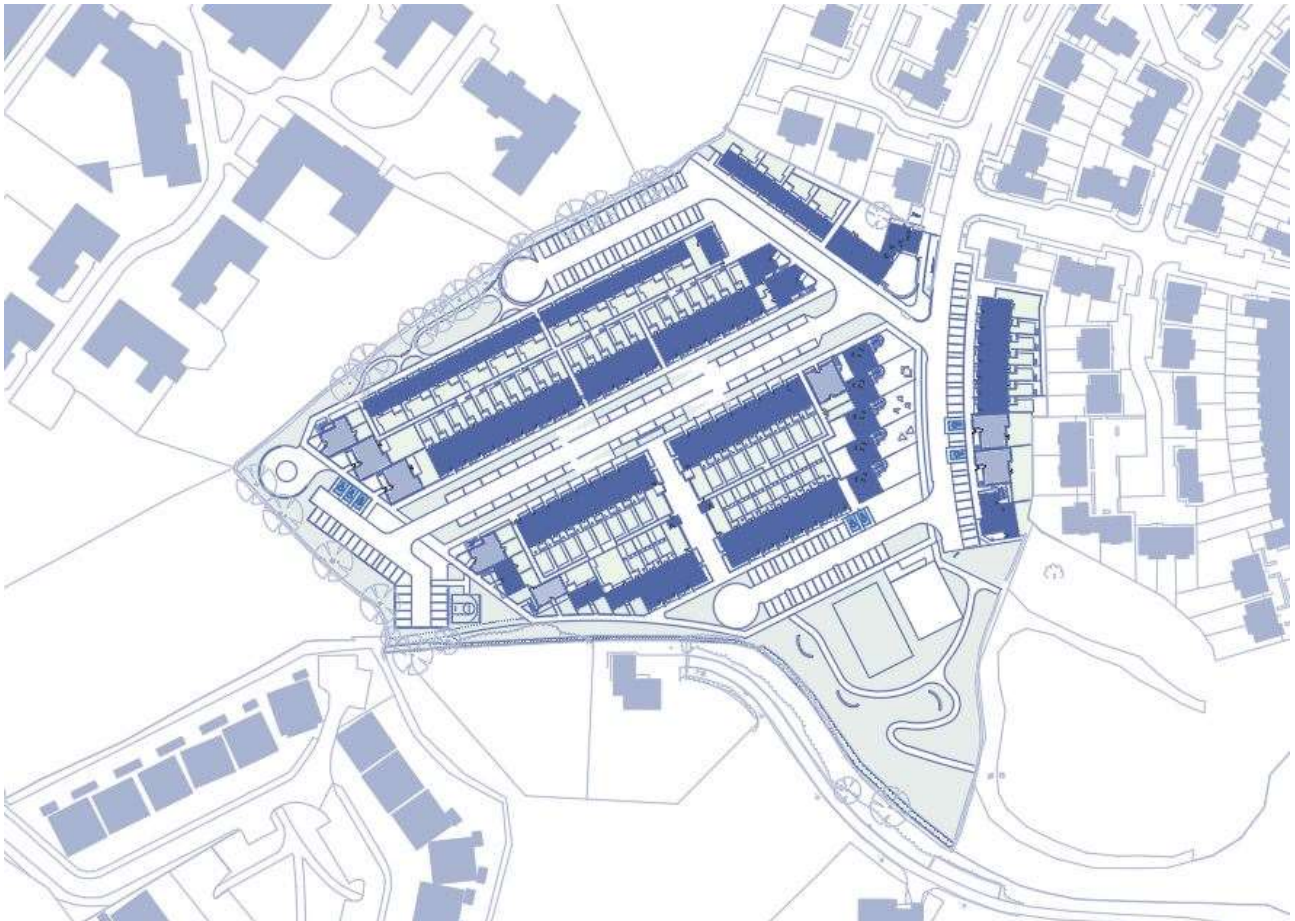


Galway City Council

Proposed Affordable and Social Housing Development

Merlin Lands, Galway

Part VIII Design Report



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Executive Summary

This report is the formal submission by the appointed Design Team presenting a defined social and affordable housing proposal for Part VIII planning approval. The proposals are based on best practice design and current building and safety standards. The nature, extent and implications of the proposed works are as follows:

Architectural

It is proposed to build a social and affordable housing development of 103 units in two and three storey buildings on lands belonging to Galway City Council at Merlin Woods, Galway. The proposed 103 units comprise 79% houses and 21% apartments/duplexes, with the latter all being own-door units. 78% of the units are 2 bed units, 14% are 3 bed units and 4% are 1 bed units and 4 bed units each. Social housing blocks will be integrated into the affordable housing scheme, evenly distributed throughout the site. This proposal will cater for standard, age friendly, live/work opportunities and people with disabilities, on an area of residentially zoned land available for immediate development. Out of the 18 social dwellings proposed, 4 are intended to address the growing needs of Galway City Council to provide housing specifically for disabilities. It is not proposed to meet individual requirements of intended residents but instead to provide a mix of types. Refer to architectural Drawing House Type 05 for design of the proposed layout.

The proposed design has adhered closely to all relevant technical guidance documentation, including the following:

- o Quality Housing for Sustainable Communities,
- o Sustainable Urban Housing: Design Standards for New Apartments (December 2015),
- o Urban Design Manual – A Best Practice Guide,
- o Guidelines for Planning Authorities,
- o Galway City Development Plan 2017 – 2023.

Civil and Structural

A full site investigation survey has been carried out to establish the extent of abnormal works required. A geotechnical site investigation for the proposed development took place between 15th September and 4th October 2020. The ground types encountered in the exploratory holes in approximate stratigraphic order are; 1) topsoil: encountered across the site with a thickness range of 200-400mm, 2) Glacial Till: sandy gravelly clay/silt, frequently with low cobble content, typically firm or stiff in upper horizons, becoming very stiff with increasing depth and 3) Bedrock (Limestone): Rock head was encountered at depths ranging from 0.50m to about 3.85m and generally shallower in the south east areas of the site. Concrete raft type foundations are proposed on compacted hard-core on the reduced rock bed. The superstructure will be of conventional cavity wall construction with precast concrete flooring between apartments and timber floor structure elsewhere, and cut timber or trussed roofs. Preliminary layouts have been prepared for main foul and surface water routes and levels, and these tie in with the existing Coillte Mhuirinne estate. The detailed configuration of water attenuation will be determined at the next stage but preliminary areas/volumes are shown. Refer to Civil and Structural drawings, documents and reports for further details.

Services

Utility connections are available in the proximity of the site and foul/storm sewers are located nearby. ESB, Eir, Virgin Media and Gas Networks Ireland records for the site and included in the supporting documents. A Pre-Connection Enquiry Form (IW Ref Nr. CDS20004597) was submitted to Irish Water. The Confirmation of Feasibility letter returned confirmed that the existing wastewater drainage infrastructure has sufficient capacity to serve the proposed development, subject to upgrade works to the Merlin Park No. 1 pumping station to provide additional storage. These works are currently being delivered by Irish Water and a connection can be facilitated upon completion. O'Connor Sutton Cronin & Associates (OCSC) Consulting Civil and Structural Engineers have studied the site and have prepared detailed drawings and documents in support of the proposed site services. In summary, it is proposed to separate the surface water and wastewater drainage networks, which will serve the proposed development, and provide independent connections to the adjacent surface and wastewater sewer networks respectively. The proposed development is to be served by a gravity surface water drainage network discharging to an infiltration system onsite before a controlled discharge to the existing surface water network to the east with an element of infiltration to ground. Sustainable Drainage Systems are to be provided such as pervious paving and filter drains, with discharge rates from site to the existing surface water network being restricted to the Greenfield equivalent runoff rate, for design rainfall events up to and including the 1% AEP. All proposed wastewater sewer design has been carried out in accordance with Irish Water's Code of Practice for Wastewater Infrastructure. A new wastewater connection, serving the proposed residential development, is to be provided to the existing wastewater network to the south-east as per Irish Water's Confirmation of Feasibility. All proposed potable water design has been carried out in accordance with Irish Water's Code of Practice for Water Infrastructure. A new 150 mm HDPE water main connection is to be provided from the existing 200 mm

uPVC water main in the Coillte Mhuirlinne estate as per Irish Water's Confirmation of Feasibility. The Engineering Services report is included supporting documents for further information.

The typical building services will be discussed by the Design Team appointed at the Tender stage. The preliminary strategy is based on similar type projects completed recently with gas condensing boilers, a central mechanical extract system, and photovoltaic roof panels. The air permeability target of 3m³/hr/m² and target elemental U-Values will be applied.

Landscape

An external Landscape Architect has been appointed. Their design proposes to retain as many trees, hedgerows and existing ground vegetation as possible on site, while also freeing up development space at the centre of the site. The overall context of the site being adjacent to Merlin Woods forms the key design principal in their proposal. It will provide a strong access link to the woods and embrace the opportunity to connect pedestrian routes eastwards from the site. Several interesting pedestrian spaces are proposed throughout the scheme that cater for all ages and users, with the concept to provide a diversity of interaction and usage across the site, maximising all of the open space available. The proposed landscape features include an urban plaza, wide tree lined streets, pedestrian/cyclist only access paths, pollinator garden, sensory garden, mini basketball court, playground, informal ball play area, picnic benches etc. The proposal has been discussed with the Parks Department and any issues arising have been addressed in their current scheme.

A. Architectural Design Report

A.1. Brief

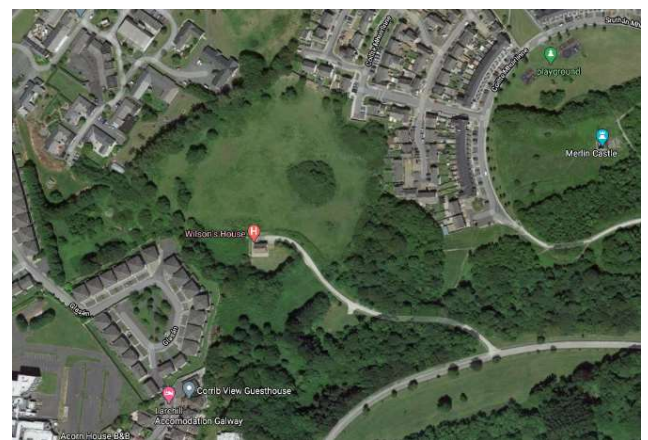
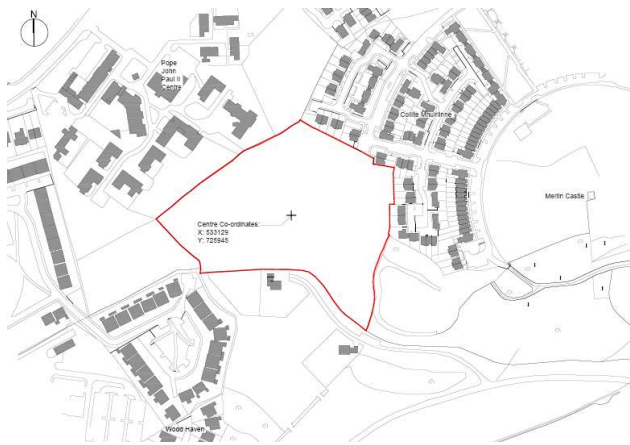
The project brief is to provide an affordable and social housing scheme with a mix of typologies and tenures suitable for lifetime use, on an area of residentially zoned land available for immediate development. The new development will have regard to its surrounding context, provide for linkages with local facilities and create a high quality and sustainable living environment. The main body of the project is to be affordable housing. The Site Service Fund from the Department has afforded GCC the opportunity to subsidise housing for people who do not meet the social housing criteria. Approximately 80% of the scheme will be affordable with the remaining 20% dedicated to social housing. Social housing blocks will be integrated into the affordable housing scheme, evenly distributed throughout the site.

The density achievable is limited by the steep nature and geometry of the site, particularly the narrowing to the south. The density and dwelling mix has been presented to the Planning Department and proposes a majority of the development being 2 bed and 3 bed, with a small number of 1 bed and 4 bed apartment/dwellings. A crèche is proposed on site. As per the Development Plan, in all new housing areas over 75 units, provision of 1 childcare facility with minimum 20 child capacity is required. The local need for a crèche has been assessed by contacting the nearby childcare providers and determining their current capacity, most of which are at full capacity. On the curved street a number of live work units have been introduced. Together with the crèche building this area would be seen as a focus for the community while the streets behind would be more domestic in nature.

A.2. Site Context

A.2.1. Site Description

The site is located in a transitional area at the outer edge of the Established Neighbourhood of Ballybaan, Merlin Park and the Outer Suburb of Doughiska. It has one existing vehicular access point from Coillte Mhuirinne, which has been left ready to connect into the proposed site. It is located in an existing neighbourhood of mixed tenure and mixed income in nature with residential estates to the north east and south west. To the North West is the Pope John Paul II Centre and to the south is an access road to Merlin Hospital and linkages to Merlin Woods and Castle. There is a small land locked site to the west, which has potential in becoming Phase 2 of the development.



Above left: Site Location Map

Above right: Aerial view of site showing extensive mature trees/woodlands

The site, measuring 2.94 ha in total, is steeply sloping with an overall 13.5m drop from north to south. A significant portion of land to the south (1,317m²) is to be retained as open space due to the steep nature of the site and the impracticality of development in this location. The site is bound on the north and west by existing 2m to 2.4m high stone walls and mature trees. Blockwork walls to the rear gardens of Coillte Mhuirinne create the boundary to the east and to the south is a wire fence and low height shrubs with a significant drop outside the boundary.

The site is mainly in permanent pasture on a thin layer of topsoil over limestone rock. There are trees growing along the perimeter on the west, northwest, north and east boundaries, There is also a central coppice of mainly Blackthorn, with a few larger trees growing in its centre. Part of Merlin Woods takes up the Southeast corner of the site. Currently the land is being grazed by horses and supports thin grass cover and a high population of wild flowers. Along the boundaries and through the areas of trees, there are taller weeds / wild flowers growing.



Above left: View of natural boundary to south west of site, outside of site.



Above centre: Blockwork walls at boundary to be retained.

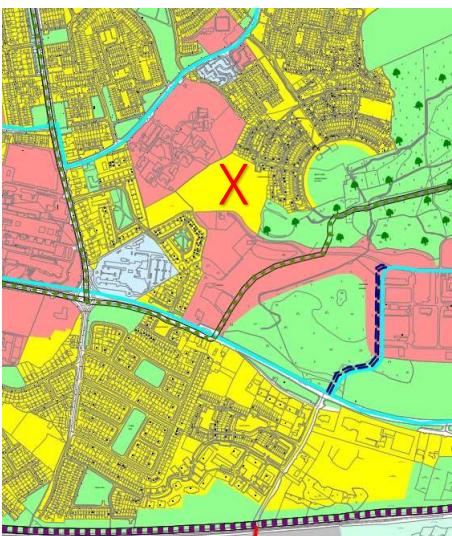


Above right: Existing stone wall at boundary to be retained or made good where possible.

A topographical survey of the site has been carried out and included in the drawing package. An Invasive Alien Species survey of the site was also obtained. The report, I.A.S Survey Merlin Housing Lands 2020, is included with the survey information. Following an examination of the entire site insofar as was possible, no I.A.S. were found to be growing on the site.

A.2.2. Planning Context

The site is zoned R – Residential and is located at the outer edge of an Established Suburb. Section 2.6 Neighbourhoods: *Established Suburbs (CDP)* states that new residential development will have regard to its surrounding context, provide for linkages with local facilities, a mix of house types and a layout that will provide for a high quality living environment. In addition the CDP advises that new housing development should respond to its context. The context includes the natural environment, the form of settlement, building and spaces, landscape features, contours, historical/archaeological features and local biodiversity.



Above left: Extract from Galway City Council Development Plan 2017-2023 - City Map with site marked X.



Above right: Location of facilities in close proximity to the site. Included in Stage 1 Capital Appraisal Application.

It is proposed to develop a social and affordable housing scheme with a mix of typologies and tenures suitable for lifetime use. The dwelling mix, ranging from 1 bed – 4 bed units, comprises of houses, apartments, duplexes and live/work units and integrates age friendly and special needs units. The addition of the live/work units provides for community facilities with the ground floor of these 5 units intended for retail/office/hospitality use. Locating the proposed crèche in this area introduces a civic space to the development with the quieter residential streets behind. On consultation with the Executive Planner for the area (30.06.2020), the live/work units were deemed open for consideration under the R residential land use zoning objective, therefore the proposed use of lands is compliant with the Development Plan. In addition to these community services, the site has a range of facilities in close proximity from green parks and community centres to hospitals and hotels and is located within walking distance to a main public transport corridor.

The proposed site design allows the project to face south towards the striking vista of Merlin Woods. As the ground is elevated the housing will sit at the same level as the tree tops and will have excellent natural light. The main area of public open space will be connected to this view and will become part of the greater Merlin Woods. There is a lot of quality identified

in the existing landscape features of the site. By not facing rear gardens onto the existing site boundaries these features can be retained. This will add to the quality of the residential amenity, reduce construction cost, have a lower impact on the natural habitat and have a good quality relationship between the built environment and green zoned land. It also allows for future connections and permeability of adjacent sites.

The site is quite steep in section. As a result it is proposed to develop naturally along the existing contours. Excavation will be minimised in accordance with soil protection and conservation strategic protection measures and targets of the Strategic Environmental Report of the City Development Plan 2017-2023 and proposed development works be responsive and sympathetic to surrounding contours. This allows for level streets, which promotes level access and ease of foundations/groundworks.



Above: Site section following site contours.

A.2.3. History and Archaeology



On review of the Historic Environment Viewer on the National Monuments Service website there appears to be no evidence of archaeological implications to the proposed site. Areas of interest are confined to Merlin Castle, Woods and hospital area, shown as red dots on the below map. The archaeology potential of the site has been discussed with Galway City Council Planners and no area of interest has been noted on the proposed site.

Above: Extract from Historic Environment Viewer.

A.2.4. Environmental Considerations



In view of site proximity to Merlin Park Woods the presence of natural habitats was examined. It is clear based on the geographical data sets that there are no natural habitats of importance on site. Nevertheless mitigation measures such as a comprehensive landscaping scheme with suitable native species and bat protection measures have been incorporated into the design. Access routes shown into the WD1 habitat will be for pedestrians and cyclists only.

Above: Natural habitats in the vicinity of the site, of note is WD1 Broadleaved Woodland of Merlin Park Woods.

A.2.5. Site Ownership

The entire site is in the possession of Galway City Council and there are no easements, rights of way or other restrictions to be taken account of in the design development, other than the services crossing the site, described in the relevant consultants' reports.

A.2.6. Site Surveys

A.2.7. Ground Investigation

O'Connor Sutton Cronin & Associates (OCSC) Consulting Civil and Structural Engineers carried out a geotechnical site investigation for the proposed development. A summary of their site operations comprised the following;

- Fifteen boreholes by dynamic (windowless) sampling methods
- Fifteen boreholes by rotary drilling methods
- Thirteen machine dug trial pits
- An infiltration test performed in four trial pits
- Indirect CBR tests at eleven locations.

A summary of the ground types encountered in the exploratory holes is listed below, in approximate stratigraphic order:

- Topsoil: encountered across the site with a thickness range of 200-400mm.
- Glacial Till: sandy gravelly clay/silt, frequently with low cobble content, typically firm or stiff in upper horizons, becoming very stiff with increasing depth.
- Bedrock (Limestone): Rock head was encountered at depths ranging from 0.50m to about 3.85m and generally shallower in the south east areas of the site

The Ground Investigation Report by sub-consultants Causeway Geotech can be found in the supporting Engineers documents.

A.2.8. Site Access

Site access is a continuation of the existing infrastructure within the Coillte Mhuirlinne estate and both estates will share the existing site entrance on Castlepark Road. A Traffic and Transportation Assessment has been carried out by OCSC, which looks at the baseline road network, public transport accessibility and the impact of the development on the nearby road network. Please refer to the Traffic & Transportation Assessment for further information. The Design Team met with Galway City Council to discuss and agree the road layout and transportation strategy for the scheme.

A.2.9. Site Services

E.S.B., water. Eir and Virgin Media connections are available in the proximity of the site and foul/storm sewers are located nearby. A Pre-Connection Enquiry Form (IW Ref Nr. CDS20004597) was submitted to Irish Water and confirmed that the existing wastewater drainage infrastructure has sufficient capacity to serve the proposed development, subject to upgrade works to the Merlin Park No. 1 pumping station to provide additional storage. These works are currently being delivered by Irish Water and a connection can be facilitated upon completion.

It is proposed to separate the surface water and wastewater drainage networks, which will serve the proposed development, and provide independent connections to the adjacent surface and wastewater sewer networks respectively. The proposed development is to be served by a gravity surface water drainage network discharging to an infiltration system onsite before a controlled discharge to the existing surface water network to the east with an element of infiltration to ground. Sustainable Drainage Systems are to be provided such as pervious paving and filter drains, with discharge rates from site to the existing surface water network being restricted to the greenfield equivalent runoff rate, for design rainfall events up to and including the 1% AEP. All proposed wastewater sewer design has been carried out in accordance with Irish Water's Code of Practice for Wastewater Infrastructure. A new wastewater connection, serving the proposed residential development, is to be provided to the existing wastewater network to the south-east as per Irish Water's Confirmation of Feasibility. All proposed potable water design has been carried out in accordance with Irish Water's Code of Practice for Water Infrastructure. A new 150 mm HDPE water main connection is to be provided from the existing 200 mm uPVC water main in the Coillte Mhuirlinne estate as per Irish Water's Confirmation of Feasibility. Refer to the Engineering Services report for further information.

A.3. Site Strategy

A.3.1. Spatial Strategy



The layout of the development is seen as a continuation of the layout of the original Coillte Mhuirlinne estate creating a very strong sense of place on a larger scale. The original estate (including a proposal for this site) is included in the Urban Design Manual, A best practice guide as the first example of Chapter 6 Distinctiveness How do the proposals create a sense of place? The proposed design has referenced this original intention of axis and curved street making the castle (currently under design for restoration) the centrepiece of the area. This gives the designed layout a very strong sense of place as per the department guidelines.

Left: Extract from Urban Design Manual, p50

In the hierarchy of streets of the Coillte Mhuirlinne plan we would read the main axis as the primary line, the curved streets as the secondary and the other routes as local or home zones. We have looked at reinforcing that order in our proposal. On the curved street we have introduced two elements; the crèche and the five live work units. The architecture and use of the live work units on the curved street have a different hierarchy to the rows of two storey units behind. Together with the crèche building this area

would be seen as a focus for the community while the streets behind would be more domestic in nature. We see that there is a possibility for this curved route (pedestrian, cycle or road) in the future to continue to connect to the Dublin Road. This connection will create footfall through our proposed site. This route along with the new proposed uses will give a small local urban feel to this section of the site. We understand at this point that the connection with the Dublin road is not an objective of the CDP but in absence of any formal plan for the area we are leaving the possibility of connection open. We also see that there is possible future connections to the Ballybane Road and the Castle park road. These are aspirations for the wider connectivity of the area but the fundamentals of the potential to connect in the future is an important part of the urban design and layout of the project

One of the core principles of the project is contextual design. The critique of the original Coillte Mhuirlinne development is the poor relationship it has with the neighbouring green spaces. The relationship of backing the housing onto the greenspaces/woods has led to illegal dumping and anti-social behaviour. The proposed layout looks to address this situation, in line with chapter 7 of the urban design manual, and face the dwellings out towards the green spaces outside its boundary. There is visibility, movement and security with this proposal.

“When designing the layout of a site, care should be taken to arrange the roads, blocks and open space in such a way as to provide a clear distinction between private, semi-private and public space. Core to this is the idea of defensible space as formulated by Oscar Newman and Alice Coleman. Designing for defensible space means building homes where people feel safe (territoriality), creating public spaces that are well overlooked (natural surveillance), creating a place that does not invite criminal or anti-social behaviour (image) and local activities or uses (milieu). “



Above left: Coillte Mhuirlinne relationship with woods



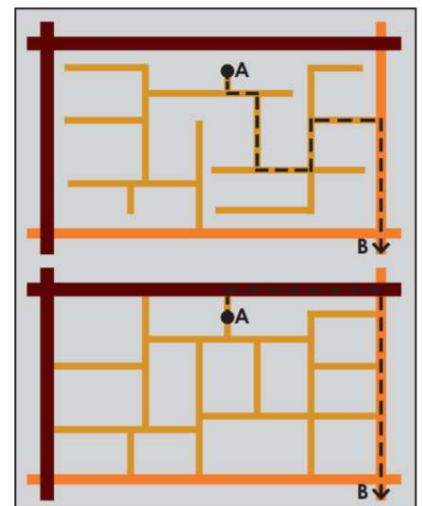
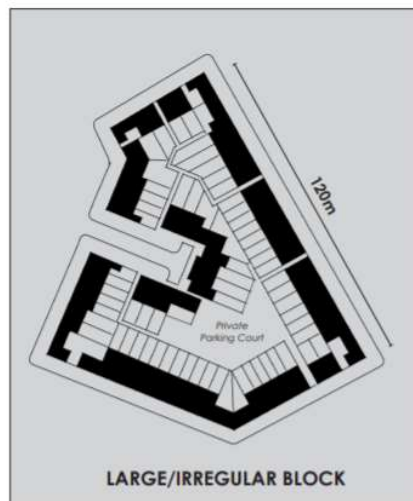
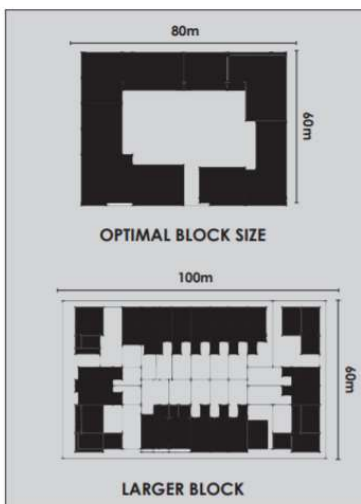
Above right: *Proposed site layout, dwellings facing green spaces*

The site slopes towards the south. There is a strong relationship with the natural landscape of Merlin Woods. The positioning of the green space to the south connects to this landscape. From the above critique we see that backing housing onto the woods is a poor solution. The relationship between the forest and the green space will work well and will make the open space feel much larger. By connecting the development with links to the woods the residents will have the luxury of a huge amenity area.



Above: *Relationship of site to Merlin Woods.*

A.3.2. DMURS



Above: *DMURS 3.3.2 Block Sizes and 3.4.1 Vehicle Permeability*

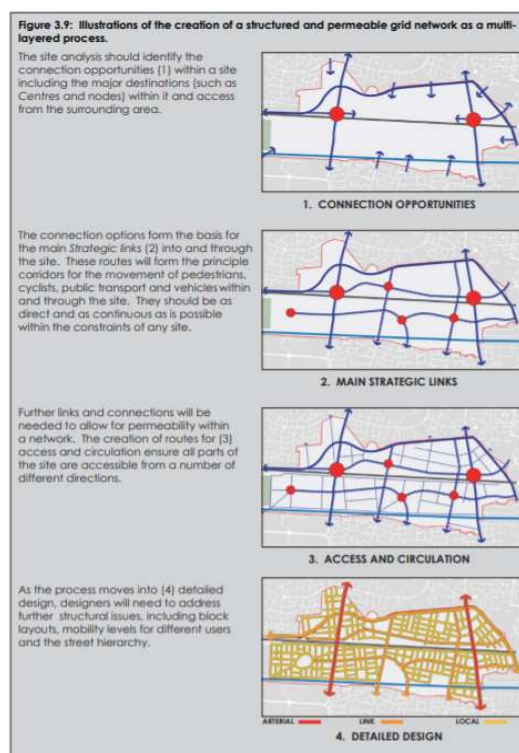
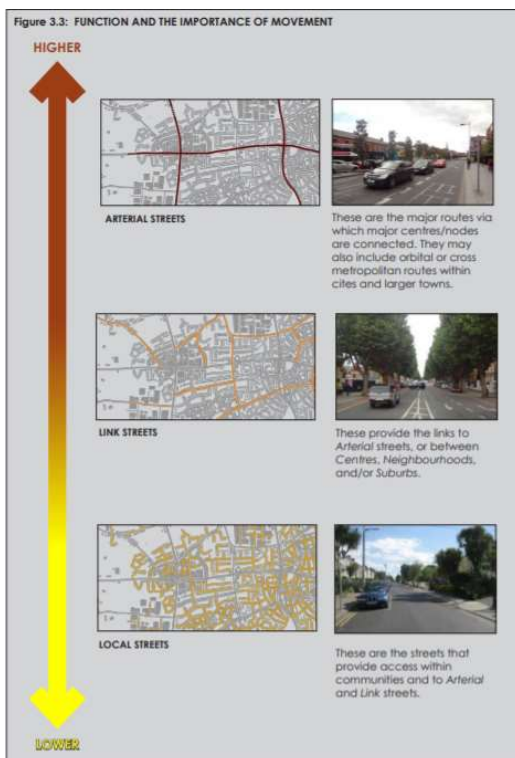
The above diagrams need to be read in conjunction with each other. The optimal block size is 80m by 60m. The diagram to the right demonstrated the ordering of a number of blocks together. The drawing below is an overlay to scale of the permeability diagram with the site layout. To achieve the proposed concept of permeability we need to be looking at the



adjoining sites and the connectivity with them.

Our block size of circa 140 x 32 and 100 x 45 is in line with the DMURS irregular block size diagram. The size of the block dictates the amount of permeability that will occur in the area. The above diagram is at the scale that DMURS 3.4.1 Vehicle Permeability is proposing, it looks at the long term permeability of the site. Please note that our proposal allows for maximum connectivity to any of the adjoining lands due to the layout not proposing rear garden walls facing open green spaces. This proposal will not be able to deliver routes over adjoining lands but it has a designed layout that will allow this transformation in the future. At present there is one access point but there is a creditable diagram for future planning of the area.

The permeability diagram of 3.4.1 needs to be read at a large scale where there are numerous blocks taken together. The layout of our proposal looks the long term connectivity of these objectives. The spaces between the vehicle cul-de-sacs are connected with cycle and walk ways. This promotes walking and cycling within the site. The connectivity of the road network within the site is in line with DMURS.



Above left:
Above right:

Fig 3.3 & 3.9 DMURS Function and the importance of movement
Illustrations of the creation of a structured and permeable grid network as a multi-layered process.

A.3.3. Landscape Strategy

The landscape strategy proposes to retain as many trees, hedgerows and existing ground vegetation as possible on site, while also freeing up development space at the centre of the site. The overall context of the site being adjacent to Merlin Woods forms the key design principal in their proposal. It will provide a strong access link to the woods and embrace the opportunity to connect pedestrian routes eastwards from the site. Several interesting pedestrian spaces are proposed throughout the scheme that cater for all ages and users, with the concept to provide a diversity of interaction and usage across the site, maximising all of the open space available. The proposed landscape features include an urban plaza, wide tree lined streets, pedestrian/cyclist only access paths, pollinator garden, sensory garden, Mini basketball court, playground, informal ball play area, picnic benches etc. The proposal has been discussed with the Parks Department and any issues arising have been addressed in their current scheme and accompanying drawings and reports.

The procurement of an arborist was also detailed as part of the Landscape Architects brief due to the large number of established trees along the boundaries. Arbor-Care Ltd (Professional Consulting Tree Service) were engaged by Dave Ryan Landscape Architect on behalf of Galway City Council to undertake a Tree Survey, an Arboricultural Impact Assessment and a tree protection plan identifying trees that may be impacted on by the proposed development. The tree survey identified few trees of significance with the majority of trees on site forming part of the perimeter hedgerow or integrated into the wall boundary, with others part of a remnant internal boundary, now dismantled. The tree assessment report by Arborcare, with accompanying drawing can also be found alongside the landscape documents.

A.3.4. Design Strategy

The project looks at creation of a sustainable housing estate model. The legacy of 1970s & 1980s housing where the design brief was to develop rows of 3 bedroom terraced housing on narrow plots meant that alternative household than a family unit were not accommodated for. These included couples without children, single people, empty nesters and people without special needs (and their family). The situation meant that people who grew up in a certain area were unable to live in that area as there wasn't a suitable housing. As the original population grew older two things happened; first the density of the occupation decreased as children left home and secondly the need to build extensions to the terraced houses to accommodate elderly people in their homes.

The Merlin woods project looked to have an inbuilt flexibility to this situation. We have provided a mix of unit types that will provide alternative housing typologies that will accommodate people as their housing needs will change. If we replicated this proposal across the City the need to make costly renovations to existing housing (by public or private funds) will not be significantly reduced.

The project is divided into five main briefs:

- Affordable Housing
- Social Housing
- Connecting Street
- Live/Work Units
- Crèche

Affordable Housing:

The main body of the project is affordable housing. The housing units are laid out in terraces that follow the contours of the land. The Site Service Fund from the Department has afforded GCC the opportunity to subsidise housing for people who do not meet the social housing criteria. Our proposal looked at a number of income thresholds and to design units to fit this budget without further subsidises. The basic concept is that a bank mortgage could be raised on the basis of 3.5 times the income of the applicants(s) plus a 10% deposit, this is the basis of the budget cost of the unit.

The units are very traditional in materiality and form. The South facing units have a porch seating area to encourage people to sit out in the sun and foster relationships within the community. The bins are also located to the rear to improve the public realm.



Above: South facing affordable units.

Social Housing:

The end of terraces are predominately social housing units. We are proposing 4 no. four bedroom wheelchair user units along with 14 other social units. The wheelchair units will be designed for four families on the waiting list. It is seen that a



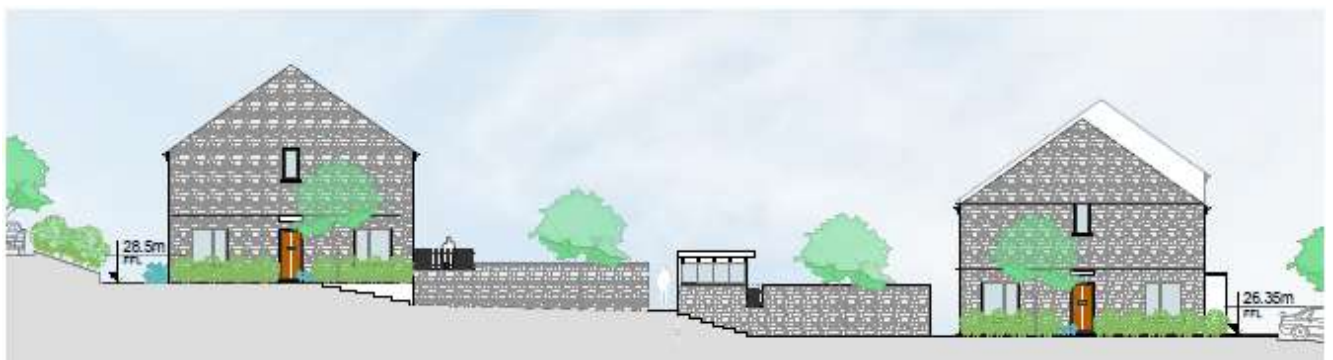
mix of unit types will be used for different age profiles (i.e. young adults and age friendly units). These units will face towards the street which will create passive policing on these end of terrace conditions. Galway City Council have recorded 246 households in need of unit types that can provide for physical and sensory disability requirements, which can't be met within standard social housing. 118 of these are located in the East of the city, where the site is located, with a ranging need for dwellings from 1 – 4 bed. It is not proposed to meet specific requirements of intended residents but instead to provide a mix of types. Refer to House Type 05 drawings.

Above: 3D view of social housing block.

Connecting Street:

The introduction of a larger connecting street from north to south of the site allows for a street that is passively policed. The four end terrace units face onto the street, with the addition of home offices in the gardens of the lower two units. The front doors are turned to be accessed from the connecting street along with living and kitchen window. This gives a high level of potential passive policing. On a larger scale the connecting street will have good access for the residents of the area to connect to the green open space. From the North the street would open out into the vista of Merlin Woods.

Care has been taken in the simple geometry of the design. As the site falls towards the south there is good sunlight onto the street. The street is 8.6 meters wide so while generous for pedestrian linkage it is not too wide to be seen as indefensible. It



is seen that the end terrace units would be stone clad along with the walls of the connecting street. This will give a durability and a quality to the space. The lower two units have a home office located at the rear of the garden. There is a bay window that projects into the connecting street. It is thought that the location of these home offices would encourage connection of the occupiers with their communities. These units are proposed to be 'affordable units' and therefore the purchasers will buy according to their needs.

Above: Site section through the Connecting Street.

Live work units:

We have proposed 5 live work units which are three stories tall. The ground floor is an office/commercial/service provider with 3 bedroom maisonette over the next two floors. The location of these units is on the curved street as you enter the development. There is a large plaza at the front which is seen as a play areas similar to Aldo Van Ekys playground in Amsterdam.



Above left: 3D view of proposed live/work units.



Above right: Aldo Van Ekys Playground, Amsterdam.

Crèche:

As per the Development Plan, in all new housing areas over 75 units, provision of 1 childcare facility with minimum 20 child capacity is required. An outdoor play area separate to parking at a rate of 55% of the gross floor area and parking for staff at a rate of 1 space per 20m² of operational space shall be incorporated. The local need for a crèche has been assessed by contacting the nearby childcare providers and determining their current capacity, most of which are at full capacity. As there is no brief, we have indicated a generic area on the site which is slightly oversized in play area allowing for variations. Current proposal is as follows;

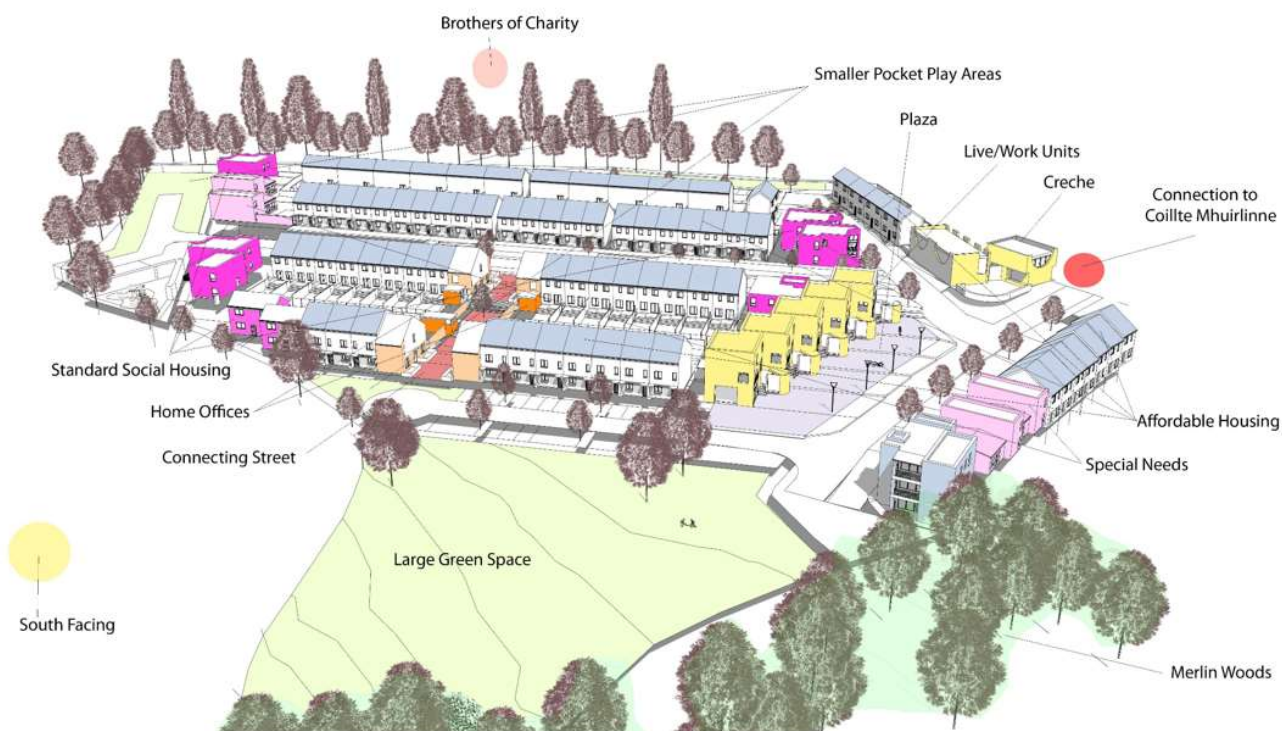
- 3 no. 0-1yr olds
- 5 no. 1-2yr olds
- 6 no. 2-3yr olds
- 6 no. 3-6yr olds

The above requires a minimum play area of 52.4m² with a minimum of 4 no. staff members. The Crèche is part of the overall urban design concept. It is located at the entrance of the development on the curved street. It has circular windows that mimic the live/work units which mimic the circular street.



Above: Proposed crèche adjacent to the live/work units.





Above: Overall Design Strategy of Merlin Woods.

A.4. Dwelling Design

A.4.1. Apartment and Duplexes

Preliminary discussions have taken place with the design team in regards to the specification of construction materials. In summary it will have conventional cavity wall construction with precast hollow core floor slabs between separating units, and timber floor joists and roof structure elsewhere, all built off concrete raft foundation. Easi joists are being considered within duplexes and apartments for their ability to accommodate services within their build-up depth, given the increasing level of services now required. Further investigation into floor build ups will take place at the next stage. Windows and doors shall be of an alu-timber type. No fireplaces/chimneys are required. Externally finishes shall be of painted plaster with some degree of brickwork as indicated on the proposed drawings. It is proposed that the flat roofs be finished in a single-ply membrane finish. Some flat roofs will have a parapet to break up the elevations. Flat roof structure build ups will be similar to floor build ups and this will be further reviewed at the next stage. Building envelopes are intended to be simple in configuration, avoiding an excessive number of features (corner windows, bay windows, projecting balconies etc.) that add to building costs. However, all duplex apartments will have generous terraces/balconies as indicated in the preliminary house type drawings attached in this section. Internal planning of apartments / duplexes are fully compliant with the various DoHPLG guidelines. Refer to Section B of this report for a more detailed structural review of the proposed construction.

A.4.2. Houses

Construction of the houses will be as described above, but generally with conventional pitched roofs finished in slate. These pitch roofs will be built using either pre-fabricated timber roof trusses or cut timber roofs. These options will be reviewed in further detail at the next stage. Finishes and materials shall be hard wearing, weather proofed and the palate shall reflect the local context and geology. No pebble dash is proposed. Local stone cladding shall be used as indicated on the proposed drawings. Internal planning of houses is fully compliant with the various DoHPLG guidelines. Most houses have the kitchen to the front of the house, enabling passive supervision of public spaces during the day and early evening, with the living rooms to the backs of the houses and opening with double doors onto the back gardens.

A.5. Development Plan Standards

A.5.1. Density

We have proposed a density of 37.7 units/ha. The Sustainable Residential Density in Urban Areas guidelines advise that densities on sites such as these (Outer Suburban / 'Greenfield' sites) should be in the region of 35-50 dwellings/ha, and that developments < 30/hectare should be discouraged. The proposed dwelling density is within this range, albeit at the lower end. This figure is based on a site area of 2.73ha, which is the developable site area, excluding the woodlands area to the south, due to its impracticality of residential development, and the crèche site area. Predominately the density in the area is much lower and this proposal was seen as a balanced figure. We have optimised density by long terraces of dwellings along

the contours. We have also looked at ensuring that all neighbouring sites have full access to our roads and infrastructure networks in the future which will encourage more speedy development of dwellings with good density.

A.5.2. Plot Ratio

The current development plan stipulates that a plot ratio of 0.46:1 for new residential development shall not normally be exceeded. The total build area proposed is 9,468m², including the ground floor retail units and crèche area. Using the developable site area of 28,070.6m² we are proposing a plot ratio of 0.35:1. The maximum plot ratio for Established Suburbs in Galway City is 0.46:1.

A.5.3. Schedule of Accommodation

The proposal has a mixture of 2 bed and 3 bed terrace units, 4 bed wheelchair friendly units, live work units, aged friendly apartments and 1-3 bed apartments. Some of the 2 beds are designed with equal sized bedrooms, both en-suite. These would promote two young professionals investing in a house together. There is funding applied for a majority of the units to be affordable. The variation of dwellings would be in line with Quality Housing for Sustainable Communities. See Matrix below.

Proposed Dwelling Mix		Area Minimum	Area Proposed	No.
		(m ²)	(m ²)	
SOCIAL				
H 05	4 Bed / 7 Person - 2 Storey - Special Needs House	110	128.7	2
Block A	2 Bed / 4 Person - Ground Floor	73	73.7	1
	2 Bed / 4 Person - First Floor	73	73.7	1
	4 Bed / 7 Person - 2 Storey - Special Needs House	110	128.7	2
Block B	2 Bed / 4 Person - Ground Floor	73	73.7	2
	2 Bed / 4 Person - First Floor	73	73.7	2
Block C	2 Bed / 4 Person - Ground Floor	73	82.5	1
	2 Bed / 4 Person - First Floor	73	78.7	1
Block D	2 Bed / 4 Person - Ground Floor	73	73.7	1
	2 Bed / 4 Person - First Floor	73	73.7	1
	1 Bed	45	50.8	4
	<i>Total Social</i>			18
AFFORDABLE				
H 01	2 Bed / 4 Person - 2 Storey	80	88.6	18
H 02	2 Bed / 4 Person - 2 Storey	80	80	29
H 03	2 Bed / 4 Person - 2 Storey	80	80	16
H 04	3 Bed / 5 Person - 3 Storey	102	107.5	10
Live/Work	3 Bed / 5 Person - Duplex	90	103.9	5
H 06 a	2 Bed / 4 Person - 2 Storey (H01 front entrance)	80	88.6	2
H 06 b	2 Bed / 4 Person - 2 Storey (H01 above with WFH opt)	80	97.2	2
Forest Apt	2 Bed / 4 Person - Lower Ground Floor	73	98.8	1
	2 Bed / 4 Person - Upper Ground Floor	73	98.8	1
	2 Bed / 4 Person - First Floor	73	98.8	1
	<i>Total Affordable</i>			85
	TOTAL UNITS			103
OTHER				
Live/Work	Ground Floor Retail / Office Space	n/a	58.5	5
Crèche	Childcare Facility for 20 children	n/a	249.7	1

Above: Proposed Schedule of Accommodation.

A.5.4. Safeguarding Higher Standards

As per the Sustainable Urban Housing: Design Standards for New Apartments 2018, a 10% uplift in the minimum floor area is required to ensure apartments are not built down to minimum standards. The 10% may be applied to one or more unit but in this instance has been applied to a mix of apartments. A 14% uplift has been assigned throughout the dwelling mix, with the largest portion in the affordable “Forest Apartments”, with a designated home office space.

A.5.5. Public Open Space

The traditional positioning of the green is generally centrally located with the dwellings facing out onto it with 2m rear walls in solid block. Locating the public open space in a more central area with units looking out into it is extremely difficult to achieve on this site and would result in a lower density site at a higher cost. The proposed site is surrounded by mature trees with natural and stone wall boundaries which would better suited to define public open spaces rather than private gardens. The site also slopes south towards the natural landscape of Merlin Woods. The relationship between the forest and the

proposed green space will make the open space feel much larger. By connecting the development with links to the woods the residents will have a greater amenity area. Small pocket parks and spaces are proposed around the edge of the above mentioned boundaries so that residents of all ages will have a place to play and meet close to their homes. A significant portion of land (1,316.9m²) is to be retained as woodland/open space due to the steep nature of the site and the impracticality of development. As also stated above, the proximity of the site to a large public woods allows for an unofficial extended open space from the proposed site.

In developments with 100+ dwellings recreational facilities along the lines of playground, playing pitch, Formal Park, etc. are to be provided. The proposed open space areas are provided in the following locations;

- A: South Public Green 2,762.6m²
- B: West Playspace 282.0m²
- C: Sensory Garden 230.4m²
- D: Pollinator Garden 663.9m²
- E: Public Plaza 639.6m²
- 4,578.5m²
- F: Retained Green 1,316.9m² (omitted from calculations)

Public Open Space at a rate of 15% requires 4,099.5m². The proposed open space is in excess of this, softening the development with natural open spaces.

A.5.6. Private Open Space

Private open space is generally provided at a rate of minimum 50% of the gross internal floor area of the proposed dwelling. A portion of the dwellings will exceed this due to the introduction of rear alleys to access private gardens. Apartments shall be provided with balconies, in line with the minimum guidelines stated in the Sustainable Urban Housing: Design Standards for New Apartments.

A.5.7. Car Parking Provisions

As per the Galway City Development Plan 2017-2023, 1 car parking space per dwelling (if grouped) is required for established suburbs within Galway City. A total number of 144 spaces have been provided, broken down as follows;

- 103 standard grouped parking spaces (1 per dwelling)
- 35 standard grouped visitor parking spaces (1 per 3 dwellings)
- 6 standard grouped parking for creche

5% of the proposed parking spaces have been designated to wheelchair accessible parking and shall be evenly distributed throughout the proposed site. 7 no. accessible spaces have been provided on the proposed site layout.

A.5.8. Cycle Parking Provisions

As per Section 11.3.1 of the CDP, 1 no. cycle stand shall be provided for the first 20 car parking spaces with 1 additional stand for every 50 additional car parking spaces. In total 03 bicycle stands would be required for the housing element, with the capacity for 5 bikes per stand. We would be seeking a relaxation on this requirement due to every house having rear garden access and ample private open space to store bicycles.

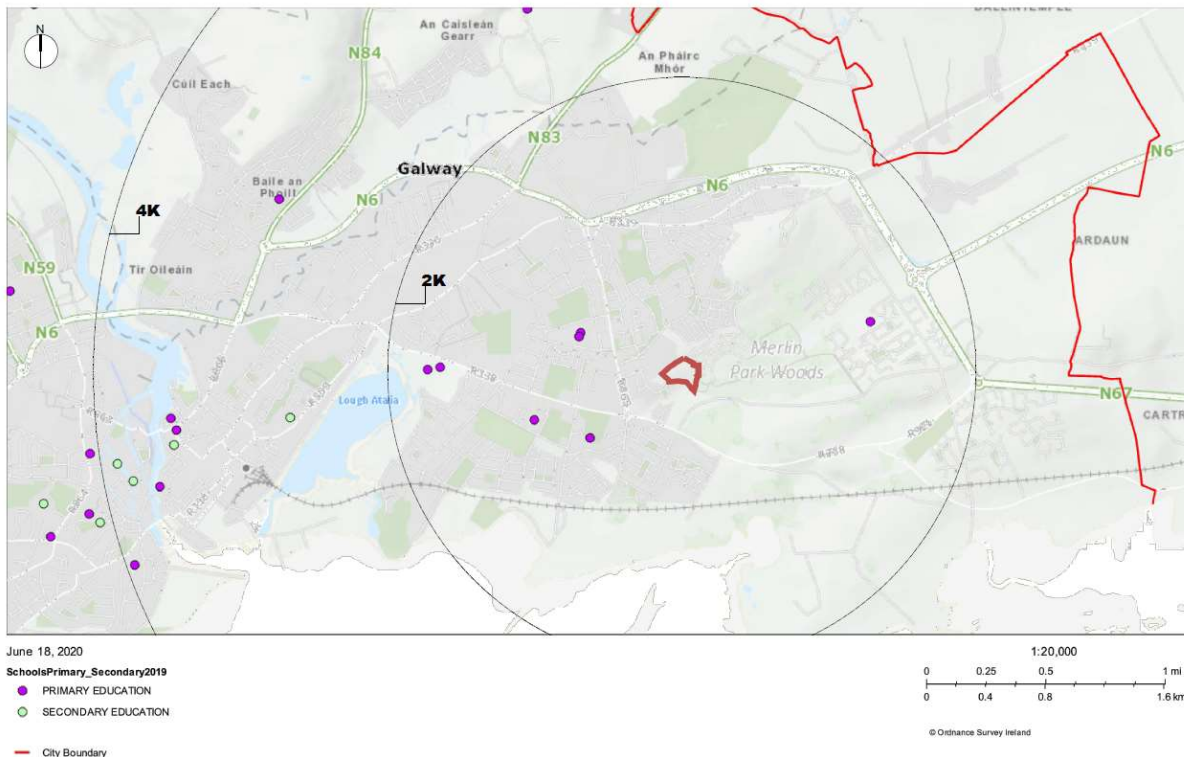
Bicycle parking for apartments are addressed in Section 4.17 of the Design Standards for New Apartments. A general minimum standard of 1 cycle storage space per bedroom is applied with a standard of 1 additional space per 2 residential units. A total of 14 bicycle spaces are required as follows;

- Block A – garden access.
- Block B – 9 spaces (8 + 1 visitor)
- Block C – garden access.
- Block D – garden access.
- Live/Work – access under external stairs.
- Forest Apts – garden access for ground floor + 5 spaces (4 + 1 visitor)

The location and design will be provided by the Landscape Architect. It will be low maintenance, easy to use and attractive to use by residents. A management plan will be agreed at a later stage to ensure facilities are kept clean, free of graffiti and well lit.

A.5.9. Schools Capacity Assessment

Planning applications for new large scale residential developments shall be accompanied by assessments of the capacity of local schools to accommodate the proposed development. We have identified the number of schools in the vicinity of the site. See figure below. Within a 2km radius of the site there are 7 primary schools and within a 4km radius of the site there are 13 primary schools and 4 secondary schools inside the city boundary.



Above: *Nearby educational facilities to the proposed site.*

A.5.10. Material and Finishes

The units shall be very traditional in materiality and form. Finishes and materials shall be hard wearing, weather proofed and the palate shall reflect the local context and geology. No pebble dash is proposed.

A.6. Statutory

A.6.1. Part VIII

There are no known previous planning applications submitted for this site. The proposed scheme has been reviewed at several intervals during design development with Galway City Council Planning Department, as well as with the Engineering, Roads and Parks Departments, and issues raised in the course of such consultations have been addressed by the Design Team. The Planning Department are satisfied that the current layout can proceed as the basis for a Part 8 Application, with particular attention to be given to the quality of the materials, finishes and hard surfaces/public realm. (28 January 2020) A presentation to Galway City Councillors was made on the 26th February 2021 with general approval to proceed. The design has also attained approval from the Site Service Fund and a Stage 2 – Pre Planning Review & Confirmation of Affordable Housing Delivery approval from the Department.

A.6.2. Disability Access Certificates (DAC)

We have undertaken initial accessibility audits on the design of units and confirmed that lifts are not required for the apartments and duplexes. Any DAC applications will be assessed with regards to Section 3 Access and Use of dwellings as all units have been designed with own door access. Detailed audits will be undertaken at the next stage, as will the official allocation of disabled parking spaces. It is currently proposed that the DAC application will follow immediately on the Part 8 application to maintain the programme.

A.6.3. Fire Safety Certificates (FSC)

Fire Safety Certificate applications will be required for all apartments and duplexes in the scheme, as well as the crèche and the ground floor of the live/work units. Buildings used as a dwelling other than a flat, as defined in S.I.497 of 1997, are exempted from the requirement to obtain a FSC. It is currently proposed that the FSC application will follow immediately on the Part 8 application to maintain the programme.

A.7. Conclusion

This proposal seeks to address and meet some of the critical need for social and affordable housing in the Galway City area. The proposed development is fully consistent with the policies, objectives and standards of the Galway City Development Plan 2017- 2023. Its public spaces and community facilities will enrich the neighbourhood and, in the future, will provide natural linkages to adjoining developments. The proposal provides a suitable mix of housing, separation distance and car parking together with the quantitative requirements for private and public open space, all in accordance with the provisions of the statutory Development Plan. The overall form and layout responds to the existing nature and context of the site and satisfactorily integrates into its urban landscape. Furthermore the density proposed is appropriate for this city suburb location and has regard to the pattern of permitted and adjoining development.