




Proposed Locations of frame mounted PV Panel Arrays on unit roof.

Each dwelling includes for 4No PV Panels, each typically rated at 400W

Total dwelling system to be 1.6 kWp

Typical PV Panel Details:

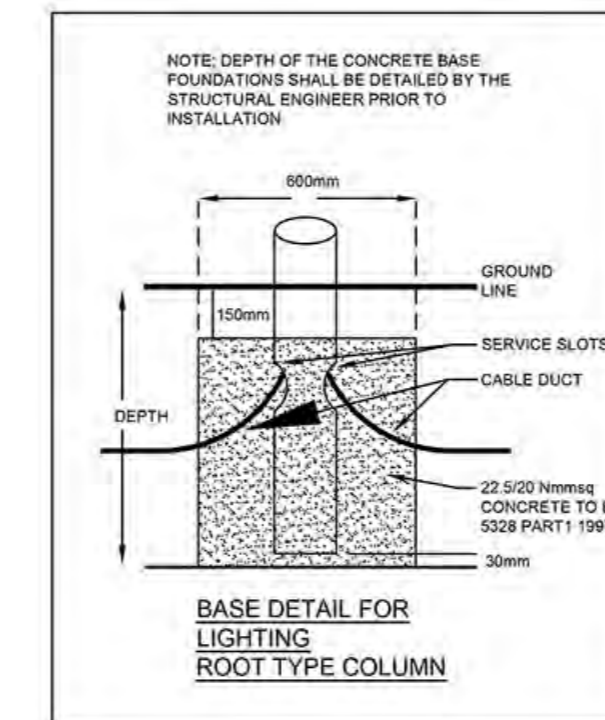
-  Dimensions - 1600mm x 1100mm
- Power - 400W
- Weight - 21kg

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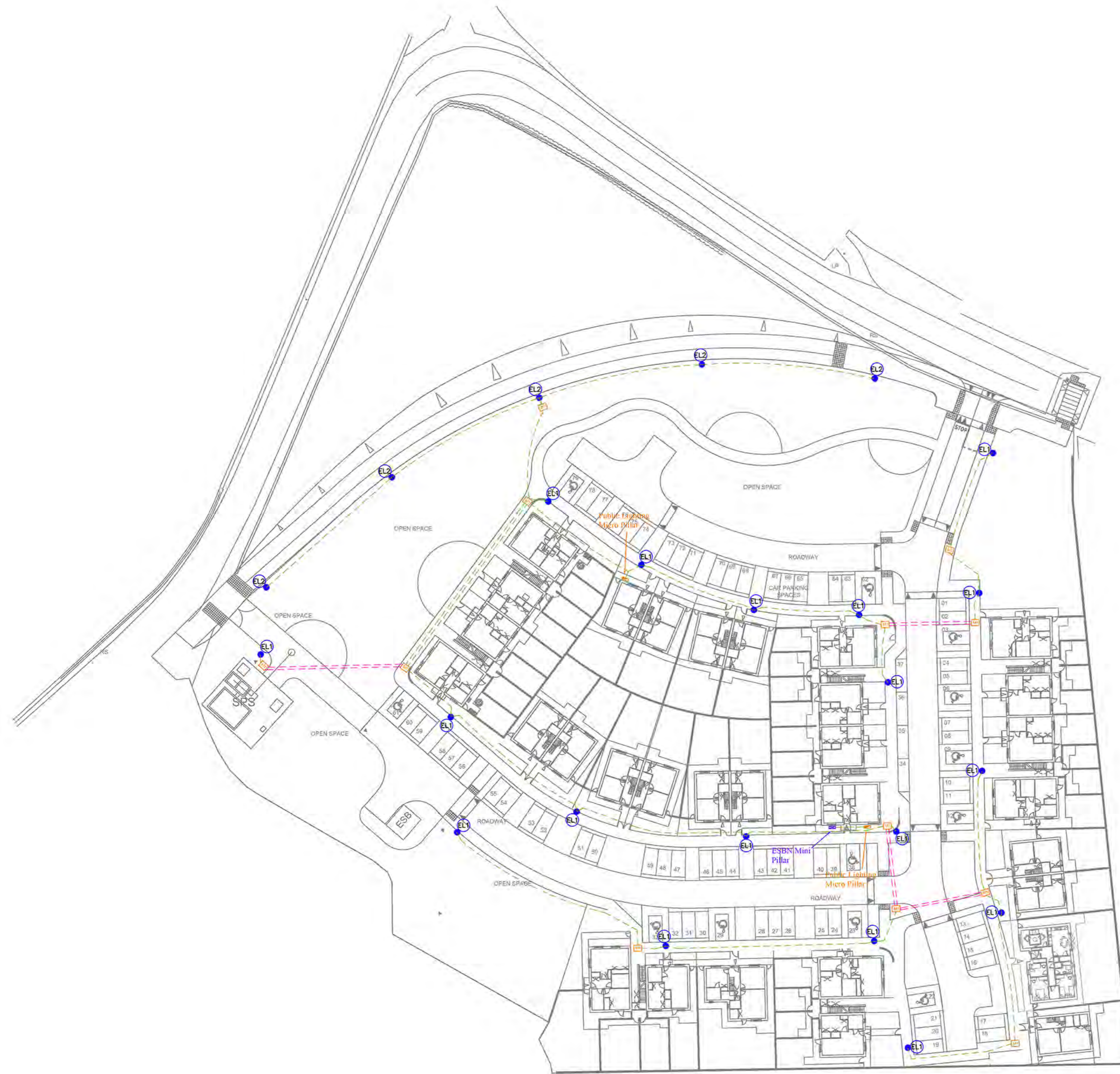
POSITION OF EQUIPMENT TO BE BY SITE MEASUREMENT OR LARGE SCALE DRAWINGS

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	PROJECT SOCIAL HOUSING RATHELLEN PHASE 1 SLIGO COUNTY COUNCIL			
TITLE PV PANEL LAYOUT				
PROPOSED SITE LAYOUT				
DRAWN DW	CHECKED AH	SCALE 1:200@A1	DATE JUL'24	PRJ No. 2326
			DWG No. ESK01A	



Legend

- ESB Infrastructure
- Public Lighting Ducting Route - 50mm
- Public Lighting Ducting Route - 100mm
- 6m Lighting Column
- Column Mounted Road Fitting
- Ground Mounted Pathway Fitting
- Concrete Inspection Chamber 800mm (L) x 800mm (W) x 750mm (D)
- Public Lighting Micro Pillar
- ESB Networks Mini Pillar



Notes:
 The Public Lighting design has been prepared with reference to the CIBSE Lighting Guide LG06, the Institute of Lighting Professionals Document – Guidance Notes for the Reduction of Obtrusive Light GN01:2021 and Guidance Notes for Bats and Artificial Lighting at Night GN08:2023.

The design shall fully comply with IS EN13201 Lighting Class P3.

Public Lighting Ducting is to be red high density polyethylene ducts stamped 'street lighting' or 'public lighting' and be in accordance with Sligo County Council Public Lighting requirements.

The Contractor shall ensure that all ESBN supply points, public lighting pillars, columns, ducts and cables are installed outside the boundaries of private property.

All columns shall be of tapered octagonal construction, fabricated from 3mm sheet steel or of tubular steel construction with a minimum wall thickness of 3mm. No circumferential butt-welding shall be used in column construction. Columns shall comply with SCC street lighting division requirements & specifications.

Columns shall have fitted compartment doors set at a height of 1.5m to centre of opening above finished road level and normally faced away from oncoming traffic. The outside of the planted portion of all columns shall be protected by a bituminous coating extending to a height of 150mm above ground level.

All ducts shall be uPVC complying with BS3506 Class B or High Density Polythene Pipe to IS135 Class B.

Minimum sizes to be 50mm or 100mm as per the drawing with 100mm spare ducts installed at road crossing.

All ducts shall be placed outside the boundaries of properties and shall not at any time pass through ESB or EIR telecom chambers. The contractor shall ensure that spare 50mm ducts are laid across all driveway aprons. Spare 100mm duct shall be provided at each road crossing. In all situations electrical hazard warning tape as per ET10101:2020 shall be laid at the appropriate depth.

Cabling deployed for street lighting shall be minimum 2x6mm SQ NYCY complying with VDE 0271/5.

A bare copper or hot dip galvanised iron earth rod 16mm diameter shall be sunk to a minimum depth of 1200mm adjacent to each service pillar. Earth rods shall be installed with suitable inspection boxes to facilitate inspection of the earth conductor connection to the rod.

Electrical contractor shall refer to Sligo County Council guidelines for public lighting works and ensure that their installation fully complies with this document.

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PROJECT
 SOCIAL HOUSING RATHELLEN PHASE 1
 SLIGO COUNTY COUNCIL

TITLE
 PUBLIC LIGHTING INFRASTRUCTURE

PROPOSED SITE LAYOUT

DRAWN	DW	CHECKED	AH	SCALE	1:500@A1	DATE	JUL'24	PRJ No.	2326	DWG No.	ESK02B
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POSITION OF EQUIPMENT TO BE BY SITE MEASUREMENT OR LARGE SCALE DRAWINGS

Notes:
 The Public Lighting design has been prepared with reference to the CIBSE Lighting Guide LG06, the Institute of Lighting Professionals Document – Guidance Notes for the Reduction of Obtrusive Light GN01:2021 and Guidance Notes for Bats and Artificial Lighting at Night GN08:2023.

The design shall fully comply with IS EN13201 Lighting Class P3.

The plot demonstrates compliance with pre-curfew light intrusion requirements laid out in table 1 of the guidance document for a category E2 zone (Rural or small village) – Obtrusive Light Limitations for Exterior Lighting Installations.

In practice the values may vary due to tolerances in column installation, luminaire orientation, surface reflectance and fluctuations in power supply (voltage).

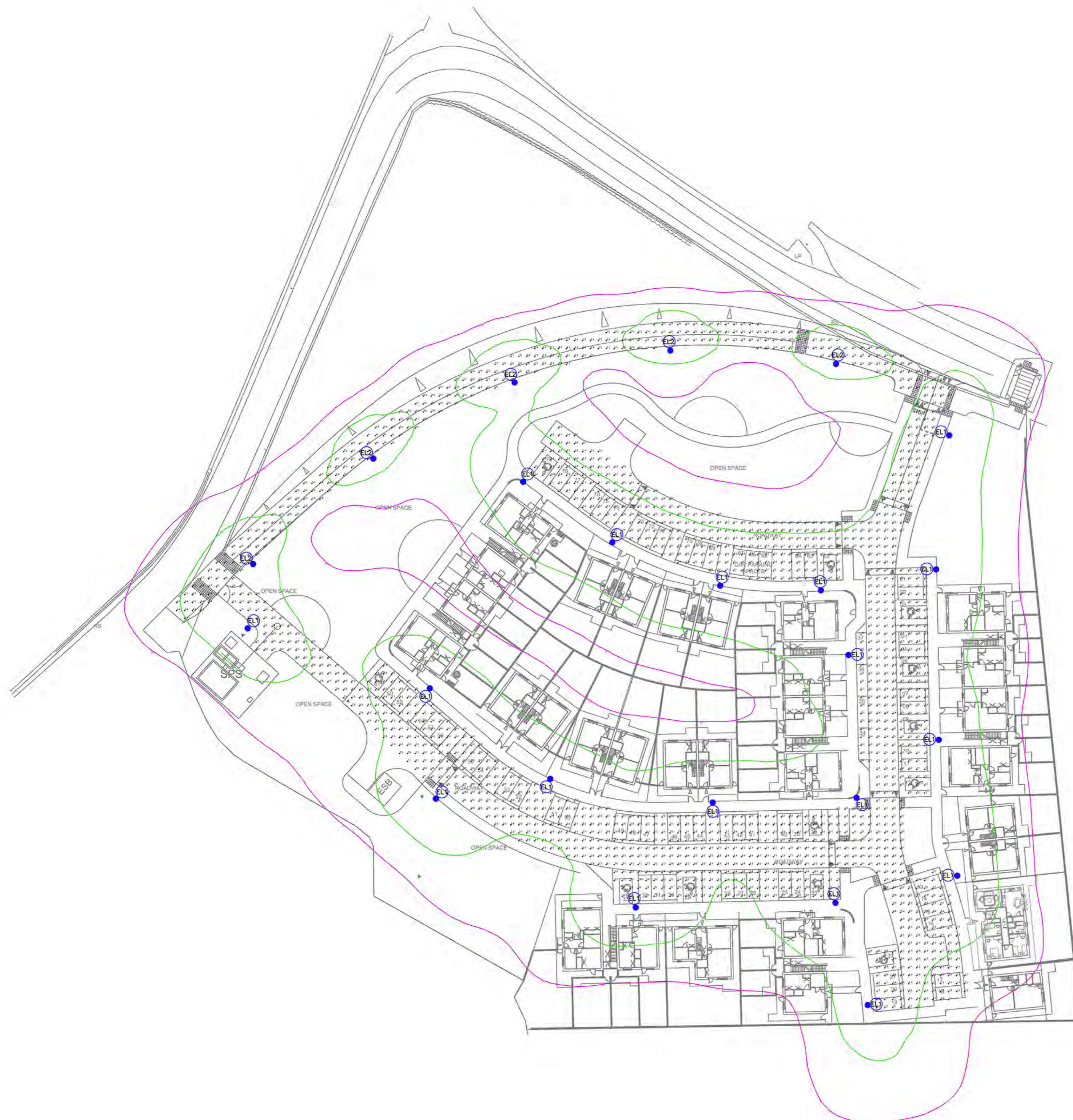
Results provided within this design are derived from product specific photometry, the substitution of alternative luminaires will not produce comparable results.

No obstructions have been included (trees, fences, buildings etc.) resulting in a worst case scenario horizontal illuminance plot.

New Column Mounted fittings installed on the roadway and pathway shall utilise an LED source with downward only light and a sharp cut off angle with 0% upward light ratio.

Lamp sources shall have no/minimal UV element and be warm white with a CCT of between 2700 and 3000 degrees Kelvin.

Lighting shall be agreed with a suitably qualified Ecologist and be in line with their recommendations in relation to buffer and development zones.



Grid 1
 Results - Horizontal Illuminance (lux)
 Eav= 8.15
 Emin= 2.45
 Emax= 17.79
 Emin/Emax= 0.14
 Emin/Eav= 0.30
 Emax/Eav= 2.18

- 1 LUX LINE
- 5 LUX LINE
- 10 LUX LINE
- 15 LUX LINE

Schedule						
Symbol	Label	Quantity	Catalog Number	Description	Lumens / Lamp	Wattage
	EL1	18	SLI.2.LA064.5R.W037	Column Mounted @ 6m	6000	37
	EL2	5	SLI.2.LA034.R2.HE.W019	Column Mounted @ 6m	3000	19

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PROJECT
 SOCIAL HOUSING RATHELLEN PHASE 1
 SLIGO COUNTY COUNCIL

TITLE
 PUBLIC LIGHTING CALCULATIONS

PROPOSED SITE LAYOUT

DRAWN DW CHECKED AH SCALE 1:500@A1 DATE JUL'24 PRJ No. 2326 DWG No. ESK03A