



Comhairle Cathrach  
& Contae **Luimnigh**

**Limerick** City  
& County Council

## Part 8 Planning Report

**P r o j e c t :**

10 No. Unit Social Housing Development at  
O'Connor Park, Reerasta North, Ardagh, Co. Limerick

LA Housing Construction & Maintenance  
Limerick City & County Council

**D a t e :**

June 2022

## **Design Team Directory:**

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Local Authority Housing Construction + Maintenance

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Contact: Mr. Gary Cotter

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Contact: Mr. Matt Fox

### **Project Supervisor Design Stage:**

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### **Quantity Surveyor:**

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Contact: Mr. Tim King

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## 1.0 Introduction

This Part 8 Report addresses a range of topics that are pertinent to the planning process for the enclosed 10 No. unit social housing scheme in O'Connor Park, Reerasta North, Ardagh, County Limerick. This report contextualises the project with respect to: the proposed site and associated site conditions; the design approach; planning objectives; heritage, conservation and archaeology; accessibility; parking and bicycle facilities; services; materials and construction; and, environmental considerations, SuDs and biodiversity.

This project has been developed in accordance with current planning guidelines, departmental circulars and the Capital Works Management Framework (CWMF) process.

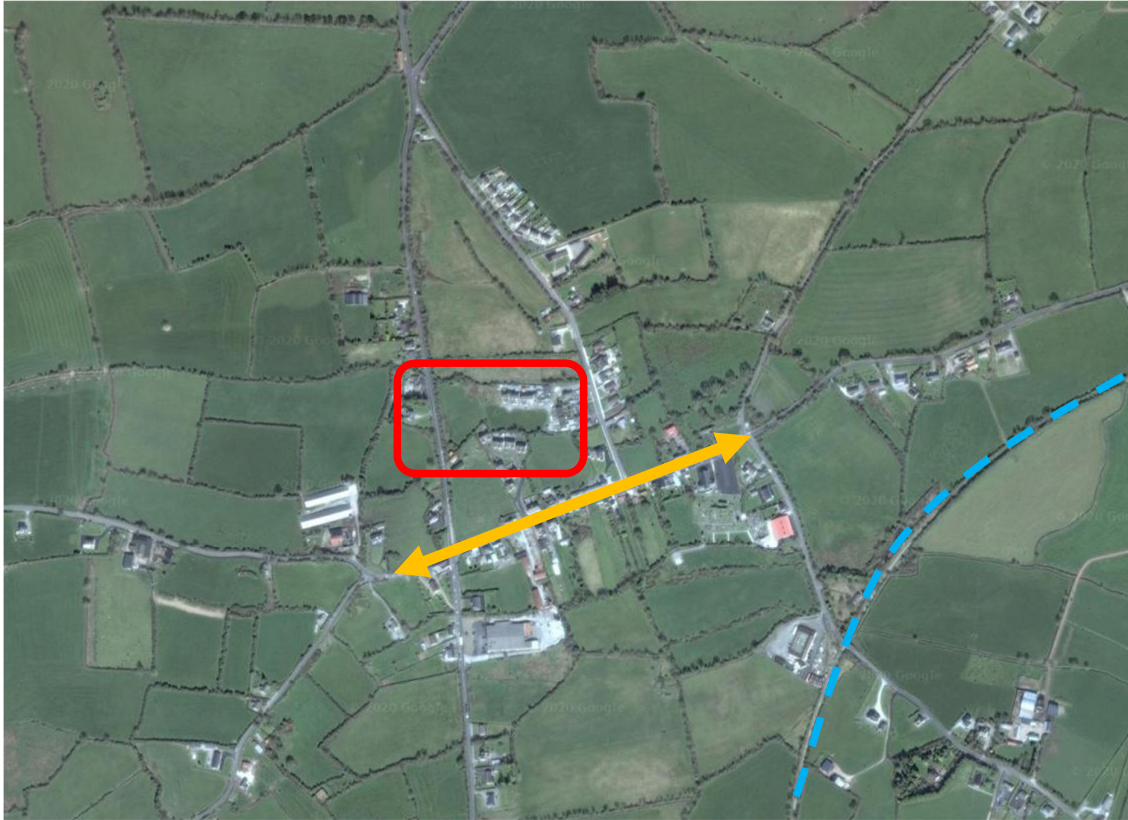


*Above – 3D image of proposed scheme*

## 2.0 Site Location + Description

The subject site (Co-ordinates: 52.496082, -9.062924) measures approximately 0.5 ha in area and is located within O'Connor Park, an existing housing estate in the settlement of Ardagh. The Level 5 settlement (as outline in the County Development Plan [CDP]) is 34km west-southwest of Limerick City and 5.5 km north of Newcastle West, which is the closest centre of scale and a Level 2 settlement earmarked for growth in the CDP. The town comprises primarily of: housing, a church, a primary school with sports pitches, a co-op, a leisure centre, a public house, a butchers' and a post office. The town also benefits from nearby amenities including Newcastle West Golf Club (3km North West) and the Great Southern Greenway which is 300m southeast of the Main Street.

The development will be accessed via the existing access road serving O'Connor Park. In addition, the development will seek to develop the established road network, within the estate, and include a new junction with the R521. The site is also fully services in terms of potable water, foul services, surface water drainage, electricity and telecoms.



Above – O'Connor Park (Red), Ardagh Main Street (Yellow Arrow) and Greenway (Blue Dashed Line).

### 3.0 Context + Planning Policy

The project approach has been developed with consideration to the Limerick County Development Plan 2010-2016 and the Draft Limerick Development Plan 2022-2028 (LDP), in addition to associated national planning documents and guidelines. To note, the site area indicated is .5 ha including areas to facilitate the logistics of the construction works. The developable area of the site is .44 ha and the proposed density is 22 units p/ha.

With respect to LDP Objectives for Level 5 Settlements, as defined by the Settlement and Housing Strategy, there are Planning Objectives from both National Policy and the LDP of relevance, including:

- NPO 3c – “30% of all new homes targeted within Level 5 Small Villages are within their existing built-up footprints.” Note the below LDP excerpt indicates the site location within the village boundary.



Above – extract from Vol.2 of LDP indicating location of site within settlement boundary (in Red)

- SS013 Development within Level 5 Settlements – *“It is an objective of the Council within these settlements to facilitate development, subject to compliance with the following: a) The scale of new residential schemes shall be in proportion to the pattern and grain of existing development and shall be located within the development boundary, thus avoiding ‘leap frogging’ of development and delivering compact growth and providing for the organic and sequential growth of the settlement. Infill and brownfield sites will be the preferred location for new development. In this regard, any development shall enhance the existing village character and create or strengthen a sense of identity and distinctiveness for the settlement. b) New commercial developments shall generally only be located within the core area and shall contribute positively to the village streetscape. c) New community and social facilities shall be provided in conjunction with residential development as required.”*
- SS014 Scale of Growth for Level 5 Settlements – *“It is an objective of the Council to ensure that, generally, no one proposal for residential development shall be larger than 5–7 units. A limited increase beyond this may be permitted where demonstrated to be appropriate, dependent on the extent of the settlement and the services in place to serve growth.”*
- Policy SS P2 (Development of tier 2-6 settlements) - *It is policy of the Council to support the sustainable development of settlements within tiers 2-6.*

- Objective SS O1 (Scale of development within tiers 2-6): *Tier 5 settlements - Generally no one proposal for residential development shall be larger than 10-12 units. A limited increase beyond this may be permitted where demonstrated to be appropriate.*
- Objective SS O4: *Where no specific zoning is identified for a settlement, new developments shall be within or contiguous to the core identified for each settlement, thus avoiding "leap frogging" of development and shall be designed so as to consolidate existing villages /towns and provide for the organic and sequential growth of the settlement. Infill and brownfield sites will be the preferred location for new development.*

The proposal provides for 10 no. dwellings contiguous to the existing residential development and is considered to accord with the above policy and objectives.

#### 4.0 Schedule of Units

The proposed development includes 10 No. housing units, which includes 6 no. houses and 4 no. duplex apartment units. This is summarised in greater detail in the table below for clarity.

House Type	Area	No. Units	No. Bedrooms	Double Bedrooms	Single Bedrooms	No. People p/Unit [Total]
A1 / A2	49 / 51 sqm	2	1	1	0	2 [4]
B	98 sqm	1	3	2	1	5 [5]
C	86 sqm	1	2	2	0	4 [4]
D	82 sqm	3	2	2	0	4 [12]
E	98 sqm	1	3	2	1	5 [5]
F1 / F2	49 / 51 sqm	2	1	1	0	2 [4]
<b>Total</b>	-	<b>10</b>	-	-	-	<b>34 People</b>

*Note: House types A / F are duplex apartment units, with own door access to the first floor unit. The stairwell is approximately 22 sqm in each instance.*



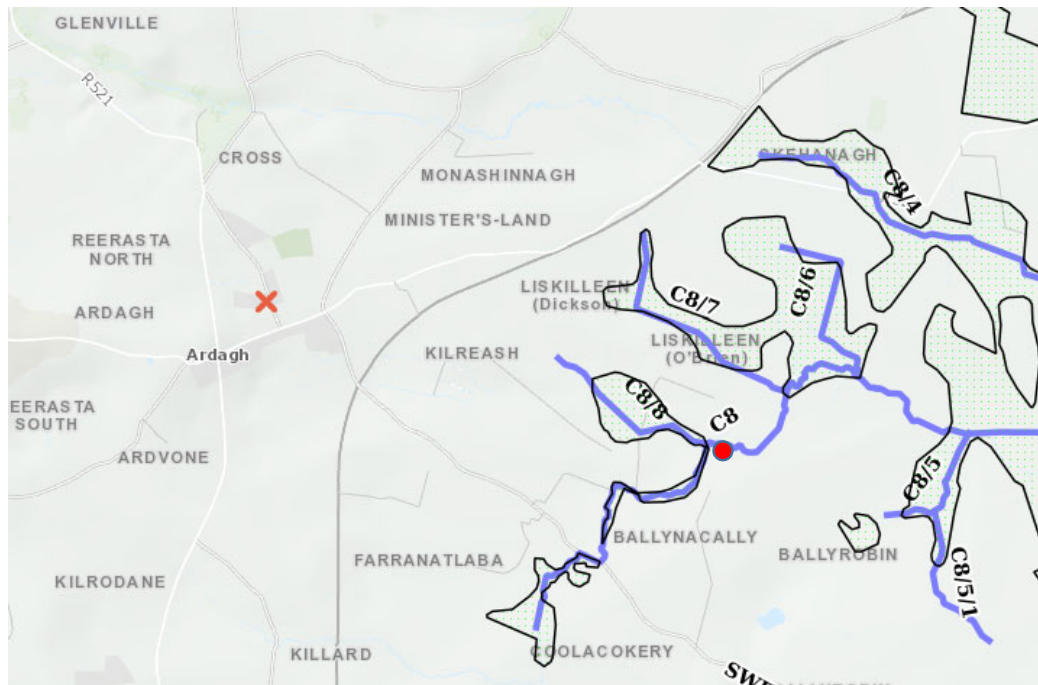
### 5.0 Site Conditions

The site is a greenfield site located in the existing housing estate of O'Connor Park. The topography slopes from the access road (to the east) uphill to the boundary to the west. It can be accessed readily at an accessible level from the existing hammerhead. The proposed development includes a new road junction from the existing estate to the R521 to the west of the site, which links Newcastle West and Foynes.

The proposal will form a natural extension to the existing residential development of O'Connor Park. The development will have its own distinctive built form and design but will seek to integrate into the existing residential community. The residential amenity of existing residents will be respected and careful consideration has been given to ensure that the cadence, scale and massing of the proposed development is appropriate for the established context. The proposal will also be cognitive of the existing public open space and will be designed to constructively frame the existing green and develop and enhance the area.

#### 5.1 Flood Risk Assessment

The site is located in an elevated position and does not appear to have immediate hazards in terms of a risk of flooding. As per the below excerpt from "floodinfo.ie", national flooding maps indicate that the site is not located in an area of immediate risk of flooding.



Above: Local flood zone in blue hatch, O'Connor Park Estate (site location) defined by red "X"



## 5.2 Archaeology

A Preliminary Archaeological Impact Assessment was carried out on the site by Sarah McCutcheon, Executive Archaeologist with Limerick City and County Council. The Assessment noted, as below, that test trenching should be carried out.

*“The site adjoins an existing small estate, O'Connor Park and there are some service roads in situ. The remainder of the site is large in scale in excess of 0.9ha. The townland boundary between Reerasta North and Ardagh extends N/S through the site and also forms part of the north and south boundaries. The site is partially located within the parameters of a Recorded Monument, LI028-103001, classified as the Historic Town of Ardagh (as defined on the 1997 published record).*

*Archaeological test trenching should be carried out in advance of final design, given the potential proximity of the medieval settlement. - Sarah McCutcheon, Local Authority Archaeologist [04.06.21]”*

## 5.3 Topography

The site is located on a natural slope which has directly influenced the design of the road, landscaping and footpath layout in addition to the levels of the houses. This has primarily impacted the scheme with respect to: pedestrian access and gradients; ground works / retaining elements; varying floor levels; and landscaping to both the public and private open space.

## 6.0 Design Statement

The design approach responds to a number of key site conditions. Firstly, the scheme proposes to create a new junction with the R521 road linking Newcastlewest and Foynes to create the basis for a new urban block and promote urban development and connectivity throughout the town.

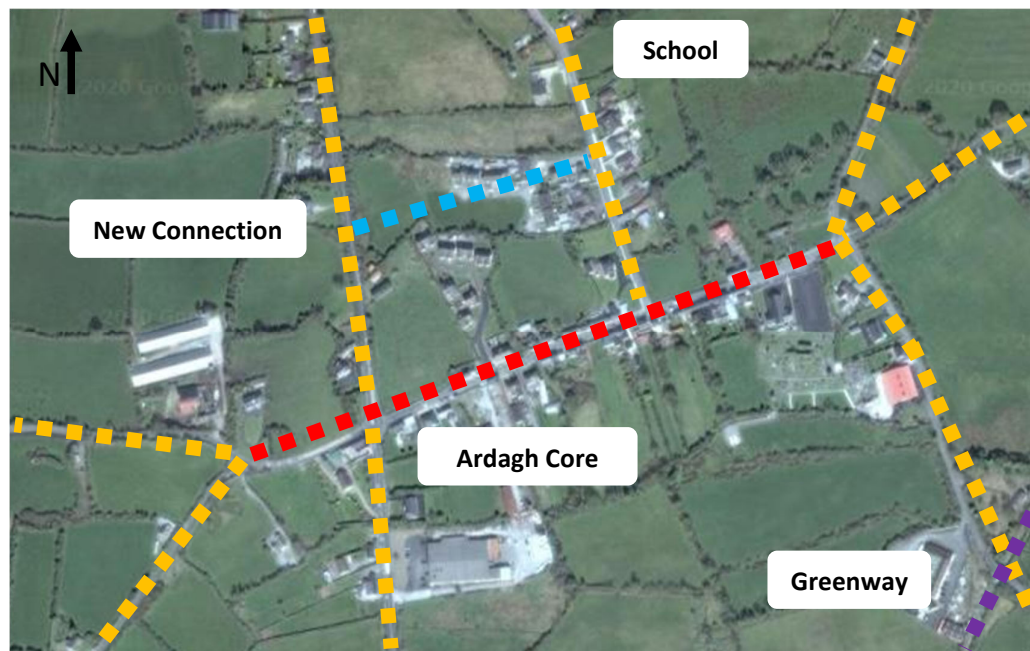
There is a notable slope between the existing road servicing O'Connor Park and the site boundary to the west bounding the R521 road. This factor results in the proposed road turning in an “S” shape to create additional road length and consequently provide height to maintain accessible pedestrian gradients to the footpaths throughout the scheme. This arrangement also reflects the existing layout of O'Connor Park and frames the established public open space. This established central green is also a key consideration and measures will be taken to reinforce and enhance this amenity as a core space in the heart of the development. There is also a pattern (in terms of form and scale) with respect to the existing house types which is reflected in the design of the units. Public realm, house design and passive surveillance are further considerations of note.

## 6.1 Connectivity

With respect to the urban development of Ardagh, a number of points should be noted. Presently, the main street is the focal point of the village, which has a radial development pattern with limited interconnectivity due to the scale of the village. The Great Southern Greenway to the southeast is a potentially important economic contributor to the town and is likely to increase footfall and support local businesses. The local primary school is located to northeast along with the associated sports facilities and there are commercial units dispersed around the perimeter of the town.

The proposal provides an opportunity to enhance connectivity in and around Ardagh town centre. It provides the basis for a new urban block (parallel to the main street) linking the west of the town to the school in the northeast and it contributes to the definition of the settlement boundary (LDP). To note, the Active Travel unit in Limerick City and County Council is also developing a proposal for a new footpath on the R521 which will provide a pedestrian link from the proposed junction back to Ardagh Main Street and reinforce circulation around the proposed block.

The development also promotes the established central green space in O'Connor Park and increases passive surveillance of the space. This creates a more controlled green area adjacent the settlement core. To note, the houses have been strategically located within the proposed site to prioritise these macro objectives, this approach has resulted in the creation of infill sites for future development.

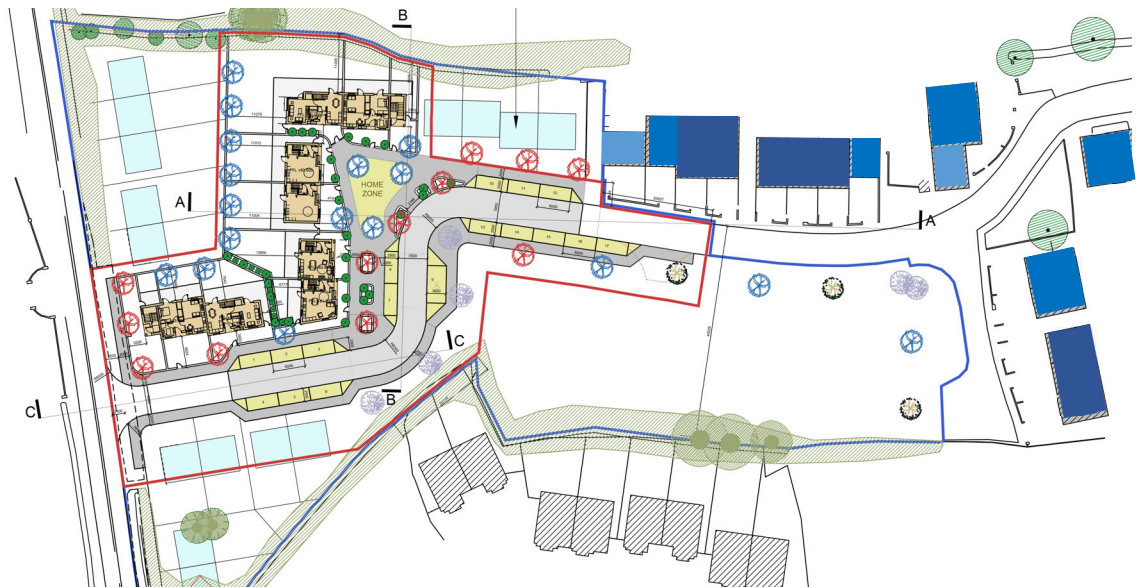


Above – Aerial image illustrating connectivity: Red Dashed Line – Ardagh Main Street; Purple Dashed Line – Great Southern Greenway; Blue Dashed Line – Proposed new connection through O'Connor Park; and, Yellow Dashed Line – indicates outward radial road pattern from the settlement core.

## 6.2 Scale, Form + Finish

The proposal reflects the site location in a rural town setting; incorporating forms and densities appropriate to a village context and rural vernacular buildings. A key factor of influence, in terms of the house design, is the existing estate which is comprised of 20 No. units that are set out in a notable manner.

The existing units consist of: two storey houses; dormer houses; and, one-storey houses. These are set out with a hierarchy of scale: the one-storey units tend to be at the end of each row with an exposed gable punctuating the adjacent row, where a corner is turned; the dormer unit tends to be used as an intermediately between the one storey and the two storey units; and, the two storey houses tend to be in the centre of the rows and step forward, proud of the building line, to extenuate the variation.



*Above – Siteplan illustrating scale / massing approach of existing housing units: light blue indicates one-storey; blue indicates dormer (1.5 storey); and, dark blue indicates two-storey. The siteplan also highlights how the proposed units reference this established pattern.*

The design of the proposed 10 no. housing units responds to this established pattern to form a coherent character throughout O'Connor Park. This is achieved by referencing both the existing character and the layout, particularly by: using punctuating gables where corners are turned; including a stepped building line with staggered ridge levels to the roof; allowing the proposed form to drop in scale at the end of a housing row; and, referencing established finishes.

A number of the units have recessed porch entries and rear gardens which include raised planting beds / landscaped green areas; this is to manage the slope of the site. The front open spaces are efficiently laid out to provide a private defensible front garden to house bins / bikes and planting to soften the front elevations and street.



Above – Image illustrating example of front garden to the Homezone with recessed porch incorporating window, seat and planter.

The houses are finished in painted render with a blue / black slate roof and Aluclad windows. A brick is also used to the front elevations in a secondary capacity to provide variation, contrast and depth. The front boundary treatment will also include galvanised steel railings that will allow for visual permeability and the opportunity for planting to soften the front boundaries over time.

### 6.3 Public Realm

The DMURS and QHFSC guidelines set out objectives and standards for street design, dwelling design, public open space and private open space which have been taken into account and carried through to this proposal.

- The design of internal streets within the scheme, including corner junction radii, footpath and road widths comply with the parameters set out in DMURS. Carriageway widths will be minimised and combined with on-street parking to effectively calm traffic;
- The proposed building forms and interface comply with parameters for the proposed street types and aims to maximise active frontage and passive surveillance, while respecting the privacy of the individual units;
- The selected building materials will reinforce a sense of place with the proposed rough-cast rendered / rendered elevations referencing local vernacular residential units;
- The roads layout within the proposed development will be designed in accordance with guidance set out in the Design Manual for Urban Roads and Streets (2013) and the LDP;
- Trees, footpaths, soft landscaping and high quality public lighting is proposed within and to the perimeter of the site;
- Trees planted will be of sufficient maturity to withstand potential vandalism;
- Provision of privacy strips to each unit with provide transition buffer from public realm.

**Public Open Space:**

The CDP requires the provision of 15% public open space in the case of residential development proposals on greenfield sites. The developable area of the site, as per the red line on the site plan (19122\_102), is approximately .5 ha and consequently the required public open space is .075 ha at 15% of the site area. The proposed Homezone has an area of .05ha, which individually meets the majority of the requirement and, in addition, the established green in O'Connor Park has an area of .3ha. In the context of both the proposed scheme and existing estate this comfortably exceeds the current public open space requirements. It should also be noted that given the consolidated nature of the public open space it is highly functional.

**Shared Surface + Landscaped Area:**

The shared surface area is to be a surface of hard landscaping where people and vehicles share a section of the street space safely, and on equal terms, and has been designed in accordance with guidance set out in DMURS.

The landscaping design has been used to include a high quality and unique hard landscaped homezone (with planter boxes, trees, shrubs and furniture) in addition to enhancements of the established green space to the centre of the estate. The green will have sections of footpaths, planting, drainage works and parking included to increase the functionality of the area and contribute to the individual character of the development. A palette of high quality hard materials and finishes and the careful placement of trees and street furniture will be included ensure a successful outdoor space for residents. Well designed and robust communal features will be incorporated into the area including; seating, so that people can gather and converse in comfort – particularly older people; and, street trees, areas of planting and a pockets of green space will provide a high level of amenity in a small area.

**Private Open Space:**

As per the LDP, 1-2 bedroom houses are required to have a 48 sqm rear garden and 3-5 bedroom houses are required to have a 60-75 sqm garden. Private amenity space [PAS] for apartments is set out in "Design Standards for New Apartments 2020" and one-bedroom units require a minimum of 5 sqm. The 10 no. proposed units comply with these standards as per the table below which outlines the proposed rear garden areas.

Unit No.	Unit Type	Garden / PAS Requirements	Proposed Rear Garden Area
1	1 Bed Duplex Apartment	5 sqm	20 sqm
2	1 Bed Duplex Apartment	5 sqm	46 sqm
3	3 Bed House	60-75 sqm	83 sqm
4	2 Bed House	48 sqm	50 sqm
5	2 Bed House	48 sqm	111 sqm
6	2 Bed House	48 sqm	104 sqm
7	2 Bed House	48 sqm	103 sqm
8	3 Bed House	60-75 sqm	307 sqm
9	1 Bed Duplex Apartment	5 sqm	71 sqm
10	1 Bed Duplex Apartment	5 sqm	38 sqm

Note the design of the units has sought to provide rear gardens to all units, including the upstairs apartments.

#### 6.4 House Design

The design of individual houses for the development aims to create active street frontages and to maximise passive surveillance of the surrounding streets and spaces. All units are provided with own door access. Room sizes within units are based on minimum habitable room sizes set out in 'Quality Housing for Sustainable Communities – Dept. of Environment, Heritage & Local Government, 2007'.

#### 6.5 Passive Surveillance

In order to create a safe and secure environment for residents, the proposed development emphasises an active frontage along the street and public open space. The scheme is designed with each dwelling type including forward facing living / kitchen-dining space to maximise overlooking of public areas. Elevations are designed to incorporate large windows to enhance passive surveillance of the entrances, street and landscaped area.

## 7.0 Accessibility

The proposed scheme aims to foster an inclusive approach to the design and construction of the public realm and new residential building developments. The site development works and residential units have been designed to comply with the requirements of Part M 2010, Section 3: Access and Use of Dwellings.

- The approach to dwelling entrances will be level or gently sloping;
- Main entrances will be accessible;
- Internal corridor widths / clear widths of doorways comply with TGD Part M requirements;
- All units will be provided with an accessible WC;
- Switches and sockets will be located at accessible heights; and,
- Rear gardens have been designed to accommodate accessible access.

## 8.0 Car + Bike Parking

As per the LDP the following tables address the requirements for car and bike parking in the proposed development.

Car parking requirement	Resident requirement	Visitor requirement	Total
Three-bed houses (2 no.)	1 space p/u (2 no.)	1 space per 3 no. Units (.6 no.)	2.6 spaces
Two-bed houses (4 no.)	1 space p/u (4 no.)	1 space per 3 no. Units (1.3 no.)	5.3 spaces
One-bed apartments (4 no.)	1 space p/u (4 no.)	1 space per 3 no. Units (1.3 no.)	5.3 space
<b>Total</b>	<b>10 No Resident Parking</b>	<b>3 No Visitor Spaces</b>	<b>13 No Total</b>

Note: 17 No. spaces are proposed including an accessible space.

Bike parking requirement	Resident requirement	Visitor requirement	Total
Three-bed houses (2 no.)	1 space p/u (2 no.)	1 space per 2 no. Units (1 no.)	1.5 spaces
Two-bed houses (4 no.)	1 space p/u (4 no.)	1 space per 2 no. Units (2 no.)	4.5 spaces
One-bed apartments (4 no.)	1 space p/u (4 no.)	1 space per 2 no. Units (2 no.)	6 spaces
<b>Total</b>	<b>10 No Resident Bike Parking</b>	<b>5 No Visitor Spaces</b>	<b>15 No Total</b>

Note: Visitor bike parking will be provided on site, resident bike parking will be provided within each garden.



## **9.0 Materials + Construction**

The building materials will be of a high quality with a focus on robust materials that reduce the requirement for excessive maintenance works. This will include rendered elevations with plinths and sections of brick elevations and brick to boundary walls.

Fibre cement slate roofing, aluclad windows and galvanised steel railings and gates are also proposed. Quality, durable materials will also be selected for external and landscaping finishes – street lighting, paving etc. It is envisaged that a timber frame with external masonry leaf construction will be used to reduce the carbon footprint of the development, relative to traditional cavity wall construction (concrete inner and outer leaf).

## **10.0 Mechanical + Electrical Services**

### **10.1 Electrical Supply**

An existing ESB supply is located at the entrance to the existing estate, this will provide the basis for an individual ESB connection for each residential unit. In order to ensure a clear and uncluttered appearance of the public realm, all mini-pillars will be concealed in boundary walls. A duct is to be included to the roadside parking spaces to provide provision of services for electric vehicle charging points in future. Refer to annexed Mechanical and Electrical Engineer's documents.

### **10.2 Telecom Services**

An existing Eir chamber is located at the entrance to the existing estate, this will be the basis for the distribution of telecoms ducting. Individual underground telecom ducts will be distributed to each of the new residences in the zone from a designated telecom distribution network.

### **10.3 Television**

TV cabling and TV points shall be provided within each residential unit. Wire ways and data cabling shall be provided for broadband facility within each residential unit.

### **10.4 Heating**

An exhaust air heat pump (EAHP) unit will be installed in each house complete with flexible connections and anti-vibration mountings. Wet areas such as utility rooms, bathrooms, en-suites, and kitchens will be provided with extract grilles from manifolds. Refer to annexed Mechanical and Electrical Engineer's documents for further and more detailed information.

## 11.0 Energy + Environment

### 11.1 Thermal Performance

U Values of individual elements of the buildings will be within the maximum elemental U-value standards set out by Technical Guidance Document Part L of the Building Regulations.

### 11.2 Water Conservation

All units will be provided with low or variable capacity flushing toilets as well as low volume taps and showerheads. Compact water distribution systems will be provided to hot water distribution pipework. Grey water systems will also be included with water storage tanks, connected to the rear rainwater down pipe / drainage system, provided to the rear garden for external domestic use / gardening.

### 11.3 Refuse

All units will be provided with individual secure bin store areas, located within the privacy strip at the front of the units or to the rear, in the case of semi-detached units with side access. These bin store areas will be robust in nature and will be constructed to match the front garden boundary construction.

### 11.4 Biodiversity

The scheme design has been developed with reference to guidelines set out in the publication Biodiversity in New Housing Developments: Creating Wildlife-Friendly Communities - NHBC Foundation 2021. In this respect, the existing hedgerows to the boundaries are being retained (where possible) and the proposed works will be sensitive to that effect. This will incorporate these green buffers to help to maintain cover for the flight of bats and birds. The retention of the hedgerow, and associated Trees, will also retain a natural habit and provide a means for wildlife to move in and out of the green spaces around the proposed scheme. It will also provide shelter to the rear gardens and the public open space which will contribute to the amenity of the scheme. In addition, areas of the public open space will also be landscaped and include wildflower meadow areas in line with the "avoid, minimise, rehabilitate, compensate / offset" framework for new greenfield housing development.

The provision of integral roost and nest sites / bee blocks will also be included to the facades / boundary walls to provide nesting sites for bats, house sparrows, starlings and solitary bees. These will be set out to provide shelter, passive solar gain, proximity to the existing hedgerow and support for native / migratory colonial species.

## 12.0 Drainage

### 12.1 Water Supply

It is intended that the scheme will connect to the existing services present in the housing estate, a pre connection enquiry has been made to Irish Water and the scheme has received approval in principle. Please refer to consulting engineer's enclosed documents for further information.

### 12.2 Foul + Storm Drainage

It is intended that the scheme will connect to the existing services present in the housing estate, a pre connection enquiry has been made to Irish Water and the scheme has received approval in principle. Please refer to the consulting engineer's enclosed documents for further information.

### 12.3 S u D s

As per LDP policy on surface water drainage, a sustainable urban drainage system will be incorporated into the design to manage surface water across the site. In terms of the approach, hard surfaces will be avoided, where practicable, and soft surfaces to encourage the slow-down of water run-off will be specified. The principles of the SuDs management train will be implemented through the use of swales / rain gardens to both the back gardens and also to the green spaces throughout the public open space. Permeable paving will be included to hard landscaped areas as appropriate. As broached, grey water storage tanks will also be installed to the rear gardens to provide domestic grey water systems for garden use. Please refer to consulting engineer's enclosed documents for further information.

## 13.0 Conclusion

This Part 8 Report demonstrates how the enclosed 10 no. unit housing proposal in O'Connor Park has been designed and developed to constructively address: local urban design objectives, the site and the characteristics of the local context; planning objectives; heritage, conservation and archaeology; accessibility; parking and bicycle facilities; services; materials and construction; and, environmental considerations.

The scale of the proposal is in compliance with development plan objectives and the design approach is justified considering the location and local character. The scheme is a well-considered proposal that will positively address local housing demand in Ardagh and contribute to the growth of the unique urban fabric of the village.

## PRE-PART 8 INTERNAL SUBMISSIONS

<b>TO:</b>	Planning Department, Limerick City & County Council
<b>FROM:</b>	Don Shorten, Executive Architect LA Housing Construction + Maintenance
<b>DATE:</b>	Friday, 24 <sup>th</sup> June 2022
<b>REFERENCE:</b>	Part 8 Submission for the development of 10 no. housing units at O'Connor Park, Reerasta North, Ardagh, Co. Limerick

These appendices relate to the Part 8 planning process for the above noted scheme at O'Connor Park, Ardagh, Reerasta North, County Limerick. A copy of the preliminary scheme design documentation was circulated to LCCC departments by email dated 3<sup>rd</sup> June 2022.

A summary of personnel to whom design information was issued to along with a record of comments received in response is scheduled hereafter. Note in some cases comments were received prior to the issue date as collaboration took place during design development.

<b><i>Name:</i></b>	<b><i>Issued:</i></b>	<b><i>Comment Date:</i></b>	<b><i>Reference:</i></b>
Tony Carmody	03.06.2022	02.02.2022	Refer Appendix B
Darragh Ryan	03.06.2022	-	
Brian Bourke	03.06.2022	-	
Tara Flanagan	03.06.2022	-	
Pat Fitzgerald	03.06.2022	-	
Simon Jennings	03.06.2022	-	
Sinead Kennedy	03.06.2022	-	
Robert Gallagher	03.06.2022	-	
Sean McGlynn	03.06.2022	22.06.2022 (B.H.)	Refer Appendix C
Sarah McCutcheon	03.06.2022	04.06.2021	Refer Appendix A
Tom O'Neill	03.06.2022	-	
Tom Cassidy	03.06.2022	-	
Michael Ryan	03.06.2022	-	

**Appendix A - Submission (1)**

**Sarah McCutcheon**

**Archaeology**

**04.06.2021**

**Submission Details:**

Comments received in respect of the Scheme Design proposal as circulated are itemised hereafter.

*LA Housing Construction + Maintenance comments are included in respect to each point (in blue / italic font) for clarity.*

<b>Archaeology</b>
<b>Preliminary Assessment</b>
<p>The site adjoins an existing small estate, O'Connor Park and there are some service roads in situ. The remainder of the site is large in scale in excess of 0.9ha. The townland boundary between Reerasta North and Ardagh extends N/S through the site and also forms part of the north and south boundaries. The site is partially located within the parameters of a Recorded Monument, LI028-103001, classified as the Historic Town of Ardagh (as defined on the 1997 published record).</p> <p>Archaeological test trenching should be carried out in advance of final design, given the potential proximity of the medieval settlement.</p>
<p><i>Noted, test trenching will be carried out during detail design stage.</i></p>

## Appendix B - Submission (2)

**Tony Carmody**

**Roads Observations**

**26.05.2022**

### Submission Details:

Comments received in respect of the Scheme Design proposal as circulated are itemised hereafter.

*LA Housing Construction + Maintenance comments are included in respect to each point (in blue / italic font) for clarity:*

### **Roads Observations**

#### **Traffic & Pedestrian Issues:**

- A Road Safety Audit Stage 1 & 2 must be submitted for approval. The recommendations of the Road Safety Audit shall be shown on a revised Site Layout Plan, clearly show and labelling the recommendations.
- Sightlines will be impeded by the proposed introduction of car parking to the north of the new junction. A revised Site Layout Plan is required clearly indicating how sightlines and stopping sight distances will be achieved. The car parking space shall be relocated and any boundary or service poles within the clear sight triangle that is interfering with the sightlines must be shown set back. The applicant shall demonstrate that the required sightlines from a point 2.4m back from the road edge to the nearside road edge can be achieved.
- Sightlines and stopping sight distances shall be achieved in line with the "DMRB".
- The applicant is to highlight on this drawing any boundaries belonging to adjacent landowners to the north and south of their site that will require setback in order to improve the sightlines. This may require boundary setback and or vegetation removal and either are to be highlighted and labelled on the revised drawing. Written permission to adjust and maintain any boundaries outside of the ownership of the applicant must be submitted.
- The new junction shall be suitably dished on either side of the junction with the inclusion of tactile paving.

- The advance ramps signs from the east approach are too close to the ramp and should be relocated further away in line with the "Traffic Signs Manual" to give sufficient advance warning.
- While 'SLOW ZONE' signage has been included, there must be regulatory speed limit sign on the opposite side of these signs to indicate the speed limit of the main road.
- The type of traffic calming indicated for the development consists of a ramp, which is a flat top ramp (raised platforms). The cross section shown on the layout is incorrect and shall be revised. This shall be constructed in line with diagram 6.34 of the "Traffic Management Guidelines" from the Department of Transport. If the height of the ramp exceeds 75mm then the sloped section of the ramp should be extended to compensate.
- Consideration should be given to softening the bends within this development.
- A revised Site Layout Plan is required to show all radii, road/footpath widths & car parking dimensions.
- Longitudinal road sections are required.

#### **Public Lighting Arrangements:**

- The column heights must be agreed with our Public Lighting Team prior to the design being carried out.
- A detailed lighting design shall be submitted. The design shall include sufficient survey detail / background detail to clearly show the **lux/contour** levels generated by the proposed lighting installation.
- The lighting design shall be designed and signed by a competent Lighting Design Engineer, which shall comply with BS5489:2013 and BS EN 13201:2003.
- The lighting design shall include a legible plot of the lux/contour levels superimposed on the Site Layout Plan to a scale of **1/500** (along with supporting calculations) ensuring maintained minimum point illuminance as outlined below is achieved for Limerick City & County Council's approval.
- The Public Lighting Layout shall indicate the location of **all** lighting columns, ducting, micro and shall include their reference numbers (as per design calculations), the supply circuits, ESB and Local Authority micro pillars and shall include a schedule of lanterns to be installed, inclusive of proposed lantern type and including a photograph.



- The lanterns must be equipped with electronic control gear, controlled by photocells (photocells have individual NEMA sockets on each lamp for standard photocell) Photocells shall be seven-prong twist lock NEMA socket or equivalent with a photo electronic switch. **Micro photocells are not be acceptable.**
- All lighting infrastructure shall be located in the public realm, with lighting columns typically shown to the rear of footpaths.
- Limerick City and County Council requires a 10 year manufacturers **Parts and Labour Warranty on Lantern** to be submitted (not a limited warranty). The warranty must state the development to which it covers, and that the supplier is satisfied that this warranty can be handed over by the Applicant/Developer to the Limerick City and County Council when the development is taken in charge or any phase of the development.
- Limerick City and County Council requires a 10 year manufacturers **Parts and Labour Warranty on Photocell** to be submitted. The warranty must state the development to which it covers, and that the supplier is satisfied that this warranty can be handed over by the Applicant/Developer to the Limerick City and County Council when the development is taken in charge or any phase of the development.
- The warranty period will commence when the lighting has be fully erected certified and is fully operational and all certification is received and agreed with the Planning Authority.
- All lighting columns shall be octagonal galvanised steel to BS EN40 as outlined below.
- The Recommended Minimum Specification for Public Lighting shall be as follows:
- The specification for the LED Lanterns (Ra>60) is lighting Class S3/P3;
- The LED's have a required maintained minimum point illuminance of **1.5 lux** for proposed and existing footways & average illuminance of **7.5 lux** for roadways and car parking areas;
- Lighting columns are designed to BS EN 40. LED Lantern, minimum of 150lumens/w;
- Neutral White 4000K. Side-Entry or Post-Top Mounted. LM6 Marine Salt Protection;
- Ingress Protected IP66. Impact Resistance IK09;

- Lantern (luminaire) types are commonly used brands Certified to BS EN 60598-1:2008;
- LED installations comply with the IET Code of Practice for the Application of LED Lighting Systems 2014;
- Dusk to midnight switching is provided in walkways, amenity and play areas, dusk to dawn otherwise;
- The lantern type is a SEAI triple E Registered product;
- The specification for the LED Lanterns (Ra>60) is lighting Class S3/P3;

**Surface Water Disposal:**

- A CCTV Survey/report and layout plan for the existing storm water system from it is proposed to form a new manhole on the existing out the main junction to the east to demonstrate its condition a suitability.
- The Surface Water Disposal Layout Plan submitted does not satisfactorily address SuDs. The layout submitted lends itself for the inclusion of a SuDs train. The applicant shall submit a revised Surface Water Disposal Layout Plan to the planning authority for approval with the introduction of the following: – FI
- All manholes clearly numbered, cover/invert level, direction of flow of pipes road gullies, flow control device, attenuation tank (or SuDs alternative), and Class 1 Petrol Interceptor;
- Show location of vent pipes for attenuation tank and Class 1 By Pass interceptor as this will be in the green that may be used for playing or walking on, the vent pipes will have to be extended out of the ground;
- Show housing unit for alarm/messaging system for Class 1 By Pass interceptor;
- Show SuDs how the permeable parking areas are all connected together with access chambers for maintenance and with over flow system with connection to main surface water system;
- Rain garden/tree pits & swales with overflow system with connection to main surface water system;
- If the applicant is proposing to infiltrate any section of the development to ground the infiltration test results by way of the BRE365 method including supporting

photographs and a cross section showing construction build up must be submitted to the planning authority for approval.

- As we have requested the above SuDs measures. The following issues shall be submitted to the Planning Authority for approval:
- A detailed cross section through the rain garden/tree pits showing construction build up for each layer with clear specifications, which shall include for an overflow system.
- A detailed cross section through the swale showing construction build up for each layer with clear specifications, which shall include for an overflow system. This shall also include the side slope gradients, take into account how it will be maintained.
- A longitudinal section for the swale shall be submitted for approval.
- Details on the over flow pipe systems.
- Submit risk indices to areas of the development dependent on their land use to represent the level of pollution that is typically generated and therefore must be 'treated' with SuDs components to meet water quality standards.
- Submit mitigation indices to demonstrate that it is greater than risk indices.
- The applicant shall confirm that all surface water sewers and manholes construction details submitted are in line with the IW Code of Practise.
- As the applicant will be including SuDs components to the surface water design, this should have an effect on the overall design, therefore, the Applicant shall submit surface water calculations by way of simulation modelling Micro Drainage or Causeway to include for the following:
- Confirm that if the manhole that is to be constructed on the existing gets flooded or blocked that the calculations have allow for capacity in the system should the surface water system become hydraulically locked and does not have a free flowing outfall;
- The calculation for SuDs measures should be shown as part of the calculations;
- Hydraulic modelling shall be submitted for the **design of the pipes at a 1/5** year return period;
- Hydraulic modelling shall be submitted for the design of the network at a 1/30 year return period to include all pipelines, that requires that no flooding occurs;
- Hydraulic modelling shall be submitted for the design of the network at a 1/100 year return period to include all pipelines to show that properties are protected against flooding.

- The modelling shall clearly demonstrate that there is sufficient freeboard on the finished floor levels;
- Summary of Critical Results by Maximum Level (Rank 1) for Storm Design for both the 1/30 & 1/100, must include water level result so that we can establish sufficient freeboard;
- The modelling shall confirm discharge levels, which shall not exceed 2 l/s/ha or Qbar whichever is the greater restriction. Qbar must be calculated using the Net area drained and not the gross area of the site (i.e. red line boundary). This discharge rate shall be marked on the manhole in which the flow restricting device is located;
- The modelling shall demonstrate the pipe velocities, climate change of 30% plus 10% for urban creep;
- All online controls & storage systems;
- Minimum pipe diameter 225mm;
- Minimum pipe velocities 1.0m/s.
- The applicant shall submit longitudinal sections to the planning authority showing ground level, manhole with numbering to match Surface Water Disposal Plan, cover/ invert levels, pipe lengths, pipe diameter, pipe gradients, flow control manhole.

*A number of the above noted items were addressed and agreed prior to the formal Part 8 submission. Any items that have not been finalised will be coordinated and agreed at detail design stage and prior to construction.*

**Appendix C - Submission (3)**

**Barry Henn**

**Active Travel**

**22.06.2022**

**Submission Details:**

Comments received in respect of the Scheme Design proposal as circulated are itemised hereafter.

*LA Housing Construction + Maintenance comments are included in respect to each point (in blue / italic font) for clarity.*

<b>Active Travel</b>
<p>There are no significant concerns with the proposal from an Active Travel perspective.</p>
<p><b>Cycle Storage</b> It is noted that cycle storage is proposed in the rear gardens of the dwellings. This is welcomed in principle and would help to facilitate and contribute to Active Travel. It is however recommended that the cycle storage is secure and covered and that the locations of the storage units are shown indicatively on the site layout plan to ensure that there is adequate space to accommodate them.</p>
<p><b>Footpath</b> It is noted that 2m wide footpaths are proposed in both directions at the entrance to the site leading to the R521. This is seen as positive in terms of the widths proposed and the increased levels of accessibility that would be created on the eastern side of the site.</p>
<p><i>Noted, cycle storage units will be incorporated into scheme design.</i></p>