



HANSFIELD SDZ PLANNING SCHEME APRIL 2006



FINGAL COUNTY COUNCIL
PLANNING DEPARTMENT

JOHN TIERNEY *County Manager*
DAVID O'CONNOR *Director of Planning and Economic Development*
JOAN CAFFREY *Senior Planner*

HANSFIELD SDZ
PLANNING SCHEME APRIL 2006

For convenience and to reduce file size the maps attached to this document have been removed and are shown as separate pdf files. As a result the map page numbers are excluded.

FINGAL COUNTY COUNCIL
PLANNING DEPARTMENT

LIST OF CONTENTS

	<i>Page</i>		<i>Page</i>	
<hr/>		<hr/>		
HANSFIELD SDZ DESIGNATION ORDER - S.I. NO. 273 OF 2001	04	5	AREAS OF DEVELOPMENT	
BACKGROUND TO THE PLANNING SCHEME	06	5.1	DISTRIBUTION OF DEVELOPMENT WITHIN THE SDZ	
1	INTRODUCTION	07	5.2	DEVELOPMENT CHARACTER AREAS
1.1	LEGISLATIVE FRAMEWORK FOR THE PLANNING SCHEME	07	5.2.1	Zone 1: Village Centre including Residential
1.1.1	SI 273 of 2001	07	5.2.2	Zone 2 – Ongar Road East
1.1.2	Planning and Development Act 2000	07	5.2.3	Zone 3 – Ongar Road West
1.1.3	Environmental Impact Assessments	07	5.2.4	Zone 4 - West
			5.2.5	Zone 5 – St. Joseph’s Hospital
			5.2.6	Zone 6 – Royal Canal Environs
			5.2.7	Zone 7 – Railway Environs
2	THE SITE	08	5.3	GENERAL RESIDENTIAL APPROACH
2.1	THE AREA		5.3.1	Design Parameters
2.1.1	General Access and Connections	08	5.3.2	Dwelling Type Mix
2.1.2	Predominant Land Uses in the Area	08	5.3.3	Residential Density
2.1.3	Conservation Considerations	08	5.3.4	Class 2 Open Space Provision
2.1.4	Infrastructural Considerations	08	5.3.5	Traffic Calming Measures
			5.3.6	Lands Adjacent To Private Properties
			5.3.7	Boundary Treatment
3	STRATEGIC FRAMEWORK FOR THE PLANNING SCHEME	10	6	RESIDENTIAL DEVELOPMENT
3.1	THE REGIONAL PLANNING GUIDELINES FOR THE GREATER DUBLIN AREA	10	6.1	RESIDENTIAL DESIGN CONCEPT
3.2	THE FINGAL COUNTY DEVELOPMENT PLAN	10	6.2	FAMILY HOUSING
3.2.1	Land Use Zoning Objectives	10	6.3	APARTMENTS
3.2.2	Specific Objectives	10	6.4	SPECIAL NEEDS HOUSING
3.2.3	Local Objectives	11	6.5	SOCIAL AND AFFORDABLE HOUSING
3.3	CASTAHEANY ACTION AREA PLAN	11	6.6	PRIVATE OPEN SPACE
3.4	CLONSILLA ACTION AREA PLAN	11	6.7	CAR PARKING STANDARDS IN RESIDENTIAL AREAS
3.5	FINGAL COUNTY COUNCIL HOUSING STRATEGY	11	6.8	URBAN DESIGN
3.6	RESIDENTIAL DENSITY: GUIDELINES FOR PLANNING AUTHORITIES	11		
3.7	DUBLIN TRANSPORTATION OFFICE ‘A PLATFORM FOR CHANGE’	11	7	AMENITIES, SERVICES AND FACILITIES FOR THE COMMUNITY
3.8	BLANCHARDSTOWN CATCHMENT AREA INTEGRATED DEVELOPMENT FRAMEWORK (BCAIDF)	11	7.1	PUBLIC OPEN SPACE
			7.1.1	Standards
4	NATURE AND EXTENT OF DEVELOPMENT	12	7.2	EDUCATIONAL REQUIREMENTS
4.1	DESIGNATION ORDER LAND USES	12	7.2.1	Primary Education
4.2	CONTEXT	12	7.2.2	Post Primary Education
4.2.1	Existing Development	12	7.2.3	Childcare Facilities
4.3	LAND BUDGET	12	7.3	ANCILLARY SHOPPING, SOCIAL AND LEISURE FACILITIES
4.4	RESIDENTIAL DENSITY AND PUBLIC TRANSPORT	14	7.3.1	Retail and Commercial Services
4.4.1	Clonsilla Train Station	14	7.3.2	Residential, Social and Community Services
4.4.2	Re-Opening Of The Dublin – Dunboyne Rail Line	14	7.3.3	Car Parking Standards In Commercial Areas
4.4.3	Ongar Road QBC (Quality Bus Corridor)	14	7.3.4	Site for Place of Worship
4.5	NEIGHBOURHOOD DESIGN APPROACH	14	7.3.5	Community Uses and Facilities
4.6	RESIDENTIAL DWELLING MIX	16	8	TRANSPORTATION
4.7	COMMUNITY AND LOCAL SERVICES	16	8.1	TRANSPORT STRATEGY
4.8	BUILDING HEIGHT AND FINISHES	16	8.2	ROADS
4.9	LANDMARK BUILDINGS	16	8.2.1	Existing Road Network

	<i>Page</i>		<i>Page</i>		<i>Page</i>
8.2.2	33	13.3	47	13.9.4	57
8.3	33	13.3.1	47	13.9.5	57
8.3.1	33	13.3.2	47		
8.3.2	33	13.3.3	48	13.10	60
8.4	35	13.3.4	48	ARCHAEOLOGY, ARCHITECTURAL HERITAGE	
8.4.1	35	13.3.5	48	& CULTURAL HERITAGE	
8.4.2	35	13.3.6	49	13.10.1	60
8.5	35	13.3.7	49	13.10.2	60
8.5.1	35			13.10.3	60
8.5.2	35	13.4	50	13.10.4	61
8.5.3	35	13.4.1	50	13.10.5	61
		13.4.2	50		
9	38	13.4.3	50	13.4	61
9.1	38	13.4.4	50	INTERACTIONS	
9.1.1	38	13.4.5	50	13.4.1	61
9.2	38			13.4.2	61
9.2.1	38	13.5	50	13.4.3	61
9.2.2	38	13.5.1	50	13.4.4	61
9.2.3	38	13.5.2	50	13.4.5	61
9.3	38	13.5.3	50	13.4.1	61
9.3.1	38	13.5.4	50	13.4.2	61
9.3.2	38	13.5.5	52		
				APPENDIX 1 - LIST OF CONTRIBUTORS	62
10	42	13.6	52	APPENDIX 2 - CONSULTATION PROCESS	63
10.1	42	13.6.1	52	REFERENCES	64
10.1.1	42	13.6.2	52		
10.1.2	42	13.6.3	52	LISTING OF TABLES	
10.1.3	43	13.6.4	52	3.1	11
10.1.4	43	13.6.5	52	3.2	11
10.1.5	43			4.1	12
10.2	43	13.7	52	4.2	16
		13.7.1	52	6.1	28
11	44	13.7.2	52	6.2	29
12	45	13.7.3	52	7.1	30
13	46	13.7.4	53		
13.1	46	13.7.5	53		
13.1.1	46				
13.1.2	46	13.8	53		
13.1.3	46	13.8.1	53		
13.2	46	13.8.2	53		
13.2.1	46	13.8.3	53		
13.2.2	47	13.8.4	53		
13.2.3	47	13.8.5	54		
13.2.4	47				
13.2.5	47	13.9	54		
		13.9.1	54		
		13.9.2	54		
		13.9.3	54		

S.I. No. 273 of 2001

Planning and Development Act 2000 (Designation of Strategic Development Zone – Hansfield, Blanchardstown) Order, 2001

The Government, pursuant to a proposal by the Minister for the Environment and Local Government, being of opinion that the development specified in paragraph 4 of this Order is of economic and social importance to the State, in exercise of the powers conferred on them by section 166 (1) of the Planning and Development Act, 2000 (No. 30 of 2000), hereby order as follows:-

This Order may be cited as the planning and Development Act, 2000 (designation of Strategic Development Zone – Hansfield, Blanchardstown) Order, 2001.

This Order shall come into operation on 1 July, 2001.

In this Order –

“*the Act*” means the Planning and Development Act, 2000;

the “*Metropolitan Area*” includes the County Borough of Dublin and the administrative counties of Dun Laoghaire – Rathdown and South Dublin, in the administrative county of Fingal, the District Electoral Divisions of the Airport, Baldoyle, Balgriffin, Blanchardstown (Abbotstown, Blakestown, Coolmine, Corduff, Delwood, Mulhuddart, Roselawn, Tyrellstown), Castleknock (Knockmaroon, Park), Donabate, Dubber, Howth, Kilsallaghan, Kinsaley, Lucan North, Malahide (East and West), Portmarnock (North and South), Sutton, Swords (Forrest, Glasmore, Lissenhall, Seatown, Village), the Ward, Turnapin, in the administrative county of Kildare, the District Electoral Divisions of Celbridge, Donaghcumper, Kilcock, Leixlip, Maynooth, Straffan, in the administrative county of Wicklow, the functional area of Bray Urban District and Rathdown No. 2 Rural District; the “*Greater Dublin Area*” means the County Borough of Dublin and the administrative counties of Dun Laoghaire-Rathdown, Fingal, Kildare, Meath, South Dublin and Wicklow.

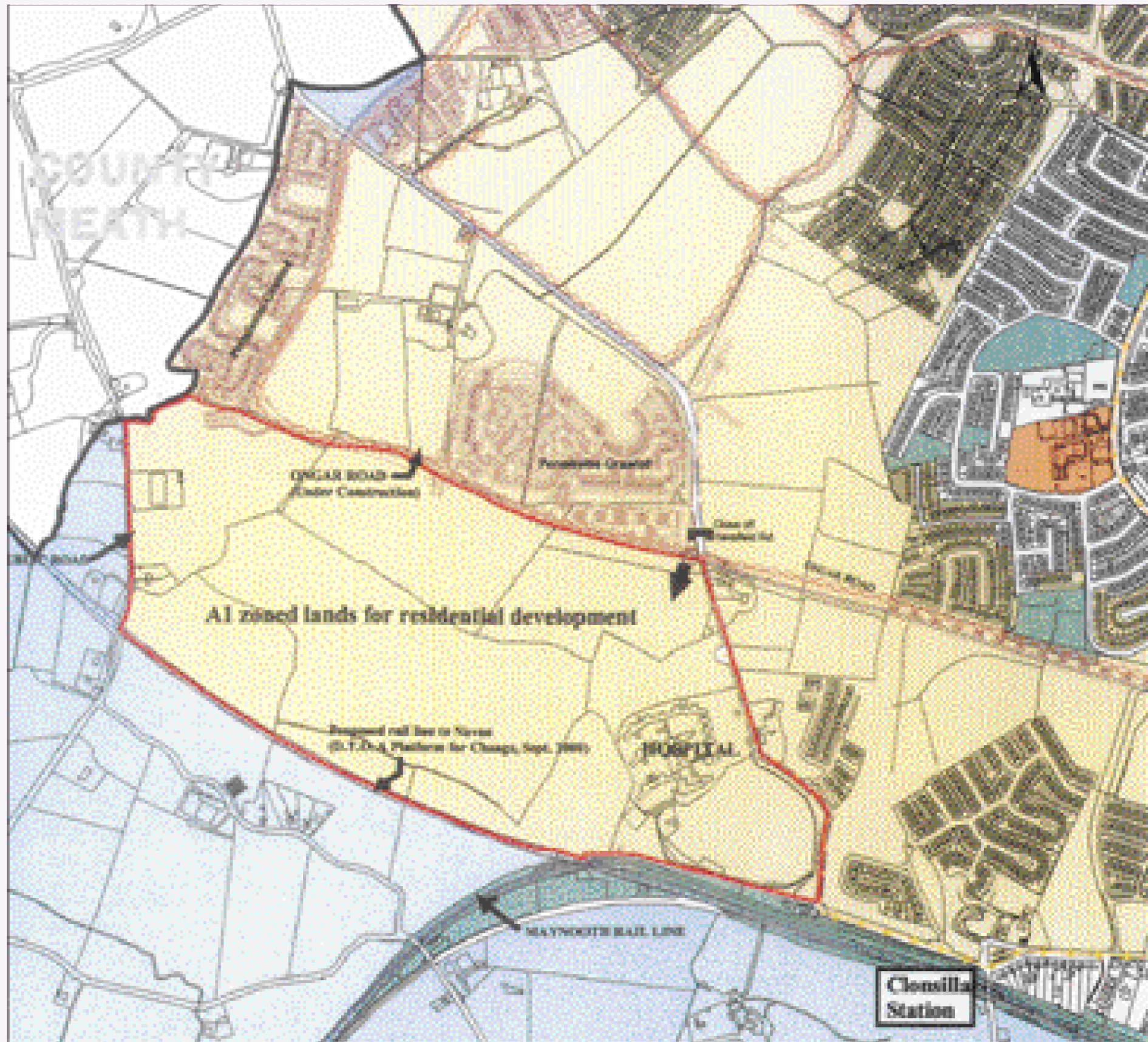
The area shown as the “*designated area*” on the map titled “*Proposed SDZ at Hansfield, Blanchardstown*” dated May 2001 and attached to this order shall be designated as a site for the establishment of a strategic development zone in accordance with the provisions of Part IX of the Act for residential development, the provision of schools and a rail halt, and the provision of community facilities as referred to in Part III of the First Schedule of the Planning and Development Act, 2000, including community and neighbourhood centres, health and childcare services.

The site referred to in paragraph 4 has been designated for the establishment of a strategic development zone for the development specified in that paragraph, taking into consideration the deficiency in the supply of housing nationally and the Greater Dublin Area particularly, the number and phasing of the housing units which would be delivered by the inclusion of the lands within a strategic development zone, the potential for comprehensive planning and development of the site due to its scale and configuration, the efficient use of public investment in infrastructural facilities, including public transport, water, waste water and roads and that development of the site will help give effect to the policies in the Strategic Planning Guidelines for the Greater Dublin Area for development within the Metropolitan Area.

The development agency specified for the purposes of section 168 of the Act is Fingal County Council.

GIVEN under the Official Seal of the Government, this 19th day of June 2001

BERTIE AHERN, T.D.,
Taoiseach



**PROPOSED SDZ at HANSFIELD,
BLANCHARDSTOWN**

 DESIGNATED AREA

Date: May 2001
Orig. No. 802-8
O.S. Sheets No. 31280 & 31290

BACKGROUND TO THE PLANNING SCHEME

- Draft Scheme approved at the Council meeting on 9th July 2003 for 1,700 to 1,900 housing units.
- An Bord Pleanála held a public oral hearing on 6th October 2003.

An Bord Pleanála wrote to the Council on 27th November 2003 requesting:

- The development of St. Joseph's Hospital and associated lands
- The under grounding of the 110Kv transmission lines
- The provision of public open space including playing fields to serve the population to be housed
- The provision of a rail station on a new spur to Dunboyne
- The phasing of development in parallel with the delivery of this infrastructure.

The Council's response on 12th March 2004 informed An Bord Pleanála that:

- St. Joseph's Hospital were not willing to participate
- The ESB 110Kv lines are a strategic power line and the ESB are unwilling to underground, as they must guarantee uninterrupted service delivery
- The public open space to serve the population to be housed will be at St. Catherine's Park
- The delivery of the necessary rail infrastructure is a central government funding decision. There is no realistic programme in place. In this context the provisions of the Draft Planning Scheme – Density and phasing are appropriate.

On 15th November 2004, An Bord Pleanála requested that "the scheme should be modified on the assumption that:

- A new rail halt will be provided within or adjacent to the SDZ lands,
- The hospital lands in the south-eastern part of the SDZ are available for development.
- A phasing programme tying the progress of development to the availability of realistic rail transport.
- The existing rail service at Clonsilla Station may be taken into account in relation to the development of lands in the eastern sector of the SDZ."
- A revised Draft Planning Scheme was presented to the Castleknock / Mulhuddart Committee and to the Council. Following a Council Meeting on the 28th February 2005, four revisions were proposed.

- A notice of the proposal to amend this Draft Planning Scheme was published.
- The Revised Draft Planning Scheme was displayed for public consultation and written observations / submissions for a six week period, 14th April 2005 to 26th May 2005.
- Within 12 weeks of the public notice, the Manager prepared a report on the submissions / observations received and submitted this report to the members of the Planning Authority for their consideration.
- After circulation of the proposal the Council members, at its meeting on 11th July 2005, having considered the representations received and having considered the report of the County Manager, resolved pursuant to Part IX of the Planning and Development Act 2000 to adopt the Revised Hansfield SDZ Planning Scheme, subject to 17 modifications.
- The Planning Authority advised An Bord Pleanála of the Council's decision on the 13th July 2005. An Bord Pleanála reopened the Oral Hearing on 9th – 10th November 2005.
- On 30th January 2006 An Bord Pleanála issued approval. The Bord stated that having regard to:
 - (a) the provisions of Part IX of the Planning and Development Act, 2000,
 - (b) Statutory Instrument number 273 of 2001 – Planning and Development Act, 2000 (Designation of Strategic Development Zone – Hansfield, Blanchardstown) Order, 2001,
 - (c) national and strategic policy as set out in the National Development Plan, 2000-2006, the National Spatial Strategy, 2002-2020, A Platform for Change Strategy, 2000-2016, the Residential Density Guidelines for Planning Authorities, 1999 and the Regional Planning Guidelines for the Greater Dublin Area, 2004-2016,
 - (d) the provisions of the Fingal Development Plan, 2005-2011, and
 - (e) the existing pattern of development in the area, it considered that, subject to the modifications set out below, the Revised Draft Planning Scheme complies with statutory requirements and provides for development of the site in accordance with the nature and scale required under the Strategic Development Zone designation and for the comprehensive planning and development of the site and would be in accordance with the proper planning and sustainable development of the area.

1 INTRODUCTION

1.1 LEGISLATIVE FRAMEWORK FOR THE PLANNING SCHEME

1.1.1 SI 273 of 2001

Strategic Development Zones are authorised by Part IX of the Planning & Development Act 2000.

On 19th June 2001 the Taoiseach specified by Order, in exercise of the powers conferred on him by Section 166 (1) of the Planning and Development Act, 2000, (hereafter known as the 'Act') the area of 'Hansfield, Blanchardstown' for which the Authority, (named in the Order as Fingal County Council) may prepare a Revised Draft Planning Scheme.

Paragraph 4 of the Order states that the SDZ may be developed:
"For residential development, the provision of schools and a rail halt and the provision of community facilities as referred to in Part III of the First Schedule of the Planning and Development Act, 2000, including community and neighbourhood centres, health and childcare services".

Paragraph 5 of the order states:
"The site has been designated for the establishment of a strategic development zone, taking into account the deficiency in the supply of housing, nationally and in the Greater Dublin Area particularly, the number and phasing of the housing units which would be developed by the inclusion of the lands within a strategic development zone, the potential for comprehensive planning and development of the site due to it's scale and configuration, the efficient use of public investment in infrastructure of facilities, including public transport, water, waste water, and roads and that development of the site will help give effect to the policies in the Strategic Planning Guidelines for the Greater Dublin Area for development within the Metropolitan Area".

1.1.2 Planning and Development Act 2000

Under Section 168 of the 'Act' a Planning Scheme *"shall consist of a written statement and a plan indicating the manner in which it is intended that the site is to be developed and in particular:*

- *The type or types of development which may be permitted to establish on site (subject to the order of the Government under Section 166)*
- *The extent of any such proposed development*
- *Proposals in relation to the overall design of the proposed development, including maximum heights, the external finishes of structures and the general appearance and design,*
- *Proposals relating to transportation, including public transportation, the roads lay out, the provision of parking spaces and traffic management,*

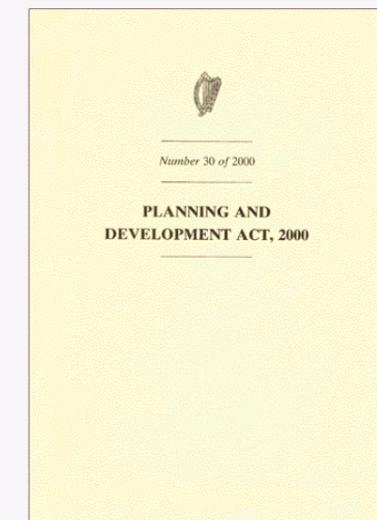
- *Proposals relating to the provision of services on the site, including the provision of waste and sewerage facilities and water electricity and telecommunications services, oil and gas pipelines, including storage facilities for oil or gas,*
- *Proposals relating to minimising any adverse effects on the environment, including the natural and built environment, and on the amenities of the area, and*
- *Where the scheme provides for residential development, proposals relating to the provision of amenities, facilities and services for the community, including schools, crèches and other education and childcare services."*

(PLANNING AND DEVELOPMENT ACT 2000, SECTION 168)

A Planning Scheme of the nature specified here is also required to be consistent with the housing strategy for the county, and to include as a specific objective, the requirement to secure the implementation of that housing strategy. In this instance the pertinent housing strategy is the Fingal County Council Housing Strategy.

1.1.3 Environmental Impact Assessments

In accordance with the provision of Article 24 of the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No 349 of 1989) as amended by the 1999 Regulations SI No. 93 and Part X of the Planning and Development Act 2000, an EIS is required to be submitted by a developer in conjunction with the application to develop the land, where the development proposed exceeds the threshold for a given criteria of development.



2 THE SITE

2.1 THE AREA

The Hansfield Strategic Development Zone comprises approximately 80.74 hectares of land in South West Blanchardstown close to the county boundary with County Meath. Under the Statutory Development Plan, the subject lands carry the zoning objective 'RS1' - to provide for new residential communities in accordance with approved Local Area Plans and subject to the provisions of

the necessary social and physical infrastructure. The lands are bounded by the recently constructed Ongar Road to the North, the Hansfield Road to the East, the Royal Canal Towpath and the disused Navan Railway Line to the South and the Barnhill / Lucan Road to the West. The existing St. Joseph's Hospital Complex also forms part of the SDZ lands. The site dimensions of the lands are 1.5km from east to west and 0.5 / 0.64 km from north to south.

The majority of the lands, and those in the immediate area are currently open agricultural fields. However this characteristic is changing as the area develops in accordance with the provisions of the Fingal County Development Plan.

To the north and east of the SDZ lands several housing developments have been completed in recent years, several more are at the planning and construction stage. As noted above a portion of the south eastern sector of the SDZ lands are presently set out in residential institutional use in the form of St. Joseph's Hospital.

2.1.1 General Access and Connections

The area of the SDZ is presently served by public transport, in particular the bus network. Rail services stop at Clonsilla Station, which is located close to the south-east corner of the development lands. Rail services in the area are to be upgraded in future years, including an increased frequency of service on the Maynooth Line and a re-opening of the former Dublin to Navan Rail Line as far as Dunboyne. Preliminary studies have been completed to examine the viability of a metro service in the area.

2.1.2 Predominant Land Uses in the Area

The area consists of land which generally slopes gently from north to south. The fields have fine mature hedgerow boundaries and there are fine mature trees along the Hansfield Road. At the present time land use within the SDZ lands is predominantly agricultural apart from the 12.23ha occupied by:

- St Joseph's Hospital Hansfield Rd., (200 beds) caters for older people with intellectual disability. The hospital is administered by the Daughters of Charity, St Catherine's Provincial House, Blackrock. The hospital is located on the south eastern portion of the lands.
- Private dwelling on Hansfield Rd.
- Bakery and 2 dwellings on Barnhill Bridge Lucan Rd. which are located on the western boundary of the SDZ.
- Electricity masts (110KV pylons) crossing the site from North East to South West



Fig 2.1: Extract from Rogue's Map (1756)



Fig 2.2: 110KV Line from NE corner of SDZ

2.1.3 Conservation Considerations

2.1.3.1 Archaeology

There is one protected structure within the confines of the SDZ, listed as Barnhill Bridge in the County Development Plan. This is a road bridge over the line of the former Navan Rail line, and is located on the boundary of the lands in the south western corner. It is unlikely that development proposals will encroach on this structure. Measures will however be put in place to ensure its retention and protection as necessary, at planning application stage.

There are no recorded monuments within the SDZ lands. The rich history of the area suggests the possibility of some stray finds. While there are no monuments recorded within the SDZ lands there are several features of historical interest, which would have implications for the development of the land in question. The first of these is the site of Barberstown House, recorded on Rocque's map (Figure 2.1) and on the first edition Ordnance Survey maps. The house was removed in the late nineteenth century, possibly when the railway was built. There is not enough evidence to require a full-scale archaeological investigation. A watching brief will be maintained during soil stripping and excavation only in the vicinity of the identified curtilage of Barberstown House, being the only location on the SDZ lands identified as having any potential for archaeological heritage.

The railway is a significant element of the industrial archaeological landscape of this area. The railway bed is in good condition, if somewhat overgrown in places, and should be preserved intact. The Royal Canal too, at the south-eastern corner of the site, is of historical importance, and the crossing of the railway is a substantial feat of civil engineering.

2.1.3.2 Natural Heritage

Hansfield SDZ is largely mature open agricultural land in south-west Blanchardstown, which affords cover and habitats for a number of different species of flora and fauna. Field boundaries within the SDZ lands are generally well defined and typically comprise mature

hedgerows, some with a mix of mature trees. Every effort shall be made in the preparation of the final development schemes to preserve the important natural habitats that exist on site, in particular the parkland to the western boundary of St. Joseph's Hospital. A fuller treatment of this topic is given in the Environmental Appraisal at Chapter 13 of this Planning Scheme.

2.1.4 Infrastructural Considerations

2.1.4.1 Electricity Pylons

Twin 110KV lines currently crosses the SDZ lands for northeast to south-west. Five steel pylons servicing this line are located within the SDZ. Following extensive consultations with the ESB, during the preparation of this Planning Scheme, the Council have been advised that the undergrounding or the diversion of these cables is not a viable option. ESB have advised that undergrounding of the cable can not take place for the following reasons.

- It is necessary for underground cabling on lines of this voltage to commence at an electrical substation. In this instance, the nearest 110kV substation is the Macetown 110kV station in Damastown Industrial Estate, a distance of c. 4km from the site. Thus, to underground the line through the site would require a cable route to be provided not only through the SDZ but additionally along existing roads to Macetown.
- The twin 110 kV power lines are the main Macetown-Ryebrook cables serving both the Lexlip and the Ballycoolin industrial zones. This line is the primary power supply to the nationally strategic Hewlett Packard, Intel and IBM sites in West Dublin. As such tampering with this power line is not considered to be desirable as it may affect these, and other, power dependent industries.
- Even if the ESB were to sanction any proposal to underground the cables together with the construction of necessary associated substations, ESB National Grid would reject the scheme on the basis that to underground sections of this line would have a significant negative impact on the network.
- Under such a proposal there is a requirement for one acre of land to be retained free from development at either end of the run of power lines to be under grounded, and that three Pylons will be positioned within each of these one acre sites, together with the appropriate transformer equipment necessary to take the lines from above ground to underground. This would concentrate the visual impact of the pylons and would arguably create a more detrimental visual impact on the environment than retaining the lines in place as it is all but impossible to devise a layout or housing design that would mask, or address in a positive manner a cluster of three pylons in the one location.

The diversion of the lines around the SDZ would be similarly problematic, and is not considered to be an option for the following reasons:

- The nature and the shape of the SDZ site would not appear to lend itself to this approach.
- Any diversion would lengthen the transmission line crossing on this site and would inevitably require more towers than that are on the site at present.

- Any diversion of the transmission line would require changes in direction for which heavier angle towers are required. At present there is just one angle tower for the site.

Therefore, following the advice of ESB it was decided that the pylons and transmission line should be incorporated into the scheme and therefore the overall design and layout proposal takes account of this. The line will remain on its existing alignment with the area under the line used for a mix of open space/parkland, roads, and car parking. Lateral clearance between buildings, is required at 20m from the centre line of the transmission line, thus producing a 40m wide restricted corridor. Buildings must not be constructed within 23m of the tower legs. A corridor of some 3.6 hectares will therefore be established along the line of the pylons with the appropriate restrictions in place at ground level to prevent interference with any of the structures.

2.1.4.2 Roads

Road infrastructure in the vicinity of the subject lands is under construction. In particular the Ongar Road extension is underway and it will serve as the main distributor road for the development within the SDZ lands. The importance of the existing Clonsilla rail station is recognised, and in the context of Iarnrod Eireann's proposed second access and ticketing facilities at the western end of the existing platforms, it is desirable to facilitate access to the station from the SDZ lands. Accordingly, this Planning Scheme makes provision for a bus route through the development lands to serve the station, and in tandem with this, provides for pedestrian and cycle access towards Clonsilla.

2.1.4.3 Drainage and water supply

Waste water drainage infrastructure in the vicinity of the subject lands has been completed. It is proposed that the subject lands be served by the existing 375mm diameter sewer within Ongar Road and other direct links to the trunk sewer network. This sewer discharges in turn to the 9C branch sewer of the Greater Dublin Drainage Scheme approx. 800m west of the subject lands. Some on-site pumping of foul effluent will be required.

The majority of surface water run-off from the development (48.5 Ha.) of the subject lands will discharge northwards to the Tolka River via the existing surface water network. The remainder of the subject lands, approximately 20 Ha., will discharge eastwards to the Clonsilla Surface Water System through St. Joseph's Hospital and be subject to attenuation. An alternative outfall southwards to the Westmanstown Railway / Canal crossing via the existing field drainage, is also available. This again, would be subject to flow restrictions and surface water attenuation required on site.

Water supply will be provided from the existing 300mm water main within the Ongar Road.

3 STRATEGIC FRAMEWORK FOR THE SITE

The Planning Scheme for the SDZ lands is prepared within the context of the following planning policy documents, which set out the framework for the orderly development of the Blanchardstown Area as a whole. The Planning Scheme incorporates the planning priorities and objectives therein as follows:

3.1 REGIONAL PLANNING GUIDELINES FOR THE GREATER DUBLIN AREA 2004

The Regional Planning Guidelines published on 8th July 2004, consider the spatial development of the Greater Dublin Area. The guidelines set out a series of recommendations, which are designed to ensure the strategic and sustainable development of the Greater Dublin Area. These guidelines contain specific recommendations in relation to proposed development and the need to service development with a sustainable transportation network centred on nodes of public transport.

The preferred strategy set out in the Guidelines states that: *“Development within the Metropolitan Area will be consolidated with a much enhanced multi-modal transport system. For Dublin City Centre this will require a further increase in overall residential development densities, the delivery of well-designed urban environments, as well as measures to ensure priority for public transport. Outside Dublin City Centre, towns will be consolidated with an increase in overall residential densities particularly in proximity to public transport corridors.”*

It is envisaged that the Greater Dublin Area will accommodate approximately 1.831 million people by 2020. This large population will help ensure a dynamic, robust and diverse regional area, while also underpinning and sustaining a strong and well performing economy. Table 3.1 indicates the projected household numbers allocated to the various local authorities to ensure the required consolidation of the Metropolitan Area. These targets are to be achieved within the first six years of these Guidelines. The proposed development at Hansfield, with capacity for some 3,000 dwelling units, goes some way towards meeting the targets set out in Table 3.1.

Five classifications of urban centres are detailed in the Regional Planning Guidelines. These urban centres include different categories of towns and villages based on size and function. These categories are broadly in line with the provisions of the NSS, and are as follows:

1. Metropolitan Consolidation Towns – which will be the main growth areas within the Metropolitan Area.
2. Large Growth Towns I & II (Primary Development Centres). Such towns occur both in the Metropolitan and Hinterland Areas.
3. Moderate Growth Towns (County Towns and Towns with over 5,000

population). Such towns occur both in the Metropolitan and Hinterland Areas.

4. Small Growth Towns (Towns 1,500-5,000 Population). Such towns occur in the Hinterland Area.
5. Villages (Villages 1,000 Population) – within this category are two further categories:
 - (a) Commuter Villages; and
 - (b) Key Villages. Such villages occur in the Hinterland Area.

Blanchardstown has been identified as a ‘Metropolitan Consolidation Town’ and as such should be developed to a relatively large scale as part of the strategy for the consolidation of the Metropolitan area. These Metropolitan Towns should accommodate a population of between 40,000 and 100,000. The development of the SDZ lands will contribute towards meeting this population target.

3.2 THE FINGAL COUNTY DEVELOPMENT PLAN

The Fingal County Development Plan 2005-2011 was adopted in June 2005. This plan will shape the development of Fingal County until 2011. The Fingal County Development Plan identifies Blanchardstown as a residential, commercial and industrial growth centre with an ultimate target population of 100,000.

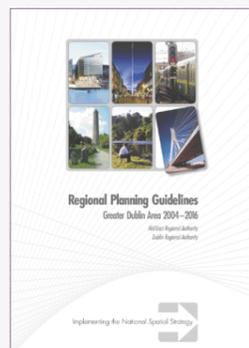
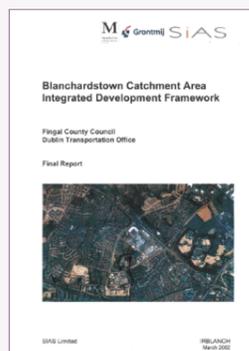
3.2.1 Land Use Zoning Objectives

In the County Development Plan, the SDZ area carries the zoning Objective ‘RS1’ *‘To provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure’*. This zoning objective also relates to the lands to the south of the SDZ at Barnhill. The adjoining zoning objectives include:

- Lands to the south of the SDZ along the Royal Canal are zoned ‘OS’, *‘To preserve and provide for open space and recreational amenities’*.
- The Sensitive Landscape Area, south of the SDZ (south of the Maynooth Line) is zoned ‘GB’, *‘To protect and provide for a green belt to demarcate the urban and rural area and provide for agriculture and amenity in a manner that protects the physical and visual amenity of the area’*.
- The area south of the SDZ (around the listed Beech Park House) is zoned ‘HA’, *‘To protect and improve high amenity areas’* and has significant tree preservation objectives.

3.2.2 Specific Objectives

- Two site reservations are indicated for proposed schools.
- In the grounds of St. Joseph’s Hospital, there is an objective *‘To protect and preserve trees, woodlands and hedgerows’*.



Local Authority	Household Forecasts SPG 2001	Household Census 2002	Household Forecasts RPG 2010	Increase in Households 2002-2010	Housing Unit Allocations 2003-2010
Dublin City	195,000	180,852	210,557	29,705	39,926
Dun Laoghaire -Rathdown	68,000	64,132	77,868	13,736	18,462
Fingal	57,000	60,872	94,349	33,477	44,996
South Dublin	71,000	73,516	91,815	18,299	24,595
Kildare	44,000	50,477	65,107	14,630	19,950
Meath	37,000	41,675	54,827	13,152	15,237
Wicklow	35,000	36,572	47,077	10,505	12,171
TOTAL	507,000	508,096	641,600	133,504	172,337

Table 3.1: Household Forecasts

Source: Regional Planning guidelines for the Greater Dublin Area

- The Strategic Development Zone is situated to the south of an existing district distributor road, the Ongar Road. This district distributor road is indicated with a specific objective for a Quality Bus Corridor.
- The north south Castaheany district distributor road is indicated extending southwards as a road proposal to the west of the SDZ lands.

3.2.3 Local Objectives

- Objective 363 – ‘To provide physical and, visual and pedestrian integration of Ongar Village with the development lands at Hansfield’.
- Objective 379 – ‘To maintain the reservation of the former Navan Rail line free from development’.
- Objective 380 – ‘Development to provide for pedestrian and cycle access to the Royal Canal as a central design element’.
- Objective 381 – ‘To facilitate the development of new railway stations’.
- Objective 382 – ‘To develop a park and ride facility for Clonsilla Station as condition of the development of these lands’.
- Objective 384 – ‘To facilitate possible location for bridge crossing’.

3.3 CASTAHEANY ACTION AREA PLAN

The Castaheany Action Area Plan (revised December 2000) exists for the ‘RS’ zoned residential lands (217 ha - 536 acres) to the north of the Ongar Road. The neighbourhood is substantially developed and is anticipated to have an ultimate population of 22,000 – 25,000 persons. Important features of the Action Area Plan include the construction of the extended Ongar Road, primary and post primary school reservations, a (39ha - 96 acres) Class 1 Public Open Space reservation, the limitation of access points from the Ongar Road and the closure of Hansfield Road from vehicular traffic. The northernmost Castaheany lands are substantially developed for standard suburban dwelling units, a local shopping centre and a primary school. Outstanding undeveloped lands are largely committed for development with planning permission. The southern section of the Castaheany neighbourhood, immediately to the north of Ongar Road and the SDZ lands, includes the large residential and mixed-use developments centred around Ongar House, which includes the Ongar Village development, anchored by a major supermarket.

3.4 CLONSILLA ACTION AREA PLAN

The Clonsilla Action Area Plan exists for the area east of Hansfield Road (excluding the area in the vicinity of Allendale). The neighbourhood is substantially developed and is anticipated to have an ultimate potential population of approx. 7100 persons. The south-eastern sector of the SDZ lands are proximate to the local services at Clonsilla Village.

3.5 FINGAL COUNTY COUNCIL HOUSING STRATEGY

The Strategic Planning Guidelines for the Greater Dublin Area have forecast that the population of Fingal will rise to 263,057 by the year 2011. The 2000 Census of Population showed the population at 196,413. It is estimated that the population increase represents an increase of 50,803 housing units by the year 2011.

Fingal County Council’s Housing Strategy covers the period 2005 – 2011. It is a legislative requirement under Section 168 of the Act that the Housing strategy be implemented. The Housing Strategy anticipates a production of 42,500 housing units over the period. In relation to the South West Blanchardstown area, including the SDZ, it indicates a social / affordable housing requirement of 8%.

3.6 RESIDENTIAL DENSITY: GUIDELINES FOR PLANNING AUTHORITIES, SEPTEMBER 1999

These guidelines generally encourage the increasing of residential densities in the interest of sustainable development and the efficient use of zoned and serviced residential land. The guidelines advocate that densities in outer suburban / “greenfield” sites such as the SDZ are to be promoted, in the general range of 35-50 dwellings per hectare (14 - 20 per acre) subject to the appropriate qualitative standards contained in the guidelines. In proximity to existing or proposed public transport corridors, the guidelines recommend that densities in excess of 50 dwellings per hectare (20 per acre) should be considered. Plot ratio expresses the total amount of floor space in relation (proportionally) to the site area and is an important measure of density. The following range of indicative plot ratios is recommended:

Outer Suburban Location	Plot Ratio
In close proximity to public transport	0.35 – 0.5
Remote from public transport	0.25 – 0.35

Table 3.2: Plot Ratios

3.7 DUBLIN TRANSPORTATION OFFICE ‘A PLATFORM FOR CHANGE’

This report by the Dublin Transportation Office (DTO) has been prepared to support and complement the strategic land use planning framework described in the Strategic Planning Guidelines for the Greater Dublin Area. The overall strategy has two inter-dependant elements, comprising demand management and infrastructure and service improvements. In imposing these two essential elements, one of the key recommendations of the DTO Strategy is that developments should be designed to minimise the need for private motorised travel. A number of public transport proposals relate to the SDZ lands including the upgrading of the Maynooth – Connolly rail line, the introduction of a QBC network and future metro rail alignment options within the Blanchardstown Area. The Strategy also includes as an objective, the construction of a rail line spur from the existing Dublin - Maynooth line to Navan. This spur would pass immediately to the south of the subject lands, and opportunity exists for the creation of a rail station in the SDZ lands to provide access to this new rail line. The timescale and proximity of these improvements is an important consideration in the development of the SDZ.

3.8 BLANCHARDSTOWN CATCHMENT AREA INTEGRATED DEVELOPMENT FRAMEWORK (BCAIDF)

Fingal County Council, in association with the Dublin Transportation Office (DTO) and the public transport providers has engaged consultants to provide a land use and transportation Integrated Development Framework for the Blanchardstown Catchment Area. The strategy highlights the promotion of public transport and the upgrading of the road network. The strategy emphasises that to alleviate congestion, development must be more pedestrian, cyclist and public transport orientated.

The recommendations which are relevant to the SDZ lands, include the following:

- The development of a new road hierarchy for Blanchardstown and the completion of a distributor road linking north and south Blanchardstown with the N2 and N3 national route network. This distributor road requires the completion of the N2-N3 link road, the Ballycoolin Road improvement to Snugborough Road and the Ongar Road extension to Castaheany.
- New local bus services to be introduced, linking all the major attractors and local centres with the new development areas and 5 new city bus services tailored to meet the changing needs of the area to replace the 3 existing services. In respect of rail, improved frequency and electrification on the Maynooth Line to be delivered with the provision of a new station at Hansfield. In relation to layout design, higher density development along public transport corridors to be encouraged.

4 NATURE AND EXTENT OF DEVELOPMENT

4.1 DESIGNATION ORDER LAND USES

The lands of the Strategic Development Zone are to be developed primarily for residential purposes. The Order cites the following uses as appropriate in the Strategic Development Zone:

- Residential
- Schools
- Rail halt
- Community and neighbourhood centres
- Health and childcare services

4.2 CONTEXT

The SDZ lands are part of a wider new residential area in Western Blanchardstown, which is undergoing rapid development. In the context of the Metropolitan Area the locality of the SDZ may be described as generally outer suburban. It is situated approx. 3.5 km from Blanchardstown town centre and is approx. 12km from Dublin City Centre. The site is located to the south of the Castaheany residential neighbourhood and west of the Clonsilla residential neighbourhood. Agricultural and high amenity lands are respectively located to the south and west of the SDZ lands.

4.2.1 Existing Development

Housing development in West Blanchardstown has been in the form of standard suburban housing estates constructed at a relatively low gross residential density (in the region of 10-12 dwellings per acre). A

number of local service centres and reserved sites for community facilities have been included in these residential areas.

4.3 LAND BUDGET

The area of the SDZ as designated by the Government comprises of 88 ha. Consequent on the construction of the Ongar Road, the available lands comprise 80.74ha. The Planning Scheme excludes the bakery and several residential properties on the Barnhill Road and a single dwelling on the Hansfield Road. The current zoning objective 'RS1' will remain on these existing properties and will not prejudice their development.

The former bus lay-by on the Hansfield Road is included within the Planning Scheme as part of Zone 5 (Saint Joseph's Hospital lands) and the relevant maps should be interpreted as such. Zone 5 shall retain its existing residential zoning as provided for in the Fingal County Development Plan, and Objective OS06 of the plan shall also apply as deemed appropriate by the Planning Authority.

Objective OS06

'To retain in open space use institutional lands and similar properties with established recreational or amenity uses, as far as practicable. However, in the event of permission for development being granted on these lands, open space provision in excess of the normal standards will be required to maintain the open character of such parts of the land as are considered necessary by the Council for this purpose'.

At the time of making the Order which designated Hansfield as a Strategic Development Zone, it was suggested that the site at Hansfield could accommodate c. 2,500 dwellings. Since then, infrastructural objectives have progressed. The target number of dwellings may therefore be adjusted, as shown in Table 4.1 Land Budget. It is estimated that the remaining lands available for residential development (some 54ha) could accommodate c.3000 dwelling units. This is based on the assumption that the current constraints on rail capacity caused by city centre restrictions can be resolved, and that a rail service will be available to the future residents of the SDZ lands.

The net land participating in the Planning Scheme and available for development is a total of 68.51ha. From this, 6.51ha are required for local services and community uses including sites for schools, a rail halt, a community facility and a site for a place of worship. 3.5ha are taken up by the ESB reservation, and an additional 2.23ha are required to accommodate the Development Plan objective for a road link between the N3 and the N4 on the western portion of the lands. Consequently 54.25ha are available for residential development. The Planning Scheme land budget is set out in Table 4.1. The areas described in this table are illustrated in Figure 4.1.

Land Budget	Hectares
Total lands within SDZ	80.74
Existing established uses including hospital lands, private residences and existing rail and road	12.23
Remaining lands for Development	68.51
<i>Including:</i> Schools	6*
Community Facility and Place of Worship Reserved Sites	0.30
On-site Class 1 Public Open Space	2.02
Rail Station Reservation	0.21
N3 - N4 Link Road Reservation	2.23
110 KV Reservation	3.50
Net potential land available for residential use	54.25

Table 4.1: Land Budget

* A reservation of 6ha has been shown, however it is possible that this required reservation may reduce, depending on the ultimate requirements of the Department of Education. The exact extent of the reservation will be defined at the time of submission of an application for development on the surrounding residential lands. Any lands designated for schools and community use will revert to public open space if not required.

4.4 RESIDENTIAL DENSITY AND PUBLIC TRANSPORT

The 'Residential Density Guidelines for Planning Authorities' generally encourage the increasing of densities in suburban areas such as West Blanchardstown, in the interest of sustainable development and the efficient use of zoned and serviced residential land. Section 3.4 of the Guidelines defines 'Outer Suburban' locations as those 'open lands on the periphery of cities or towns whose development will require the provision of new infrastructure, roads, sewers and ancillary social and commercial facilities, schools, shops, employment and community facilities'. Consequently, the SDZ site is considered to be 'Outer Suburban' in relation to the Guidelines, where residential densities of between 35-50 dwellings per hectare (14-20 dwellings per acre) 'should be encouraged generally' subject to the appropriate qualitative safeguards.

The lands are located close to the existing Clonsilla Station, and Zone 6 falls within 1km (see figure 4.2) of a proposed second access and ticketing facility at the western end of the existing platforms (see section 4.4.1 below). Accordingly, this Zone is being designed at a relatively higher density in accordance with the provisions of the Residential Density Guidelines.

In addition to the proposed second entrance to Clonsilla Station, provision has also been made within this Planning Scheme for the construction of a rail halt on a re-opened Dublin - Dunboyne rail line. This rail halt will be provided within Zone 7. Accordingly, the housing units in Zone 7 will be high density in nature, and will be constructed at approximately 70 units / ha. This proposed density is in accordance with the provision of the Residential Density Guidelines, which state that:

"On lands proximate to existing or proposed public transport corridors, densities in excess of 50 dwellings per hectare (20 dwellings per acre) should be permitted, subject to appropriate qualitative safeguards."

The Planning Scheme has been devised on the assumption that a re-opened Dublin - Dunboyne rail line will become operational during the construction time of the first phases within the SDZ lands. It is recognised however that the re-opening of the line or sections of it

have not yet progressed to design stage, nor has the funding been committed to the project.

4.4.1 Clonsilla Train Station

The train station at Clonsilla on the Dublin Connolly-Maynooth suburban rail line is situated approx. 400 metres from the South east corner of the SDZ lands and has recently been upgraded to improve service levels. Future improvement of the service is planned, including electrification of the line and the supply of additional carriages.

The proximity of the south eastern corner of the SDZ to Clonsilla Station makes it an ideal location for the provision of increased residential densities. Discussions with Iarnród Éireann in the preparation of the Planning Scheme have indicated that in the short term, prior to the re-opening of the spur to Dunboyne, they propose to create a second entrance to Clonsilla Station to facilitate access from the SDZ lands. The proposed access point is to be at the western extremity of the existing platforms, and will incorporate a ticket booth and a pedestrian bridge over the Royal Canal. Improvement to the Hansfield Road in the form of footpath and cycle path improvements will also be necessary. This proposed development, will bring the train station approximately 200m closer to the SDZ lands and suggests that a greater proportion of the lands should be developed at a higher density. The Phasing arrangement set out at the rear of this Planning Scheme dictates that the bridge over the Royal Canal and the new entrance and ticket booth must be in place prior to the occupation of the 1,001st dwelling unit.

4.4.2 Re-Opening Of The Dublin - Dunboyne Rail Line

The planned DTO objective of re-opening the former Dublin to Navan Rail line presents the opportunity, should the line reopen to establish a high density cluster of development around a rail station located within the SDZ. Zone 7 has therefore been designed to accommodate a suitable level of development dependent on the delivery of this station. In line with the Guidelines on Residential Density it would be appropriate to develop at densities in excess of 50 units per hectare in these zones.

4.4.3 Ongar Road QBC (Quality Bus Corridor)

The Ongar Road, which runs along the northern boundary of the site,

is a planned QBC route, which will link the development to Dublin City Centre. Dublin Bus have indicated that they will open this QBC, as this is a high demand location. The QBC will therefore be in place in tandem with any on site development. The proposed arrangement is illustrated in Figure 4.2. The completion of the QBC on the Ongar Road shall occur before the occupation of more than 500 dwelling units. The phasing arrangement set out in Chapter 10 of this Planning Scheme stipulates that the QBC is complete.

4.5 NEIGHBOURHOOD DESIGN APPROACH

The overall design must make a positive contribution to the locality and provide for an attractive housing environment for the new community.

New forms of residential solutions are envisaged to give a strong lead for the creation of residential areas, well connected to each other and for the creation of visual continuity by way of street frontages with attached/connected buildings. In addition it is envisaged that the creation of new landmarks and open spaces will help to structure the new development areas. Figure 4.3 shows the Urban Design Framework for the SDZ lands.

The Council will require that proposals for new forms of residential development be in accordance with the performance criteria set out in the Development Plan. Each residential scheme will be required to:

- Maximise the advantages of site characteristics, be designed to optimise orientation and exploit good features.
- Utilise a range of urban forms and housing types with variety in building height and massing to create a visually stimulating environment.
- Provide for privacy as an intrinsic design element.
- Provide for pedestrian movement as an integral design feature.
- Utilise traffic calming as an integral feature of all layouts.
- Incorporate passive surveillance to discourage anti social behaviour.
- Utilise soft and hard landscaping to optimise the existing valuable amenities (trees, hedgerows, and woodlands)
- Utilise high quality paving materials to ensure a cohesive and manageable environment throughout the development.

4.6 RESIDENTIAL DWELLING MIX

Varied residential density and a mix of dwelling types will be included in each of the 7 zones of development to accommodate the needs of changing household size patterns, the variety of lifestyle changes and market demands. There will be a mix of dwelling types and sizes ranging from 1-4 bedrooms including townhouses, semi-detached dwellings and apartments. Adaptable extendible space for an additional bedroom will be available in a proportion of units. It is anticipated that the mix of dwelling type will vary from zone to zone, and that the final mix will be dependent on market demand. However, it is envisaged that the overall house-type mix for the development of the SDZ lands will be broadly within the following parameters:

	3,000 unit option
1 bedroom units	6-12%
2 bedroom units	46-52%
3 bedroom units	28-34%
4 bedroom units	7-13%
TOTAL	100%

Table 4.2: Dwelling Mix

4.7 COMMUNITY AND LOCAL SERVICES

The residential objective and suburban nature of the SDZ means that residents will travel to areas outside for their employment and education needs. However it is considered that the Planning Scheme

will provide a range of services to cater for the everyday shopping, recreational, educational, medical and other needs of the community. The projected local population of the SDZ is of sufficient magnitude to support the provision of such services. Over dependence on the use of the private car for local trips is an identified transport problem of West Blanchardstown and the provision of a vibrant village centre will complement the development of Ongar Village to the North, and the range of local facilities at Clonsilla Village to the east, and encourage walking and cycling trips in preference to private car use.

The village centre planned for the SDZ shown on Figure 4.1 will provide a focus for the development of the SDZ with a variety of uses to meet the everyday needs of the projected population and provide an attractive destination locally for residents. The facilities will provide for shopping, commercial, health and childcare, employment uses, community facilities and leisure and recreational services. In addition, the inclusion of residential units within the area, will be required to provide supervision of the centre at all times of the day and night.

4.8 BUILDING HEIGHT AND FINISHES

Building heights within the SDZ shall generally be 2-4 storey. Each development area shall have a variety of building heights in order to create interest and improved urban form visually across the SDZ. Finishes shall also vary across the SDZ and shall be of differing colour and texture. Finishes shall be durable and low maintenance.

4.9 LANDMARK BUILDINGS

At strategic locations within the development it would be appropriate for 'landmark' buildings to be developed. These would help to create a focus or sense of place and legibility for the neighbourhood as a

whole. 'Landmark' Buildings in general will be taller buildings, but need not be a tall building to function as such. A uniquely designed building or the use of a distinctive palette of materials will perform this function just as well. Appropriate locations for such buildings have been identified in Figure 4.3.

Planning applications for landmark buildings will be assessed on the basis of their potential contribution to the built environment, the quality of the architecture employed and their appropriateness in terms of function and sustainability through the use of durable materials and energy efficiency.



5 Storey indicative Streetscape Buildings

5 AREAS OF DEVELOPMENT

5.1 DISTRIBUTION OF DEVELOPMENT WITHIN THE SDZ

The proposed layout of the Planning Scheme has been designed to minimise the impact of the pylon corridor. This has been identified as a design constraint, which will remain in place after the development has been completed. The main routes between the northern and southern parts of the SDZ are positioned at 90 degrees to the pylon line so that the undesirable creation of an elongated vista along the pylon route is avoided. The pedestrian desire lines across the SDZ towards the Royal Canal and to Clonsilla Station have also been taken into account in the indicative design. These factors have resulted in the creation of 7 distinct development character areas or zones, dispersed throughout the scheme. The locations of the differing character areas are illustrated in Figure 5.1 as follows:

- Zone 1: Village Centre
- Zone 2: Ongar Road East
- Zone 3: Ongar Road West
- Zone 4: West
- Zone 5: Hospital
- Zone 6: Canal
- Zone 7: Railway

The number of dwellings stated as being within each zone, in the following sections, are subject to fluctuation by + / - 5%. However cumulative dwelling numbers for the entire SDZ lands shall be + / - 150 dwellings from the overall target of 3,000.

5.2 DEVELOPMENT CHARACTER AREAS

5.2.1 Zone 1: Village Centre including Residential – Main Street North

This zone comprises the northern part of the main street neighbourhood centre. It also includes 2.02 hectares of class 1 open space which will form a village green. The north end of the main street is marked by gateway buildings onto Ongar Road. A small civic square provides a northern focus on the main street and connects westwards to Zone 4 and the schools site reservation.

Zone Area	6.03 ha
Approximate Density	c.48/ha
Approximate Number of Dwellings	190
Quantum of Commercial Service*	c.1,100m ²
Quantum Retail Floorspace	c.950m ²
Quantum of Residential Floorspace capable of future conversion to commercial service/retail	c.900m ²
Floorspace of community facilities	c.600m ²
Village Green	2.02ha

* Commercial Service to include medical, childcare, refreshment and local services.

The concept of the neighbourhood centre, which extends through Zones 1 and 7, is based on the desirability of increasing the range, level and intensity of activities available to residents of the Strategic Development Zone. As more people live within a convenient distance of communal services and facilities they are encouraged to walk or cycle rather than drive, thereby reducing excessive car use. A central focus for the neighbourhood centre ensures that the majority of the dwellings planned within the Strategic Development Zone are within a five-minute walk from local services and facilities. A large number of pedestrian access points and entrances to the neighbourhood centre will be provided from the residential precincts to facilitate a high level of pedestrian penetration.

This neighbourhood centre will be designed with a recognisable format with a main street linking two civic squares. It will be a design focus for the Strategic Development Zone and provide it with an individual character and identity, via a continuous building line to the street and square, fine grain buildings, and a scale of enclosure that reflects its status as a service area for the Strategic Development Zone lands. It will distinguish the Strategic Development Zone from other residential districts of West Blanchardstown by reason of the

level of services and intensity of uses. The centre will provide the essential social and community services for the projected population of circa 7,000 persons (3,000 dwelling units, or thereabouts) for the Strategic Development Zone lands.

When devising the scale of the neighbourhood centre at Hansfield, due regard was taken of the immediate proximity of Ongar Village to the north, including Dunnes Stores and also the local services at Clonsilla Village adjacent to the south-east corner of the Strategic Development Zone.

5.2.1.2 Land Use Mix

Within the area of the village centre the various land use elements will integrate in building form, generally without stand-alone single use structures. The village centre will include a civic space surrounded by buildings with commercial uses at ground floor level and residential/limited commercial /office uses above, as shown in Figure 5.2.4.

Within the village centre, any residential development will generally be in the form of the dwellings situated above ground floor retail/commercial units. While the residential density in this area will be similar to the rest of the SDZ, residential use will not be greater than 85% of the floorspace of the village centre. The total retail floorspace within the area of the village centre will be 950m². The minimum provision will be 600m², and will contain shops of the type specified in Section 7.3.1 of this Planning Scheme. One possible distribution of village centre uses is illustrated in Figure 5.2.2. The village centre is an appropriate location for higher buildings and up to 5 storeys are considered appropriate in this location in the form of landmark buildings. Residential car parking will generally be segregated from the car park provision for the rest of the village. The commercial parking requirement for the area of the village centre will be in accordance with the standards set out in Section 7.3.3 of this Planning Scheme.

5.2.1.3 Civic Area

The civic space will be centrally located within the SDZ lands as shown in Figures 5.2.1 and 5.2.5. Hard landscaping elements such as



Fig 5.2.5: Indicative Design of Village Core showing Civic Area

changes in paving and materials will be used to delineate the space, while soft landscaping such as trees and ornamental planting will be encouraged to soften the appearance of the area. Seating and cycle parking facilities shall be provided as an integral part of the design. An architectural / sculptural feature may be provided in this area. This space will be used throughout the year as a meeting point, and as a space for village fetes and social events. Other uses grouped around the civic space may include a crèche, community hall and public house. A village green of c.2Ha is provided at the end of the village, in the location shown in Figure 5.1.

5.2.1.4 Residential

The lands between the core of the village centre and Ongar Road will also be served by the access road to the village centre. These lands are likely to be among the first residential areas of the SDZ to be

developed. The development of Zone 1 will provide a positive statement of intent for the remainder of the lands. Buildings will address the district distributor road – the Ongar Road, and the internal village street to provide an appropriate legible entrance to the village. Pedestrian connectivity will be maximised from these lands into the village centre and onto the Ongar Road with pedestrian and cycle access routes. This may in part be achieved by providing a signal-controlled junction on the Ongar Road in place of the existing roundabout.



Mews Street

5.2.2 Zone 2: Ongar Road East.

This Zone consists of the north eastern sector of the SDZ and is adjacent to the existing roundabout linking Hansfield Road and Ongar Road. This is one of the most accessible areas of the SDZ to public transport due to its proximity to the QBC on Ongar Road. The number 39 bus route currently operates along this road. It is an objective of the Council to secure the provision of an urban streetscape along this road. It is therefore necessary that a strong building line be provided, together with higher buildings at nodal points and at junctions. Buildings should face onto the road where possible. Figure 5.2.7 addresses the Ongar Road. Further away from the Ongar Road in the interior of the Zone, development such as that shown in Figure 5.2.8 would be appropriate.

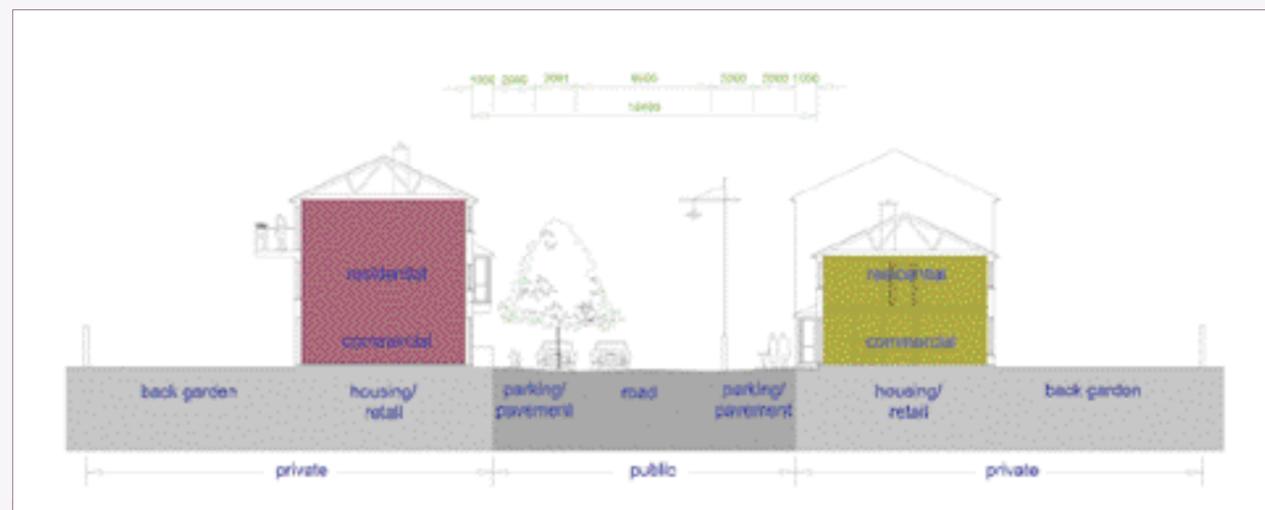


Fig 5.2.4: Indicative Section through Main Street

Zone Area	11.55 ha
Approximate Density	c. 36/ha
Approximate Number of Dwellings	417
Quantum of Commercial Floorspace (m²)	To accommodate a crèche if required
Quantum of Commercial Floorspace that is retail floor space	0
Floorspace of community facilities	0

This Zone has frontage to an internal road of the SDZ and access will be via this frontage. This Zone also provides access to the lands in the western portion of Zone 6.

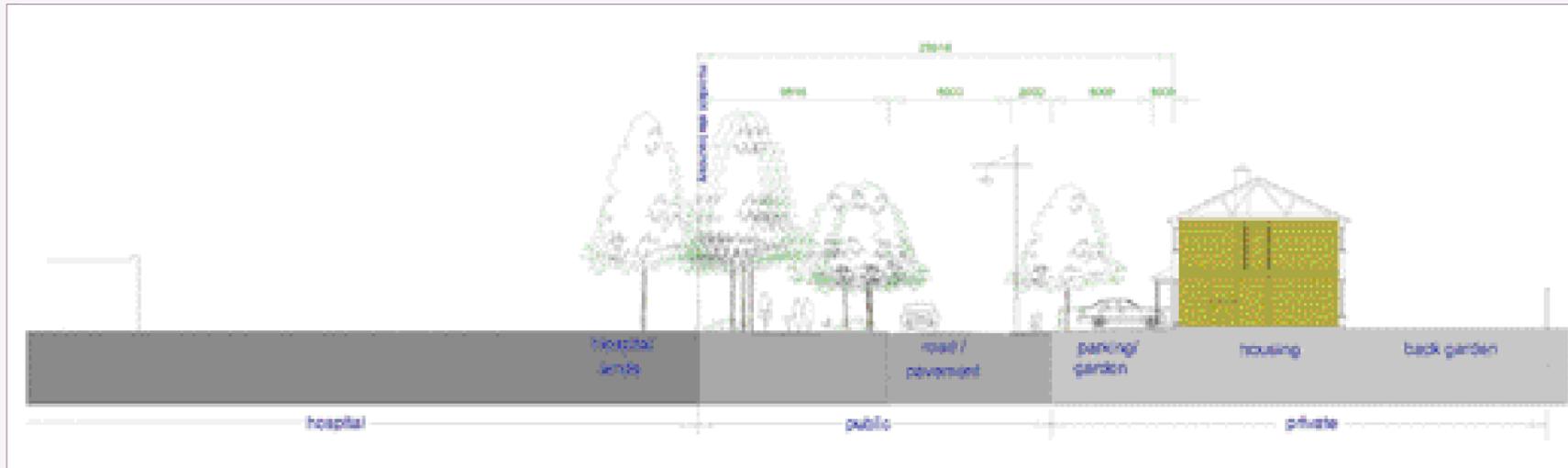


Fig 5.2.6: Indicative Section through boundary to Hospital Lands from Zone 2



Fig 5.2.7: Indicative Section through boundary to Ongar Road

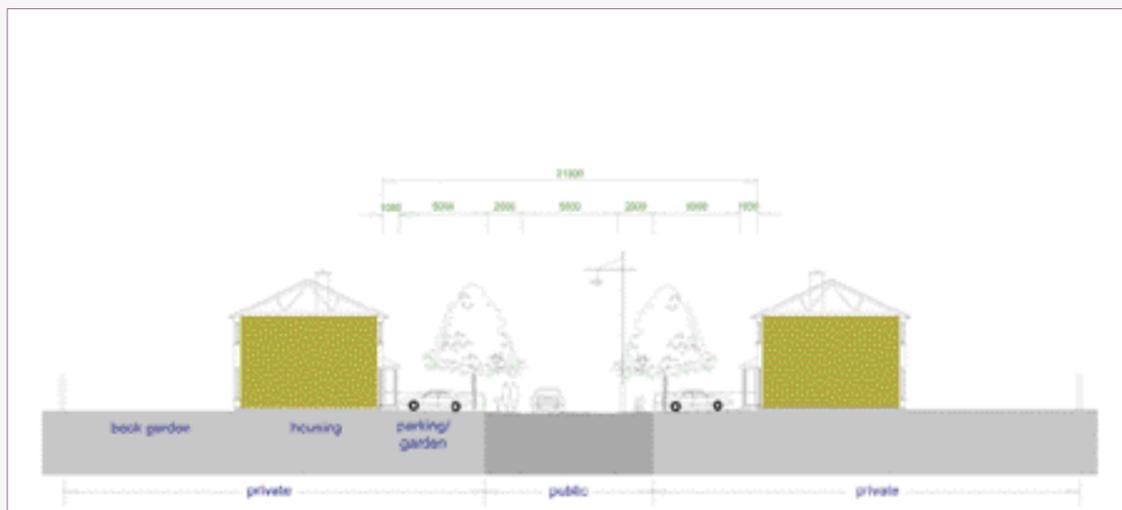


Fig 5.2.8: Indicative Section through typical local access road



School Facilities

5.2.3 Zone 3: Ongar Road West

This Zone is situated west of the Village Centre and has frontage to the Ongar Road. Vehicular access to this zone will be provided from the Ongar Road north through the internal road network. A road reservation for a proposed N3-N4 link road runs between Zones 3 & 4. This Planning Scheme allows for a link road to serve both Zones by way of a new distributor road located within the road reservation. Design in this Zone will make a positive statement to the Ongar Road and the new road reservation, as in Figure 5.2.7. Buildings will address the roads and 'landmark' buildings would be appropriate at the north western corner of this zone, as shown in Figure 4.3.

Zone Area	15.34 ha
Approximate Density (not incl. 6ha school site)	c. 36/ha
Approximate Number of Dwellings	354
Quantum of Commercial Floorspace (m²)	To accommodate a creche if required
Quantum of Commercial Floorspace that is retail floor space	0
Floorspace of community facilities	6ha site reserved for schools

Some 6 hectares for a school campus site are reserved for the Department of Education & Science within this Zone. The educational facilities will be developed on an independent timetable by the Department of Education & Science. The development of shared community / amenity uses on the school site will be encouraged by

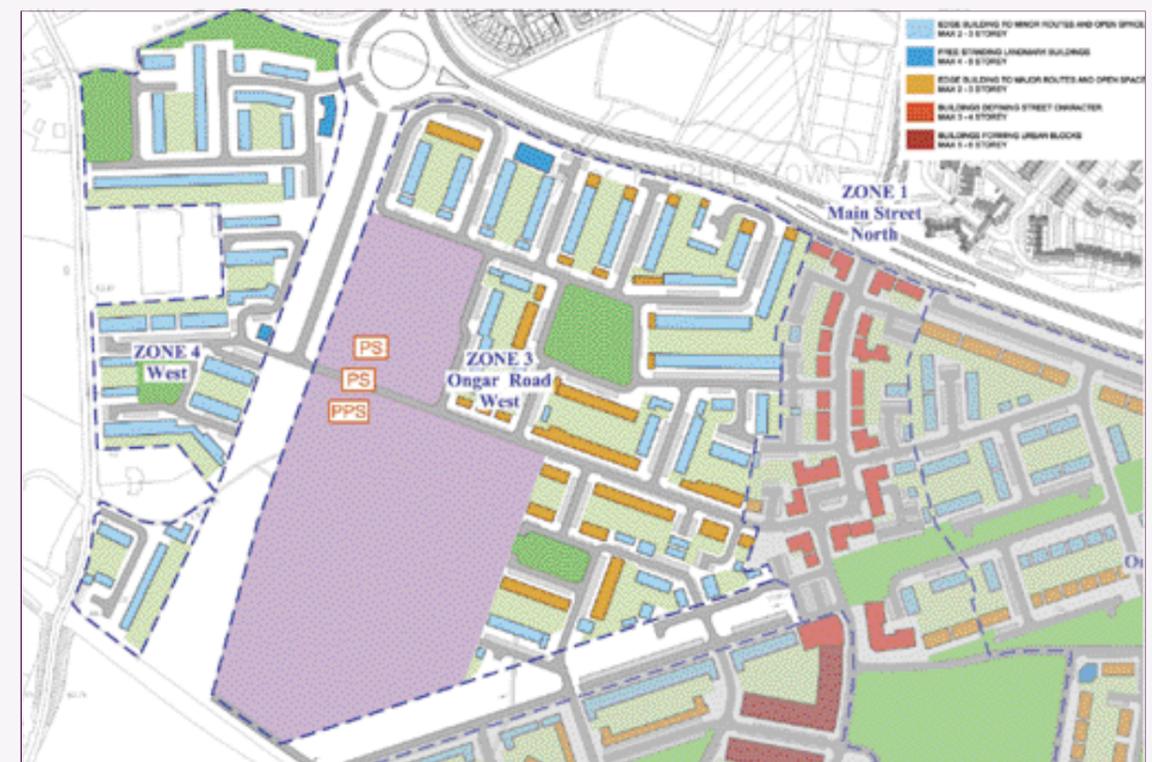


Fig 5.2.9: Indicative Design Analysis Zones 3 and 4

the Council, as being an appropriate form of sustainable development. Any lands designated for schools and community use will revert to public open space if not required.

5.2.4 Zone 4: West

This Zone is close to the Greenbelt with Co. Meath and situated between the western boundary of the SDZ and the new road reservation. The Zone is in the vicinity of an existing bakery and 2 semi detached dwellings. Vehicular access to Zone 4 will be provided from the most westerly Ongar Road roundabout. No dwellings shall back onto the Lucan/Barnhill Road. The dwelling mix within the Zone shall include five bed units.

Zone Area	5.50 ha
Approximate Density	c. 18.2/ha
Approximate Number of Dwellings	90-110
Quantum of Commercial Floorspace (m²)	To accommodate a creche if required
Quantum of Commercial Floorspace that is retail floor space	0
Floorspace of community facilities	0

Development in the south western part of these lands, between the Barnhill Road and the proposed N3-N4 Road link, will be delivered when a safe and convenient access can be provided. Access may be possible from the provision of an estate road running parallel to the western boundary of the proposed road reservation. Alternatively, when the N3-N4 Road link is constructed and available for traffic, a safe and convenient access may then be possible off the Barnhill Road.

5.2.5 Zone 5: Hospital

This zone comprises the lands of St. Joseph's Hospital (8.29ha) in the eastern sector of the SDZ. The lands are within the area of the SDZ and front onto and have access from the Hansfield Road.

St. Joseph's Hospital is an institution providing care for the elderly, and the intellectually infirm. Properties bordering the land should therefore address the hospital and should not back onto it. Figure 5.2.12 shows how this might be achieved.



Fig 5.2.10: Typical residential layout with terraced housing interspersed with mews and apartments.



Fig 5.2.11: Section through boundary to Bakery Lands



Fig 5.2.12: Typical Section Boundary into Hospital Lands from Zone 6

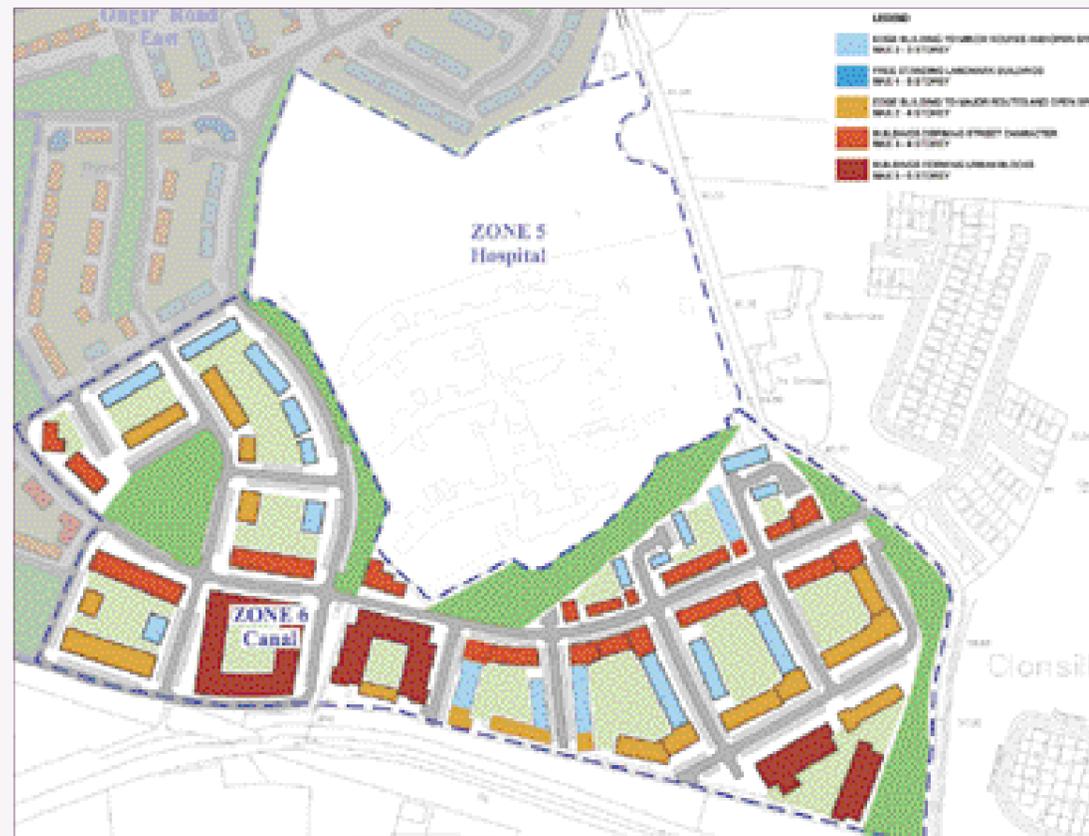


Fig 5.2.13: Indicative Design Analysis Zones 5 and 6.



Corner Apartment Block

5.2.6 Zone 6: Canal

This zone is situated to the south and west of St. Joseph's Hospital in the southern sector of the SDZ. The disused Navan Rail line and the Royal Canal form the southern boundary of the zone. Under current plans, the DTO aim to re-open the line in future years.

The establishment of a well-defined boundary along this edge is therefore important and Figure 5.2.14 shows how this boundary may be addressed in a sensitive manner. No dwellings shall back onto the Dunboyne Rail line reservation.

The south edge of this Zone is also in close proximity to the Royal Canal, which is an important amenity in the area. It is an objective of the Council to secure the provision of pedestrian and cycle access to the Canal Walkway, as detailed in Section 8.5.2.

This will provide a 'gateway' entrance to the environs of the Royal Canal and will also link to a potential linear pedestrian route southwards to the open space lands of St. Catherine's in Liffey Valley Regional Park. This route, and the lands it will service are detailed further in Chapter 7. This will ensure the potential future availability of pedestrian and cycle access via the Royal Canal to Clonsilla rail station and the possibility of shorter direct routes.

Zone Area	12.67 ha
Approximate Density	c. 74/ha
Approximate Number of Dwellings	940
Quantum of Commercial Floorspace (m²)	To accommodate a creche if required
Quantum of Commercial Floorspace that is retail floor space	0
Floorspace of community facilities	0

The indicative layout devised for this zone reflects its proximity to the existing Clonsilla station. The entire zone is located within 1km of the station, and in accordance with the residential density guidelines, it will be developed at a relatively high density. A pedestrian and cycle path connection will be provided through Zone 6 connecting the rest of the SDZ lands with the Clonsilla Station Improvements.

Development within this zone will also have due regard to the sensitivity of the adjacent open landscapes to the south and the sensitivity of the hospital grounds. Buildings will be orientated to address these spaces. Direct access shall be provided from this zone to the committed class 1 public open space lands located between the rail reservation and Pakenham Bridge. In addition the layout in Zone 6 will ensure that a bus route through the SDZ could be provided by Dublin Bus linking Clonsilla Station and the expanse of residential development to the north and west.

5.2.7 Zone 7: Railway (With New Railway Station Main Street South)

This Zone is situated in the southern sector of the Strategic Development Zone in the vicinity of the proposed location of the rail halt on a re-opened Dublin - Dunboyne Rail line. On the basis of the provision for the rail halt, this Zone has been designed to accommodate high density development in the order of approx. 84 units per hectare. A reservation of approx 0.21 hectares has been provided to accommodate the rail station in this location.

Zone Area	10.94 ha
Approximate Density	c. 84/ha
Approximate Number of Dwellings	920
Quantum of Commercial Floorspace* (m²)	c. 1000
Quantum Retail Floorspace (m²)	c. 1250
Quantum of Residential Floorspace capable of future conversion to Commercial Service/Retail (m²)	c. 1500
Reservation for Rail Station	0.21ha

* Commercial Service to include medical, childcare, refreshment and local services.

The strong urban form defined by the Main Street continues southwards to the railway, incorporating a small civic square near the entrance to the station. This southern square is the counterpoint to the northern square on the Main Street in Zone 1 as described in Sections 5.2.1.1.

This commercial centre extending from Zone 1 through to Zone 7, in the form of a dumbbell, is held by a small square at each end. The northern square is 200 metres from the QBC while the southern square is 100 metres from the station (and attendant rail noise). The two squares are circa 300 metres apart, about a three-minute walk. All parts of the scheme (excepting the eastern portion of Zone 6) are within a five-minute walk of this spine which forms the identity of the neighbourhood. All routes connect to this street.

The Main Street in Zone 7 can contain further convenience shopping, public house / restaurant, community / social facilities, medical / health facilities, crèches and local services in a traditional street pattern. Possible future expansion is catered for by the inclusion of residential buildings with high floor to ceiling ground floor accommodation capable of future conversion to commercial uses. The street forms the spine link to both modes of public transport and schools, and is within walking distance of all units proposed within the Planning Scheme.

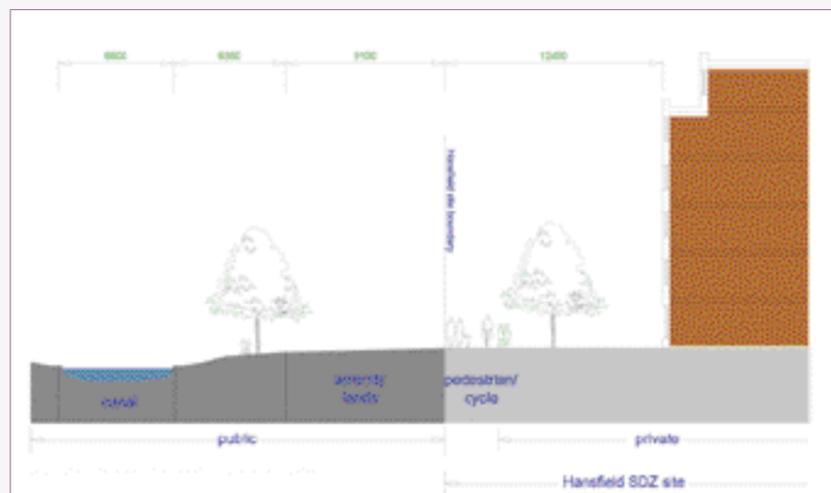


Fig 5.2.14: Section through Boundary to Royal Canal

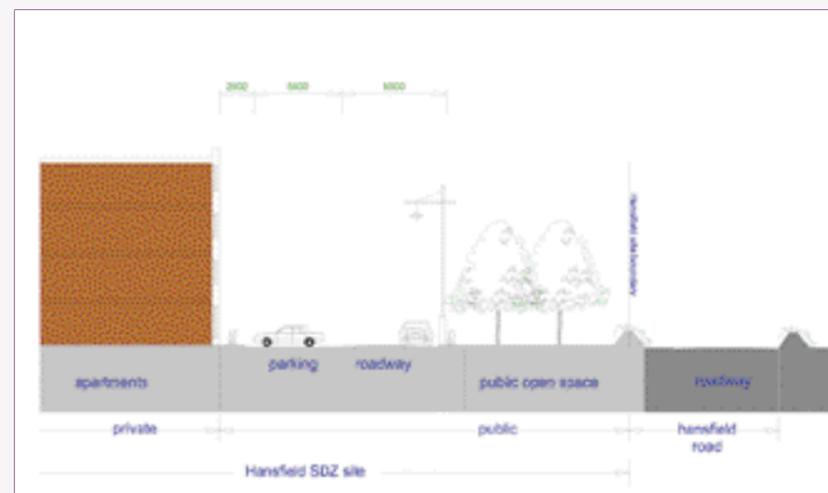
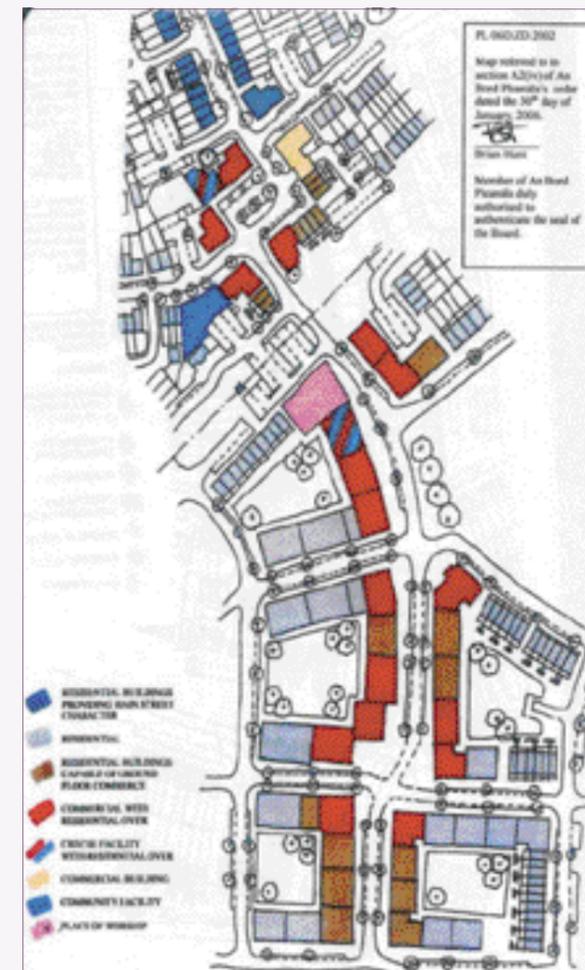


Fig 5.2.15: Section through Boundary onto Hansfield Road.



Possible distribution of uses in southern end of village (Zone 7 - Railway).

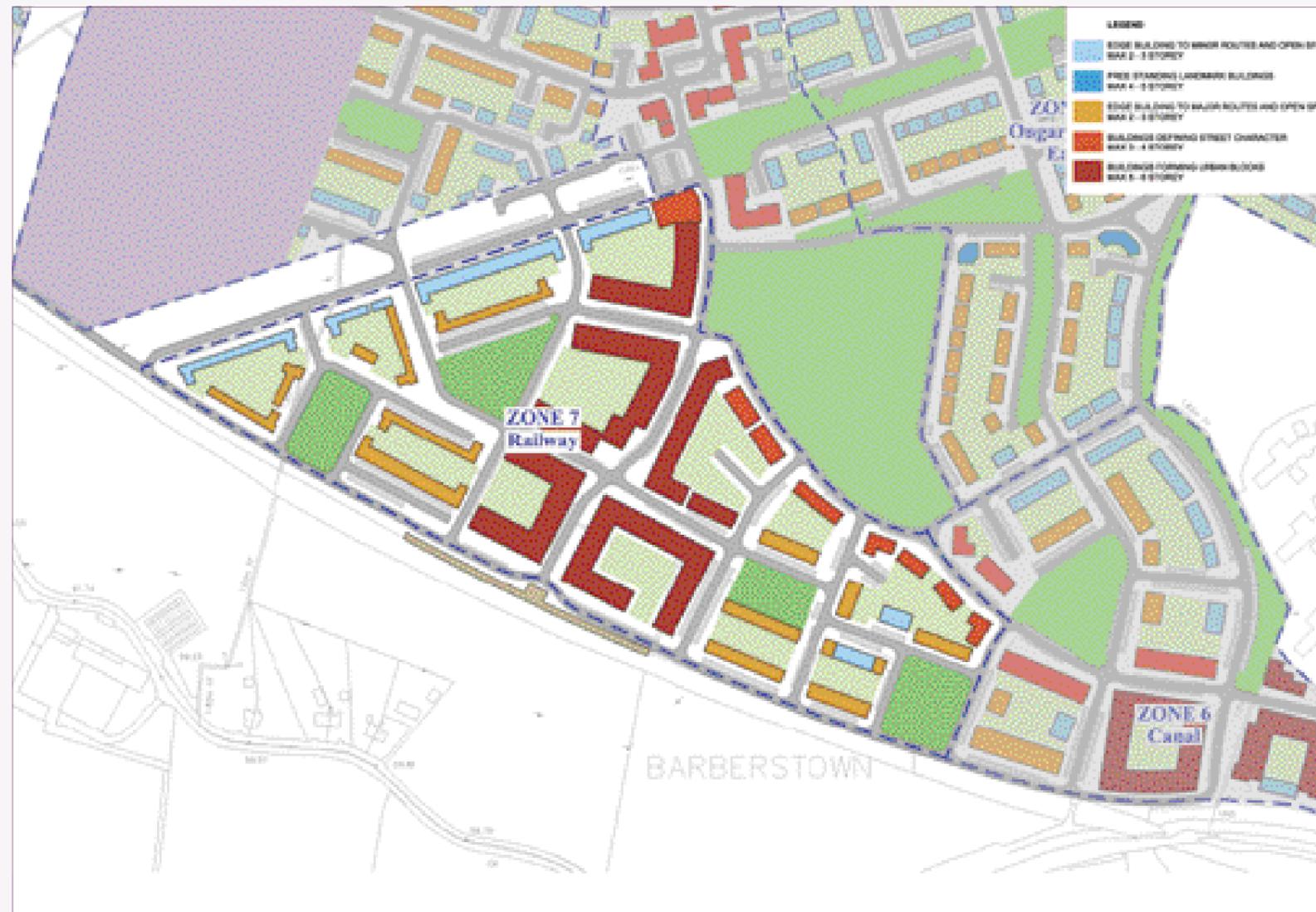


Fig 5.2.16: Indicative Design Analysis Zone 7.

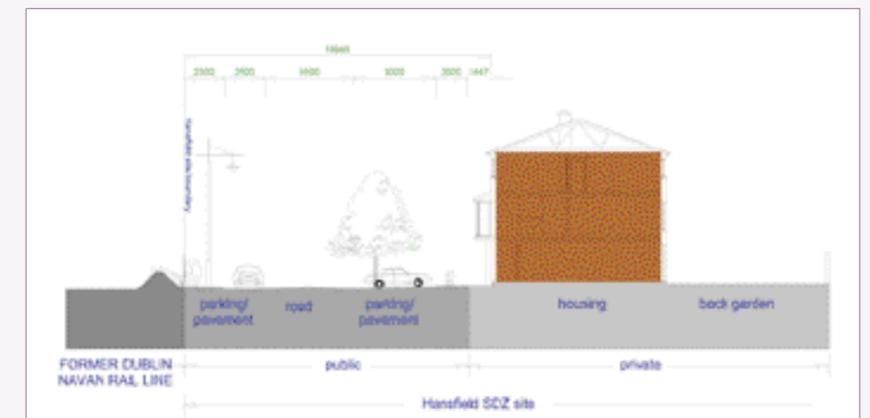


Fig 5.2.17: Section through Boundary of former Dublin - Navan Rail Line



Higher Density Duplex-Style Housing



Indicative sketch of buildings defining street character.



Lower Density Semi-Detached Housing



3 Storey Edge to Open Space



3 Storey Mews-Style Housing



Fig 5.3.1: Residential Development at 35-50 units / ha



High density apartment style development

5.3 GENERAL RESIDENTIAL APPROACH

5.3.1 Design Parameters

Residential areas shall be designed at the outset with sustainable transport modes in mind. Pedestrian and cycle connectivity shall be maximised from these areas into the village centre and onto the Ongar Road and to Clonsilla Station with pedestrian and cycle access routes. Care shall be taken with the design of junctions with the Ongar Road to ensure cycle and pedestrian safety when crossing into the Ongar Village development to the north.

Design in these areas shall make a positive statement to the road junctions, these being appropriate locations for landmark buildings. Building height and form may be used to emphasise changes in road hierarchy and gateway features provide a meaningful method of addressing district distributors such as the Ongar Road. Buildings should present a formal edge to the district distributor roads and the internal roads to provide appropriate legible building lines and to maximise supervision of these through routes.

5.3.2 Dwelling Type Mix

In general, the types of dwellings will be in accordance with the ratios set out in Table 4.2. Locations close to public transport and the village centre are more suitable for 1 and 2 bedroom apartment units. High density apartment development will predominate in Zones 6 & 7. The Council will adopt a flexible approach to the location of different dwelling types, in an attempt to encourage as broad a variety of housing types and building forms as possible.

5.3.3 Residential Density

Overall net residential density for the development of the SDZ lands will be within the range 35 to 50 units/ ha. However, as with the dwelling type mix, there are locations within the SDZ lands, which are suitable for increased densities. These areas are in close proximity to public transport (Clonsilla train station and the QBC on Ongar Road) and around the village centre as follows:

- Along the southern edge of the Ongar Road (QBC)
- Zone 6 - Within 1Km of Clonsilla Train Station.

- In the North East corner of development close to the roundabout on Ongar Road (Zone 2)
- In the area immediately surrounding the village centre (Zone 1)
- In Zone 7 consequent on the delivery of a rail station for the SDZ lands.

It is envisaged therefore that these areas will contain a higher proportion of apartments and townhouses.

Given the indicative nature of the Planning Scheme it is considered reasonable to apply a level of flexibility of +/- 150 dwellings within overall Planning Scheme to allow for detailed design to occur.

5.3.4 Class 2 Public Open Space Provision

Class 2 public open space is to be provided in line with the current Council standards as set out in Table 7.1. 3.5 ha of Class 2 Open Space are required to serve the development of c.3,000 residential units. In general, these shall be provided in pockets of not less than 0.2 ha and well distributed throughout the SDZ Lands. 4-6 such pockets will be required, depending on the final layout of the development. An equipped Play Area shall be provided for each zone (excluding Zone 5 - Hospital), to the requirements of the Planning Authority.

The open space shall be provided in such a manner so as to allow informal kick-about and shall be landscaped in accordance with the Council's standards for taking in charge. A typical section through an area of Class 2 Open Space is shown in Figure 5.3.2.

5.3.5 Traffic Calming Measures

Each residential area shall have specific measures provided to calm traffic and to provide a reduction in vehicle speeds in the interests of road safety. These measures shall be an integral element of road design and may include raised platforms where necessary.

5.3.6 Lands Adjacent To Private Properties

There are five private properties, which border the SDZ lands. The first is on the Hansfield Road and is a private residence. The three others are on the Barnhill – Lucan Road and comprise a commercial bakery and two private residences. The final private property is the St. Joseph's Hospital lands.

The property on the Hansfield Road will be in close proximity to the residential development of the area. There is a need therefore to address the boundaries of this property in a manner which will both protect its privacy and amenity and ensure its integration with the

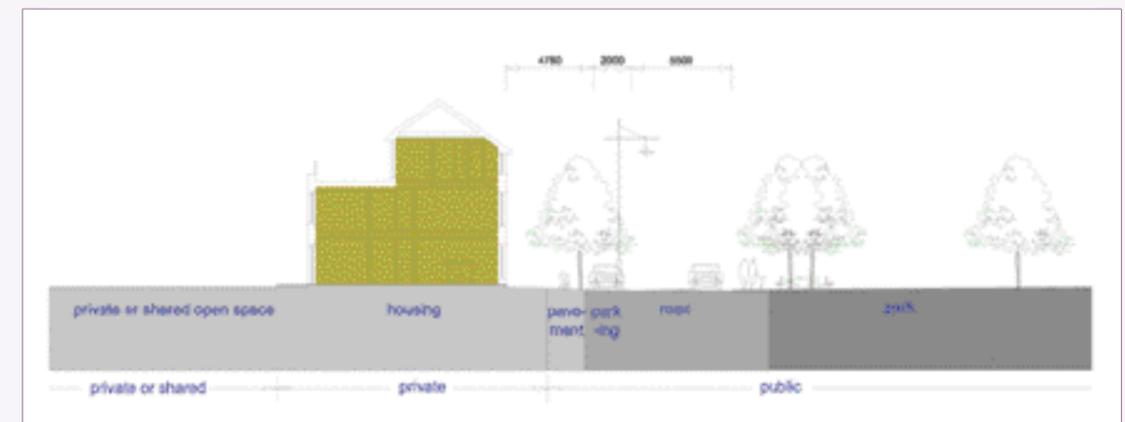


Fig 5.3.2: Indicative Section through Class 2 Open Space

6 RESIDENTIAL DEVELOPMENT

6.1 RESIDENTIAL DESIGN CONCEPT

The residential design concept is to concentrate residential modules around Class 2 public open spaces (of 0.2ha or larger). It is envisaged that the Class 2 spaces will be in the form of local parks and kick-about areas to provide a focus to different clusters of residential modules. The number of dwelling units will vary in the residential modules. However, in general they will consist of 2 types - high density and medium density. Residential development will be provided in tandem with retail and other residential services within the village centre and elsewhere.

Table 6.1 shows the mix of dwelling types and sizes to cater for a range of housing needs.

	3,000 unit option
1 bedroom units	6-12%
2 bedroom units	46-52%
3 bedroom units	28-34%
4 bedroom units	7-13%
TOTAL	100%

Table 6.1: Dwelling Mix

6.2 FAMILY HOUSING

It is envisaged that the predominant demand for housing in this area will be for housing for sale by new young families and by young couples preparing to have a family. To cater for houses for sale, three bedroom (2 children) (approx. 31% of dwellings) and four bedroom (3 children) houses (approx. 10% of dwellings) will be appropriate. In addition to this demand there will be a demand for social and affordable family housing, in accordance with the Fingal County Council Housing Strategy. The houses will be provided with gardens to Development Plan Standards and will be within easy walking distance of the primary school and local open space facilities for children's play.

6.3 APARTMENTS

The opening of the rail spur to Dunboyne will create a demand for a number of apartments in close proximity to the new rail station. The construction of apartments will occur primarily in the lands to the south of St. Joseph's Hospital and moving westward along the new Dunboyne rail spur. The proximity to a frequent rail service to central

Dublin, to Leixlip (Intel) and to Maynooth, may attract a small proportion of young workers wanting to buy property. Social welfare assisted rents will also produce a demand and some 1 and 2 bedroom apartments will be appropriate. The apartments will be situated in proximity to the public transport facilities. Apartments are also suitable within the village centre where they can be accommodated over retail, commercial and residential service facilities.

6.4 SPECIAL NEEDS HOUSING

Currently, there is no specific locational attraction for older people to relocate into the SDZ. In the long term demand may materialise for apartments and sheltered housing for older people and special housing for the disabled. As it is unlikely that significant sites will be retained for this use, apartment design should be cognisant of Part M of the Building Regulations, 2000, so that units can be adapted with the minimum of disruption should this be required.

6.5 SOCIAL AND AFFORDABLE HOUSING

The development will comply with the Housing Strategy prepared by Fingal County Council in accordance with Part V of the Planning & Development Act 2000, as amended by the Planning and Development (Amendment) Act 2002. In this regard the requirement is for 8% of units to be provided as social or affordable dwellings.

6.6 PRIVATE OPEN SPACE

The Open space standards set out in the Development Plan will apply within the SDZ lands. The County Development Plan provides no quantitative requirements in relation to bedspaces per dwelling. However it does provide some guidance on the space which would be considered appropriate for different types of housing.



Courtyard Development with Landscaping



Family Housing in the surrounding area



Apartment Development



Housing with private open space to rear

*“To require that all houses (terraced, semi-detached, detached) will have an area of open space behind the building line.
To ensure a minimum open space requirement for each house (exclusive of parking area) of 60m² to provide for an adequate level of residential amenity.
To permit a reduced standard only where narrow frontage town houses of 1 and / or 2 bedrooms are proposed but in no instance to accept a figure of less than 48m² per dwelling.
A minimum standard of 20 metres between directly opposing rear first floor windows shall generally be observed unless satisfactory alternative provision has been designed to ensure privacy.
To require a rear garden depth of 10 metres. However where adequate levels of privacy are provided, this depth may be reduced provided that the minimum area outlined above is achieved.”*

Fingal County Development Plan 2005-2011
Policies OS 28-31 (pgs 76 & 77)

With regard to apartment development, the Development Plan specifies that all apartments shall have open space provided in terraces, roof terraces, balconies or winter gardens of not less than 5m², or 2.5m² per bedspace.

6.7 CAR PARKING STANDARDS IN RESIDENTIAL AREAS

The County Development Plan provides for 1- 2 spaces per dwelling depending on dwelling size, access to public transport and local facilities. The Planning Scheme provides for an overall car parking provision as detailed in Table 6.2.

The Council will consider a reduction of these standards in Zones 6 & 7 where the immediate proximity to a high quality rail service could warrant a relaxation of the standards. This will be considered on a case by case basis as each planning application is made.

Dwelling Type	Parking spaces
1 bedroom dwelling	1.25
2 bedroom dwelling	1.5
3 bedroom dwelling	1.75
4 bedroom dwelling	2

Table 6.2: Car Parking Standards

6.8 URBAN DESIGN

The overall character of the SDZ will be established by the creation of a new street layout and networks, well designed architectural statements at key entrances, corner elements, key buildings, the provision of open spaces, pedestrian and cycle way routes. Traffic calming and pedestrian priority will be required to be integrated design features with readily identifiable routes and access points. In this way the SDZ will have an individual sense of identity, yet it will link into the network of streets and facilities in Castaheany, Ongar and Clonsilla, and integrate with the wider character.

It is an objective of the Planning Authority to secure the highest design, and quality of materials and finishes in all buildings, ground finishes, landscaping and signage. The Planning Authority will require natural colours to be used and materials and finishes to be durable to avoid long term maintenance problems. Developers will be required to have regard to minimising energy consumption and the safe and convenient collection of domestic waste. In respect of site development waste disposal the Planning Authority will require developers to adhere to the best practices of the Council’s Waste Management Strategy and to minimise construction waste before during and after construction phases.



Fig 6.1: Typical urban residential street with on-street parking



Parking Bays in residential areas

7 AMENITIES, SERVICES AND FACILITIES FOR THE COMMUNITY

7.1 PUBLIC OPEN SPACE

7.1.1 Standards

The residential development of the SDZ will comply with the public open space standards as set out in the County Development Plan. For the purposes of this calculation public open space requirements shall be based on the provisions of the County Development Plan. Housing units shall have an agreed occupancy rate of 3.5 persons in the case of dwellings with three or more bedrooms and 1.5 persons in the case of dwellings with two or fewer bedrooms.

In general the Council will require the developer to provide a minimum public open space provision of 2.5 hectares per 1000 population, as set out in Table 7.1.

On the basis of these standards and given an anticipated capacity of the SDZ lands of some 3000 residential units the future population of the SDZ will be some 7,000 persons. Having regard to the potential housing mix range, this generates a need for an approximate minimum of 17-18.5 hectares of Class 1 and Class 2 public open space. These figures are provided for reference only and will be subject to change depending on the final unit total.

The Planning Authority may however, allow recreational / amenity / community facilities (indoor or outdoor) of a more intensive nature to be provided in place of up to 30% of the Class 1 open space requirement. Intensive recreational / amenity / community facilities, which are compatible with residential use, may also be provided in place of part of the Class 2 open space requirement. Such provision shall be at the sole discretion of the Planning Authority. In any case it shall remain an objective of the Council to ensure a minimum provision of Class 1 and Class 2 open space equal to 70% of the relevant standards in addition to any intensive recreational / amenity / community facilities.

In relation to Class One Public Open Space, a 2ha park will be provided in the SDZ. In lieu of the balance of the Class 1 public open space and in accordance with the provisions of the Fingal County Development Plan, an agreed contribution shall be made to Fingal County Council. The contribution shall be on a phased basis as each application for planning permission is made. Monies received in this regard will be used for the development / upgrading of existing public parks in the vicinity and also for the development of park lands within the ownership of Fingal County Council at St. Catherine's. Figure 7.1 shows the location of these lands, and also of other parks in the general area.

Part of the St. Catherine's Park will be generated by the requirement for Class 1 open space arising from development within the SDZ lands. The area of land at St. Catherine's is however large enough to cater for the recreational demands of a significant portion of the wider community.

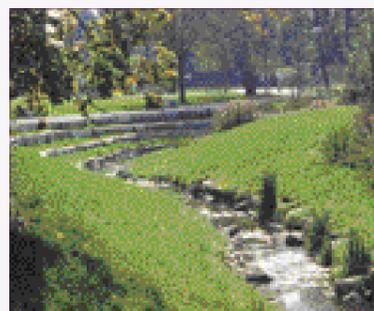
In general, open spaces of less than 0.2 hectare will not be accepted as Class 2 open space, in order to ensure that allocation is sufficient for informal games and recreational activity.

7.2 EDUCATIONAL REQUIREMENTS

7.2.1 Primary Education

The anticipated future population of the SDZ lands is approx. 7,000 persons. There is therefore sufficient demand within the SDZ lands to require a primary school in the area.

The short term demand will be considerably higher than 2 classes per annum. For example the current average birth rate in Fingal is about 19 per thousand and new housing areas can produce birth rates significantly higher than 20 per thousand. This demand may in part be met by schools outside of the area and in part by temporary



Landscaped Open Space



Apartments with Class 2 Open Space in front

Class	Category	Recreational Use	Average size	Persons	Provision
1	Neighbourhood	Active and Passive	18ha	10000	20ha (max) / 12ha (min)
2	Local Parks	Generally passive but includes for informal kickabout	0.4	-	13ha (max) / 5ha (min)
3	Environmental	Preservation of trees, visual	Additional	-	
TOTAL					25ha

Table 7.1: Urban Open Space Requirements per 10,000 population

classrooms. This forecast emphasises the need for primary school facilities, which can cater for the demand.

7.2.2 Post Primary Education

The projected SDZ population and household units may warrant a secondary school. The SDZ will provide over half of this demand. The majority of the SDZ is within easy walking distance of Clonsilla rail station (and a possible new station on a Dunboyne Rail spur) which would provide the possibility of some reverse commuting from the rest of Blanchardstown and from the more dispersed parts of Meath.

The Department of Education & Science has requested that 6 hectares be reserved within the SDZ for future education needs of the population, as outlined above. A reserved site has been allocated to the west of the village centre. This location remains accessible to the remainder of the SDZ lands, being located on the pedestrian / cyclist route system and is also close to other local facilities to facilitate joint trips.

In the event that the Department of Education & Science requires a smaller school reservation, the balance of the 6ha school site not required for educational use would revert to a 'OS' open space zoning and be developed as such.

7.2.3 Childcare Facilities

Guidelines for Planning Authorities June 2001 requires 1 Childcare facility for 75 dwellings. This is based on the assumption that 50% of households will require child-care. While this may be true of new housing areas, long term provision will be related to more average birth rates. Accordingly there will be a requirement for approximately 400 places for crèche and pre-school. Assuming a minimum of 50 children per unit, approximately 8 units will be required. Facilities are to be provided in the village centre and in western and eastern locations in the SDZ lands. Each phase of development, as set out in Chapter 10 of this Planning Scheme requires the provision of pro-rata childcare provision in accordance with the Childcare Guidelines.



Fig 7.1: Open Space Distribution in the vicinity of Hansfield SDZ, including Fingal County Council owned lands within Liffey Valley Regional Park

7.3 ANCILLARY SHOPPING, SOCIAL AND LEISURE FACILITIES

The development will be self-sufficient at a neighbourhood level for the projected population. The facilities will be clustered to increase attraction and minimise trips in addition to providing a focus for pedestrian and cyclist movement. It is important that the facilities be located on the main pedestrian/cyclist routes, and also on the route for a potential future bus route by Dublin Bus. In the context of the wider retail environment of the nearby Blanchardstown Town Centre and the development of Ongar Village to the north and Clonsilla Village to the east, the SDZ centre will be of a village order. The following services are envisaged to be provided within the area.

7.3.1 Retail Services (950m² - 2200m²) and Commercial Services (2100m²)

Retail Services shall include; Convenience store, 2-3 local shops which may include among others, Coffee shop Video shop, Hot food take-away, Hairdressers, Chemist. In addition, the planning scheme provides for 2100m² of commercial service floor space. This may include medical childcare, refreshment and local services.

7.3.2 Residential, Social and Community Services

These may include Local Offices, Medical Centre / Surgery, Bar / Restaurant and Childcare facilities.

7.3.3 Car Parking Standards In Commercial Areas

It is an objective of the Council to promote the use of sustainable means of transport such as cycling, walking and public transport. The order of shops to be provided here, as detailed in section 7.3.1 above, are such that goods purchased will not require the use of a car to transport them. It is appropriate to provide for shared/multi use car-parking. Reduced car parking ratios are also appropriate near rail stations as per Section 6.7 above.

7.3.4 Site for Place of Worship

A site for a place of worship has been allocated within Zone 7 and is shown in Figure 5.1. This shall be appropriate for commercial/residential use should written confirmation that it is no longer required by the Church Authorities.

7.3.5 Community Uses and Facilities

The Planning Scheme includes an objective for the provision of a community facility. It is envisaged that in the first instance, this may take the form of a multi purpose building of approx. 600m² including a sports hall/theatre, meeting rooms, toilets, etc., together with ancillary parking provision.

The Planning Scheme encourages community / recreational facilities to be provided in tandem with the provision of educational

facilities/schools as these naturally become the focus for community activity and also provide for the possibility of accommodating multi-use facilities. The Development Agency will work with the Department of Education & Science in order to facilitate the early provision of a school at Hansfield in order to enable this sustainable form of development to occur. It is acknowledged that the timeframe for the provision of the schools is uncertain and in the absence of same, the community facility is to be provided within the Village.

The village centre layout reserves a site capable of accommodating a 600m² community facility and associated car parking adjoining as illustrated in Figure 5.1. This aspect is to be determined prior to the making of an application for development in this zone. If however a school is developed, the Council will encourage the provision of this community facility within the school site. Any lands designated for school and community use will revert to public open space if not required.



School Facilities

8 TRANSPORTATION

8.1 TRANSPORT STRATEGY

The Fingal County Development Plan and the Strategic Planning Guidelines for the Greater Dublin Area advocate a balanced transport strategy which encourages sustainable modes such as the bus, train, walking or cycling rather than reliance on the private car. In residential areas it is the policy of Fingal County Council to favour pedestrians, cyclists and public transport.

The Blanchardstown Catchment Area Integrated Development Framework study, seeks to provide an overall framework for development and transport decisions in the wider Blanchardstown area. This strategy emphasises the promotion of public transport and the upgrading of the road infrastructure. To alleviate congestion, development must be more pedestrian, cyclist and public transport friendly. The proposals of the Blanchardstown Catchment Area Integrated Development Framework will be integrated into the development strategy for the SDZ.

The following transport infrastructural issues underpin the preparation of the Planning Scheme.

8.2 ROADS

8.2.1 Existing Road Network

The site is located to the west of Hansfield Road, the old local road between Clonsilla and Clonee. The existing road network is shown in Figure 8.1 Hansfield Road is currently designated as a third class road and it forms a link between the R149, regional class road, to the west and the R121 to the east. The R149 links Clonee Village, proximate to the N3 National Primary Road in the North, with Leixlip Village, proximate to the N4 in the South.

National and Primary distributor roadways in the vicinity of the subject lands are:

- To the east, the M50 Northern Cross motorway forms part of the Dublin C-ring.
- The N3 national primary road is accessible via the R149 at the Old Navan Road intersection 2.5km north of the proposed development and via the R121 4.5 km north east of the proposed development. Access to the N3 offers direct connection with the M50 Motorway and Dublin City Centre to the east, or alternatively Navan to the west.
- The N4 is located approx. 7km south of the site via the R149, and connects to the M50, Dublin City Centre, Maynooth, Enfield, Kinnegad Village and Galway / Sligo.

8.2.2 Strategic Roads for the SDZ Lands

It is the objective of the Planning Authority to secure the:

- Completion of the Ongar Road extension
- Castaheany Intersection Improvement
- Modification of major distributor roads for bus priority, Ongar Road, Castaheany Road.
- The limitation of access to the Ongar Road and the closure of Hansfield Road to through traffic.

The Ongar Road forms the northern boundary of the SDZ and the Ongar Road extension to the east, is currently under construction and is scheduled for completion in the near future. The road will provide a strategic link with the Snugborough Road to the east and to the network of local distributor roads. The Ongar Road also links to the N3 Navan Road at the Littlepace Intersection.

Vehicular access to the SDZ will be from the northern boundary via two roundabouts and a signalised junction on the Ongar Road, which may replace the existing roundabout immediately south of Ongar Village. An access may also be taken off the Hansfield Road into the lands immediately south of St. Joseph's Hospital (Zone 6). The design of the road network will provide for pedestrian, cycle and bus routes within the SDZ to afford priority to non-private vehicle transport. A detailed traffic assessment forms part of the accompanying "Statement of Likely Significant Environmental Impacts."

8.3 RAIL

8.3.1 Existing rail services

The Clonsilla railway station on the Maynooth-Dublin Connolly line is located approx. 400 metres from the eastern boundary of the SDZ. The service currently only provides for 3 trains to Connolly Station/Dublin City at peak hour. Capacity is therefore limited, but Iarnród Éireann propose to improve this situation.

8.3.2 Rail Improvements

DTO/Iarnród Éireann improvement plans for the Maynooth – Dublin Connolly line are in several phases and will eventually increase capacity from 4,200 persons to 10,200 persons in peak hour by the year 2008.

The first phase will be to improve Clonsilla Station by the provision of a new weather protected pedestrian Bridge over the Royal Canal and the railway line to provide direct access to both platforms of the station at its western end. Bus and car drop off facilities, limited car and bicycle parking and covered waiting area and walkway to the new

bridge will be provided. New ticketing facilities and improved weather protection and waiting facilities will be provided for those using the western egress and access to the station.

The second phase is to alter Connolly Station to provide 5 inbound trains at peak hours by the year 2007 which will increase inbound capacity to 6,600.

The third phase will require a new station at Spencer Dock by end 2008, which will increase inbound capacity to 10,200.

A fourth phase will include electrification of the line, removal of level crossings and provision of new stations. This phase is scheduled to be completed by the year 2013.

The disused Navan line forms part of the southern boundary of the SDZ lands and remains free from development. The DTO Platform for Change Report (2000) recommended that the line to Dunboyne should be opened by 2008 as a spur from the Maynooth-Dublin line and in the long term onwards to Navan. There is currently no date for the provision of the line to Dunboyne or to Navan.

Opening of this line would present the opportunity to establish a new station within the SDZ lands. A potential site for the new station has been identified and is illustrated in figure 8.2.

In addition the DTO Platform for Change Report (2000) envisages an Orbital Metro route to run through Porterstown and Blanchardstown Town Centre.

8.4 BUS

8.4.1 Existing Bus Services

The Existing catchment in the area of the proposed development is currently served by bus-routes 39/39X, 70/70X, 76A, 220 and 239. The

No. 39 route has a frequency of buses every 10 minutes at peak periods. The No. 70 and 220 routes also connect the catchment to the city centre but at less frequent intervals.

8.4.2 Proposed Bus Services

It is envisaged that both the local and city services could be routed to circulate within the SDZ and facilitated by bus lanes on the road network and possibly by the provision of bus only routings. The existing and proposed bus network is illustrated in Figure 8.2.

It is an objective of the Development Agency to promote and secure:

- The extension of the QBC (on the Ongar Road)
- The integrated QBC system
- The introduction of local interconnecting bus services to Blanchardstown Town Centre

The Planning Scheme has been designed to incorporate these objectives and this is reflected in the proposed public transport network as illustrated in Figure 8.2.

8.5 CYCLING AND WALKING

8.5.1 Existing Cycleways And Pedestrian Routes

There are at present continuous segregated pedestrian and cycle facilities along Ongar Road to Casteheany and Damastown. In addition spurs off this route to the edge of the proposed Ongar Village north of the SDZ lands are also completed.

8.5.2 Proposed Cycleways and Pedestrian Routes

The SDZ will maximise the provision of pedestrian and cyclist routes and design these routes to encourage movement within and into the SDZ. The design and layout of the building form will be required to include this as a central design element. The SDZ will provide safe and attractive routes that feature good passive surveillance, lighting, cycle parking facilities and which relate well to desire lines to/from

local facilities. In particular boundary walls between differing residential estates will not be permitted where they would reduce pedestrian movement to local facilities. Emphasis will be on the creation of pedestrian/cyclist linkages to:

- local amenities such as shops and leisure facilities.
- Public Transportation facilities such as bus stops and train stations.
- Educational establishments.
- Amenity areas – The Royal Canal, Tolka Valley Park, Liffey Valley SAAO
- Employment areas such as Blanchardstown, Damastown, Ballycoolin, Cruiserath and Cappagh.-

Figure 8.3 shows the proposed network of pedestrian and cycle routes.

8.5.3 Cycle Parking

Secure cycle parking facilities shall be provided specifically in the area of the village centre, and in the area of the rail halt when appropriate.

Further facilities shall be dispersed throughout the development in appropriate locations to serve apartment blocks, schools, community buildings, public transport stops etc. In all cases deemed necessary by the planning authority, secure bicycle racks shall be provided. Such racks should be within 25m of a destination for short term parking (shops) and within 50m for long term parking (schools, college, office etc.). All cycle racks shall be protected from the weather and security.

9 PROVISION OF ON-SITE SERVICES

9.1 ENVIRONMENTAL SERVICES

9.1.1 Waste Disposal

Facilities for the collection and disposal of waste shall be provided and facilitated in accordance with the requirements of Fingal County Council.

9.2 SANITARY SERVICES

9.2.1 Waste Water facilities

Approx. 48.5 ha of the subject lands can drain by gravity to the existing 375mm-diameter outfall sewer along Ongar Road. This sewer discharges to a 750mm public sewer approx 800m east of the proposed development. The existing foul sewer network can be seen in Figure 9.1.

The remainder of the site, c.16Ha., will be drained by gravity to an on-site pumping station and pumped to an existing 450mm diameter sewer approximately 1km north of the site. This sewer outfalls to the same 750mm sewer as above approximately 1.5km north east of the site.

This public sewer is part of the greater Dublin Drainage Scheme Sewer, which is located along the Tolka Valley, through Ashtown, across Phoenix Park, along the Grand Canal and discharges to the Ringsend Waste Water Treatment Works.

9.2.2 Surface water drainage

Approx. 48.5Ha. of the subject lands can drain by gravity northwards to the existing 1350mm diameter outfall sewer crossing Ongar Road and Hansfield Road. Figure 9.2 illustrates the division between those lands which will drain northwards and those which will drain southwards. This 1350mm-diameter sewer discharges ultimately to the existing surface water sewer north of the proposed development. This is a 1800mm-diameter surface water sewer which in turn discharges through a culvert at Hartstown to the Tolka River. This sewer was constructed as part of planning permission reg. Ref. F99A/1630. The 1350mm-diameter sewer across Ongar Road has a capacity of 2,107 l/s, having been designed to cater for the SDZ lands.

The remainder of the site, c.20Ha. will be drained by gravity eastwards to the River Liffey via the Clonsilla surface water system, attenuation will be provided on site and runoff will be limited to the current greenfield runoff. Alternatively, this section of the lands could drain to the Westmanstown crossing of the canal/railway via the existing field drainage system. Again, the surface water run-off will be attenuated on site and runoff will be limited.

9.2.3 Water Supply

There is an existing 600mm diameter municipal water supply approximately 800m east of the development, traversing the proposed Ongar Road Extension. A 300mm-diameter watermain constructed under planning permission Reg. Ref. F99A/1630 is located within the length of the Ongar Road. It is proposed that the site be served by connections from this main. Connections are provided for the SDZ lands in the vicinity of Roundabouts C and E and Junction D.

The supply arrangements will be carried out to the requirements of the directions of Fingal County Council Environmental Services Department. A possible layout of the watermain runs are indicated in Figure 9.3.

9.3 UTILITIES

9.3.1 Electricity – Macetown to Ryebrook 110 kV line

The Macetown to Ryebrook 110kV line runs diagonally through the site from North East to South West. This line will remain in place and will supply the proposed development. The provision of substations and connections to the line is to be negotiated between the developers and the Electricity Supply Board. An existing electricity supply is available within the Ongar Road reservation.

9.3.2 Gas: Bord Gaís Supplies

The provision and location of facilities to be negotiated between the developers and Bord Gaís. An existing gas supply is available within the Ongar Road reservation.

10 PHASING OF DEVELOPMENT

10.1 GENERAL

It is the objective of the Planning Authority to ensure the timely and orderly development of the SDZ lands. A phasing schedule has therefore been produced whereby the delivery of infrastructure, services and facilities is produced in tandem with the delivery of residential units.

Development of the SDZ lands will be organised in three phases. Accordingly, the three primary elements of public transport infrastructure in the Hansfield area have been incorporated into the phasing set out below. These are the completion of the Ongar Road QBC, the completion of a number of enhancements to Clonsilla Station, and the provision of a rail halt on the Dunboyne Spur to facilitate the development of the SDZ lands.

In addition to the above, a number of social infrastructural and community facilities, including schools and open spaces, are to be delivered as part of each phase. Occupation of dwellings constructed in a latter phase may not occur until all of the required facilities and infrastructure in the previous phase have been completed.

The phasing of development is related to unit numbers rather than being time specific. Similarly, the phasing of development is not location specific, and may occur within any of the Planning Scheme zones, subject to the necessary specific infrastructure and physical connections being provided.

10.1.1 Phase 1A: 0 - 500 dwellings

Phase 1A allows for the occupation of up to 500 units and requires:

- The completion of the Ongar Road.
- The completion of the QBC on the Ongar Road.
- The Village Centre between the Ongar Road and the Pylon Corridor to be commenced.
- The landscaping of the 2ha central area of Class 1 open space. (Hansfield Park), including the provision of tennis courts and an equipped children's play area.
- The improvements to Clonsilla Station to have commenced.
- The commencement of the required improvement works to Hansfield Road.
- Pro rata creche provision.
- Pro rata provision of public open space.

10.1.2 Phase 1B: 501 - 1,000 dwellings

Phase 1B allows for the occupation of to 1,000 units and requires:

- Construction of Primary School number 1 with a minimum of 8 number classrooms of permanent construction.
- Clonsilla Station improvements completed.
- Pedestrian access to Royal Canal Tow Path to be provided.
- The completion of the required improvement works to Hansfield Road, to include a pedestrian and cycle connection to the improved Clonsilla Station.
- Pro-rata childcare provision as per the Planning Scheme.
- Pro-rata provision of Public Open Space.

10.1.3 Phase 2: 1,001 - 2,000 Dwellings

Phase 2 allows for the occupation of up to 2,000 units and requires:

- Village centre to be completed.
- Construction of Primary School number 2 and Post Primary School each with a minimum of 8 number classrooms of permanent construction.
- The provision of a community centre.
- The provision, of a new rail station, serving the SDZ.
- The provision of a 15-minute train service at Hansfield Station and a 7.5 minute train service at Clonsilla Station during the peak hours, each train with a capacity of circa 1,250 passengers.
- Pro-rata childcare provision.
- Pro-rata provision of public open space.

10.1.4 Phase 3: 2,001 - 3,000 dwellings

Phase 3 is the final phase of development of the SDZ lands, by which time all of the necessary infrastructural requirements will be in place. The occupation of units 2,001 - 3,000 is not therefore dependent on any further works. However, any planning application for these final units will have to demonstrate that sufficient provision has been made for childcare facilities, or otherwise provide the necessary facility. Pro-rata provision of public open space will also be required.

10.1.5 A "rollover" mechanism may operate between any two phases. In the event of the maximum permissible number of units being completed in advance of the required facilities and infrastructure of that phase, a rollover of up to 100 dwelling units in the following phase may be constructed, subject to planning permission. Those dwelling units shall not be occupied until the required facilities and infrastructure scheduled for that phase have been completed.

10.2 OPERATION

The proposed phasing of the development will operate as follows:

- A certain amount of works, i.e. infrastructure, services, facilities and / or amenities are required for each phase of residential development.
- Any required works may be brought forward and completed sooner than scheduled. However unless all the required works for a particular phase of residential development are completed, the total number of dwelling units that may be permitted will not increase beyond that phase.
- Certain works required, may take longer than one phase of residential development to complete, in which case it may be necessary to seek planning permission for the works sooner than the phase of dwellings for which they are required.

- There is no limit on the amount of works i.e. infrastructure, services, facilities and amenities that may be subject to any single planning application.
- There is no limit to the number of dwellings that may be included in any single planning application, but permission will be granted subject to a sequence of phasing that accords with the Planning Scheme.
- All planning application for either works and / or dwellings within the Hansfield Planning Scheme area shall include a schedule detailing exactly the required works i.e. infrastructure, services facilities and amenities and number, type and location of dwellings completed to date.
- To facilitate ongoing monitoring, evaluation and implementation of the Planning Scheme it is proposed to establish:
 - (1) A steering group which shall comprise representatives of the Elected Members and Officers of the Planning Authority / Development Agency together with representatives of relevant statutory agencies and Government departments.
 - (2) A Project Implementation Team to comprise relevant technical and administrative staff of the Planning Authority / Development Agency together with other relevant technical and administrative representation as may be applicable from time to time.

11 IMPLEMENTATION

The Planning Scheme prepared for the SDZ indicates in detail the manner in which the Council considers the lands should be developed. The SDZ has a number of important features that make it distinct from the normal planning system for development.

- An SDZ forms part of the development plan in force in the area of the scheme and it supersedes any contrary provisions of the development area.
- There is no appeal opportunity to An Bord Pleanála against the decision of the Planning Authority on an individual planning application for development within an SDZ.
- Section 167 of the Planning and Development Act 2000 enables the local authority to acquire land or enter into agreement with landowners.
- The Planning Authority can use any powers available to it for the purposes of providing, securing or facilitating the provision of the SDZ e.g. Compulsory Purchase Order Procedures, and the payment by the developer of financial contributions in accordance with the scheme of contributions to be prepared by Fingal County Council.
- To facilitate the development of the SDZ Fingal County Council will utilise these mechanisms to secure the objectives of the Planning Scheme.
- To finance public infrastructure projects and services (including QBC improvements, improvement to Clonsilla Station, City Centre Terminal, new trains, Dunboyne link) a levy contribution scheme including Section 49 of the Planning And Development Act 2000 will be introduced on all development within the SDZ.

12 CONSULTATION ARRANGEMENTS

The Guidelines on preparing Planning Schemes states that consultation will be similar to those specified for local area plans in the Planning and Development Act 2000.

S. 20.(1) states that a planning authority shall take whatever steps it considers necessary to consult the public before preparing, amending or revoking a local area plan including consultations with any local residents, public sector agencies, non-governmental agencies, local community groups and commercial and business interests within the area. The Guidelines also state that landowners and public sector agencies involved in the provision of infrastructure should be either involved in the preparation of the Scheme or very extensively consulted.

On the 12th September 2001 Fingal Council County advertised the proposed Strategic Development Zone, in the Irish Times inviting public representation. Three submissions were received from Fenton Simons Ltd., The Dublin 15 Community Council, and the ESB.

The issues identified were:

- Housing Density
- Movement systems, Roads infrastructure, Metro Rail proposals
- Provision of Open Space
- Local Facilities
- Diversion of existing ESB transmission line

Consultation meetings were also held by the Planning Department with the landowners and their agents. In addition a Steering Group consisting of representatives from the Department of Environment, Fingal County Council, the DTO, Bus Eireann, Dublin Bus, Iarnród Eireann and ESB held a number of meetings to monitor and progress the preparation of the Revised Draft Planning Scheme.

The Revised Draft Planning Scheme was presented to the Castleknock / Mulhuddart Area Committee and to the Council on 28th February 2005.

The decision to make a Revised Draft Planning Scheme was advertised in the Local Press. The Revised Draft Planning Scheme was displayed for public consultation and written observation / submissions made. A report was presented to the Council meeting on 11th July 2005 on the observations and submissions received. The Revised Draft Planning Scheme, was adopted subject to 17 modifications.

The Planning Authority advised An Bord Pleanála of the Councils decision on the 13th July 2005 and an oral hearing reopened on 9th – 10th November 2005. On the 30th January 2006, An Bord Pleanála issued approval of the SDZ Hansfield Planning Scheme.

The procedures in relation to the SDZ process and the requirements in respect of consultation are set out in Appendix 2.

13 ENVIRONMENTAL APPRAISAL

13.1 INTRODUCTION

13.1.1 Context

This section of the Planning Scheme comprises an environmental appraisal of the Draft Scheme and sets out the likely significant effects of the development on the environment.

Section 168 of the Planning and Development Act 2000 states that *"A Draft Planning Scheme shall also contain information on any likely significant impacts on the environment of implementing the Planning Scheme and to that effect it shall contain the information prescribed under Section 177 in so far as such information is relevant to the detail contained in the scheme."*

A full statutory Environmental Impact Statement (EIS) is not required for a Planning Scheme under the above Act. The completion of the Planning Scheme does not however preclude or negate the necessity for an EIS to be prepared for individual developments within the SDZ if they are prescribed above the threshold requirements set out in the Schedules to the Environmental Impact Assessment Regulations implementing EC Directives 85/337/EEC and 97/337/EU.

13.1.2 Scope of the Environmental Appraisal

The Environmental appraisal examines the likely significant impacts on the environment of the development of the SDZ lands. Where applicable, the appraisal also sets out recommendations on mitigation measures. The appraisal has been conducted under the following topic headings:

- Human Beings
- Flora and Fauna
- Soil
- Water
- Noise
- Air Quality
- Landscape and Visual
- Transportation
- Archaeology, Architectural Heritage and Cultural Heritage

13.1.3 Planning and Policy Context

The planning and policy context for the Strategic Development Zone has been examined in detail in Chapters 1 and 3 of the Planning Scheme. The Planning Scheme has been prepared taking into account the provisions of the following isolation and policy documents:

- The Planning and Development Act 2000
- The Fingal County Development Plan
- The Strategic Planning Guidelines for the Greater Dublin Area
- The Castaheany Action Area Plan
- The Clonsilla Action Area Plan
- The Fingal County Council Housing Strategy
- The Residential Density Guidelines
- The Dublin Transportation Office: A Platform for Change
- The Blanchardstown Catchment Area Integrated Development Framework (Draft)

The Planning Scheme is consistent with all of the above listed references under Planning Context. The proposals for the SDZ lands incorporate where appropriate the policies and requirements contained therein. In this respect the Planning Scheme will have a potentially significant beneficial impact as regards the achievement of the planning policies and objectives.

13.2 HUMAN BEINGS

13.2.1 Introduction

Human beings clearly comprise the most important element of the environment and any potential impact on the status of human beings by a development proposal must therefore be comprehensively addressed. The principal concern in this respect is that human beings experience no significant unacceptable diminution in an aspect, or aspects of quality of life as a consequence of the construction and operation of the proposed development. Components of quality of life relevant to this section of the Environmental Appraisal include community and socio-economic aspects, with relevance to population profile and trends in these and any likely and significant impact on these by the Proposed Scheme.

13.2.2 Methodology

In preparing this section reference was had to the Census of Population 1996 and the Census 2002, Preliminary Report. In addition relevant socio-economic commentaries within the Fingal County Development Plan 1999, the Strategic Planning Guidelines for the Greater Dublin Area 1999 (and subsequent updates) and the National Spatial Strategy were examined.

13.2.3 The Baseline Environment

The Preliminary Census Report 2002 reveals that the population of Dublin City and County grew by 6.1% in the period from 1996 to 2002. This percentage growth is actually less than the State average over that period of 8%. On the other hand there are clear differences in growth level within Dublin City and County. Dublin City has experienced a population growth of just 2.75 with Dun Laoghaire Rathdown County growing a mere 0.7%. Fingal County has effectively driven the absolute and percentage increase in the Dublin population with a 17% expansion of the population between 1996 and 2002.

Blanchardstown-Blakestown which is the DED within which the SDZ lands are located, has experienced a population change of 61.4% from 15,131 persons in 1996 to 24,502 persons in 2002. This is evidence of the land capability of the Blanchardstown area to develop new residential communities and is a manifestation of the planned policies for residential growth in this part of County Fingal.

The SDZ lands must be considered within the statutory and strategic planning context for Fingal County Council and the wider Greater Dublin Area. These issues are addressed separately under Planning Context. In short, the rationale for the sustainable utilisation of this identified land resource is made in the baseline policies and objectives applicable.

13.2.4 Evaluation of Potential Impacts

The development of the SDZ could provide for a maximum of 3000 dwelling units with the possibility that this total may be reduced in the absence of a rail halt within the SDZ lands on a re-opened Navan Line. Assuming this rail halt is delivered, the anticipated future population of the SDZ lands is approximately 7,000 persons. This will result in a significant increase in the population of the area. However this is an increase derived from clear development plan policy, which specifically earmarks these lands for residential and associated uses.

The delivery of this population increase is a positive impact. The increase in population in the area will stimulate demand for an enhanced provision of local services, which this scheme is also providing. It will also provide public transport use thresholds to allow for committed new public transport services in this area and linking to Blanchardstown and Greater Dublin.

The nature of the proposed new residential accommodation (in terms of the diversity of unit size and the detailing of separate development character areas) will provide a wide range of accommodation options. This will provide for a more robust and flexible accommodation resource for existing and prospective residents and ultimately will contribute to a greater population profile balance within the Blanchardstown area.

A broad range of amenities, services and facilities are proposed as part of the overall SDZ Scheme. These include allocated levels of:

- Class 1 and Class 2 open space provision within the SDZ lands, including a major delineated Village Square.
- Childcare, Primary and possible Post-Primary educational facilities.

The SDZ Scheme incorporates a Village Centre with a minimum of 950 square metres of retail space, commercial, community facility, site for place of worship, and with a residential content. The centre will be designed to deliver an urban grain and will provide the essential social and community services for the projected population of the SDZ lands.

The SDZ lands will have a permeable pedestrian and cycle route network linking residential areas with, public transport access points, the village centre, community and educational facilities and open space areas, in a form that is legible and will be perceived as safe and usable. This is an important beneficial impact in terms of the future use of the district by prospective residents and other users/visitors.

The proposed transportation infrastructure will ensure that there is a reliable alternative to private car use for movements into and out of the SDZ lands.

The proposed development will in itself create a modest direct employment. However it will also contribute to the overall protection and enhancement of sustainability at major employment centres in the wider Blanchardstown and Fingal areas and also including the city centre, by delivering well positioned residential accommodation on high capacity transport corridors linking those areas.

In terms of cumulative impact, the future population of the proposed development will combine with the established populations in the wider area to support and augment the range of commercial and employment services in the vicinity such as Blanchardstown Town Centre.

The construction phase of the proposed development will take place over several years. During the phased development, it is expected that a significant construction workforce will be employed. The development will also support job creation in associated sectors such as building supply.

13.2.5 Mitigation Measures

Measures to mitigate against potential adverse impacts, include the commitment within the Planning Scheme to allocate associated facilities such as educational, commercial and community uses. The planning scheme indicates the locations for these facilities.

There will be adequate provision of infrastructure services such as Sanitary Services and Utilities. The detailing of these is set out in the Planning Scheme.

The dwelling mix in terms of size and urban design and the related routing and open space proposals, will create a high quality living district. This will contribute positively to a strong sense of identity

and ownership of the overall scheme including public domain by prospective residents, employees and visitors.

13.3 FLORA AND FAUNA

13.3.1 Introduction

The section assesses the impact of the SDZ Scheme on flora and fauna at the designated lands.

13.3.2 Methodology

In preparing this Flora and Fauna impact assessment, all tasks were carried out with reference, as applicable to the Institute of Ecology and Environmental Management Draft Guidelines for Ecological Impact Assessment (IEEM 2002), and using our experience of 'best practice' in the ecological assessment of proposed infrastructure developments.

The SDZ lands were surveyed in July 2002, October 2003 and January 2005. Identified habitat types were classified according to A Guide to Habitat Types in Ireland, (Fossitt, 2000), published by The Heritage Council. A habitat plan illustrating the location of specific habitat is set out below. In addition to visiting the SDZ lands, The Royal Canal proposed Natural Heritage Area (pNHA) adjacent to the SDZ lands was also surveyed.

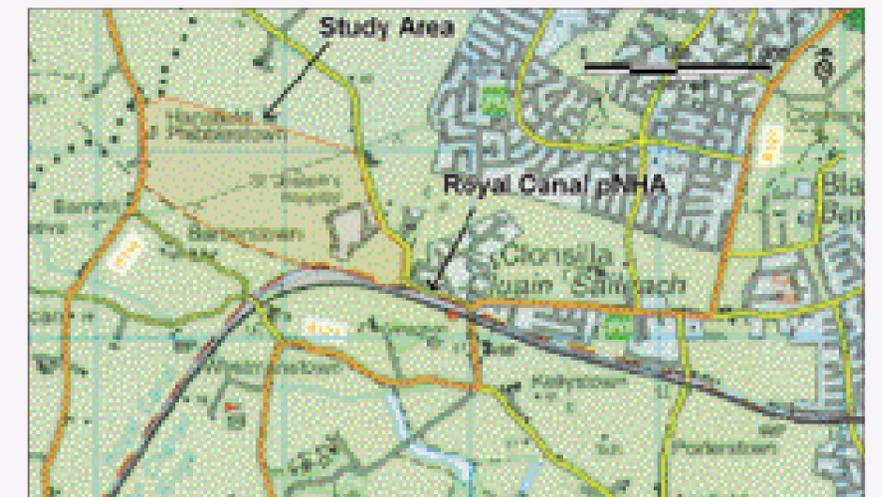


Fig 13.3.1: Royal Canal pNHA

13.3.3 Existing Environment

Sites of Ecological / Conservation Importance

The study area is not located within the boundaries of any designated sites. The SDZ lands is, however located adjacent to the Royal Canal pNHA (2103). The Royal Canal flows from the south and then turns to run in an easterly direction at the south-eastern boundary of the study area.

13.3.4 Flora

A total of 8 habitat types as defined by Fossitt (2000) were recorded at the SDZ lands. These are as follows:

13.1.4.1 Improved Grassland (GA1)

The agricultural pastures within the study area represent the habitat type 'improved grassland'. Vegetation in this habitat classification within the study area is dominated by Yorkshire Fog with an abundance of Creeping Buttercup. Species such as Broad-leaved Dock and Common Nettle have a patchy distribution around the periphery of the improved grassland fields. Other grasses that occur commonly in the sward include meadow grasses, Sweet Vernal Grass and Perennial Ryegrass. The grasslands have been intensively managed in the past followed by a pause in silage cutting and grazing regime in 2001/2002 (as noted in the 2003 survey). More recently, it appears that management has eased somewhat and the grassland was not been cropped in 2004. There is evidence that horses occasionally graze one corner of the most north-eastern field within the study area. There are mounds of building rubble and earth dumped in the northern most fields of the study area. Improved amenity grassland is found to the south of St. Joseph's Hospital. This habitat is improved grassland, but is managed by mowing, rather than for any agricultural purpose or output. There is some evidence of light but insignificant grazing. Here, the sward is dominated by Cock's Foot, Creeping Bent and Perennial Rye-grass.

13.3.4.2 Spoil and Bare Ground (ED2)

A section of the site in the north west corner consists of earth mounds and spoil heaps deriving from adjacent construction activity at Ongar Road. This habitat has been vegetated by colonisers and

ruderal vegetation. There are mounds of building rubble and earth dumped in the northern most fields of the study area, this material has originated from the work that has been undertaken on the new Ongar Road and associated development along the northern boundary of the study area. The vegetation found here is typical of colonisers and ruderals, or weed plants. Species include Colt's Foot, Nettle, Dandelion, Broad-leaved Willowherb and Common Ragwort, Greater Plantain, Knotgrass, Pineappleweed and Shepherd's-purse.

13.3.4.3 Hedgerows (WL1)

The hedgerows within the study area are poorly maintained and have become overgrown. They average 6 m in height, and are generally dominated by Hawthorn with an abundance of Elder and Blackthorn. Ash and Sycamore also occur frequently as standards. Some hedgerows within the study area have a high proportion of larger trees growing above the level of the dominant Hawthorn and Elder. These trees include Oak, Beech, Sycamore and Ash. Species that are common throughout the hedgerows include Cow Parsley, Hogweed, Cock's-foot, Dock, Bramble, Cleavers, Nettle. Holly is present in some of the hedgerows. There are a number of drainage ditches running alongside hedgerows within the study area; all of which were dry at the time of, and for a considerable time before, the time of field investigation. The drainage ditches are generally bereft of vegetation and more usually have woodland flora including Herb Robert and Hart's-tongue Fern growing on the banks since they occur under the hedgerow canopy.

13.3.4.4 Tilled land (BC3)

This category describes land that has been tilled and prepared for planting but where the type of crop, or future use of the land, cannot be established. The largest field in the centre of the study area has been used as arable farmland in the past. The management regime is uncertain at present but has been used as arable land previously. The area does not seem to have been replanted since the 2001 season (as evident in the 2002 survey) and has been naturally re-colonised by ruderals. There is no single dominant species but the following are abundant and distributed throughout the habitat; Bread Wheat (remnant of an old crop cultivated within the field), Broad-leaved Willowherb, Smooth Hawksbeard, Common Ragwort and Spear Thistle. Other species that occur frequently throughout the habitat include, Cleavers, Field Forget-me-not, Yorkshire Fog, Poppy, Nettle, Groundsel, Creeping Buttercup, Bramble, Dandelion, Timothy, Perennial Rye-grass and Knotgrass.

13.3.4.5 Grassy Verge (GS2)

The southern boundary of the study area is a disused railway line. The old railway line is situated on an embankment approximately 3-4 metres high at its highest point. Hedgerow and scrub vegetation is present along each side of the line while the top of the embankment is dominated by grasses such as False Oat Grass, Yorkshire Fog and Cock's-foot dominating. Gorse is occasional. Species that occur frequently include, Bird's-foot trefoil, Red Clover, Meadow Vetchling, Nettle, Hogweed, Cow Parsley, Cleavers and Devils-bit Scabious. The habitat is undisturbed except in areas where it is crossed by field access roads. No plant species of conservation interest were noted; the habitats within the study area are all common in the wider countryside and as such it is unlikely that they harbour any rare flora species. Suitable habitat may occur for Hairy Violet along the disused

railway line; however this area would not be impacted by the indicative proposals within the Draft SDZ Scheme.

13.3.4.6 Scrub (WS1)

The southern portion of the amenity grassland is a tree-lined belt of scrub habitat. Ground vegetation includes Bramble, Colt's Foot, Nettle, Dandelion, Broad-leaved Willowherb and Common Ragwort, Greater Plantain, Knotgrass, Pineappleweed and Shepherd's-purse. Occasional Wild Angelica, Nettles, Buckler Fern, Soft Shield-fern and Hart's Tongue Fern occur also.

13.3.4.7 Canal (FW3)

The section of the Royal Canal adjacent to the study area is approximately 8 metres wide. A towpath, now used as an amenity and walking route, is located on the northern bank of the canal. From the towpath the banks slope steeply to the water edge (approximately 2 metres below the level of the tow-path). The towpath is dominated by grass species and is mown regularly. The vegetation of the bank is not mown and includes Common Valerian, Common Dog-rose, Bramble, Cock's-foot, Hogweed, Ribwort Plantain, Red Clover, Purple Loosestrife, Yellow Iris, Bush Vetch, Bird's-foot-trefoil, Oxeye Daisy and Gorse. There are only occasional small pockets of marginal vegetation, which include Common Reed, Branched Bur-reed, Common Club-rush and Yellow Iris. Water movement is very slow along this section of the canal and appears still. Yellow Water-lily grows occasionally on the surface of the canal. The Southern Bank of the canal is lined with mature trees including, Willow, Ash and Sycamore. There is an old stone wall along the sides of the canal at one location. This wall is sparsely vegetated by Lady's bedstraw and Ivy. The application site is separated from the canal by a disused railway line, the vegetation of which is described above (GS2).

13.3.4.8 Trees (WL2)

The tree lines of the western boundary of the application site are dominated by Ash and Sycamore. The amenity grassland is enveloped by tree lines to the east, south and west. Individual specimen trees are found by the entrance gates of the hospital (notably Beech, Pedunculate Oak and Horse Chestnut). The tree line then runs south along the eastern site boundary, and consists of Leyland Cypress for 175m, before becoming a broadleaf tree line. Here, the trees are chiefly Sycamore and Ash, with Holly and Beech, with sparse understorey as described in WS1 above. The southern boundary consists of Ash, Hawthorn, Sycamore and Corsican Pine and Scots pine. The western edge of this tree line contains all previously described trees, and also Monterey Cypress, Alder and Grey Willow. Crocus and Wood Anemone were evident in the emerging ground flora in 2005.

A copse of White Poplars occurs within the amenity grassland with a thicket of bramble and cleavers as ground flora, and a solitary Sitka Spruce dominates the open field. Beech hedging and a broken line of planted Beech trees occurs to the north of the amenity grassland.

13.1.5 Fauna**13.3.5.1 Invertebrates**

During the 2003 survey, Small White and Common Blue butterfly species were recorded within the study area. Meadow Brown, Ringlet,

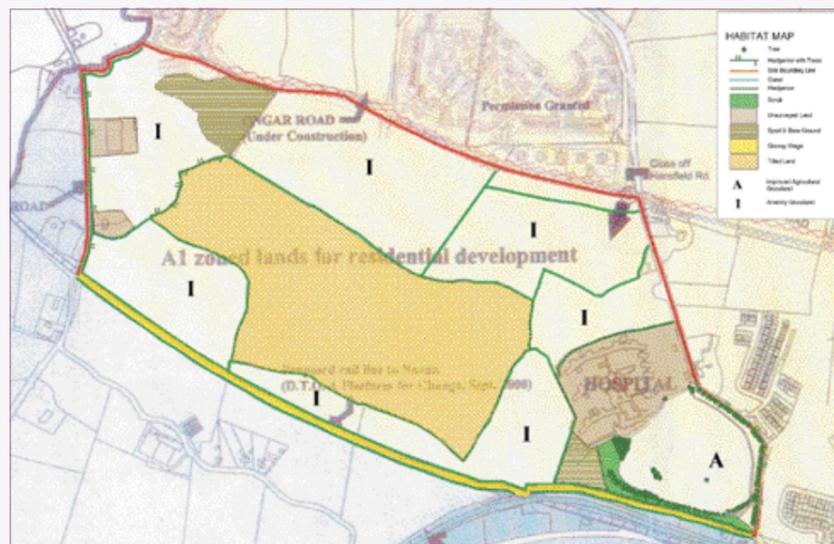


Fig 13.3.2: Habitats identified within the SDZ lands

Small Tortoiseshell are also recorded in 2002. These species are all common and listed as being of low conservation priority in Asher et al. (2001). The greatest abundance of butterflies were recorded along the disused railway line and within the large field that is dominated by the tilled land habitat. The abundance of flowering plants within these habitats makes them attractive to butterflies. Suitable habitat exists (e.g. along the disused railway line) for Wood White. While Small Blue has also been recorded from the 10 km square within which the site is located, its foodplant (Asher et al. 2001), Kidney Vetch, was not recorded during the site visit. Devils-bit Scabious, the main food plant of the Annex II butterfly species Marsh Fritillary, was recorded from the grassy verge vegetation along the disused railway. The species was last recorded in the ten km square of the study area prior to 1970 (Asher et al. 2001). No Damselflies or Dragonflies were recorded during the 2003 or 2005 visits, but the Common Blue and Black-tailed Skimmer was recorded in 2002.

13.3.5.2 Crustaceans

White-clawed Crayfish occur the length of the canal, and certainly from Lough Owel to the Dublin suburbs. In the Leixlip area, the Rye Water Valley/Cartron SAC, which is actually crossed and partially fed by the Royal Canal, supports a good population (Dúchas, pers. comm.). White-clawed Crayfish are listed on Annex II of the EC Habitats (92/43/EEC) Directive. This offers the species protection to a level where their habitat should not be degraded. White-clawed Crayfish is well established and widespread in lowland, lime-rich areas of Ireland. Perhaps because of the absence of crayfish plague and competitors, White-clawed Crayfish is found in a range of water types, but generally in areas of moderate to high water quality (Reynolds et al. 2002). Irish crayfish stocks are considered the strongest in Europe (Reynolds 1997), owing to relatively high water quality, absence of American Crayfish and no tradition of commercial fishing. As a result, their potential for re-stocking is high, however Royal Canal stocks are not currently in use as donor populations for re-stocking programmes in Ireland (Reynolds et al. 2002).

13.3.5.3 Birds

Bird species recorded in the study area during the habitat survey included Wood Pigeon, House Martin, Swift, Swallow, Rook, Magpie, Wren, Blue Tit and Song Thrush. The bird species recorded are typical of semi-natural habitats in an urban context. Habitats of value to birds include those along the line of the disused railway; mature trees along the southern side of the canal; wetland habitats in the canal; recolonising bare ground, which would be used by seed eating finches, particularly during the winter months; and hedgerows. Such habitats are not uncommon within the wider environs of the study area. No birds of conservation concern were recorded on SDZ lands. Birds recorded in the vicinity of the canal adjacent to the south-western boundary of the SDZ lands included Moorhen, Mallard, Kingfisher and Grey Wagtail. All of these species are likely to breed in the habitats along the canal.

13.3.5.4 Mammals

A single badger sett entrance was observed in a thicket of understorey on the site. (While it is inappropriate to pinpoint the location of this in a public document, 12 point Irish Grid co-ordinates are available). A significant spoil heap occurs outside the entrance, but appears old. No fresh prints, snuffle holes, latrines, or any hairs were observed,

and it is possible that the sett entrance is disused. While there were a number of mammal tracks recorded within the SDZ lands it was not possible to determine the species using these tracks. Other Mammals that are likely to occur within the study area include Hedgehog, Irish Stoat, Pygmy Shrew, Red Fox, Irish Hare and Brown Rat. Rabbits were recorded feeding on the SDZ lands in the course of the habitat surveys.

Within the SDZ lands there is potential for bat hibernaculæ in some limbs of the trees within the site. St Joseph's Hospital hosts roosting bats, though the species of bat that are resident in the area have not been formally identified. The hedgerows within the SDZ lands may offer suitable feeding habitats and may act as useful corridors for bat movement between roosts and feeding areas; the most significant corridors would appear to be those along the eastern boundary (adjoining St. Joseph's Hospital) and the canal. The canal adjacent to the SDZ lands may offer suitable feeding habitat for Daubenton's Bat amongst others. There are a number of bridges along the canal in the vicinity of the SDZ lands that may act as suitable roost sites for bats (Smiddy, 1991). All Irish Bats are protected by the Bonn Convention 1992 (Agreement on the Conservation of Bats), the Bern Convention, 1982, the Habitats Directive (92/43/EEC of 21 May 1992), (under S.I. No. 94 of 1997), and the Wildlife Act (1976; Wildlife [Amendment] Act, 2000).

13.3.6 Evaluation of Potential Impacts

13.3.6.1 Flora

The habitats recorded within the study area are evaluated as follows:

- *Improved grassland* – Low ecological importance.
- *Spoil and bare ground* – Low ecological importance.
- *Tilled land* – Low ecological importance. The species diversity is more than on the improved grassland the species present are common in the wider countryside. They are generally described as pioneer species and occur commonly in many environments. The habitat is quick to develop and is transitional.
- *Hedgerows* – Local Importance. The built up nature of the surrounding area and the increased urbanisation of the landscape adds to the importance of the hedgerow habitats.
- *Grassy verge* – High local importance. Habitat types are thought to be relatively uncommon in the surrounding area and the linear extent of this habitat type increases its importance as a local wildlife habitat / corridor.
- *Tree lines* – High local importance. Many trees are mature, and can accommodate a variety of wildlife at different phases of their life cycle.

Clearance of the SDZ lands would result in the loss of an area of improved grassland, tilled land, spoil and bare ground. These habitats are of low ecological value. These habitats are also well represented in the surrounding landscape. Most of the hedgerows within the SDZ lands, which are of local importance, are likely to be removed. However, it is understood that hedgerows along the eastern and southern boundaries (i.e. adjoining St. Joseph's and the Royal Canal / disused railway) will be left in place where this proves feasible. Within the SDZ lands, the tree lines are of greatest ecological value. Along with the hedgerows, they provide connectivity

between the known bat roosts in St. Joseph's and foraging areas along the canal and disused railway, as well as providing habitat for other birds, mammals and invertebrates.

Secondary/indirect impacts could include the following:

- **Barrier Effects:** Development may act as a barrier to movements by many types of animals (e.g. Mader, 1984; Richardson et al., 1997). The key corridors within the study area considered to be those along the canal, the disused railway and associated connectivity with the known bat roosts at St. Joseph's; it is our understanding that these are to be retained. Hedgerows located within the SDZ lands, in areas of improved grassland / recolonising bare ground, are likely to be less important as the remainder of the SDZ lands, as a unit, already experiences some degree of severance by the existing road network. Access to the final landscaped development should be maintained from the canal / railway refuge through appropriate on site landscaping.
- **Direct mortality of fauna through road deaths** may increase as a consequence of the construction of an internal road network within the SDZ lands. However, there already exists an extensive road network immediately adjoining the proposed SDZ lands.
- **Disturbance:** Increased activity may cause moderate short-medium term disturbance impacts to birds and mammals in the area due to construction. This impact will probably occur throughout the study area.

13.3.7 Mitigation Measures

In order to prevent and minimise the potential impacts explored in the above Section the following recommended measures should be taken:

- As many large trees as possible should be retained with special consideration given to the retention of native tree species.
- The hedgerows and other habitats of the disused railway, and along the eastern boundary of the SDZ lands, should be retained where possible and special care should be taken to ensure minimal disturbance to this area.
- As per the Wildlife (Amendment) Act 2000, hedge and tree removal should not be undertaken during the bird breeding season (March to August, inclusive).
- Badgers are protected under the Wildlife (Amendment) Act 2000. Prior to the construction phase of the development, appropriate survey should be conducted to assess the status of the recorded badger sett entrance. Badger setts should only be disturbed under license, as issued by the National Parks and Wildlife Service of the Department of the Environment, Heritage and Local Government.
- Any landscape proposals should where possible use native plant and tree species in areas outside borders/beds. Planting should be integrated with those boundary hedgerows, which are to be retained in order to create an integrated network of planted and open spaces, which will help to minimise the impact on flora and fauna.
- Where trees are to be removed the advice of a bat specialist should be sought to ensure that no roosting and /or hibernating bats are impacted.

- While the SDZ lands are largely separated from the canal by the disused railway line, best practice should still be followed to ensure no potential for material or fluid leakage.
- Consideration could be given to installing settlement ponds along all drainage channels that lead from the SDZ lands. This will remove suspended particles from any run-off that may affect the ecology of the canal. Special attention should be taken with regards any run-off from the south-eastern section of the SDZ lands towards the Royal Canal pNHA.

13.4 SOIL

13.4.1 Introduction

This section of the Environmental Appraisal Study addresses the issues of the geology and soils of the SDZ lands and assesses the impact of the proposed development on this aspect of the existing environment.

13.4.2 Methodology

Soil and Ground conditions in the SDZ lands has been assessed based on a desk study of the geology of north Dublin and on site investigations carried out in within the SDZ and adjoining lands. A visual inspection of the site was also carried out.

13.4.3 Existing Environment

The underlying geology of the Hansfield area consists of Lower Carboniferous Calp, which is a term used to define the basinal limestones and shales within the Dublin Basin. Celp is described by the Geological Survey of Ireland as a "fine grained, graded limestone with interbedded black, poorly fossiliferous shales". Celp was traditionally used for rubble walling and roughly dressed stone, the shaly partings facilitating quarry operations.

The SDZ lands are traversed in an east west direction by a fault line, which is indicated on the GSI Bedrock Geology 1:100,000 Map Series Sheet 16.

The bedrock in the Dublin area is overlain by glacial tills consisting of brown to black stony clays known as boulder clay.

A site investigation to identify the soil classifications and to estimate the bedrock interface using a mechanical digger to excavate trial holes was undertaken on the western side of the SDZ and adjoining lands. The soil conditions encountered were consistent being generally a dry brown stony clay overlaying a brown boulder clay from approximately 1.0m depth. Large boulders and broken rock were encountered in most holes at depths ranging from 1.2m to 1.9m.

The subject lands are currently used for agricultural purposes, in particular animal grazing.

13.4.4 Evaluation of Potential Impacts

13.4.4.1 Construction Phase

Prior to commencement of any construction works on the subject lands, the topsoil on the site will be removed from the site and will be stockpiled on selected lands for re-spreading on completion of the works.

Excavations for terracing, foundations, road works and drainage will generally result in a surplus of subsoil and excavated rock. Surplus rock will be used in the construction of roads and backfill to drainage excavations where possible.

Excavated materials will be reused for landscaping of open spaces where possible and the remainder will be removed from site to an approved tip.

Some erosion of soils following adverse weather conditions during the Construction Phase may be anticipated.

In addition to the excavations referred to above, the construction phase of the proposed development will result in the removal of certain topsoils and in some compaction of the subsoils.

13.4.4.2 Operation Phase

On completion of the construction phases, following replacement of topsoils and a planting program, no significant adverse impacts on soil are envisaged except for the possibility of contamination of soil from foul water effluent.

13.4.5 Mitigation Measures

13.4.5.1 Construction Phase

In order to preserve the topsoil on the site, topsoil from the building site should be removed to stockpiles and protected during the construction period for reuse on completion of the works.

Excavated subsoil and surplus topsoil can be used in the contouring and landscaping of open spaces where possible.

Surplus subsoils and rock will require to be removed from site. This material should be deposited in approved fill areas. The number of vehicle movements offsite could be minimised by the optimisation of the cut to fill ratio.

Surplus subsoils could be stockpiled on site, prior to removal to an approved tip, in such a manner as to avoid contamination with builders waste materials etc., and so as to preserve the materials for future use as clean fill.

The adjoining road network should be cleaned on a regular basis to prevent the build-up of soils from the development site on the existing blacktop roads and in the existing surface water drainage systems.

13.4.5.2 Operational Phase

On completion of the works, it is advisable to re-soil and replant areas of open space within the development. Following completion of these reinstatement works, no significant adverse impacts on the soils and geology of the subject lands are envisaged.

13.5 WATER

13.5.1 Introduction

This section deals with the implications of the Planning Scheme on foul drainage, surface water drainage and water supply.

13.5.2 Methodology

The analysis under this section is based on a number of information sources.

13.5.3 Existing Environment

13.5.3.1 Foul Drainage

A sizeable proportion of the SDZ core development lands can be readily drained by gravity to an existing outfall sewer positioned along Ongar Road. The residual area requiring pumping will be drained to a pumping station and from there will access the Ongar Road sewer. In turn the Ongar Road sewer drains to the overall public network in this area with final discharge to the Ringsend Waste Water Treatment Works.

13.5.3.2 Surface Water

A sizeable proportion of the SDZ core development lands can be readily drained by gravity to an existing 1350mm outfall sewer crossing Ongar Road and Hansfield Road and to the overall existing surface water sewer network north of the SDZ lands. The remainder of the SDZ lands (some 21 hectares) will be drained eastwards by gravity to the River Liffey via the Clonsilla Surface Water scheme.

An alternative outfall is available via the Milestown to Westmanstown watercourse. This would involve draining to the Liffey catchment via the existing field drainage southwards to Packenham Bridge and then parallel to the canal to the Milestown to Westmanstown watercourse crossing under the railway/canal.

13.5.3.3 Water Supply

There is an existing 600mm municipal water supply some 800 metres east of the SDZ development lands. In addition there is a 300mm mains pipe along Ongar Road. The SDZ Lands can readily be served from this existing main.

13.5.4 Evaluation of Potential Impacts

The proposed foul drainage, surface water drainage and water supply networks are shown in Figure 13.5.1.

13.5.4.1 Foul Drainage

The network for drainage on SDZ lands will be constructed as part of the overall SDZ lands development. There is existing capacity in the Ongar Road sewer specifically to deal with flow generation from the development of the SDZ lands.

13.5.4.2 Surface Water

There is existing capacity in the Ongar Road/Hansfield Road surface water sewer specifically to deal with flow generation from the development of the SDZ lands as brought to that network. The 21 hectares land area to be drained eastwards or southwards will incorporate specific flow attenuation measures (underground storage, holding tanks) as appropriate.

13.5.4.3 Water Supply

The total estimated water requirement of the development of the SDZ lands is some 1200 cubic metres per day.

13.5.5 Mitigation Measures

There is adequate capacity in the foul, surface water and water main systems which will serve these development lands. Mitigation measures will primarily relate to the proper installation of the piping, storage and attenuation networks to ensure no impact on flows, supply or other issues off site.

13.6 NOISE**13.6.1 Introduction**

This section assesses the potential impacts of the development on noise and vibration.

13.6.2 Methodology

The noise assessment has been made using the following techniques:

- Conducting a baseline noise survey at the nearest noise sensitive locations surrounding the proposed development. These are illustrated in Figure 13.6.1 "Noise Monitoring Locations"
- Construction noise impacts have been assessed in accordance with BS5228 'Noise and Vibration Control of Construction and Open Sites' (1997).
- Noise impact at noise sensitive locations due to increased traffic from the development has been assessed with reference to the UK's Department of Transport (Welsh Office) 'Calculation of Road Traffic Noise' Document (1988).

13.6.3 The Existing Environment

The proposed development SDZ lands is currently a large area of agricultural land surrounded by local roads and residential areas. The R140 borders the west of the SDZ lands with a large bakery situated to the north west of the SDZ lands. A mixture of agricultural land and residential developments border the north of the SDZ lands. St. Joseph's Hospital and a number of residential locations border the eastern boundary of the development with Clonsilla village located further to the south east. The south of the proposed development SDZ lands is bordered by Barberstown where a small number of residential locations are located along a feeder road of the R121. The nearest noise sensitive locations to the SDZ lands are N7 which is situated along the north eastern boundary and N1 at St. Joseph's Hospital located within the boundaries of the development SDZ lands.

During a baseline noise survey, road traffic dominated noise levels at all locations measured, particularly at locations to the east and west of the SDZ lands (N3, N7 and N5) where road traffic flows were greatest.

13.6.4 Evaluation of Potential Impacts**13.6.4.1 Construction phase**

The construction phase of the development has the potential to increase noise levels at noise sensitive locations surrounding the development SDZ lands. Two main noise sensitive locations are identified, St. Joseph's Hospital and a number of residential properties located near the boundary of the SDZ lands.

Impact from the construction phase will depend on the number and type of equipment used during the development. Due to the fact that the construction programme has been established in outline form

only, it is not possible to calculate the actual magnitude of noise emissions to the local environment. Generally, a level of 65dB(A) outside a house would be audible indoors, and would be tolerated for limited durations. A level exceeding 70dB(A) would likely to be intrusive, if this level is maintained for prolonged periods. The transient nature of the construction period and the variety of machinery used should ensure that no construction activity is operational for long periods. This phase will result in temporary short term impacts.

13.6.4.2 Operational Phase**Traffic**

A road network with a series of major and minor feeder routes will form part of movement route system within the SDZ lands. Layout and design will ensure that the development of minor feeder routes within the SDZ lands will direct through traffic away from core residential areas. The potential noise impacts during the operational phase will primarily be as a result of increased traffic flows along existing routes surrounding the development. Increased noise levels along the existing road network have been assessed with reference to predicted traffic flow information. A maximum increase of 2dB(A) is likely to be experienced at the north and west of Ongar Road. This increase is noise levels however will result in an insignificant impact.

Mechanical and Electrical Services

There are a small number of commercial outlets proposed as part of the development which will be integrated into the residential areas of the SDZ lands. Two schools are also proposed along the western boundary of the SDZ lands. It is not envisaged that noise from the operation of these associated services will result in any significant noise impacts.

13.6.5 Mitigation Measures

Given that the design of the proposed development has not yet progressed to a fully detailed stage, it is not currently possible to define the exact noise control measures that will be employed. However, the intention is that noise impact from both construction and developed phases will be kept to a minimum.

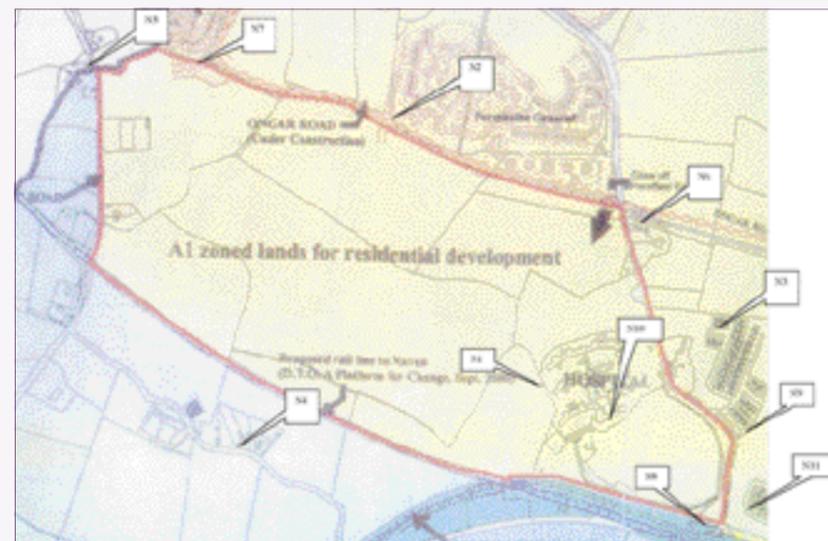


Fig 13.6.1: Noise Monitoring Locations

13.6.5.1 Construction Phase

Construction noise will be controlled in accordance with British Standard BS5228: Noise control on construction and open sites, which offers detailed guidance on the control of noise from construction activities.

Various practices to be adopted during construction, may include some or all of the following as appropriate:

- Limiting the hours during which noisy site activities are permitted;
- Establishing channels of communication between the contractor/developer, Local Authority and residents;
- Appointing a site representative responsible for matters relating to noise;
- Selection of plant with low inherent potential for generation of noise and/or vibration;
- Erection of temporary barriers around items such as generators or high duty compressors;
- Erection of temporary barriers at the site's boundary where practicable.
- Siting of noisy plant as far away from sensitive properties as permitted by site constraints.

13.6.5.2 Operational Phase

Mitigation measures are not required to attenuate traffic noise from the development. Mitigation measures will be incorporated into the scheme layout and design in order to ensure that any noise generating equipment will be sited as far away from noise-sensitive locations as practicable. Building design and noise operation guidelines shall be applied to ensure that noise emission standards are adhered to.

13.7 AIR QUALITY**13.7.1 Introduction**

This section describes and assesses the potential environmental impact of the Planning Scheme on air quality.

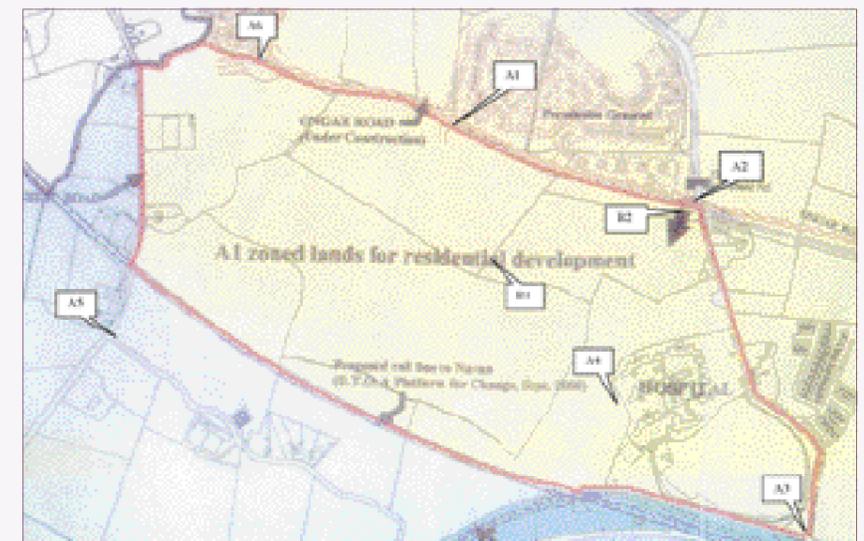


Fig 13.7.1: Air Monitoring Locations

13.7.2 Methodology

Baseline levels of nitrogen dioxide, sulphur dioxide, particulate matter and benzene were monitored to assess current air quality conditions in the vicinity of the proposed development. The baseline surveys were carried out between 12th of June to the 11th July 2002 at a series of 6 locations on or near the SDZ lands. These monitoring locations are presented in Figure 13.7.1 "Air Monitoring Locations". Levels of particulate matter (PM10) were determined at one location (A1) from the 4th to the 10th of June 2002.

Potential air quality impacts of the construction and operation phases of the proposed development were assessed in terms of construction dust, traffic derived pollution and heating derived pollution. Where applicable a series of mitigation measures have been recommended.

13.7.3 Existing Environment

In the region of the proposed development, current pollution sources will be dominated by fuel burning and traffic emissions. Specifically, these sources will emit pollutants, which are currently of concern due to their effect on human health and the potential to reach significant concentrations in ambient air. The pollutants of concern from these sources include nitrogen dioxide (NO₂), benzene, PM10, carbon monoxide (CO) and sulphur dioxide (SO₂). These pollutants have been targeted in recent years by national and European legislation.

Currently the SDZ lands are rural in nature with small pockets of houses distributed along the public roads of the development. Current traffic volumes along the public roads are relatively low.

The results obtained for discrete monitoring of particulate matter, nitrogen dioxide, sulphur dioxide and benzene obtained during the baseline monitoring programme show that current air quality is good with levels of criteria pollutants for traffic-derived pollution (benzene, PM10 and nitrogen dioxide) and domestic heating pollution (sulphur dioxide) below the relevant European Union limits. The main source of air pollution in the area is from motor vehicle exhausts and the concentrations of pollutants decreases with distance from major roads.

13.7.4 Evaluation of Potential Impacts**13.7.4.1 Construction Phase**

There is the potential for a number of emissions to atmosphere during the construction of the development. In particular, construction activities may generate quantities of dust, particularly in drier weather conditions. This problem is exaggerated when vehicles transporting sands/gravels/soils etc. to and from the SDZ lands have the potential to cause an environmental nuisance several kilometres from the facility. The construction vehicles, generators etc., will also give rise to petrol and diesel exhaust emissions, although this is of minor significance compared to dust.

13.7.4.2 Operational Phase

The SDZ lands could accommodate at least 1700 new dwellings, alongwith primary and post-primary schools, community centre, services centre (shops etc.) and related open provision. As a result, there are no major scheduled point emissions (i.e. through stacks, vents, etc.) likely to arise and the general activities of the new

population are unlikely to cause any material deterioration in local air quality.

The space heating for the development may be a mixture of natural gas, fuel oils or solid fuel. Fuel oils are regarded as the worst polluters whilst natural gas is considered the "cleanest" fossil fuel. Blanchardstown is currently served by natural gas and it is planned to use this fuel resource within the SDZ lands. The domestic heating system may effect emissions to atmosphere of carbon monoxide, sulphur dioxide, oxides of nitrogen and particulates. However, the use of natural gas will not have a significant impact on the local air quality.

Detailed traffic flow estimates were obtained from the traffic assessment and have been used to assess whether any significant impact on sensitive receptors would occur. The concentrations of traffic-derived pollutants (nitrogen dioxide, benzene and PM10) determined in the baseline study are low. This is broadly in line with the relatively low traffic volumes experienced in the vicinity of the SDZ lands.

An integrated transport management plan is proposed for the SDZ lands of the proposed development and the surrounding residential developments to facilitate the increased movement requirements (including additional vehicle flows) in a new suburban environment. The layout and design ensures that the development of minor feeder routes within the SDZ lands will direct through traffic away from residential areas. Junctions and roundabouts have been designed to minimise traffic congestion and will assist in the free flow of traffic in the area, thus minimising potential impacts to air quality.

13.7.5 Mitigation Measures**13.7.5.1 Construction Phase**

In order to minimise the potential for construction derived dust nuisance, a series of measures can be implemented including regular cleaning of site roads, and hard surface areas as appropriate. Any un-surfaced roads can be restricted to essential site traffic only. Furthermore, any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions.

Construction vehicles using site roads shall have their speed restricted.

All vehicles exiting the SDZ lands during construction should make use of a wheel wash facility. Public roads outside the SDZ lands shall be regularly inspected for cleanliness, and cleaned as necessary.

Material handling systems and site stockpiling of materials shall be designed and laid out to minimise exposure to wind. Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods.

13.7.5.2 Operational Phase

Emissions of pollutants from road traffic can be controlled by either controlling the number of road users or by controlling the flow of traffic. For the majority of vehicle-generated pollutants, emissions rise as speed drops. Emissions are also higher under stop-start

conditions when compared with steady speed driving. The managed flow of the traffic in the vicinity of proposed development can minimise the generation of traffic related pollutants. The sustainable Revised Draft Planning Scheme layout and the associated public transport provisions will ensure that modal shift to public transport and non-motorised transport options is maximised, thus reducing private vehicle demand and related emissions.

The proposed use of natural gas will significantly reduce the potential for emissions of nitrogen oxides, carbon monoxide and in particular, sulphur dioxide.

13.8 LANDSCAPE AND VISUAL**13.8.1 Introduction**

This section assesses the potential landscape and visual impact of the proposed development.

13.8.2 Methodology

The landscape and visual assessment of potential impacts has been informed by reference to the Fingal County Development Plan, available aerial photography, and is based on a site inspection.

13.8.3 The Existing environment

Land use in the general area is largely agricultural, with increasing residential development and amenity use to the north and east of the development site. There is some light industrial use on the western boundary, where the bakery is located and the majority of the eastern boundary is flanked by St. Joseph's Hospital. A two and three storey development consisting of a number of closely grouped blocks. In addition, the southern boundary of the site is banked in a number of places where the former Dublin - Navan railway line is situated.

The site is mainly flat, although a slight ridge runs east-west across the site in the southern quarter. A number of private residences are dotted around the boundaries of the site. Protected structures in the area include Barnhill Bridge, which is located off site and is protected under the Fingal County Development Plan.

The land is primarily used for agricultural purposes and comprises level pasture fields, which lie between 60m and 70m above sea level. A number of field boundaries cross the development site and these remain an intrinsic part of the landscape in this area. The hedgerows contain mature trees at infrequent intervals, none of which are protected under the County Development Plan. The largest concentration of mature trees in the area occurs along the boundary with St. Joseph's Hospital. There are no views listed for preservation in the County Development Plan.

Immediately to the north of the site lies a recently constructed residential development. The transition in character from rural to urban / suburban has already taken place in this location, and the resultant landform is generally 2-3 storeys in height. However at key locations along the northern edge of the Ongar Road, this development rises as high as 5 storeys. Open space has been distributed throughout this scheme and the development has been landscaped and planted to preserve the open feel of the area.

13.8.4 Evaluation of Potential Impacts

A temporary visual impact will occur during the construction period of the development. This will be associated with general site activity, the movement of vehicles and plant, the construction of site compounds together with associated cranes, huts, hoardings and signs. In addition, the stripping, and storage of topsoil is likely to have an impact on the landscape.

The likely effect of this development on completion will be to create a new residential community, with associated local facilities. The development will be mainly 2-3 storeys in height, rising as high as 5 storeys at key locations. An associated road and transport network will be constructed, and this will result in a change in the character of the area from rural to urban / suburban.

The existing agricultural character of the area is associated with the current land use and the presence of open fields, separated by hedgerows and a number of mature trees. These existing land uses will be removed as a result of the development, therefore changing the character of the area. However carefully designed landscaping features together with substantial planting, will provide a setting for a modern residential environment.

13.8.5 Mitigation Measures

The design and layout of the final development has been indicated in Section 5 of the Planning Scheme, and the general landscaping features are detailed therein. However other mitigation measure would include.

- Careful siting of construction compounds away from existing development in the area.
- The construction of hoardings around the perimeter of the construction site to minimise the visual impact.
- The maintenance of established pedestrian desire lines, where appropriate.
- Careful design of landscaping and planting schemes, in order to encourage the creation of new habitats and to support the development of ecology in the area.
- Sensitive architectural design and layout of buildings and spaces to preserve and create local views.
- Incorporation of existing landscape features, such as suitable mature trees into the development.
- The provision of areas of open space and parkland, to enhance the views for the future population and to preserve the open feel of the area.

13.9 TRANSPORTATION**13.9.1 Introduction**

This section deals with the issue of transportation impacts as a result of the development of the SDZ lands.

13.9.2 Methodology

The assessment of the transportation impact of the Planning Scheme has been based on a number of information sources including:

- Examination of existing road network and public transport network.
- Strategic and Statutory Guidance on Land Use and Transportation

objectives, including the DTO Platform for Change 2000-2016.

- Transport demand estimates.
- Modelling Analysis prepared by Moylan, Consulting Engineers.

13.9.3 Existing Environment.**13.9.3.1 Existing Road Network**

The SDZ lands are located to the west of Hansfield Road along the local distributor road between Clonsilla and Clonee. The existing road network is shown in Figure 13.9.1.

Hansfield Road is currently designated as a third class road which forms a link between Regional road (R149) to the west and Regional Road (R121) in the east.

The R149 links Clonee village, located in proximity of National Primary Roadway to Navan, the N3 to the north with Leixlip village in the south, located in close proximity to National Primary Roadway to Maynooth, the N4, west of Dublin.

The R149 intersects the Old Navan Road, and in the opposite direction veers sharply right where it intersects Hansfield Road, in the vicinity of Ongar Stud.

National and Regional distributor roadways in the vicinity of the proposed SDZ lands are as follows:

- To the east of the development lands, the M50 Northern Cross motorway forms one of the four segments of the Dublin C-Ring. It is presently a 2 x 2 lane motorway with improvement works to increase the C-Ring to a 2 x 3 lane motorway under consideration. The M50-N2 and M50-N3 interchanges are both grade separated rotary-type interchanges.
- The N3 National Primary road is accessible to development traffic via the R149 at the Old Navan Road intersection and is located approximately 2.5 kilometres north of the proposed development.
- The N3 is also accessible via the Regional roadway R121 where it intersects the N3 at the Whitestown interchange, located approximately 4.5 kilometres north-east of the proposed development.
- Access to the N3 offers the motorists direct connection with the M50 motorway and Dublin City Centre in the east or alternatively Ashbourne village and Navan in the western direction of travel.
- Within the existing roads network, the National Primary roadway the N4 is located approximately 7 kilometres south of the SDZ lands on the route of the R149, with options to connect with M50 and Dublin City centre in the east or alternatively Maynooth, Enfield, Kinnegad village and Galway/Sligo further to the west.
- Within the Blanchardstown/Mulhuddart catchment area there is a large network of local county roadways and residential distributor roads affording access to residential estates in the locality and alternative means to access surrounding villages such as Clonee, Dunboyne, Leixlip and Lucan, thereby reducing vehicular impact on primary roadways, within the immediate vicinity of the proposed development.

13.9.3.2 Existing Public Transport

Figure 13.9.2 Illustrates the Existing and the Proposed Public Transport Networks.

The existing catchment in the area of the proposed development is currently served by the following buses 39/39X, 70/70X, 76A, 220 and 239. The No. 39 route has a frequency of buses every 10 minutes reducing to 6 minute intervals at peak periods. The no. 70 and 220 routes also connect the catchment to the city centre but at less frequent intervals.

The Clonsilla railway station on the Maynooth-Dublin Connolly Line is positioned approximately 400 metres from the eastern boundary of the Strategic Development Zone (SDZ). Under existing operations, there are currently three trains operating from Maynooth to Dublin Connolly at peak hour travel times.

13.9.3.3 Existing Pedestrian and Cycleways

The recently constructed Ongar Road contains continuous segregated pedestrian and cycleways and include segregated spurs to the proposed Ongar Village site to the north of the SDZ lands. The pedestrian footpaths continue to the Damastown Industrial area through the Clonee residential areas.

13.9.3.4 Future Road Proposals

As part of Fingal County Council's commitment to upgrading the roads network in the county and under current Development Plan objectives, the following schemes are planned or under construction in the area.

National Road Schemes

- N2 National Primary Roadway upgrade from single carriageway to dual carriageway between M50 motorway interchange and Kilshane crossroads.
- N3 Clonee to Dunshaughlin. Upgrade to dual-carriageway
- N4 National Primary roadway. Upgrade to 2 x 3 lane dual-carriageway
- M50 motorway. Upgrade from 2 x 2 lane to 2 x 3 lane Roadway
- Dublin Port Access Tunnel, as an extension of the N1 National Primary Roadway, into Dublin City Docks
- The N2 Ashbourne Road and Dublin City Port Tunnel schemes are currently ongoing with the remaining schemes programmed for completion in 2005.

District Distributor Road Schemes

- Blanchardstown Road North Road Improvements
- Junction upgrade at entrance to Castaheany / Jamestown Industrial Estate
- New link Road between Corduff Road and Kilshane Cross
- Rathoath Road. Corduff to Cappagh Road Improvement scheme
- Cappagh Road. Corduff to Rathoath road improvement scheme
- Snugborough Road. Blanchardstown Road South to Castaheany (new road)
- Construction of the Castaheany Western Distributor Road and Ongar way
- Provision of interchange at Snugborough Road/Navan Road.
- Extension of Outer Ring Road from Blanchardstown to the St. Margaret's bypass.
- Upgrade Castaheany Interchange
- Ongar Road Extension

Implementation of the above Roads Schemes will significantly improve vehicular traffic flows on the roadways both in Blanchardstown area and on the wider Roads Network.

The Ongar Road extension forms the northern boundary of the proposed development, and is currently accessed via Hansfield Road. Ongoing works will link the Ongar Road with Snugborough Interchange in the east. The western link is programmed to form an intersection with the N3 National Primary Roadway at Littlepace Interchange.

Completion of the Ongar Road schemes provides a more direct access between the proposed development, the Blanchardstown Shopping Centre and the N3.

Completion of Castaheany Intersection Improvement is scheduled for December 2004.

In addition, a reservation has been facilitated within the SDZ lands to cater for a future road link to the N4.

13.9.3.5 Proposed Public Transport

Proposals contained in the Blanchardstown Catchment Area Integrated Development Framework (Draft) indicate both local and QBC bus route improvements for the locality. As part of these plans, it is envisaged that both local and city bus services will be routed to circulate within the SDZ and these improved/additional services will be complimented by dedicated bus lanes within the existing bus routes and with a further option available to introduce bus only routings. The proposed public transport framework is illustrated in Figure 13.9.2.

The DTO and Iarnród Éireann also propose an increase in the number of commuter trains to a total number of 5 at peak hour by the year 2003 at Clonsilla, with a further significant increase in capacity on the existing over the following years to 2006. It is proposed to electrify the line between 2006 and 2010.

Policies within Fingal County Council Development Plan contain objectives for public transportation provision which include for improved rail facilities at Blanchardstown and Clonsilla / Westmanstown, including overall dualling of the single track section and provision of additional stations.

Further stated objectives in relation to rail provision include the option of reconstructing the former Navan rail line including the provision of a possible rail halt within the SDZ lands.

13.9.3.6 Proposed Pedestrian and Cycleways

Fingal County Council development objectives suggest that new schemes are implemented with a view to improving accessibility within Blanchardstown, by way of improved pedestrian and cycle route networks and the provision of an internal bus service. These are illustrated in Figure 13.9.3.

13.9.4 Evaluation of Potential Impacts

The transport demand generated by the proposed development has been calculated on the basis of 1,800 new residential units within the

SDZ lands. In consideration of the existing and proposed varied modal transportation options available in the location, a transport modal split of 60:40 (private car: other modes) has been used in the following traffic generation and junction analysis calculations.

Access to the development will be via three number junctions, positioned at separate locations on Ongar Road, which forms the northern boundary of the SDZ lands. For the purpose of preliminary junction capacity analysis, it has been assumed that the SDZ lands are evenly served via each of the three junctions, with a total of 600 units served from each junction.

It is assumed that each residential unit generates 10 (2-way) total trips per day, 12% of which occur during the peak hour. Due to the mixed use village centre, and the community facilities provided, including primary and post primary schools on the SDZ lands, it is assumed that 80% of vehicular trips exit the SDZ lands cordon, i.e. at junctions C, D & E.

Of the weekday evening peak hour traffic, it is generally recognised that 2/3 of the vehicular traffic access the estate during the peak hour and 1/3 of the vehicular traffic exit from the estate, during the same peak hour period.

Figure 13.9.4, 'P.M. peak hour flows 2006', indicates the predicted peak hour flows at Roundabout C Ongar Road (westernmost access), Signal Controlled Junction D Ongar Road (central access) and the flows on the easternmost access road, which were used in the junction capacity analyses.

For the purposes of junction analyses, a predicted traffic flow of 15,000 (AADT) has been selected as the two-way flow on Ongar Road at time of predicted development opening, 2006.

In addition, the junction analyses was also carried out for a traffic flow of 20,000 (AADT) on Ongar Road, in order to assess the sensitivity and available capacity of these junctions.

Bus

The modal splits given above enabled the loading on the public transport - bus network to be determined. The expected numbers of public transport trips to and from this development in the p.m. peak hour are summarised below:

<i>Total No. two-way trips:</i>	432
<i>Trips from development (20%):</i>	86
<i>Trips to development (80%):</i>	346

Trips to the development represent c. 5 buses in the peak-hour, and would complement any high quality, frequent bus service on the Ongar Road QBC.

In addition, the extension of the QBC to the Damastown Industrial lands north of the Castaheany Interchange will ensure a balanced split of these P.M. peak-hour trips, south from Damastown and west from Dublin / Blanchardstown.

Rail

The expected numbers of rail trips to and from this development in the p.m. peak hour are summarised below:

<i>Total No. two-way trips :</i>	216
<i>Trips from development (20%):</i>	43
<i>Trips to development (80%):</i>	173

This will further complement the upgrades on the Dublin - Maynooth suburban rail network.

Pedestrian / Cycle

The expected numbers of pedestrian / cycle to and from this development in the p.m. peak hour are summarised below:

<i>Total No. two-way trips:</i>	216
<i>Trips from development (20%):</i>	43
<i>Trips to development (80%):</i>	173

This will further complement the upgrades on the cycle - pedestrian networks in the area.

13.9.4.1 Construction Phase

During construction of the proposed development, there will be traffic generated from deliveries of construction materials and equipment, as well as traffic generated by site staff.

It will be necessary to remove spoil material from the SDZ lands. Rock and fill material will be used for construction of fill embankments, where suitable however all spoil and unsuitable material will be disposed of at a suitable tip, its exact location to be agreed with the Local Authority. The removal of unsuitable material will generate additional traffic.

Traffic generated by the construction phase of the ultimate development will result in some disruption of traffic on the adjoining roads network.

The construction phase is also likely to result in an increase of mud and dust on the adjoining roads network.

The predicted impacts of the construction phase on traffic in the area are short term. The impact of the construction phase is expected to last for a period of up to four years.

13.9.4.2 Operational Phase

For the purposes of preliminary capacity analysis, the following junctions have been tested on the Ongar Road.

Roundabout C

ARCADY computer software has been used to investigate the capacity of the most westerly junction on Ongar Road (Roundabout C), and also forming the most northern boundary of the SDZ lands. ARCADY analysis determines the capacity of the junction within an analysis of ratio of flow to capacity (RFC), based on input roundabout geometric data peak hour traffic flows.

It is normal practice to record the upper limit of (RFC) as 0.85 in junction analysis, thereby maintaining a reserve capacity of 15% within the junction. The (RFC) value may be exceeded by reducing the reserve capacity within the junction but in all cases, an RFC value of 1.0 should serve as the maximum upper limit.

The maximum ratio of flow to capacity (RFC) recorded is 0.333, and this relates to traffic approaching the roundabout on egress from the SDZ lands, with a maximum queue length of 1 vehicle. This assumes an AADT of 15,000 vehicles per day on the Ongar Road.

Hence, under preliminary investigation, roundabout C located to the west of Ongar Road and serving access to proposed development is well within the limiting capacity value of 0.85, thereby leaving a suitable measure of reserve junction capacity in this location.

In addition, the ARCADY analysis was repeated with an AADT of 20,000 vehicles per day on the Ongar Road assumed. In this case maximum ratio of flow to capacity (RFC) recorded is 0.471, and again this relates to traffic approaching the roundabout on egress from the SDZ lands, with a maximum queue length of 1 vehicle.

Junction D

The second junction to be tested serves as access to proposed development midway along the northern boundary of the proposed development, Ongar Road (Junction D).

It is proposed, for the purposes of this appraisal, that this junction will form a signalised crossroads on Ongar Road, with access roads serving residential developments both north and south of Ongar Road, and including pedestrian phases on all legs.

LINSIG computer software has been used to determine the capacity of the signalised junction at this location. LINSIG computer software uses a geometric layout of the junction and input traffic flow data as the base information for modelling traffic signal phasing.

With a flow of 15,000 vehicles per day on Ongar Road, demand flows for the each phase are below the relevant capacity figures, with a maximum Degree of Saturation (%) of 59.5% relating to Ongar Road East left ahead.

The pcu (passenger car unit) queue length relevant to this arm reach a total length of 4.2 pcu.

Within the signal phasing design, there is percentage reserve capacity (PRC) of 40.5% with total delay of 8.8 pcu, which is well within standard for traffic signal design.

As with the ARCADY analysis, the LINSIG analysis was repeated, for an assumed flow of 20,000 vehicles per day on Ongar Road. For this scenario, demand flows for each phase are below the relevant capacity figures, with a maximum Degree of Saturation (%) of 83.6% relating to Ongar Road East left ahead.

The pcu (passenger car unit) queue length relevant to this arm reach a total length of 7.9 pcu.

Within the signal phasing design, there is percentage reserve capacity (PRC) of 16.4% with total delay of 14.0 pcu, which is well within standard for traffic signal design.

Proposed Development with a Rail Station on the SDZ lands

The introduction of a rail station on the SDZ lands is assessed in this section. Under this scenario it is anticipated that a reduced demand on private car transport would result.

For flow analysis purposes, residential quantum estimates, have been increased in the area of the rail halt, raising the number of residential units in the development to 1900 dwellings or thereabouts. Provision of a commuter rail station will have a positive effect on modal splits and transport demands from the SDZ lands and also from surrounding residential areas.

Based on the rail station being provided on the SDZ lands, the pm peak hour loading on the transport network has been assessed as follows:

Bus

Total No. two-way trips:	684
Trips from development (20%):	137
Trips to development (80%):	547

Rail

Total No. two-way trips:	456
Trips from development (20%):	91
Trips to development (80%):	365

Pedestrian / Cycle

Total No. two-way trips:	228
Trips from development (20%):	46
Trips to development (80%):	182

Private Car

The revised modal split ensures that fewer trips would be generated by development on the SDZ lands, (9,500 private car trips / day, compared to 10,800 trips / day with no station located on- the SDZ lands). No junction capacity checks were carried out for this arrangement as the resultant flows will be less than those already considered acceptable above.

13.9.5 Mitigation Measures

Fingal County Council are committed to significant road and junction improvements and new roadway construction on the surrounding Roads Network over the coming years, which will have a large impact on improving traffic flows on the existing roads network, and in particular on the (N3) roadway at Blanchardstown. It is important that these are delivered.

Planned new roadways, in particular the proposed new link between Ballycoolin and Kilshane Cross (dual-carriageway) will divert a considerable amount of traffic from the existing (N3) at Blanchardstown, thereby improving vehicular accessibility to and from the (N3) roadway on junctions located at Castaheany and Snugborough.

Existing and proposed public transport improvements in the Blanchardstown catchment will enhance the varied modal transport

options, thereby reducing reliance on the private vehicle for trips outside the residential development.

The existence of schools and local shopping centre within the proposed development will further reduce peak hour vehicular trips on the existing roads network, by removing the necessity of rising the private vehicle to access these facilities in a more distant location.

Planned pedestrian footing and cycles routes within the residential development, and to agreement of Planning Authority will enhance varied modal transportation options within the residential estate.

13.10 ARCHAEOLOGY, ARCHITECTURAL HERITAGE AND CULTURAL HERITAGE

13.10.1 Introduction

This section assesses the potential impact of the development on the archaeology, architectural heritage and cultural heritage of the area. Mitigation measures are proposed to minimise potential impacts. The archaeology and architectural heritage, in respect of the project, is assumed to include all humanly created features on the landscape, including portable artefacts, which might reflect the prehistoric, historic, architectural, engineering and/or social history of the area.

13.10.2 Methodology

The assessment component of the study comprised the results of the following:

- Documentation Survey
- Field Inspection

As part of the documentation search, the following sources were examined:

- Sites and Monuments Record - Co. Dublin
- Records of National Museum of Ireland
- Survey of the Architectural Heritage of Fingal
- Stereoscopic photographic coverage carried out by Geological Survey
- Documentary & Cartographic Sources in National Library, National Archives and Fingal County Library
- Fingal County Development Plan

The SDZ development area and a 200m zone surrounding the boundaries of the SDZ lands were checked for the presence of archaeological monuments and sites of architectural interest in the case of map and aerial photographic sources. A field survey of this entire area, where possible, was initially undertaken in late July 2002 for scoping purposes. A more detailed inspection was carried out in early August 2002.

An attempt was made to identify previously unrecorded sites of archaeological, architectural and cultural heritage potential within, and in the immediate environs of, the proposed development areas.

13.10.3 Existing Environment

The proposed development area is located in the townlands of Hansfield or Phiblestown and Barberstown (O.S. 6" sheet No. Dublin 13). The area examined included the SDZ lands, as well as an



Fig 13.10.1: Extract from Roque's Map (1756)

area of c. 200m surrounding the defined boundaries of the SDZ lands, where possible.

The area under assessment is part of a wider area rich in historical and archaeological material. The wider region has attracted settlement from early times, as is shown in early cartographic records, such as Roque's Map (below) and by the presence of monuments dating back to the prehistoric period. Continuity of settlement is illustrated by identified monuments ranging from Neolithic to Medieval and Post-Medieval remains.

13.10.3.1 Archaeology

There are no recorded sites of archaeological interest located within, or in the immediate environs, of the proposed development area. In addition, no features or sites of archaeological potential were identified during the course of aerial photographic research or during the process of fieldwalking.

13.10.3.2 History

No features or events of historical interest were revealed during research into the local history of the townland.

13.10.3.3 Architecture

There is a single-arched road bridge at Barnhill spanning the former Clonsilla to Kingscourt railway line. The bridge is in use. The external faces of the bridge, including parapet, are overgrown with ivy, especially on the eastern face. This is a protected structure. It is not however located within the SDZ.

13.10.4 Evaluation of Potential Impacts

13.10.4.1 Archaeology

It is not envisaged that the development will have any negative physical impact on any archaeological sites as none has been identified within the SDZ lands.

13.10.4.2 History

The proposed development does not impact on features or events of historical interest.

13.10.4.3 Architecture

It is not envisaged that the development, as proposed, will have any direct impacts on architectural heritage as all identified structures are located outside the boundaries of the development area. In relation to the road bridge at Barnhill measures will be out in place to ensure its protection.

13.10.5 Mitigation Measures

Mitigation on these items relates effectively to appropriate monitoring and response measures during the construction phase. Major topsoil stripping associated with the development on these lands should be monitored by an archaeologist, under licence. Should material of archaeological interest or potential be uncovered during the course of such monitoring works, then the applicant and/or developer should be willing to be advised by the National Monuments and Architectural Protection Division, Dúchas The Heritage Service.

13.11 INTERACTIONS

In addition to the above description any likely significant effects of the proposed SDZ development this Environmental Appraisal also considers, insofar as is possible at this stage of the consent procedure, the interaction of those effects.

13.11.1 Human Beings / Soil

There is potential for dust generation during construction works which under dry and windy conditions could lead to localised dust impacts for the small number of properties proximate to the development site. However, the implementation of the planned proper on-site management controls will ensure that no adverse impacts will accrue to the wider area.

13.11.2 Human Beings / Climate

Emissions from both transport vehicles using the proposed development and from heating systems within the new buildings are not expected to have a long-term significant effect upon air quality in the general area.

13.11.3 Human Beings / Landscape

The provision of a substantial area of publicly accessible and purposefully designed landscaped open space will be of major positive benefit to residents. The landscape will also change as a direct result of the new development proposals.

13.11.4 Flora / Landscape

The overall SDZ scheme will provide for a strong mix of natural and built environment. The provision of substantial new usable open space provision together with a carefully planned use of the existing flora resources where possible (such as hedgerows) at the subject site will enhance the appearance of the landscape at this location.

13.11.5 Noise / Landscape

There will be some localised temporary adverse impacts in relation to noise during the construction phases of the project. However these will be localised and of limited duration, and can be mitigated through the adherence to British Standard BS 5228:1984 "Code of Practice for Noise Control on Construction and Demolition Sites" which provides guidance on the methods available to control noise from construction work. This code of practice can be expected to minimise disturbance to local residents of the area.

13.11.6 Landscape / Fauna

The existing mammalian population may be displaced in the short-term during the construction phase, but are expected to remain and adapt as relevant to the new landscape and overall environment.

The proposed landscaping within the development will significantly reduce the impact on the bird population generally and with full implementation of mitigation measures it is envisaged that no mortality should occur. Impacts will reduce during the operational phase as landscape planting matures and provides new habitat for fauna.

13.11.7 Transportation / Human Beings

The planned provision of road infrastructure within the SDZ lands will link directly to established and evolving road networks in the environs. The planning approach to the SDZ lands road network is deliberately predicated on the objective of securing a hierarchy of movement corridors which relate to the associated human activity, (such as access to village centre, control of through traffic in core residential areas). The development of the SDZ lands as proposed will increase the traffic volumes at the wider network, however this network has the spare capacity to accommodate the predicted increase.

The SDZ scheme at this location will allow prospective residents to maximise usage of public transport accessibility and mobility committed as a component of the overall planned development strategy. This is an important and beneficial interaction.

APPENDIX 1

LIST OF CONTRIBUTORS

This Planning Scheme was prepared by Fingal County Council with the assistance of:

Environmental Appraisal

Shane Herlihy - RPS McHugh Planning and Environment

Martin E. Byrne - Byrne, Mullins & Associates – Archaeological Consultants

Additional Design Input

Michael Crowe; Clare Burke - Conroy Crowe Kelly Architects

David Smith; James Murphy, - O'Mahony Pike Architects

Shay Fenton - Fenton Simons Architects and Planners

Patrick Opdebeeck - Moylan, Consulting Engineers

With additional input from:-

Stephen Little, Mark Johnston, - Stephen Little & Associates

APPENDIX 2 CONSULTATION PROCESS

Draft Planning Scheme Consultation Process under Part IX of the Planning and Development Act 2000.

**Designation of the Hansfield site as a SDZ by the Government on 19th June 2001
with Fingal County Council as the Development Agency.**

A Draft Planning Scheme consisting of a Written Statement and Plan to be prepared within 2 years (i.e. before 1st July 2003).

Once draft scheme prepared.
Notice and copies of the draft scheme sent to the Minister and the prescribed authorities.
**Notice published in newspaper circulating in the area of the SDZ stating the times and locations where the draft scheme is
available for public inspection during a period of not less than 6 weeks.**
**Written submissions or observations are accepted within this 6 week period
and are to be taken into consideration in deciding on the scheme.**

**A report on the submissions or observations received to be prepared within 12 weeks of the above notice.
The report then to be submitted to the Members of the Planning Authority.**

Members decide to:
(i) make, subject to variation and modifications, the draft scheme, or
(ii) decide not to make the Draft Planning Scheme
(Section 166(4)(b), Planning and Development Act 2000).
**Within 6 days of this decision notice must be given to the Minister, the prescribed authorities and any person who made
submissions or observations on the draft scheme. Notice of the decision also to be published in newspaper in the area of the SDZ.**

**The Planning Scheme may be appealed to An Bord Pleanala within 4 WEEKS of the date of the decision of the Planning
Authority by anyone who made submissions on the draft scheme.**

APPENDIX 3 REFERENCES

Statutory Instruments SI No.273 of 2001 of the Planning and Development Act 2000 (*Designation of Strategic Development Order 2001*).

Guidelines on Preparing Planning Schemes for Residential Development in Strategic Development Zones.

Local Government Planning and Development Act 2000.

European Communities (*Environmental Impact Assessment*) Regulations 1989 (*SI No. 349 of 1989*) and the 1999 Regulations SI No. 93 of 1999.

Fingal County Development Plan.

Fingal County Council Housing Strategy.

Residential Density Design Guidelines for Local Authorities (*DOE September 1999*).

Dublin Transportation Office 'A Platform for Change' Strategy 2000 – 2016.

Blanchardstown Catchment Area Integrated Development Framework (*Draft November 2002*).