Chapter 6: Development Areas

## 6 <br> Development Areas

## Purpose of this section

This chapter outlines the type, extent, scale and overall design ethos of the Planning Scheme. In order to do this in detail, the overall Planning Schem area has been divided into 8 discrete Development Areas as follows (see Map 7.1):

- Area 1: Lehaunstown
- Area 2: Cherrywood
- Area 3: Priorsland
- Area 4: Domville
- Area 5: Druid's Glen
- Area 6: Bride's Glen
- Area 7: Macnebury
- Area 8: Tully

The methodology and principles of selection underpinning the formation of these 8 Development Areas is outlined in the following section

## Selection Methodology

The selection of the Development Areas is based on the neighbourhood unit principle where activities such as employment, education, leisure and shopping are delivered in tandem with, or prior to the new residential community they are to serve.

Overall it is considered important that the extent of each Development Are is based on the area's potential to supply in a logical, efficient and effective manner all infrastructure, services, facilities and amenities necessary to sustain the population of that area

## Description and Development Quantum

For each Development Area the following is set out:

1. Unique Character: This includes a description of the location of the Development Area in the overall plan context and of the area's unique characteristics. This will help define its future character and built form.
2. Design Challenges: The unique characteristics of each Development Area present a number of challenges for their future development. These challenges are outlined to allow for their consideration at all stages of the development process.
3. Future Form: The primary function and focus of each Development Area is outlined in this section. A Development Area either includes the heart of the neighbourhood or is sequenced so as to benefit from an existing centre, be that a village core or the Town Centre
Following on from this, three design guidance elements are outlined for each Development Area:
4. Specific Objectives: Each Development Area has its own specific objectives which will inform the design process.

2 Development Type and Quantum. The quantum and type of development proposed for each Development Area is presented in tabular and ma format. The relevant tables and maps should be read and used in conjunction with one another

For the sustainable development of the area it is necessary to achieve the overall development quantum therefore development is not to go below the minimum or above the maximum plot ratio or units per hectare set out in the tables. An example of this is in Appendix $F$
The maps identify the location and distribution across the Plan Area of:

- The layout of roads, schools, amenity open space and development plots.
- The location of primary development land uses and their density / plot ratio
- The intensity of each use with grading of colour to indicate where the greater intensity lies
- The range of building heights, which are to be applied in conjunction with the tables.
- Indicative principal frontages where strong building frontage is required
- Indicative access points to individual plots.
- Greenways for pedestrian and cyclists.
- Indicative views in key locations.

3. Infrastructure Requirements: The water, surface water, river flooding, foul drainage and road infrastructure requirements are set out in Chapter 4 Physical Infrastructure. This section sets out the elements of that physical infrastructure that are required to serve each Development Area The extent of each infrastructural element in the tables is described using a letter or number ascribed to that section of road, SuDS feature or foul sewer on Maps 4.1-4.6 and 7.1. Other services such as gas, electricity and telecommunications will be accommodated within the road network as it extends.
The infrastructure for each Development Area will amalgamate to form the necessary infrastructure required to serve the overall Planning Scheme Area.

It should be noted that infrastructural requirements may fall outside the boundary of the Development Area being progressed.

6.1 Development Area 1: Lehaunstown

Location - see Map 6.1

## Unique Characte

Lehaunstown is the area that abuts Druid's Glen and Loughlinstown Valley. It's character is informed by the connection it creates between the more sensitive Glen and Valley, and the opportunities provided by the connectivity to the wider area by the Laughanstown Luas stop.

Lehaunstown Lane, which traverses through this area provides an historical reference, an environmental wealth and an important greenway through the heart of the Plan Area, creating internal linkages and linkages to the hinterland.


Cherrywood Planning Scheme


## Design Challenge

There are a number of challenges that need to be addressed in the design and layout of proposals in this Development Area, including the following:

- Respect and protect the environmental qualities of the Glen and the Valleys, while benefiting from their proximity and amenity.
- Providing a level of passive surveillance of the Druid's Glen Buffer open space adjoining the Glen through the design and layout of the residential development opposite.
- A sensitive design solution is required where the Luas goes into cut so as to ameliorate the physical intrusion and curtailment of pedestrian movement.
- The design of the public realm at Lehaunstown Village, incorporating a section of Lehaunstown Lane
- The design of the junction of the Grand Parade and Druid's Glen Road
- Ensuring that the scale of development supports the economic viability of the village core.
- The bridging of the Druid's Glen to provide a vehicular connection to the N 11 . Given the sensitive nature of the receiving environment it is important that the design of any bridge should be of high quality, respecting the important landscape and architectural character of the area.
- The structure bridging the Cabinteely Stream should have regard to its setting and consider facilitating movement along the length of the valley in its desig


Future Form
Lehaunstown Village will be one of the first Villages to be developed. The Village Centre is located to the north of the Grand Parade and is centred around a south facing village green/plaza which provides a direct visual connection to the Laughanstown Luas stop

Lehaunstown Lane will be an important and central part of the Villag Centre in the form of a short pedestrianised street with shops fronting onto the village green.
A residential area extends from the Village Centre providing for a variety of residential unit types. High density residential development is centred around the Luas Stop

## Specific Objectives:

DA 1 To develop the Village Centre, focused on Lehaunstown Lane and the village green, with good access provided to the Luas stop.
DA 2 The residential development on the far side of the road to Druid's Glen shall provide passive surveillance of the Druid's Glen Buffer by its design and layout.
DA 3 The high-level bridge linking Lehaunstown with the N11 will have to be sensitively designed so as to span the Druid's Glen with a visually slender structure that does not dominate either the valley floor or its setting, with due regard to the ecological corridor it crosses.
DA 4 The treatment of the junction of the Grand Parade and Barrington's Road will create a public plaza in line with $\mathrm{G} \mid 33$.
DA 5 Development abutting existing homes should have regard to the residential amenity of existing residents.

DA 6 Buildings should be orientated towards the Grand Parade, with frontage set backs where necessary to facilitate landscaping or to provide a privacy strip between the building and the back of footpath
DA 7 In accordance with Chapter 5 Green Infrastructure GI29, pocket parks will be provided along Lehaunstown Lane to provide play opportunities for the adjoining residents.

DA 8 A community facility in accordance with Section 2.3 .4 will be provided in the Village Centre.
DA 9(a) Prior to a planning application being submitted on the Res 4 plot in Development Area 1 Lehaunstown or Res 3 plot in Development Area 4 Domville, both located on the southern side of the Grand Parade, the land owner shall enter into a discussion with the Local Authority to explore the potential of relocating the Travellers Accommodation site in the Res 4 plot to the Res 3 plot.

DA 9(b) With regard to the same Res 4 Plot, the applicant shall follow the Hydrogeology Guidance outlined in Appendix E of the Planning Scheme with regard to the design of proposed development on sites within the catchment sensitivity zone of Tufa Spring No. 5 in order to protect the hydrology source, as detailed in Chapter 5 Green infrastructure (see GI30 and Appendix E).
The layout and design of proposed developments on sites identified as been within the protection zone of the Tufa Springs, as indicated in Appendix E of the Planning Scheme, shall be informed by site investigations, as outlined in Appendix E, which are to be carrie out in advance of the preliminary design of any proposals fo these sites. Proposals on these sites shall demonstrate that they will have no significant impact on Tufa Spring No. 5 and shall be accompanied by an ecology report demonstrating the same.


Table 6.1.1: Development Type and Quantum for Development Area 1 Lehaunstown

| DEVELOPMENT AREA 1 <br> LAND USE AREAS |  |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| Mixed Use Village Centre | 0.9 |
| Residential | 17.7 |
| Green Infrastructure | 9.39 |

DEVELOPMENT AREA 1 LEHAUNSTOWN
Gross Area HA
Net Developable HA
40.8
19.5


LEHAUNSTOWN VILLAGE CENTRE
Total Village Centre Lands HA

| RETAIL SQ.M |  |  |
| :--- | :---: | :---: |
|  | Min | Max |
|  | Net / Gross | Net/Gross |
| $\mathbf{1}$ no. Supermarket | $600 / 905$ | $1,500 / 2,274$ |
| Local Retail | $200 / 305$ | $500 / 758$ |
| Retail Services | $200 / 305$ | $500 / 758$ |
| Total Retail Quantum Village Centre | Min Net/Gross | Max Net/Gross |
|  | $1,000 / 1,515$ | $2,500 / 3,790$ |


| RESIDENTIAL VILLAGE CENTRE |  |  |  |
| :---: | :---: | :---: | :---: |
| Residential Dwelling Units | Min | Max |  |
| Gross Residential Floor Area Sq.m | Min | Circa 160 |  |
|  | Circa 9,000 | Circa 14,800 |  |
| NON RESIDENTIAL USES SQ.M |  |  |  |


| Non Retail Uses | Min | Max |
| :--- | :---: | :---: |
|  | 700 | 1,000 |
| High Intensity Employment | Min | Max |
| Community Facilities | Min | 1,000 |
| Total Non Residential Floor Area Sq.m | 250 | Max |
| TOTAL FLOORSPACE QUANTUM | Min | Max |
| LEHAUNSTOWN VILLAGE CENTRE |  |  |
| SQ.M | $\mathbf{1 2 , 1 6 5}$ | $\mathbf{2 1 , 0 9 0}$ |
|  | Min | Max |
| Plot Ratio | $1: 1.4$ | $1: 2.3$ |
| Site Coverage | Min | Max |
| Building Height in Storeys | $40 \%$ | $60 \%$ |
|  | Min | Max |
|  | 4 | 6 |


| RESIDENTIAL DEVELOPMENT |  |  |
| :---: | :---: | :---: |
| Total Residential Lands HA | 17.7 |  |
|  | Land Area HA | Density Range |
| Res 1 | 0 | 35-55 |
| Res 2 | 6.4 | 45-75 |
| Res 3 | 6.9 | 65-145 |
| Res 4 | 4.4 | 85-175 |
| No. of Dwellings on Residential Lands | Min | Max |
|  | 1,112 | 2,251 |
| Overall Residential Density | Min | Max |
|  | 63 per ha | 127 per ha |
| Building Height in Storeys | 2 | 6 |
| No. of Dwellings in Village Centre | Min | Max |
|  | 95 | 160 |
| TOTAL NO. OF RESIDENTIAL DWELLINGS | Min | Max |
|  | Circa 1,207 | Circa 2,411 |

Note: Gross residential floor area includes the floor area of the individual apartments
and the communal rooms and circulation areas associated directly with the residential and the communal rooms and circulation areas associated directly with the residential
development. It does not include the private open space/balconies associated with
individual apartments.

Table 6.1.2: Infrastructure Requirements Development Area 1 Lehaunstown.
See Maps 4.1-4.5.

## Road Requirements

- Complete existing Tully Vale Road from A to B in accordance with cross sections.
- Extend Grand Parade B to C and close Lehaunstown Lane at its intersection with the western side of Druid's Glen Road.
- Construct Barrington's Road P to C to D.
- Construct Druid's Glen Road Q to P.
- Construct street P-P1-P2.
- Other streets in Development Area 1 to be constructed to meet needs of the housing development.
- Construct D-D1 in accordance with cross section


## Construction Access

- Extend Grand Parade B-C to suit 'Access' needs.
- Construct access road from N11, P-Q
- Existing public roads must be kept operational.
- Access from Brennanstown Road will not be permitted.


## Stormwater Requirements

- Attenuation pond 2A.
- 450 mm approx. diameter SW sewer between $\mathrm{C}, \mathrm{P}$ and attenuation pond 2A.
525 mm approx. diameter SW sewer between $\mathrm{C}, \mathrm{P} 2$ and L ladjacent to the Luas line).
- 525 mm approx. diameter SW sewer crossing under Luas line at $L$ and on to pond 2A.
- 450 mm approx. diameter SW sewer from D 1 to D and on to the Ticknick Stream.
- Infiltration trenches as shown on Stormwater Drawing Map 4.2.

Foul Sewer Requirements

- 450 mm approx. diameter foul sewer from $C$ environs to $D$ and on to the Carrickmines Sewer
- 450 mm approx. diameter between C, P2 and L (along Luas line), then under the Luas line and down to the Carrickmines sewer at L 1. Water Supply Requirements
- 300 mm diameter between C, P and Q. Connection to existing $24^{\prime \prime}$ DCC watermain at Q .
- 400 mm diameter between $\mathrm{C}, \mathrm{P} 2$ and L ( along Luas line)
- 400 mm diameter connection to DCC Stillorgan $24^{\prime \prime}$ main east of junction A , along existing developments.
- Upsizing $(600 \mathrm{~mm})$ and re-route of existing $20^{\prime \prime}$ AC Main.
6.2 Development Area 2: Cherrywood

Location - see Map 6.2


## Unique Character

There are two distinct character areas within this Development Area, the Town Centre and Tully Park. While their characters are completely different they are within the one Development Area because their roles are complementary.

## Town Centre

Cherrywood Town Centre is a large manmade environment characterised by land reshaping, the Wyattville Link Road, and the elevated Luas line. It is an open landscape divided by the Wyattville Link Road, exposed to the wind from the Dublin and Wicklow Mountains and lacking a context. There is an opportunity/ need to build connections and create a sense of place within this area that benefits from sweeping views of the Dublin and Wicklow Mountains and the coast.


Cherrywood Planning Scheme

Map 6.2 | Development Area 2 |
| :---: |
| Cherrywood |



| $\square$ | Planning Scheme Boundary |
| :---: | :---: |
|  | Town Centre (TC 1-4) |
| + | Res 2 |
| $\square$ | Res 4 |
|  | Post Primary School (PPS) |
|  | Green Infrastructure |
|  | Physical Infrastructure |
| $\xrightarrow{\cdots}$ | Walkway / Cycleway |
|  | Indicative Access Point |
| $\bigcirc$ | Principal Frontage |
|  | Luas Stops <br> Luas Line (Existing) |
|  | Proposed Luas Line Extension |
|  | Sketch Viewpoint |
| $\oplus$ | Additional Upward Modifier |
|  | Transport Interchange |
|  | $50 \quad 100 \quad 150 \quad 200$ |
|  | Metres |



## Tully Park

Tully Park and the high ground at Tully Church is dramatically poised as the connection between Cherrywood and the Mountains to the South and Dun Laoghaire Killiney and the Sea to the north and north east. The historic connections to Ticknick and Ballycorus severed by the motorway and the visual connection to Lehaunstown Park are retained through views from the high ground.
The escarpment dropping down to the Luas line below Tully Church and the tree lines running to the Cherrywood Town Centre, add to the visual richness of the area.

## Design Challenges

There are a number of challenges that need to be addressed in the desig and layout of proposals in this Development Area, including the following

## Town Centre

- To ensure the scale of retail development relates to the growth potential of the Plan Area.
- Relating development to the new ground level created by the Luas line - Bridging the Wyattville Link Road for pedestrians, cyclists and vehicles. The critical design and layout challenge is to provide an environment which overcomes the division caused to the Plan Area by the Wyattville Link Road in a manner that is pedestrian friendly and which enables the differen activities of the Town Centre to interact. This reinforces the smarter travel policies in the Plan, the mixed-use nature of the Plan Area and the relationship between the Town Centre and the whole of the Plan Area.


## Tully Park

- The requirement to work with the historic landscape in the provision o an active recreational Park
To retain the environmental quality of the area while providing for safe movement throughout.




## Future Form

Cherrywood Town Centre will accommodate the greatest concentration of development within the Plan Area. The Town Centre area is a mixeduse area, which will provide for a range of uses including: residential office, retail, leisure, cafés and restaurants, ensuring that there is activity throughout the day and into the evening. The mix of interdependent land uses will contribute to the sense of place and identity.

The challenge with the Town Centre and the benefit of having it straddle the Wyattville Link Road is that there is an opportunity for it to create its own character, building on its wider setting. The Town Centre will bridge the divide created by the Wyattville Link Road, will create a Centre where all the different land uses are catered for and the needs of the residents and employees are met. It is the centre of economic, social and retailing activity within the Plan Area. It's design and layout must embrace these functions by developing spaces of a quality that attracts people to them and through them to allow a sustainable level of footfall to be achieved that will enhance the viability of the area and contribute to a feeling of security.
This could be approached in a number of ways including

- Designing the Town Centre link so that it will encourage and channe movement across the Wyattville Link Road.
- Designing the layout of the Town Centre so that ease of pedestrian movement to the Town Centre link is a primary design consideration. This could be achieved in a number of ways including:
> Stepping the buildings up from the perimeter of the Town Centre plots to the level of the Luas line and the pedestrian crossing of the Wyattville Link Road, so that across the Town Centre the buildings immediately adjoining the Town Centre link and Luas line are at grade;
Or
> Building the Town Centre on a podium that rises to the level of the Luas line. The treatment of plot edges will require considered design solutions.
For this elevated environment to be successful it will be perceived by the pedestrian as a real and natural place. As such the interface between the elevated Town Centre link and the adjoining ground should be designed to protect from the visual and auditory effects of traffic on the Wyattville Link Road.


The transport interchange for Bus and Luas is adjacent to the Town Centre A plaza area to focus pedestrian and cycle access to the Town Centre from the west provides the main access to the central amenity area of Tully Park Tully Park fulfils a myriad of functions aside from the area being for recreational activities and being of historical significance:

- It provides pedestrian and cycle linkages between the Village Centres, the Town Centre and employment areas.
- It provides the recreational space for the primary and post primar schools adjoining the park.
- It provides views across the Plan Area and visually links the Plan Area to its hinterland.


## Urban Form Development Framework

Achieving a successful urban form in the Cherrywood town centre is critical. The town centre crosses different landownerships and incorporates a variety of opportunities and constraints, including the crossing of the Wyattville Link Road. To ensure a comprehensive approach to the layout and urban form of the Cherrywood town centre, it is a pre-requisite to the approval of any planning applications for the town centre that, following consultation with the relevant landowners, an Urban Form Development Framework be prepared by the Development Agency in accordance with the Cherrywood SDZ Planning Scheme.
The purpose of the Urban Form Development Framework is to provide clarity and to assist the assessment of whether planning applications are consistent with the objectives of the Planning Scheme. Any development permitted in the town centre shall be in accordance with the Urban Form Development Framework

The preparation of the Framework shall take cognisance of the design approach set out in the submissions received by An Bord Pleanála on the 27th day of February 2014 from BMA Planning and MÓLA Architecture on behalf of Cherrywood Properties, and from McCutcheon Halley Walsh and Scott Tallon Walker Architects on behalf of Dún Laoghaire Rathdown Properties Limited.

The level of detail provided by the Framework shall be at least that provided in the submission to An Bord Pleanála by Scott Tallon Walker Architects on behalf of Dún Laoghaire-Rathdown Properties Limited, on the 27th day of February 2014, which related to quadrant TC3.
The Framework shall address the area identified as 'town centre' (TC 1-4) on Map 6.2 'Development Area 2 Cherrywood' and shall, at a minimum, include the following:
(a) Identification of:
the principal focus and civic core of the town centre,
the principal retail focus for quadrant TC1, and
the relationship between quadrant TC1 and
Grand Parade, and their respective urban identities,
(b) a block layout for the town centre, illustrating urban blocks and urban grain,
(c) height, scale and massing, and building typologies
(d) finsihed floor levels for buildings, including identification of entrance level(s), and finished levels for roads and footways, and in particular, the horizontal and vertical connections between Grand Parade and the surrounding streets/buildings,
(e) the location, design and treatment of squares, civic spaces, pocket parks, and the public realm generally,
(f) provision for facilities including a community facility, places of worship, a library, and a primary care unit, in accordance with Objective DA11,
(g) the treatment of the Grand Parade generally, including the proposed approach to the crossing of the Wyattville Link Road, demonstrating how an attractive and welcoming urban environment can be maintained, having regard to its important transport function as set out in the Planning Scheme,
(h) provision for a separate pedestrian/cycle bridge across the Wyattville Link Road, connecting quadrants TC1 and TC3, as shown in Map 6.2 'Development Area 2 Cherrywood', and provision for the sequencing of this development.
(i) identification of vehicular and pedestrain routes within the town centre, and associated finished levels and access points, including centre, and associated finished leves and access points,
car park access points, including section drawings and
(j) identification of the car parking spaces to be provided, the location access to and usage of car parks, including shared use car parks, and any on-street parking
The framework shall not materially alter the Planning Scheme
In the event of disagreement between the parties on any matters within the Framework, the matter in question shall be referred to An Bord Pleanála fo determination

## Specific Objectives:

DA 10 The design and layout of the Town Centre shall address the following issues:

- In relation to ground levels, the change in levels between the surrounding road network and the Town Centre Link shall be designed in a manner that is attractive to the pedestrian;
- In relation to building heights, where a building addresses two streets, building height will be measured from the higher street.
- In relation to the Grand Parade, it is proposed as a low speed $30 \mathrm{~km} / \mathrm{h}$ street facilitating movement across the Wyattville Link Road for pedestrians, cyclists, Luas and motorised traffic. It will mitigate the severance caused by the Wyattville Link Road and encourage interaction between both sides of the Town Centre. In traffic terms it will provide vehicular access to development block TC2 and TC4 and reduce at-grade crossing movements of th Wyattville Link Road. Mitigation of the severence outlined, together with these access issues must be addressed.
- In relation to the relationship with the Wyattville Link Road, lands that encroach/abut/ or in any way have a relationship with the Wyattville Link Road, shall show the relationship between all building edges and the Road. The design of all elements shall be such that pedestrian movement is positively discouraged across the Link Road at-grade. This detail is necessary to support the creation of an attractive and sustainable environment in the Town Centre.
DA 11 The Town Centre link should form an important public space of a civic character, with trees and soft landscaping elements for shelter and visual amenity. The design of the Town Centre link shall incorporate features to protect pedestrian and cycle movement. These features will provide a safe environment for all users of the Town Centre Link and the Wyattville Link Road.

DA 12 Retail Impact Assessments shall accompany retail applications within the Town Centre.
DA 13 To design civic spaces to assist movement through the Town Centre, in particular marking where pedestrian routes converge or cross.
DA 14 That Tully Park is developed in accordance with the objectives set down in Chapter 5 Green Infrastructure and Chapter 3 Cultural and Built Heritage.
DA 15 To provide a Transport Interchange (T.I) in accordance with Chapter 4 and Map 6.2.
DA 16 To provide a Community Facility in the Town Centre in accordance with Section 2.3.4.

DA 17 To provide a Library Facility in the Town Centre in accordance with Section 2.3.4.
DA 18 To provide a Primary Care Unit in the Town Centre in accordance with Section 2.3.6.


Table 6.2.1: Development Type and Quantum for Development Area 2 Cherrywood

| DEVELOPMENT AREA <br> LAND USE AREAS |  |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| Mixed Use TC | 16.1 |
| Residential | 4 |
| Education | 1.8 |
| Transport Interchange | 0.3 |
| Green Infrastructure | 21.7 |


| DEVELOPMENT AREA 2 CHERRYWOOD |  |
| :---: | :---: |
| Gross Area HA | Net Developable HA |
| 77.9 | 21.9 |


| CHERRYWOOD TOWN CENTRE |  |  |
| :---: | :---: | :---: |
| Total Town Centre Lands HA |  |  |
| RETAIL SQ.M |  |  |
|  | Min | Max |
|  | Net / Gross | Net / Gross |
| Convenience Retail | 2,000 / 3,030 | 4,000/6,060 |
| Comparison Retail | 16,160/24,485 | 17,600/26,667 |
| Retail Services | 4,540/6,879 | 5,400/8,182 |
| Total Retail Quantum | Min Net / Gross | Max Net/Gross |
|  | 22,700/34,34 | 27,000/40,909 |
| RESIDENTIAL Town Centre |  |  |
| Residential Dwelling Units | Min | Max |
|  | Circa 1,276 | Circa 1,600 |
| Gross Residential Floor Area Sq.m | 120,000 | 150,000 |
| NON RESIDENTIAL USES SQ.M |  |  |
| High Intensity Employment | Min | Max |
|  | 82,800 | 109,000 |
| Non Retail Uses | Min | Max |
|  | 47,500 | 60,000 |
| Community Facilities | Min | Max |
|  | 2,200 | 3,000 |
| TOTAL NON RESIDENTIAL FLOOR AREA | 132,500 | 172,000 |
| TOTAL QUANTUM FLOOR AREA Town Centre SQ.M | Min | Max |
|  | 286,894 | 362,909 |
| Plot Ratio | Min | Max |
|  | 1:1.8 | 1:2.3 |
| Site Coverage | Min | Max |
|  | 50\% | 80\% |
| Building Height in Storeys | Min | Max |
|  | 2 | 5 |
| Upward Modifier | 3 Storeys |  |


| RESIDENTIAL DEVELOPMENT |  |  |
| :---: | :---: | :---: |
| Total Residential Lands HA | 4 |  |
|  | Land Area | Density Range |
| Res 1 | 0 | 35-55 |
| Res 2 | 2.5 | 45-75 |
| Res 3 | 0 | 65-145 |
| Res 4 | 1.5 | 85-175 |
| No. of Dwellings on Residential Lands | Min | Max |
|  | 240 | 450 |
| Overall Residential Density | Min | Max |
|  | 60 per Ha | 113 per Ha |
| Residential Units Town Centre | Min | Max |
|  | Circa 1,276 | Circa 1,600 |
| Building Height in Storeys | 2 | 6 |
| TOTAL NO. OF RESIDENTIAL DWELLINGS | Min | Max |
|  | Circa 1,516 | Circa 2,050 |


| EDUCATION |  |  |
| :---: | :---: | :---: |
| Educational Use Lands HA | 1.8 |  |
| Quantum and Type of Schools | 0 Primary | 1 Post Primary |
| Site 1 Area HA | - | 1.8 |
| TRANSPORT INTERCHANGE (T.1) |  |  |
| Site Area HA | 0.3 |  |

Note: Gross residential floor area includes the floor area of the individual apartments
and the communal rooms and circulation areas asscciated directly with the residential and the communal rooms and circulation areas associated directly with the residential development. It does not include the private open space/balconies associated with individu apartments.


The Town Centre is further split into 4 areas to ensure a sustainable allocation of uses throughout and to allow for a critical mass of retail, non retail and community uses, a honey pot of employment to complement the existing employment in Bride's Glen and a dispersal of residential to instil life through the Town Centre.
There is an allowance of $10 \%$ transfer of uses between the 4 areas in the Town Centre to give flexibility whilst maintaining the overall figures in Tables 6.2.1 and Tables 6.2.2. The optimum split of development quantum between the 4 areas within the Town Centre is detailed in the following table. (This $10 \%$ transfer is between each area is subject to agreement between Town Centre landowners).

Table 6.2.2: Breakdown of Development Quantum for Sites TC1, TC2, TC3 and TC4 Cherrywood Town Centre

| TC1 SITE AREA SQM | 43,000 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Use | Min Area Sq.m | Min No. Apartments Circa | Max Area Sq.m | Max No. Apartments Circa |
| Retail Gross | 26,750 |  | 32,000 |  |
| High Intensity Employment | 8,000 |  | 10,000 |  |
| Residential | 24,000 | 255 | 32,400 | 346 |
| Non Retail | 17,000 |  | 21,000 |  |
| Community | 1,100 |  | 1,500 |  |
| Total | 76,850 | 255 | 96,900 | 346 |
| Plot Ratio | 1.8 |  | 2.3 |  |
| TC2 SITE AREA SQM | 21,000 |  |  |  |
| Use | Min Area Sq.m | No. Units Circa | Max Area Sq.m | No. Units Circa |
| Retail Gross | 2,150 |  | 2,800 |  |
| High Intensity Employment | 0 |  | 0 |  |
| Residential | 28,200 | 300 | 36,000 | 384 |
| Non Retail | 7,000 |  | 9,000 |  |
| Community | 0 |  | 0 |  |
| Total | 37,350 | 300 | 47,800 | 384 |
| Plot Ratio | 1.8 |  | 2.3 |  |
| TC3 SITE AREA SQM | 53,880 |  |  |  |
| Use | Min Area Sq.m | No. Units Circa | Max Area Sq.m | No. Units Circa |
| Retail Gross | 3,000 |  | 3,100 |  |
| High Intensity Employment | 54,800 |  | 74,300 |  |
| Residential | 27,000 | 287 | 33,600 | 358 |
| Non Retail | 8,000 |  | 10,000 |  |
| Community | 1,100 |  | 1,500 |  |
| Total | 93,900 | 287 | 122,500 | 358 |
| Plot Ratio | 1.7 |  | 2.3 |  |
| TC4 SITE AREA SQ.M | 43,000 |  |  |  |
| Use | Min Area Sq.m | No. Units Circa | Max Area Sq.m | No. Units Circa |
| Retail Gross | 2,494 |  | 3,009 |  |
| High Intensity Employment | 12,753 |  | 17,453 |  |
| High Intensity Employment Constructed as of February 2012 | 7,247 |  | 7,247 |  |
| Residential | 40,800 | 434 | 48,000 | 512 |
| Non Retail | 15,500 |  | 20,000 |  |
| Community | 0 |  | 0 |  |
| Total | 78,794 | 434 | 95,709 | 512 |
| Plot Ratio | 1.8 |  | 2.2 |  |
| total quantum Town Centre SQ.M | Min 286,894 |  | Max 362,909 |  |
| Total no. of Apartments | Min. No. Apartments Circa 1,276 |  | Max. No. Apartments Circa 1,600 |  |
|  | Min |  | Max |  |
| Site Coverage Town Centre | 50 \% |  | 80\% |  |
| Building Height in Storeys Town Centre |  |  | 5 |  |

Table 6.2.3: Infrastructure Requirements Development Area 2 Cherrywood.
See Maps 4.1-4.5

## Road Requirements

- Reconstruct existing roundabout at A to signalised 4 arm junction.
- Complete existing Tully Vale Road (Grand Parade) A to B in accordance with cross sections.
- Construct Street A1 to F1
- Construct at-grade junction (left in/left out) on Wyattville Road
- Construct road J to WLR.
- Set up Traffic Management Plan to facilitate construction of bridge over Wyattville Link Road.
- Construct Overbridge on WLR and street A2-A3.
- Complete existing road A 3 to $H$ to WLR in accordance with cross section.
- Reconstruct existing road A 3 to I to A in accordance with cross section.
- Construct street A2-B.
- Construct streets linking to overbridges on WLR and complete the core street network.
- Construct remainder of street network specified for Development Area 2 i.e. all other streets designed to suit development of buildings and the urban landscape.


## Construction Access

- From Wyattville Link Road via junction A or left in/out junction
- Traffic Management proposal to be prepared and approved to keep traffic operational in a safe manner on the Wyattville Link Road during construction of the Cherrywood Town Centre.


## Stormwater Requirements

## Attenuation ponds at outfall 5 A .

450 mm approx. diameter SW sewer from J environs to outfall 5 A and 300 mm diameter SW outlet to Cherrywood Road SW sewer

- Attenuation Pond at Outfall 2B.
- 450 mm approx diameter SW sewer from A2 environs to pond 2B.


## Foul Sewer Requirements

450mm approx. diameter from $K$ environs and under Luas connecting into the Carrickmines Sewer near pond 2B.

- 450 mm approx diameter sewer from the environs of J and H along the Wyatville Road upsizing to 525 mm approx. and on to the Carrickmines Sewer


## Water Supply Requirements

- Connection to DCC Stillorgan 24" Main.
- 400 mm approx. diameter from $24^{\prime \prime}$ main to A.
- Upsizing $(600 \mathrm{~mm})$ and re-route of existing $20^{\prime \prime} \mathrm{AC}$ Main.
- 500 to 300 mm diameter loop around Cherrywood Town Centre, from upsized 600 mm diameter main.
6.3 Development Area 3: Priorsland

Location - see Map 6.3


## Unique Character

Priorsland is characterised by the flat low-lying flood plain of the Carrickmines Stream, the tree belt of Turkey Oaks, Priorsland House, the Carrickmines Station and the archaeology of the Watermill and the Portal Tomb which can be viewed from the area.
Homes that can be accessed from Brennanstown Road can be viewed at the far side of the Luas.

The landscape suggests a neighbourhood that develops and is animated by the potential of the stream and the tree belt, with development providing shelter from the adjoining motorway




| 0 | 25 | 50 | 100 | 150 |
| :--- | :--- | :--- | :--- | :--- |
|  | 200 |  |  |  |

## Design Challenges

There are a number of challenges that need to be addressed in the design and layout of proposals in this Development Area
Designing the development that abuts the M50 in a manner which improves the noise environment within the Plan Area to protect the residential amenity of the individual homes. (See Chapter 2 Proposed Development in Cherrywood)

Incorporating the Flood Containment Zone into the public realm Isee Map 4.3).

- Linking the school site to the Village Centre.
- Protecting the residential amenity of homes outside the Plan Area by means of landscaping and design considerations.
- Protect the character of the protected structures by according with the requirements set out in Chapter 3 Cultural and Built Heritage.
- Access to the area.
- Ensure the scale of development supports the economic viability of the Village.



## uture Form

Priorsland may be the second of the three Villages to be developed. The Village Centre will be centrally located within this Development Area, fronting onto a landscaped linear space which incorporates a floodplain containment zone and a tree line of existing Turkey Oaks.
The Village Centre is located equidistance from 2 Luas stops, Carrickmines and Brennanstown, and is across from a primary school and a park therefore enhancing its pivotal location within this Development Area

A Park and Ride facility, most likely in the form of a multi-storey car park, will be located adjacent to the Carrickmines Luas Stop. This Park and Ride facility will be accessed from the Carrickmines Interchange and will ensure that this valuable infrastructure resource is not only accessible to the residents of Cherrywood, but also to residents living in the wider area.
The entrance into Priorsland from Barrington's Road is landmarked by a triangular site accommodating High Intensity Employment development in the form of a building of up to 5 storeys in height.

## Specific Objectives:

DA 19 Pedestrian and vehicular connections are to be provided across the flood containment zone by way of bridges.
DA 20 Development adjoining the M50 to provide sound mitigation for the remainder of the Development Area.

DA 21 There shall be a high quality of landscaping and visual amenity at the interface with Cherrywood when viewed from the M50.
DA 22 Lands adjacent to Carrickmines Luas stop to provide a transport interchange, and a park and ride facility with connections to the national road network. A local convenience retail outlet lof up to 200 m 2 gross floor areal and a tea room/cáfe use are permissible in principle on the lands adjacent to the Carrickmines Luas stop.

DA 23 Access to Brennanstown Luas stop to be achieved through design of the residential plot.
DA 24 To provide appropriate access to Druid's Glen from the open space.
DA 25 To develop Priorsland House and Carrickmines Station in accordance with the details set down in Chapter 3 Cultural and Built Heritage.
DA 26 Access to Carrickmines Interchange will be limited to: Priorsland House, Carrickmines Station including lands adjoining these structures identified in Map 3.3 and the transport facilities adjoining the Carrickmines Luas stop.
DA 27 A community facility in accordance with Section 2.3 .4 will be provided in the Village Centre.
Table 6.3.1: Development Type and Quantum for Development Area 3 Priorsland

| DEVELOPMENT AREA 3 PRIORSLAND LAND USE AREAS |  |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| Mixed Use Village Centre | 0.9 |
| High Intensity Employment | 0.4 |
| Residential | 9.2 |
| Education | 0.8 |
| Transport Interchange | 0.3 |
| Green Infrastructure | 1.2 |

RESIDENTIAL DEVELOPMENT

| Total Residential Lands HA | 9.2 |  |
| :---: | :---: | :---: |
|  | Land Area HA | Density Range |
| Res 1 | 0 | 35-55 |
| Res 2 | 4.5 | 45-75 |
| Res 3 | 4.7 | 65-145 |
| Res 4 | 0 | 85-175 |
| No. of Dwellings on Residential Lands | Min | Max |
| No. of Dwellings on Residential Lands | 508 | Circa 1019 |
| Overall Residential Density | Min | Max |
| Overall Residentiat Density | 55 per ha | 111 per ha |
| Building Height in Storeys | 2 | 6 |
| No. of Dwellings in Village Centre | Min | Max |
| No. of Dwellings in Vilage Centre | Circa 95 | Circa 200 |
| TOTAL NO. OF RESIDENTIAL | Min | Max |
| DWELLINGS | Circa 603 | Circa 1,219 |


| EDUCATION |  |  |
| :--- | :---: | :---: |
| Educational Use Lands HA | $\mathbf{0 . 8}$ |  |
| Quantum and Type of Schools | 1 Primary | 0 Post Primary |
| Site 1 Area HA | 0.8 |  |

## RANSPORT INTERCHANGE (T.i)

Site Area HA

Table 6.3.2: Infrastructure Requirements Development Area 3 Priorsland. See Maps 4.1-4.5.

## - Construct M - D.

## Road Requirements

- Roads D-C-P-Q, A-B and B-C as specified for Development Area 1
- Through single controlled access at Junction D on Barrington's Road. Stormwater Requirements
- Flood containment zone.
- Diversion of Ticknick Stream.
- Flood flow bypass culvert parallel to Carrickmines Rive
- Detention basins and swales as shown on Map 4.2.

Foul Sewer Requirements

- 450 mm approx. diameter sewer from $E$ and $D$ connecting into the Carrickmines Sewer
- Upsizing Supply Requirements
- 300 mm branch main from the upsized 600 mm diameter main to existing 300 mm diameter at 1 .
- Connection to DCC Stillorgan $24^{\prime \prime}$ main at Q .
- 400 mm diameter from $24^{\prime \prime}$ main to $\mathrm{A}, \mathrm{A}^{\prime}, \mathrm{B}, \mathrm{L}, \mathrm{P} 2, \mathrm{C}, \mathrm{D}$ and at 300 mm . via $M$ and $S$ to connect to existing 200 mm watermain in Glenamuck Road.
- 400 mm diameter Luas crossing at C.
- Abandon section of existing $33^{\prime \prime}$ Main and reroute through E to tie back into existing main near attenuation pond 1 .

Note: Gross residential floor area includes the floor area of the individual apartments and the communal rooms and circulation areas associated directly with the residentia development. It does not include the private open space/balconies associated with individual apartments.
6.4 Development Area 4: Domville

Location - see Map 6.4

## Unique Character

This area is characterised by the steep slopes of Tully Park to one side and Loughlinstown Valley to the other. The connection between Tully Church and the valley has been altered by the construction of the Luas.

## Design Challenges

There are a number of challenges that need to be addressed in the design
and layout of proposals in this Development Area:

- Enclosure of the Grand Parade.
- Addressing the changes in level across sites
- The protection of hedgerows


$02550 \quad 100 \quad 150 \quad 200$


## uture Form

The Development Area of Domville will bridge the connection between the existing residential developments of Tullyvale and Druids valley with Lehaunstown to the west, Tully Park to the southwest and Cherrywood to the south and south east.
This Development Area consists of 5 development plots accommodating Res2 and Res3 development, a Primary School and a green space to be in frames the Grand Parade as it enters the Cherrywood Development Area, while tying the existing

Specific Objectives:
DA 28 Buildings should be orientated towards the Grand Parade, with appropriate frontage set backs where necessary to facilitate andscaping or to provide a privacy strip between the building and the back of footpath.

DA 29 To incorporate the Greenway connection along the existing tree line from Tully Park to the Valley into the layout of the adjoining residential areas.
DA 30(a) To provide a Class 2 open space pocket park in close proximity to the Springs and to follow the Hydrogeology Guidance outlined in Appendix E of the Planning Scheme with regard to the design o roposed development on sites within the catchment sensitivity of Tufa Spring No. 5 in order to protect the hydrology source, as detailed in Chapter 5 Green Infrastructure Isee G 130 and Appendix E).

DA 30(b) The layout and design of proposed developments on sites identified as been within the protection zone of the Tufa Spring No. 5, as indicated in Appendix E of the Planning Scheme, shall be informed by site investigations, as outlined in Appendix E, which are to be arried out in advance, by the applicant, of the preliminary desig of any proposals for these sites. Proposals on these sites shall demonstrate that they will have no significant impact on Tufa Spring No. 5 and shall be accompanied by an ecological report demonstrating the same.
DA 31 The design and layout of residential development should provide a living edge to Tully Park

DA 32 Prior to a planning application being submitted on the Res 4 plot in Development Area 1 Lehaunstown or the Res 3 plot in Developmen Area 4 Domville both located on the southern side of the Grand Parade, the landowner shall enter into a discussion with the Local Authority to explore the potential of relocating the Traveller's Accommodation site in the Res 4 plot to the Res 3 plot.



Table 6.4.1: Development Type and Quantum for Development Area 4 Domville

| DEVELOPMENT AREA 4 | DOMVILLE LAND USE AREAS |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| Residential | 12 |
| Education | 0.85 |
| Green Infrastructure | 11.71 |


| DEVELOPMENT AREA 4 DOMVILLE |  |
| :---: | :---: |
| Gross Area HA | Net Developable HA |
| 25.9 | 12 |


| RESIDENTIAL DEVELOPMENT |  |  |  |
| :--- | :---: | :---: | :---: |
| Total Residential Lands HA |  | $\mathbf{1 2}$ |  |
|  | Land Area HA | Density Range |  |
| Res 1 | 0 | $35-55$ |  |
| Res 2 | 6.4 | $45-75$ |  |
| Res 3 | 5.6 | $65-145$ |  |
| Res 4 | 0 | $85-175$ |  |
| No. of Dwellings on Residential Lands | Min | Max |  |
|  | Circa 652 | Circa 1,292 |  |
| Overall Residential Density | Min | Max |  |
| Building Height in Storeys | 54 per ha | 108 per ha |  |
| Residential Dwellings Constructed | 2 | 6 |  | February 2012

600

| TOTAL NO. OF RESIDENTIAL DWELLINGS | Min | Max |
| :---: | :---: | :---: |
|  | Circa 1,252 | 1,892 |


| EDUCATION |  |  |
| :--- | :---: | :---: |
| Educational Land Use HA | $\mathbf{0 . 8 5}$ |  |
| Quantum and Type of Schools | 1 Primary | 0 Post Primary |
| Site 1 Area HA | 0.85 | - |

Table 6.4.2: Infrastructure Requirements Development Area 4 Domville. See Maps 4.1-4.5.

| Road Requirements |  |
| :---: | :---: |
|  | - Complete existing Tullyvale Road A to B in accordance with cross sections. <br> - Extend Grand Parade B to P2 . <br> - Pedestrian/Cyclist Crossing of 'Luas' line and Grand Parade at L. |
|  | Construction Access |
|  | - From Grand Parade at B and P2. |
|  | Stormwater Requirements |
|  | - Attenuation Pond 2 A and 2B. <br> - 450 mm diameter $S W$ sewer from both $P 2$ and $B$ to $L$ and on to pond $2 A$. |
|  | Foul Sewer Requirements |
|  | - 450 mm approx diameter foul sewer from $B$ environs to $A 2 / A 1$ and down to the Carrickmines Sewer. <br> - 525 mm approx diameter foul sewer from P2 to $L$ to $L 1$ and into the Carrickmines Sewer. |
|  | Water Supply Requirements |
|  | - Connection to DCC Stillorgan 24" Main. <br> - 400 mm diameter from DCC $24^{\prime \prime}$ main in N11 to $\mathrm{A}, \mathrm{A} 1, \mathrm{~B}, \mathrm{~L}$ and on to P2. |

- 400 mm diameter from DCC $24^{\prime \prime}$ main in N 11 to $\mathrm{A}, \mathrm{A} 1, \mathrm{~B}, \mathrm{~L}$ and on to P2.

6.5 Development Area 5: Druid's Glen

Location - see Map 6.5


## Unique Character

The river valleys, created by the Carrickmines Stream and the Cabinteely Stream, bound this area on two sides. Glendruid House, a protected structure, has views across the valley, This valley falls away steeply towards Druid's Glen.
Lehaunstown Lane winds through the valley; this is part of the route from Brennanstown Road to Ballycorus.

On the Cabinteely side of the Development Area the landscape forms a plateau at the edge of where the adjoining valleys converge, thereby creating important connections back to Cabinteely Village, linking to the N11 and to the employment lands at Bride's Glen,

## Design Challenges

There are a number of challenges that need to be addressed in the design proposals in this Development Area

- Glendruid House is an imposing structure overlooking the valley. This visual relationship between the House and the Valley should be maintained.


Cherrywood Planning Scheme
Map 6.5 - Development Area

$\square$ Planning Scheme Boundary Res 1
Res 2
$\qquad$
Green Infrastructure
$\times \times x \times y$ Protected Structures
Physical Infrastructure
-Principal Frontage
$\longrightarrow$ Indicative Access Point

- Lands on the western side of Lehaunstown Lane fall away steeply towards the sensitive ecology of Druid's Glen. The layout of development here will have to respect the sensitivity of the Glen and work with these contours so as not to dominate views.

Lands on the eastern side of Lehaunstown Lane have two very different aspects in the form of the new road and the valleys. Different design solutions should be adapted to each of these and both should incorporate a level of surveillance.
Lands abutting the existing homes should have regard to the residential amenity of existing residents.


## Future Form

Similar in function to Domville, the four development plots, which make up Development Area 5, connect the new Village of Lehaunstown, and the wide Plan Area back to the existing and well established village of Cabinteely.
This Development Area is sensitive in nature due to the presence of the Valleys to the south and east, and existing residential development to the north. Development should be particularly sensitive on the Res 1 site to the south of Glendruid House so as to protect views between the House down to the Valley and beyond. Glendruid House should remain the dominant featur in views back towards this site.
This location adjoining the valleys provides excellent connectivity to Cherrywood Town Centre and the hinterland.

## Specific Objectives:

DA 33 On lands east of Lehaunstown Lane residential development shall be of a mixed typology to provide a range of housing types, The ayout shall provide surveillance over the valleys and frontage to the Druid's Glen Road.

DA 34 Development in the grounds of Glendruid House should reflect the views to and from the protected structure and accord with the detai and objectives set down in Chapter 3 Cultural and Built Heritage.
DA 35 After the alignment of the Druids Glen Road has been agreed in writing with the Local Authority any lands remaining adjoining Writing with the Local Authority any lands remaining adjoining the N 11 within the Planning Scheme boundary that have not been allocated a landuse in the Planning Scheme may be develope County Development Plan. This will not be subject to the phasing County Development Plan. This will not be subject to the phasing
requirements of the Planning Scheme. Where reference is made to requirements of the Planning Scheme. Where reference is made to
the 'current' County Development Plan or Guidelines, it means the便 application.

Table 6.5.1: Development Type and Quantum for Development Area 5 Druid's Glen

| DEVELOPMENT AREA 5 DRUID'S GLEN LAND USE AREAS |  |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| Residential HA | 8.5 |
| Green Infrastructure | 6.2 |


| DEVELOPMENT AREA 5 DRUID'S GLEN |  |
| :---: | :---: |
| Gross Area HA | Net Developable HA |
| 15.6 | 8.5 |


| RESIDENTIAL DEVELOPMENT |  |  |  |
| :--- | :---: | :---: | :---: |
| Total Residential Lands HA |  | $\mathbf{8 . 5}$ |  |
|  | Land Area HA | Density Range |  |
| Res 1 | 2.6 | $35-55$ |  |
| Res 2 | 5.9 | $45-75$ |  |
| Res 3 | 0 | $65-145$ |  |
| Res 4 | 0 | $85-175$ |  |
| No. of Dwellings on Residential Lands | Min | Max |  |
| Overall Residential Density | Min | Circa 586 |  |
| Building Height in Storeys | 42 per ha | Max |  |
| TOTAL N0. OF RESIDENTIAL |  |  |  |
| DWELLINGS | 2 | 4 |  |

Table 6.5.2: Infrastructure Requirements Development Area 5 Druid's Glen.
See Maps 4.1-4.5

## Road Requirements

- Construct Road P3-Q and close Lehaunstown Lane at its intersection Construct Road P3-Q and close Lehaunstown Lane at its intersection
with the western side of Druids Glen Road. If a secondary access is with the western side of Druids Glen Road. If a secondary access is
required on to Brennanstown Road to serve a limited number of units this will be contingent on traffic calming.


## Construction Access

- From N11, via Route P3-Q.

Stormwater Requirements

- Attenuation pond 2A.
- 300 mm diameter approx. SW pipe from P3 environs to pond 2A. Water Supply Requirements
- Initially, Area 5 can be served from Q to P3 $(200 \mathrm{~mm}-300 \mathrm{~mm}$ diameter approx). Watermains from C 2 to P to P to P 3 to be installed when roads are constructed.
- Connection to $26^{\prime \prime}$ DCC watermain at Q .


## Foul Sewer Requirements

- Local foul network to connect to Carrickmines or Foxrock trunk sewers.

6.6 Development Area 6: Bride's Glen

Location - see Map 6.6


## Unique Character

Bride's Glen Development Area occupies the lands at the head of the Bride's Glen Valley and the Stream. The office park, lake and open space are a largely manmade landscape. The area is exposed to the wind and is incomplete as a built environment. The area adjoins the established residential area in the lower ground of the valley. Lands to the South West adjoining the Planning Scheme area are zoned high amenity in the current County Development Plan 2010-2016. These lands are separated from the Planning Scheme boundary by the change in contour and a wooded area.

## Design Challenges

There are a number of challenges that need to be addressed in the design proposals in this Development Area:

- Ensuring the scale and layout respects the amenity of Bride's Glen while creating a clear connectivity with the Town Centre.
- Creating a pedestrian friendly link between the Town Centre and Bride's Glen Road that addresses the level changes.
- Ensuring that the view of Cherrywood from Killiney Hill, the Wyattville Road and the M50 is considered in the design and landscaping of sites.


Cherrywood Planning Scheme
Map 6.6 - Development Area 6
Bride's Glen


| Pla | Planning Scheme Boundary |
| :---: | :---: |
| $\frac{\pi N}{Z N}$ | Development Area 6 A |
|  | Development Area 6 B |
| $\mathrm{m}_{\mathrm{R}}$ | Employment- High Intensity (HIE) |
|  | Res 1 |
| $\square \mathrm{R}$ | Res 2 |
| $\square \mathrm{G}^{\square}$ | 1 Green Infrastructure |
| $\square \mathrm{P}$ | Physical Infrastructure |
| $\xrightarrow{\cdots-\cdots \cdots}$ | - Walkway / Cycleway |
|  | Indicative Access Poin |
| $\longrightarrow$ In | Principal Frontages |
| ${ }^{-}$Prim | - Luas Line (Existing) |
| $\odot$ | Proposed Luas Line Extension |
|  | Luas Stops |
|  | $2550 \quad 100 \quad 150 \quad 200$ |
|  | Metres |

To ensure the design and layout of buildings create a complete urban form


## Future Form

Bride's Glen, also known as the Cherrywood Business Park makes up the majority of the lands within the Plan Area designated for High Intensity Employment development. A significant portion of these lands have already been developed to accommodate such development
Bride's Glen should continue to develop as a high quality architecturally designed employment area with access to a variety of quality amenities including the linear park, the Luas and the range of services in the adjacen Town Centre. There will be strong pedestrian links from Bride's Glen into the Town Centre and adjoining roads, and into the adjacent linear park which will be expanded and improved.
The extended Luas line to Bray will run through this area. It will be incorporated into the linear park and cross the viaduct

## Specific Objectives:

DA 36 The design and layout of the area shall provide pedestrian connections to the Town Centre, N11, Cherrywood Road and Mullinastill.
DA 37 That the buildings are designed with their primary façade fronting the public domain. Where buildings adjoin the linear open space, access and overlooking of the linear park should be considered in the design of the building.

DA 38 That the design and landscaping of the area has regard to its context as viewed from Killiney Hill, the Wyattville Road and the M50.
DA 39 The parcel of residential development is accessed directly from within the Cherrywood Planning Scheme.
DA 40(a) Planning Applications are required to demonstrate that the proposal does not impact on the alignment of the Luas Line B2.

DA 40 (b) A building of appropriate scale, massing, design and quality should be located at the interface of the Town Centre, Brides Glen Square, the Luas line and Green Linear Park, south of the Brides Glen Square on HIE2 lands, to provide a visual focal point at these key public realm and civic spaces.
*There is an allowance of a transfer of 3,000 sqm of floorspace between HIE 1 and HIE 2 whilst maintaining the overall area permissible in HIE 1 \& HIE 2 combined (Refer to Table 6.6.1). This transfer between the HIE 1 and HIE 2 plots is subject to the agreement between the HIE 1 and HIE 2 landowners)


Table 6.6.1: Development Type and Quantum Development Area 6 Bride's Glen

| DEVELOPMENT AREA 6 BRIDE'S GLEN LAND USE AREAS |  |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| Residential | 2.5 |
| High Intensity Employment | 10.2 |
| Green Infrastructure | 5.1 |


| DEVELOPMENT AREA 6 BRIDE'S GLEN |  |
| :---: | :---: |
| Gross Area HA | Net Developable HA |
| 19.5 | 12.4 |


| RESIDENTIAL DEVELOPMENT |  |  |
| :---: | :---: | :---: |
| Total Residential Lands HA | 2.5 |  |
|  | Land Area HA | Density Range |
| Res 1 | 0.7 | 35-55 |
| Res 2 | 1.8* | 45-75 |
| TOTAL NO. OF RESIDENTIAL | Min | Max |
| DWELLINGS | Circa 106 | 174 |

*Includes an allowance of circa 0.3 ha of land zoned Physical Infrastructure but that may not be utilised for the Regional Pond 5A system, and which may be used for residential development.

| NON RESIDENTIAL DEVELOPMENT |  |  |
| :---: | :---: | :---: |
| High Intensity Employment |  |  |
| Site Name | Development Quantum <br> Sq.m | Area Ha |
| HIE 1 | 105,000 | 6.6 |
| HIE 2 | 27,000 | 1.7 |
| HIE 3 | 21,000 | 1.9 |
| TOTAL | 153,000 | 10.2 |


| Breakdown for Site HIE 1 |  |
| :--- | :---: |
| Site Area HA | 6.6 |
| Max Quantum Sq.m | 105,000 |
| Constructed Sq.m as of February 2012 | 34,938 |
| Permitted, Not Constructed Sq.m as of <br> February 2012 | 29,875 |
| Remaining Quantum Sq.m | 40,187 |
| Plot Ratio | Max |
| Height Storeys | $1: 1.6$ |
|  | Max |


|  | Breakdown for Site HIE 2 |  |
| :--- | :---: | :---: |
| Site Area HA | 1.7 |  |
| Max Quantum Sq.m | 27,000 |  |
| Constructed Sq.m as of February 2012 | 24,149 |  |
| Permitted, Not Constructed Sq.m as of <br> February 2012 | - |  |
| Remaining Quantum Sq.m | 2,851 |  |
| Plot Ratio | Max |  |
| Height Storeys | 1:1.6 |  |
|  | Max |  |


| Breakdown for Site HIE 3 |  |
| :--- | :---: |
| Site Area HA | 1.9 |
| Max Quantum Sq.m | 21,000 |
| Constructed Sq.m as of February 2012 | - |
| Permitted, Not Constructed Sq.m as of <br> February 2012 | - |
| Remaining Quantum Sq.m | 21,000 |
| Plot Ratio | Max |
| Height Storeys | $1: 1.1$ |

Table 6.6.2: Infrastructure Requirements Development Area 6B Bride's Glen.
See Maps 4.1-4.5
Infrastructure requirements for Development Areas 1-5 are complete.

Road Requirements

- Construct loop road H,G,F,F1 including underpass of WLR


## Construction Access

- From WLR left in/out junction using loop J-F-G-H to A3 and I
- Construction traffic banned from streets A1-J and A2-A3.
- Extension of existing local network to connect to existing attenuation pond at outfall 4 - subject to confirmation of capacity.

Foul Sewer Requirements

- None required extend existing network.

6.7 Development Area 7: Macnebury

Location - See Map 6.7


## Design Challenges

There are a number of challenges that need to be addressed in the design
and layout of proposals in this Development Area;

- The design and layout of frontages and landscaping addressing the M50 and the Wyattville link.
- Sensitive development of Lehaunstown Park in accordance with Chapter 3 Cultural and Built Heritage.
- The noise environment adjoining the M50 and the Lehaunstown Interchange should be an informing factor in the design and positioning of structures (see Chapter 2 Section 2.13 Noise Sensitivity).
- Lehaunstown Interchange creates a challenge by physically dividing this area. This requires careful site layout and the use of the landscape to
create linkages towards the Town Centre so as to improve permeability create linkages towards the Town Centre so as to improve permeability across the Planning Scheme area.
- Beckett Road underpass under the Wyattville Link Road will also serve to alleviate this divide or severance. The final design and construction of this project shall require close consultation with the TII.
- Project management of the scheme shall ensure minimal impact on the operation and safety of the national road network. Therefore, any limited closures to Junction 16 Lehaunstown must be agreed with TIl in advance shall only occur over weekends at non-peak times of the year to ensure minimal disruption to the operation of the national road network.



## Future Form

Macnebury straddles the entry route to Cherrrywood from the M50
Macnebury straddles the entry route to Cherrrywood from the M50/ in creating the first impression of Cherrywood.
The view from the Wyattville Link Road into the adjoining employment land uses is framed by the landscaping of the built form. Within the parcels of land that straddle the Wyattville Link Road the layout will direct movement provide surveillance to Bishop Street while having adequate set back to protect residential amenity.
Specific Objectives:
DA 41 Residential buildings should overlook Bishop Street, with appropriate frontage set backs where necessary to facilitate andscaping or to provide a privacy strip between the building and he back of footpath.

DA 42 That the design and landscaping of the development land stradling the Wyattville Link Road shall have regard to its context as viewed
from the Wyattville Link Road.

DA 43 That the design and layout of the area has regard to the provision of clear pedestrian connections to the Town Centre and will not acilitate pedestrians attempting to cross the Wyattville Link Road at grade.

DA 44 Commercial land uses parallel with the M50 should be a design of sufficient height and scale, and in a manner consistent with adjoining areas from noise. adjoining areas from noise.
With regard to the Res 2 Plot in Macnebury and in a manner consistent with Objective PD 33, the planning application and design of this Res 2 plot shall include noise attenuation measures
along the boundary of Beckett Road, by way of a landscaping berm with appropriate woodland planting mix which shall incorporate a high-quality acoustic fence/wall, demonstrating the protection of the residential amenity of this site.
DA 45 There shall be a high quality of landscaping and visual amenity at the interface with Cherrywood when viewed from the M50.
DA 46 To maintain the pedestrian access over the M50 to open space lands at Ticknick and to incorporate a universal access route as
part of the design of Lehaunstown Park Public Open Space which will connect Lehaunstown Lane Greenway with Beckett Road and the pedstrian access across the M50 having regard to the level changes at this location and ensuring ease of access for all who are using the greenway infrastructure in Cherrywood.
In the event that Beckett Road is developed prior to Lehaunstown Park, any planning application for Beckett Road E-F shall ensure
that a universal access is provided between Lehaunstown Lane and Ticknick Park.
DA 47 Planning permission for the Class 2 Open Space associated with the Cairn/Wedge Tomb in Macnebury shall be sought as part of the planning application which provides Beckett Road F-G. The works associated with construction of this section of Beckett Road and the Class 2 Open Space associated with the Cairn/Wedge Tomb, will be subject to the consent of the Minister for Culture, Heritage and the
 2004.

The following shall also be provided:

- This Class Two open space, particularly the pedestrian entrance point from Beckett Road, shall be carefully designed so as to ensure a safe and inviting entrance and to avoid the Cairn/Wedge Tomb being severed from the main planning scheme area, while celebrating this national monument.
- A safe and direct pedestrian/cycle connection shall be provided from the Cairn/Wedge Tomb site, across Beckett Road, via the RES 3 site to the north of the Cairn/Wedge Tomb and onto Bishops Street at an appropriate location. This route shall seek to retain a visual connection between the Cairn/
Wedge Tomb Site and the National Monuments at Tully Park having regard also to the need to provide a safe pedestrian crossing point on Bishops Street. A safe and direct pedestrian /cycle connection shall also be provided between Lehaunstown Lane and the Junction of Beckett Road with Bishops Street through the Res 2 site, therefore enhancing connectivity between the Cairn/Wedge Tomb site, Tully Park and Church planning application relating to these Residential sites.
- Additional screening in the form of suitable planting and noise attenuation shall be provided along the Cairn/Wedge impact of any tree roots on the archaeology of the site must be carefully considered in this regard.
- Careful consideration shall also be given to the landscaping of the entrance points on either side of the Wyattville Link Road Wedge Tomb and provide an attractive environment for cyclist and pedestrians.

Table 6.7.1: Development Type and Quantum Development Area Macnebury

| DEVELOPMENT AREA 7 MACNEBURY LAND USE AREAS |  |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| High Intensity Employment | 4.95 |
| Commercial Uses | 2.9 |
| Residential | 6.4 |
| Green Infrastructure HA | 2.2 |


| DEVELOPMENT AREA 7 MACNEBURY |  |
| :---: | :---: |
| Gross Area HA | Net Developable HA |
| 24.6 | 14.25 |

## NON RESIDENTIAL DEVELOPMENT

HIGH INTENSITY EMPLOYMENT

## High Intensity Employment Lands HA <br> 4.95

## Max Quantum Sq.m

Breakdown for Site HIE 4

| Area HA | 3.4 |
| :--- | :--- | :--- |
| Max Quantum Sq.m | 58.000 |


| Max Quantum Sq.m | 58,00 |
| :--- | :--- |
| Plot Ratio | Ma |

1:1
Building Height in Storeys Max

| Breakdown for Site HIE 5 |  |  |
| :--- | :---: | :---: |
|  |  | 1.55 |
| Area HA | 19.000 |  |
| Max Quantum Sq.m | $1: 1.2$ |  |
| Plot Ratio | Max |  |
| Building Height in Storeys | 6 |  |


| COMMERCIAL USES |  |  |
| :---: | :---: | :---: |
| Commercial Uses Lands HA | 2.9 |  |
| Min Quantum Sq.m | 29,000 |  |
| Site CU 2 |  |  |
| Area HA | 1.6 |  |
| Min Quantum Sq.m | 16,000 |  |
| Min Plot Ratio | Min |  |
| , | 1:1 |  |
| Bu | Min | Max |
| Building Height in Storeys | 2 | 5 |
| Site CU 3 |  |  |
| Area HA | 1.3 |  |
| Min Quantum Sq.m | 13,000 |  |
| Min Plot Ratio | Min |  |
|  | 1:1 |  |
| Building Height in Storeys | Min | Max |

RESIDENTIAL DEVELOPMENT

| Total Residential Lands HA | 5.5 |  |
| :---: | :---: | :---: |
|  | Land Area HA | Density Range |
| Res 1 | 0 | 35-55 |
| Res 2 | 1.8 | 45-75 |
| Res 3 | 4.6 | 65-145 |
| Res 4 | 0 | 85-175 |
| No. of Dwellings on Residential Lands | Min | Max |
|  | 380 | 802 |
| Overall Residential Density | Min | Max |
|  | 69 per ha | 146 per ha |
| Building Height in Storeys | Min | Max |
|  | 2 | 5 |
| TOTAL NO. OF RESIDENTIAL DWELLINGS | Min | Max |
|  | 380 | 802 |

Table 6.7.2: Infrastructure Requirements Development Area 7 Macnebury. See Maps 4.1-4.5
Infrastructure requirements of Development Areas 1-5 are complete

## Road Requirements

- Loop road H,G,F,F1 including underpass of WLR.
- Beckett Road E-F.
- Construct street network F1-K1.


## Construction Access

- Construction traffic banned from streets A1-J and A2-A3.
- From WLR left in/out junction via loop J-F-G-H to E2 and K1.


## Stormwater Requirements

## Attenuation pond 5A.

- 525 mm approx. diameter SW sewer from J environ to pond 5 A
- Detention basins and infiltration trenches as shown on Stormwater drawing.
525 mm diameter approx. SW sewer from F1 environs to $F$ and from K environs to detention basin.


## Foul Sewer Requirements

- 450 mm approx. diameter sewer from F1 to WLR Road, along it and crossing the Luas to connect into the Carrickmines Sewer.
- 300 mm approx. diameter sewer from K to F1.

450 mm approx. diameter from J and H to A and on to Carrickmines Sewer.

## Water Supply Requirements

- Upsizing $(600 \mathrm{~mm})$ and re-route of existing $20^{\prime \prime}$ AC Main
- 500 to 400 mm diameter from $\mathrm{H}^{\prime}$ to J to F from above upsized main.
6.8 Development Area 8: Tully

Location -See Map 6.8


## Unique Character

Tully is characterised by an open and gently sloping landscape running west to the motorway from the high ground at Tully Church. It requires shelter as it is exposed to winds from the Dublin and Wicklow Mountains and the noise from the M50, however its low lying ground has the potential to develop as a centre for sports and activity.
There are a number of good quality hedgerows that can be incorporated into future layouts.
The contours of the plots of land immediately abutting Tully Park differ to other parts of the Plan Area as they create a saucer type landscape.

$\stackrel{\text { Metres }}{0 \quad 2550 \quad 100 \quad 150 \quad 200}$

## Design Challenges

There are a number of challenges that need to be addressed in the design proposals in this Development Area

- Tully Village at the core of the neighbourhood has to address two street frontages (Castle Street and Gun and Drum Hill) and a village square.
- The changes in level across sites, in particular from Tully Park to Castle Street must be addressed.
- The development fronting the greenways should be designed so as to contribute positively to the pedestrian experience.
- To design buildings that create a sense of enclosure along Castle Street.
- Buffering the area from noise from the M50 motorway
- Ensure the scale of development supports the economic viability of the village core.



## uture Form

Tully Village will be the third and last Village Centre to be developed within the Plan Area. It will be the largest of the three Village Centres due to its central location and the level of residential development directly surrounding it. This Development Area will also accommodate the widest range of uses of all the Development Areas, excluding the Town Centre
This Development Area is focused around a Village Centre and large area of Class 1 Open Space (Beckett Park). In addition there will be 2 primary schools and 1 post primary school. A linear plot, which will accommodate a range of Commercial Uses, is located on lands adjacent to the M50 and accessed from Mercer's Road. A site on the northern portion of this Commercial Uses strip, adjacent to the green area and the post primary school, has been earmarked for the development of a commercial leisure facility.

Tully Village is bisected by Castle Street running from north to south. Castle Street will provide a safe and calm environment for the movement of pedestrians and cyclists due to the presence of a bus gate. The bus-gate will facilitate a quality bus service through the central Plan Area and deflect through traffic from the Village and adjacent residential areas towards the primary transport routes which have been designed for the purpose of moving traffic around the Plan Area towards the N11, M50 and Town Centre. The presence of a bus gate on Castle Street will contribute to the creation of a pleasant living environment in the central residential quarter of Cherrywood.


Specific Objectives:
DA 48(a) The village will be focused on the village square so as to draw together greenways with the village school, the local park and the local shops.

DA 48(b) With regard to the built form of the Tully Village Centre, urban scale and variation in building height shall contribute to a well-designed, high quality development, with elements of fine grain. Extensive monolithic blocks should be avoided, and in this regard, the design shall incorporate a roofscape and building form that presents with visual and architectural variety, including for example, set-backs, breaks in form, sections which emphasise verticality, and roofscape articulation. The built form shall reflect the civic nature of a village centre as a focal point for the neighbourhood.
DA 49 The design and building heights within the village shall limit the impact of over shadowing on the village square

DA 50 Residential development shall be of sufficient height to provide passive surveillance over Beckett Park and the greenways so as to enhance the pedestrian experience.
DA 51 Development fronting Tully Park should be less structured and create a softer frontage with Tully Park.
DA 52 Buildings should be orientated towards Castle Street, with appropriate frontage and set backs where necessary to facilitate landscaping and/or to provide a privacy strip between the building and the back of footpath.
DA 53 Beckett Park should have good linkages to the local primary and post primary schools.

DA 54 In accordance with Chapter 5 Green Infrastructure GI29 pocket parks will be provided along Lehaunstown Lane to provide play opportunities for the adjoining residents.
DA 55 A Community Facility will be provided in the Village Centre in accordance with Section 2.3.4

DA 56 There shall be a high quality of landscaping and visual amenity at the interface with Cherrywood when viewed from the M50.
DA 57(a) The applicant shall follow the Hydrogeology Guidance outlined in Appendix E of the Planning Scheme with regard to the design of proposed development on sites within the catchment sensitivity zone of Tufa Spring No. 5 in order to protect the hydrology source as detailed in Appendix E)

DA 57(b) The layout and design of proposed developments on sites identifie as been within the protection zone of the Tufa Springs, as indicate in Appendix E of the Planning Scheme, shall be informed by site investigations, as outlined in Appendix E, which are to be carried out, by the applicant, in advance of the preliminary design of any proposals for these sites. Proposals on these sites shall demonstrate that they will have no significant impact on Tufa Spring No. 5 and shall be accompanied by an ecological report demonstrating the same.

Table 6.8.1: Development Type and Quantum Development Area 8 Tully

| DEVELOPMENT AREA 8 TULLY LAND USE AREAS |  |
| :--- | :---: |
| LAND USE | AREA IN HECTARES |
| Mixed Use Village Centre | 1.2 |
| Commercial Uses | 3.6 |
| Residential | 16.1 |
| Education | 3.2 |
| Green Infrastructure | 5.5 |

DEVELOPMENT AREA 8 TULLY

## Gross Area HA

Net Developable HA 24.1

TULLY VILLAGE CENTRE

| Total Village Centre Lands HA | 1.2 |  |
| :---: | :---: | :---: |
| RETAIL SQ.M |  |  |
|  | Min | Max |
|  | Net / Gross | Net / Gross |
| 1 no. Supermarket | 1,750/2,652 | 2,500 / 3,789 |
| Local Retail | 445/674 | 750 / 1,136 |
| Retail Services | 445/674 | 750 / 1,136 |
| Total Retail Quantum Village Centre Sq.m | Min Net/Gross | Max Net/ Gross |
|  | 2,640 / 4,000 | 4,000 / 6,060 |
| RESIDENTIAL |  |  |
| Residential Dwelling Units | Min | Max |
|  | Circa 130 | Circa 200 |
| Gross Residential Floor Area Sq.m | Min | Max |
|  | 12,000 | 19,500 |
| RESIDENTIAL VILLAGE CENTRE |  |  |
| Non Retail Uses | Min | Max |
|  | 750 | 1,000 |
| High Intensity Employment | Min | Max |
|  | 750 | 1,000 |
| Community Facilities | Min | Max |
|  | 250 | 500 |
| Total Non Residential Floor Area Sq.m | Min | Max |
|  | 1,750 | 2,500 |
| TOTAL FLOORSPACE QUANTUM tuLLY VILLAGE CENTRE SQ.M | Min | Max |
|  | 17,750 | 28,060 |
| Plot Ratio | Min | Max |
|  | 1: 1.5 | 1: 2.3 |
| Site Coverage | Min | Max |
|  | 40\% | 60\% |
| Building Height in Storeys | Min | Max |
|  | 3 | 5 |

Note: Gross residential floor area includes the floor area of the individual apartments and the communal rooms and circulation areas associated directly with the residentia
development. It does not include the private open space/balconies associated with development. It does no

| NON RESIDENTIAL DEVELOPMENT |  |  |
| :--- | :---: | :---: |
| COMMERCIAL USES Breakdown for Site CU 1 |  |  |
| Site Area HA | 3.6 |  |
| Min Quantum Sq.m | 36,000 |  |
| Min Plot Ratio | Min |  |
| Height Storeys | 2 | Max |


| RESIDENTIAL DEVELOPMENT |  |  |
| :---: | :---: | :---: |
| Total Residential Lands HA | 16.1 |  |
|  | Land Area HA | Density Range |
| Res 1 | 0.6 | 35-55 |
| Res 2 | 15.5 | 45-75 |
| Res 3 | 0 | 65-145 |
| Res 4 | 0 | 85-175 |
| No. of Dwellings on Residential Lands | Min | Max |
|  | 719 | 1,196 |
| Overall Residential Density | Min | Max |
|  | 45 per ha | 74 per ha |
| Building Height in Storeys | Min | Max |
|  | 2 | 5 |
| No. of Dwellings in Tully Village Centre | Min | Max |
|  | Circa 130 | Circa 200 |
| TOTAL NO. OF RESIDENTIAL DWELLINGS | Min | Max |
|  | Circa 849 | Circa 1,396 |


| EDUCATION |  |  |
| :--- | :---: | :---: |
| Lands for Educational Use HA | 3.2 |  |
| Quantum and Type of Schools | 2 Primary | 1 Post Primary |
| Site 1 Area HA | - | 1.6 |
| Site 2 Area HA | 0.8 | - |
| Site 3 Area HA | 0.8 | - |

Table 6.8.2: Infrastructure Requirements Development Area 8 Tully.
See Maps 4.1-4.5
Infrastructure requirements for Development Areas 1-5 are complete.


## Road Requirements

- Loop road H,G,F,F1 including underpass of WLR.
- Beckett Road E-F.

Construct Barringtons's Road D-E.

- Construct street K1-D1.

Construct internal street network within Development Area 8 to suit Construction Access

From WLR left in/out junction via loop J-F-G-H to E2 and K1 From Tully Vale Road (Grand Parade) at P2 from Barringtons's Road at D.
Construction traffic banned from streets A1-J, A2-A3, P-P1-P2 and P2-C.

- 525 mm approx. diameter SW sewer from $\mathrm{K} 1 / \mathrm{K} 4$ to Detention Basin at detention basins in Zone 3.

Diversion of Ticknick stream

- 525 mm diameter SW sewer from D 1 to D and to detention basins.
- 400 mm diameter SW sewer from K environs to detention basins.

450 mm approx. diameter to sewer from K5 to D and on to the Carrickmines sewer.

450 mm approx. diameter sewer from E3 to E and on to the
Water Supply Requirements

- Abandon section of existing $33^{\prime \prime}$ main.

33" main.

- 500 to 400 mm diameter trunk from upsized main to H, F1, F, E, D, C.

