Layout showing isolux contours and equipment positions, Scale 1:500 at A1.

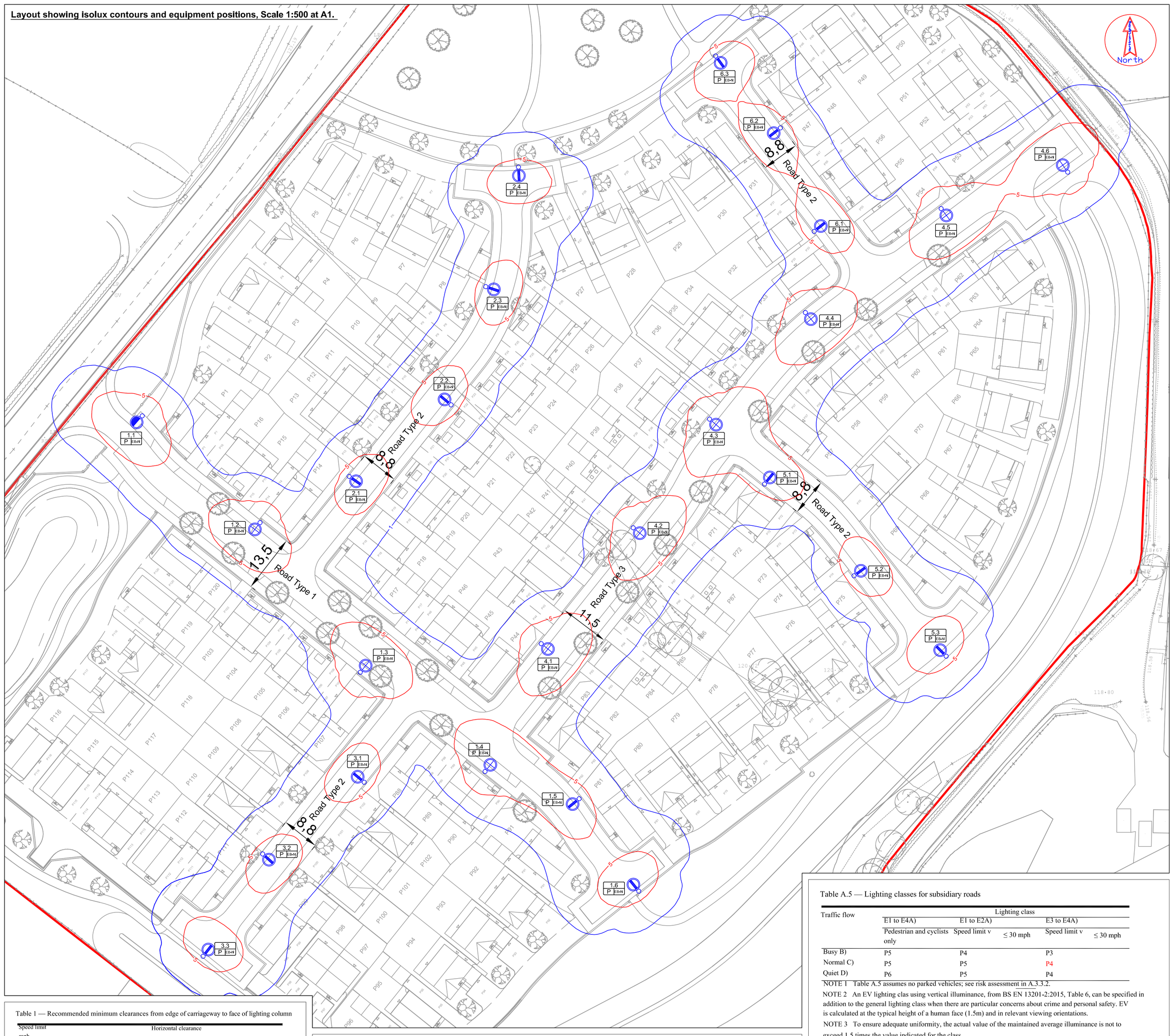


Table 1 — Recommended minimum clearances from edge of carriageway to face of lighting column

Speed limit	Horizontal clearance
mph	m
≤ 30	0.8
40 to 50	1.0
60 to 70	1.5

In situations such as motorways, where lighting columns are often protected by safety barriers, the set-back should be determined by the design requirements of the safety barrier.

In some situations, where it is necessary to place columns at less than the recommended minimum clearances, a project-Specific risk assessment should be carried out.

The set-back should also take into account the recommendations given in 6.1.4.

The lowest point of overhang of luminaires or bracket arms that overhang the carriageway, or are within the respective horizontal clearances given in Table 1, should have a vertical clearance of at least 5.7 m from the level of the carriageway surface. Therefore, no part of a lighting column or luminaire should protrude over the carriageway of a public highway open to vehicular traffic (or be within the respective horizontal clearances given in Table 1) if less than 5.7 m in height, unless a height restriction applies. Similarly, the height clearance over a pedestrian-only area of a public highway not accessible to vehicular traffic should be no less than 2.1m.

BoQ

HOLOPHANE EUROPE LIMITED VMX.2.LA033.V1.F4Q1.W021
HOLOPHANE EUROPE LIMITED PHOTOMETRIC LAB test report no. B14051 - SUM19007
lamp(s): LA033
candela file "VMX.2.LA033.V1.F4Q1.W021.IES'
1 lamp(s) per luminaire, photometry is absolute
Maintenance Factor = 0.810, watts per luminaire = 21
Outreach (from mounting axis to photometric center)= 410 mm
tilt angle= 5 deg
mounting height= 6 m
number locations= 15, number luminaires= 15
kw all locations= 0.3

HOLOPHANE EUROPE LIMITED VMX.2.LA053.V1.F4Q1.W038
HOLOPHANE EUROPE LIMITED PHOTOMETRIC LAB test report no. B14051 - SUM19007
lamp(s): LA053
candela file "VMX.2.LA053.V1.F4Q1.W038.IES'
1 lamp(s) per luminaire, photometry is absolute
Maintenance Factor = 0.810, watts per luminaire = 38
Outreach (from mounting axis to photometric center)= 410 mm
tilt angle= 5 deg
mounting height= 6 m
number locations= 10, number luminaires= 10
kw all locations= 0.4

Table A.5 — Lighting classes for subsidiary roads

Traffic flow	Lighting class				
	E1 to E4A)	E1 to E2A)		E3 to E4A)	
	Pedestrian and cyclists only	Speed limit v	≤ 30 mph	Speed limit v	≤ 30 mph
Busy B)	P5	P4		P3	
Normal C)	P5	P5		P4	
Quiet D)	P6	P5		P4	

NOTE 1 Table A.5 assumes no parked vehicles; see risk assessment in A.3.3.2.

NOTE 2 An EV lighting clas using vertical illuminance, from BS EN 13201-2:2015, Table 6, can be specified in addition to the general lighting class when there are particular concerns about crime and personal safety. EV is calculated at the typical height of a human face (1.5m) and in relevant viewing orientations.

NOTE 3 To ensure adequate uniformity, the actual value of the maintained average illuminance is not to exceed 1.5 times the value indicated for the class.

NOTE 4 The actual overall uniformity of illuminance, Uo, needs to be as high as reasonably practicable (See 7.2.6).

NOTE 5 The ambient luminance descriptions E1 to E4 refer to the enviromental zone as defined in ILP GN01 [N2].

NOTE 6 The illuminance classes are suggested minimum levels. A risk assessment needs to be carried out to ensure that the light levels are adequate, particularly for pedestrians and cyclists.

A) Environmental zone, as given in ILP GN01 [N2].

B) Busy traffic flow refers to areas where the traffic ussage is high and can be associated with local amenities such as clubs, shopping facilities, public houses, etc.

C) Normal traffic flow refers to areas where the traffic usage is of a level equivalent to a housing estate access road.

D) Quite traffic flow refers to areas where the traffic usage is of a level equivalent to a residential road, and is mainly associated with the adjacent properties or properties on other equivalent roads accessed from this road.

Notes

1. The position of the street lighting columns shall be agreed on site by the Oldham and Rochdale Street Lighting Engineer.

2. All wiring including component labelling to be in accordance with BS7671. All wiring and earthing to comply with O&R PFI specification requirements (Sections 6.0 & 7.0)

3. Prior to excavation works the installation contractor must be aware of underground services or hazards which may be encountered in the installation of the lighting system. Advice should be sought from the developer's engineering representative.

4. The installation contractor must be aware of any overhead obstructions. Advice should be sought from the developer's engineering representative.

5. The contractor to liase with Distribution Network Operator (DNO) or Independent DNO with regard to connections and disconnections of columns and illuminated signs.

6. All lighting columns to be erected with a minimum clearance of 1m to the driveways.

7. All street lighting and other electrically supplied street furniture shall be earthed in compliance with the latest version of BS7430.

8. Until technical approval has been obtained from the relevant adopting authority, it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor commence site work prior to approval being given, it is entirely at their own risk.

9. All columns shall have a DNO/IDNO Double Pole Cut Out and therefore no requirement for a DP isolator.

10. Reference to Community Lighting Partnership (CLP) Standard Details shall be noted;

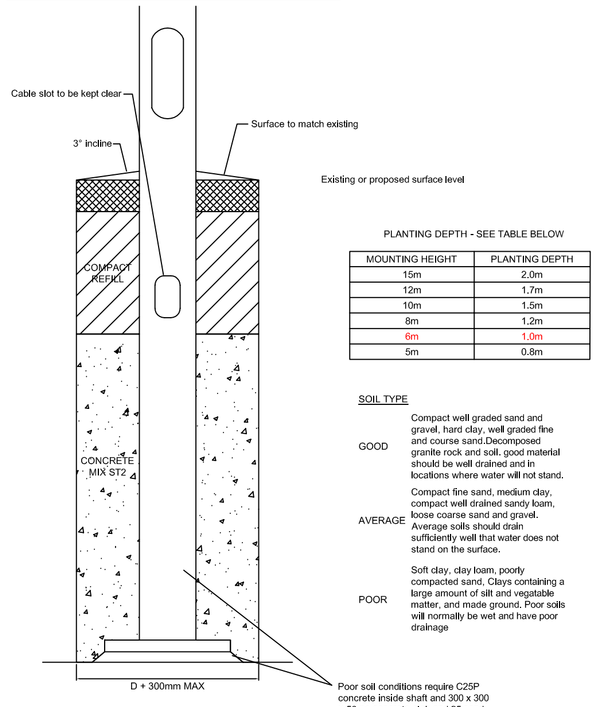
· 13.03 Installation of Steel Lighting Columns REV B
· 13.04 Column Door Alignment
· 14.05 Termination of Cables Type L5 REV A
· 14.26 Base Compartment General Arrangement REV A
· 14.27 Column and Sign Numbering Detail
· 14.28 Termination Labels in Base Compartment

11. The IDNO/DNO is yet to be confirmed

12. Column positions are to be marked out by the Rochdale Council Street Lighting Engineer

13. All (I)DNO cables to be sleeved in RED ducting

Typical column installation details NTS



PLANTING DEPTH - SEE TABLE BELOW

MOUNTING HEIGHT	PLANTING DEPTH
15m	2.0m
12m	1.7m
10m	1.5m
8m	1.2m
6m	1.0m
5m	0.8m

SOIL TYPE

GOOD	Compact well graded sand and gravel, hard clay, well graded fine and course sand.Decomposed granite rock and soil, good material should be well drained and in locations where water will not stand.
AVERAGE	Compact fine sand, medium clay, compact well drained sandy loam, loose coarse sand and gravel. Average soils should drain sufficiently well that water does not stand on the surface.
POOR	Soft clay, clay loam, poorly compacted sand, Clays containing a large amount of silt and vegatable matter, and made ground. Poor soils will normally be wet and have poor drainage

Key

Proposed
15 **Column:** 6m Valmont Stainton galvanised tubular steel column with planted root, with glass flake protection (reference "1B0601METR10GR0271")
Standard detail: CC4657 Rev 03
Lantern: Holophane Vmax, post top mounted with 5° tilt
LEDs: 3000K (Warm White)
Photometric file: VMX.2.LA033.V1.F4Q1.W021.IES
Order code:
VMX.2.LA033.V1.F4Q1.W021.PT1.T7T.LRD.CL8.L007
CMS: Lucy Zodion Vizion Central Management System - UniNode 3 with 5 pin suitable for 7 pin Nema sockets.
DNO Service Cut Out: Electricity North West (ENW) approved single phase double pole cut-out including service cable entering the column's cable entry slot through a thirty-eight (38) millimetre diameter RED elbow duct in accordance with ENW specification.

Proposed
09 **Column:** 6m Valmont Stainton galvanised tubular steel column with planted root, with glass flake protection (reference "1B0601METR10GR0271")
Standard detail: CC4657 Rev 03
Lantern: Holophane Vmax, post top mounted with 5° tilt
LEDs: 3000K (Warm White)
Photometric file: VMX.2.LA053.V1.F4Q1.W038.IES
Order code:
VMX.2.LA053.V1.F4Q1.W038.PT1.T7T.LRD.CL8.L007
CMS: Lucy Zodion Vizion Central Management System - UniNode 3 with 5 pin suitable for 7 pin Nema sockets.
DNO service Cut Out: Electricity North West (ENW) approved single phase double pole cut-out including service cable entering the column's cable entry slot through a thirty-eight (38) millimetre diameter RED elbow duct in accordance with ENW specification.

Proposed
01 **Column:** 6m Valmont Stainton galvanised tubular steel column with planted root, with glass flake protection (reference "1B0601METR10GR0271")
Standard detail: CC4657 Rev 03
Lantern: Holophane Vmax, post top mounted with 5° tilt
LEDs: 3000K (Warm White)
Photometric file: VMX.2.LA053.V1.F4Q1.W038.IES
Order code:
VMX.2.LA053.V1.F4Q1.W038.PT1.T7T.LRD.CL8.L007
CMS: Lucy Zodion Vizion Central Management System(**Collecter Node**) using a NEMA socket replacement kit for the 20mm dia hole, and plugging into the Dali driver via a Vizion/Dali interface control unit.
DNO Service Cut Out: Electricity North West (ENW) approved single phase double pole cut-out including service cable entering the column's cable entry slot through a thirty-eight (38) millimetre diameter RED elbow duct in accordance with ENW specification.

Column scheme numbering for existing and proposed equipment

1.1 P 5.0+4 — 1.1 = Proposed Column Number; P = Proposed; EB-N = Proposed DNO / IDNO Connection

1.0 lux contour line - BS5489-1:2020 Lighting Class P4.

5.0 lux contour line - BS5489-1:2020 Lighting Class P4.

REV	DESCRIPTION	DATE	DRN	APP
E	Columns relocated to suite calculations	01/11/22	SS	PDL
D	Council notes added to drawing	04/10/22	SS	PDL
C	Council comments added to drawing	19/08/22	SS	PDL
B	Council notes added to drawing	20/05/22	SS	PDL
A	Revised to design breif	20/04/22	SS	PDL

DRAWING NO: 23535-D-01 REV: E

DRAWING STATUS: DESIGN

CLIENT: ANWYL thoughtful homes

PROJECT: South Heywood, Rochdale Section 38

TITLE: Proposed Lighting and Installation Design Layout

SCALE: AS INDICATED | DESIGNED BY: SS 21/03/2022

SHEET NO: Sheet 1 of 1 | APPROVED BY: PDL 25/03/2022

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PROJECT: \\HARTTRONNAS\Harttron\Projects\Anwyl const\South Heywood, Rochdale\Drawings\Rev_D

XREF DRAWINGS:

Date Plotted: 01/11/2022 1:44 PM

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