio:

Plot ratios used in the Poolbeg Planning Scheme are gross plot ratios. Gross plot ratio is the total gross floorspace divided by the gross site area. Land uses that are included in gross site area are:

- major and local distributor roads;
- primary schools, churches, local shopping etc.;
- open spaces serving a wider area; and
- significant landscape buffer strips.

$$\frac{\text{Gross internal floor area of the building(s)}}{\text{Gross site area}} = \text{Plot ratio}$$

18.12 Plot ratio note: At different stages in the planning of a new development area, density standards and measurement can be refined from an overall density which embraces the full range of urban uses (gross plot ratio) down to one which includes only the developable component of an individual site (net plot ratio). Until such time as the exact

layout of the development, i.e. the location of roads and open spaces, is proposed an allowance can be made in the density calculations for the land that will be occupied by such uses. This is considered to be 25 percent at the neighbourhood or district scale. This can be discounted from the gross site area to produce a net site area which may be used in the calculation of net plot ratios. This mechanism is supported by the definition of net site area and plot ratio set out in the Dublin City Development Plan and additional national planning policy (Draft DoEHLG Sustainable Residential Development in Urban Areas, appendix B (February 2008)).

Net plot ratio is the total gross floorspace divided by the net site area. The net site area includes only those areas that will be developed for housing and directly associated uses. These will include:

- access roads within the site;
- private garden space;
- car parking areas;
- incidental open space and landscaping; and
- children's play areas where these are to be provided.

18.13 Site:

For the purposes of the Planning Scheme, 'site' refers to the land in relation to which a Section 25 Application is made. It can refer to two separate parcels of land, provided that both parcels are included in the same Section 25 Application.

18.14 **Units per hectare:**

A measure of density relating to the average number of residential units per hectare of land. The measure differs in its net and gross forms. Net density is the total number of residential units per hectare on a site. Gross density is the total number of residential units per hectare on a site, but inclusive of half the width of the surrounding or adjoining public roads and public open space.

IMAGE CREDITS

If not stated otherwise, all images © by West8.

p.57, no.01: www.flickr.com  mikebaird

p.108: www.flickr.com  Joe Shlabotnik

p.115, no.01: © by DDDA

p.189, no.01: www.flickr.com

p.189, no.02: www.panoramio.com © by Luismmg

Client

Dublin Docklands Development Authority

Urban Designers and Landscape Architects

West 8 Urban Designers and Landscape Architects

Lead and Planning Consultants

Urban Initiatives

Environmental Impact Statement Consultant

Cunnane Stratton Reynolds
(EIS coordinator)

Malone O' Regan
(Engineering and Environment)

Natura
(Ecology)

CRDS - Cultural Resource Development Services
(Archaeology)

ARC
(Visual Impact Assessment)

Transport Consultants

MVA Consultancy

Real Estate Advisor

DTZ SherryFritzGerald

Cost Consultants

Healy Kelly Turner Townsend

Sustainability Consultants

RPS Group

Engineering and Infrastructure Consultants

Mott MacDonald Pettit

3d Visualisation

West 8 Urban Designers and Landscape Architects

Dublin Docklands Development Authority

52-55 Sir John Rogerson's Quay

Docklands

Dublin 2

Ph: +353 18183300

Fax: + 353 18183 399

Website: www.dublindocklands.ie

Email: info@dublindocklands.ie