



Water-Rock

Urban Design Framework 2020

Creating Neighbourhoods for Sustainable Communities



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Preface

Place making and a strong sense of community are central to Cork County Councils' vision for Water-Rock, which is to create a people-centred development to cater for approximately 6,000 residents or 2500 new homes. Organised around enhanced opportunities for walking, cycling and public transport use Water-Rock will provide a high quality environment, with distinctive character areas and strong residential amenities, all firmly rooted in its context. The principle of developing a new settlement at Water-Rock aligns with government policy at national, regional and local levels, particularly in relation to building high quality, integrated communities in sustainable urban locations.

The National Planning Framework 2040 promotes compact growth, through carefully managed development of our towns, cities and villages, in order to add value and create more attractive places in which people can live and work. The NPF is committed to optimising the investment in public transport infrastructure by planning for increased densities in our settlements, which also responds to current social and economic trends towards smaller household sizes, affordability of housing and the need to reduce energy consumption.

At a regional level, the Regional Spatial and Economic Strategy for the Southern Region prioritises the development of metropolitan cork, including Midleton - designated to double in population under the MASP (NPF), and in particular to focus on further population growth along the suburban rail corridor through an integrated land use and transportation strategy.

The statutory planning policy documents relevant to the development of Water-Rock are the Cork County Development Plan 2014 and the East Cork Municipal District Local Area Plan 2017. The latter Local Area Plan document incorporated the Water-Rock Framework Masterplan Study 2015 putting its important objectives on a statutory footing. These documents promote the development of Water-Rock as a sustainable community, in line with national and regional policy.

Midleton is identified in the County Development Plan 2014 and the East Cork Municipal District Local Area Plan 2017 as having the potential to accommodate significant growth with 5,243 new housing units required between 2011 and 2022. This equates to almost 50% of the total new units required for the period ending 2022. In order to achieve these ambitious and important growth targets the Council acknowledges the need to adopt a long term flexible approach so that viable and implementable planning permissions give rise to successful, integrated and sustainable communities and neighbourhoods in Water-Rock. Water-Rock has been identified in the County Development Plan 2014 as an Outer Suburban Greenfield site within the context of the Sustainable Residential Development in Urban Areas Guidelines 2009.

Cognisant of its obligation pursuant to Section 15 of the Planning and Development Act 2000 to deliver the objectives and targets outlined in the County Development Plan, the council has recognised the need to provide significant infrastructure investment and development to facilitate the building of housing units, including affordable units, with Water-Rock identified as the primary site in Midleton for this purpose.

The Council, with the assistance of the Local Infrastructure Housing Activation Fund grant monies, which has been approved by the DHPLG, has committed to providing the enabling infrastructure at significant upfront cost to unlock the Urban Expansion Area (UEA) for development. A bespoke Section 48 Contribution Scheme for Water-Rock will be applied to achieve full cost recovery which will add significant costs to each unit constructed.

In formulating the current County Development Plan it was acknowledged by the council that the environment for house building across the County and in East Cork was challenging. Affordability remains an issue and the general cost of construction is increasing with the cost of construction of certain typologies (excluding site costs) exceeding their expected normal sales price, rendering these unit types at this time commercially unviable. Mindful of this, the Council will apply a reasonable and flexible approach to facilitate viable implementable permissions where possible. This principle will be critical to the delivery of the 2,500 homes in Water-Rock.

The Urban Design Framework (UDF) is consistent with and reinforces the objectives of the statutory planning policy documents relevant to the development of the UEA at Water-Rock, namely the Cork County Development Plan 2014 and the East Cork Municipal District Local Area Plan 2017. As part of the County Development Plan review, which commenced in March 2020, it is intended to incorporate the UDF into the new County Development Plan.



1.0 Project Introduction

Aerial View of Water-Rock

1.1 Urban Design Framework

Water-Rock

The Urban Design Framework (UDF) is a non-statutory document which is consistent with the objectives of the statutory documents within which all future developments on the Urban Expansion Area (UEA) lands will operate, the Cork County Development Plan 2014 and the East Cork Municipal District Local Area Plan 2017. The above statutory documents were informed by the Water-Rock Framework Masterplan 2015, which is a non-statutory document. The UDF should be read in conjunction with other urban design guidance documents, such as Cork County Councils' Making Places 2011 Guide, and the Department of the Environment Urban Design Manual 2008.

The aim of the UDF is to act as a development guide to the implementation of the above statutory documents, to illustrate to the public the proposed nature of the Water-Rock settlement, and to act as a communication tool between the Local Authority and all stakeholders.

Urban design is the process of designing and shaping the physical and social features of settlements, through the definition of development zones, movement routes and hierarchy, open spaces, character areas and focal points. The UDF should be read in conjunction with other such documents, such as Cork County Councils' Making Places 2011 Guide, and the Department of the Environment Urban Design Manual 2008.

The UDF is intended to provide flexibility, so as to allow all stakeholders the opportunity to respond to potential changes in the economic or statutory context of Water-Rock.

The objectives of the UDF are as follows:

- To assess the physical, environmental and infrastructural constraints and opportunities available to the zoned lands (circa 160 hectares) as set out in the Water-Rock Framework Masterplan 2015;

- To provide a site strategy for development, identifying the necessary elements of placemaking, open space, permeability, access and surveillance per development area;

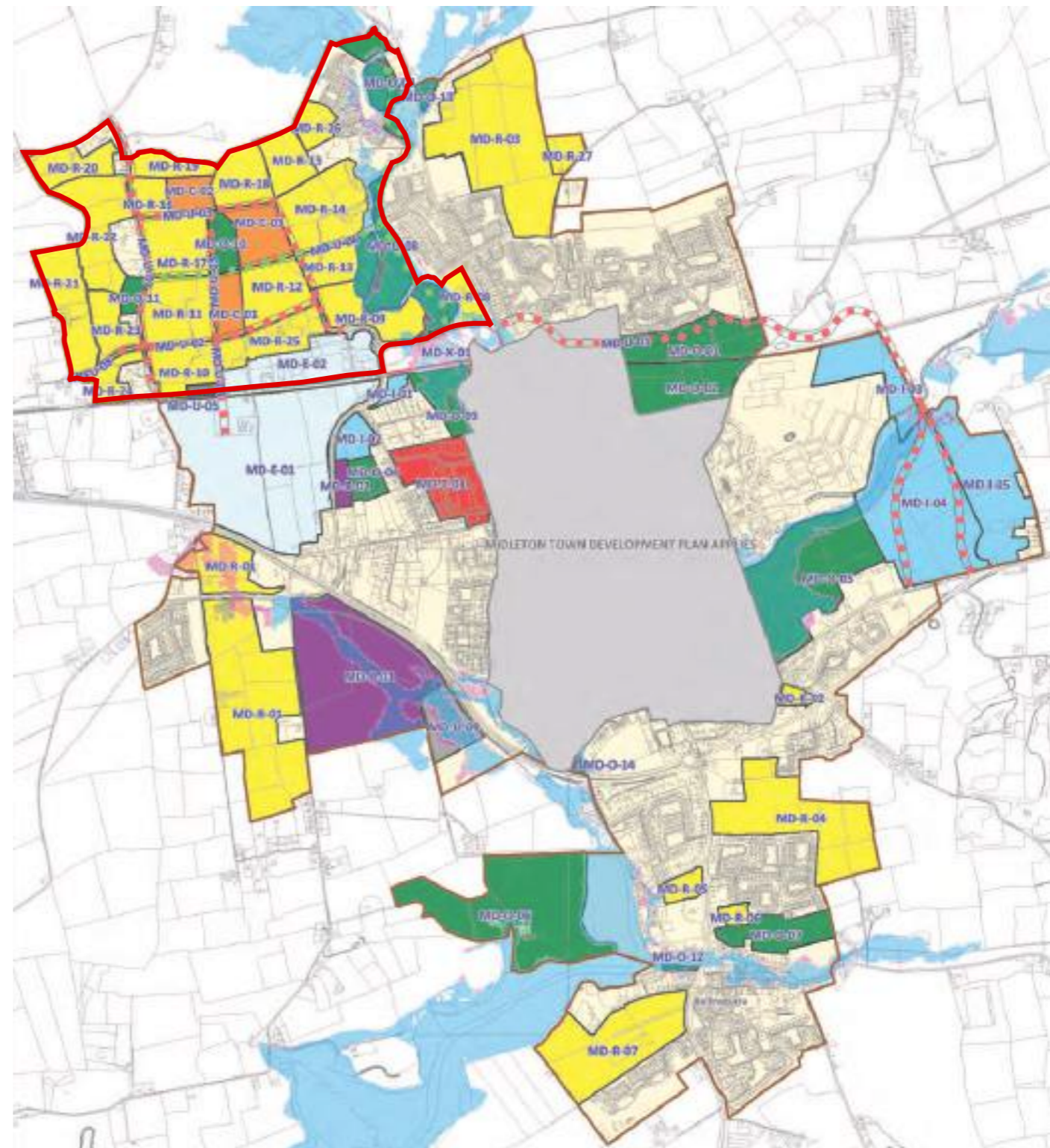
- To recommend a design code for landscape, street and building typologies;

- To have regard to existing and permitted developments on and adjoining the lands;

- To ensure that the framework proposal for built forms is economically appropriate, and reflects the market demand in the area;

- To inform the provision of a sustainable settlement which examines density, parking, orientation and SUDS which may inform a possible phased delivery of the lands;

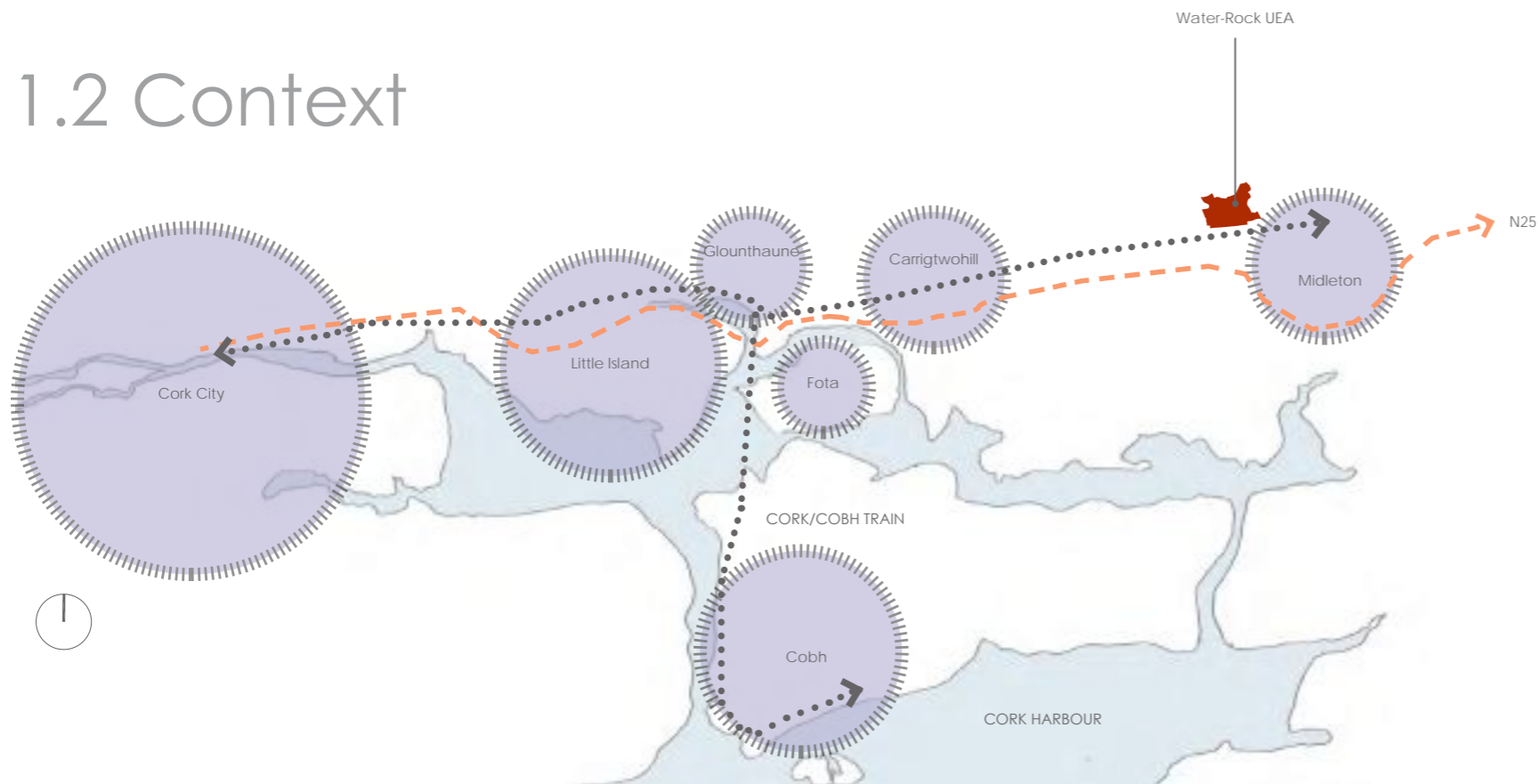
- To provide a framework which delivers a clear vision for the lands, with guidance on scale, massing, connectivity and the expected quality of both the public realm and the built environment.



East Cork Municipal District Local Area Plan 2017



1.2 Context



Water-Rock is a neighbourhood of Midleton Metropolitan Town, which is the largest town in East Cork. Whilst being a prominent self sufficient market town for its hinterland, it is located in the metropolitan single market for housing and employment. The town benefits from a 30 minute peak hour rail service to Cork City via strategic employment areas such as Carrigtwohill and Little Island. Being well placed to attract new residents who may wish to live in the town and work elsewhere in the Metropolitan area, Water-Rock is a proposed new suburb located on the rail line with easy access to Midleton town centre.

Water-Rock adjoins an existing transportation network that includes road and rail provision. Hence, development at this location will allow for ease of access to the services centre of Midleton town, and can contribute to the creation of a critical mass of population along the Cork-Midleton rail line.

The development of the Water-Rock settlement offers a major opportunity to provide new homes where residents have the benefit of easy access to high quality public transport from the outset. The proposal for these lands includes the provision of circa 2500 homes, 2 primary school sites, 1 post primary school, a neighbourhood centre and amenity areas to include a green corridor and a linear park along the Owenacurra River.

Site Context

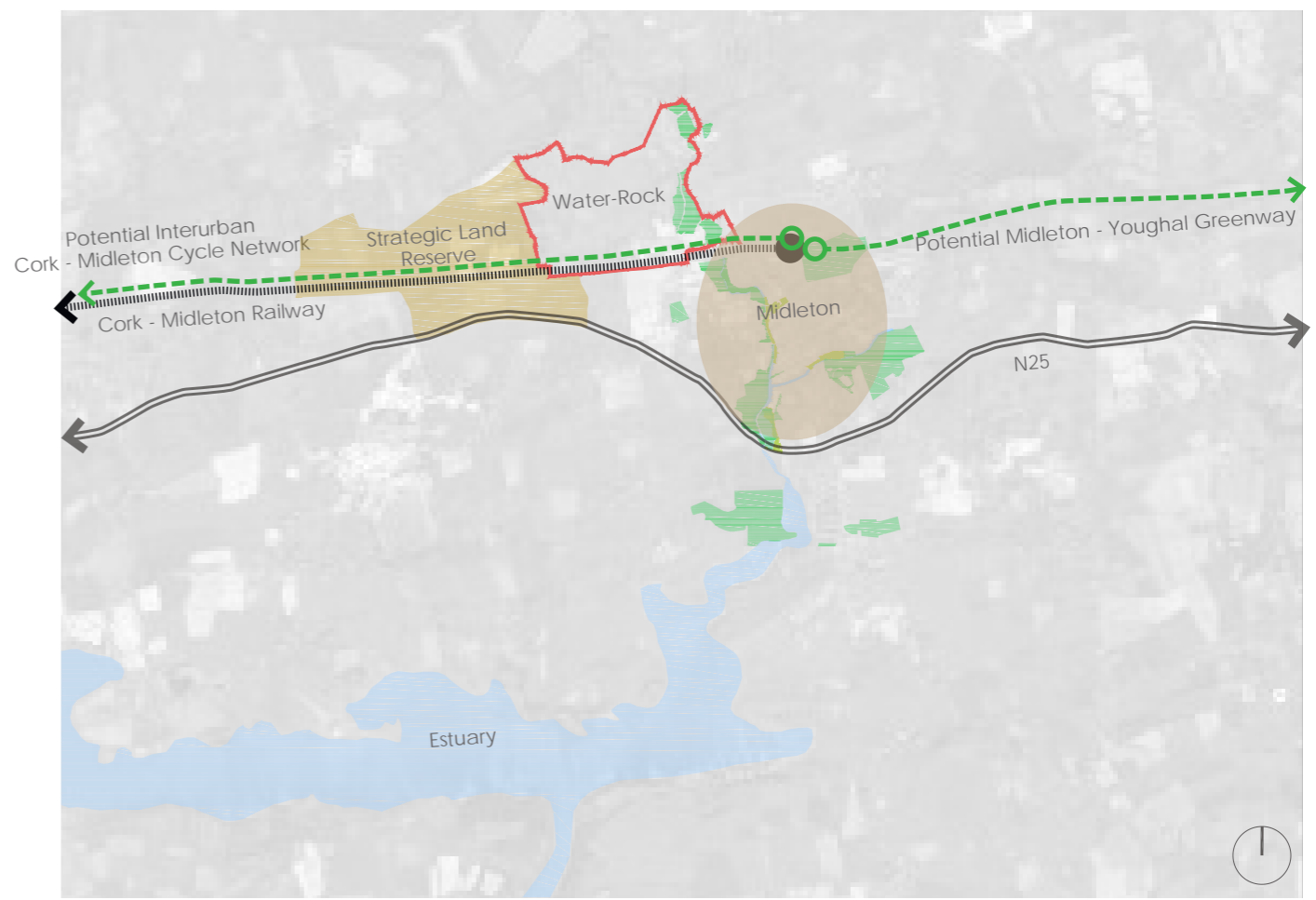
The framework lands are located to the north-west of Midleton town, and occupy an area of 160 hectares.

The lands to the west of the UEA have been designated a Strategic Land Reserve by Cork County Council, and connectivity with these lands from the framework lands is desirable.

The Cork Cycle Network Plan proposes an interurban cycle route between Midleton and Carrigtwohill, which then connects onwards to Cork City.

The section of the former railway between Midleton and Youghal offers the potential to be a Greenway, which would be a significant amenity for the town and the wider area.

The Owenacurra River, and the various parkland spaces along it, are key to the successful integration of Water-Rock with Midleton and the surrounding landscape.



Key Infrastructure Diagram

1.3 Site Ownerships

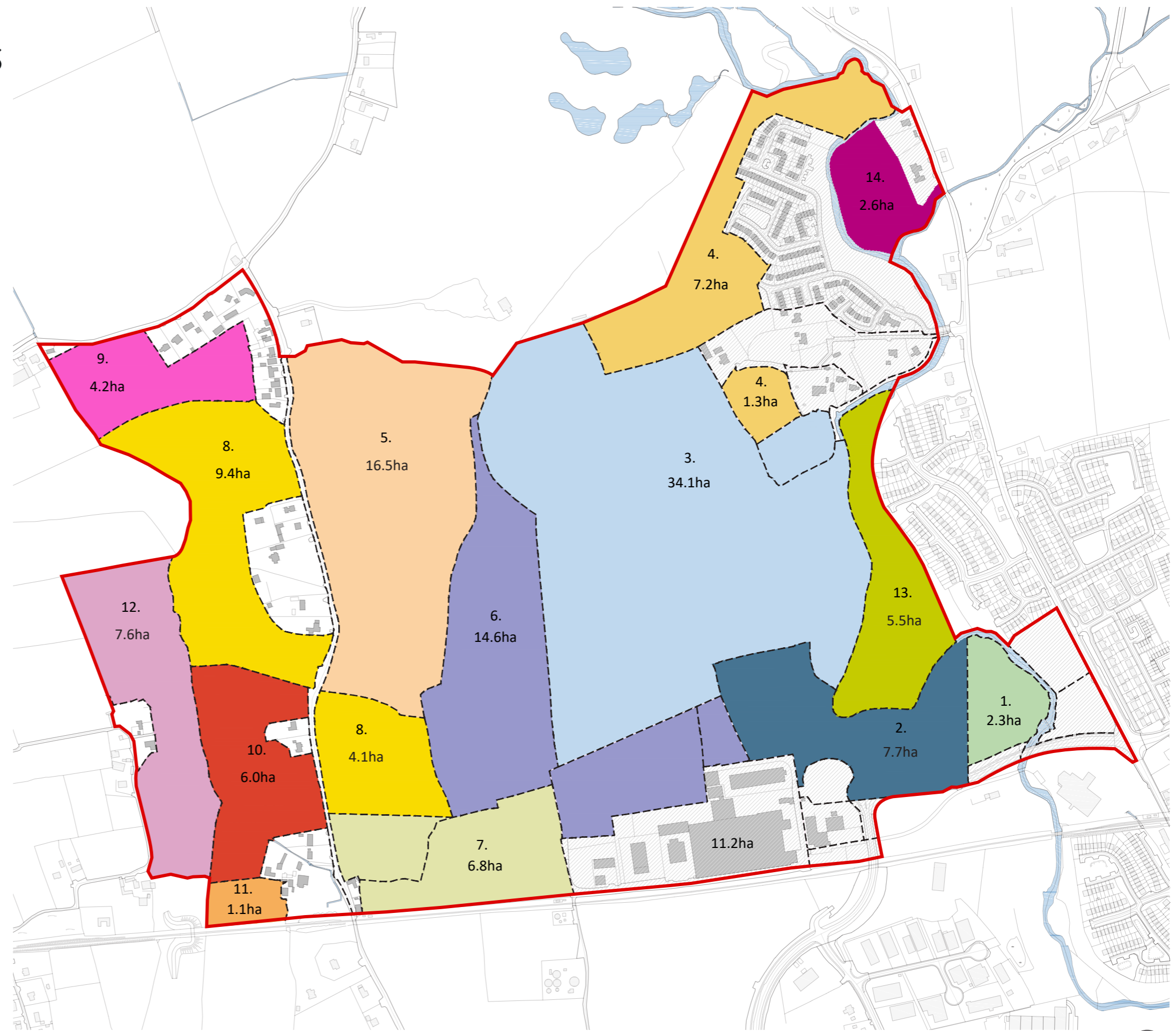
The UEA lands are within 14 separate ownerships as shown in the diagram.

One of the objectives of the UDF is to clarify how their lands are impacted by the objectives of the Water-Rock Framework Masterplan 2015 and the East Cork Municipal District Local Area Plan 2017, and to provide recommendations for the following:

- Location of access point(s) from either the Spine Road or the Loop Road;
- Location(s) for public open space, and connectivity between spaces;
- Locations for vehicular, pedestrian or cycle connection(s) to adjoining landowners;
- Relationships between development lands and sensitive neighbouring uses;

Legend

- 1. Blackpool Developments
- 2. Cork County Council
- 3. Paul Moore
- 4. John Garde
- 5. Ingram Homes Ltd.
- 6. Dawn Meats Ltd.
- 7. Lauritzson Foundation Ltd.
- 8. Paddy Healy
- 9. Morgan O'Brien
- 10. Edgefield Property Investments Ltd.
- 11. Thomas Cleere
- 12. John Denis Anthony O'Mahony
- 13. Baushaff Ltd.
- 14. R. Pratt, St. J. Culligan, D. Collins & J. Nichol



Land Ownership Diagram



1.4 Topography and Flooding

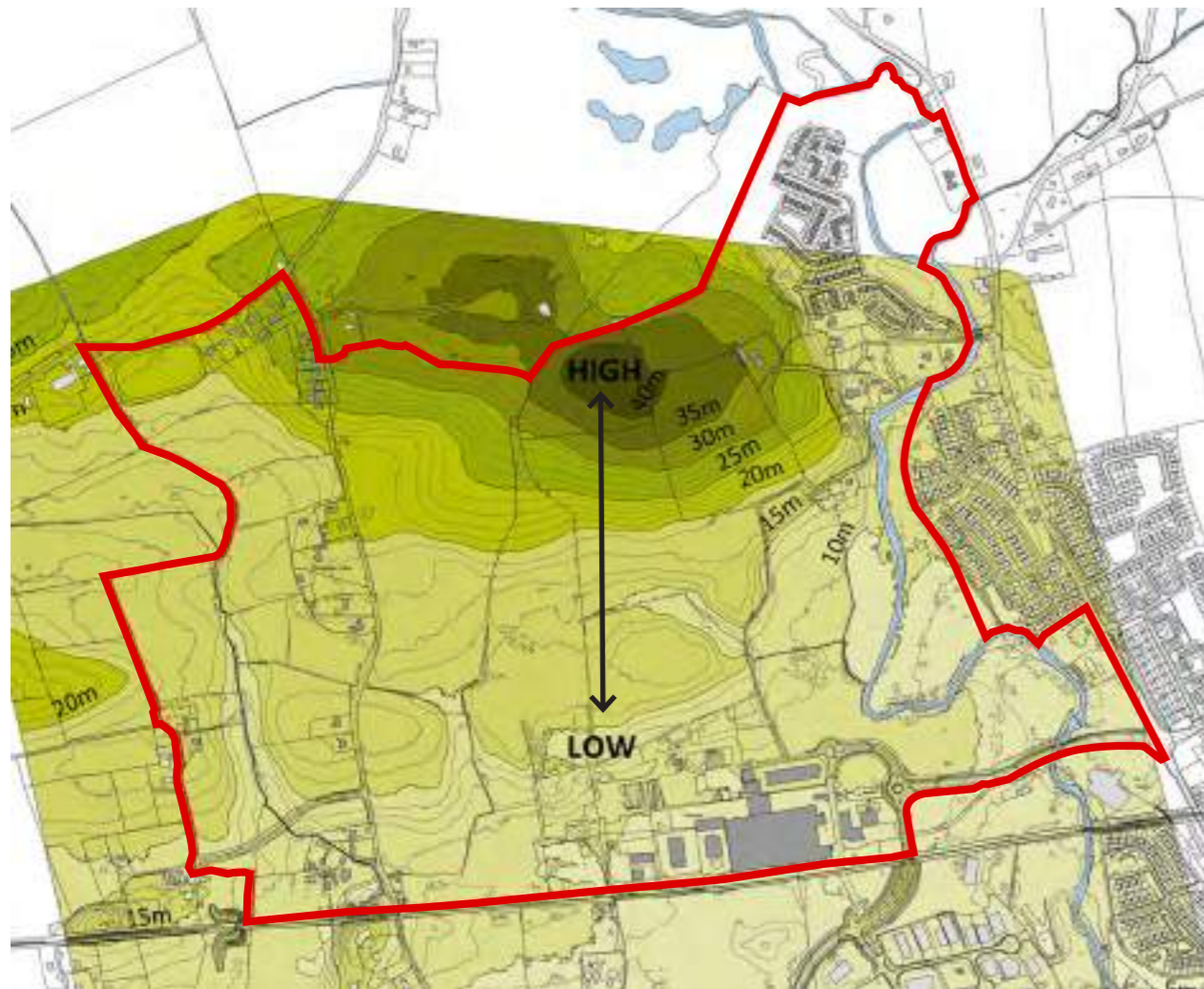


Diagram showing topography of the UEA lands

The UEA lands slope upwards from south to north, with the slopes becoming more pronounced towards the northern extent of the site. The site has a predominantly southerly and south-easterly aspect, with a 33m change in level from the southern to the northern site boundary. The southerly aspect and gentle slope of the site together offer significant potential for the creation of an attractive residential environment.

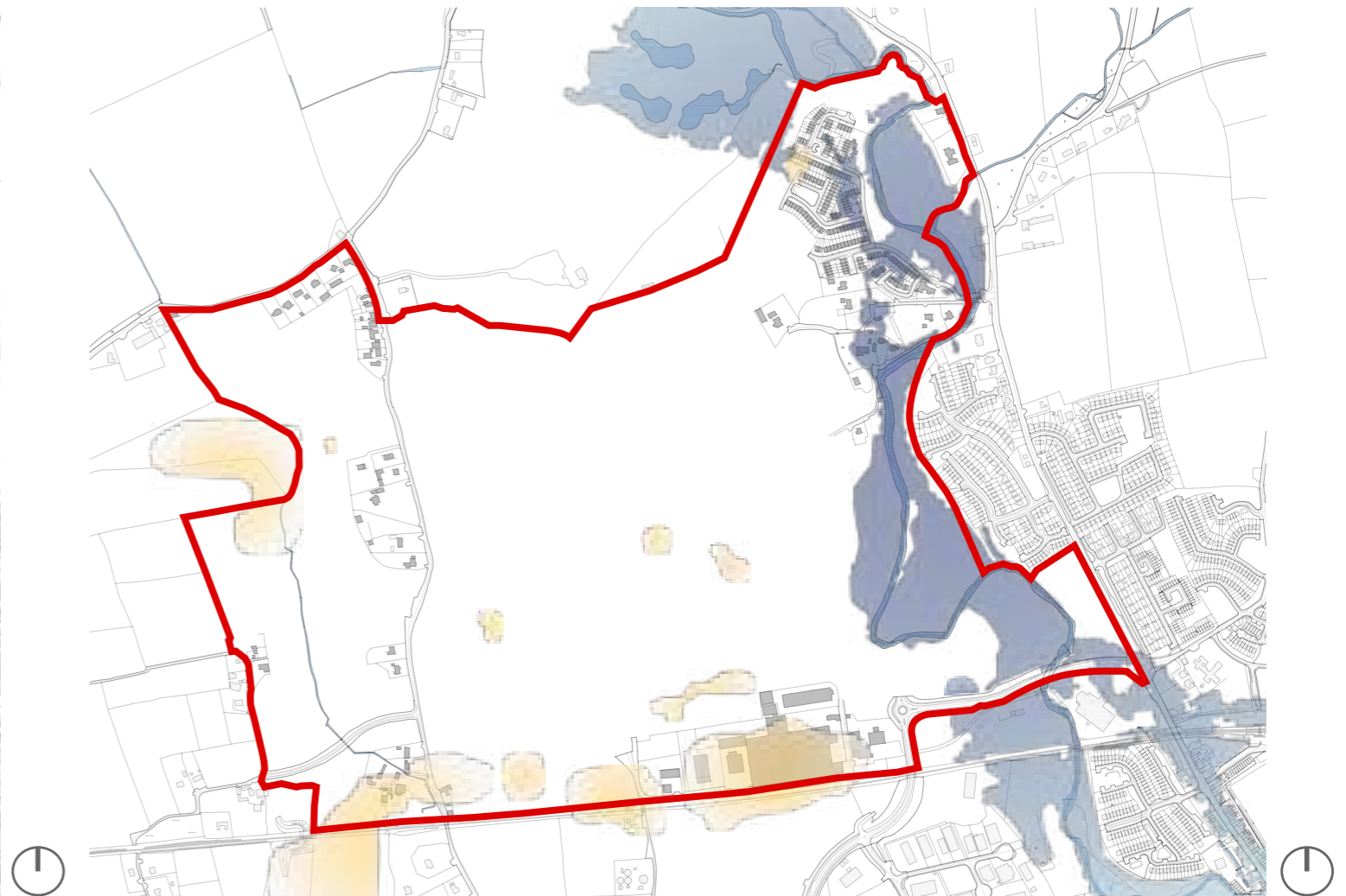


Diagram showing pluvial and fluvial flooding of the UEA lands, based on the OPW Preliminary Flood Risk Assessment Maps.

- Pluvial Flooding (Surface water related)
- Fluvial Flooding (River related).

The Owenacurra river runs along the eastern boundary of the site, and the lands that adjoin it are subject to fluvial flooding. The effected lands have been zoned for public open space.

The OPW PFRA map indicates pluvial flooding in other parts of the site. The information that is available at this time in relation to the pluvial flooding is draft only, and further flood risk investigation in all affected areas will be required.

1.5 Neighbouring Lands

In the immediate environs of the site, there are opportunities for connectivity with neighbouring housing areas and existing public realm, which will integrate the Water-Rock settlement with its context.

The Tir Cluain estate is located to the north-east of the UEA lands, and there is an opportunity for connectivity with a permitted public open space and street along its southern boundary. The northern part of the Tir Cluain estate adjoins MD-O-09 which forms part of the Owenacurra Linear Park, and pedestrian/cycle connectivity between the existing open spaces in Tir Cluain and the Owenacurra Linear Park would be desirable.

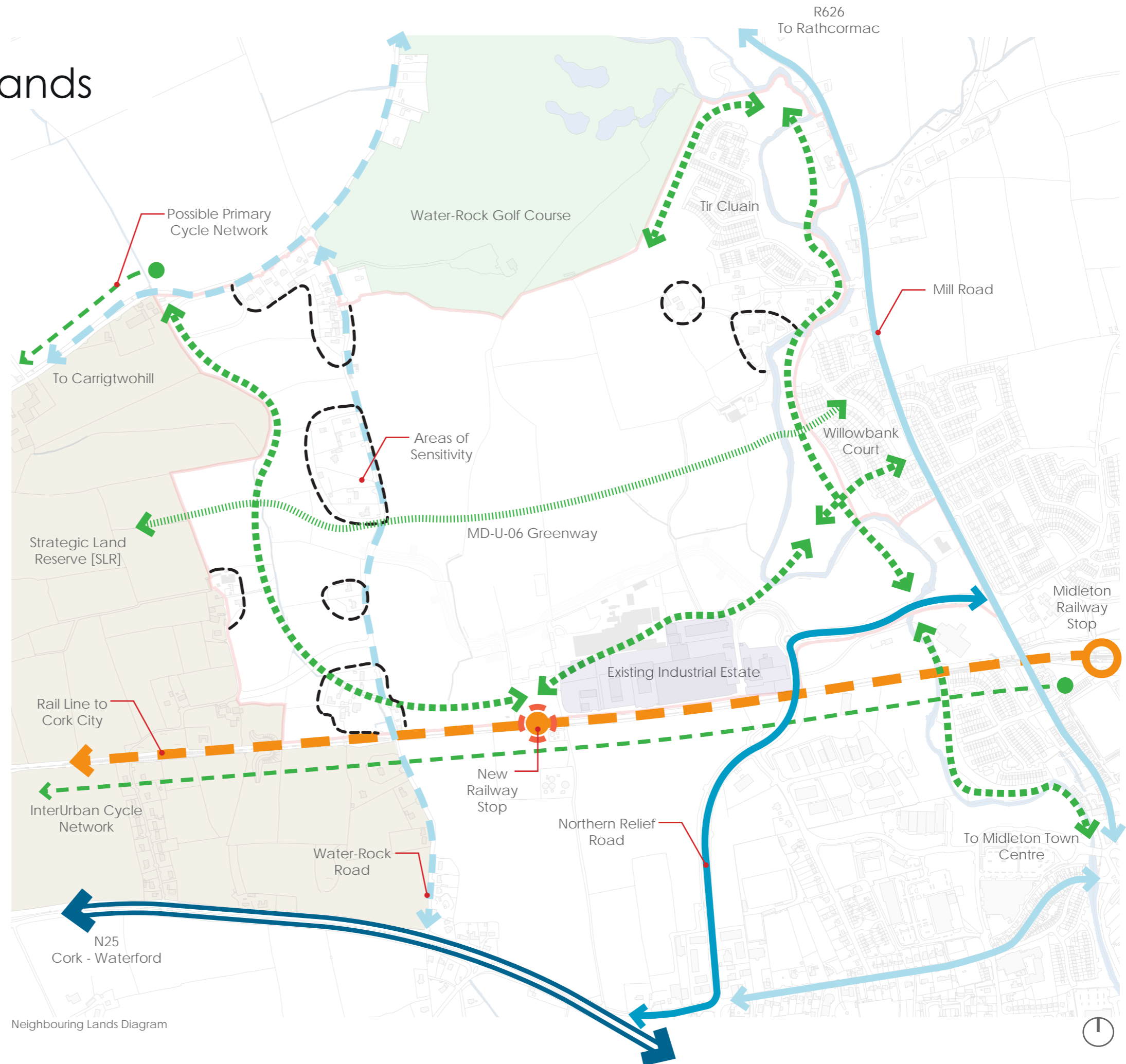
There are a number of one-off dwellings to the south of the Tir Cluain estate. With the exception of the farmhouse which is within MD-R-14, these houses generally do not directly adjoin the UEA. The farmhouse is a fine example of rural vernacular architecture, and development in this area should be respectful of its scale and architectural treatment.

The Willowbank Court estates along the eastern site boundary have a number of streets and public spaces which adjoin the UEA lands, and the Owenacurra Linear Park should be designed to utilise these potential pedestrian and cycle links, while also respecting the privacy and amenity of the existing dwellings.

There are a number of clusters of one-off houses along western edge of the Water-Rock road, and proposed development that adjoins these dwellings should be sensitive in terms of scale, density and landscape treatment. With careful design, it should be possible to preserve the sylvan quality of Water-Rock road along its western edge.

The existing industrial uses, adjacent to the railway line and the northern relief road are very visible when approaching the site by road, and landscape screening in line with MD-R-25 would be appropriate in order to mitigate their visual impact to the approach to Water-Rock.

The Water-Rock golf course is located to the north of the UEA lands, with strong boundary planting along its edge. The golf course acts as a visual amenity for development in this part of the UEA lands. It would be desirable to maintain public access to the southern side of the shared boundary in this location, so as to facilitate retention of existing trees and their maintenance.



Neighbouring Lands Diagram

1.6 Site Character



1. Rural roads



2. Existing Industry

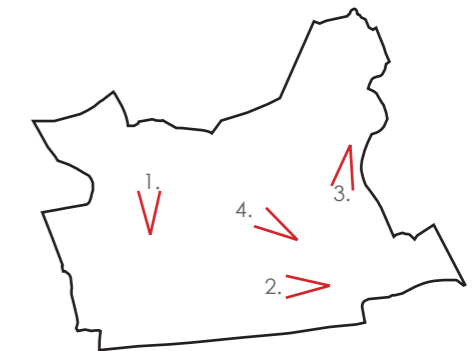


3. Owenacurra River

The UEA lands are generally characterised by a rolling topography with hedgerows and trees .

The Water-Rock road is a pleasant rural road with a sylvan character. There are a number of existing properties along this road , and development on the adjoining lands should be sensitive in terms of scale and proximity.

The Owenacurra River and its floodplain provide a significant opportunity to provide a high quality amenity within the UEA area.





2.0 Site Organisation

View of Water-Rock Rolling Landscape

2.1 Concept

Water-Rock will have 2 potential gateways, or arrival points, which will create a first impression of the new settlement:

- The railway station and its associated buildings and public realm; The UDF will refer to this area as the Potential Railway Gateway;

- The collection of buildings and spaces to the immediate left of the roundabout off the northern relief road, which act as a gateway to both the new urban development and the Owenacurra Linear Park. The UDF will refer to this area as the Potential Eastern Gateway;

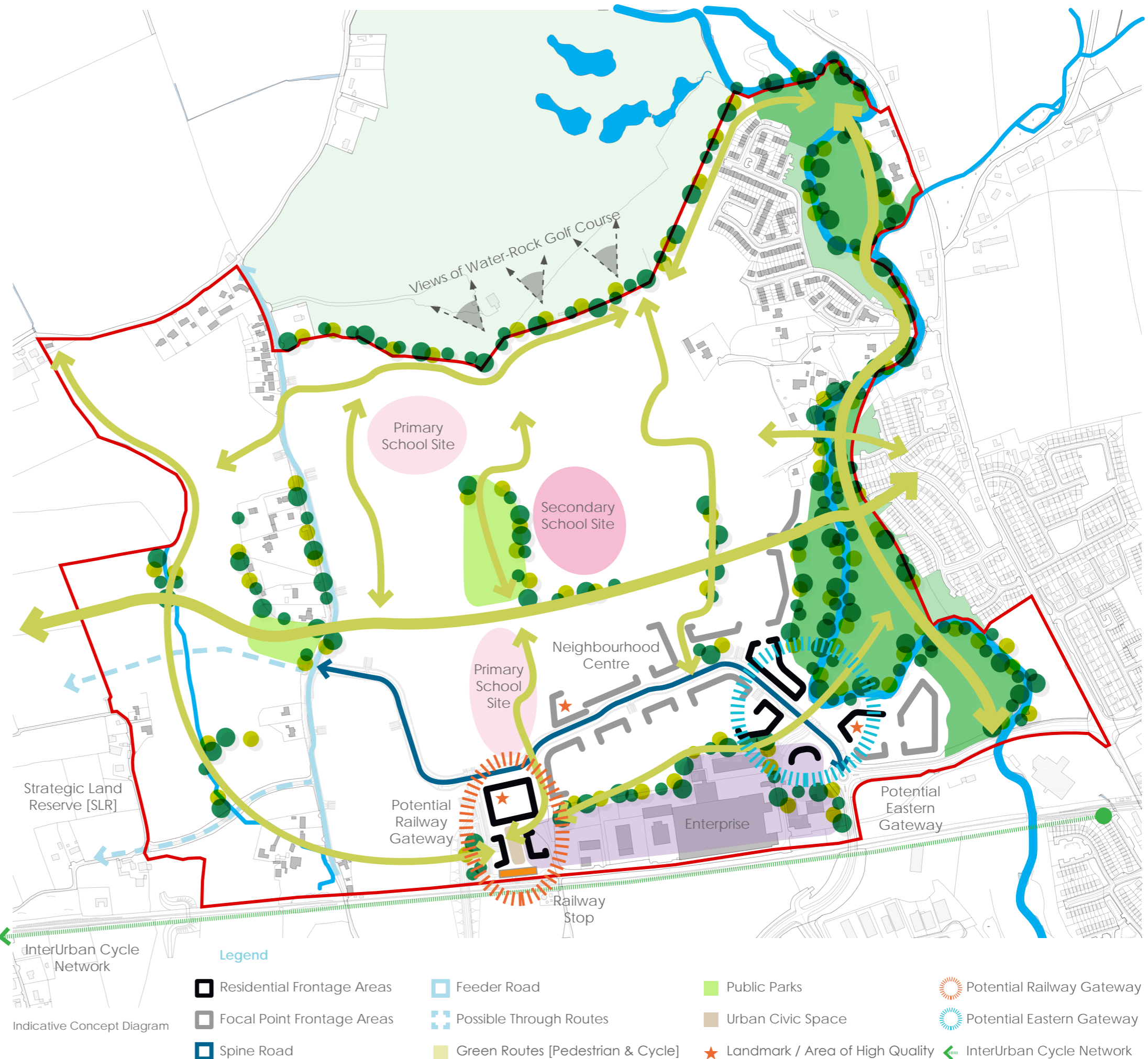
It is proposed that the pedestrian and cycle desire line between these two potential gateways be facilitated by a green space, or series of green spaces within MD-R-25, thereby optimising the connectivity between the public transport and the primary amenity space within Water-Rock. The quality of the architecture and the public realm in both gateway areas is key to creating an impression of Water-Rock as a vibrant, contemporary settlement.

The Water-Rock Greenway forms an east-west link across the site, connecting the Owenacurra Linear Park with a network of green spaces throughout the site. A neighbourhood centre as identified in the Local Area Plan within the residential zone MD-R-12 is another focal point for development and it is recommended to be located in close proximity to the railway station and primary school.

The Water-Rock road will be upgraded, as designed by Atkins Ireland Consulting Engineers. A portion of the existing Water-Rock road which serves the existing dwellings is to be retained as an access road for those houses, thereby helping to preserve their amenity and the sylvan character of the road. New development along the western side of the Water-Rock road should be sensitive in terms of scale, density and landscape treatment.

To the north of the existing railway, a 5m setback is allowed to facilitate the potential future upgrading of the railway in accordance with MD-G-12. In addition, a further setback may be required to allow for the proposed Interurban cycleway, as per Cork Cycle Network Plan. The route of this cycleway will require further study, and may be located south of the railway line as shown on the indicative concept plan.

A series of public open spaces is provided along Water-Rock stream, to facilitate SUDS and alleviate any pluvial flooding issues that may arise.



Indicative Concept Diagram

Legend	Residential Frontage Areas	Feeder Road	Public Parks	Potential Railway Gateway
Focal Point Frontage Areas	Possible Through Routes	Urban Civic Space	Potential Eastern Gateway	InterUrban Cycle Network
Spine Road	Green Routes [Pedestrian & Cycle]	Landmark / Area of High Quality		

2.2 Masterplan

The masterplan identifies development blocks within each land ownership, which set up a network of streets and public opens spaces that provide connectivity across the Water-Rock lands. The development blocks, indicated in grey, are suitable for a range of building typologies, which facilitate the various density requirements throughout the site.

The masterplan is intended to be flexible and adaptable, so that each land owner can refer to it over the lifetime of the Water-Rock project, in response to changing economic and statutory conditions.

We note that at the time of writing, the PFRA mapping which is referenced in Section 1.4 is a draft only, and contains little detail, particularly in relation to pluvial flooding. In order to maximise the efficient use of land for provision of development, we recommend that each applicant prepare a site specific flood risk assessment, to more clearly identify the areas at risk of flooding, and identify appropriate and sustainable mitigation measures.

In order to reinforce visual character, define spaces and promote pedestrian movement, main streets should be faced by the fronts of buildings and their entrances, not by a predominance of flank elevations or side or rear boundaries. Please refer to CCC Making Places Guide for further guidance.

NOTE: These Character Area Layouts are indicative in nature and provide guidance on how the statutory document provisions may be achieved. There may be opportunity for applicants to propose alternative layouts, which also demonstrate that the intentions of the UDF regarding open space, connectivity site layout and neighbouring uses are effectively achieved. Please refer to the checklist Section 9.0 for further information.



Indicative Masterplan - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.

2.3 Density

General Policy

The Water-Rock lands are subject to the density zonings as set out in the East Cork and Cobh Municipal District Local Area Plan 2017 (which incorporated the Water-Rock Framework Masterplan 2015), and the Cork County Development Plan 2014 which are as follows:

- High 35 dwellings / hectare minimum, No maximum;
- Medium A 20 - 50 dwellings / hectare;
- Medium B 12 - 35 dwellings / hectare in smaller towns outside Metropolitan Cork.

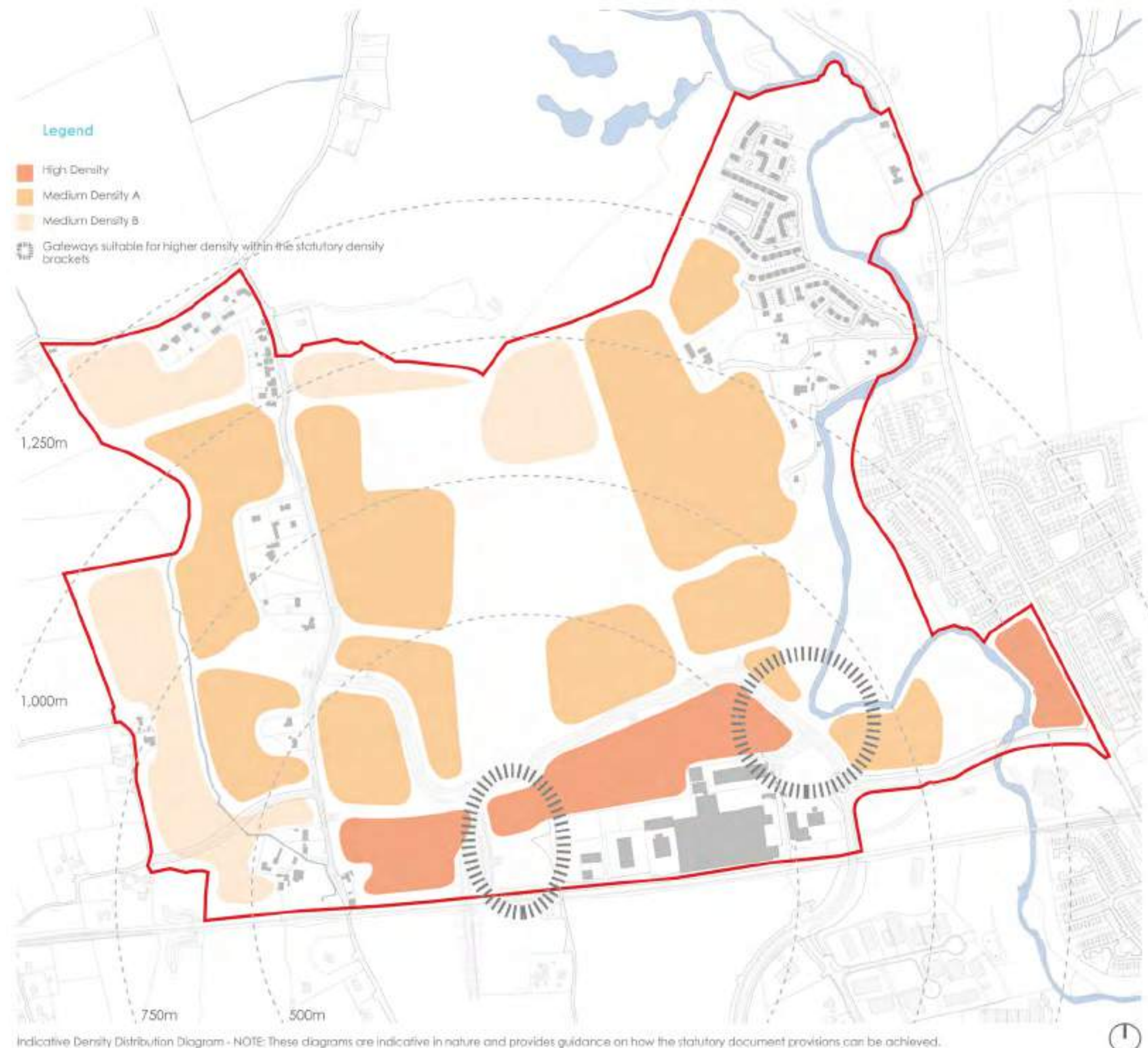
Application of SPPR 4 and Ministerial Guidelines in relation to Water-Rock

During the lifetime of the current County Development Plan, the Minister for Housing, Planning and Local Government introduced the Urban Development and Building Heights Guidelines 2018, which contains a Specific Planning Policy Requirement (SPPR) that is relevant to housing density at Water Rock. There is an obligation on the council to apply the SPPR and interpret the Guidelines referenced therein as they apply in this site specific situation in order to give effect to the SPPR, and to provide certainty to both the general public and to prospective applicants for permission in the UEA as to density levels in Water-Rock.

The relevant SPPR 4 states:

It is a specific planning policy requirement that in planning the future development of greenfield or edge of city/town locations for housing purposes, planning authorities must secure:

- *the minimum densities for such locations set out in the Guidelines issued by the Minister under Section 28 of the Planning and Development Act 2000 (as amended), titled "Sustainable Residential Development in Urban Areas (2007)" or any amending or replacement Guidelines;*
- *a greater mix of building heights and typologies in planning for the future development of suburban locations; and*
- *avoid mono-type building typologies (e.g. two storey or own-door houses only), particularly, but not exclusively so in any one development of 100 units or more.*



Indicative Density Distribution Diagram - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.

With respect to outer suburban/ greenfield sites, the 2009 Guidelines state that densities in the ranges of 35 to 50 should be encouraged. Development at net densities less than 30 dwellings per hectare should generally be discouraged in the interests of land efficiency.

In formulating the current County Development Plan it was acknowledged by the council that the environment for house building across the County and in East Cork was challenging. The prevailing economic conditions mean affordability remains an issue and the general cost of construction is increasing with the cost of construction of certain typologies, e.g. apartments, (excluding site costs) exceeding their expected normal sales price rendering these unit types at this time commercially unviable.

The range of densities allocated to the zoned parcels of land in Water-Rock, as confirmed in the East Cork Municipal District Local Area Plan 2017, are consistent with the requirements of SPPR 4 and are designed to deliver successful, integrated and sustainable communities and neighbourhoods in Water Rock.

The densities specified in Water-Rock indicate an average density of 30 units per hectare which result in a combination of high, medium and low densities within the Urban Expansion Area (UEA). The intention of the wide range of densities is to facilitate a mix of housing types and sizes within the UEA but an average density of 30 units per hectare within Water Rock would achieve the delivery of the scheduled 2500 units outlined in the statutory County and Local planning policy documents and would comply with the requirements of SPPR 4 of the Guidelines as densities not less than the minimum set out in the Guidelines, i.e. 30 dwellings per hectare, will be secured.

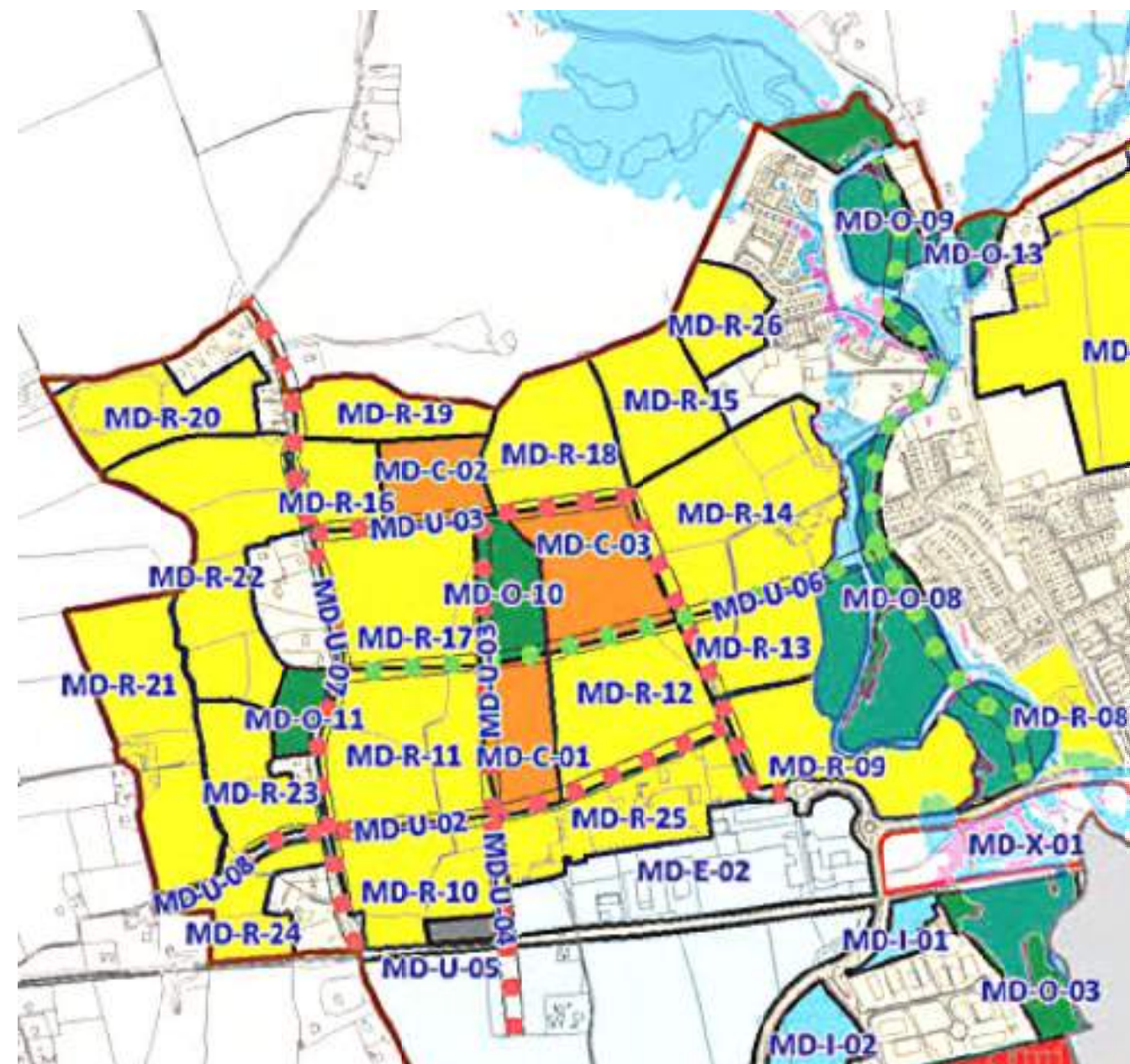
The development nodes at the Potential Railway Gateway and the Potential Eastern Gateway are suitable for increased levels of density within the High Density and Medium A zoning brackets, given their close proximity to the proposed railway station and significant place-making role within Water-Rock. Outside of these nodes, and in particular in more peripheral locations within Water Rock, there is potential for development at lower levels of density within the existing density zoning, as outlined in the statutory current County Development Plan and Local Area Plans.

General Approach to Density in Water-Rock

In the interests of creating a sustainable and successful neighbourhood and residential community in Water Rock the quantitative and qualitative standards and criteria set out in the Guidelines on Sustainable Residential Development in Urban Areas 2009 are of particular relevance. These Guidelines identify sustainable neighbourhoods as areas where an efficient use of land, high quality urban design and effective integration in the provision of physical and social infrastructure combine to create places people want to live in.

As such density standards should be balanced against the need to deliver development proposals which address a range of factors including:

- the desirability of providing for mixed communities and a range of housing types and tenures;
- economic viability and marketability of different types of housing;
- the nature of the existing housing stock in the area;
- the need to provide a choice of housing suitable to all age groups and persons at different stages of the life cycle;
- the existing social mix in the area;
- the need to cater for special needs groups such as the elderly or disabled.



East-Cork Municipal District LAP, please refer to the LAP Objectives for Zonings of residential areas.

2.4 Heights and Landmark

Variety of building heights and identification of suitable landmark structures are useful ways of creating character and aiding wayfinding within settlements.

We recommend that the buildings that define the Potential Railway Gateway and the Potential Eastern Gateway are between 3 - 6 storeys in height, with the remainder of buildings along the spine road being slightly lower.

Heights of 3 - 5 storeys may also be appropriate for overlooking of public parks, and the railway corridor.

As the density of the site diminishes as distance from the railway station increases, general building heights may be 2 storeys, with 3 - 5 storey elements defining local points of interest.

In the lower density parts of the site, where there is likely to be less variety within building heights, variety and local landmarks may be provided through colour, materiality, roofscape or landscape features.

Legend

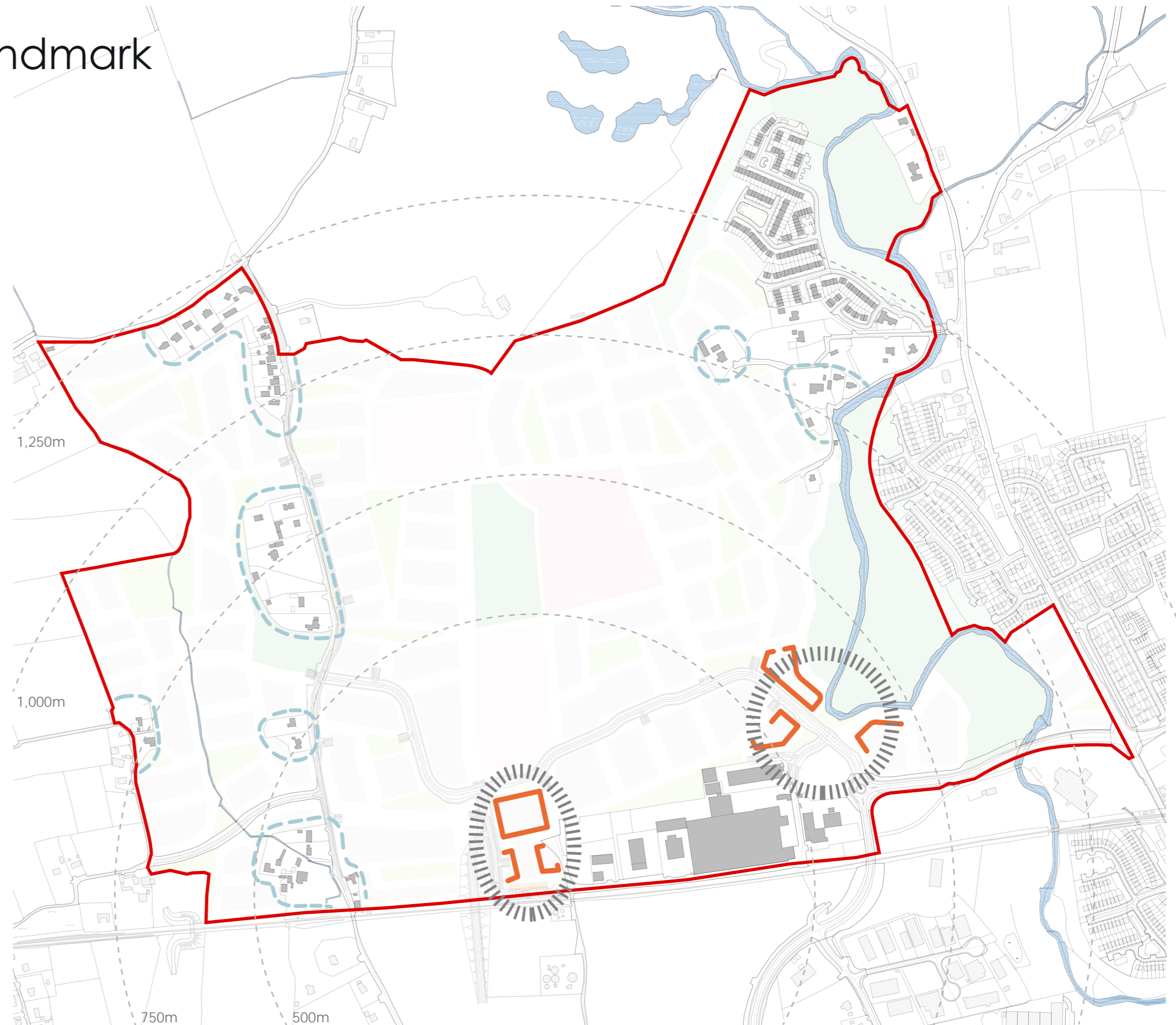
 3/6 storey height

 Areas of Sensitivity



A distinctive corner house acts as a local landmark

Reference: Abode, New Harlow, Proctor Matthews Architects



Indicative diagram with recommended heights and landmark locations - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



2.5 Uses

The non-residential building uses within the Water-Rock lands are prescribed by the zonings and objectives as set out in the Water-Rock Framework Masterplan 2015 and the East Cork Municipal District Local Area Plan 2017.

We recommend that the Neighbourhood Centre within MD-R-12 be located so as to have a strong presence on either the Spine Road or the Loop Road, and to be easily accessible from the Railway station and the nearby schools.

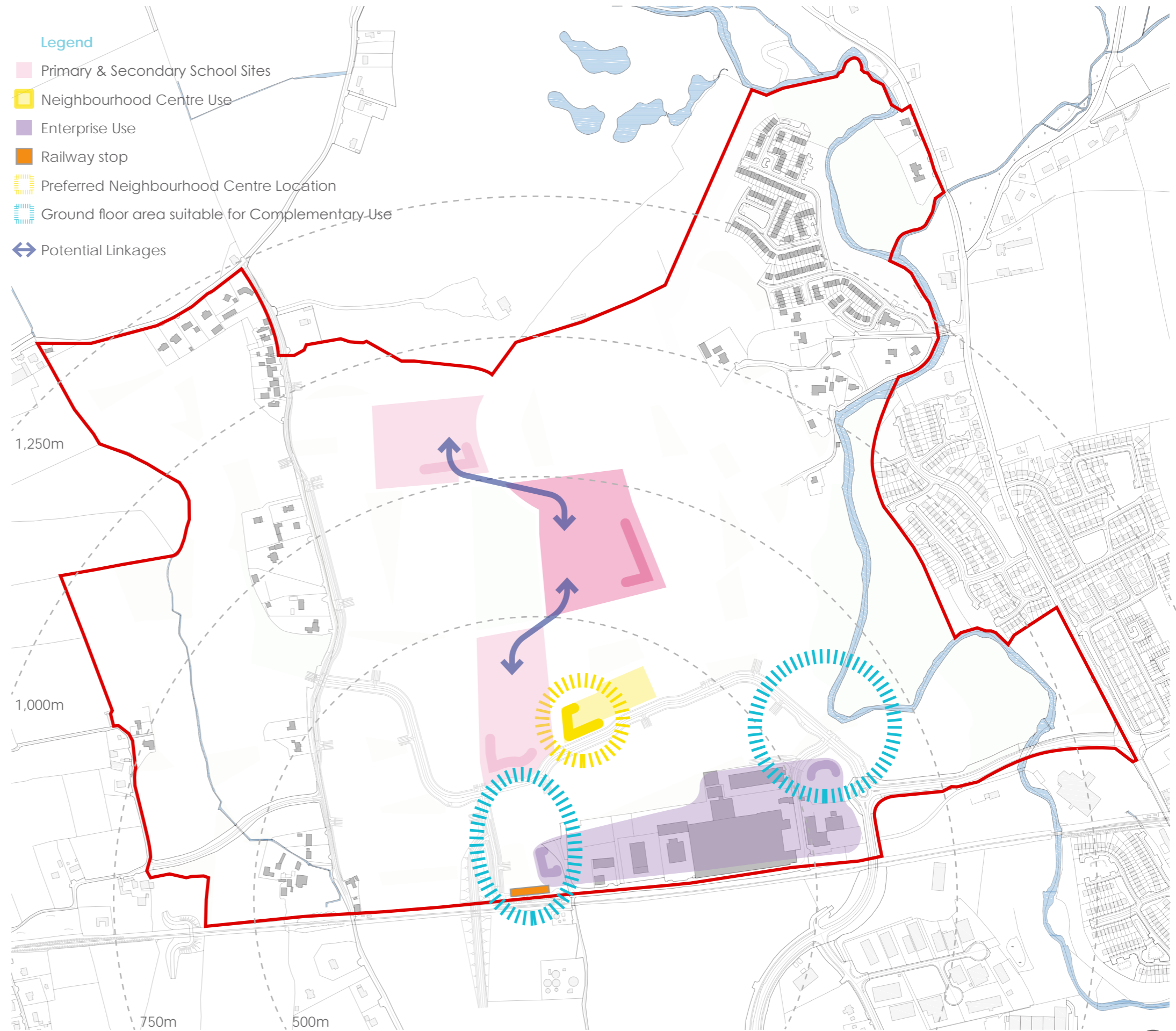
Childcare facilities shall be provided in accordance with the Cork County Development Plan 2014 requirements, and the appropriate national guidance. Locations adjacent to the railway station and that are convenient to the public open spaces are optimal locations for childcare facilities.

The MD-E-02 lands, which are zoned for Enterprise may be redeveloped in time, in which case the suggested green buffer between the residential blocks within MD-R-25 and MD-E-02 may serve as a useful central green space between the two zones.

The size and position of the school sites are determined by the Water-Rock Framework Masterplan 2015 and the East Cork Municipal District Local Area Plan 2017, and delivery of the schools will be progressed as part of discussions with the Department of Education. The schools are located in close proximity to one another, to create a campus of educational facilities with strong linkages.

In the event that the Departments' requirements for school sites are smaller than the sites assigned by the statutory documentation, we recommend that any excess lands be rezoned for Residential Use. Should access to the secondary school be required in advance of the delivery of the Loop Road, vehicular access to the secondary school may be provided via the primary school to its south as a temporary measure.

Proposals for Complementary Uses, such as limited retail and /or community uses at an appropriate scale may be appropriate in the residential areas within the identified nodes around the railway and eastern gateways.



Indicative diagram showing non-residential uses - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



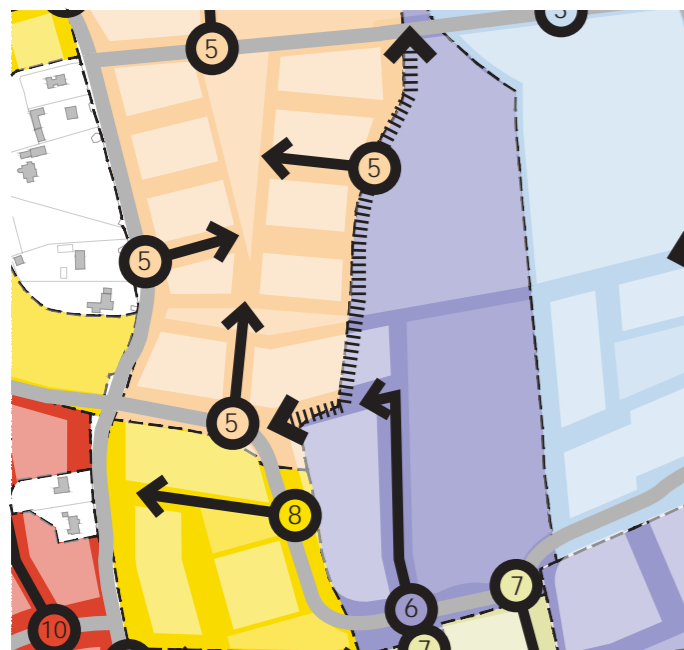
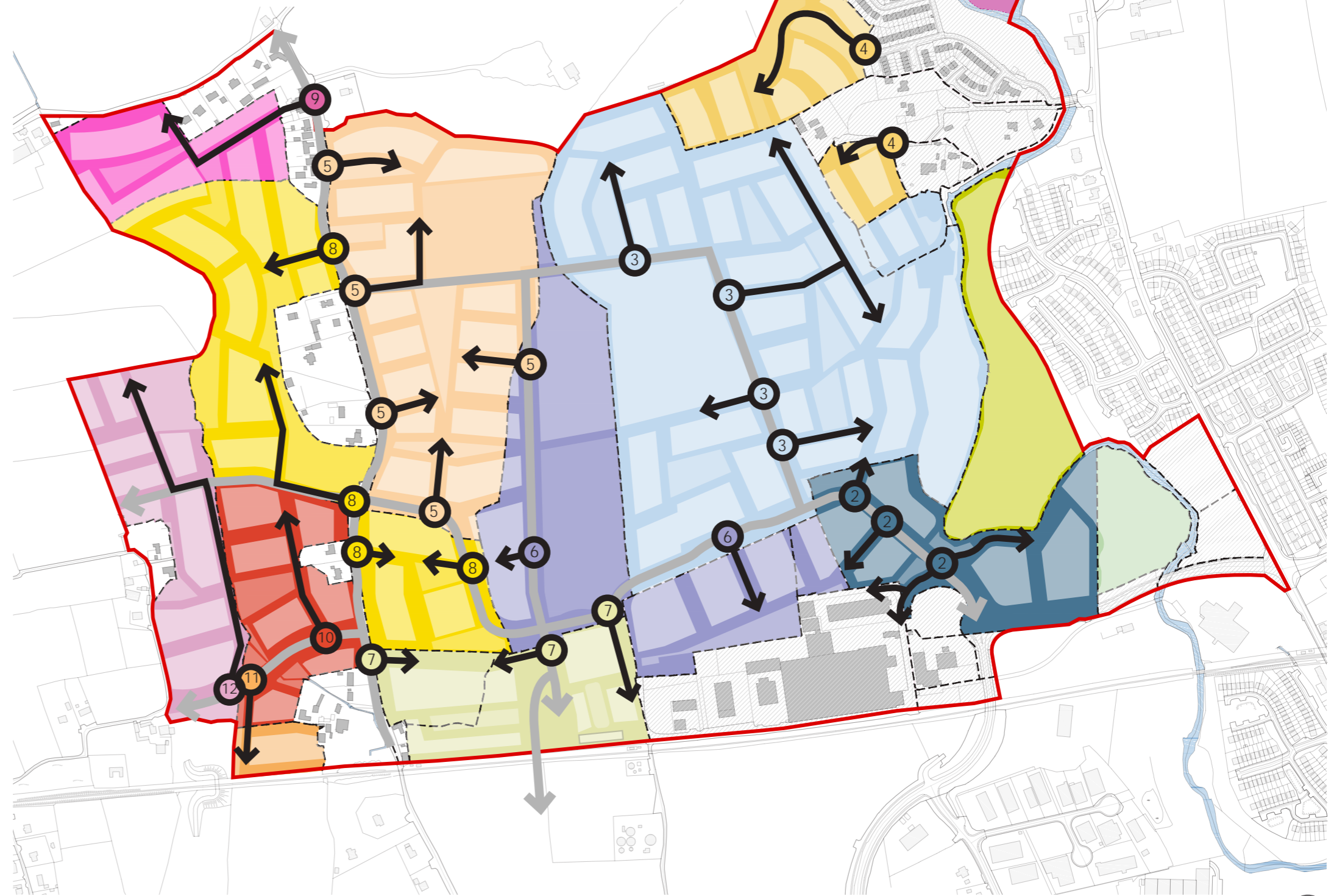
2.6 Ownership and Access

Legend

- 1. Blackpool Developments
- 2. Cork County Council
- 3. Paul Moore
- 4. John Garde
- 5. Ingram Homes Ltd.
- 6. Dawn Meats Ltd.
- 7. Lauritzson Foundation Ltd.
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- 11. Thomas Cleere
- 12. John Denis Anthony O'Mahony
- 13. Baushaff Ltd.
- 14. R. Pratt, St. J. Culligan, D. Collins & J. Nichol
- Primary Access Points

The UEA lands are within 14 separate ownerships. The framework identifies the recommended access point(s) to each ownership parcel, and also suggests appropriate treatments for the edges of ownership parcels, so as to optimise connectivity between public open spaces and adjoining developments.

We recommend that access points are indicative only and that exact locations and detail design of junctions are done in consultation with the landowners.



Potential alternative Loop Road Arrangement shown dashed

Indicative diagram showing access locations to land holdings - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.





Cork
Corcaigh

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COMMUTER

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CK
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3.0 Movement Strategy

View of Cork - Middleton Train Service

3.1 Street Hierarchy

The UDF proposes a hierarchy of roads and streets, which are designed in accordance with The Design Manual for Urban Roads and Streets (DMURS) and Cork County Council Making Places, A Design Guide for Residential Estate Development.

The principle typologies are as follows:








1. Spine Road (U-02 LAP) DMURS "Link Road"
2. Loop Road DMURS "Link Road"
3. Water-Rock Road Upgrade DMURS "Link/Feeder Road"
4. Local Access Road
5. Homezone

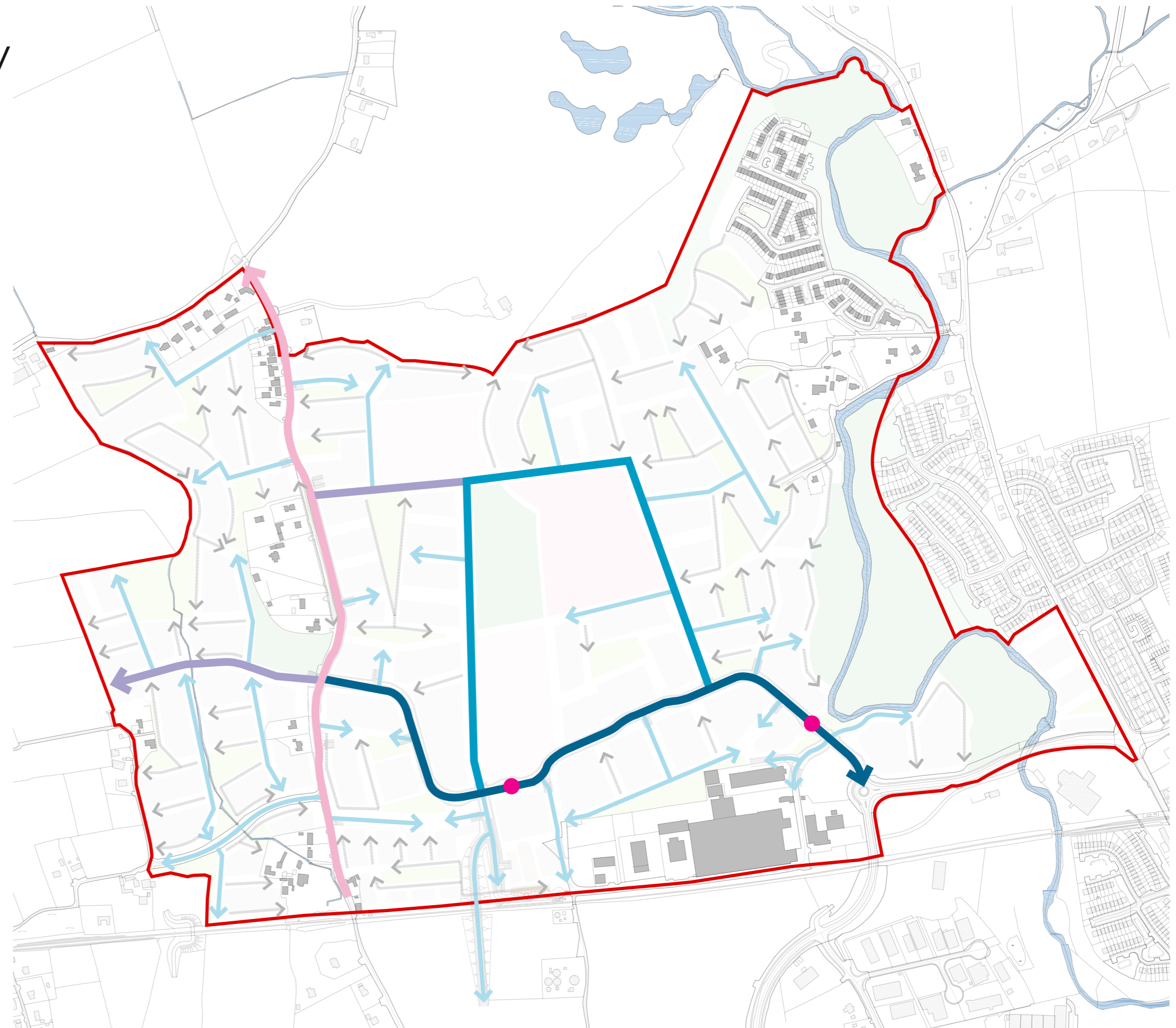
Each street type should be designed so as to provide a high quality public realm, with a balanced approach to parking, lighting, planting and services.



Reference: Homezone in Abode, New Harlow, by Proctor and Matthews Architects

Legend

-  Spine Road [U-02 LAP]
-  Loop Road [U-03 LAP]
-  Water-Rock Road Upgrade [U-07 LAP]
-  Feeder Roads
-  Local Access Streets
-  Homezones
-  Suggested Bus Stop Location



Street Hierarchy Diagram - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



3.2 Spine Road + Loop Road

The Spine Road moves in an east-west direction through the site, providing access to various land holdings.

We recommend that the road be designed to feel like an avenue, or boulevard that runs through Water-Rock, with high quality landscaping and some provision of parallel parking to increase on street activity and to reduce traffic speeds.

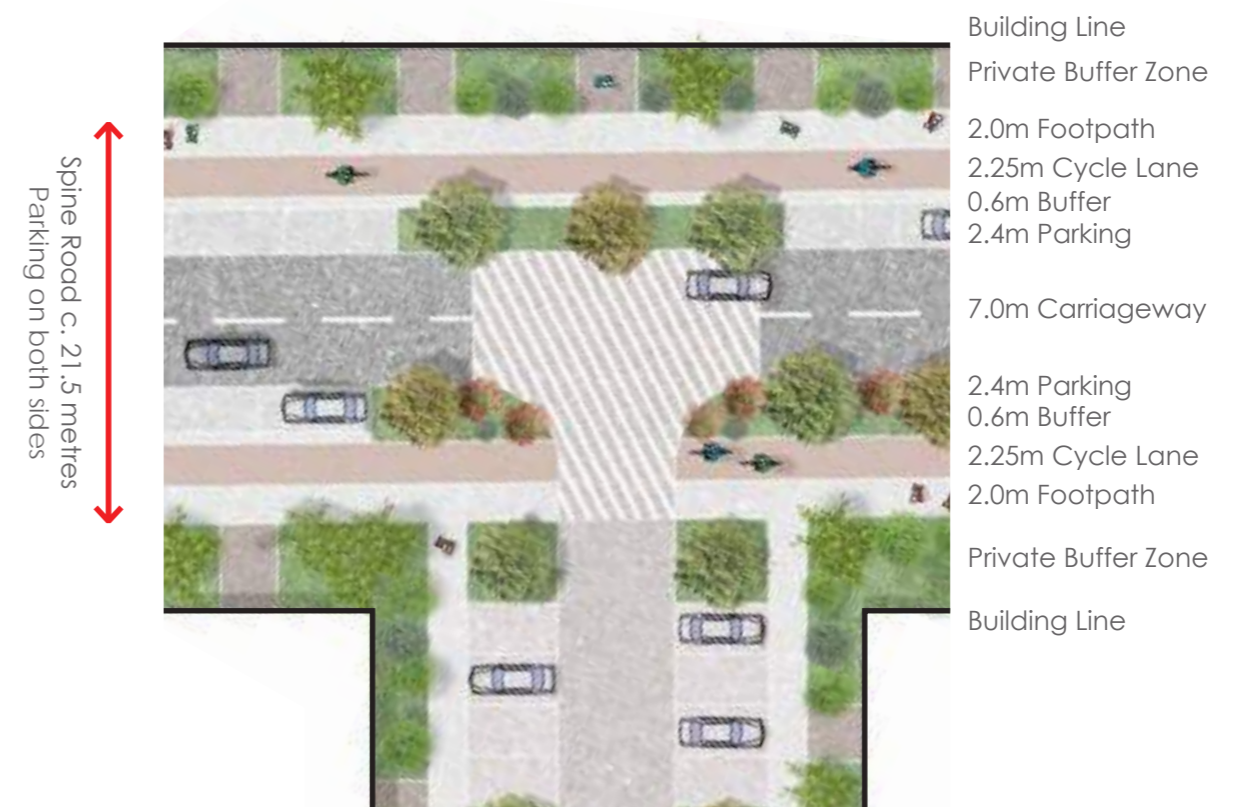
The main difference between the Spine Road and the Loop Road is a reduction in carriageway width from 7m to 6.5m and the same recommendations regarding high quality landscaping apply.



Potential quality of spine road



Partial Plan of spine road, showing potential junction between spine road and a local access road



Partial Plan of spine road, showing potential junction between spine road and local access road

3.3 Water-Rock Road

The Water-Rock road is sylvan in character, and currently provides access to a number of large one off dwellings.

In consultation with Cork County Council and the landowners, Atkins Ireland Consulting Engineering have proposed a design for the upgrade of the Water-Rock road.

As part of the upgrade works, a section of the existing Water-Rock road which serves the existing dwellings that border MD-R-22 will become a "service road" providing access to those existing dwellings only, with the new road running in parallel to the slip road.

We recommend that the upgrade of the Water-Rock road maintain as many of the existing trees as possible, particularly along its western edge or in the vicinity of existing dwellings.

The plan and section shown here demonstrate the desired typical condition between the new existing houses, the service road, and the new Water-Rock road. The width of the landscape zone between the two roads may vary according to particular site conditions, but it should be wide enough to retain existing trees where possible, and replacement planting should be proposed where retention is not possible.



Water-Rock Road



3.4 Local Access Road

The Local Access Roads will provide access from either the Spine Road or the Loop Road into the development plots.

We recommend that the cross section of the local access roads be flexible, so as to accommodate parallel or perpendicular parking as required.

Parking on these roads may be on-curtilage, i.e. behind the footpath, or on street, i.e. between the carriageway and the footpath.

The graphic opposite illustrates these two approaches in principle. The traditional approach with the footpath adjacent to the carriageway – illustrated on the western side of the carriageway – allows for conventional on-curtilage parking. The non-traditional approach with the parking between the carriageway and the footpath - illustrated on the eastern side of the carriageway – can allow for extra efficiency in achieving a particular quantum of parking. Both approaches should be considered when trying to achieve diversity in the streetscape.

The roads should also be designed so as to incorporate visitor car parking, bicycle parking, public lighting and trees.



Plan

← c. 24.5 metres →



Section



Reference: Somerton, Adamstown, O'Mahony Pike Architects

3.5 Homezone

Within each development plot, we recommend that there is a permeable road layout, with homezone type streets serving small clusters of development, or approximately 15-30 houses.

In the homezones, a shared surface is proposed for the carriageway and the pedestrian refuge, and priority is given to pedestrians and cyclists. Trees and other planting are incorporated so as to create an attractive streetscape.

Two examples of homezones are shown on this page, and there may be opportunities for other homezone typologies within the UEA.



Reference: Grace Park Woods, Drumcondra, O'Mahony Pike Architects



Reference: Homezone at Somerton, Adamstown, O'Mahony Pike Architects



Homezone Type A - Plan

← c. 22 metres →



Homezone Type A - Section



Homezone Type B - Plan

← c. 17.5 metres →



Homezone Type B - Section



4.0 Landscape Strategy

View of Owenacurra River

4.1 Landscape Strategy

Water-Rock is located to the north-west of Midleton, and is currently open fields, surrounded by tree lined hedgerows. The lands have a rolling topography, generally rising to the north, with valleys along the Water-Rock stream and the Owenacurra River.

The existing landscape is the key asset which establishes the character of the site, and in accordance with the Water-Rock Framework Masterplan Study 2015 and East Cork Municipal District Local Area Plan 2017, we propose to make best use of this asset to generate a network of attractive landscape spaces within the new settlement.

The Owenacurra linear park, MD-O-08, MD-O-09 and MD-O-13, is the most significant landscape asset of Water-Rock, and connectivity between this park and the wider settlement is key to the landscape strategy.

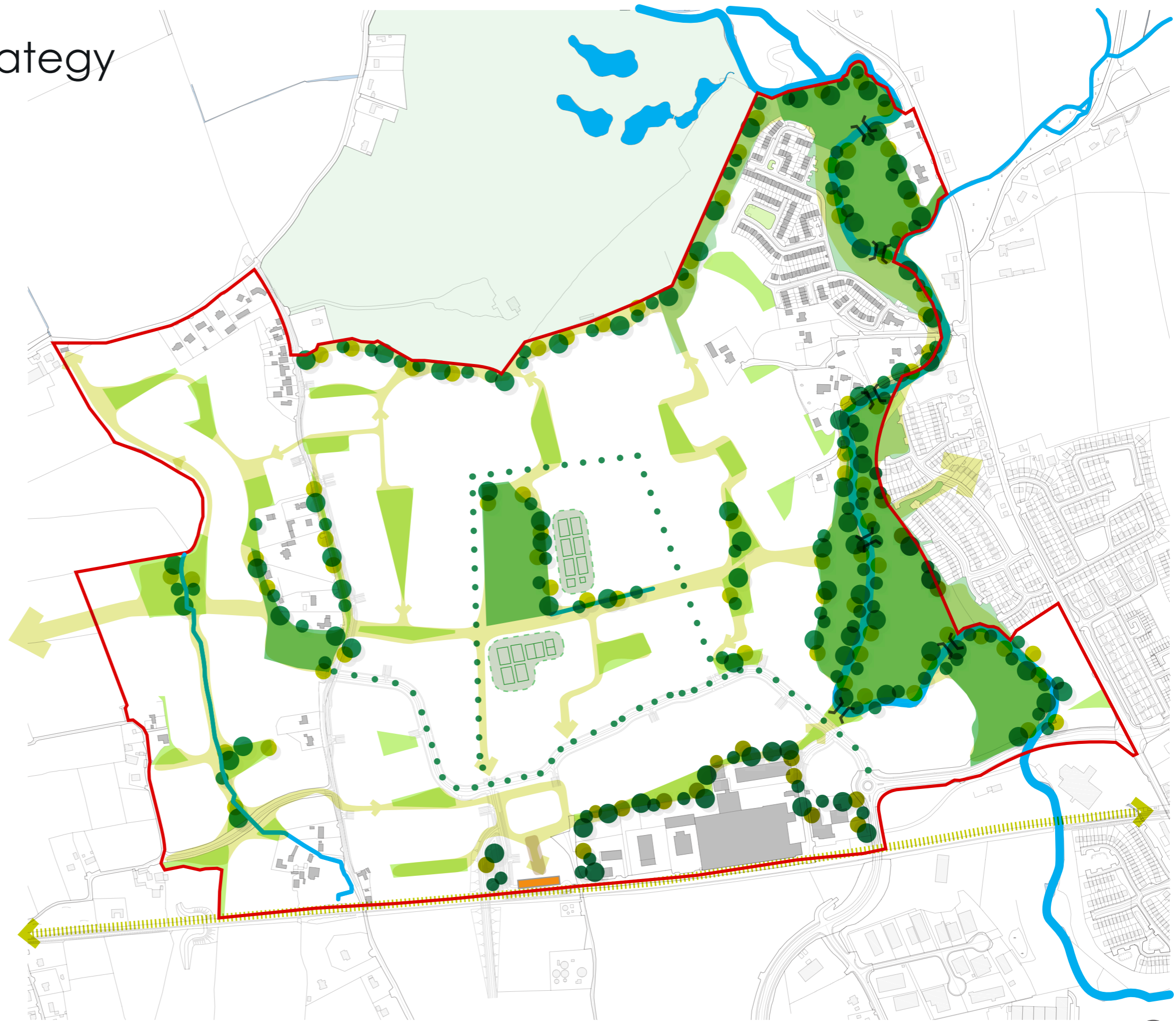
A civic space, or town square, is proposed beside the railway station, and a pedestrian/cycle connection between this square, along a green space within MD-R-25 and the Owenacurra linear park is proposed to provide a link between the main public recreation space and the public transport hub.

The east-west Greenway, MD-U-06, provides an informal landscape route between the proposed settlement and the Owenacurra linear park. We recommend that the Greenway extend from the park as far at the western boundary of the site, so as to allow for future accessibility to the Strategic Land Reserve.

Public open space within each development area are distributed so as to allow for retention of existing ecological features, and to provide amenity to as many dwellings as possible.

The resulting public open spaces within each development zone should be linked by either the street network, or by cycle and pedestrian routes, and the collection of spaces should link to both the Greenway and to open spaces within adjoining developments.

The network of open spaces will create strong permeability within the site, and allow for the provision of walking loops and trim trails.



Landscape Strategy Diagram - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



4.2 Greenway

A primary green corridor is proposed across the masterplan site, forming a key link between the Owenacurra Linear Park and the proposed Water-Rock Settlement.

It is envisaged that the green corridor, or Greenway, will be a cycle and pedestrian priority zone, which provides an attractive, safe route between the public parks and incidental green spaces throughout the development area.

We recommend that a 3m pathway, which will be shared between pedestrians and cyclists will be a continuous and unifying feature along the length of the Greenway. The shared path is recommended as dedicated cycle paths are provided elsewhere on the site, such as along the spine road, the loop road, and parallel with the railway line.

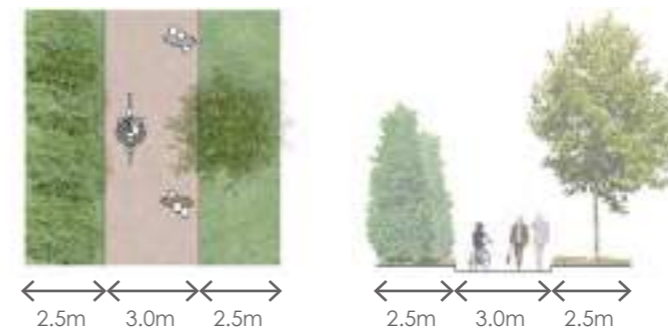
The Greenway will have a number of different conditions, for which we have set out recommended dimensions.

The area of a development site which is assigned to the Greenway may be taken as a portion of the public open space requirement of that site.



Typical Greenway

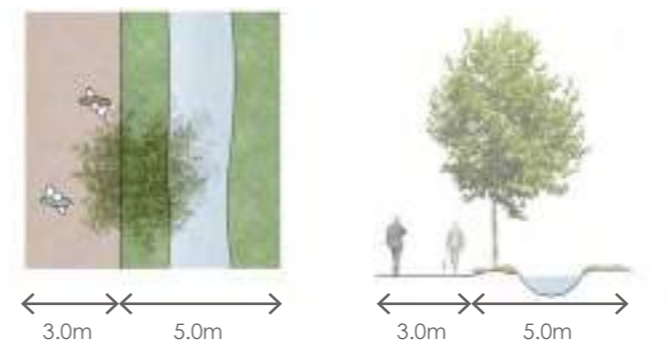
Condition No. 1:
The Greenway has an overall width of 8 metres. A shared cycle and pedestrian path that is 3m in width is located centrally, and there a 2.5m landscaped zone is located on both sides of the path.



Condition No. 2:
The Greenway has an overall width of 8 metres. A shared cycle and pedestrian path that is 3m in width is located to one side of the overall 8 metres wide zone, and a 5 metres landscaped zone is located to one side. This condition may allow for the retention of an existing hedgerow or trees within the 5 metres landscaped zone.



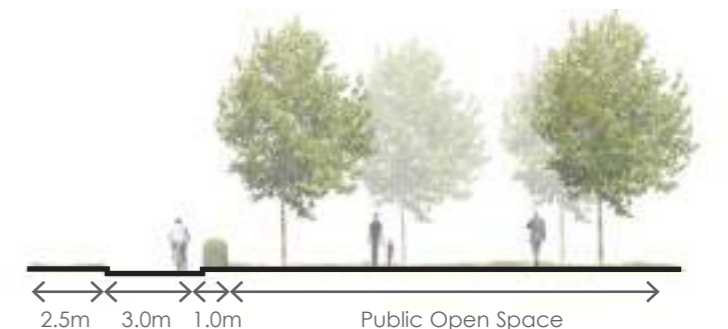
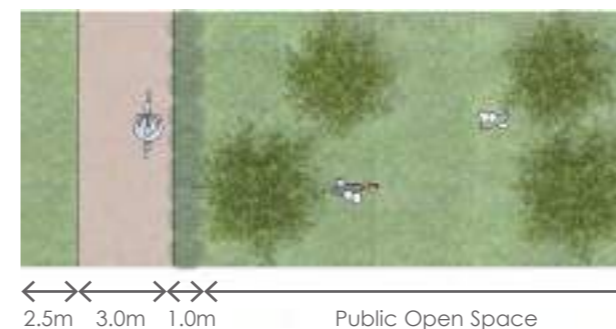
Condition No. 3:
The Greenway has an overall width of 8 metres. A shared cycle and pedestrian path that is 3m in width is located to one side of the overall 8 metres wide zone, and a 5 metres landscaped zone is located to one side. This condition may allow for the retention of an existing stream or waterbody within the 5 metres landscaped zone.



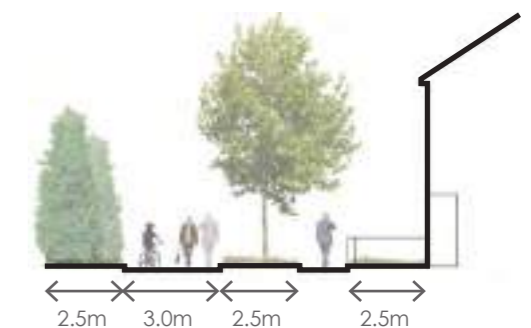
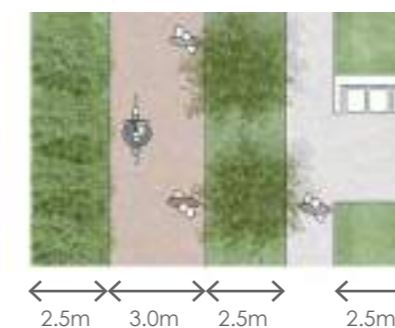
Condition No. 4:
The Greenway has an overall width of 6.5 metres. The Greenway runs parallel to a street or homezone. The Greenway comprises a shared cycle and pedestrian path that is 3m in width, which is separated from the street or homezone by a landscaped zone that has a minimum width of 1 metres. A 2.5 metres landscape zone is located on the other side of the shared path.



Condition No. 5:
The Greenway has an overall width of 5.5 metres. The Greenway runs parallel to a public open space. The Greenway comprises a shared cycle and pedestrian path that is 3 metres in width. Where the Greenway directly adjoins a public open space, no separation is required between the two areas. On the non-public open space side of the Greenway, a 2.5 metres landscape zone is provided.



Condition No. 6:
The Greenway has an overall width of 8 metres. The Greenway runs parallel to a street or homezone with parking to be located to the rear of dwellings. The Greenway comprises a shared cycle and pedestrian path that is 3 metres in width, which is separated from the street or homezone by a landscaped zone that has a minimum width of 2.5 metres. A footpath and 2.5m landscape zone is located on the other side of the shared path.



Greenway within a residential context.

4.3 Owenacurra Linear Park

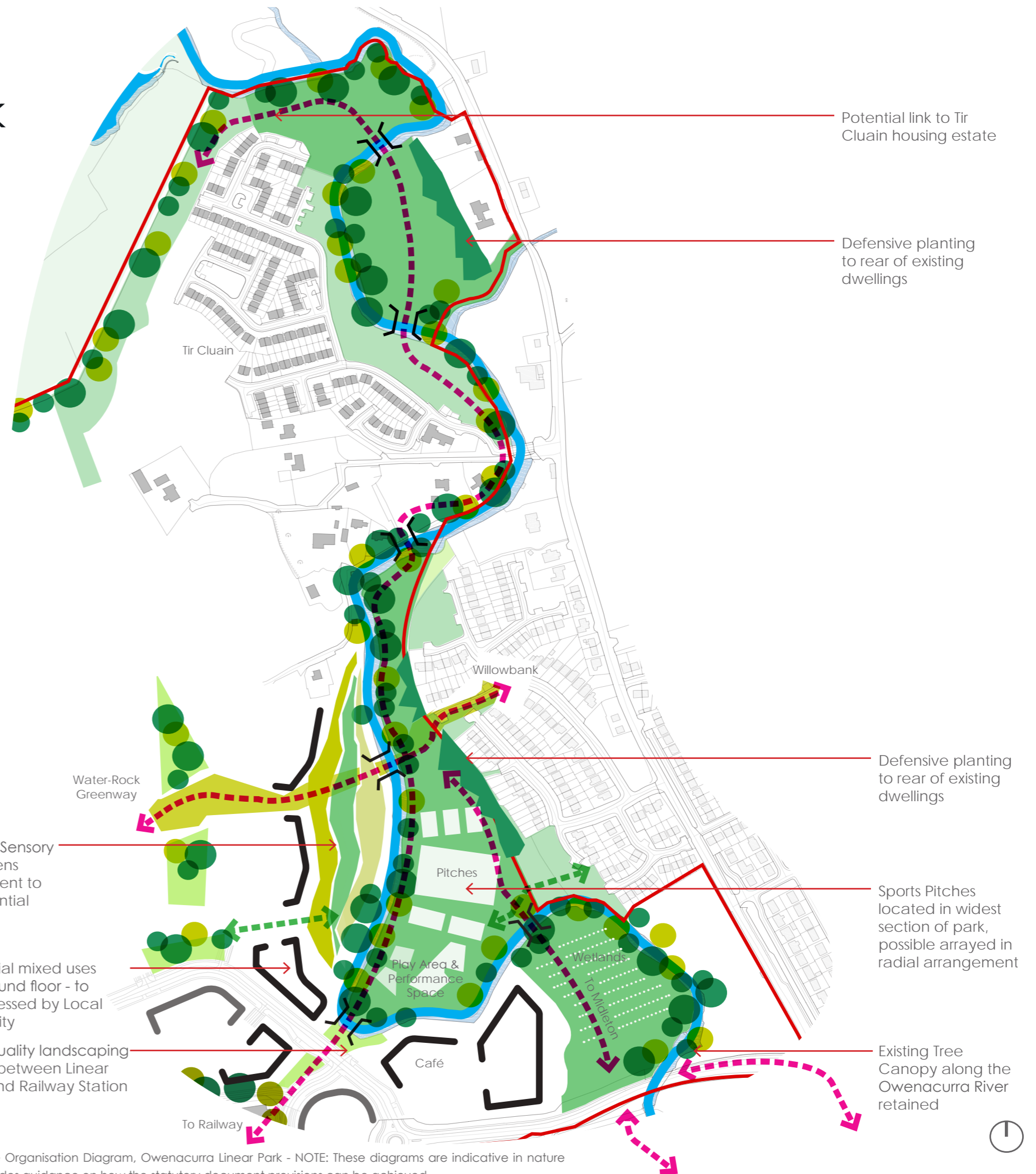
The provision of a linear park, measuring 16 ha, along the floodplain of the Owenacurra River is part of the overall objective for the masterplan area.

The Owenacurra Linear Park will provide a recreational amenity for both the existing residents of Midleton, and the future residents of Water-Rock. In accordance with the Water-Rock Framework Masterplan Study 2015, the park will focus on incorporating and developing the river and the surrounding wooded area, and will contain a mix of areas which should provide a pleasant, usable and safe green corridor for access and recreation along the river bank.

The landscape strategy diagram for the park is indicative only, and we recommend that a suitably experienced Landscape Consultant be appointed to design the Owenacurra Linear Park.

We recommend that the following principles for the design and organisation of the park:

- The park should be overlooked by strong, active streetscapes, with a recommended minimum height of 3 storeys;
- Existing trees, particularly those along the riverbank, should be retained;
- Active uses, such as a playground and sports pitches, should be located so as to minimise their potential nuisance to both existing and new residents;
- Careful consideration should be given to boundaries with existing residences; Where new development which would provide increased security to existing backgardens is not possible, consideration should be given to defensive planting along exposed private boundaries;
- A variety of planting types should be proposed, and particular consideration should be given to wetland species;
- Development that would overlook the park and provide valuable passive supervision may be appropriate, subject to appropriate flood mitigation measures;
- A number of bridging points are proposed throughout the park; We recommend that the bridges be of a high design quality, utilising colour and innovative structures to provide animation and wayfinding within the park. Informal crossing points may also be useful;
- The introduction of a boardwalk structure may allow for engagement with wetland features;
- A public art piece would add interest and provide a focal point in the park.



Indicative Organisation Diagram, Owenacurra Linear Park - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



Pedestrian and cycle bridge, Amsterdam, West 8



Pedestrian and cycle bridge, Maximapark, West 8



Informal river crossing point



Boardwalk through wetland area



Grassland and tree canopies for recreational activities



Planted boundaries between sports pitches



Public Art



Wildflower planting



Integration of play with landscape



Public park overlooked by 3 storey houses
Ref: Grace Park Woods, Drumcondra, O'Mahony Pike Architects



Public realm overlooked by 3 storey houses
Ref: Honey Park, Dún Laoghaire, McCrossan O'Rourke Manning



Public realm overlooked by 2 & 3storey houses
Ref: Honey Park, Dún Laoghaire, McCrossan O'Rourke Manning



Public realm overlooked by 4 storey duplexes
Ref: Adamstown, O'Mahony Pike Architects

4.4 Existing Trees and Hedgerows

The site features many existing hedgerows, which form the boundaries between fields. Hedgerows are important habitats for wildlife, and are also part of the identity of the site.

However, as the nature of the site changes as the Water-Rock settlement develops, the context for the existing hedgerows also changes.

Within the new development, different conditions will arise whereby it will sometimes be appropriate to retain hedgerows, and sometimes to remove them. Each development site should examine the ecological features within its zone of impact, and make balanced and appropriate proposals for removal and/or retention.

Where a hedgerow provides a strong boundary between existing dwellings and the subject site, retention of the hedgerow may be appropriate in order to respect the amenity of the existing dwellings. Where such hedgerows are within private ownership, their future maintenance will be the responsibility of the homeowner.

Where low density dwellings are proposed, there may be opportunity to introduce new boundary conditions between houses or development clusters, which are part of the soft, green landscape. Such soft boundaries may be planted with indigenous trees and wildflowers, with a simple fence along the centreline to demarcate property boundaries.

Where an existing hedgerow runs through a proposed public open space, it may be appropriate to retain the larger, good quality trees that form part of the hedgerow as focal points within the public space, and to remove the hedgerow itself. We recommend that a diverse range of planting be provided to compensate for any hedgerow removal, and that there are linkages between public open spaces.

Where an existing hedgerow forms part of the Water-Rock greenway, we recommend that consideration be given to the retention of the hedgerow, subject to the area being appropriately managed.

In certain instances, the retention of a single tree, within a public open space may be more appropriate than the retention of a complete hedgerow.

Ref: Sheltered Housing Scheme, Clonakilty



An new embankment with wildflowers creates an attractive boundary to the street.
Reference: Waterfall, Co. Cork, O'Mahony Pike Architects



The boundary between dwellings is demarcated by a new ditch, planted with wildflowers and native shrubs.
Reference: Waterfall, Co. Cork, O'Mahony Pike Architects

4.5 Sustainable Urban Drainage

In accordance with the Water-Rock Masterplan 2015, we recommend that a comprehensive Sustainable Urban Drainage System (SUDS) is designed and put in place, that caters for the entire site.

SUDS measures which may be appropriate include swales, bio-retention areas, wetlands, green roofs and permeable paving.

SUDS aims to deal in an integrated way with the issues of water quantity, quality and amenity. It works on the following principles:

- managing surface water run-off on-site as near to source as possible;
- slowing down run-off;
- treating it naturally; and
- releasing good quality surface water to watercourses or groundwater.

The overall objective is to return excess surface water to the natural water cycle with minimal adverse impact on people and the environment. The means by which this can be achieved can be designed as an attractive integral amenity feature within the development and can achieve significant ecological enhancement compared to conventional drainage options. SUDS measures which may be appropriate to the subject lands include swales, bio-retention areas, wetlands, green roofs and permeable paving.

We note that at the time of writing, the PFRA mapping which is referenced in Section 1.4 is a draft only, and contains little detail, particularly in relation to pluvial flooding, and that further analysis of flood risks will be required. We recommend that each applicant prepare a site specific flood risk assessment, to more clearly identify the areas at risk of flooding, and identify appropriate and sustainable mitigation measures, so that drainage solutions can be an integrated part of the site layout, and that the efficient use of land for development is maximised.

We note karst conditions have been recorded in the area. Typically SuDS features which allow point infiltration into the ground e.g. soakaways, unlined ponds etc. are not suitable for these areas. Ground conditions may limit the range of SuDS measures that can be used in the UEA. We recommend that each applicant prepare site investigations/geotechnical surveys, to more clearly identify the specific areas.



Sketch shows swale incorporated into streetscape, with biodiverse planting



Pedestrian bridge over watercourse



Wildflower planting within swale



A curved pathway runs through a landscape of grasses and water features



A depression which can attenuate water when required

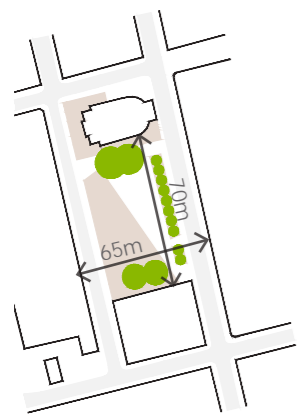
4.6 Railway Civic Space

Civic spaces throughout the development area should be tailored for the end-user – that being the public. Each civic space should reflect the emerging relationships between physical characteristics of urban civic spaces and their varying uses. It is important that these spaces be vibrant, dynamic, flexible and attractive spaces which echo and accommodate the vigour and demands of public life.

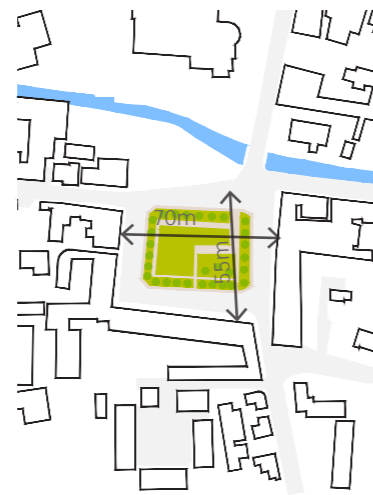
The proposed new railway station presents an opportunity to create an attractive civic space for Water-Rock, that has strong pedestrian and cycle links to the main public park within Water-Rock, the Owenacurra Park. We recommend that the proposed pedestrian and cycle link between the railway station and the Owenacurra Park be a minimum of 3m in width.

The space should benefit from a high quality landscape design, that includes seating, lighting, planting, and incorporates the requirements of the railway station in an integrated manner. The ground floor uses of the buildings that directly adjoin the civic space may be suitable for commercial or community use. We recommend that the proportion and scale of the space be determined in relation to the scale and uses of the proposed adjoining buildings, and that the space be comparable to that of other successful Irish civic spaces, such as those shown below. We suggest that buildings that adjoin the space have a minimum height of 3 storeys.

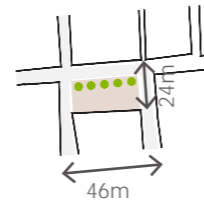
It is not the intention of this document to prescribe the scale or proportions of the proposed urban space, and the diagrams illustrating a civic space beside the Railway Station are indicative only. The scale, proportion and location of the space shall be proposed by the applicant in relation to the height, use and orientation of the surrounding built environment.



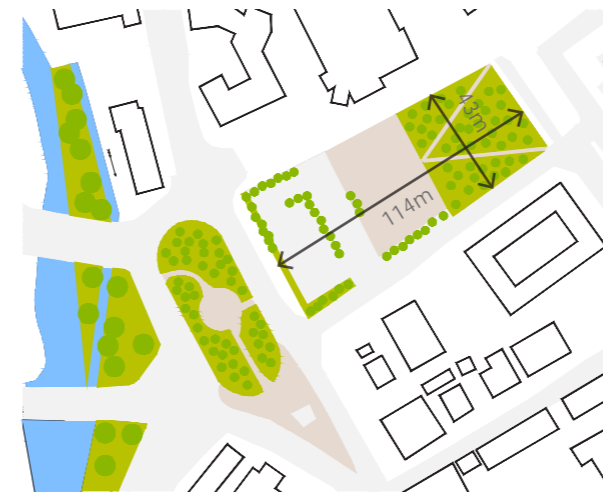
Wolfe Tone Square, Dublin



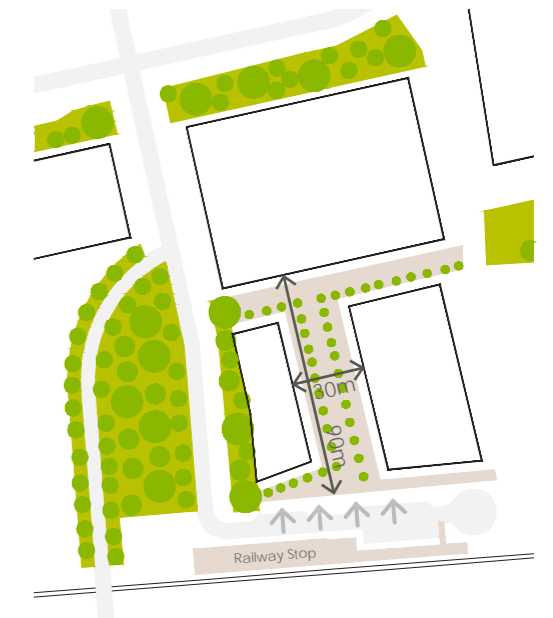
Emmet Square, Clonakilty, Co. Cork



Temple Bar Square, Dublin



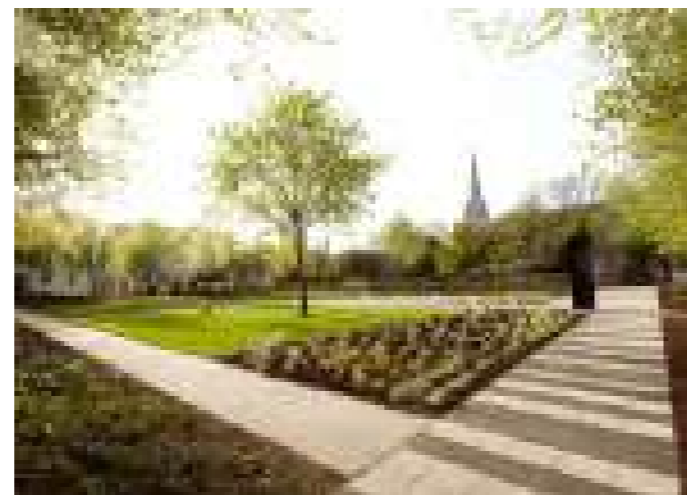
Market Square Midleton, Co. Cork



Indicative Civic Space, Water-Rock



Ref: Asna Square, Clonakilty, Co. Cork



Ref: Emmet Square, Clonakilty, Co. Cork



Ref: Temple Bar Square, Dublin



Sample of Public Life - On-Street Carnival, Clonakilty, Co. Cork



5.0 Architectural Quality and Character Areas

View of a Farm House within the Water-Rock Area

5.1 Midleton: Architectural Quality

Midleton has a strong architectural heritage, and the proposed new Water-Rock development should respond, in a contemporary manner, to the scale, massing, materiality and forms of its context.

Higher density development within or close to existing towns can be challenging, and the massing of proposed large structures requires careful consideration, particularly with regard to views, overshadowing, adjoining uses and character.

The Jameson distillery is a large employer within Midleton, and the collection of buildings and spaces associated with the distillery make a positive contribution to the urban fabric of the town. The strong, simple forms, high quality materials and interesting roofscape are excellent examples of how larger structures can be successfully integrated into the streetscape of a town.

We recommend that the all proposals within Water-Rock consider roofscape, colour and materiality as part of their architectural strategy.



Various images from Midleton of architectural variety and treatment.



5.2 Water-Rock: Architectural Quality

The architecture of the Water-Rock settlement should be contemporary, while also being respectful of the rich historic context of Midleton.

All proposals within Water-Rock should be accompanied by an Architectural Strategy, which refers to roof forms, materiality, colour and detailing.



Selection of vernacular materials, including slate, brick, smooth render and textured render



Rural vernacular development
Ref: Killsallagh, Mayo, Paul Keogh Architects



Rural vernacular development
Ref: Waterfall, Cork, O'Mahony Pike Architects



High quality materials and varied forms
Ref: Newhall Harlow, UK, Sheppard Robson



Vernacular form with quality materials
Ref: Convent Way, Clonakilty



Integrated garage parking
Ref: Accordia, Cambridge, FCB Studios



High quality architectural development
Ref: Gleann Bhan, Galway, Derek Tynan Architects



Quality materials and detailing
Ref: Mount Oval, Douglas, Hogan Architecture



Integrated forms and thresholds
Ref: Moray Mews, Peter Barber



Contemporary development with high quality materials and roofscape
Ref: Kelly's Avenue and Stable Lane, Dún Laoghaire-Rathdown County Council



Traditional development with contemporary influences
Ref: Woodville, Glanmire, Hogan Architecture



Combination of traditional and contemporary forms
Ref: Castlepark, Kinsale, Cook Architects



Contemporary development which uses simple colours and a variety of roof profiles with reference to the local vernacular
Ref: Trumpington Meadows, Allies & Morrison



Quality materials and the use of texture
Ref: The Foundry Mews, Project Orange

5.3 Character Areas: Precedent

Successful place-making for a new settlement of Water-Rocks' scale requires the division of the lands into distinct character areas.

Each character area should have a distinctive urban design quality, which may be related to its architecture, landscape, density and/or amenities.

The division of Water-Rock into multiple land ownerships should facilitate the realisation of meaningful character areas, as each land owner may deliver a distinct vision for their own development.

There are many example of the successful use of character to create different areas, or villages, within a settlement. The two examples shown on this page are Newhall, Harlow in the U.K., and Malmo in Sweden, which use architectural language and landscape features to create meaningful difference between development zones.



Various images from Malmo of how variety of landscape and architectural treatment creates character areas.



Various images from Newhall, Harlow, of how variety of landscape and architectural treatment creates character areas.



5.4 Character Areas

The residential lands within Water-Rock are divided into distinct character areas, in response to density, site conditions and relationship to amenities.

Each character area will be described in further detail on the following pages, with an indicative site arrangement for roads, public open space, boundary treatments and development blocks.

Please note that the following Character Area Layouts are indicative in nature and provide guidance on how the statutory document provisions may be achieved. Applicants should demonstrate that the intentions of the UDF regarding open space, connectivity, landscape and neighbouring uses are effectively achieved.

Please refer to the Section 9.0 Checklist for further information.



Legend

- Water-Rock Central
- Avenue
- Western
- Northern Fringes
- Riverside

Indicative Character Area Diagram - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



5.5 Western Character Area

NOTE: These Character Area Layouts are indicative in nature and provide guidance on how the statutory document provisions may be achieved. There may be opportunity for applicants to propose alternative layouts, which also demonstrate that the intentions of the UDF regarding open space, connectivity site layout and neighbouring uses are effectively achieved. Please refer to the checklist Section 9.0 for further information.

Layout may facilitate a variety of conditions along land ownership boundaries, including back-to-back housing, and adjoining public open spaces; Layouts should encourage pedestrian and cycle permeability across land ownership boundaries.

Geometry of the site allows for local crescent features to act as local landmarks and aid wayfinding

Layouts may facilitate local loops and/or short cul-de-sac arrangements; Layouts should facilitate pedestrian and cycle permeability.

Placement of public open spaces to encourage connectivity and to facilitate movement to the MD-U-O6 Greenway, and to provide for SUDS measures.

Area suitable for lower density, 1- 2 storey dwellings, with landscaped setback from existing public road

Network of public open spaces located along the existing stream, incorporating SUDS features and maintaining access to the stream for maintenance purposes.

In accordance with MD-G-12, lands within 5m of the perimeter fence of the railway to be reserved to allow for possible future upgrading of the route to double track standard. Possible InterUrban Cork-Middleton Cycle track to be implemented.



Areas suitable for lower density, 1-2 storey dwellings, with high quality landscaping

Development on Water-Rock road to respect sylvan character of the road and the scale and character of existing dwellings.



Existing dwelling which looks over the landscape, and would benefit from some public open space to its north to preserve its amenity

Landscape buffer beside boundary with large existing houses

MD-U-06 Greenway

MD-O-11 Park located at the southern end of the avenue, providing visual focal point.

Development on Water-Rock road to respect sylvan character of the road and the scale and character of existing dwellings.

Active frontages onto access roads and public open spaces

Strong street frontage onto boundary with railway to encourage passive supervision

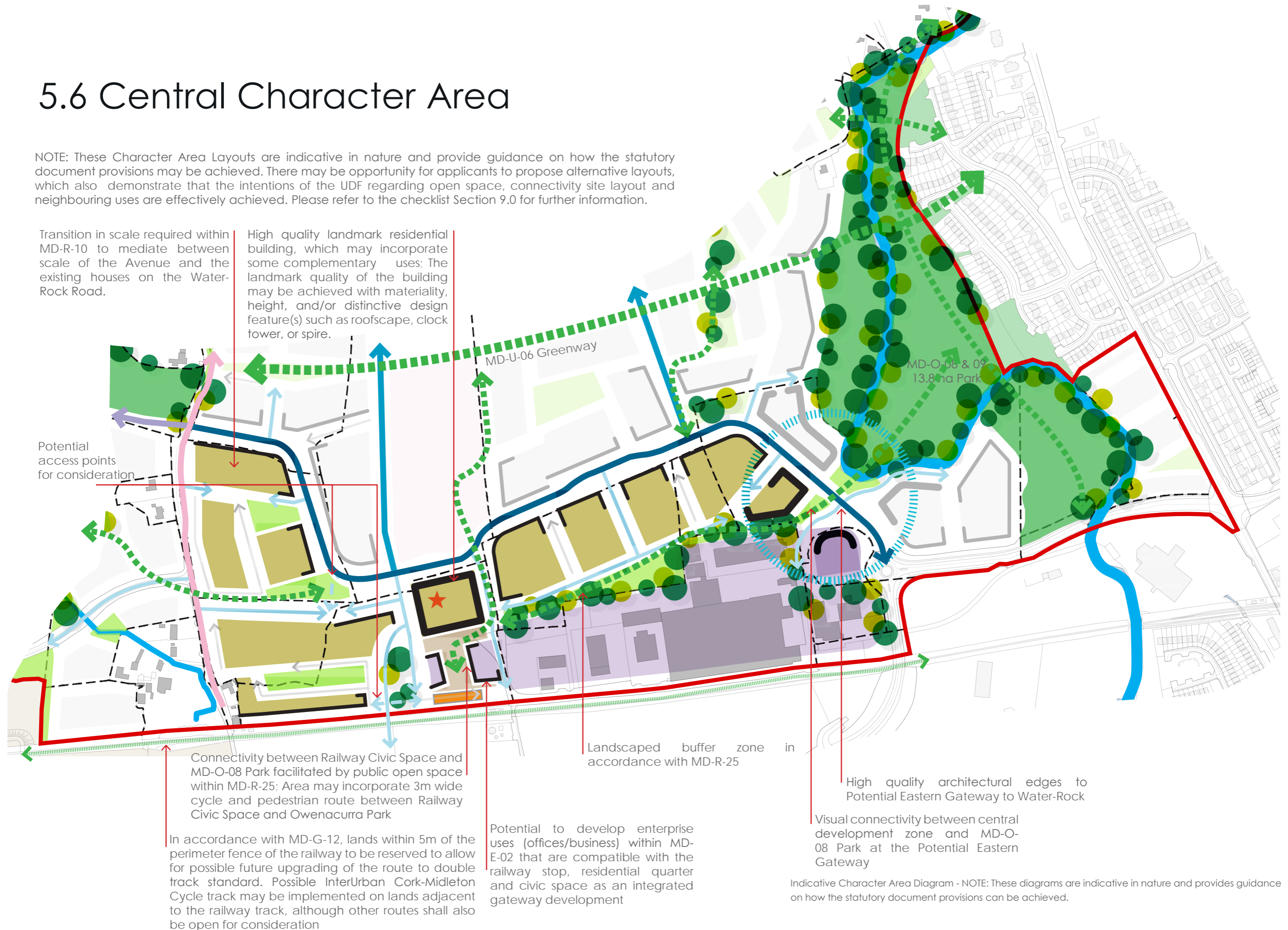
Indicative Character Area Diagram - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.

5.6 Central Character Area

NOTE: These Character Area Layouts are indicative in nature and provide guidance on how the statutory document provisions may be achieved. There may be opportunity for applicants to propose alternative layouts, which also demonstrate that the intentions of the UDF regarding open space, connectivity site layout and neighbouring uses are effectively achieved. Please refer to the checklist Section 9.0 for further information.

Transition in scale required within MD-R-10 to mediate between scale of the Avenue and the existing houses on the Water-Rock Road.

High quality landmark residential building, which may incorporate some complementary uses; The landmark quality of the building may be achieved with materiality, height, and/or distinctive design feature(s) such as roofscape, clock tower, or spire.



Potential access points for consideration

MD-U-06 Greenway

MD-O-08 & 09
13.8 ha Park

Connectivity between Railway Civic Space and MD-O-08 Park facilitated by public open space within MD-R-25; Area may incorporate 3m wide cycle and pedestrian route between Railway Civic Space and Owenacurra Park

Landscaped buffer zone in accordance with MD-R-25

High quality architectural edges to Potential Eastern Gateway to Water-Rock

In accordance with MD-G-12, lands within 5m of the perimeter fence of the railway to be reserved to allow for possible future upgrading of the route to double track standard. Possible InterUrban Cork-Midleton Cycle track may be implemented on lands adjacent to the railway track, although other routes shall also be open for consideration

Potential to develop enterprise uses (offices/business) within MD-E-02 that are compatible with the railway stop, residential quarter and civic space as an integrated gateway development

Visual connectivity between central development zone and MD-O-08 Park at the Potential Eastern Gateway

Indicative Character Area Diagram - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



5.8 Avenue Character Area

NOTE: These Character Area Layouts are indicative in nature and provide guidance on how the statutory document provisions may be achieved. There may be opportunity for applicants to propose alternative layouts, which also demonstrate that the intentions of the UDF regarding open space, connectivity site layout and neighbouring uses are effectively achieved. Please refer to the checklist Section 9.0 for further information.

Strong, active frontage required overlooking the Loop Road

Public open spaces in this location would facilitate retention of existing trees or hedgerow

Strong, active frontage required overlooking the Spine Road

Outdoor sports facilities within school sites to be located so as to facilitate access to the Greenway and potential community use

Water-Rock Greenway to provide east-west route through the site, and to link to a network of north-south public open spaces

Suggested alternative location for Neighbourhood Centre within MD-R-12

Strong, active frontage required overlooking the Loop Road

Preferred location for Neighbourhood Centre within MD-R-12

Possible InterUrban Cork-Midleton Cycle track may be implemented on lands adjacent to the railway track, although other routes shall also be open for consideration



Potential alternative Loop Road Arrangement shown dashed, with the Loop Road running along the ownership boundaries.



Indicative Character Area Diagram - NOTE: These diagrams are indicative in nature and provides guidance on how the statutory document provisions can be achieved.



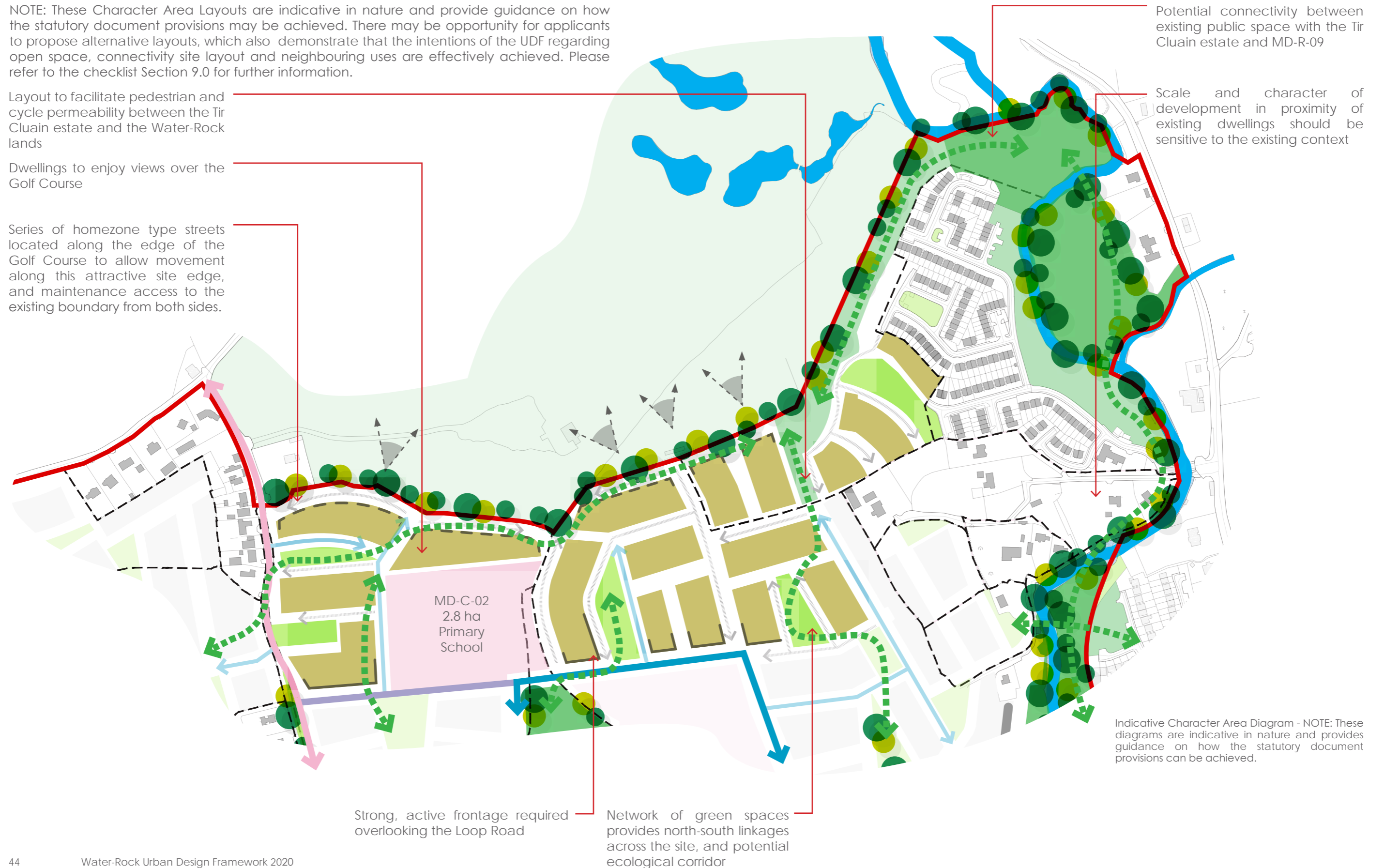
5.9 Northern Fringe Character Area

NOTE: These Character Area Layouts are indicative in nature and provide guidance on how the statutory document provisions may be achieved. There may be opportunity for applicants to propose alternative layouts, which also demonstrate that the intentions of the UDF regarding open space, connectivity site layout and neighbouring uses are effectively achieved. Please refer to the checklist Section 9.0 for further information.

Layout to facilitate pedestrian and cycle permeability between the Tir Cluain estate and the Water-Rock lands

Dwellings to enjoy views over the Golf Course

Series of homezone type streets located along the edge of the Golf Course to allow movement along this attractive site edge, and maintenance access to the existing boundary from both sides.



6.0 Residential Typologies



6.1 Typology Study

Affordable housing typologies with sustainable parking strategies

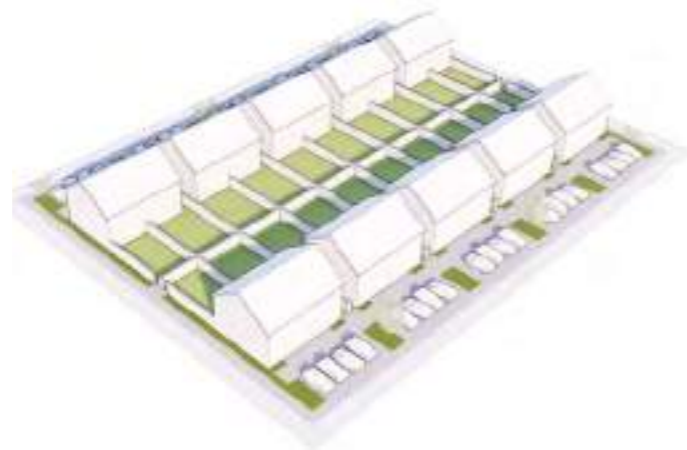
A range of housing typologies have been suggested, which demonstrate how the proposed development may comply with the density requirements for the lands.

The typologies are based on affordable housing models, which provide efficient use of land and economical parking strategies.

All typologies can be designed so as to provide a high quality environment, with active streetscapes on all sides of the urban block, and appropriate levels of privacy and amenity for all dwellings.

The net densities indicated are indicative only, and may vary depending on site conditions and building design.

Traditional semi-detached housing



Terraced or semi-detached 2 storey housing:
 20 no. houses
 0 no. duplexes
 0 no. apartments
 c. 40 no. parking spaces

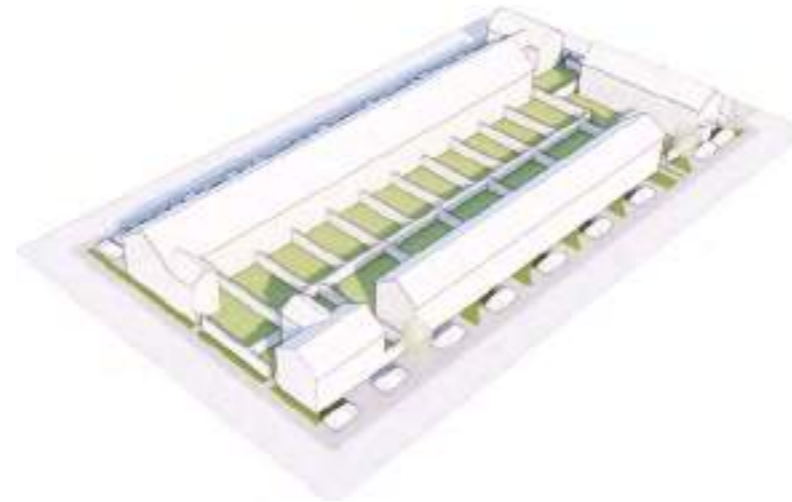
Net density: 20-30 dwellings/ ha.

Suitable for areas of the site with lower density requirements in close proximity to existing dwellings, or in combination with other typologies so as to provide a sustainable overall density.



Reference: Somerton, Adamstown, O'Mahony Pike Architects

Terraced housing



Terraced or semi-detached 2 storey housing:
 20 no. houses
 0 no. duplexes
 0 no. apartments
 c. 35 no. parking spaces

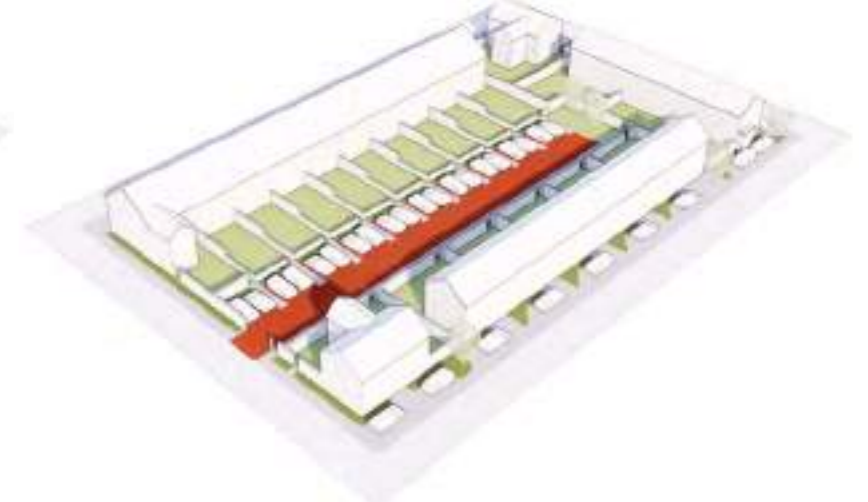
Net density: 30-35 dwellings/ ha.

Suitable for areas of the site with low and medium density requirements, and for providing active streetscape on all frontages.



Reference: Somerton, Adamstown, O'Mahony Pike Architects

Terraced housing with rear parking court



Terraced or semi-detached 2 /3 storey housing:
 20 no. houses
 0 no. duplexes
 0 no. apartments
 34 no. parking spaces

Net density: 30-35 dwellings/ ha.

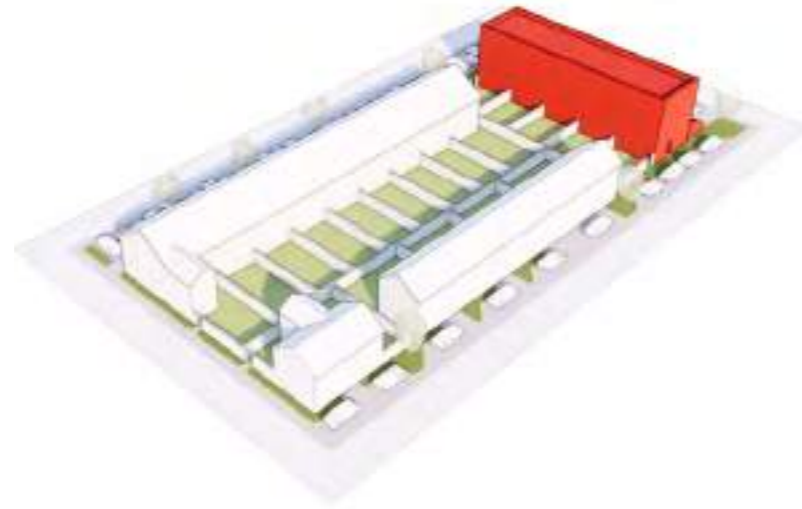
Suitable for houses where direct access from local road is not appropriate, but strong street frontage is required.



Reference: Abode, New Harlow, Proctor Matthews Architects

6.2 Typology Study

Terraced housing with 3 / 4 storey duplexes



Terraced or semi-detached 2 / 3 storey housing with a terrace of duplex units
 14 no. houses
 10 no. duplexes
 0 no. apartments
 34 no. parking spaces

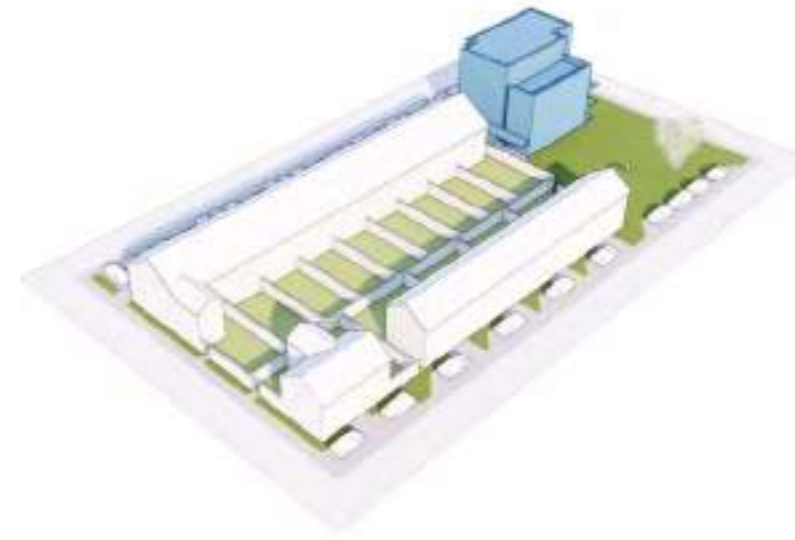
Net density: 35 -45 dwellings/ ha.

Suitable for increasing density with a housing development, and providing strong street frontage.



Reference: Eden, Blackrock, Cork. O'Mahony Pike Architects

Terraced housing with 3 / 4 storey apartments



Terraced or semi-detached 2 / 3 storey housing with a 4 storey apartment block
 13 no. houses
 0 no. duplexes
 7 no. apartments
 33 no. parking spaces

Net density: 35 - 50 dwellings/ ha.

Suitable for increasing density with a housing development, and providing strong street frontage.



Reference: Dunluce, Dublin, DTA

6.3 Family Housing Typology

Adaptability is a requirement of the UEA, and essential to cater to a broad profile of prospective purchasers and to facilitate a sustainable community at Water-Rock.

Proposals should be designed to have a variety of unit types, and housing typologies should have the possibility to extend into the back garden to create an additional family/flexible space, or up into the attic for an additional bedroom, allowing families to grow and evolve in the same house in accordance with the "Lifetime Homes" philosophy.



Various architectural treatments for family housing

6.4 Sheltered Housing Typology

The provision of housing typologies for small households comprised of elderly persons can be a way of achieving diversity within a scheme, and achieving higher densities. Housing for the elderly generally requires generous internal layouts to address mobility issues - however, this requirement for generous internal sizes is offset by smaller private amenity spaces and lower parking ratios, particularly where the housing is located close to public transport.



Reference: Arus Mhuire, Skehard Road, Cork, O'Mahony Pike Architects



Reference: Saint Vincent de Paul, Malahide, Paul Keogh Architects



Reference: Leighlinbridge Housing, Gorey, Paul Keogh Architects



Reference: Sheltered Housing Scheme, Clonakilty

6.6 Duplex Typology

Duplexes provide a variety of unit types within a scheme, and can be designed so as to reduce or eliminate communal circulation areas, thereby reducing or eliminating management costs.



Various images of duplex developments

6.7 Apartment Typology

Apartments can provide diversity within a housing scheme, and are particularly appropriate when located close to amenities and public transport. Consideration may also be given to Shared Living and Student Housing typologies within Water-Rock.

Sustainable Urban Housing: Design Standards for New Apartments issued by the Department of Housing, Planning and Local Government in 2018 will be the guidance document for the design of apartments within the UEA. These standards allow for reduced dual aspect ratios and increased efficiencies in the number of units per communal core on urban sites, as well as the substantial reduction or elimination of car parking, depending on proximity to high quality public transport. There are also specific relaxations of mix and number of units per core which benefit the Build to Rent sector.

The unit types shown in plans here are typical standard types, designed to work within an efficient block size, with an economical repetition of kitchen, bathroom and balcony types.

Efficiencies in apartment design resulting from Sustainable Urban Housing: Design Standards for New Apartments 2018, combined with reduced carparking requirements in proximity to a train station, may make the apartment typology a suitable solution for the higher density areas of Water-Rock.



Various internal and external images of apartment developments



7.0 Infrastructure and Phasing

View of Water-Rock Landscape

7.1 Phasing & Infrastructure

In order to promote the accelerated delivery of housing through the development of the Water-Rock site, the phasing arrangements proposed are flexible, depending on the delivery of the relevant supporting infrastructure.

As described in Table 3.3 of the East Cork Municipal District Local Area Plan, Cork County Council have identified three bundles of core, on site infrastructure, including access roads, water services, and particular areas of open space, that they intend to deliver in order to facilitate the independent development of individual parcels of zoned lands.

In addition, there is also a need to regulate the overall delivery of housing on the site to the delivery of particular off-site infrastructure, and this is proposed as per Table 3.4, and the relevant sections of the East Cork Municipal District Local Area Plan.

For further detail on infrastructure and phasing, please refer to the relevant sections of the East Cork Municipal District Local Area Plan and the Water-Rock Masterplan 2015.

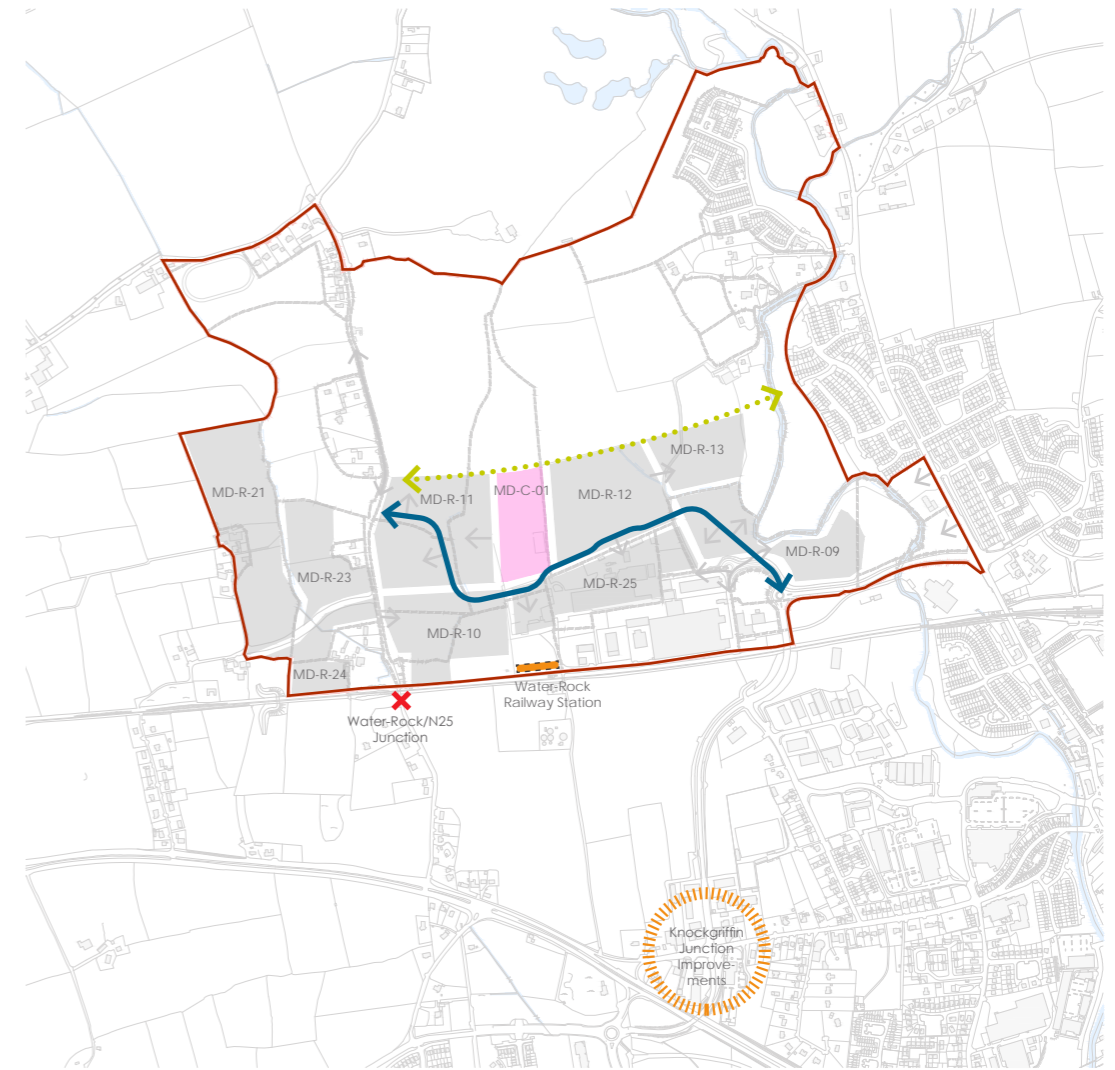
The councils' on-site infrastructure programme, of Bundles A, B and C, as per Table 3.3, will regulate the timing of the commencement of development on particular parcels of zoned land.

It is proposed to deliver Bundle A first. Once Bundle A is complete, Bundles B or C will be delivered in a sequence which best reflects the opportunities to meet the requirements of the local housing market. Through the system of development contributions and agreements, developers will be required to reimburse the full costs incurred by the local authority as the development progresses.

The development of zones linked to Infrastructure Bundles B and C may commence in parallel with the delivery of infrastructure Bundle A if the following can be secured:

- Appropriate connections to water services infrastructure and surface management systems, and;
- Relevant on/off site road infrastructure.

The following images graphically represent the Infrastructure Bundles, as described in the East Cork LAP.



Indicative Diagram: On-Site Infrastructure Bundle A & Off-Site Infrastructure associated with Phase 1 1000 units

Infrastructure Bundle A*

Subject to requirements of on and off-site infrastructure programmes Table 3.3 and 3.4 East Cork Municipal District Local Area Plan 2017

Key projects:

- Link Road A (Northern Relief Road to Water-Rock Road)
- Waste Water pumping station and rising main to Irish Water Infrastructure
- Drinking water connection to IW infrastructure
- Trunk surface water sewer to appropriate point

Delivery of Bundle A will facilitate development on the following zones:

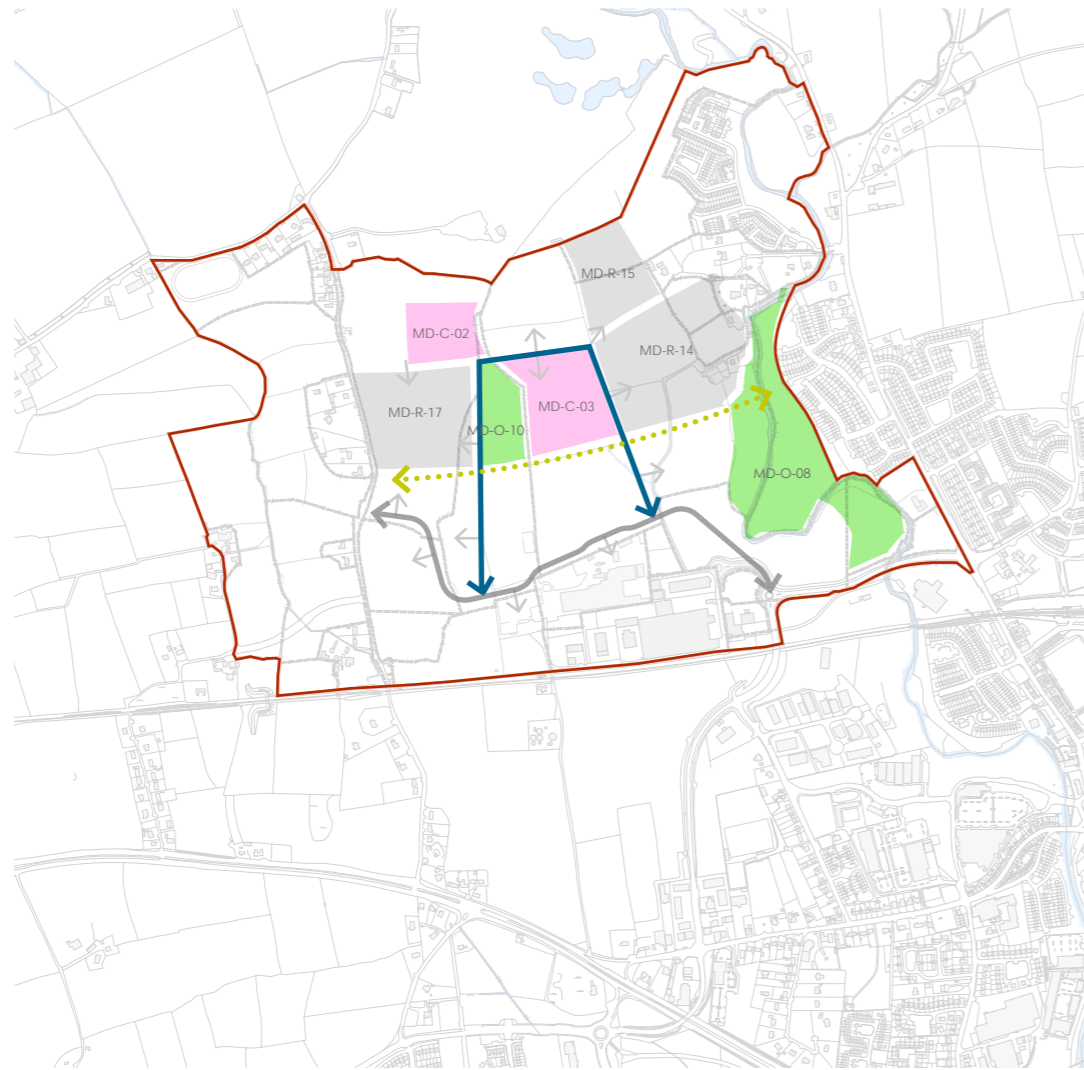
- MD-R-09, MD-R-10, MD-R-11, MD-R-12, MD-R-13, MD-R-21, MD-R-23, MD-R-24, MD-R-25, MD-C-01

*On-Site Infrastructure Bundle A must be delivered during the construction of Development Phase 1 and prior to the commencement any further Phase.

Legend

- Road Infrastructure as part of Bundle A, B or C
- Road Infrastructure that has been delivered as part of Bundle A, and will be in place during delivery of Bundles B and C
- Local Access Points
- Greenway, to be delivered as part of adjoining land parcels
- Residential land parcels, delivery of which is facilitated by the Infrastructure Bundle
- Community/Utility land parcels, delivery of which is facilitated by the Infrastructure Bundle
- Open Space/Sports/Recreation/Amenity land parcels, delivery of which is facilitated by the Infrastructure Bundle
- Vehicular Road Closure Point
- Water-Rock Railway Station
- Knockgriffen Junction Improvements

7.1 Phasing & Infrastructure



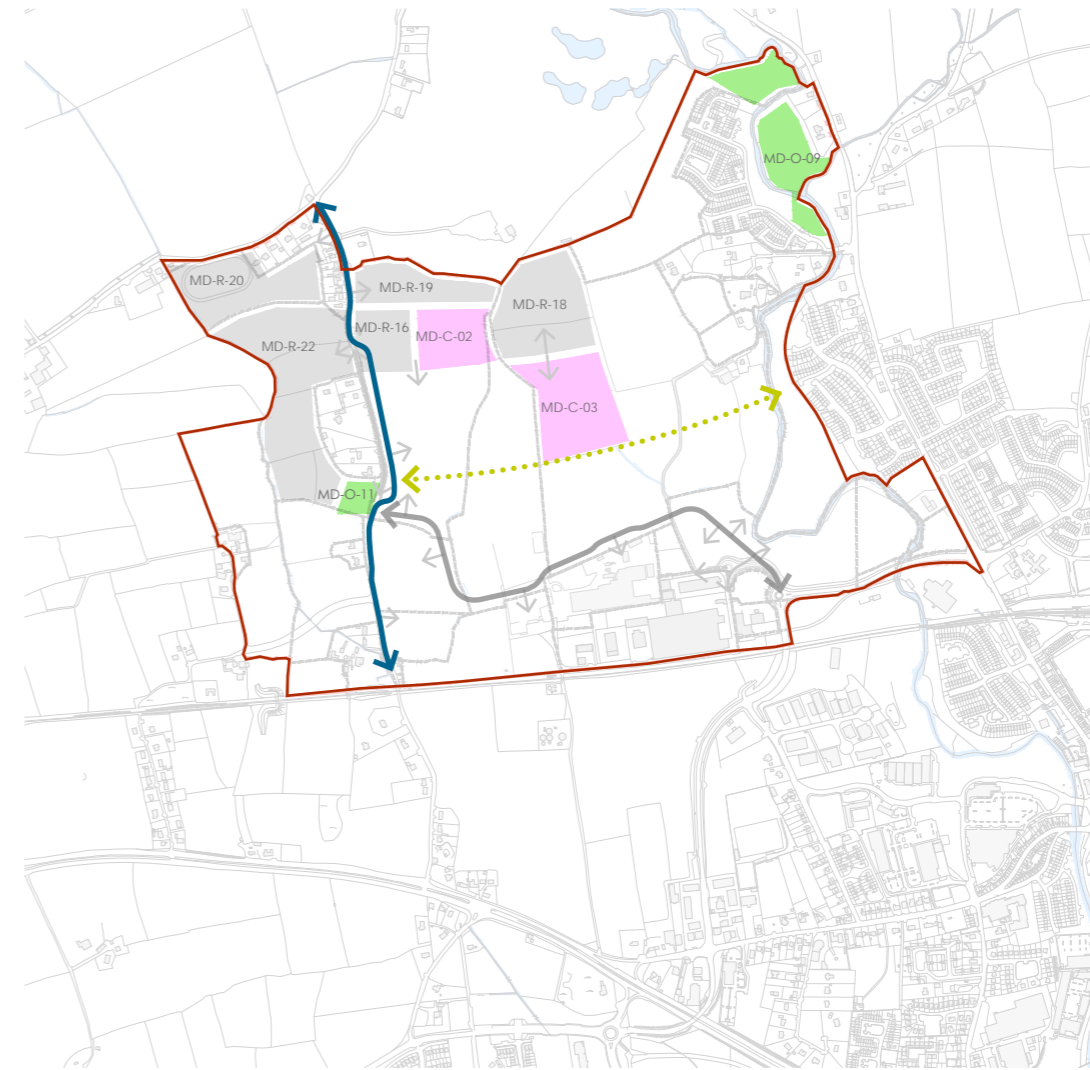
Indicative Diagram: On-Site Infrastructure Bundle B

Infrastructure Bundle B

Subject to requirements of on and off-site infrastructure programmes Table 3.3 and 3.4 East Cork Municipal District Local Area Plan 2017

Key projects:
 Loop Road B (North of Link Road A)
 Small Park (1)
 Linear Park Phase 1

Delivery of Bundle B will facilitate development on the following zones:
 MD-R-14, MD-R-15, MD-R-17, MD-C-02, MD-C-03, MD-O-08, MD-O-10



Indicative Diagram: On-Site Infrastructure Bundle C

Infrastructure Bundle C

Subject to requirements of on and off-site infrastructure programmes Table 3.3 and 3.4 East Cork Municipal District Local Area Plan 2017

Key projects:
 Water-Rock Road Upgrade
 Small Park (2)
 Linear Park Phase 2

Delivery of Bundle B will facilitate development on the following zones:
 MD-R-16, MD-R-18, MD-R-19, MD-R-20, MD-R-22, MD-C-02, MD-C-03, MD-O-09,
 MD-O-11

7.1 Phasing & Infrastructure

Table 3.3 Midleton (Waterrock) Major Urban Extension Proposed On-Site Infrastructure Programme Delivery Agency: Cork County Council			
On-Site Infrastructure Bundle	Key projects	Notes	Delivery Programme
A	Link Road A* (Northern Relief Road to Waterrock Road)	To include water and waste water networks and surface water disposal network	Proposed initial infrastructure bundle Delivery of Bundle 'A' will facilitate development on the following zones:
	Waste Water pumping station and rising main to Midleton WWTP		MD-R-09 MD-R-10 MD-R-11
	Drinking water connection to IW infrastructure		MD-R-12 MD-R-13 MD-R-21 MD-R-23 MD-R-24 MD-R-25
	Trunk surface water sewer to appropriate disposal point**		MD-C-01
B	Loop Road B* (North of Link Road 'A')	To include water and waste water networks and surface water disposal network	Delivery of this infrastructure bundle is not proposed to commence until after the delivery of Bundle 'A'
	Small Park (1)		Delivery of Bundle 'B' will facilitate development on the following zones: MD-R-14 MD-R-15*** MD-R-17
	Linear Park Phase 1		MD-C-02 MD-C-03 MD-O-08 MD-O-10
C	Waterrock Road Upgrade*	To include water and waste water networks and surface water disposal network	Delivery of this infrastructure bundle is not proposed to

Table 3.3 Midleton (Waterrock) Major Urban Extension Proposed On-Site Infrastructure Programme Delivery Agency: Cork County Council			
On-Site Infrastructure Bundle	Key projects	Notes	Delivery Programme
C	Small Park (2)		commence until after the delivery of Bundle 'A'
	Linear park (Phase 2)		Delivery of Bundle 'C' will facilitate development on the following zones: MD-R-16 MD-R-18 MD-R-19 MD-R-20 MD-R-22 MD-C-02 MD-C-03 MD-O-09 MD-O-11
<p>* Access to serve individual dwellings will not be permitted. New access will be to estate roads only.</p> <p>** Individual developers will be required to provide attenuation on site.</p> <p>*** Provision must be made for appropriate vehicular and pedestrian access to Tir Cluain Housing Estate which is located beyond the north eastern corner of the site.</p> <p>Note: Development of zones linked to Infrastructure Bundles 'B' & 'C' may commence in parallel with the delivery of infrastructure Bundle 'A' if the following can be secured:</p> <ul style="list-style-type: none"> • Appropriate connections to water services infrastructure and surface management systems; and • Relevant on/off site road infrastructure. 			

East Cork Municipal District Local Area Plan, Table 3.3

Please refer to the above table for the County Council's core On-Site Infrastructure - necessary for housing development.

Table 3.4 Midleton (Waterrock) Major Urban Extension Proposed Off-Site Infrastructure Programme Delivery Agency: Cork County Council		
Development Phase	No of Housing Units	Off-Site Infrastructure Project
Phase 1	Up to 1,000	Closure of Waterrock Road/N25 Junction*
		Knockgriffin Junction Improvements
		Waterrock Railway Station
Phase 2	1,000 – 1,800	Town Centre Gyrotary Upgrade
		N25 Slip Road Mitigation Measures
Phase 3	1,800 – 2,460	Railway over-bridge and southern link road to Northern Relief Road/new N25 Interchange
*To be completed prior to the occupation of any dwellings		













East Cork Municipal District Local Area Plan, Table 3.4

Please refer to above table for the County Council's particular Off-Site Infrastructure - necessary to regulate the overall delivery of housing on the site.



8.0 Checklist

8.1 Checklist

- 1. Context  Does the development respond appropriately to its specific site conditions, including the scale, form and character of the buildings and landscape within the site and around its boundaries, and the amenity of neighbouring users?
- 2. Connections  Does the proposal have a permeable network of streets and spaces, and a hierarchy of street typologies that respond to the UEA, DEMURS and Cork County Council Making Places document, and does the proposal create links to existing movement routes, local amenities, adjoining land parcels and the Water-Rock Greenway?
- 3. Inclusivity  Does the layout prioritise access for all, with a public realm based on a concept of pedestrian and cycle connectivity?
- 4. Variety  Does the development contain non residential uses, and if so, are they positioned as as to appropriately visible and accessible, and are compatible with neighbouring uses?
Does the development provide housing of different sizes, types and tenures?
- 5. Efficiency  Does the layout make efficient use of land resource by applying higher densities to locations closest to public transport, and utilise landscaped areas to provide amenity and promote biodiversity while also incorporating sustainable urban drainage systems?
- 6. Distinctiveness  Does the layout have recognizable features and / or distinct variations in character so as to provide visual variety and to encourage residents to develop a sense of ownership?
- 7. Layout  Does the layout make the most of opportunities presented by existing buildings, landform, views and features to create a sense of place, and does the layout link to movement routes and places that people will want to get to, such as the schools, parks, neighborhood centre and railway station?
Does the proposal address any flooding/drainage issues in a sustainable manner?
- 8. Pubic Realm  Does the proposal provide passive supervision of all streets and public open spaces though a combination of overlooking and active frontages, and are there well designed, overlooked, alternative routes for pedestrians and cyclists, within the scheme or connecting the scheme to its neighbouring land parcels?
- 9. Adaptability  Do the dwellings allow for future adaptability by the residents in response to potential changing needs over their lifetime, such as attic conversions, rear extensions, and working from home?
- 10. Privacy and Amenity  Does each home have an attractive private amenity space, that is well orientated, and does the layout maximise the number of dual aspect units?
- 11. Parking  Does the proposal provide an appropriate amount of car and bicycle parking within easy access of the dwelling, and is there an element of communal or visitor parking for cars and bicycles to maximise efficiency of parking space use?
- 12. Detailed Design  Do the materials and external design of the buildings make a positive contribution to the locality, and does the design facilitate easy and regular maintenance of buildings and landscape?



Cork
County Council
Comhairle Contae Chorcaí

Planning Department HIIT, PPU, DM & the
Architects Department

o'mahony pike