

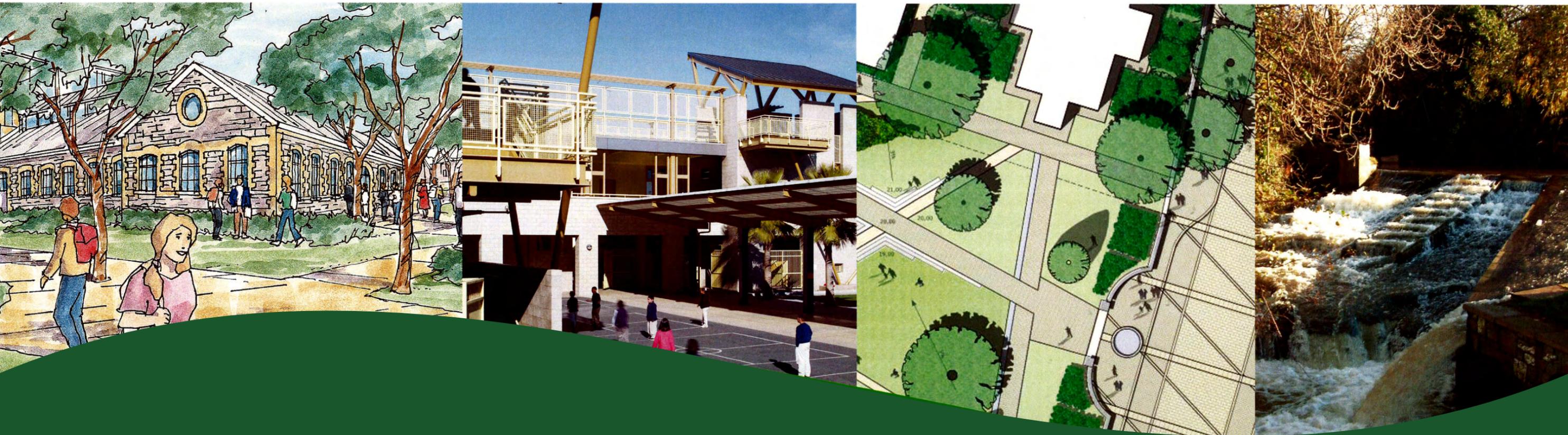


**Grangeegorman
Development Agency**
Gníomhaireacht Forbartha
Ghráinseach Ghormáin

Grangeegorman Planning Scheme

Strategic Environmental Assessment

SEA Statement



August 2011

Innovative Urban Quarter | Contemporary Healthcare Facilities | Modern Education Hub | Accessible Public Spaces

SEA STATEMENT

TABLE OF CONTENTS

1.0	SEA STATEMENT INTRODUCTION	1		
1.1	Terms of Reference	1		
1.2	Strategic Environmental Assessment Definition	2		
1.3	Legislative Context relevant to the SEA for the <i>Grangegorman Planning Scheme 2011</i>	2		
1.4	Content of the SEA Statement for the <i>Grangegorman Planning Scheme 2011</i>	2		
1.5	Implications of SEA for the <i>Grangegorman Planning Scheme 2011</i>	2		
2.0	HOW ENVIRONMENTAL CONSIDERATIONS HAVE BEEN INTEGRATED INTO THE GRANGEGORMAN PLANNING SCHEME 2011	3		
2.1	Consultation	3		
2.2	Environmental Sensitivities, Baseline and Early Communication	3		
2.3	Early Identification and Evaluation of Alternatives	3		
2.4	Mitigation	4		
3.0	ENVIRONMENTAL REPORT AND SUBMISSIONS/OBSERVATIONS	10		
3.1	Introduction	10		
3.2	SEA Scoping Submissions	10		
3.2.1	Acknowledgement letters received	10		
3.2.2	Submissions/observations received	10		
3.3	<i>Grangegorman Draft Planning Scheme 2011 and SEA Environmental Report</i>	11		
3.4	Environmental Report and Addendum A	11		
4.0	ALTERNATIVES AND THE PLANNING SCHEME	19		
4.1	Introduction	19		
4.1.1	Alternative 1: Refurbishment and reuse of buildings on site, to facilitate the limited transfer of some of DIT's functions to the Grangegorman Site	19		
4.1.2	Alternative 2: Redevelopment of the Grangegorman Site to provide a new City Quarter incorporating DIT and HSE accommodation in accordance with their briefs and in addition the provision of community facilities	19		
4.1.3	Alternative 3: Intensive redevelopment of the site to include DIT accommodation and HSE accommodation in accordance with their current briefs and in addition the provision of residential accommodation for 3,000 people in a high density, medium to high rise scheme	20		
4.2	Evaluation of the Alternative Scenarios	20		
4.2.1	Alternative 1: Refurbishment and reuse of buildings on site, to facilitate the limited transfer of some of DIT's functions to the Grangegorman Site	20		
4.2.2	Alternative 2: Redevelopment of the Grangegorman Site to provide a new City Quarter incorporating DIT and HSE accommodation in accordance with their briefs and in addition the provision of community facilities	20		
4.2.3	Alternative 3: Intensive redevelopment of the site to include DIT accommodation and HSE accommodation in accordance with their current briefs and in addition the provision of residential accommodation for 3,000 people in a high density, medium to high rise scheme	21		
4.3	Evaluation Against Strategic Environmental Objectives	22		
4.4	Alternative 2 as preferred alternative	22		
5.0	MONITORING MEASURES	23		
5.1	Introduction	23		
5.2	Indicators and Targets	23		
5.3	Source of Data	23		
5.4	Reporting	23		
5.5	Responsibility	23		

1.0 SEA STATEMENT INTRODUCTION

This document provides a *Strategic Environmental Assessment Statement* (SEA Statement) of the *Grangegorman Planning Scheme 2011* Strategic Environmental Assessment. The purpose of this report is to fulfil the SEA Statement requirements in terms of Article 179G of the *Planning and Development (Strategic Environmental Assessment) Regulations 2004*.

1.1 Terms of Reference

The *Grangegorman Planning Scheme 2011* has been adopted, for the purpose of making the Grangegorman Planning Scheme, by Dublin City Council in terms of the *Planning and Development Act 2000 – 2010*. The *Grangegorman Planning Scheme 2011* includes a comprehensive land use and architectural framework and delivery methodology which underpin efficient delivery of the redevelopment of the Grangegorman site.

The Grangegorman Development Agency (GDA) aims to create a vibrant new city quarter with a diverse mix of uses, in a way that is sensitive to the context of the Grangegorman site, its surrounding neighbourhoods and the existing community.

The challenge is to plan for and implement an integrated, multi-phased development which meets the following objectives:

- To avail of a unique opportunity to create a distinct urban quarter close to Dublin City Centre based on current best practice in urban design and sustainability;
- To achieve a key Dublin City Development Plan aim through the development of a designated Strategic Regeneration and Development Area ('SDRA'). This will ensure the realisation of the full potential of this part of the urban core of the City with linkages provided to surrounding areas;
- To deliver new health facilities for the HSE to support the provision of primary, community and continuing care services for the local population;
- To deliver a visionary urban campus within a mixed-use urban setting for a consolidated DIT to meet the needs of a major higher education institution;
- To devise an innovative, sustainable, integrated master-planned development to address the above requirements and to provide for appropriate complementary facilities (e.g. community, commercial and leisure facilities) in line with the *Dublin City Development Plan 2011-2017*;
- To create a land use framework that will enable community use of new facilities and which is in context with land usage in the vicinity of the site and is sympathetic to the urban setting;
- To ensure a high level of access, particularly in terms of public transport and pedestrian and vehicular linkages to the surrounding area;
- To accommodate new community facilities, and
- To support the development of a knowledge economy which will in turn drive forward economic development.

The Grangegorman development will cater for many of the key growth sectors in the economy identified by Dublin City Council; such as Education/Research and Development, Health, Cultural Tourism, Retail/Leisure and Software/ICT.

The *Grangegorman Planning Scheme 2011* is subject to a Strategic Environmental Assessment (SEA) in accordance with the requirements under the SEA Directive (2001/42/EC) and the *Planning and Development (Strategic Environmental Assessment) Regulations 2004*.

The SEA Process was carried out in tandem with the preparation of the *Grangegorman Planning Scheme 2011* and the following documents have been produced as part of this process:

Table 1: Relevant Documents Produced

No.	Title	Date
1.	Strategic Environmental Assessment Scoping Issues Paper, Preparation of Grangegorman Development Agency Proposed Strategic Development Zone Planning Scheme	October 2009
2.	Strategic Environmental Assessment Scoping Report, Preparation of Grangegorman Development Agency Proposed Strategic Development Zone Planning Scheme.	December 2009
3.	Grangegorman Draft Planning Scheme	April 2011
4.	Grangegorman Draft Planning Scheme Strategic Environmental Assessment Environmental Report	April 2011
5.	Grangegorman Draft Planning Scheme Appropriate Assessment Screening Report	April 2011
6.	Manager's Report on the Submissions to the Grangegorman Draft Planning Scheme	July 2011
7.	Addendum to Manager's Report on the Submissions to the Grangegorman Draft Planning Scheme	July 2011
8.	Grangegorman Draft Planning Scheme, Manager's Reports and Recommendations to the Motions Submitted for the Special Meeting of the City Council	July 2011
9.	Notification to Attend Special Meeting of Council to be held in the Council Chamber, City Hall, Dublin 2, On Monday, 25 th 2011 at 6.00 P.M	July 2011
10.	Record of Dublin City Council Meeting	July 2011
11.	Grangegorman Planning Scheme 2011	August 2011
12.	Addendum A to the Grangegorman Planning Scheme Strategic Environmental Assessment Environmental Report	August 2011
13.	SEA Statement Grangegorman Planning Scheme 2011 Strategic Environmental Assessment	August 2011

Source: Dublin City Council and Grangegorman Development Agency

The above documents are available for viewing at the offices of Dublin City Council, Civic Offices, Wood Quay, Dublin 8.

The Grangegorman Development Agency retained Tom Phillips + Associates to carry out the SEA of the *Grangegorman Draft Planning Scheme 2011*. Specialist consultants were retained to provide specialist inputs within key specific environmental areas identified as required during the SEA Scoping. The full SEA Team is outlined in Table 2 below.

Table 2: Additional Specialists Providing Input to SEA

Company	Specialist Input
Natura Environmental Consultants	Biodiversity, Flora and Fauna Assessment
AWN Consulting	Air Quality Baseline; Noise and Vibration Assessment
Margaret Gowan & Co.	Archaeological Assessment
Grainne Shaffrey	Architectural Heritage Assessment
Horgan Lynch	Soils; Water (Hydrology & Hydrogeology); Services Infrastructure
Arup	Services and Flood Risk Assessment
AECOM formally AECOM / Faber Maunsell	Traffic and Transportation
Mitchell & Associates	Landscape Assessment
Tom Phillips + Associates	Population and Human Health Assessment

1.2 Strategic Environmental Assessment Definition

SEA is a process for evaluating, at the earliest appropriate stage, the environmental quality and consequences of policy, plan or programme initiatives by statutory bodies. The purpose is to ensure that the significant environmental consequences of plans and programmes are assessed both during their preparation and prior to their adoption. The SEA process also gives interested parties an opportunity to comment on the environmental impacts of the proposed plan or programme and to be kept informed during the decision making process.

1.3 Legislative Context relevant to the SEA for the *Grangegorman Planning Scheme 2011*

The EU Strategic Environmental Assessment (SEA) Directive (2001/42/EC) has a stated objective

“to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment”.

Directive 2001/42/EC (27th June 2001) of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment (referred to hereafter as the SEA Directive) introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including that which would set the framework for development consent.

The SEA Directive was transposed into Irish Law through the *European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004* (SI No. 435 of 2004), and the *Planning and Development (Strategic Environmental Assessment) Regulations 2004* (SI No. 436 of 2004). Both sets of regulations became effective on 21st July 2004.

The SEA Directive and the instruments transposing it into Irish Law require that after the adoption of a plan or programme, the plan or programme making authority (Dublin city Council) is required to make a Statement available to the public and the environmental authorities. This Statement is referred to as an SEA Statement¹.

1.4 Content of the SEA Statement for the *Grangegorman Planning Scheme 2011*

In terms of Article 179G of the *Planning and Development (Strategic Environmental Assessment) Regulations 2004*, the SEA Statement is required to include information which summarises:

- How environmental considerations have been integrated into the scheme;
 - How:
 - the environmental report;
 - submissions and observations made to the planning authority in response to the *Grangegorman Draft Planning Scheme 2011* and associated documentation, including the SEA Environmental Report; and
 - any transboundary consultations (this is not relevant to this SEA process).
- have been taken into account during the Planning Authority’s consideration of the Draft Scheme?;
- The reasons for choosing the *Grangegorman Planning Scheme 2011* as adopted, in the light of the other reasonable alternatives dealt with; and
 - The measures decided upon to monitor, the significant environmental effects of implementation of the *Grangegorman Planning Scheme 2011*.

1.5 Implications of SEA for the *Grangegorman Planning Scheme 2011*

As result of the aforementioned legislation, the *Grangegorman Planning Scheme 2011* was required to undergo SEA. The findings of the SEA were expressed in the *Grangegorman Draft Planning Scheme Strategic Environmental Assessment Environmental Report* which accompanied the *Grangegorman Draft Planning Scheme 2011*. Various sections of the *Grangegorman Draft Planning Scheme* include development proposals, with some additional proposals incorporated in the *Grangegorman Planning Scheme 2011* in response to the Consultation Process, Manager’s Recommendations and Members’ Motions.

At each stage of the process, Dublin City Council Members took into account the findings of the SEA Environmental Report.

¹ *Implementation of SEA Directive (2001/42/EC) Assessment of the Effects of Certain Plans or Programmes on the Environment Guidelines for Regional Authorities and Planning Authorities*, November 2004

2.0 HOW ENVIRONMENTAL CONSIDERATIONS HAVE BEEN INTEGRATED INTO THE GRANGEGORMAN PLANNING SCHEME 2011

2.1 Consultation

As part of this process the Grangegorman Development Agency engaged in statutorily and additional non-statutorily required consultation. Article 179B of the *Planning and Development Regulations 2001 - 2010* requires that the Grangegorman Development Agency give notice to prescribed Environmental Authorities as specified in Article 13A(4) of the *Planning and Development Regulations 2001 - 2010* prior to finalising the scope and level of detail of the information to be included in this *Environmental Report* which is to accompany the *Grangegorman Draft Planning Scheme*.

While Dublin City Council is not listed as a statutory Environmental Authority, extensive consultations were held with various departments of Dublin City Council, including those responsible for Planning and Engineering, during the preparation of the *Grangegorman Draft Planning Scheme 2011*. Various issues outlined during these consultations were incorporated in the *Grangegorman Draft Planning Scheme 2011*, the *Stage 1 Appropriate Assessment Screening Report*, as well as the *SEA Environmental Report*.

In addition to these prescribed Environmental Authorities a number of other non-statutory agencies have also been included in this consultation and these are outlined below.

2.2 Environmental Sensitivities, Baseline and Early Communication

Environmental considerations were integrated into the *Grangegorman Draft Planning Scheme* before it was placed on public display by Dublin City Council in April 2011. Regular interaction meetings were held with the SEA Team, the Planning Scheme Team together with members of staff of the Grangegorman Development Agency and Dublin City Council.

A scoping process was undertaken to establish the scope and level of detail to be assessed as part of this environmental assessment involving extensive consultation with a number of interested environmental authorities.

Baseline Data was collated and assessed in order to provide an accurate description of the current state of the environment in Grangegorman. The environmental receptors identified during the Scoping process were biodiversity, flora and fauna; population and human health; soil; water; landscape; air quality and climatic factors; noise and vibration; material assets (which includes traffic and transportation and services infrastructure); and heritage (archaeological and architectural). This includes the entire list of receptors contained in Annex 1(f) of the Directive and fulfils the information requirements referred to in Schedule 2B of the *Planning and Development (Strategic Environmental Assessment) Regulations 2004*.

The scope of environmental issues to be dealt with by the SEA together with the level of detail to be addressed was broadly decided on after preliminary data collection initially outlined in the Scoping Issues Papers. An initial SEA workshop was held involving the entire SEA Team including a comprehensive review of the material to be included in this data collection.

The Issues Papers, subsequently prepared, were circulated to the identified Environmental Authorities and the issues extended to take account of submissions received from these Authorities. In particular the EPA and the ERFB (Eastern Regional Fisheries Board) provided detailed input and advice in response

to this consultation. These submissions were taken in to account in the final SEA Scoping Report. Further to this, Scoping meetings were held with Mr. Tadhg O'Mahony of the EPA.

Data provided was current, available and relevant environmental information compiled by the various appropriate specialists within the SEA Team although some additional data was collected. Information gaps were identified and while not required under the relevant SEA legislation additional data was gathered to further inform the SEA. This specifically included information regarding existing conditions on flood risk, drainage and traffic.

In line with the SEA Process undertaken as part of the *Grangegorman Planning Scheme 2011*, and following a review of the baseline information, the following key strategic environmental issues were identified with relevance to the Grangegorman site:

- Protected species of flora and fauna located on site with particular emphasis on bats;
- Impacts on the urban landscape including visual impacts, overshadowing, loss of character, impact on scenic amenity etc.;
- Traffic generation and the implications for noise and air quality as a result of the implementation of the *Draft Planning Scheme*;
- Architectural Heritage and the existing structures, building clusters and landscape features which will be impacted by the implementation of the *Draft Planning Scheme*;
- The undisturbed nature of the site indicating potential for archaeology; and
- Foul Drainage and the combined foul and surface water sewer system currently in place in Grangegorman.

2.3 Early Identification and Evaluation of Alternatives

The Grangegorman Development Agency (GDA) was established under the *Grangegorman Development Agency Act 2005*. The primary function of the Act is to facilitate the development of the Grangegorman site in Dublin as a modern campus for the Dublin Institute of Technology (DIT), to provide the Health Service Executive (HSE) with upgraded primary health and social care facilities and to provide other facilities, including those for the community. Consequently the alternatives reviewed must fulfil the requirements of this Act.

The *Grangegorman Planning Scheme 2011* is informed in detail by the *Grangegorman Strategic Plan 2011*.

A total of three alternative scenarios, relating generally to variations to the Masterplan element of the *Grangegorman Strategic Plan 2011*, were identified and developed at an early stage through consideration of GDA's statutory requirements under the *Grangegorman Development Agency Act, 2005*. These alternatives were evaluated for their likely significant environmental effect (see Section 7 of the *SEA Environmental Report*). Table 3 below details the result of the Environmental Assessment of each of the Planning Scheme alternatives. Communication of the findings of this evaluation helped the Planning Scheme Team to make an informed choice as to which alternative to be developed into the *Grangegorman Planning Scheme 2011*. Communication of this evaluation to the Dublin City Council through the *SEA Environmental Report* assisted the Council to make an informed choice regarding the adoption of the *Grangegorman Planning Scheme 2011*.

Mitigation measures which arose from the evaluation and which were integrated into the *Grangegorman Planning Scheme 2011* are detailed under Section 2.4 of this SEA Statement.

Table 3: Assessment of the Draft Planning Scheme Alternatives

Environmental Objectives	Alternative 1 Low Intensity Development	Alternative 2 Medium Intensity Development plus Community Facilities	Alternative 3 High Intensity Development with Commercial Gain
Protect and enhance biodiversity, flora and fauna on the Grangegorman Site.	+	0	-
Enhance the overall socio economic profile and economic attractiveness of the Grangegorman Development Area.	0	++	++
Improve the quality of life for the community based on the provision of accessible employment, recreational, educational, medical and other facilities.	-	++	--
Provide, maintain and improve access to public open space.	--	0	-
Preserve and enhance the natural and historic landscape features within the Grangegorman site.	+	0	--
Retention of existing good quality trees.	+	0	-
Limit adverse impacts on air quality and in particular traffic generated emissions.	-	0	-
Limit adverse impacts on climate through use of sustainable energy sources.	0	+	-
Protect, conserve and enhance the architectural heritage on the Grangegorman site.	+	0	-
Identify, protect and conserve or document the archaeological heritage on the Grangegorman site in accordance with Best Practice Principles.	+	0	-
Provision of separate foul and surface water drainage to service the Grangegorman Area.	-	+	+
Provision for the reuse, recycling and conservation of water.	0	+	0

Key	Very Positive	Positive	Neutral	Negative	Very Negative	Uncertain
	++	+	0	-	--	?

2.4 Mitigation

Mitigation measures have been identified as part of the SEA process to prevent, reduce and as fully as possible, offset any significant adverse impacts on the environment expected as a result of implementing the *Grangegorman Planning Scheme 2011*.

Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration is given in the first instance to preventing such effects, or where this is not possible for stated reasons, mitigation measures are devised to lessen or offset these effects. Mitigation measures can be described as those that; avoid effects; reduce the magnitude or extent, probability and/or severity of effects; repair effects after they have occurred; and compensate for potential negative impacts by providing environmental benefits elsewhere.

These mitigation measures were integrated into the *Grangegorman Planning Scheme 2011* in order to comply with various statutory requirements, statutory consultees and to have regard to submissions/observations received during the public consultation process. While the assessment of the *Grangegorman Planning Scheme 2011* against the environmental objectives is on the whole positive, the SEA process did identify that certain actions are necessary to mitigate anticipated or potential negative environmental impacts, and the Grangegorman Development Agency and Dublin City Council proactively integrated a number of measures into the *Grangegorman Planning Scheme 2011* which also provide for the integration of environmental considerations into the plan and mitigation of potential effects.

These have been devised in relation to the following environmental receptors:

- Biodiversity, flora and fauna;
- Population and human health;
- Landscape;
- Air quality;
- Climatic factors;
- Cultural heritage - architecture
- Cultural heritage - archaeology; and
- Material assets – infrastructure.

Table 4 below outlines the Environmental Objective and Likely Significant Effect, if unmitigated, of implementing the *Grangegorman Planning Scheme 2011* together with mitigation measures which have been integrated into the Planning Scheme. These include updated measures as extrapolated from the *Grangegorman Planning Scheme 2011* and Section 8 and Section 9 of the SEA Environmental Report, including Assessment Matrix enclosed as Appendix A to the SEA Environmental Report, as updated by Addendum A.

Table 4: Environmental Objective and Mitigation Reference

Environmental Objective	Mitigation Proposed
<p>Biodiversity, fauna and flora:</p> <p>Protect and enhance biodiversity, flora and fauna on the Grangegorman Site.</p> <p>Likely Significant Effect:</p> <p>Impact on protected species of flora and fauna located on site with particular emphasis on bats.</p>	<ul style="list-style-type: none"> • Design and construction planning shall incorporate suitable and best practice actions to reduce the risk of groundwater pollution and meet the requirements of the Groundwater Directives. • Many of the mature trees on the site is to be retained, with the exception of those which must be removed to facilitate key structuring principles and urban form or which are physically unsound. • Preparation of joint study on Water Framework Directive compliance as regards the Bradoge will be carried out by Dublin City Council and the Grangegorman Development Agency. • Planning applications to demonstrate sufficient water and waste water capacity will be available to serve the proposed development. • As all bat species in Ireland are protected under both national legislation – (Wildlife Act, 1976, as amended in 2000) and European legislation – (Habitats Directive (92/43/EEC)) and should time elapse from the bat survey undertaken to construction commencing on site, the GDA considers it important that further assessment of impacted buildings identified as having potential to harbour bats will be undertaken immediately prior to works. This is to safeguard any animals which may colonise structures in the interim.

Environmental Objective	Mitigation Proposed
<p>Population and human health:</p> <p>Enhance the overall socio-economic profile and economic attractiveness of the Grangegorman Development Area.</p> <p>Improve the quality of life for the community based on the provision of accessible employment, recreational, educational, medical and other facilities.</p> <p>Provide, maintain and improve access to public open space.</p> <p>Likely Significant Effect:</p> <p>It will also result in a significant regeneration of the surrounding area which will provide a positive impact on to the socio-economic status and quality of life for the local residents. The regeneration provides for an unprecedented volume of health and educational facilities to service a local, regional, national and international population.</p> <p>There will be a transitory negative impact during the construction and initial operation phase which will be short lived as the urban quarter emerges.</p>	<ul style="list-style-type: none"> • Limit on development quantum in the order of 380,000 sq m. • The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine. • Particular attention will be given to placement and orientation of windows to mitigate against overlooking. • Particular attention will be given to mitigating landscape measures. • The GDA shall regularly monitor noise levels during construction and establish and communicate with the adjoining communities a point of contact for complaints regarding noise. Internal project management structures shall be in place to ensure the construction noise is managed and limited to acceptable and appropriate levels. • A non-technical annual report summarising the results of the monitoring undertaken as part of the SEA will be prepared and published by the GDA and made available to the public. • The design and management of pedestrian and cycle access points adjoining existing residential streets will in particular ensure appropriate measures to remove the potential for anti-social behaviour and nuisance for adjoining residential amenity and include adequate access control (particularly at night time), good lighting, good visibility and options for CCTV facilities as part of an effective management system. The opportunity for a managed secondary access during daylight hours at Fingal Place will be explored with Fingal Place residents following completion of construction in this area and when, following a plebiscite, the majority of residents are in agreement to open the route on a trial basis. • The proposed development will be designed to ensure that the impact on the surrounding environment is minimised, in terms of overshadowing, external lighting, air and noise. • Vehicular access to the site will be controlled by restrictions at entry points.

Environmental Objective	Mitigation Proposed
<p>Population and human health: (continue...)</p>	<ul style="list-style-type: none"> • The campus bar, takeaways and student venues, will be designed to minimise impact on the amenities of the existing community. • The Grangegorman Development Agency will develop and coordinate a mobility management strategy for the Grangegorman SDZ Site to be adopted by all stakeholders prior to occupation of the SDZ Site • Grangegorman Development Agency will apply for planning permission for individual buildings on a staged basis and in increments of not more than 2000 Population Equivalent. • GDA will work with HSE to develop a decanting strategy for current HSE and associated occupation of the site so as to minimise disruption to priority residential patients and visiting clients. • GDA will work with DIT to develop an aligned decanting strategy, and to refine arrangements for faculty movements to ensure alignment of academic and construction programmes. • GDA will develop a Construction Management Plan to ensure an integrated approach to construction logistics as well as manage local impacts and ensure effective application of GDA consultation principles.

Environmental Objective	Mitigation Proposed
<p>Landscape:</p> <p>Preserve and enhance the natural and historic landscape features within the Grangegorman site.</p> <p>Retention of existing good quality trees.</p> <p>Likely Significant Effect:</p> <p>Impacts on the urban landscape including visual impacts, overshadowing, loss of character, impact on scenic amenity etc.</p> <p>It will result in the transformation of Grangegorman's closed compound into a new urban quarter which will form an integral part of the City.</p>	<ul style="list-style-type: none"> • Development of very significant areas of open space, 'key views' and major pedestrian routes. • Only sports/recreational buildings of single story pavilion design will be allowed in the Fields • The student accommodation will be oriented / designed to reduce the impact of possible noise or disturbance to adjoining existing residential areas. All residential developments will comply with the relevant policies, objectives and standards of the Dublin City Development Plan, including Appendix 23- Guidelines for Student Accommodation. • Proposed taller elements at Broadstone and the Campanile must demonstrate architectural merit, including achievement of an appropriate slenderness ratio (3:1 or more), and must demonstrate they will not create an adverse visual impact when viewed from sensitive locations, either within or outside the site. • The western element of the quadrangle, if used for student residential, shall be designed so that (i) no balconies are provided facing westwards; (ii) the design and profile of the buildings, particularly roof and plant design, and (iii) alongside maximising opportunities with ground level changes between the existing housing and the site, seek to minimise the height and visual impact of the western elevation. • Applications for development within the SDZ, when located at site boundaries and /or adjacent to existing residential development shall be required to complete a full and rigorous landscape and visual assessment of the designed development proposals. Sensitivities shall be identified utilising the criteria outlined in the Landscape and Visual Assessment, Section 6.2.2. • Attractive and secure temporary screening arrangements of as yet undeveloped sites within the SDZ lands shall be agreed with and installed prior to occupation of the site. • Car parking will be provided mainly underground/undercroft with limited provision for surface parking as indicated. • Retail and non-retail services will generally be concentrated at ground floor level across the Urban Quarter, along St. Brendan's Way and the Serpentine Walk, in order to enliven and give character to these two central circulation routes.

Environmental Objective	Mitigation Proposed
<p>Air quality:</p> <p>Limit adverse impacts on air quality and in particular traffic generated emissions.</p> <p>Limit adverse impacts on climate through use of sustainable energy sources.</p> <p>Likely Significant Effect:</p> <p>Traffic generation and the implications for noise and air quality as a result of the implementation of the Planning Scheme.</p> <p>The implementation of the <i>Planning Scheme</i> will inevitably result in emissions to air in the local area as a result of developing a medium density scheme at a location which is currently occupied at an extremely low density.</p>	<ul style="list-style-type: none"> • Provision will be made within the Grangegorman site for electric or battery operated vehicles with charging points and measures will be explored to facilitate the roll-out of charging infrastructure for such vehicles, including advance planning for the suitable layout and location of facilities for electric or battery operated transport. Provision will also be made for an appropriate quantum of parking spaces for disabled motorists in accordance with national policy. • The design of the building footprints, heights and layouts will be developed to allow maximum daylight to enter buildings, minimise overshadowing of each other, of existing neighbouring buildings, and of landscaped areas, as well as to ameliorate existing wind conditions on site. • Buildings will be predominately naturally ventilated (unless activity requirements of the building dictate otherwise) and will incorporate the flexibility for future conversion of air-conditioned/mechanically ventilated buildings to a natural ventilation strategy. • Buildings will be designed to minimise the CO2 emissions associated with their operational energy consumption over their lifetime, with a view to moving towards carbon neutral status. • The proposed Broadstone D.I.T. Luas stop has been designated to serve the Grangegorman SDZ Site with an additional stop to the north also serving the site. • The delivery of the full quantum of development proposed will be dependent on the delivery of public transport initiatives. • The Flood Risk Assessment carried out for the site in March 2011 concludes that the redevelopment of the site will present no significant increase in risk of flooding either within the site or downstream of the site.

Environmental Objective	Mitigation Proposed
<p>Cultural heritage – archaeology:</p> <p>Identify, protect and conserve or document the archaeological heritage on the Grangegorman site in accordance with Best Practice Principles.</p> <p>Likely Significant Effect:</p> <p>The undisturbed nature of the site indicating potential for archaeology.</p>	<ul style="list-style-type: none"> • The historic tunnel which connects the two parts of the site under Grangegorman Road Lower, will be retained. • To establish and articulate the historical, social, urban and architectural values of Grangegorman and this will require that all archaeological remains found on the site during the redevelopment will be appropriately dealt with.

Environmental Objective	Mitigation Proposed
<p>Cultural heritage - architecture:</p> <p>Protect, conserve and enhance the architectural heritage on the Grangegorman site.</p> <p>Likely Significant Effect:</p> <p>Architectural Heritage and the existing structures, building clusters and landscape features which will be impacted by the implementation of the Planning Scheme.</p> <p>Many of the important structures on site have fallen into a poor state of repair and would deteriorate further should the current situation continue.</p>	<ul style="list-style-type: none"> All Protected Structures will be retained and integrated within the overall development of the site. While there will be a requirement to demolish some structures on site to facilitate the development, this will be limited to structures which have not been designated for protection. Due regard should be had in all applications for development within the curtilage of a protected structure to current or subsequent Government Guidance and to the current City Development Plan policies and objectives contained therein regarding additions or works within the curtilage of protected structures. Materials are envisioned to be durable, have a good appearance over time and will contribute to the general appearance of the campus. Materials are inspired by precedents of historical buildings in the City. To integrate the historic structures of significance within the SDZ in a manner which ensures that they contribute to the generation of spaces and places-both in terms of physical layout and character. Design Briefs for all building projects within the SDZ area will direct design teams to have regard to existing architectural heritage assessment and research. The <i>Grangegorman Planning Scheme</i> will result in the preservation and reuse of these buildings and the restoration of many of the architecturally important features. A maintenance strategy is to be provided as part of the planning documentation. Grangegorman Development Agency will safeguard the physical condition of existing Protected Structures on the site to prevent deterioration of the building fabric.

Environmental Objective	Mitigation Proposed
<p>Material assets - infrastructure:</p> <p>Provision of separate foul and surface water drainage to service the Grangegorman Area.</p> <p>Provision for the reuse, recycling and conservation of water.</p> <p>Likely Significant Effect:</p> <p>Foul Drainage and the combined foul and surface water sewer system currently in place in Grangegorman.</p> <p>The provision of a separate storm water sewer as originally proposed in the Strategic Plan, and now the <i>Planning Scheme</i>, will be of particular significance as it will result in the removal of a substantial volume of surface water from the combined sewer network reducing pressure on wastewater treatment facilities for the city area.</p>	<ul style="list-style-type: none"> In addition, traffic using the two car parks on the south-eastern part of the site will be required through signage and junction build out to exit to the north/south as appropriate, to discourage traffic exiting / entering the car parks passing along the most narrow part of the road of Grangegorman Lower. The quantum of car parking to be provided on the site during the phased implementation of development will be commensurate with the quantum of occupied development on the site at that time and the maximum number of spaces permitted in accordance with the parking strategy developed in the Transport Assessment. In this regard, car parking spaces will not be utilised prior to the occupation of the relevant buildings or zones. In the interest of clarity and to protect residential amenity, the secondary service route via Grangegorman Lower / Morning Star Avenue will include measures such traffic calming and control points to ensure that it does not become a through-route for the purpose of servicing and is restricted for use by emergency and maintenance vehicles. All planning applications will include proposals to comply with SUDS objectives detailed in Section 7 including maximising opportunities for rainwater and grey water use in buildings. Building design will utilise best practice sustainable building technologies and green roofs and/or solar panels will be encouraged where appropriate. Depending on the delivery and phasing strategy for the overall site, the GDA may develop interim surface car parking on / near underground / undercroft parking locations. The GDA will ensure that with any such interim parking, that the car park access arrangements do not compromise the scheme's overall commitment to accessibility by walking and cycling or the achievement of a high quality public realm within the site and the environs of the site. The first phase, which will require both works to upgrade infrastructure, and the lodgement of a planning application for the public realm, will need to address in detail the provision and management of water for the SDZ site. The first phase shall include with the first planning application a full surface water management plan incorporating the management of flood risk, which will have a bearing on the detail of the form and layout of the public realm.

Environmental Objective	Mitigation Proposed
<p>Material assets - infrastructure: (continue...)</p>	<ul style="list-style-type: none"> • The public realm application shall include detailed design of the proposed water main and will be required to be delivered and commissioned prior to completion of the first phase of buildings on the SDZ site. • Detailed design of the proposed surface water and foul drainage infrastructure: the design must demonstrate how this infrastructure will not cause any deterioration through increase in CSO discharges to existing water quality in River Liffey. While it is recognised that the SDZ site is located with a low risk area for flooding, it is appropriate that the surface water management strategy incorporates a site specific detailed flood risk assessment as defined by and in accordance with the DoEHLG and OPW Guidance, “The Planning System and Flood Risk Management- Guidelines for Planning Authorities”, and the associated Technical Appendices. • Drainage from the proposed development shall be completely separated, with separate foul and surface water drains from each building. • Surface water drainage from the proposed redevelopment shall be discharged (post Attenuation) by gravity to the proposed new public surface water sewer in Grangegorman Lower at appropriate greenfield run-off rate. • Preliminary landscape design of impermeable/permeable surfaces for the full Grangegorman SDZ Site development indicate that a total storage volume requirement of 6,600m³ (1 in 100 year) and 13,000m³ (1:1,000) to be addressed by a range of SuDS measures. • Grey water recycling and re-use for cleaning and maintenance will be investigated with a view to reducing the overall mains water demand. • Development of the Grangegorman SDZ Site to take place in tandem with the delivery of necessary infrastructure.

3.0 ENVIRONMENTAL REPORT AND SUBMISSIONS/OBSERVATIONS

3.1 Introduction

This section deals with how the Environmental Report and Submissions/Observations made to Grangegorman Development Agency and Dublin City Council on the *Grangegorman Draft Planning Scheme 2011* and SEA Environmental Report and SEA process have been taken into account during the preparation of the *Grangegorman Planning Scheme 2011*.

3.2 SEA Scoping Submissions

The scope of environmental issues to be dealt with by the SEA, together with the level of detail to be addressed, was broadly decided on after preliminary data collection initially outlined in the Scoping Issues Papers. An initial SEA workshop was held involving the entire SEA Team including a comprehensive review of the material to be included in this data collection.

The Issues Papers, subsequently prepared, were circulated by the Grangegorman Development Agency to the identified Environmental Authorities and the issues extended to take account of submissions received from these Authorities.

3.2.1 Acknowledgement letters received

3 no. letters of acknowledgement was received, i.e. from Minister for Communications, Energy and Natural Resources; Minister for the Environment, Heritage and Local Government; and Minister for Education and Science.

3.2.2 Submissions/observations received

6 no. submissions/observations was received, i.e. from Railway Safety Commission; National Roads Authority; Railway Procurement Agency; Eastern Regional Fisheries Board; Environmental Protection Agency; and Development Applications Unit, Department of Environment, Heritage and Local Government. In particular the Eastern Regional Fisheries Board and Environmental Protection Agency provided detailed input and advice in response to this consultation. These submissions, including those from National Parks and Wildlife Services and the Department of the Environment, Heritage and Local Government relating to the Appropriate Assessment, were taken into account in the final SEA Scoping Report. Further to this a Scoping Workshop was held with the SEA Specialist Team and members of staff of the GDA and a representative of the EPA. Ongoing liaison between the SEA Team, Planning Scheme Team and GDA staff was a regular occurrence.

Railway Safety Commission

The submission request that that other railway stakeholders (Iarnród Éireann, Railway Procurement Agency and LUAS Operator – Veolia) be consulted in future planning applications.

National Roads Authority

The National Roads Authority had no comment.

Railway Procurement Agency

The Railway Procurement Agency (RPA) welcomes and confirms their support for the *Grangegorman Planning Scheme* and their broad agreement with the issues outlined in the *Scoping Issues Paper (October 2009)*.

The RPA further outlined that the realisation of the Luas Line BXD (the combined Luas Line BX and Luas Line D) will directly serve the Subject Lands as it runs along its periphery and will address the requirement of good public transport connectivity and will influence the modal split that arises.

Eastern Regional Fisheries Board

The submission/observation appears to be a copy of a letter dated 29th March 2007, issued to Natura Environmental Consultants during the initial stages of the preparation of the *Grangegorman Strategic Plan 2011*. The Eastern Regional Fisheries Board's submission covered the following topics:

- Subject Lands are located within the River Liffey catchment;
- The River Liffey supports populations of Atlantic Salmon, Sea Trout and Brown Trout; and
- Recommendations to protect local aquatic ecological integrity.

The following key constraints have been highlighted by the Fisheries Board:

- Disturbance of in-stream habitats should be minimised;
- Any in-stream works can be carried out during the open season for salmonids of each year;
- Method statement for all riparian / in-stream works must be submitted to the board for approval; and
- Best practice should be implemented at all times in relation to any construction and operation activities that may impact on riverine or riparian.

Environmental Protection Agency

The Environmental Protection Agency's submission covered the following topics:

- Water supply, capacity, quality, source protection and conservation;
- Wastewater treatment infrastructure and capacity;
- Protection of surface and groundwater resources;
- Inclusion of Water Framework Directive River Basin Management Plan and Programme of Measures;
- Protection of designated and non designated biodiversity;
- Flood risk management;
- Protection and management of bathing areas, beaches and coastal areas;
- Habitat mapping;
- Alien species;

- Climate change;
- Air quality
- Sustainable energy production and use
- Sustainable modes of transport
- Waste management;
- Landscape and townscape;
- Protection of amenity and cultural heritage;
- Main environmental challenges for Ireland;
- Geographical Information Systems;
- Scoping Meetings/Workshops; and
- SEA Statement.

Development Applications Unit, Department of Environment, Heritage and Local Government

The Development Application Unit's submission covered the following topics:

- Architectural Heritage;
- Archaeological Heritage;
- International Conventions;
- National Policies, Plans and Programmes;
- Relevant Policies and Plans at County Level;
- Development Issues; and
- The Development Plan.

3.3 Grangegorman Draft Planning Scheme 2011 and SEA Environmental Report

The Grangegorman Development Agency submitted the *Grangegorman Draft Planning Scheme 2011* to Dublin City Council in April 2011 and the scheme was subsequently put on public display on 28th April 2011.

36 no. submissions/observations were received on the *Grangegorman Draft Planning Scheme 2011*. Two further submissions was forwarded to Dublin City Council on the 5th July 2011, but were not received by Dublin City Council during the consultation period.

50 no. Members Motions were received on the *Grangegorman Draft Planning Scheme 2011*.

Information contained in these submissions/observations/members motions was taken into account by the Dublin City Council and informed the adopted *Grangegorman Planning Scheme 2011*.

No amendments to the Environmental Report have been effected. The submissions / observations resulted in the following amendments to the Planning Scheme:

3.4 Environmental Report and Addendum A

Addendum A to the *Environmental Report* of the *Grangegorman Planning Scheme 2011* was prepared to assess the likely significant effects on the environment of implementing the proposed amendments to

the *Grangegorman Draft Planning Scheme 2011* in light of:

- The Agreed Manager's Recommendations to the issues raised in 36 no. submissions received by Dublin City Council during the public display period of the draft Planning Scheme;
- The Manager's Report and Agreed Recommendations to the issues raised in 50 no. motions submitted by Dublin City Council Members for the Special Meeting of the City Council;
- Further Agreed Recommendations from the Manager; and
- Agreed Amendments made at the Special Meeting of Dublin City Council held on 25th July 2011.

The agreed recommendations proposed by the Manager, and the 4 no. agreed Motions raised at the Special Council Meeting, do not result in any significant impact on Natura 2000 sites and as such does not materially affect the outcome of the Appropriate Assessment process undertaken to date. As such, the *Appropriate Assessment Screening of the Grangegorman Draft Planning Scheme* is not to be amended.

The agreed recommendations proposed by the Manager, and the 4 no. agreed Members Motions raised at the Special Council Meeting, do not result in any significant environmental effect for the purposes of Strategic Environmental Assessment and as such does not materially affect the outcome of the SEA Process undertaken to date.

Addendum A forms part of the Grangegorman Draft Planning Scheme Strategic Environmental Assessment Environmental Report. The amendments to the *Grangegorman Draft Planning Scheme 2011* associated with the above agreements are presented in Table 5 below:

Table 5: Amendments to the Grangegorman Draft Planning Scheme

Community Facilities	
Motion 1: Cllr Mannix Flynn Provision of a multi-functional Cultural Building on this site to incorporate public cinema, visual arts gallery and performance space.	Refer to Economic Development, Planning and International Affairs SPC
Motion 2: Cllrs Christy Burke, Ray Mc Adam, Mary O'Shea and Nial Ring. Insert Text in Section 4.7.1, Subsection 1a Healthcare after First Sentence, P.48 / Ch 8.	The uses may also include nursing home facilities.
Motion 2: Cllrs Christy Burke, Ray Mc Adam, Mary O'Shea and Nial Ring. Insert Text in Section 4.7.1, Subsection 1b Healthcare Related at End of Subsection, P. 48 / Ch 8.	This zone may also include nursing home facilities.
Motion 4: Cllrs Christy Burke, Ray Mc Adam, Mary O'Shea and Nial Ring. Insert New Text at End of Section 4.5.5, P. 41 / Ch 4.	The Cultural Garden will be home to one or more public art pieces reflective of the particular history of the site. In particular, the garden will include art work commemorative to those who lived out their lives within the grounds of the Grangegorman complex, and those who met untimely death while in institutional care in Grangegorman.

Community Facilities (Continue ...)	
Motion 5: Cllrs Nial Ring and Cieran Perry. Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8:	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.
Educational Facilities	
Submissions 2, 8, 18, 25 and 28: Amend Text in Section 5.1 Development Proposals, Para 7. Increase pupil capacity from 400 to 460 – 490 pupils.	Zone 2a to include A primary school for approximately 460-490 pupils and with specific provision for special needs pupils is to be developed on the site and operated by the Educate Together body.
Student Housing	
Motion 9: Cllr Emer Costello As per Manager's Report on Submissions: Insert New Text in Section 4.7.2 as New Para at End of Subsection Residential (Student and Private) As per Manager's Addendum Report on Submissions: Insert New Text in Section 4.7.2 as New Para at End of Subsection Residential (Student and Private) Insert New Text in Section 4.7.2 to End of New Sentences proposed by the Manager.	The student accommodation will be oriented / designed to reduce the impact of possible noise or disturbance to adjoining existing residential areas. All residential developments will comply with the relevant policies, objectives and standards of the Dublin City Development Plan, including Appendix 23- Guidelines for Student Accommodation.
Building Heights	
Motion 13: Cllrs Nial Ring and Cieran Perry As per Manager's Report on Submissions: Insert Text at End of Para 2, Section 4.3, P. 5 Chapter 4.	However, setbacks from the building line will be permitted in order to create modulation of buildings to form building entrances or external court adjacent to the public realm spaces and to protect residential amenity, where necessary.
Submissions 10, 21, 22, 27, 29, 33, 34 and 35: Insert List of all Background Reports (7) as Appendix 4.	Insert List of all Background Reports (7) as Appendix 4 and include statement to the effect that such reports are available.
Submissions 10, 21, 22, 27, 29, 33, 34 and 35: Insert Text at end of Para 2, Section 4.3, P. 5 Chapter 4.	Setbacks from the building line will be permitted in order to create modulation of buildings to form building entrances or external courts adjacent to the public realm spaces and to protect residential amenity, where necessary.

Building Heights (Continue ...)	
As per Manager's Report on Submissions, Managers Further Recommendation: Table A2.1 Appendix 2 P4, Appendix 2 Section Project Design, Column 2 Subheading Building Heights: Insert Text to 2nd Sentence.	Proposed taller elements at Broadstone and the Campanile must demonstrate architectural merit, including achievement of an appropriate slenderness ratio (3:1 or more), and must demonstrate they will not create an adverse visual impact when viewed from sensitive locations, either within or outside the site.
Overlooking and Overshadowing	
Motion 14: Cllr Emer Costello As per Manager's Report on Submissions: Insert text at end of Para 2, Section 4.3, P5 Chapter 4. (see Motion 13 above)	However setbacks from the building line will be permitted in order to create modulation of buildings to form building entrances or external courts adjacent to the public realm spaces and to protect residential amenity, where necessary.
Motion 14: Cllr Emer Costello As per Manager's Report on Submissions: Insert New Text in Section 4.7.2 as New Para at End of Subsection Residential (Student and Private). and Insert New Text in Section 4.7.2 to End of New Sentences proposed by the Manager. (see Motion 9 above)	All residential developments will comply with the relevant policies, objectives and standards of the Dublin City Development Plan, including Chapter 17 - Development Standards and Appendix 23- Guidelines for Student Accommodation.
Submissions 7, 10, 25, 27, 28, 29 and 33: Insert Text at End of Para 2, Section 4.3, P.5 Chapter 4.	However, setbacks from the building line will be permitted in order to create modulation of buildings to form building entrances or external courts adjacent to the public realm spaces and to protect residential amenity, where necessary.
Motion 15: Cllrs Nial Ring and Cieran Perry Amend Chapter 4 Section 4.4.2 'Minimise Impact on Existing Environment'	Rooftop plant may be inappropriate especially in the context of view corridors from the site as set out in Section 4.3.2 and where in proximity to historic or protected structures on site.
Motion 16: Cllrs Nial Ring and Cieran Perry Amend Chapter 4 Section 4.4.2 'Minimise Impact on Existing Environment' From: Particular attention may be required to placement and orientation of windows to mitigate against overlooking.	Particular attention will be given to placement and orientation of windows to mitigate against overlooking.

Overlooking and Overshadowing (Continue ...)	
<p>Motion 17: Cllrs Nial Ring and Cieran Perry</p> <p>Amend Chapter 4 Section 4.4.2 'Minimise Impact on Existing Environment'</p> <p>From: Particular attention may be required to building articulation and surface selection material.</p>	<p>Particular attention will be given to building articulation and surface selection material.</p>
<p>Motion 18: Cllrs Nial Ring and Cieran Perry</p> <p>Amend Chapter 4 Section 4.4.2 'Minimise Impact on Existing Environment':</p> <p>From: Particular attention may be required to mitigating landscape measures.</p>	<p>Particular attention will be given to mitigating landscape measures.</p>
<p>Motion 19: Cllr Emer Costello</p> <p>As per Manager's Report on Submissions: Insert New Text in Section 4.7.2 as New Para at End of Subsection Residential (Student and Private)</p> <p>And</p> <p>Insert New Text in Section 4.7.2 to End of New Sentences proposed by the Manager.</p> <p>(see Motions 9 and 14 above)</p>	<p>All residential developments will comply with the relevant policies, objectives and standards of the Dublin City Development Plan, including Chapter 17 - Development Standards and Appendix 23-Guidelines for Student Accommodation.</p>
<p>Submissions 7, 10, 25, 27, 28, 29 and 33:</p> <p>Insert Text after Para 2, Section 4.4.2 "Building Form and Orientation".</p>	<p>The design of new buildings shall incorporate design measures to enhance and maximise sunlight and daylight access for recreational spaces and in particular children's play areas where they are proposed adjacent to or opposite new buildings. Flexibility in height guidance in particular will be required to ensure an appropriate relationship between the school site, play areas and new buildings opposite.</p>
<p>Motion 20: Cllr Emer Costello</p> <p>As per Manager's Report on Submissions: Insert text at end of Para 2, Section 4.3, P5 Chapter 4.</p> <p>(see Motions 13 and 14 above)</p>	<p>However setbacks from the building line will be permitted in order to create modulation of buildings to form building entrances or external courts adjacent to the public realm spaces and to protect residential amenity, where necessary.</p>

Overlooking and Overshadowing (Continue ...)	
<p>Motion 20: Cllr Emer Costello</p> <p>As per Manager's Report on Submissions: Insert New Text in Section 4.7.2 as New Para at End of Subsection Residential (Student and Private)</p> <p>And</p> <p>Insert New Text in Section 4.7.2 to End of New Sentences proposed by the Manager.</p> <p>(see Motions 9, 14 and 19 above)</p>	<p>All residential developments will comply with the relevant policies, objectives and standards of the Dublin City Development Plan, including Chapter 17 - Development Standards and Appendix 23-Guidelines for Student Accommodation.</p>
<p>Motion 21: Revised Text as proposed by Cllr Brian McDowell at Special Council Meeting of 25th July 2011.</p>	<p>The western element of the quadrangle, if used for student residential, shall be designed so that (i) no balconies are provided facing westwards; (ii) the design and profile of the buildings, particularly roof and plant design, and (iii) alongside maximising opportunities with ground level changes between the existing housing and the site, seek to minimise the height and visual impact of the western elevation.</p>
<p>Motion 22: Cllr Emer Costello</p> <p>As per Manager's Report on Submissions: Insert text at end of Para 2, Section 4.3, P5 Chapter 4.</p> <p>(see Motions 13, 14 and 20 above)</p>	<p>However setbacks from the building line will be permitted in order to create modulation of buildings to form building entrances or external courts adjacent to the public realm spaces and to protect residential amenity, where necessary.</p>
<p>As per Manager's Report on Submissions, Managers Further Recommendation:</p> <p>Chapter 4 Nature & Extent of Proposed Development Section 4.4.4.2 Minimise Impact on Existing Environment, P.23</p> <p>Ch4. Insert Text in End Para of Subsection Daylight /Sunlight.</p>	<p>Applications for development within the SDZ, when located at site boundaries and /or adjacent to existing residential development shall be required to complete a full and rigorous landscape and visual assessment of the designed development proposals. Sensitivities shall be identified utilising the criteria outlined in the Landscape and Visual Assessment, Section 6.2.2.</p>

Zoning / Residential Amenity	
Motion 23: Cllrs Nial Ring and Cieran Perry As per Manager's Report on Submissions: Insert Text as New Bullet Point in Section 8.2.1 Introduction.	The GDA shall regularly monitor noise levels during construction and establish and communicate with the adjoining communities a point of contact for complaints regarding noise. Internal project management structures shall be in place to ensure the construction noise is managed and limited to acceptable and appropriate levels.
Motion 23: Cllrs Nial Ring and Cieran Perry As per Manager's Report on Submissions: Insert Text to Appendix 1, Section 1.2.9 Monitoring, at End of Para 1 and End of Para 2 Section 10.0 Monitoring.	A non-technical annual report summarising the results of the monitoring undertaken as part of the SEA will be prepared and published by the GDA and made available to the public.
As per Manager's Report on Submissions, Managers Further Recommendation: Amend Text in 3rd Last Para.	These level changes will need to be integrated into the design and access strategy and address the challenges of Universal Access
Public Realm, Landscape and Biodiversity	
Motion 26: Cllrs Nial Ring and Cieran Perry Insert New Text at End of Para 3, Section 4.4.6, P. 28 / Ch 4	Signage elements will have the appropriate scale and character to distinguish and provide identity to the Grangegorman Urban Quarter. The design should optimise rapid orientation for all users, add interest to the ground level environment, unify the district as a whole and enhance the overall quality and appearance. Building signage will be integrated into architectural elements as much as possible. All signage will be in Irish and English.
Motion 27: Cllr Emer Costello As per Manager's Recommendation on Submissions: Insert Text in Section 4.6. Change in wording of Manager's Recommendation for Motion 27 as Agreed at Special Meeting of Council of 25 th July 2011.	The design and management of pedestrian and cycle access points adjoining existing residential streets will in particular ensure appropriate measures to remove the potential for anti-social behaviour and nuisance for adjoining residential amenity and include adequate access control (particularly at night time), good lighting, good visibility and options for CCTV facilities as part of an effective management system. The opportunity for a managed secondary access during daylight hours at Fingal Place will be explored with Fingal Place residents following completion of construction in this area and when, following a plebiscite, the majority of residents are in agreement to open the route on a trial basis

Public Realm, Landscape and Biodiversity (Continue ...)	
Motion 27: Cllr Emer Costello Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8 (see Motion 5 above)	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.
Motion 28: Cllrs Nial Ring and Cieran Perry Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8 (see Motions 5 and 27 above)	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.
Motion 29: Cllrs Ray Mc Adam and Mary O'Shea As per Manager's Recommendation on Submissions, with additional text to ensure review. Insert Text in Section 4.6. (see Motion 27 above)	The design and management of pedestrian and cycle access points adjoining residential streets will in particular ensure appropriate measures to remove the potential for anti-social behaviour and nuisance for adjoining residential amenity and include adequate access control (particularly at night time), good lighting, good visibility and options for CCTV facilities as part of an effective management system, which will be subject to monitoring and review.
Motion 29: Cllrs Ray Mc Adam and Mary O'Shea Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8 (see Motions 5, 27 and 28 above)	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.
Submissions 3, 21, 31, 33, 34 and 35: Insert New Text, Section 1.2.1 Biodiversity, Flora & Fauna in Appendix 1.	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.

Public Realm, Landscape and Biodiversity (Continue ...)	
Submissions 3, 21, 31, 33, 34 and 35: Insert Text in Section 4.6.	The design and management of pedestrian and cycle access points adjoining residential streets will in particular ensure appropriate measures to remove the potential for anti-social behaviour and nuisance for adjoining residential amenity and include adequate access control (particularly at night time), good lighting, good visibility and options for CCTV facilities as part of an effective management system, which will be subject to monitoring and review.
As per Manager's Report on Submissions, Managers Further Recommendation: Section 4.5.6 The Quadrangles P.42, Ch 4. Insert Text at End of 2nd Last Para.	For each quadrangle proposed, a minimum of 20% of the space within the external building line shall be allocated as open space and / or winter gardens.
Transportation, Movement and Mobility	
Motion 30: Cllrs Christy Burke, Ray Mc Adam, Mary O'Shea and Nial Ring Amend Table 5.4 Proposed Car Parking, P. 22 / Ch 5.	Increase the level of car parking under the School from 8 to 16. Reduce the level of car parking under Mixed Use Development from 143 to 135.
Motion 31: Cllr Emer Costello Amend Table 5.4 Proposed Car Parking, P. 22 / Ch 5.	Increase the level of car parking under the School from 8 to 16. Reduce the level of car parking under Mixed Use Development from 143 to 135.
Motion 32: Cllrs Christy Burke, Ray Mc Adam, Mary O'Shea and Nial Ring Amend Figure 4.30, Chapter 4 and Figure 5.18, Chapter 5. Change in wording of Manager's Recommendation for Motion 32 as Agreed at Special Meeting of Council of 25 th July 2011 in relation to Motion 40 below.	Reduce the maximum level of car spaces shown on the car park immediately north of the Lower House from 'Max 410 Spaces' to 'Max 200 Spaces'.
Motion 33: Cllrs Christy Burke, Ray Mc Adam, Mary O'Shea and Nial Ring Insert New Text at End of Para 3, Section 5.4.2.	In addition, traffic using the two car parks on the south-eastern part of the site will be required through signage and junction build out to exit to the north/south as appropriate, to discourage traffic exiting / entering the car parks passing along the most narrow part of the road of Grangegorm Lower.

Transportation, Movement and Mobility (Continue ...)	
Submissions 7, 11, 14, 16, 17, 20, 23, 24, 27, 29, 31, 32, 34 and 35: Insert Text as New Paragraph at end of Section 8.2.3.3.	A project traffic management plan for all stages of construction traffic will be prepared in accordance with the requirements of Dublin City Council before demolition, excavation and construction commences. The plan will detail access arrangements for labour, plant and materials and shall indicate the locations of plant and machine compounds.
Submissions 7, 11, 14, 16, 17, 20, 23, 24, 27, 29, 31, 32, 34 and 35: Insert New Text, Section 8.1.5.7 Phasing of Car Parking.	The quantum of car parking to be provided on the site during the phased implementation of development will be commensurate with the quantum of occupied development on the site at that time and the maximum number of spaces permitted in accordance with the parking strategy developed in the Transport Assessment. In this regard, car parking spaces will not be utilised prior to the occupation of the relevant buildings or zones.
Motion 35: Cllrs Nial Ring and Cieran Perry As per Manager's Recommendation on Submissions: Insert New Text, Section 8.1.5.7 Phasing Car Parking.	The quantum of car parking to be provided on the site during the phased implementation of development will be commensurate with the quantum of occupied development on the site at that time and the maximum number of spaces permitted in accordance with the parking strategy developed in the Transport Assessment. In this regard, car parking spaces will not be utilised prior to the occupation of the relevant buildings or zones.
Motion 38: Cllr Emer Costello As per Manager's Recommendation on Submissions, with additional text to ensure review. Insert Text in Section 4.6. (see Motions 27 and 29 above)	The design and management of pedestrian and cycle access points adjoining residential streets will in particular ensure appropriate measures to remove the potential for anti-social behaviour and nuisance for adjoining residential amenity and include adequate access control (particularly at night time), good lighting, good visibility and options for CCTV facilities as part of an effective management system, which will be subject to monitoring and review.
Motion 38: Cllr Emer Costello Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8 (see Motions 5, 27, 28 and 29 above)	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.

Transportation, Movement and Mobility (Continue ...)	
Motion 39: Cllr Emer Costello Insert New Text in Para 2, Section 5.4.3:	In the interest of clarity and to protect residential amenity, the secondary service route via Grangegorman Lower / Morning Star Avenue will include measures such traffic calming and control points to ensure that it does not become a through-route for the purpose of servicing and is restricted for use by emergency and maintenance vehicles.
Motion 39: Cllr Emer Costello As per Manager's Recommendation on Submissions, with additional text to ensure review. Insert Text in Section 4.6. (see Motions 27 and 29 above)	The design and management of pedestrian and cycle access points adjoining residential streets will in particular ensure appropriate measures to remove the potential for anti-social behaviour and nuisance for adjoining residential amenity and include adequate access control (particularly at night time), good lighting, good visibility and options for CCTV facilities as part of an effective management system, which will be subject to monitoring and review.
Motion 39: Cllr Emer Costello Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8 (see Motions 5, 27, 28 and 29 above)	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.
Motion 39: Cllr Emer Costello Insert New Text at End of Para 3, Section 5.4.2. (see Motion 33 above)	In addition, traffic using the two car parks on the south-eastern part of the site will be required through signage and junction build out to exit to the north/south as appropriate, to discourage traffic exiting / entering the car parks passing along the most narrow part of the road of Grangegorman Lower.
Motion 40: Cllr Emer Costello Amend Figure 4.30, Chapter 4 and Figure 5.18, Chapter 5. Change in wording of Manager's Recommendation for Motion 40 as Agreed at Special Meeting of Council of 25 th July 2011 in relation to Motion 40. (see Motion 32 above)	Reduce the maximum level of car spaces shown on the car park immediately north of the Lower House from 'Max 410 Spaces' to 'Max 200 Spaces'.

Transportation, Movement and Mobility (Continue ...)	
Motion 40: Cllr Emer Costello Insert New Text at End of Para 3, Section 5.4.2. (see Motions 33 and 39 above)	In addition, traffic using the two car parks on the south-eastern part of the site will be required through signage and junction build out to exit to the north/south as appropriate, to discourage traffic exiting / entering the car parks passing along the most narrow part of the road of Grangegorman Lower.
Motion 42: Cllrs Nial Ring and Cieran Perry Insert New Text at End of Para 3, Section 5.4.2. (see Motions 33, 39 and 40 above)	In addition, traffic using the two car parks on the south-eastern part of the site will be required through signage and junction build out to exit to the north/south as appropriate, to discourage traffic exiting / entering the car parks passing along the most narrow part of the road of Grangegorman Lower.
Submissions 7, 11, 14, 16, 17, 20, 23, 24, 27, 29, 31, 32, 34 and 35: Insert Text, Section 5.4.5, Para 3, P. 23 Chapter 5.	It is intended that all individual stakeholders will appoint a Mobility Management Coordinator (MMC) who will promote all aspects of the Mobility Management Plan (MMP) within their organisation. The GDA will appoint an overall MMC (OMMC) for Grangegorman who will liaise with individual MMCs and ensure that MMPs for all stakeholders are being developed in an appropriate and co-ordinated manner which will benefit the area as a whole. The overall co-ordinator will be appointed prior to any occupation of the site.
Built Heritage	
Motion 43: Cllrs Nial Ring and Cieran Perry Insert New Text in Section 4.7, Subsection Cultural & Arts Spaces at End of Para 2, P. 55 / Ch 4.	In addition, the rich cultural and social heritage of the site will be recorded and displayed in the library buildings, or any other building as appropriate. Other mechanisms to record and reflect the heritage of the site will be explored, for example, through signage, placenames, public art and architectural design details.
Submission 12: Insert New Text at End of Section 6.5, P.12 Ch 6.	The dismantling of heritage buildings is generally discouraged and re-use of the salvaged items must be carefully considered to ensure no confusion arises regarding their provenance.
Submissions 21, 22, 33, 34 and 35: Wording of Definitions as per Manager's Addendum Report.	Insert a list of useful reference documents relating to the built heritage and history of the site to the draft Planning Scheme. Insert definitions of curtilage, attendant grounds and setting of Protected Structures to the draft Planning Scheme.
As per Manager's Report on Submissions, Managers Further Recommendation: Chapter 6 Conservation and Cultural Heritage, Section 6.8 Building Project Design Briefs, P.18, Ch 6. Insert Text at End of Section.	Such briefs will where relevant form part of the Design Procurement Strategy referred to in Section 8.2.2.

Built Heritage (Continue ...)	
As per Manager's Report on Submissions, Managers Further Recommendation: Section 6.7.2 Interventions and Additions, P 15, Ch 6. Insert Text at End of First Sentence.	Due regard should be had in all applications for development within the curtilage of a protected structure to current or subsequent Government Guidance and to the current City Development Plan policies and objectives contained therein regarding additions or works within the curtilage of protected structures.
As per Manager's Report on Submissions, Managers Further Recommendation: Section Site Layout and Form, Column 2 Subheading Protected Structures Amend Text Final Sentence in Box.	Internal modifications to the Protected structures to accommodate a change of use will be permitted only if considered by Dublin City Council to be a change that can be undertaken in an appropriate and respectful manner.
Infrastructure Services and Flooding	
Submissions 23, 24, 29 and 30: Amend Table A2.1 Subsection "Environment, Energy, Sustainability" 2 nd Sentence.	All planning applications will include proposals to comply with SUDS objectives detailed in Section 7 including maximising opportunities for rainwater and grey water use in buildings.
Submissions 23, 24, 29 and 30: Amend Table A2.1 subsection "Environment, Energy, Sustainability" 3 rd Sentence.	Building design will utilise best practice sustainable building technologies and green roofs and/or solar panels will be encouraged where appropriate.
Submissions 23, 24, 29 and 30: Amend Text Section 5.4.4 Car Parking, Chapter 5, P.22.	Provision will be made within the Grangegorman site for electric or battery operated vehicles with charging points and measures will be explored to facilitate the roll-out of charging infrastructure for such vehicles, including advance planning for the suitable layout and location of facilities for electric or battery operated transport. Provision will also be made for an appropriate quantum of parking spaces for disabled motorists in accordance with national policy.
Phasing and Implementation	
Submission 13: Insert New Text, Section 8.1.5.7, P.8 Chapter 8, Para 2 after First Sentence.	Depending on the delivery and phasing strategy for the overall site, the GDA may develop interim surface car parking on / near underground / undercroft parking locations. The GDA will ensure that with any such interim parking, that the car park access arrangements do not compromise the scheme's overall commitment to accessibility by walking and cycling or the achievement of a high quality public realm within the site and the environs of the site.

Phasing and Implementation (Continue ...)	
Motion 45: Cllrs Nial Ring and Cieran Perry As per Manager's Recommendation on Submissions: Insert Text as New Paragraph at end of Section 8.2.3.3.	A project traffic management plan for all stages of construction traffic will be prepared in accordance with the requirements of Dublin City Council before demolition, excavation and construction commences. The plan will detail access arrangements for labour, plant and materials and shall indicate the locations of plant and machine compounds.
Motion 46: Cllr Emer Costello Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8 (see Motions 5, 27, 28, 29 and 39 above)	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine.
Motion 46: Cllr Emer Costello Motion 48: Cllrs Ray McAdam and Mary O'Shea Insert New Text as Last Bullet Point in Section 8.2.1, P. 7 / Ch 8 (see Motions 5, 27, 28, 29, 39 and 46 above) And Insert additional text at end.	The GDA will assist DIT in creating a Campus Liaison Committee. This committee will build on DIT's existing relationship with the community and will assist in the campus community interface. It will be made up of DIT staff, Student Union members, the HSE, local community representatives, local schools, community organisations, the Gardaí and others as issues determine. The Committee will be established at the first phase of construction to facilitate input by all stakeholders into issues regarding management of construction.
As per Manager's Report on Submissions, Managers Further Recommendation: Chapter 8 Phasing and Implementation, Table 8.1 Summary Phasing Table, P. 4, Ch 8, Insert New Bullet Point in Step 4 Occupation under Column Heading 'Note'.	Attractive and secure temporary screening arrangements of as yet undeveloped sites within the SDZ lands shall be agreed with and installed prior to occupation of the site.

Phasing and Implementation (Continue ...)	
As per Manager's Report on Submissions, Managers Further Recommendation: Chapter 8: Phasing and Implementation Section 8.1.5.3. Insert New Text, Chapter 8, Section 8.1.5.3, P.5 After Second Last Para	The first phase, which will require both works to upgrade infrastructure, and the lodgement of a planning application for the public realm, will need to address in detail the provision and management of water for the SDZ site. The first phase shall include with the first planning application a full surface water management plan incorporating the management of flood risk, which will have a bearing on the detail of the form and layout of the public realm. The public realm application shall include detailed design of the proposed water main and will be required to be delivered and commissioned prior to completion of the first phase of buildings on the SDZ site. Detailed design of the proposed surface water and foul drainage infrastructure: the design must demonstrate how this infrastructure will not cause any deterioration through increase in CSO discharges to existing water quality in River Liffey. While it is recognised that the SDZ site is located with a low risk area for flooding, it is appropriate that the surface water management strategy incorporates a site specific detailed flood risk assessment as defined by and in accordance with the DoEHLG and OPW Guidance, "The Planning System and Flood Risk Management- Guidelines for Planning Authorities", and the associated Technical Appendices.
Process	
Managers Recommendation incl. Recommendation as per Manager's Addendum Report: Section 4.7.2 Distribution of Principal Land Uses, P52, Ch 4. Insert Text as New Para at End of Subsection Residential (Student and Private).	All residential developments will comply with the relevant policies, objectives and standards of the Dublin City Development Plan. The student accommodation will be oriented / designed to reduce the impact of possible noise or disturbance to adjoining existing residential areas.
As per Manager's Report on Submissions, Managers Further Recommendation: Appendix 2: DPS Compliance Matrix, Table A2.1 Draft Planning Scheme Compliance Matrix, Appendix 2 P. 3, Section Quantum of Development, Column 2 Subheading Quantum of Development. Insert New Text at End.	Each application for new buildings shall include a schedule detailing the quantum of development already permitted and how the proposed development complies with Table 4.1
Managers Recommendation as per Manager's Addendum Report: Insert Cross-Reference to Definitions in Section 6.7.2 at End of Para 1.	See also definitions of the curtilage, attendant grounds and setting of protected structures in Appendix 3A.

Process (Continue ...)	
Managers Recommendation as per Manager's Addendum Report: Add additional text Definitions under new sub-heading in Appendix 3A / P.3, After Para 5 in Section 'Curtilage, Attendant Grounds and Setting	The notion of 'curtilage' is taken to be the parcel of land immediately associated with a protected structure and which is (or was) in use for the purposes of the structure. It is defined on a case-by-case basis by the Planning Authority following guidance set out in The Architectural Heritage Protection Guidelines for Planning Authorities (Section 13.1.5). The "attendant grounds" of a structure is that which forms an intrinsic part of the setting and may include land outside the curtilage of the structure. The attendant grounds could include land or features which were originally within the curtilage of the structure and which through change of ownership or subdivision of the site have been separated from the building. They might potentially include land historically associated with that structure. The 'setting' of a protected structure uses the definition developed by English Heritage as: "Setting' is an established concept that relates to the surroundings in which a place is experienced, its local context, embracing present and past relationships to the adjacent landscape. Definition of the setting of a significant place will normally be guided by the extent to which a material change within it could affect (enhance or diminish) the place's significance"
Strategic Environmental Assessment	
Submission 26: Re-title Appendix 1 as Chapter 9	Re-title Appendix 1 as Chapter 9, and revise all relevant references.
Submission 26: Insert Text as Bullet Point to end of Chapter 7, P.7, Section 7.1.7 after Para on Permeable Surfaces.	Design and construction planning shall incorporate suitable and best practice actions to reduce the risk of groundwater pollution and meet the requirements of the Groundwater Directives.
Submission 26: Insert Text as New Bullet Point in Section 8.2.1 Introduction.	The GDA shall regularly monitor noise levels during construction and establish and communicate with the adjoining communities a point of contact for complaints regarding noise. Internal project management structures shall be in place to ensure the construction noise is managed and limited to acceptable and appropriate levels.
Submission 26: Insert Text to Appendix 1, Section 1.2.9 Monitoring, at End of Para 1 & End of Para 2 Section 10.0 Monitoring.	A non-technical annual report summarising the results of the monitoring undertaken as part of the SEA will be prepared and published by the GDA and made available to the public.

On adoption of the *Grangegorman Planning Scheme 2011* and accompanying SEA Environmental Report, the Dublin City Council took into account the findings of the SEA Environmental Report.

4.0 ALTERNATIVES AND THE PLANNING SCHEME

4.1 Introduction

The *Grangegorman Planning Scheme 2011* is informed in detail by the *Grangegorman Strategic Plan 2011*. As such, this section of the *SEA Statement details* the alternative scenarios assessed as part of the *Grangegorman Strategic Plan 2011*.

The environmental consequences of three “reasonable alternatives taking into account the objectives and geographical scope of the alternatives selected” were examined.

The three alternatives described are as follows:

1. Refurbishment and reuse of buildings currently on site, to facilitate the limited transfer of some of DIT’s functions to the Grangegorman Site;
2. Redevelopment of the Grangegorman Site to provide a new city Quarter incorporating DIT and HSE accommodation in accordance with their briefs and in addition the provision of community and recreational facilities open to the local population; and
3. Intensive redevelopment of the site to include DIT accommodation and HSE accommodation in accordance with their current briefs and in addition the provision of residential accommodation for 3,000 people in a high density, medium to high rise scheme.

4.1.1 Alternative 1: Refurbishment and reuse of buildings on site, to facilitate the limited transfer of some of DIT’s functions to the Grangegorman Site

This initial scenario would provide for the refurbishment of, and minor amendments and extensions to the existing buildings located on the Grangegorman site to incorporate limited educational and health facilities on the campus. This would involve the upgrading of the existing buildings, both protected structures and buildings with no protection status, and retrofitting these buildings to meet some of the needs of DIT and HSE. The following are the key elements of this development strategy:

- HSE to continue the current level of service on site with a limited potential to expand;
- Transfer of a small amount of DIT’s existing educational facilities to the site;
- Limited potential for sports facilities;
- Existing single site entrance with limited permeability;
- Low intensity of development not conducive to the development of public transport facilities and as such, due to extensive areas of surface car parking on the site, will facilitate the use of the private car as the primary form of transport;
- It is unlikely that existing buildings could be refurbished to the standards required in terms of patient experience, maintenance, clinical services, and energy consumption and sustainability.
- Additional capital and energy costs of renovating the current accommodation to allow it to meet fire, health and safety standards would be higher than that of the new development option;
- Develop and improve the facilities to enable a healthcare model to be implemented in line with best practices;
- Renovation of the existing mental healthcare facilities would be on a ward by ward basis;
- Not sufficient scope to renovate and redevelop the current accommodation to allow it to meet the strategic objectives of the project;

- The refurbished accommodation may not provide the optimum facilities for mental healthcare patients;
- Ward by ward refurbishment and redevelopment would result in prolonged disturbance to residents of the site and HSE administrative employees;
- Heritage listing of some of the occupied buildings places additional limitations and cost on the refurbishment.

4.1.2 Alternative 2: Redevelopment of the Grangegorman Site to provide a new City Quarter incorporating DIT and HSE accommodation in accordance with their briefs and in addition the provision of community facilities

Alternative 2 is to provide for the creation of a new urban quarter within Dublin’s north inner city which integrates a state of the art higher education campus for DIT with equally well designed health facilities for the HSE to meet the needs of a large urban population. Alternative 2 is the only option that allows DIT to fully implement its Mission Plan and achieve its objectives with respect to:

- Creating a consistent quality environment for all its students and staff;
- Enable DIT to grow its activity across learning and teaching, research and technology transfer to the level that it requires;
- Broadening the student base of DIT to increase student numbers and greater representation from areas such as mature students, second chance education, and students from economically disadvantaged backgrounds;
- Providing opportunities to develop DIT’s international student population in particular by being able to provide campus accommodation;
- Capitalising on the significant time and resources expended to date in creating a modular pedagogy which underpins a student-centred ethos by promoting access and participation, e-learning, distance learning, part-time education and CPD. This will lead to enhanced curriculum reform;
- Bring together its research activity and through cross disciplinary interaction develop this activity;
- Facilitating the clustering of activity currently spread across DIT such as a single science provision in terms of laboratories, a single ICT provision, co-location of related areas that are currently separated such as printing and digital media, food science and nutrition etc.;
- Bringing resources together to cluster and share around such areas as student services and administration and in the process improving service with similar levels of resources;
- Promoting operational efficiency through removing duplication in areas such as libraries, administration and modular provision;
- Enhance technology transfer by bringing all industry- facing activities together and co-locating these with academic, research and science park activities;
- Creating a better experience for students by enhancing the learning environment but also by providing spaces where interaction and dialogue can be promoted while creating sporting and recreational facilities and student accommodation on campus;
- Enabling DIT to put in place facilities that will assist in creating 3rd stream income that will encourage greater levels of self-funding in the future;
- Drawing from across the DIT facilities and resources in the arts and cultural areas in order to create a real cultural centre to underpin its educational activities while supporting the wider community;
- Creating a real resource to support the Dublin region and the north inner city in particular and in the process contributing to very significant urban regeneration;
- Would provide DIT with sufficient capacity to develop all of the non-core facilities necessary to allow DIT to fulfil its full potential;

- This proposal embraces the city around the site through the creation of new entrances and links to the surrounding area opening up a previously walled in space to provide permeability and access to all;
- The new quarter will contain a network of green spaces and paths together with state of the art indoor and outdoor sports facilities;
- New primary school city branch library;
- Retailing facilities such as coffee shops, bookshops, retail outlets and student accommodation are interwoven throughout the site to create an animated quarter and living campus; and
- A major 'Cultural Hub' will also be created to build on DIT's activities in the visual and performing arts, and in the process create a destination in its own right.

4.1.3 Alternative 3: Intensive redevelopment of the site to include DIT accommodation and HSE accommodation in accordance with their current briefs and in addition the provision of residential accommodation for 3,000 people in a high density, medium to high rise scheme

Alternative 3 would involve the preparation of a *Planning Scheme* which will provide accommodation for all the facilities outlined as required for DIT and HSE in their briefs to the GDA and provided for in Alternative 2. However, in addition to this, it is proposed to intensify development on the site and incorporate a significant residential element making provision for a population of 3,000 people together with the student and social accommodation provided for in Alternative 2.

4.2 Evaluation of the Alternative Scenarios

This section summarises the evaluation of the Alternative Scenarios which is found in Section 7 of the SEA Environmental Report. Alternatives were assessed against each environmental objective and summarised in Table 3 under 2.3 Early Identification and Evaluation of Alternatives, of this SEA Statement, as well as Table 7.1 set out in Chapter 7 of the SEA Environmental Report.

4.2.1 Alternative 1: Refurbishment and reuse of buildings on site, to facilitate the limited transfer of some of DIT's functions to the Grangegorman Site

Biodiversity, Fauna and Flora

- Preservation of much of the existing flora (including all sound trees) and fauna on the Grangegorman site;
- Invasive plant species will also be retained and may spread; and
- Implications for any bat species due to refurbishment and restore of all buildings.

Population and Human Health

- No changes in their overall economic standing or quality of life; and
- The Grangegorman site will remain generally inaccessible to the local population.

Landscape

- Overall positive impact with all structures on site being retained.

Air Quality

- Increase in traffic movements to and from the Grangegorman site due to not achieving critical mass justifying the introduction of new public transport facilities.

Climatic Factors

- A neutral impact on climate with no significant new energy demands; and
- Refurbishment of the existing buildings will make it hard to achieve modern energy conservation standards.

Cultural Heritage – Architecture

- Overall positive impact as all existing structures and buildings on site will be retained in their current form; and
- Positive impact on the architectural heritage where few new buildings will be developed provided that all restoration and retrofitting of buildings is carried out in accordance with architectural conservation guidelines.

Cultural Heritage - Archaeological Heritage

- Significant scope to conserve and retain all archaeological material on site; and
- Little disturbance of previously undiscovered archaeological remains.

Material Assets - Infrastructure

- Scale of development will not justify the cost of providing a separate foul and surface water sewerage system; and
- A net increase in the volume of waste water entering the treatment system.

4.2.2 Alternative 2: Redevelopment of the Grangegorman Site to provide a new City Quarter incorporating DIT and HSE accommodation in accordance with their briefs and in addition the provision of community facilities

Biodiversity, Fauna and Flora

- Improve the ecology and biodiversity on site including the removal of the invasive plant species.

Population and Human Health

- New student population will involve a period of adaption for the local population;
- Opportunity for local employment and complementary economic activities; and
- Substantial new and additional community services (i.e. primary school, library, open space, etc.).

Landscape

- New urban landscape; and
- Preserving a substantial area of existing quality landscaped open space.

Air Quality

- Increased demand for public transport;
- Achieving critical mass justifying the introduction of new public transport facilities; and
- Transport modal shift from private car to public transport.

Climatic Factors

- Sustainable approach to energy use; and
- Reduction in the level of greenhouse gas emissions.

Cultural Heritage – Architecture

- Drawn or photographic recording and possible reuse of elements of materials;
- Preservation, restoration and reuse of buildings of architectural merit;
- External building lines and maximum and minimum heights have been determined; and
- Set of criteria developed to avoid serious negative visual impact of development.

Cultural Heritage - Archaeological Heritage

- Appropriate mitigation measures are imposed in accordance with best practice in this area;
- Potential for some impacts on any previously undiscovered archaeological remains on site; and
- Archaeological remains found on the site during the redevelopment will be appropriately dealt with.

Material Assets - Infrastructure

- Separate foul and surface water sewerage system;
- Conservation of water;
- Significant reduction in demand for wastewater volume treatment; and
- Surface water volume removed from the treatment plant.

4.2.3 Alternative 3: Intensive redevelopment of the site to include DIT accommodation and HSE accommodation in accordance with their current briefs and in addition the provision of residential accommodation for 3,000 people in a high density, medium to high rise scheme

Biodiversity, Fauna and Flora

- Removal of most of the green space and many of the mature trees.

Population and Human Health

- Increase in the economic profile of the local population;
- Substantial opportunity for local employment and complementary economic activities; and
- Reduction in the quality of life as the growth in residential and office accommodation would not be matched with an appropriate compensating public space/amenity provision.

Landscape

- Introduction of higher rise, and high density development; and
- Loss of the open space currently on site.

Air Quality

- Significant residential element which will demand additional car parking facilities; and
- Large demand for public transport resulting in overcrowding; and
- Demand for additional public transport resulting in negative impact on air quality.

Climatic Factors

- High demand on energy; and
- Design constraints due to spatial orientation to maximise energy efficiency.

Cultural Heritage – Architecture

- Construction of a residential scheme, for commercial purposes;
- Accommodation for up to 3,000 people in addition to the accommodation requirements of the HSE and DIT; and
- High density, high rise approach with little potential to offset negative impacts on the architectural heritage.

Cultural Heritage - Archaeological Heritage

- Additional excavation of the site;
- Additional basement car parking;
- Majority of the site footprint would be developed; and
- Mitigation measures are imposed in accordance with best practice in this area.

Material Assets - Infrastructure

- Separate foul and surface water sewerage system;
- Conservation of water;
- Higher volumes of residential waste water increasing demand load for wastewater volume treatment; and
- Surface water volume removed from the treatment plant.

4.3 Evaluation Against Strategic Environmental Objectives

Table 7.1 of the Environmental Report sets out the evaluation of the alternative scenarios against the Strategic Environmental Objectives. Table 6 below represents a summary of the findings and it is apparent from this assessment that Alternative 2 has an overall positive outcome in terms of the environmental assessment carried out as part of this SEA, in particular with respect to the positive impacts on the socio-economic profile and quality of life for local residents and the national community.

Table 6: Summary of Planning Scheme Alternatives Evaluated Against Strategic Environmental Objectives

Alternative	Very Positive	Positive	Neutral	Negative	Very Negative	Uncertain
	++	+	0	-	--	?
1. Low Intensity Development)	0	5	3	3	1	0
2. Medium Intensity Development plus Community Facilities	2	3	7	0	0	0
3. High Intensity Development with Commercial Gain	1	1	1	6	2	0

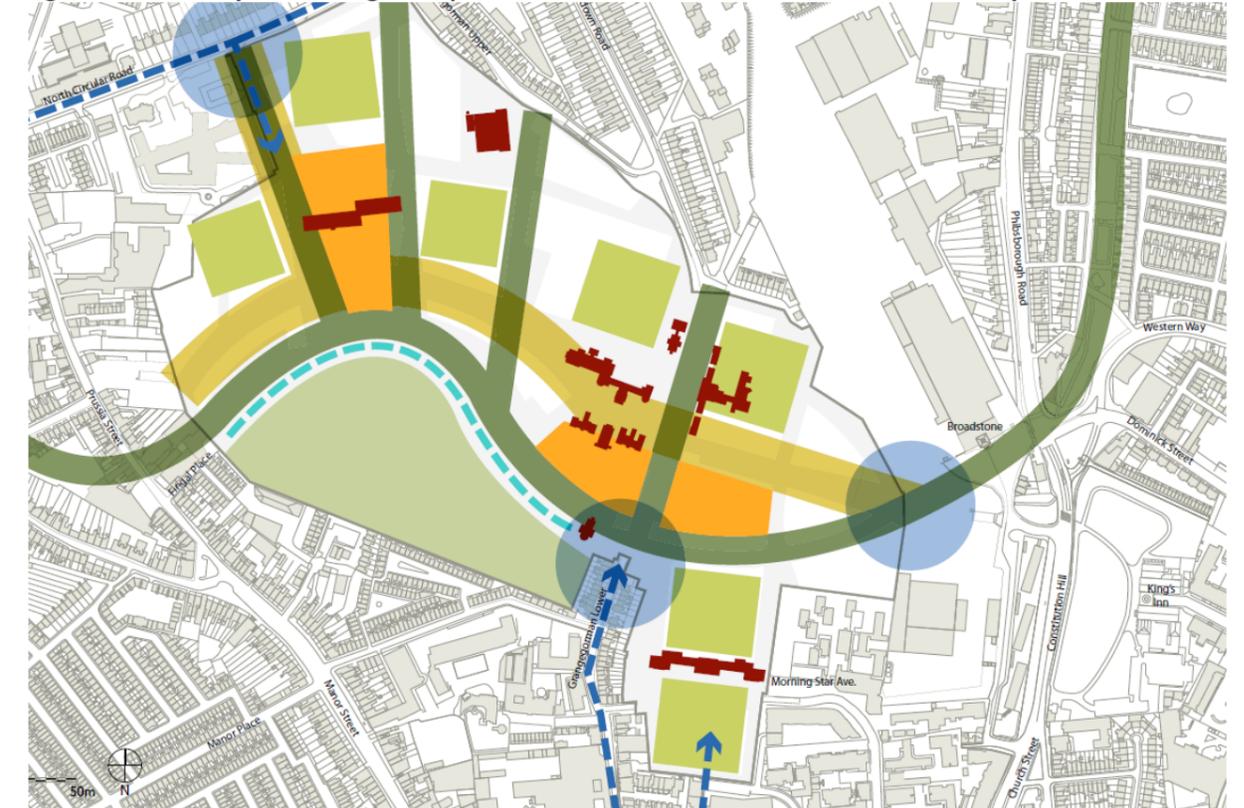
4.4 Alternative 2 as preferred alternative

A total of three alternative scenarios, relating generally to variations to the Masterplan element of the Strategic Plan, were evaluated, having regard, inter alia to their environmental consequences measured against the Strategic Environmental Objectives as described above and in Chapter 7 of the Environmental Report. They were identified and developed at an early stage through consideration of GDA's statutory requirements under the *Grangegorman Development Agency Act, 2005*.

The Alternative scenario which emerged from the Strategic Plan preparation process and adopted as the *Grangegorman Strategic Plan 2011* by the Grangegorman Development Agency Board is Alternative 2 (Medium Intensity Development plus Community Facilities).

It is apparent from the assessment that Alternative 2 has an overall positive outcome in terms of the environmental assessment carried out as part of this SEA and in particular with respect to the positive impacts on the socio-economic profile and quality of life for local residents and the national community. As such this option, when subjected to appropriate mitigation measures, has been identified as the preferred development scenario for Grangegorman and informed the development proposals contained in the *Grangegorman Draft Planning Scheme*.

Figure 1: Key Structuring Principles which Inform the Overall Urban Form and Layout



Source: *Grangegorman Planning Scheme 2011*

Alternative 2 was selected by the SEA Team and Planning Scheme Team to be developed into the *Grangegorman Draft Planning Scheme 2011* and adopted by the Dublin City Council as the *Grangegorman Planning Scheme 2011*, having regard to both:

- The environmental effects which were identified by the Strategic Environmental Assessment; and
- Planning - which includes social, economic, physical and cultural effects.

Table 7: Overview of Maximum Quantum of Development within Planning Scheme

Development Type	Approximate Overall Quantum (Sq m)	Approximate Quantum Without Significant Infrastructure Upgrades	Deliverable Transport
Healthcare and Related	42,000	27,000	
Educational and Related	270,000	203,000	
Public Bodies (School, Library, etc)	8,000	8,000	
Mixed Use	60,000	0	
Total	380,000	238,000	

Source: *Grangegorman Planning Scheme 2011*

5.0 MONITORING MEASURES

5.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of the *Grangegorman Planning Scheme 2011* are monitored. SEA Monitoring allows the actual impacts of the strategic action to be tested against those that were predicted, major problems to be identified and dealt with, and environment/ sustainability baseline information to be gathered for future strategic actions. It helps to ensure that the proposed mitigation measures are carried out, and facilitates the identification of unforeseen adverse effects at early stage, permitting appropriate remedial action in a timely fashion.

In addition to this, monitoring can also play an important role in assessing whether the *Grangegorman Planning Scheme 2011* is achieving its environmental objectives and targets, whether these need to be re-examined, and whether the proposed mitigation measures are being implemented.

5.2 Indicators and Targets

Monitoring is based around the indicators which were developed through collaboration between the members of the SEA Team earlier in the SEA Process as detailed in Chapter 5 of the SEA Environmental Report. These '*Indicators*' act as representative examples of environmental data and indicators allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives used in the evaluation.

Focus will be given to indicators which are relevant to the likely significant environmental effects of implementing the *Grangegorman Planning Scheme 2011* and existing monitoring arrangements will be used in order to monitor the selected indicators. '*Targets*' have been established for each of the objectives which set thresholds and limits for each environmental receptor.

Additional monitoring programme proposed by the Agreed Manager's Recommendations and Agreed Members Motions (as set out in Addendum A to the Strategic Environmental Assessment Environmental Report) is to be implemented by the Grangegorman Development Agency in conjunction with the implementation of the *Grangegorman Planning Scheme 2011*. The Grangegorman Development Agency will be responsible for collating the monitoring data and will be responsible for preparing a Monitoring Report and implementing any corrective measures where required.

Table 5 below shows the indicators and targets which have been selected with regard to the monitoring of the *Grangegorman Planning Scheme 2011*. These are also outline in Table 10.1 of the SEA Environmental Report and in Addendum A to the Strategic Environmental Assessment Environmental Report.

5.3 Source of Data

The Monitoring Programme shall highlight instances where environmental indicators have become redundant and are no longer required or where gaps in information arise and additional Indicators are required. All data proposed in the Indicators are readily available and will be collected as part of the process of implementing the *Grangegorman Planning Scheme 2011* in any case. As such it is not proposed to impose excessive data collection which is unnecessary to achieve an environmentally sound Planning Scheme.

Existing monitoring sources exist for each of the indicators and include those maintained by Grangegorman Development Agency, Dublin City Council and other relevant authorities including the EPA, National Parks and Wildlife Services, CSO, etc.

Where significant adverse environmental effects, including positive, negative, cumulative and indirect, are likely to occur as a result of the implementation of strategies, plans and programmes outlined in the *Grangegorman Planning Scheme 2011*, such should be identified, recorded and should feed into the monitoring evaluation.

5.4 Reporting

An annual monitoring evaluation report on the effects of implementing the *Grangegorman Planning Scheme 2011* will be prepared by the Grangegorman Development Agency and made available to the public, outlining the progress achieved in securing the objectives as set out in the *Grangegorman Planning Scheme 2011*.

5.5 Responsibility

Grangegorman Development Agency is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action. It is recommended that a Steering Committee be established within the Agency to oversee the monitoring process.

Table 5: Summary of Proposed Monitoring Programme for Grangegorman Planning Scheme 2011

Environmental Objectives	What to Monitor (Indicator)	Source of Data	Frequency of Monitoring	Targets
Protect and enhance biodiversity, flora and fauna on the Grangegorman Site.	Areas of new ecological linked green areas within the Grangegorman site.	GDA	On-going	Connecting all areas physical or visually and the management of an area of green space in a manner which promotes a diversity of interdependent habitats and species.
	Eradication of invasive alien species (i.e. giant hogweed and Japanese knotweed) currently on site and avoidance of the introduction of other invasive species to the Grangegorman Site.	GDA	Every Two Years	Removal of all alien species from the site and the additional planting of only native species suitable to the Planning Scheme area.
	Identified habitats of protected species and in particular bats on the SDZ lands.	GDA/DCC /NPWS	Annually	Minimise interference with these habitats
	For key buildings that are particularly suitable for bat roosting, applications for works to these will include a recent bat survey. The results of these surveys will be included in the annual monitoring report as part of the implementation of the SEA.	GDA/DCC /NPWS	Annually	Up to date information on the identification and location of all bat species.

Environmental Objectives	What to Monitor (Indicator)	Source of Data	Frequency of Monitoring	Targets
Protect and enhance biodiversity, flora and fauna on the Grangegorman Site. (continue ...)	Identification of habitats of protected species and in particular bats and minimise interference with these habitats.	GDA	Either Annually or prior to development	Bat surveys carried out prior to development on site and where roosting sites are impacted on, alternative appropriate roosting sites, such as bat boxes, to be provided.
Enhance the overall socio economic profile and economic attractiveness of the Grangegorman Development Area.	Numbers employed on the site at construction stage.	Central Statistics Office / GDA / Consult Forums	Annually	Provide improved employment opportunities during both the construction and operational phases of the development.
	Numbers employed on the site at operational stage.			Increased economic activity within the Grangegorman Area.
	Numbers of local residents employed on the site both at construction and operational stage.	GDA/ Public	Annually	Impacts of the strategic action against those that were predicted.

Environmental Objectives	What to Monitor (Indicator)	Source of Data	Frequency of Monitoring	Targets
Improve the quality of life for the community based on the provision of accessible employment, recreational, educational, medical and other facilities.	Educational facilities and floorspace developed.	Central Statistics Office / GDA / Consult Forums	Annually	Increase undergraduate and post graduate student numbers at DIT.
	Healthcare facilities and floorspace developed.			Full access by community to facilities and services offered on site.
	Community access to medical, educational and recreational facilities.			
	Noise levels during construction and establish and communicate with the adjoining communities a point of contact for complaints regarding noise.	GDA/EPA /Public/ DCC	Ongoing	Construction noise is managed and limited to acceptable and appropriate levels
Provide, maintain and improve access to public open space.	Area of public open space provided in the redevelopment of Grangegorman. Provision of areas of public open space accessible to all.	GDA	On-going	The provision of quality open space accessible to all.
Preserve and enhance the natural and historic landscape features within the Grangegorman site.	Area of natural landscape retained and number of Protected Structures restored.	GDA	On-going	The preservation and integration of the protected structures ensuring that they are re-used, contribute to the generation of spaces and places in terms of physical layout and character.

Environmental Objectives	What to Monitor (Indicator)	Source of Data	Frequency of Monitoring	Targets
Retention of existing good quality trees.	Number or percentage of existing good quality trees retained.	GDA	On-going	Retention of good quality existing trees as outlined in the Planning Scheme, including transplanting of existing good quality trees to other suitable locations around the site.
Limit adverse impacts on air quality and in particular traffic generated emissions.	Provision of cycling/walking infrastructure.	GDA	On-going	Air quality should not exceed the limit values provided in the <i>Air Quality Standards Regulations</i> .
	Ready pedestrian access to public transport network.	GDA	On-going	Total pedestrian priority throughout the Planning Scheme area, linked to external public permeability.
	Development of a Mobility Management Plan to restrict car use.	GDA	Annually	Minimisation of private car dependency.
	No. of car parking spaces provided.	GDA	On-going	1,150 no. car parking will be provided mainly underground/undercroft with limited provision for surface parking as indicated.
	The roll-out of charging infrastructure for electric or battery operated vehicles.	GDA	Annually	In accordance with national policy.

Environmental Objectives	What to Monitor (Indicator)	Source of Data	Frequency of Monitoring	Targets
Limit adverse impacts on climate through use of sustainable energy sources.	Preparation of an Energy management regime for the site which will incorporate renewable energies. Central energy centre for the site (including a CHP plant) may be developed.	GDA	Annually	Optimum building energy ratings to be achieved for residential and non-residential units.
Protect, conserve and enhance the architectural heritage on the Grangegorman site.	Numbers of protected structures retained on site.	GDA/DCC	On-going	No adverse impact on all protected structures on site.
	Conservation Plan prepared for each protected structure and their curtilage.	GDA	On-going	Inclusion of Conservation Strategy in Planning applications with all associated details as set out in Planning Scheme.
	The loss of important or decorative elements, e.g. the stone window surrounds of the Former Nurses Home, this will only be permitted when the items have been recorded prior to dismantling.	GDA/DCC /DoAHG	On-going	Future use in close proximity to the original location identified and specified. Tag and store these salvaged materials on site.
	The deterioration of the building fabric of protected structures.	GDA/DCC /DoAHG	On-going	Identification of essential remedial works to protected structures on site, including a timeline for this action.

Environmental Objectives	What to Monitor (Indicator)	Source of Data	Frequency of Monitoring	Targets
Identify, protect and conserve or document the archaeological heritage on the Grangegorman site in accordance with Best Practice Principles.	Number of archaeological features identified.	GDA/DCC	Annually	Archaeological features identified on the site to be preserved where possible or appropriately documented where removal is required in accordance with best practice.
	Numbers of archaeological features preserved.			
	Numbers of archaeological features recorded.			
Provision of separate foul and surface water drainage to service the Grangegorman Area.	Construction of new surface water sewer connecting with the closest existing surface water line at Smithfield Plaza.	GDA/DCC	On-going	Establish of appropriate surface water drainage system for separate foul and surface water drainage resulting in a subsequent "net gain" effect on Dublin City Council's waste water treatment system.
Provision for the reuse, recycling and conservation of water.	Provision of grey water recycling. Provision of infiltration and filtration systems, retention ponds and swales within the site.	GDA	On-going	Provision for the reuse, recycling and conservation of water Implementation of SUDS (sustainable drainage systems).
	Compliance with SUDS objectives detailed in Section 7 of the Planning Scheme.	GDA/ DCC/ OPW/ DoAHG	On-going	Maximising opportunities for rainwater and grey water use in buildings.

