

3. DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development comprises of 406 no. dwellings comprising 8 no. one-bed apartments; 20 no. two-bed apartments; 1 no. three-bed apartments; 48 no. two-bed apartments with 48 no. three bed duplex units above; 21 no. two-bed houses; 208 no. three-bed houses; and 52 no. four-bed houses.

In addition, the proposed development provides a childcare facility (518sqm) with capacity for in the order of 110 no. children to serve the needs of the proposed development and the wider community. The proposed development also includes 1 no. commercial unit (total gross floor area 67.7sqm) at ground floor level within the apartment proposed at the Ballynakelly Site (C1).

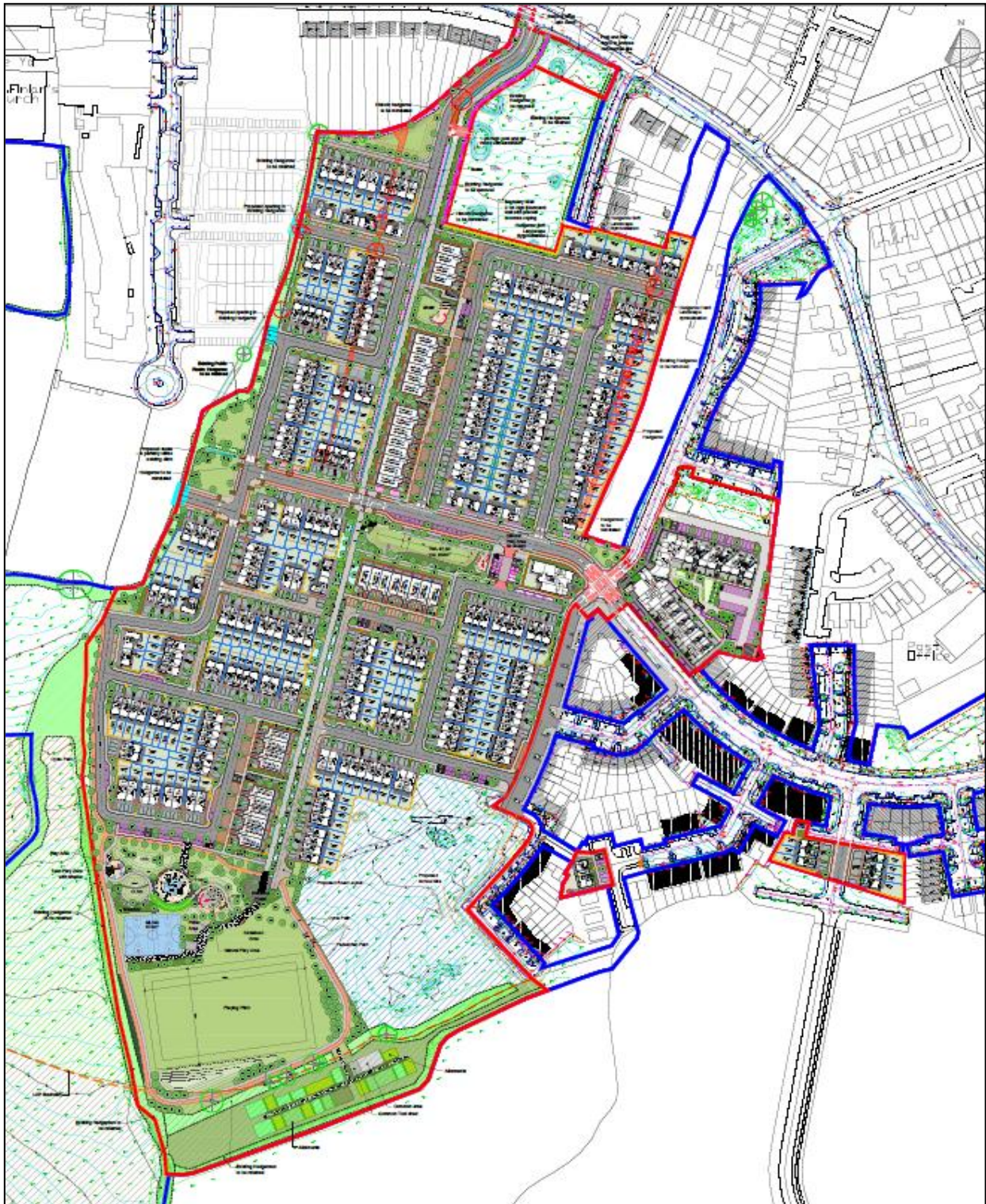
The proposed development also provides for a new east-west link street, a continuation of Newcastle Boulevard, and a new north-south greenway linking the Main Street to the new public park. The proposed development facilitates future potential pedestrian, cycle and vehicular links to existing and proposed adjoining developments including Ballynakelly residential development to the east, Main Street to the north and future development lands to the west. Access to the proposed development is via a new north-south link street, with a new entrance onto Main Street, and via the existing road network at Newcastle Boulevard to the east.

A primary school site (approximately 1.5ha) has been reserved, for future development, at the south-east of the proposed development site in accordance with the Newcastle Local Area Plan 2012-2020. A new public park is proposed (approximately 2ha) together with a range of pocket parks and a greenway to serve the proposed development and the wider Newcastle community.

The proposed development provides all associated and ancillary infrastructure, landscaping, boundary treatments and development works on a total site of approximately 16 hectares. The proposed development also provides for a temporary, single storey marketing suite and associated signage (including hoarding) during the construction phase of development only.

The proposed Site Layout Plan is provided at Figure 3.1 below.

Figure 3.1 Proposed Site Layout Plan



(Source: MOLA Drawing No. NCS18_MOLA_00_XX_DR_A_XX_0100-P-01)

3.1 Characteristics of Proposed Development

3.1.1 Demolition Work

The proposed development includes the demolition of 5 no. structures on site comprising 2 no. habitable dwellings and 3 no. associated outbuildings/sheds located to the north-west of the Main Development Site. All structures are single storey in height and comprise a total area measuring 359sqm. The proposed structures are in varying condition, see Figure 3.2 below.

Figure 3.2 Location and Character of Structures to be Demolished



(Source: MOLA Drawing No. NCS18 - MOLA - 00 - XX - DR - A - XX - 0701; Photos from Dr. Tina Aughney, 2019)

3.1.2 Size of Proposed Development

The proposed development provides for 406 no. new residential on the Main Development Area of approximately 15 hectares, to the south of Main Street, together with three infill sites which comprise of a 0.80ha site at Ballynakelly; a 0.18ha site at Ballynakelly Rise and a 0.05ha site at Ballynakelly Edge.

The proposed development provides for a range of house types including apartments, terraced and semi-detached dwellings. A breakdown of residential units is as follows:

Table 3.1 Breakdown of Residential House Types

Description	Quantity	Mix %
1 Bed Apartments	8	1.97
2 Bed Apartments	20	4.93
3 Bed Apartments	1	0.25
2 Bed Apartment Below Duplex	48	11.82
3 Bed Duplex	48	11.82
2 Bed Houses	21	5.17
3 Bed Houses	208	51.23
4 Bed Houses	52	12.81
TOTAL	406	100

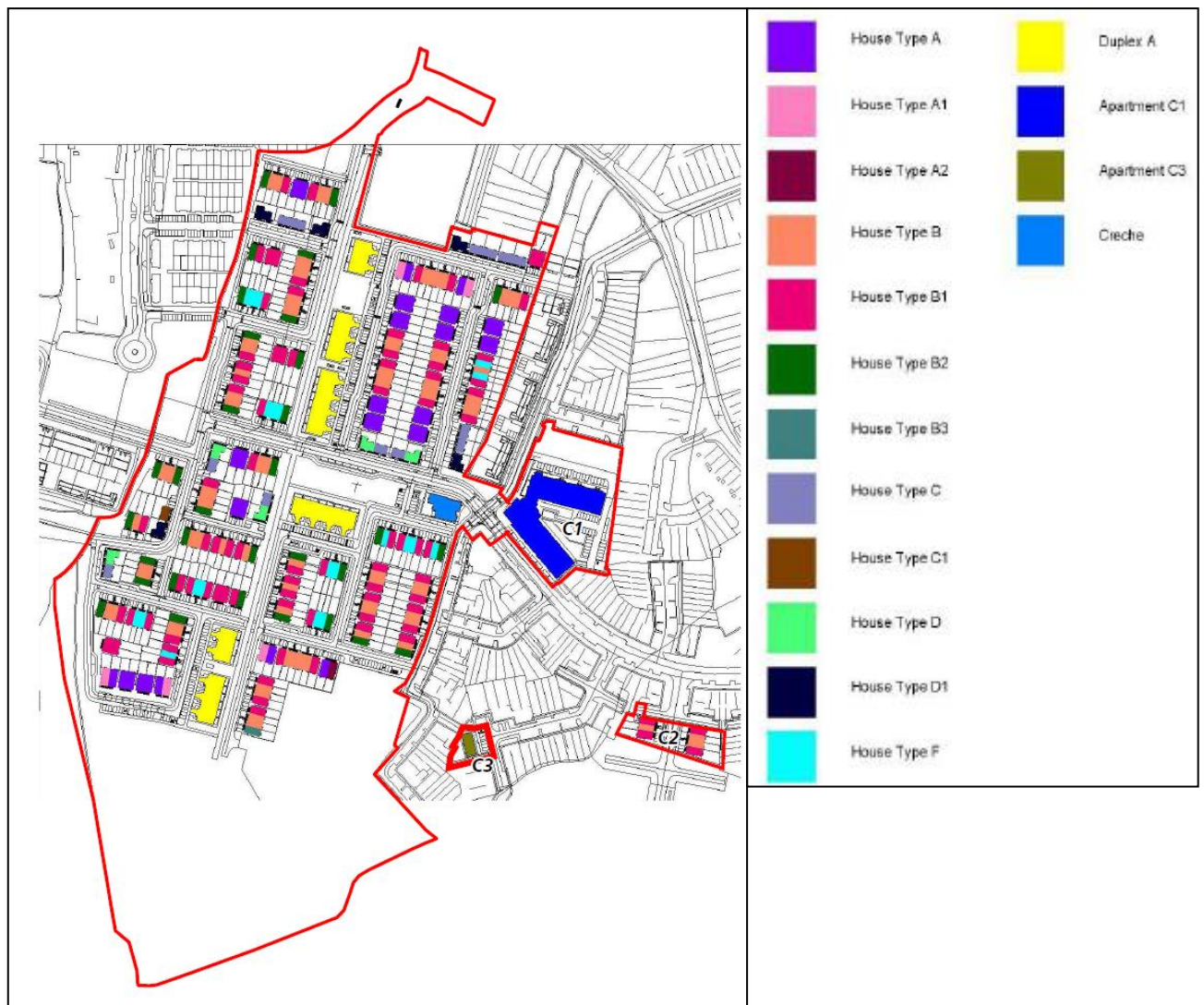
Across the proposed development, 5 no. principle house types are proposed and 12 variants depending on their position on the proposed development. These vary in form and are terraced, semi-detached and detached. In addition, there are 2 no. different apartment/duplex unit types, providing two and three bed units, along with 2 no. apartment blocks which include a variety of one, two and three bed apartments. The Table below indicates the varied housing mix.

Table 3.2 House Type Sizes

Type	Description	BED SPACES	AREA (sqm)
A	4 Bedroom semi-detached house	6	139.44
A1	4 Bedroom corner entrance semi-detached house	6	139.44
A2	4 Bedroom end of terrace front entrance semi-detached house	6	139.44
B	3 Bedroom mid-terrace house	5	114.61
B1	3 Bedroom end of terrace / semi-detached house	5	114.61
B2	3 Bedroom end of terrace corner entrance house	5	115.82
B3	3 Bedroom end of terrace front entrance house	5	114.61
C	3 Bedroom semi-detached house	5	107.0
C1	3 Bedroom detached house	5	107.0
D	4 Bedroom semi-detached house	6	130.0
D1	4 Bedroom detached house	6	130.0
F	2 Bedroom house	4	86.0
1BAPT	1 Bedroom apartment	2	47.97-57.86
2BAPT	2 Bedroom apartment	4	67.75-87.17
2BAPT	3 Bedroom apartment	5	98.22
2BDUP1	2 Bedroom own door duplex terrace	4	78.07-83.34
2BDUP2	2 Bedroom own door duplex end of terrace	4	78.07-84.9
3BDUP1	3 Bedroom own door duplex terrace	5	110.86-127.34
3BDUP2	3 Bedroom own door duplex end of terrace	5	110.86-131.0

The proposed development provides for a wide mix of unit types and sizes across the site as illustrated in Figure 3.3 below.

Figure 3.3 Housing Mix across Proposed Development



The proposed development is proposed as follows across the respective sites:

- Main Development Area:** A total of 346 no. dwelling are proposed on the Main Development Area comprising 36 no. two-bed apartments with 36 no. three bed duplex units above in three-storey terraces; 21 no. two-bed, two-storey terraced houses; 201 no. three-bed, two-storey terraced, semi-detached and detached houses and 52 no. four-bed two-storey, semi-detached and detached houses. The proposed childcare facility is also located within the Main Development Area, to the south-west of the new junction with Burgage Road/Newcastle Boulevard.
- Ballynakelly Site:** A total of 50 no. residential units arranged in a part 3, part 4 storey block comprising 6 no. one-bed apartments, 20 no. two-bed apartments, together with 12 no. two-bed apartments with 12 no. three bed duplex units above. This block also includes 1 no. ground floor commercial unit (67.7sqm GFA).
- Ballynakelly Rise:** A total of 7 no. three-bed, two-storey terraced houses are proposed together with minor relocation and reorientation of existing bin store by approximately 9.5m northwards.

- **Ballynakelly Edge:** This infill site comprises a previously permitted structure, permitted under Part 8, which was not completed or occupied. The proposed development includes works to the existing, partially complete two-storey structure to facilitate a change of use from Community Centre to residential use to provide for 2 no. one bed apartments and 1 no. 3 bed apartment.

The overall layout and design has been informed by the Newcastle Local Area Plan 2012-2022 (LAP). The LAP sets out a detailed strategy for the development of Newcastle, including the proposed development site, placing emphasis on a high degree of permeability and connectivity for the village between new and existing development. The LAP also places significant emphasis on the protection and enhancement of historic burgage plots and hedgerows and important cultural heritage and biodiversity features.

An overall masterplan approach has been taken when designing the layout of the site which has been heavily influenced by the historic burgage plots and hedgerows, guiding the design of neighbourhoods within the Main Development Site. The design seeks to create people friendly streets and spaces placing emphasis on connecting the built form of the proposed development with the public realm, as well as linking existing parts of surrounding developments and facilitating future links with permitted and future development lands. The layout of residential units has been formed to provide passive surveillance to green links and parks, creating a feeling of safety and security for residents and visitors to the development.

Care has been taken to ensure connection and legibility between the Main Development Area and the three infill development areas. The Ballynakelly Site development area has been designed to have active frontage onto the three surrounding streets, Newcastle Boulevard, Burgage Crescent and Burgage Green, and to mark the connection between this site and the Main Development Area. The other two infill development areas, Ballynakelly Rise and Ballynakelly Edge, have been designed to integrate with, and protect the residential amenity, of immediate surrounding residential units of the respective sites.

Landscaping helps create three different character areas, utilising the green links, pocket parks and home zones to create a sense of identity and place. Feature buildings such as corner dwellings and sites have also been utilised to provide legibility and assist in orientation within the main development as well as providing active frontages and passive surveillance of landscaped areas.

Childcare Facility

The proposed development provides a childcare facility (approximately 518sqm) with capacity for in the order of 110 no. children. The crèche has been centrally positioned along the new east-west access road to the east of the Main Development Area maximising accessibility for all future and existing residents through proposed pedestrian, cycle and vehicular routes.

Commercial Unit

The proposals also include 1 no. commercial unit (total gross floor area 67.7sqm) at ground floor level within the Ballynakelly apartment block.

Marketing Suite

The proposed development also provides for a temporary, single storey marketing suite and associated signage (including hoarding) during the construction phase of development only.

The proposed marketing suite will have a gross floor area of 81sqm and will be used for sales of properties associated with the proposed development only. The overall height of the proposed signage will be 4.55m from ground level comprising three panels in a triangular form of 1.5mx3.05m (total area of signage 13.73sqm).

Two temporary locations have been identified for the proposed marketing suite, one on the Main Development Area adjacent to Main Street, and the second on the Ballynakelly Site. It is envisaged that the proposed suite, and associated signage, will be moved from one location to the other as development progresses across the site. At no point will there be more than one marketing suite located on the application site.

School Site

A primary school site (1.5ha) has been reserved at the south-east of the proposed development site in accordance with the requirements of the Newcastle LAP 2012-2020. This site shall be appropriately screened until such time as it is required for development.

Access & Car Parking

Vehicular access to the Main Development Area will be located on Burgage Crescent formed of a four-arm crossroads with Burgage Road/Newcastle Boulevard. Further access will be provided via a T-junction further south on Burgage Crescent (Lyons Avenue). A third access is proposed to the north of the Main Development with the R120 Main Street Corridor via a new 3-arm priority-controlled junction. The infill sites will be accessed via the existing road infrastructure, Burgage Crescent and Burgage Edge.

The proposed development facilitates further vehicular connection to lands to the west including a connection to adjoining residential zoned lands and connections to residential development permitted under Reg. Ref. SD17A/0378 (ABP Ref. PL06S.301421). The provision of linkages has been facilitated by providing a road layout up to the site boundary that aligns with existing and future development surrounding the site so that the final physical connection will be delivered subject to agreement with the adjoining landowner and South Dublin County Council.

The proposed development also provides for pedestrian and cycle access from the existing road network to the north and east of the site and will facilitate potential future pedestrian links through adjacent lands to the west to destinations such as the village centre and future development sites. The proposed development includes a green link, a segregated cycle and pedestrian route, connecting Main Street to the north with the new Public Park to the south of the site. Dedicated footways and cycle lanes are provided on both sides of the main east-west spine road.

The development layout has been designed with self-regulating streets to manage movement by offering modal and route choices in a low speed, high quality, residential environment.

The proposed development layout design provides a total of 735 no. car parking spaces,. The proposed development comprises 663 no. residential car parking spaces, 11 no. creche car parking spaces, 1 no. commercial car parking space and 60 no. visitor spaces dispersed throughout the scheme and including parking for the Public Park.

All houses have access driveways or dedicated on-street parking conveniently located for the dwelling. Communal, managed, parking has been provided to serve the apartment and duplex units with spaces conveniently located proximate to the main entrance to the units.

A total of 10 no. motorcycle parking spaces are proposed as part of the proposed development.

A total of 323 no. bicycle spaces are proposed comprising 157 long term secured / sheltered spaces and 166 short term parking spaces. Cycle spaces have been conveniently located for residents of apartments and duplex units. Cycle parking has also been proposed for mid-terrace houses and the childcare facility and at locations convenient for use by visitors to the public open spaces.

Landscape & Public Realm

The proposed development provides an innovative and durable landscape and public realm, which cohesively integrates the proposed development into the surrounding context and generates new public open spaces and routes throughout.

The Newcastle Local Area Plan 2012-2022 seeks to create a permeable network of green infrastructure and open spaces across the LAP lands. This has led to the creation of a series of local parks, within easy walking distance of future residences, as well as a larger public park. Local parks will cater for active and passive recreation while the Public Park will have formal play activities as well as a senior size playing pitch, a multi-use games area and a playground catering for a range of age groups. All open spaces will be linked by a greenway pedestrian/cycle network which will connect Newcastle village centre with the proposed new Public Park.

A key objective of the proposed development seeks to place residential and community facilities within a cohesive landscape that responds to and integrates the proposed development within the proposed development site, providing a permeable network of green infrastructure and open spaces throughout the site that seeks to facilitate inclusivity to allow maximum enjoyment by all users. All open spaces are overlooked by dwellings, providing passive surveillance and safety. The site will provide important connections for vehicles, pedestrians and cyclists along with new link roads providing permeability through the lands connecting to Newcastle village.

An overarching aim of the proposed development is to retain, incorporate and reinstate where feasible existing burgage plot boundaries. This has led to a strategy focused on the retention and reinstatement of plot boundaries and hedgerows.

The boundaries with existing and retained hedgerows are of particular importance regarding potential impacts in terms of biodiversity, visual impact and cultural heritage. The trees and vegetation planted along these boundaries will be sensitively planted to respect the existing vegetation and to have no impact on the existing root protection areas.

There are portions of existing hedgerows, amounting to approximately 480m, that will be removed to facilitate the proposed development. However, these will be replaced with native hedging along the Greenway and further native hedging will be added to existing hedgerows that are in poor condition, with large gaps and overgrown areas. Further areas of previously existing burgage hedgerow are to be reinstated amounting to approximately 540m of reinstated hedgerows. In total there will be an increase of 53 meters of native hedgerow.

Although there is a loss of around 27 no. existing trees due to the proposed development, there will also be approximately 900 new native trees planted within the residential development and the proposed open spaces.

The streetscape is proposed to be extensively planted with trees and shrubs to create a strong avenue structure and to give contrasting texture, colour and seasonal variety. Along the boundaries to the open spaces it is proposed to plant specimen trees along with native species hedgerow underplanting that will enhance areas of hedgerow that are in poor condition.

Boundary and native screen planting mix species, that includes trees, shrubs and extensive areas of native wildflower planting, will be selected from the native local palette to encourage wildlife in the area and enhance biodiversity.

The landscape approach has sought to incorporate SUDS features within the landscape treatment and to integrate this network with the public realm to become an amenity for the area. It is proposed to use permeable paving for parking areas.

Figure 3.4 Overall Landscape Design Approach



(Source: Murray & Associates, Landscape Design Report)

Site Services & Infrastructure

For the Main Development Area three separate catchments have been designed for the **surface water** drainage system with surface water from each catchment being attenuated in three separate attenuation areas in the form of combined detention basins and underground attenuation tanks before outfalling to the existing 375mm diameter surface water sewer in Main Street.

Surface water sewers and a 609m³ attenuation tank for the Ballynakelly infill development area have already been constructed under previous permission Reg. Ref. SD05A.0344. It is proposed to connect the surface water drainage for the Ballynakelly Site development area to the surface water network and attenuation constructed under the previously permitted development. This tank has adequate capacity for this infill development area.

The development area at Ballynakelly Rise also benefits from core infrastructure constructed under previously permitted development Reg. Ref. SD05A/0344. It is proposed to connect surface water drainage from Ballynakelly Rise to constructed surface water and attenuation. This tank has adequate capacity for this development area.

For the Ballynakelly Edge development area no alterations are proposed to the exiting surface water network as the proposed works are only for change of use, so there will be no increased surface water run-off.

With respect to the **foul water** network, a network of 225mm diameter sewers has been designed based on the topography of the site. The proposed 375mm diameter foul sewer outfall from the site will be routed along Main Street to the east. The foul outfall will then connect to the existing 525mm diameter foul sewer on Aylmer Road.

It is proposed to connect the proposed foul sewer for the Ballynakelly infill site to the existing 225mm diameter foul sewer along Burgage Crescent constructed under Reg. Ref. SD05A/0344.

It is proposed to connect the seven housing units at Ballynakelly Rise infill site to the existing 300mm diameter foul sewer along Ballynakelly Rise constructed under Reg. Ref. SD05A/0344.

It is proposed to use the existing foul sewer connection to the existing building at Ballynakelly Edge.

With respect to **water supply**, a new 250mm diameter watermain along Newcastle Boulevard will be constructed and connected to the existing 450mm diameter watermain constructed under Reg. Ref. SD05A/0344. The 250mm diameter watermain will be constructed to the Phase 1 western boundary where it can be extended as part of future development phases to the west. Connections will be made to the new 250mm watermain which will serve a number of 150mm diameter watermain loops throughout the development. A number of 100mm watermain loops will be supplied from the 150mm watermains along the Local Streets.

All connections, valves, hydrants, meters etc. have been designed and are to be installed in accordance with Irish Water's Code of Practice / Standard Details.

Individual houses will have their own connections from the distribution main via service connections and boundary boxes. Individual service boundary boxes will be of the type to suit Irish Water and to facilitate domestic meter installation.

Waste Management

It is anticipated that residents in houses and with external access to the rear of the property will store waste in bins at the back of their house. For houses without external access to the rear of property, a dedicated shielded area for storage of 2 no. 240L and 1 no. 120L wheelie bins has been allocated at the front of each property. Residents will be required to place their segregated waste materials into these bins as necessary.

Residents in the apartment blocks and duplexes have been allocated 3 no. shared external Waste Storage Areas (WSAs). Space will be provided in the apartment and duplex units to accommodate 3 no. bins to facilitate waste segregation. These bins will then be transported out to the curtilage for collection by the licensed waste contractor.

The childcare facility's allocated WSA is located externally to the building at ground floor, near the carpark. For the commercial unit, the occupier will be required to allocate space within their own units to store segregated waste streams before being taken for collection at the curb.

All residential waste from shared WSAs, requiring collection by an appointed waste contractor will be transferred from the WSAs by the waste contractor or personnel nominated by facilities management company (depending on the agreement) to a designated collection point. Residents in houses and the retail tenant will be responsible for transferring their own bins to/from their individual WSA to the street for collection.

3.1.3 Cumulative Impact with other Projects

The Newcastle Local Area Plan 2012-2022 provides a detailed framework for the residential expansion of Newcastle on lands located predominantly to the south of Main Street, with consolidation of development to the north.

As detailed in Section 2.3.2, a number of extant planning permissions have been identified on lands in the vicinity of the proposed development site which are consistent with the development framework in the Newcastle Local Area Plan 2012-2022.

The proposed development site represents a significant portion of the residential zoned lands to the south of Main Street. The Applicant also control additional residential zoned lands immediately west of the proposed development site. A high-level masterplan for the overall landholding, directly informed by and consistent with the Newcastle Local Area Plan 2012-2022 has been developed to ensure the comprehensive and integrated approach to the future development of the wider lands.

The proposed development has been set within the context of the Newcastle Local Area Plan 2012-2022 and therefore is responsive to and consistent with the plan-led future potential development of the wider area. The development proposals, and the preparation of the EIAR, have had particular regard to the established site context and surrounding development, extant permissions in the vicinity of the site, the high-level plan-led masterplan for future development of adjacent zoned lands to the west, and the detailed framework for Newcastle as provided for Newcastle Local Area Plan 2012-2022.

3.2 Description of Construction

3.2.1 Construction Phase & Land Use Requirements

The proposed development requires demolition of existing buildings on site, site clearance and preparation, stripping of organic material across the site, removal and disposal of any waste.

Where feasible, excavated material will be reused as part of the site development works (e.g. use as fill material beneath houses and roads) in order to minimise truck movements to and from the site, however, some unsuitable excavated subsoil is expected and will have to be removed to an approved landfill.

The sequence and method of construction of the development will be confirmed with the appointed Contractor prior to commencement on site. The Contractor will be required to prepare a detailed Construction Management Plan on foot of these proposals.

A Traffic Management Plan (TMP) will be prepared for the works in accordance with the principles outlined below and shall comply at all times with the requirements of:

- Department of Transport Traffic Signs Manual 2010 – Chapter 8 Temporary Traffic Measures and Signs for Roadworks
- Department of Transport Guidance for the Control and Management of Traffic at Road Works (2010)
- Any additional requirements detailed in the Design Manual for Roads and Bridges (DMRB) & Design Manual for Urban Roads & Streets (DMURS)

The exact location of the construction compound is to be confirmed in advance of commencement of the works (and agreed with South Dublin County Council).

The location of the construction compound is likely to be relocated during the course of the works, in line with the phasing of the development

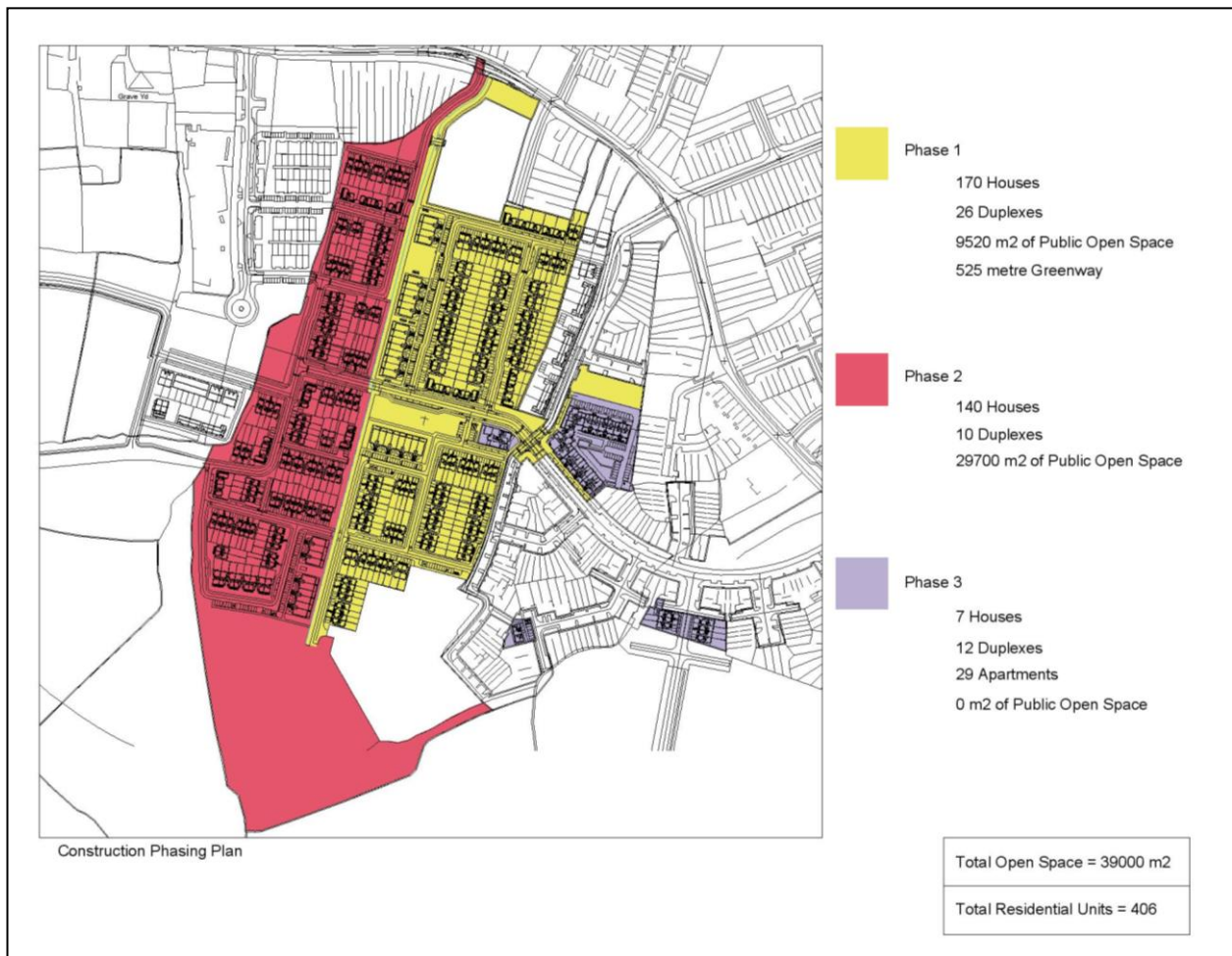
The construction compound will include adequate welfare facilities such as washrooms, drying rooms, canteen and first aid room as well as foul drainage and potable water supply

- Foul drainage discharge from the construction compound will be tinkered off site to a licensed facility until a connection to the public foul drainage network has been established
- The construction compound's potable water supply shall be protected from contamination by any construction activities or materials
- The construction compound will be enclosed by a security fence
- Access to the compound will be security controlled and all site visitors will be required to sign in on arrival and sign out on departure
- A permeable hardstand area will be provided for staff car parking
- A separate permeable hardstand area will be provided for construction machinery and plant
- The construction compound will include a designated construction material recycling area

- A series of way finding signage will be provided to direct staff, visitors and deliveries as required
- All construction materials, debris, temporary hardstands etc. in the vicinity of the site compound will be removed off-site on completion of the works

An indicative phasing plan has been prepared for the delivery of the overall scheme (see Figure 3.5). It is envisaged that the proposed development will be developed over three phases with Phases 1 and 2 predominantly comprising of the Main Development with the infill sites and creche following as Phase 3. The proposed phasing is indicative only. Any alternative phasing proposals will be agreed with South Dublin County Council prior to commencement of the respective phase.

Figure 3.5 Indicative Phasing Plan



(Source: MOLA NCS18- MOLA- 00- ZZ- DR- A- 0901)

3.2.2 Proposed Construction Works

The proposed entrance from Main Street will be constructed as part of the initial phase of development and enabling works. The main spine road and local roads will be constructed as part of the internal development works.

All construction traffic will enter the site via Burgage Crescent to the east and will be routed to the site via the primary road network in the area, (i.e. the M7 Motorway and the R120).

Construction traffic will continue to enter the site via Burgage Crescent for the remaining construction phases of the development with the construction traffic diverted to internal, temporary haul roads to access construction areas.

Measures will be in place to ensure roadways are to be kept clean of muck and other debris. A road sweeping truck is to be provided if necessary, to ensure that this is so. A wheel wash will be provided for the duration of the earthworks.

Construction plant used on site will comply with the relevant Irish regulations in relation to noise and vibration requirements. Noise will be minimised as far as possible, in particular by limiting the use of compressors and other plant to stated hours and by fitting and use of silencing devices wherever practicable.

3.2.3 Duration & Timing

For the duration of the proposed infrastructure works the maximum working hours shall be 07:00 to 18:00 Monday to Friday (excluding bank holidays) and 08:00 to 15:00 Saturdays, subject to the restrictions imposed by the local authorities.

No working will be allowed on Sundays and Public Holidays.

Subject to the agreement of the local authorities, out of hours working may be required for water main connections, foul drainage connections etc.

3.2.4 Use of Natural Resources

Inert material will be imported to the site. This material will be either quarried product; greenfield/inert soil imported under a Waste Permit issued by the local authority; or materials that have been approved as by-products by the EPA in accordance with the EPA's criteria for determining a material is a by-product, per the provisions of article 27(1) of the European Communities (Waste Directive) Regulations, 2011.

3.2.5 Production of Waste

A Construction Waste Management Plan will be prepared by the contractor which meets the requirements of the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction & Demolition Projects (DoEHLG, 2006).

Construction and Demolition (C&D) waste is defined as waste which arises from construction, renovation and demolition activities, together with all waste categories mentioned in Chapter 17 of the European Waste Catalogue (EWC).

Also included within the definition are surplus and damaged products and materials arising in the course of construction work or used temporarily during the course of on-site activities.

The first stage of the construction works will involve demolition works, site preparation and clearance. The demolition phase of the proposed development will involve removal of all existing structures within the site. Removal of the existing topsoil layer will be required. It is expected that all stripped topsoil will be reused on site, incorporated into landscaping of back gardens and public open spaces. It is estimated that up to 12,000m³ of excavated subsoil layers will be generated and will be reused where possible for non-structural fill. Excavated material including surplus soils/stones not required for reuse on site will be removed from site as a waste product by a permitted contractor as appropriate to a licenced facility

The contractor will ensure that any off-site facilities to which construction and demolition waste is delivered have the appropriate Certificate of Registration, Waste Facility Permit or Waste Licence in place. The Contractor will ensure that waste generation on site is minimised and that waste removed from site for recovery or disposal is reduced where feasible.

3.2.6 Emissions & Nuisances

No significant impacts will arise in terms of emissions and nuisances during the construction and operational period of the development. A detailed assessment of the potential impacts on noise and vibration and air quality are provided in Chapters 8 and 9 respectively.

3.2.7 Risk of Accidents

The risk of accidents arising as a result of the development at both the construction and operational phase will be minimised through detailed design considerations and health and safety management.

Health & Safety

As required by the Safety, Health and Welfare at Work (Construction) Regulations 2013 (as amended), a Health and Safety Plan will be prepared by the Contractor which will address health and safety issues from the design stages through to the completion of the construction and maintenance phases. This plan will be reviewed as the proposed development progresses. The contents of the Health and Safety Plan will comply with the requirements of the Regulations.

Security

Security will be the responsibility of the contractor who will provide adequate security to prevent unauthorised entry to or exit from any working areas. The following measures may be used to prevent unauthorised access:

- Install CCTV and alarm systems where required. CCTV and security systems will be sited and directed so that they do not intrude into occupied residential properties;
- Provide adequate security guards and patrols;
- When there is no site activity, close and lock site gates and set appropriate site security provisions in motion;
- Consult with neighbouring properties and local crime prevention officers including Kildare County Council and An Garda Síochána on site security matters as required; and
- Prevent access to restricted areas and neighbouring properties by securing equipment on site such as scaffolding and ladders.

Hoarding and Fencing

A site boundary in the form of hoarding or fencing will be established around each of the working areas before any significant construction activity commences in that working area. The hoarding/fencing will be 2.4m high to provide a secure boundary to what can be a dangerous environment for those that have not received the proper training and are unfamiliar with construction operations. Hoarding and fencing will be maintained to an acceptable condition to prevent unwanted access to working areas and provide appropriate noise attenuation, screening, and site security where required

Environmental Management

It will be a requirement that the contract(s) awarded for the proposed development will comply with relevant documentation including an environmental protection and mitigation measures identified in this EIAR, planning (and other statutory consent) conditions received and the detailed Construction Environmental Management Plan to be prepared on appointment of Contractors.

As part of the Construction Environmental Management Plan, contractors will need to comply with all relevant environmental legislation and take account of published standards, accepted industry practice, national guidelines and codes of practice appropriate to the proposed development. Due regard will be given to the guidance and advice given by ISO14001 standard and Construction Industry Research and Information Association (CIRIA) guidance.

The contractor will be required to develop and implement an Environmental Management System (EMS) that follows the principles of ISO14001. Further, the contractor's EMS will include an environmental policy, operational, monitoring and auditing procedures to ensure compliance with all environmental requirements and to monitor compliance with environmental legislation and the environmental management provisions outlined in the relevant documentation.

3.2.8 Secondary Projects

The proposed foul drainage system for the proposed development site will connect to the existing 525mm diameter foul sewer on Aylmer road via a new 375mm diameter foul sewer. This 375mm diameter foul sewer is proposed by Irish Water as part of the Local Network Reinforcement Project for Newcastle. This foul sewer will be delivered in conjunction with Irish Water as part of the connection agreement for the proposed development site. In addition, upgrade works are required to the Newcastle Pump Station to facilitate the proposed development. Any upgrade works required to Newcastle Pump Station will be similarly agreed and delivered in accordance with Irish Water.

The proposed development provides for a new 3-arm priority-controlled junction to the north of the site onto Main Street. It is anticipated that a 'ghost' island arrangement will be introduced on Main Street incorporating a new right turn lane to the proposed development. These works will be agreed and carried out in conjunction with South Dublin County Council

While the works referenced above do not form part of this application, and will be delivered separately in conjunction with Irish Water and South Dublin County Council respectively, the works have been assessed as part of the cumulative impact of the proposed development. In this respect, detailed engineering drawings including works associated the new foul sewer and Main Street junction layout have been included on the application drawings.

3.3 Operation of the Project

As demonstrated in the following sections of this EIAR, post-construction, the operation of the proposed development is not likely to give rise to any significant additional impacts in terms of activities, materials or natural resources used or effects, residues or emissions which are likely to have a significant impact on human beings; flora and fauna, soils, water, air, climate, landscape.