Universal Design Statement

Residential Development
Woodtown
Ballycullen
Dublin 16

JFOCarchitects

Universal Design Statement

What is Universal Design?

Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size or disability. This includes public places in the built environment such as buildings, streets or spaces that the public have access to; products and services provided in those places; and systems that are available including information and communications technology (ICT).
(Disability Act, 2005)

This Universal Design Statement is provided to confirm that the proposed development has been designed to comply with the Principals of Universal Design, the relevant Building Regulations, relevant Development Plan requirements taking cognisance of other national and international guidelines and best practice.

Standards & Guidelines

The Development is required and designed to provide compliance with the following:
- The Building Regulations 1997-2025, Specifically Technical Guidance Document Part M (Access & Use)
- South Dublin County Development Plan

The design team has been guided in its approach from preliminary design stage by the following documents:
- The Centre for Excellence in Universal Design (CEUD) - Building for Everyone
- The Centre for Excellence in Universal Design (CEUD) – Principals of Universal Design
- BSI (2018), BS8300-1: Design of an accessible and inclusive built environment, Part 1: External Environment –
Code of Practice

- BSI (2018), BS8300-2: Design of an accessible and inclusive built environment, Part 1: Buildings – Code of Practice
- DMURS – Design Manual for Urban Roads and Streets.

Compliance

Technical Guidance Document Part M provides guidance in relation to providing compliance with the requirements of Part M of the second schedule of the Building Regulations and provides as follows:

Part M aims to foster an inclusive approach to the design and construction of the built environment. The requirements of Part M (M1-M4) aim to ensure that regardless of age, size or disability:

(A) New buildings other than dwellings are accessible and useable:

(B) Extensions to existing buildings other than dwellings are where practicable, accessible and useable;

(C) Material alterations to existing buildings other than dwellings increase the accessibility and usability of existing buildings where practicable.

Design & Compliance Approach

Where works are carried out in accordance with the guidance within Technical Guidance Document Part M 2022, this will, prima facie, indicate compliance with Part M of the Second Schedule of The Building Regulations (as amended). The Design team is committed to achieving universal access throughout the proposed development within the built environment and the public realm.

Public Realm and Approach

The provision of independently accessible means of approach to the accessible entrance(s) of a building and means of circulation within a building.in accordance with Section 1.1 of TGD Part M 2022.

In some instances, due to the sloping nature of the site, ramped access to the front door is not possible, and is provided to the rear entrance, with ambulant stairs provided to the front door.

In other areas, the sloping nature of the site has allowed level access to both ground floor and first floor apartments. The ground floor apartments are accessed from the lower (north) side, while the first floor apartments are accessed from the higher (south side of the site. These apartment blocks have been designed to navigate the sharp change in level across the site in a manner that improves and increases the accessibility of the apartments.

Please refer to JFOC dwelling type drawings & NMP Landscape Architects *Landscape Design Statement* for further information

Independent Accessibility

The provision of entrances to buildings that are independently accessible and avoid segregation based on a person's level of ability in accordance with Section 1.2 of TGD Part M 2022. The following are provided in accordance with TGD Part M Section 1.1

As above, the majority of dwellings are provided with level access. First floor duplex units are provided with Ambulant Disabled stairways in accordance with TGD Part M Section 1.1.3.5 stepped access. The design including materials and lighting of entrance doors makes them easily identifiable. Entrance doors are provided with a minimum leading edge of 300mm.

Sanitary Fittings

Independently accessible sanitary facilities that meet the needs of people with a wide range of abilities have been provided in accordance with Section 3.4 of TGD Part M 2022.

Accessibility

Dwelling houses and apartments have been designed to provide for adaptability as resident requirements change over time. Reference to The National Disability Authority in Ireland (NDA) - Building for Everyone – A5 Lifetime Home Standards (Refer to Diagram 1 & 2).
Provision includes for:

- Where car parking is provided on the curtilage of a house, it is located close to the front door. Car parking is located behind the access route to the front door such as not to impede level access.
- As far as practical on this steeply sloping site, level access or gently sloping is provided from car parking space to front doors
- Stairwells are located centrally and close to the front door. Distances between entrance stairwells is kept to a minimum.
- The majority of living rooms are located at entrance level.
- Two and three storey houses have adequate space to allow for the provision of a ground floor bedroom if required.
- Two and three storey houses are designed to allow for horizontal and vertical extension for the provision of additional space if so required.
- Generally Internal walls within apartments constructed in lightweight stud partitions providing for future adaptability.

Simple and Intuitive Work

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level. Guidelines:

3a. Eliminate unnecessary complexity.

3b. Be consistent with user expectations and intuition.

3c. Accommodate a wide range of literacy and language skills.

3d. Arrange information consistent with its importance.

3e. Provide effective prompting and feedback during and after task completion.

- Pedestrian and bicycle routes throughout the development provide direct connectivity
- A clear street hierarchy provides a consistent appreciation of place and of way finding.
- Node houses are situated at prominent positions to assist for wayfinding for pedestrians, cyclists and motorists.

- Raised traffic tables, bends and landscaping on roads in conjunction with visual contrasts to surface and footpaths within home zones provides for a pedestrian and cyclist priority environment, designed to encourage low vehicular speed.

Conclusion

The development has been designed to so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size or disability. This includes public places in the built environment such as buildings, streets or spaces that the public have access to.

Disability Accessibility Certificates will be required for all apartments and for the creche building.

The Building Control (Amendment) Regulations 2014, will be applicable to all Residential Apartments & Dwelling houses, Evidence of compliance with the Building Regulations will be provided to the Local Authority under this process.

CONTENTS

1. INTRODUCTION

This report has been prepared in accordance with section 6.13 of 'Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities' (July 2023), which states that any planning application for apartment developments "*shall include a building life-cycle report which in turn includes assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents*".

This ensures compliance with the Multi-Unit Developments Act, 2011, which sets out legal requirements regarding the management of apartment developments, and consideration of the long-term running costs of the apartment building.

2. PROPOSED DEVELOPMENT DESCRIPTION

This Building Life Cycle Report relates to apartment units associated with a Large Scale Residential Development (LRD) in the townland of Woodtown, Ballycullen, Dublin 16. The lands are located to the east of Abbots Grove Park, south-east of Abbots Grove Avenue, south of Stocking Avenue and Stocking Wood estate, and west of White Pines Park.

The proposed development will consist of 502 no. residential units (108 no. 1-bed, 170 no. 2-bed, 162 no. 3-bed; 62 no. 4-bed) comprising 197 no. 2 storey houses (terraced / semi-detached / detached) (19 no. 2-bed, 116 no. 3-bed; 62no. 4-bed) and 28 no. 3 and 4 storey simplex/duplex apartment blocks providing 305 no. apartments (108 no. 1-bed apartments, 151no. 2-bed apartments, 46 no. 3-bed apartments). The proposed development also includes a crèche (c.475sq.m), public open space, car parking (surface/undercroft), bicycle parking, bicycle storage structures and lockers, bin stores, and 8no. ESB substations. Vehicular access to be provided from the existing spur road connection to Stocking Avenue to the west of the site, and via Stocking Wood Drive to the east of the site (with relocation of existing ESB substation and associated works to the existing hammerhead). Additional pedestrian only routes will be provided into Abbot's Grove Park and Stocking Wood Copse with future connections provided for into Stocking Wood Manor, White Pines Park and the future school site to the north of the application site. The proposed development includes all associated site development works (including site reprofiling, retaining structures and downing of ESB overhead lines), landscaping, boundary treatments and services provision.

3. ASSESSMENT OF LONG-TERM RUNNING & MAINTENANCE COSTS AS THEY WOULD APPLY ON A PER RESIDENTIAL UNIT BASIS

3.1. Property Management of the Common Areas

A Property Management Company would be engaged at early stages of the development to oversee the long term running and maintenance costs of the building's common areas on behalf of the Owners Management Company (OMC). The OMC will enter a contract with the property management company for no more than 3 years, after which it will be re-tendered, as prescribed by the PRSA.

Upon completion of Apartments, responsibilities of the Property Management Company will include:

- Timely formation of the OMC. All future purchasers will be obliged to become members of the OMC.
- Preparation of an annual Service Charge Budget for the development communal areas
- Equitable apportioning of annual operational charges in line with the Multi Unit Development Act (MUD) 2011
- Engagement of Independent Legal representation on behalf of the OMC in keeping with the MUD – including completion of Developer OMC Agreement and transfer of common areas.
- Estate Management
- Third Party Contractors procurement and management
- Accounting Services
- Corporate Services
- Insurance Management
- After-Hours Services
- Staff Administration

3.2. Service Charge Budget

The property management company has several key responsibilities including the compiling of the service charge budget for the development for agreement with the OMC.

The service charge budget covers items such as cleaning, landscaping, refuse management, utility bills, insurance, maintenance of mechanical/electrical lifts/ life safety systems, security, property management fee, etc., to the development common areas in accordance with the MUD Act 2011.

This service charge budget also includes an allowance for a Sinking Fund, and this allowance is determined following the review of the Building Investment Fund (BIF) report prepared for the OMC. The BIF report once adopted by the OMC, determines an adequate estimated annual cost provision requirement based on the needs of the development over a 30-year cycle period. The BIF report will identify those works which are necessary to maintain, repair, and enhance the premises over the 30year life cycle period, as required by the MUD 2011. Each year at a General Meeting of members, the OMC will determine the contribution to be made to the Sinking Fund, having regard to the BIF report.

Note: the detail associated with each element heading i.e. specification and estimate of the costs to maintain / repair or replace, can only be determined after detailed design and the procurement/ construction of the development and therefore a BIF report is not included in this document.

4. MEASURES SPECIFICALLY CONSIDERED BY THE PROPOSER TO EFFECTIVELY MANAGE & REDUCE COSTS FOR BENEFITS OF RESIDENTS

4.1. Energy & Carbon Emissions

Measure	Description	Benefit
BER Certificates	A Building Energy Rating (BER) certificate will be provided for each dwelling in the proposed development which will provide detail of the energy performance of the dwellings. A BER is calculated through energy use for space and hot water heating, ventilation, and lighting and occupancy. It is proposed to target an A2/A3 rating for the apartments this will equate to the following emissions: • A2 – 25-50 kwh/m2/yr with CO2 emissions circa 10kgCO2/m2 year • A3 – 51-75 kwh/m2/yr with CO2 emissions circa 12kgCO2/m2 /yea	A BER rating is a reduction in energy consumption and running costs
Passive Solar Design	Daylight in buildings creates a positive environment by providing connectivity with the outside world and assisting in the wellbeing of the building's inhabitants. Daylight also represents an energy source; it reduces the need for artificial lighting, particularly in dwellings where natural light alone is often sufficient throughout the day. The design intent is to maximise the use of natural daylight to enhance visual comfort and not compromise thermal performance. The proposed development will have glazing specified that will minimise thermal conduction (u-value) while allowing for sufficient daylight and maximising solar gain. Maximising solar gain within the limitations of thermal comfort allows for a portion of the space heating load to be met passively during the day.	Good level of daylight within the development will ensure that occupants rely less on artificial lighting and heating.
Fabric Energy Efficiency	In order to limit the heat loss through the building fabric the thermal insulation for each of the plane elements of a new dwelling must meet or better the	Lower U-values and improved air tightness is being considered to help

<table>
<tr>
<td></td>
<td>area weighted average elemental U-Values (Um) as specified by Part L, listed in Table 1 (column; Part L 2019).

<table>
<tr><th>Table 1</th><th colspan="2">Maximum elemental U-value (W/m²K)[1, 2]</th></tr>
<tr><th>Column 1
Fabric Elements</th><th>Column 2
Area-weighted Average Elemental U-value (Um)</th><th>Column 3
Average Elemental U-value – individual element or section of element</th></tr>
<tr><td>Roofs

Pitched roof
- Insulation at ceiling
- Insulation on slope

Flat roof</td><td>

0.16

0.16

0.20</td><td>

0.3</td></tr>
<tr><td>Walls</td><td>0.18</td><td>0.6</td></tr>
<tr><td>Ground floors[3]</td><td>0.18</td><td>0.6</td></tr>
<tr><td>Other exposed floors</td><td>0.18</td><td>0.6</td></tr>
<tr><td>External doors, windows and rooflights</td><td>1.4[4,5]</td><td>3.0</td></tr>
<tr><td colspan="3">Notes:
1. The U-value includes the effect of unheated voids or other spaces.
2. For alternative method of showing compliance see paragraph 1.3.2.3.
3. For insulation of ground floors and exposed floors incorporating underfloor heating, see paragraph 1.3.2.2.
4. Windows, doors and rooflights should have a maximum U-value of 1.4 W/m²K.
5 The NSAI Window Energy Performance Scheme (WEPS) provides a rating for windows combining heat loss and solar transmittance. The solar transmittance value g perp measures the solar energy through the window.</td></tr>
</table>
</td>
<td>minimise heat losses through the building fabric, lower energy consumption and thus minimise carbon emissions to the environment.</td>
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<tr>
<td>ECAR Charging Points</td>
<td>E-car charging car park spaces and ducting for E-car charging has been provided. This will enable the management company the option to install E-car charging points within the carpark to cater for E-car demand of the residence. This system operates on a single charge point access card. A full re-charge can take from one to eight hours using a standard charge point.</td>
<td>Providing of E-car charging points will allow occupants to avail of the ever-improving efficient electric car technologies.</td>
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<tr>
<td>LED Lighting</td>
<td>Lighting accounts for approximately 12% of all residential energy use. As homes become more energy efficient, lighting consumes an increasingly larger proportion of the total energy used. Selecting efficient fixtures and lamps helps</td>
<td>LED lighting will ensure that running costs are kept to a minimum. PIR sensors will be used in</td>
</tr>
</table>

	reduce energy use. High-efficiency light fixtures and lamps use up to 75% less energy, produce less waste heat, and last longer than traditional incandescent lighting.	all circulation areas

4.2. Building Design

Measure	Description	Benefit
Daylight & Sunlight to Apartments	A Daylight & Sunlight Report has been included in the application. The report concludes that the proposed development has been successfully designed to provide recommended quality of daylight and sunlight exposure to the new dwellings and outdoor amenity spaces to the vast majority of its dwellings	Good daylighting reducing the expense of artificial lighting
External Lighting	External lighting will comply with the latest standards and achieve: Low-level lighting • Utilise low voltage LED lamps • Minimum upward light spill Each light fitting shall be controlled via an individual Photoelectric Control Unit (PECU). The operation of the lighting shall be on a dusk-dawn profile. Please refer to Waterman Moylan Consulting Engineers documentation for more information.	Lighting will be designed to achieve the required standards, provide a safe environment for pedestrians, cyclists, and vehicular traffic, provide surveillance and limit the impact on the artificial lighting on surrounding existing flora and fauna. Having PECU allows for the optimum operation of lighting which minimizes costs
Balconies and Openable Windows	Use of balconies & openable windows allow individuals to clean windows themselves	Reduces the cost and reliance on 3rd party contractors for cleaning &

		maintenance.

4.3. Materials

Measure	Description	Benefit
Implementation of the Design and Material principles to the design of the proposed development.	Materials have been selected with a view to longevity, durability and low maintenance with Consideration given to Building Regulations and include reference to BS 7543:2015 'Guide to Durability of Buildings and Building elements, Products and Components'	Longevity, durability and low maintenance of materials
Brickwork to the building envelope	Refer to Materials & Finishes Report below	No maintenance required
Render to the building envelope	Refer to Materials & Finishes Report below	No maintenance required
Installation of aluminium triple glazed 0.8 U-value windows	Refer to Materials & Finishes Report below	Excellent airtightness and low maintenance

4.4. Landscape

Measure	Description	Benefit
Site Layout & Landscaping Design	High quality landscaping both hard surface (for the cycle and pavements) and soft landscaping with planting and trees. The landscape design by NMP is fully compliant with requirements for Part M / K of the Technical Guidance Documents and will provide level access and crossings for	Plenty of room for cycles and pedestrians. Wheelchair user-friendly.

	wheelchair users and pedestrians with limited mobility. Please refer to NMP's 'Landscape Design Report' for further details on Landscaping Design.	
Paving & Decking Materials	Sustainable, robust materials, with high slip resistance to be used for paving. Durable and hardwearing equipment (e.g. play, exercise, fencing etc.) to be used throughout. Please refer to NMP's 'Landscape Design Report' for further details on Landscape Materials.	Robust materials and elements reduce the frequency of required repair and maintenance.
Soft Landscape	Planting proposals have been formulated to complement the local setting as well as being fit for purpose in respect of private and public realm uses and spatial constraints imposed by garden sizes and the width of planting strips. Native tree species have been selected in significant numbers for planting along boundaries and across open spaces while non-native species have also been selected where spatial constraints are a factor.	Reduction in the frequency of required soft landscape maintenance
Sustainability & Biodiversity	Sustainability aspects of the proposed development include the retention of trees and hedgerows along site boundaries and the use of native trees where possible across the site. Other species have been carefully selected for compatibility with the size of available spaces which is an important factor in long term management of the housing estate. The overall objective is to enhance the biodiversity potential of the site in addition to providing seasonal interest and variety. The existing mature trees running north-south through the site has been maintained and enhanced.	Enhanced sustainability of long-term estate management

	Judiciously placed flowering shrub and groundcover planting have been included to further promote biodiversity (pollinator species attracting insects and birdlife) Please refer to NMP's 'Landscape Design Report' for further details on Sustainability & Biodiversity.	

4.5. Low Energy Technologies Considered

Measure	**Description**	**Benefit**
Mechanical Ventilation Heat Recovery (MVHR)	The proposed system for apartments will use mechanical ventilation with heat recovery (MVHR), which is a whole-house ventilation system that generally supplies fresh air to dry rooms and extracts stale air from wet rooms. Both air flows are to be ducted and driven by two fans, one on the supply side and one on the extract side. This will provide whole building ventilation as the mechanical extract fan will remove odours and excessive humidity to maintain a good air quality. A key component of the system is that a heat recovery unit is utilised to transfer heat from the warm exhaust air to the fresh air, achieving heat recovery.	Mechanical Heat Recovery Ventilation provides ventilation with low energy usage. The MVHR reduces overall energy and ensures a continuous fresh clean air supply.
ECAR Charging Points	E-car charging car park spaces and ducting for E-car charging has been provided. This will enable the management company the option to install E-car charging points within the carpark to cater for E-car demand of the residence. This system operates on a single charge point access card. A full re-charge can take from one to eight hours using a standard	Providing of E-car charging points will allow occupants to avail of the ever-improving efficient electric car technologies.

	charge point.	
Combines Heat & Power (CHP)	Combined Heat and Power, (CHP), is a technology being evaluated in the event a number of apartments remain in a single ownership. This technology generates electricity and captures the waste heat from the generation unit that can be used within the development.	CHP can achieve energy efficiencies by reusing waste heat from the unit to generate heat required for space heating & domestic hot water services in the apartment developments.
PV solar panels	PV Solar Panels are being considered which converts the electricity produced by the PV system (which is DC) into AC electricity The panels are typically placed on the South facing side of the building for maximum heat gain and in some instances, can also be used to assist the heating system.	PV Solar Panels offer the benefit of reducing fossil fuel consumption and carbon emissions to the environment. They also reduce the overall requirement to purchase electricity from the grid.

4.6. Health & Well Being

Measure	**Description**	**Benefit**
Natural Daylight	Design of the layout of the building has been optimized to achieve a good quality of natural daylight to the units.	Good level of daylight within the development will ensure that occupants rely less on artificial lighting
Accessibility	All units, including access and egress, will comply with the requirements of Part M/K	Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances.
Private Open Space	Provision of private open space	Facilitates interaction with outdoors, increasing health

		benefits.
Security	Passive surveillance is incorporated into the design CCTV for common areas Routine access fob audit	Reduce the risk of crime, littering within the scheme and reduction of potential waste charges.
Natural Amenity	A number of green spaces proposed throughout the scheme, connecting to large active and passive areas.	Facilitates community interaction, socialising and play – resulting in improved wellbeing

4.7. Waste Management

Measure	**Description**	**Benefit**
Construction & Operational Waste Management Plan	This application is accompanied by a Construction and Operational Waste Management Plan	The report demonstrates how the scheme has been designed to comply with best practice.
Storage of non-recyclable waste and recyclable household waste	Each Duplex and Simplex Unit has its own external bin store. Apartment block to have covered & locked bin storage adjacent to apartments Domestic waste management strategy: Grey, Brown and Green bin distinction. Competitive tender for waste management collection.	Access to all residents to reduce the risk of littering within the scheme and reduces potential waste charges.
Composting	Addition of organic waste bin	Helps to reduce waste charges and the amount of waste going

	to be provided	to landfill.

4.8. Transport & Accessibility

Access to Public Transport	The site benefits from excellent transport links and local amenities. A mobility plan has been included with the planning application documents.	The availability, proximity and ease of access to high quality public transport services contributes to reducing the reliance on the private motor vehicle for all journey types.
Cycling and Pedestrian Permeability	There is provision of dedicated pedestrian and cycle infrastructure within the site.	Ensures long-term attractiveness of walking and cycling to a range of local facilities.
Bicycle Storage	All apartments are provided with 1 bicycle space per bed space.	Accommodates the uptake of cycling and reduces the reliance on the private motor vehicle.