

JV TIERNEY & CO

MECHANICAL ELECTRICAL & SUSTAINABLE ENGINEERS

PUBLIC LIGHTING REPORT

RESIDENTIAL DEVELOPMENT

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NEW ROAD RESIDENTIAL DEVELOPMENT**DONABATE****4388-JVT-00-RP-E-0001 - REPORT**

Description	Rev.	Date	Signed by:
PLANNING	01	04/04/2024	<i>Michael Downey</i>

NEW ROAD RESIDENTIAL DEVELOPMENT

DONABATE

4388-JVT-00-RP-E-0001 – PUBLIC LIGHTING REPORT

PLANNING DOCUMENT

4388-JVT-00-RP-E-0001- PUBLIC LIGHTING REPORT

NEW ROAD RESIDENTIAL DEVELOPMENT

DONABATE

4388-JVT-00-RP-E-0001 – PUBLIC LIGHTING REPORT

TABLE OF CONTENTS

LIGHTING DESIGN NARRATIVE	5
SECTION 2 - APPENDIX A	7

NEW ROAD RESIDENTIAL DEVELOPMENT

DONABATE

4388-JVT-00-RP-E-0001 – PUBLIC LIGHTING REPORT

LIGHTING DESIGN NARRATIVE

The proposed development will principally comprise the construction of 175 No. residential dwellings (123 No. houses and 52 No. apartments) and a single-storey crèche of 365 sq m (with outdoor play area and external stores). The 123 No. houses, which are part-1-/part-2-storey and 2-storey in height, include 30 No. 2-bed units, 82 No. 3-bed units and 11 No. 4-bed units. The 52 No. apartments include 26 No. 1-bed units, 20 No. 2-bed units and 6 No. 3-bed units and are contained in a single block ranging in height from 1 No. to 4 No. storeys.

The development will also include the following: 2 No. new multi-modal entrances/exits at New Road; 2 No. multi-modal connections to existing and under construction residential developments to the east and north respectively; cycle track and footpath along New Road; 139 No. car parking spaces; 4 No. set down bays; 6 No. Motorcycle parking spaces, cycle parking; hard and soft landscaping, including public open space, communal amenity space and private amenity spaces (which include gardens, balconies and terraces facing all directions); boundary treatments; 1 No. sub-station; bin stores; lighting; PV panels atop houses; green roofs, PV panels, lift overruns and plant atop the apartment block; green roofs and PV panels atop the crèche building; and all associated works above and below ground.

JV Tierney has designed the lighting installation to comply with the Fingal Public Lighting specification. The residential public lighting design is based on Illuminance calculations and shall achieve P4 Class lighting in accordance with BS 5489-1:2013, calculated in accordance with IS EN 13201-3:2015.

As per the requirements, cabling will be in NYCY to DIN VDE 0276603 m(0.61kV) suitably sized as per Fingal County Council public specification. See drawing showing lighting levels and infrastructure across the site.

Ducting on the site will be single walled red HDPE with 107mm O.D. and wall thickness of 5mm with Public Lighting stamped at 1m intervals and lettering on the ducting should be 9mm high. All ducting works will comply with the ECTI requirements. Access chambers will be provided at all access points for road crossings. They will be provided in Group 2 areas suitable for loading class B125 i.e. Footways, pedestrian areas. They will be “ej” manufactured FJ 60/45 to EN124, loading class B125, suitable resistant to intrusion and be of at least 775mm x 626mm square as per the requirement.

Columns shall be of the same type throughout the development and comply with B.S 4360 Grade 43C, B.S 5649 and galvanized to BS EN1461. They will be anti-vandal type columns due to the assessed site requirements and will all have anti rotational devices installed.

LED lighting has been chosen and they comply with all EN standards and all luminaires shall be mounted on 6 metre columns in line with Fingal’s public lighting specification.

NEW ROAD RESIDENTIAL DEVELOPMENT

DONABATE

4388-JVT-00-RP-E-0001 – PUBLIC LIGHTING REPORT

To minimise impact on bat life, the lighting design incorporates the following:

- LED luminaires will be used as they have low UV output, sharp cut-off, lower intensity, good colour rendition and dimming capability.
- The highway diamond luminaire is a fixture that is mounted horizontally, ensuring minimal up-light.
- As per BCI recommendations luminaires should be mounted on poles less than 8m, the luminaires are mounted on 6m poles on this site which is in line with the minimum pole height specified by Fingal County Council Public Lighting Specification.
- The LEDs used are 3000K. The Fingal County Council Public Lighting Specification specifies the LED source to be a neutral white which is 4000K, 3000k luminaires are proposed to satisfy the BCT guidelines.
- Glare shields will be utilized in order to minimise any unnecessary light spill onto bat routes along the boundary if this site. Please see Appendix A for a visible representation of the glare shield that shall be utilized.

NEW ROAD RESIDENTIAL DEVELOPMENT

DONABATE

4388-JVT-00-RP-E-0001 – PUBLIC LIGHTING REPORT

SECTION 2 - APPENDIX A

