

Appendix MS11

DATE: 8 October 2025
DESIGNER: MMA Lighting Consultancy Ltd
PROJECT No: MMA19828
PROJECT NAME: Reading Road, Arborfield, Active Travel Link S278



Reading Road, Arborfield, Active Travel Link - Area Calculation R0

6m Wokingham Borough Council street lighting columns with
Philips Luma Gen 2 NW LED Lanterns

Road to be lit to P4 class with an increase to P3 class around the
traffic calming build outs as per TR25 recommendations.

Base used in this calculation "25103-001 - Rev A - em"

Outdoor Lighting Report

PREPARED BY: MMA Lighting Consultancy Ltd
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Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	P4 Class	476000.96	167053.96	153.00	156.26	1.50	1.50
2	P4 Class	475862.73	167151.15	169.00	144.37	1.50	1.50
3	P4 Class	475705.47	167242.46	169.00	144.37	1.50	1.50
4	P4 Class	475548.03	167287.97	169.00	144.37	1.50	1.50
5	P4 Class	475391.61	167341.24	169.00	144.37	1.50	1.50
6	P3 Class	476028.46	167157.56	21.00	18.00	1.50	1.50
7	P3 Class	475896.95	167237.15	21.00	18.00	1.50	1.50
8	P3 Class	475812.61	167278.67	21.00	18.00	1.50	1.50
9	P3 Class	475722.28	167309.96	21.00	18.00	1.50	1.50
10	P3 Class	475635.29	167336.14	21.00	18.00	1.50	1.50

Luminaires

Luminaire A Data



Supplier	Philips
Type	BGP702 DM10
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	3.00
File Name	Luma Gen2 Micro_BGP702_DM10_3000_2 0LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	15

Luminaire B Data



Supplier	Philips
Type	BGP702 DM10
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	4.40
File Name	Luma Gen2 Micro_BGP702_DM10_4400_2 0LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	5

Luminaire C Data



Supplier	Philips
Type	BGP702 DW10
Lamp(s)	LED-HB 5.2S 740
Lamp Flux (klm)	3.00
File Name	Luma Gen2 Micro_BGP702_DW10_3000_2 0LED_5.2S_CLO_L90_740.ies
Maintenance Factor	0.76
Lum. Int. Class	G4
No. in Project	2

Luminaire F Data

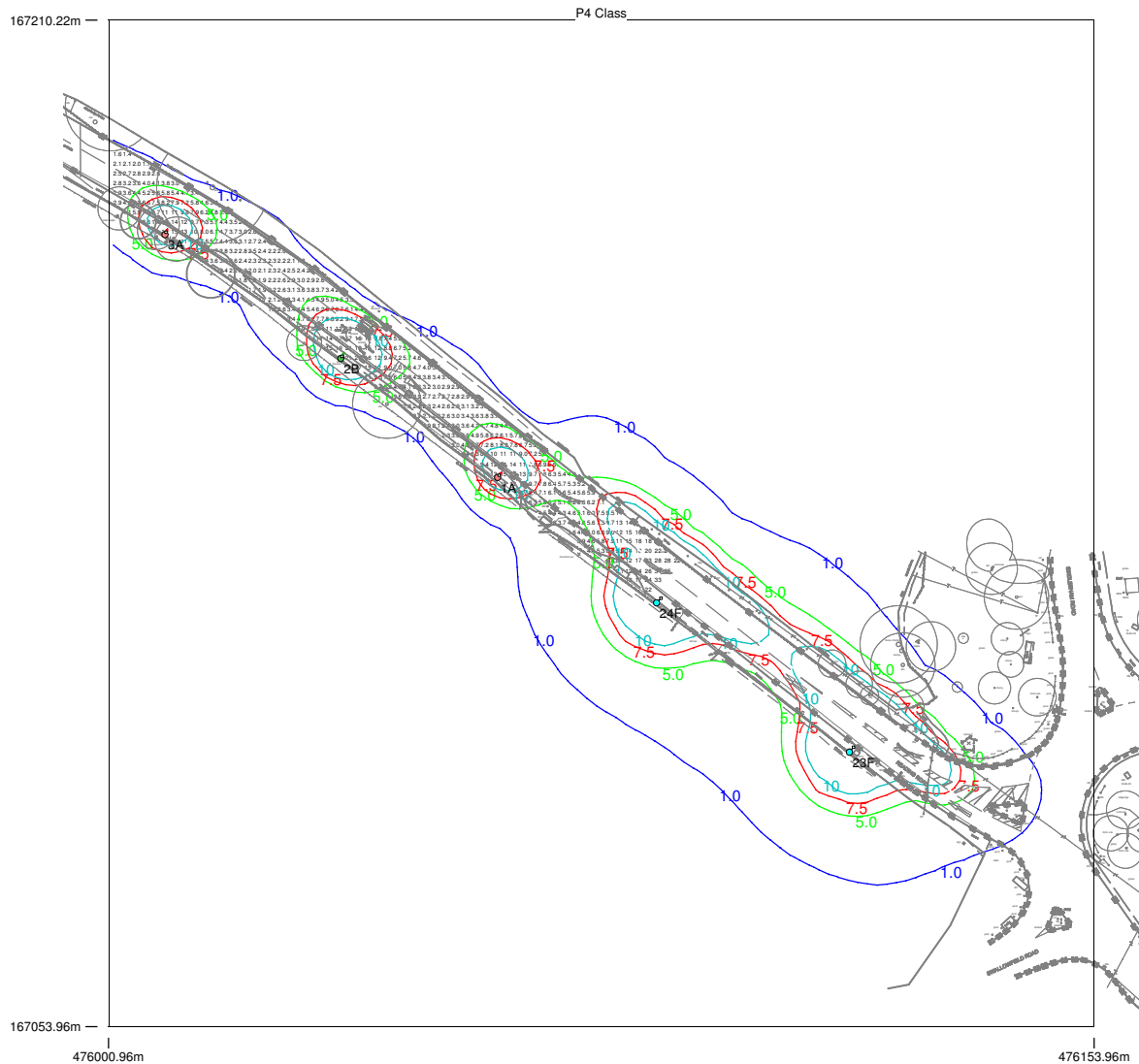
Supplier	_Historic Lanterns
Type	ALL_Clear_P_1312_096_-30x_911412
Lamp(s)	150W-SONT+
Lamp Flux (klm)	18.00
File Name	Albany Large_Clear Poly_1312_SON-T+_1 50_096#-30x_911412LX.lxd
Maintenance Factor	0.76
Lum. Int. Class	G3
No. in Project	2

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	476061.34	167139.26	6.00	52.00	0.00	0.00	0.40			
2	B	476036.98	167157.69	6.00	59.00	0.00	0.00	0.40			
3	A	476009.73	167176.92	6.00	66.00	0.00	0.00	0.40			
4	A	475975.93	167196.14	6.00	59.00	0.00	0.00	0.40			
5	A	475950.41	167211.00	6.00	61.00	0.00	0.00	0.40			
6	A	475926.44	167224.62	6.00	62.00	0.00	0.00	0.40			
7	B	475903.15	167237.93	6.00	61.00	0.00	0.00	0.40			
8	A	475875.40	167252.63	6.00	63.00	0.00	0.00	0.40			
9	A	475845.54	167267.25	6.00	66.00	0.00	0.00	0.40			
10	B	475821.38	167278.98	6.00	65.00	0.00	0.00	0.40			
11	C	475794.44	167292.15	6.00	64.00	0.00	0.00	0.40			
12	C	475765.85	167303.52	6.00	70.00	0.00	0.00	0.40			
13	B	475736.70	167310.71	6.00	79.00	0.00	0.00	0.40			
14	A	475710.75	167314.75	6.00	83.00	0.00	0.00	0.40			
15	A	475683.32	167319.86	6.00	76.00	0.00	0.00	0.40			
16	B	475647.09	167335.08	6.00	66.00	0.00	0.00	0.40			
17	A	475616.85	167349.32	6.00	66.00	0.00	0.00	0.40			
18	A	475588.31	167363.10	6.00	68.00	0.00	0.00	0.40			
19	A	475554.37	167376.09	6.00	71.00	0.00	0.00	0.40			
20	A	475525.51	167384.33	6.00	76.00	0.00	0.00	0.40			
21	A	475496.58	167392.36	6.00	75.00	0.00	0.00	0.40			
22	A	475467.55	167400.12	6.00	75.00	0.00	0.00	0.40			
23	F	476115.92	167096.59	8.00	50.00	0.00	0.00	1.00			
24	F	476086.02	167119.76	8.00	49.00	0.00	0.00	1.00			

Horizontal Illuminance (lux)

P4 Class

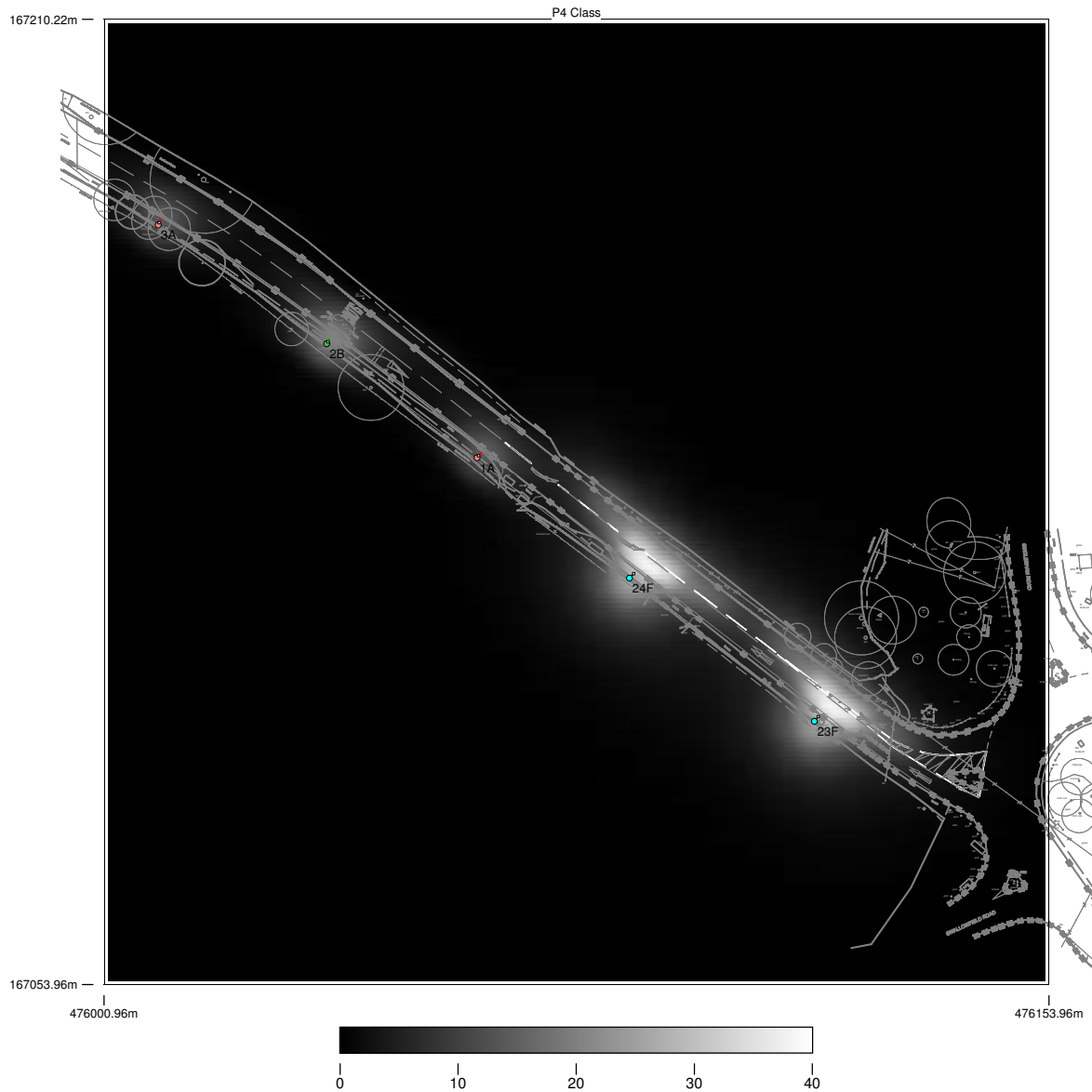


Results

Eav	7.10
Emin	1.41
Emax	34.71
Emin/Emax	0.04
Emin/Eav	0.20

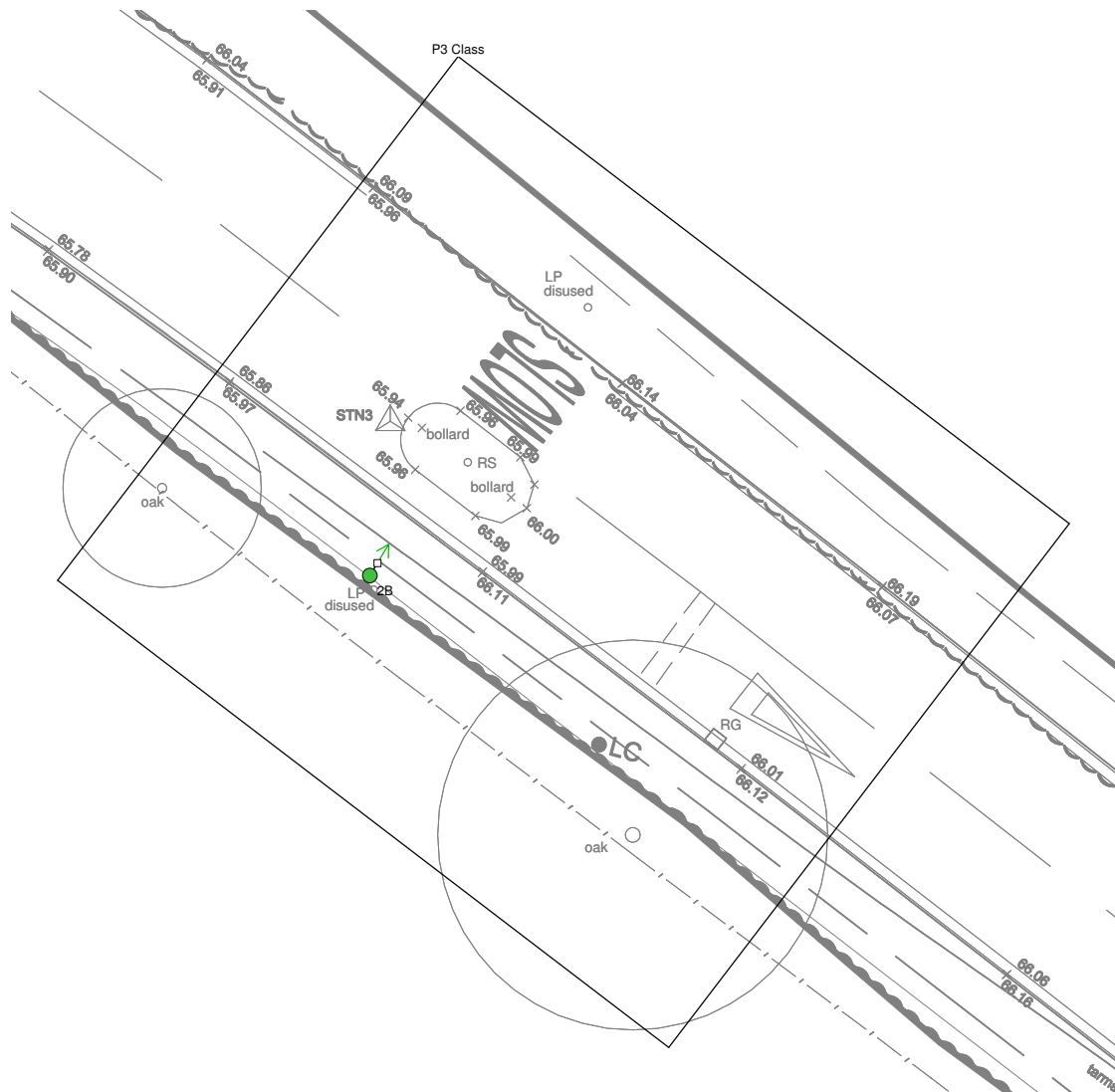
Horizontal Illuminance (lux)

P4 Class



Horizontal Illuminance (lux)

P3 Class

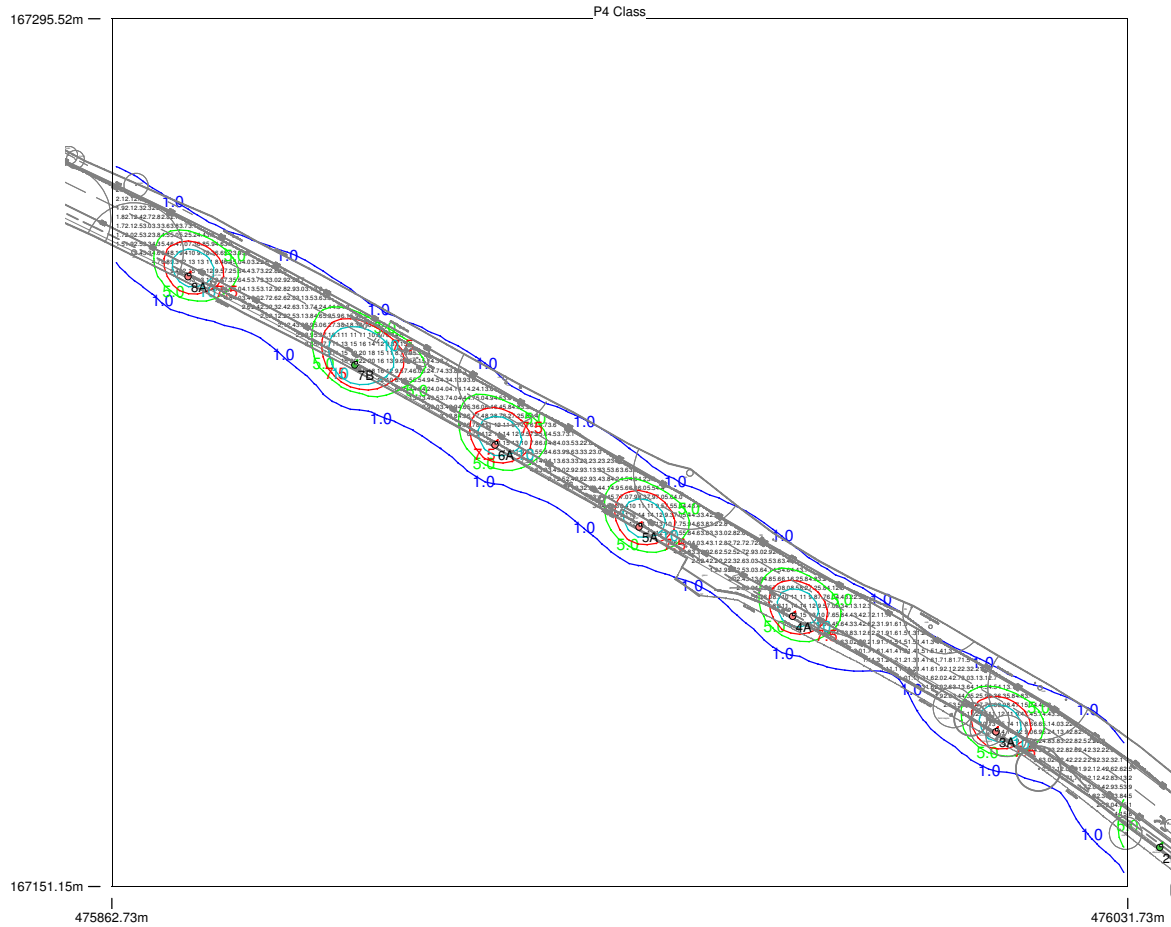


Results

Eav	9.50
Emin	4.34
Emax	19.90
Emin/Emax	0.22
Emin/Eav	0.46

Horizontal Illuminance (lux)

P4 Class

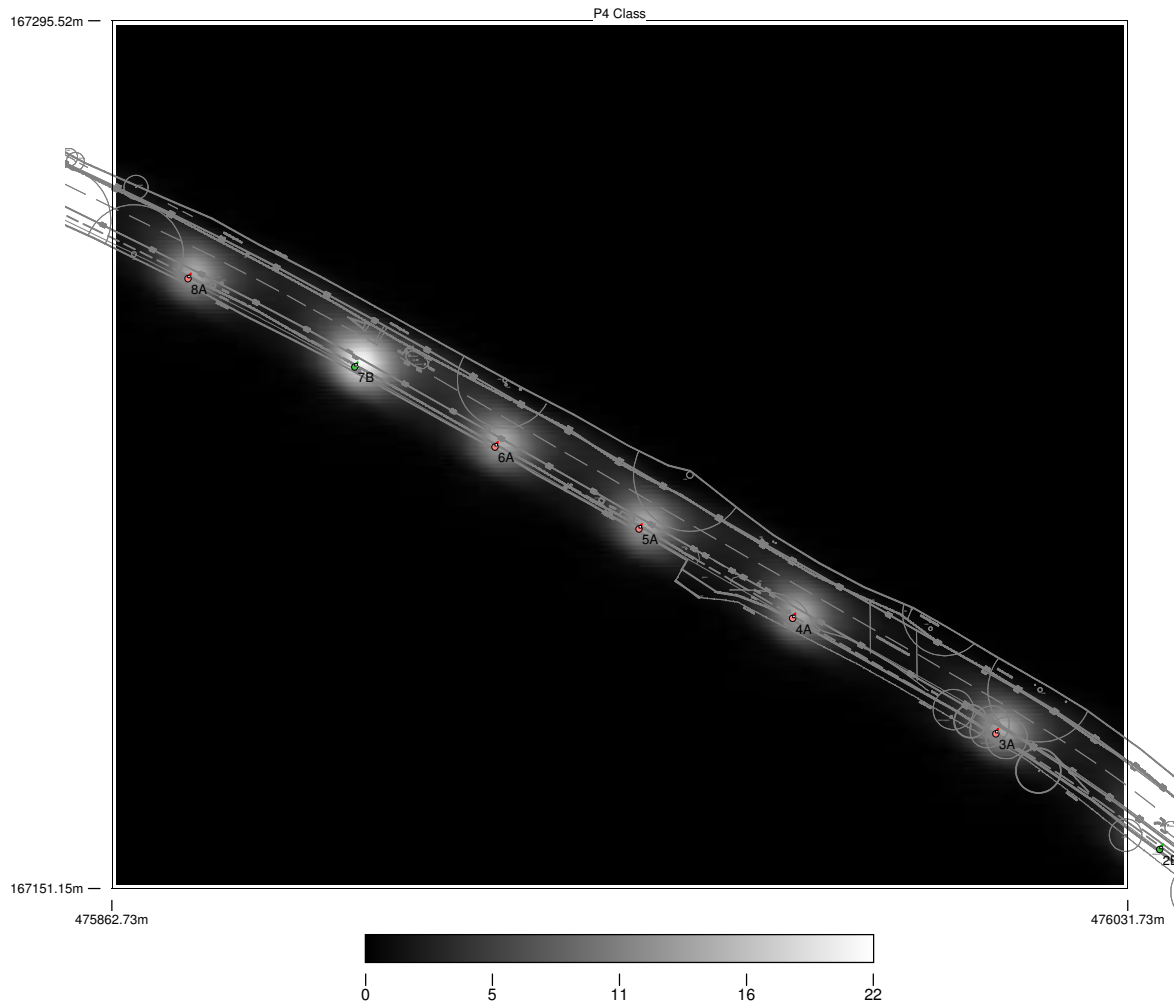


Results

Eav	5.34
Emin	1.04
Emax	21.84
Emin/Emax	0.05
Emin/Eav	0.20

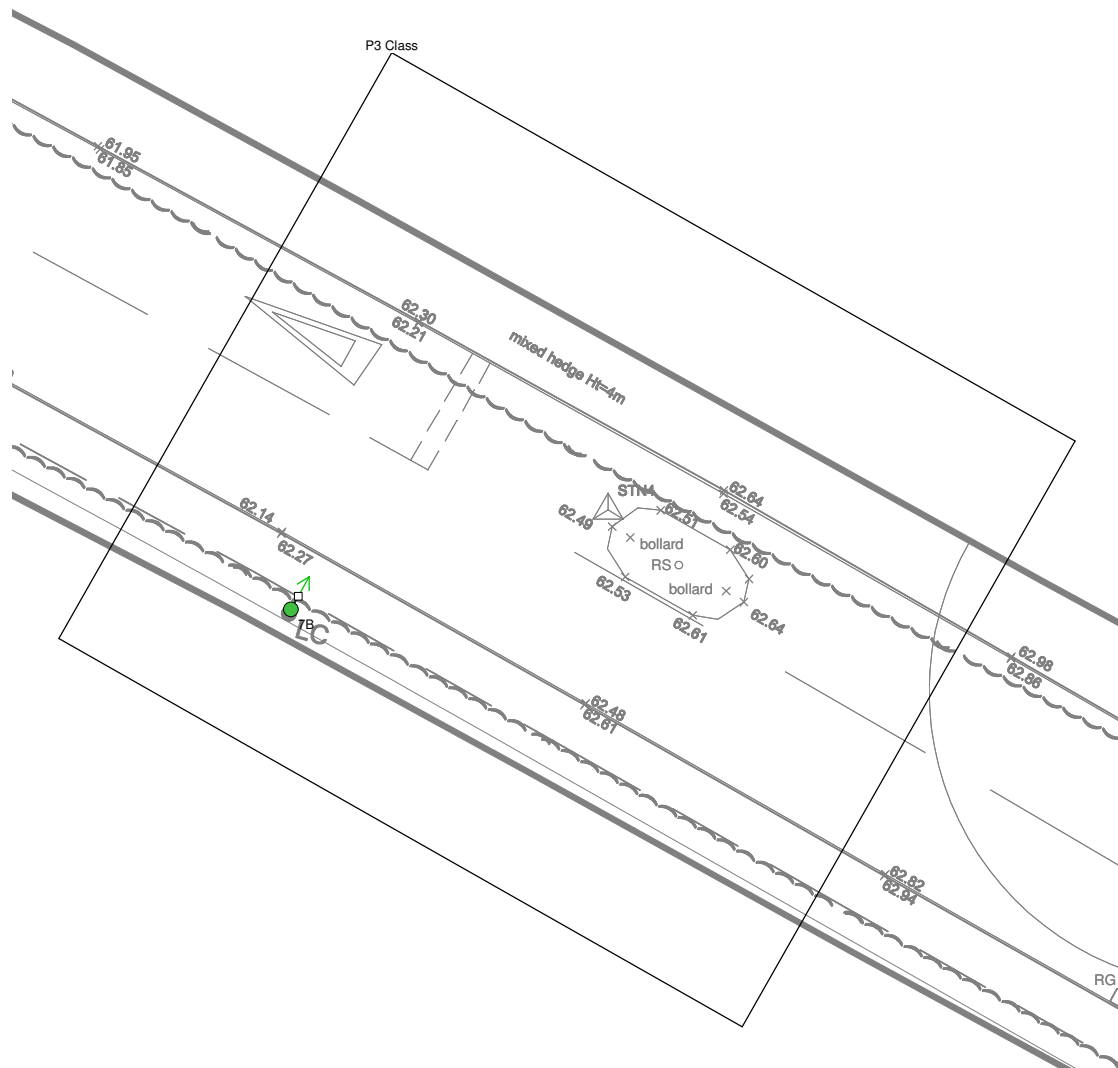
Horizontal Illuminance (lux)

P4 Class



Horizontal Illuminance (lux)

P3 Class

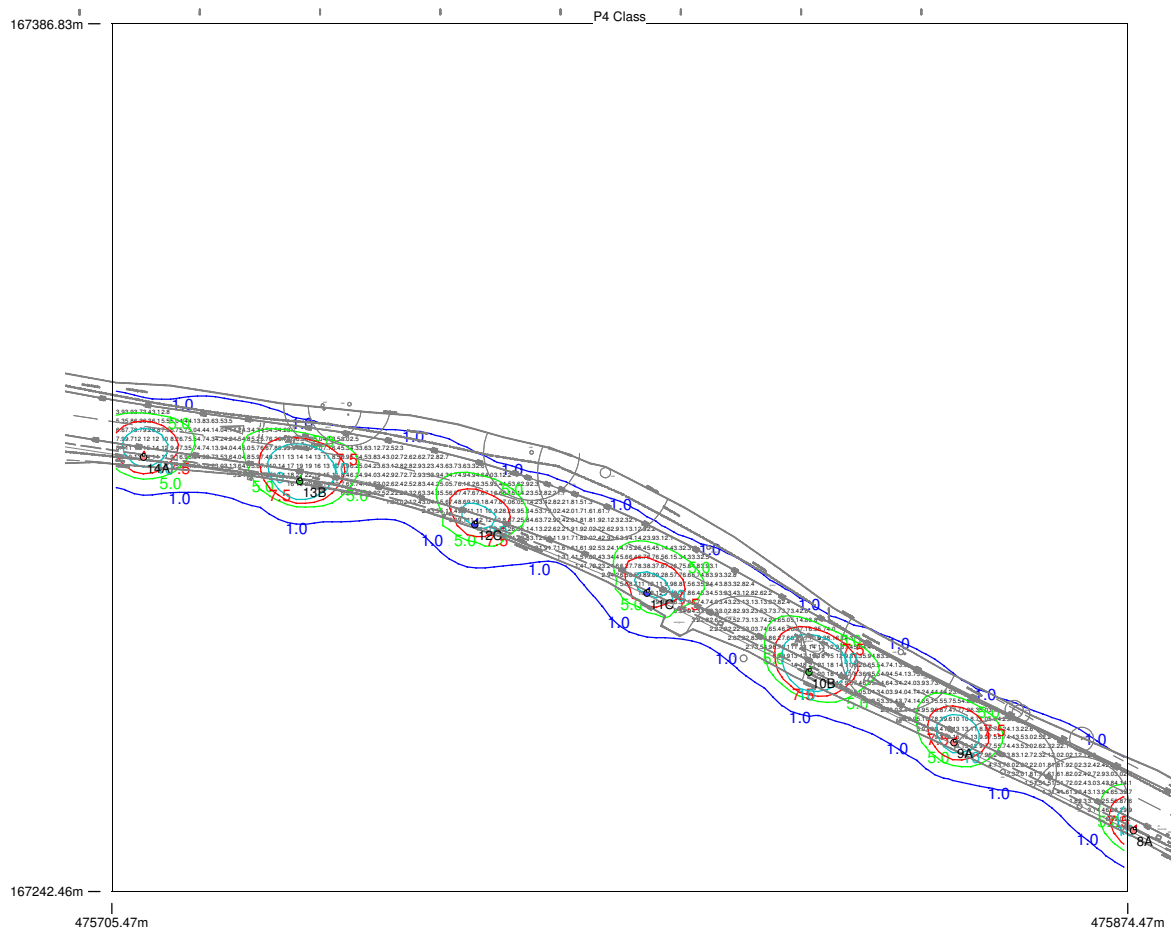


Results

Eav	8.03
Emin	3.99
E _{max}	19.92
E _{min} /E _{max}	0.20
E _{min} /E _{av}	0.50

Horizontal Illuminance (lux)

P4 Class

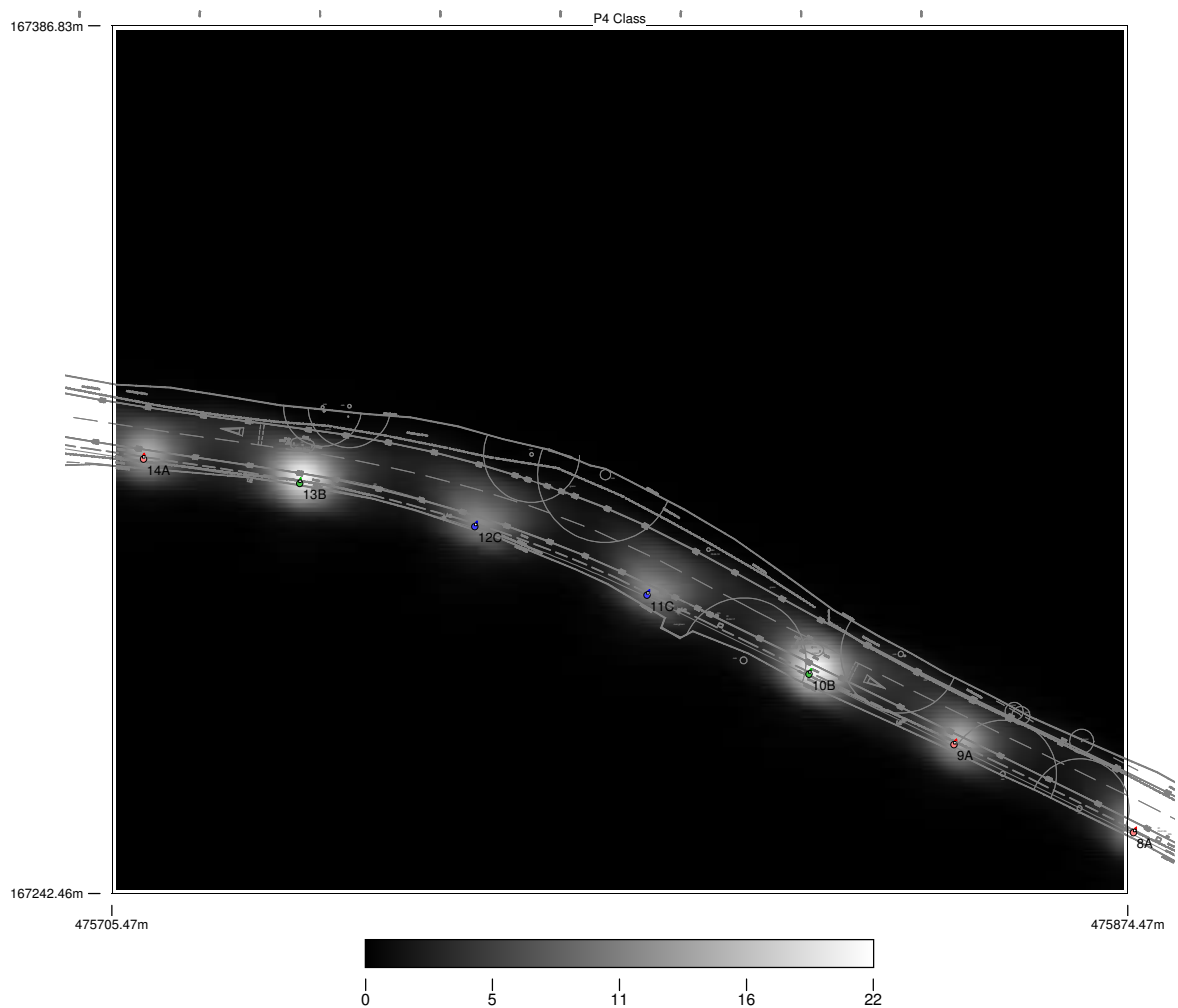


Results

Eav	5.75
Emin	1.32
Emax	21.62
Emin/Emax	0.06
Emin/Eav	0.23

Horizontal Illuminance (lux)

P4 Class



Horizontal Illuminance (lux)

P3 Class

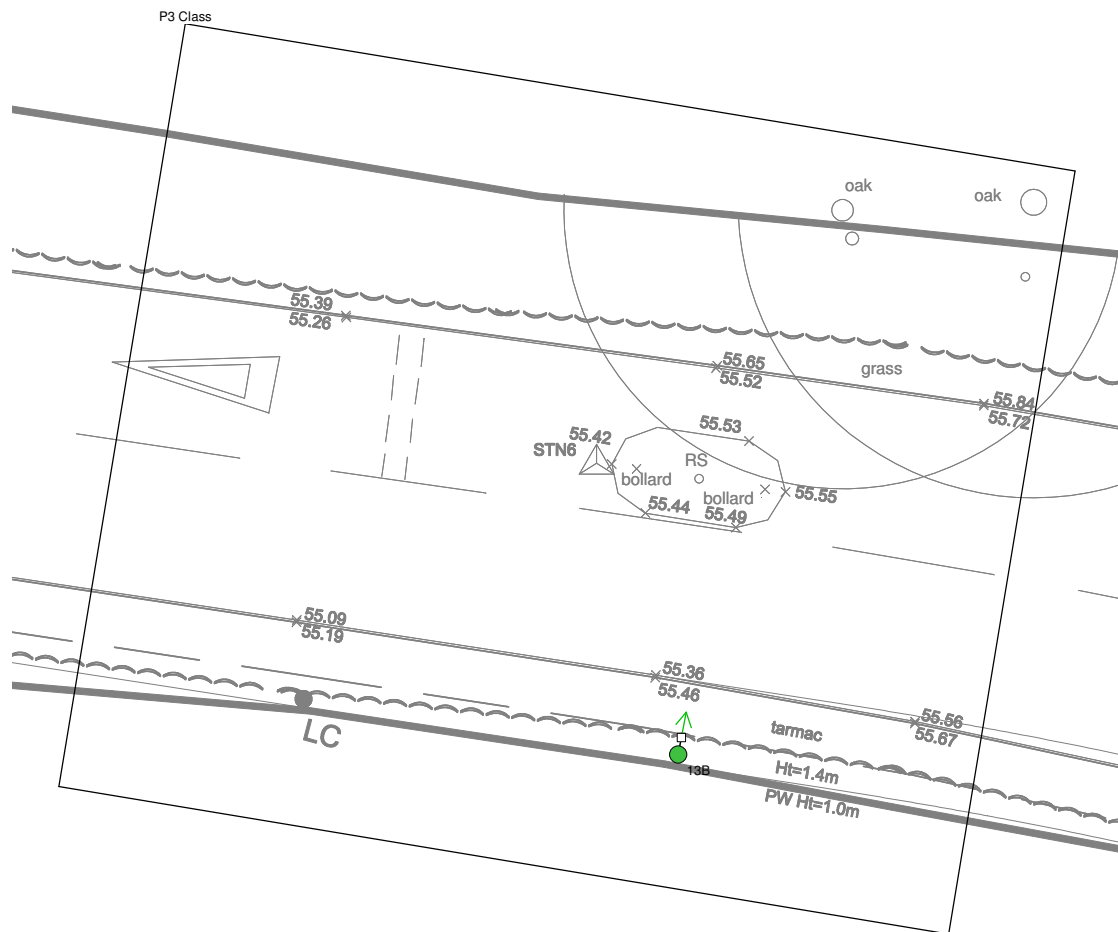


Results

Eav	9.40
Emin	3.48
Emax	20.96
Emin/Emax	0.17
Emin/Eav	0.37

Horizontal Illuminance (lux)

P3 Class

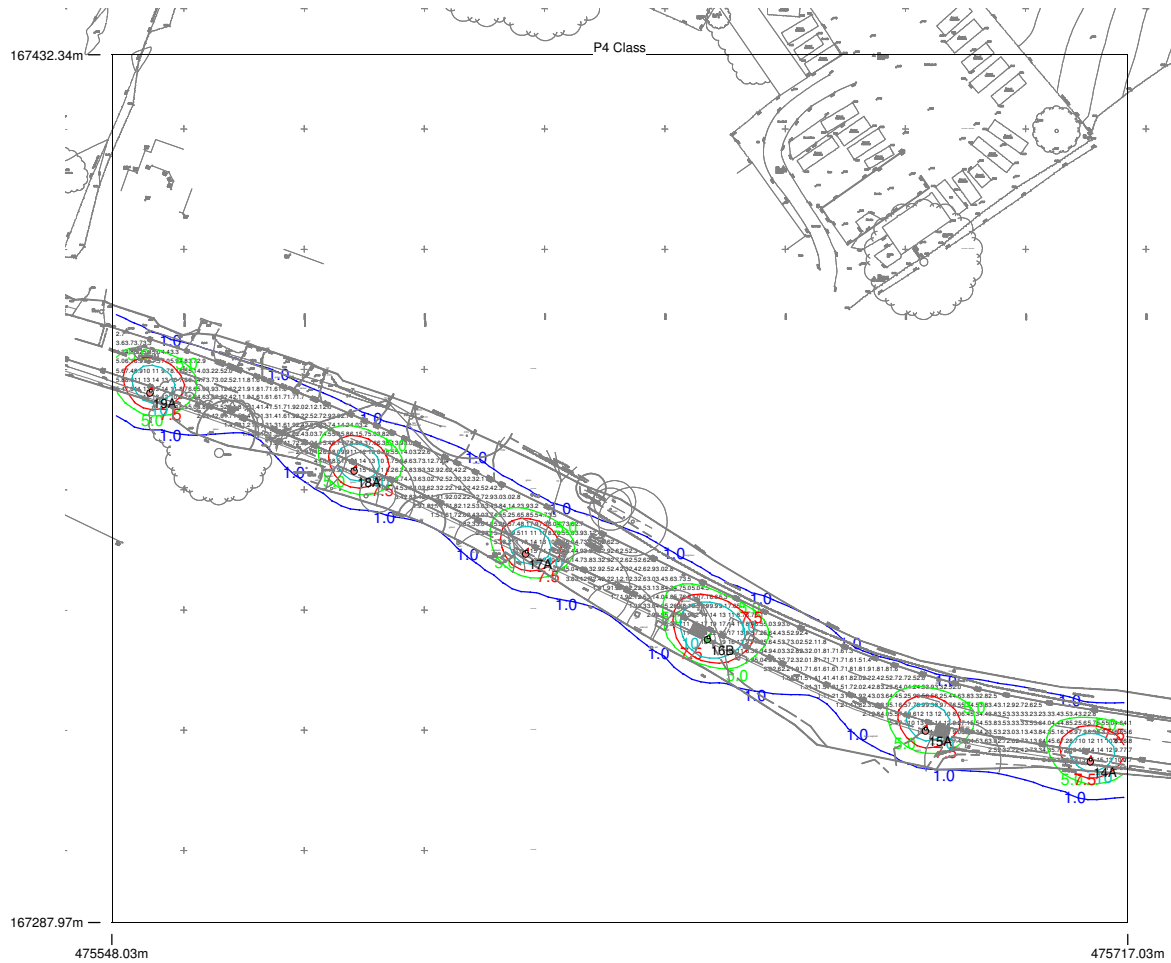


Results

Eav	9.28
Emin	3.96
Emax	21.56
Emin/Emax	0.18
Emin/Eav	0.43

Horizontal Illuminance (lux)

P4 Class

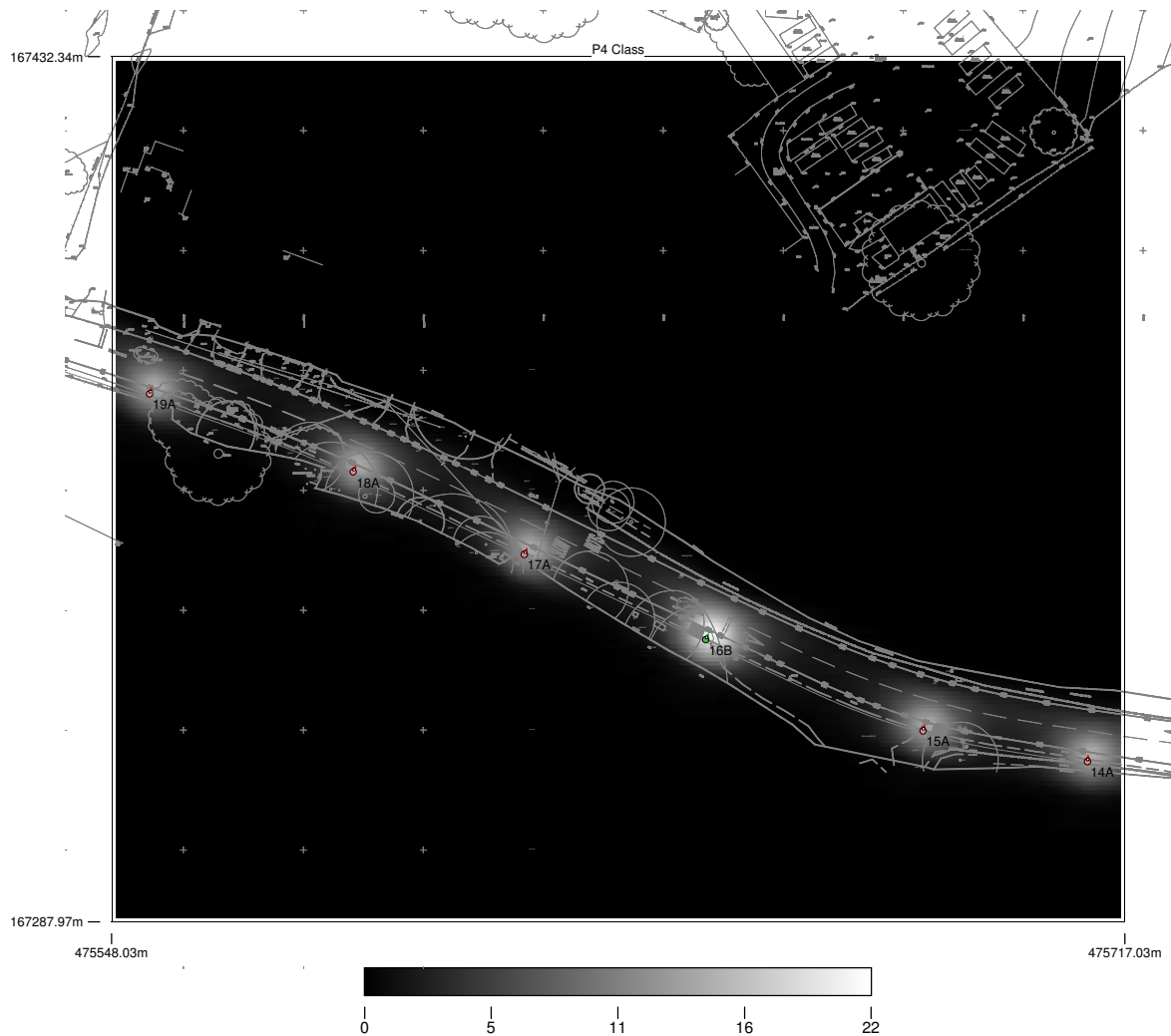


Results

Eav	5.24
Emin	1.07
Emax	21.66
Emin/Emax	0.05
Emin/Eav	0.20

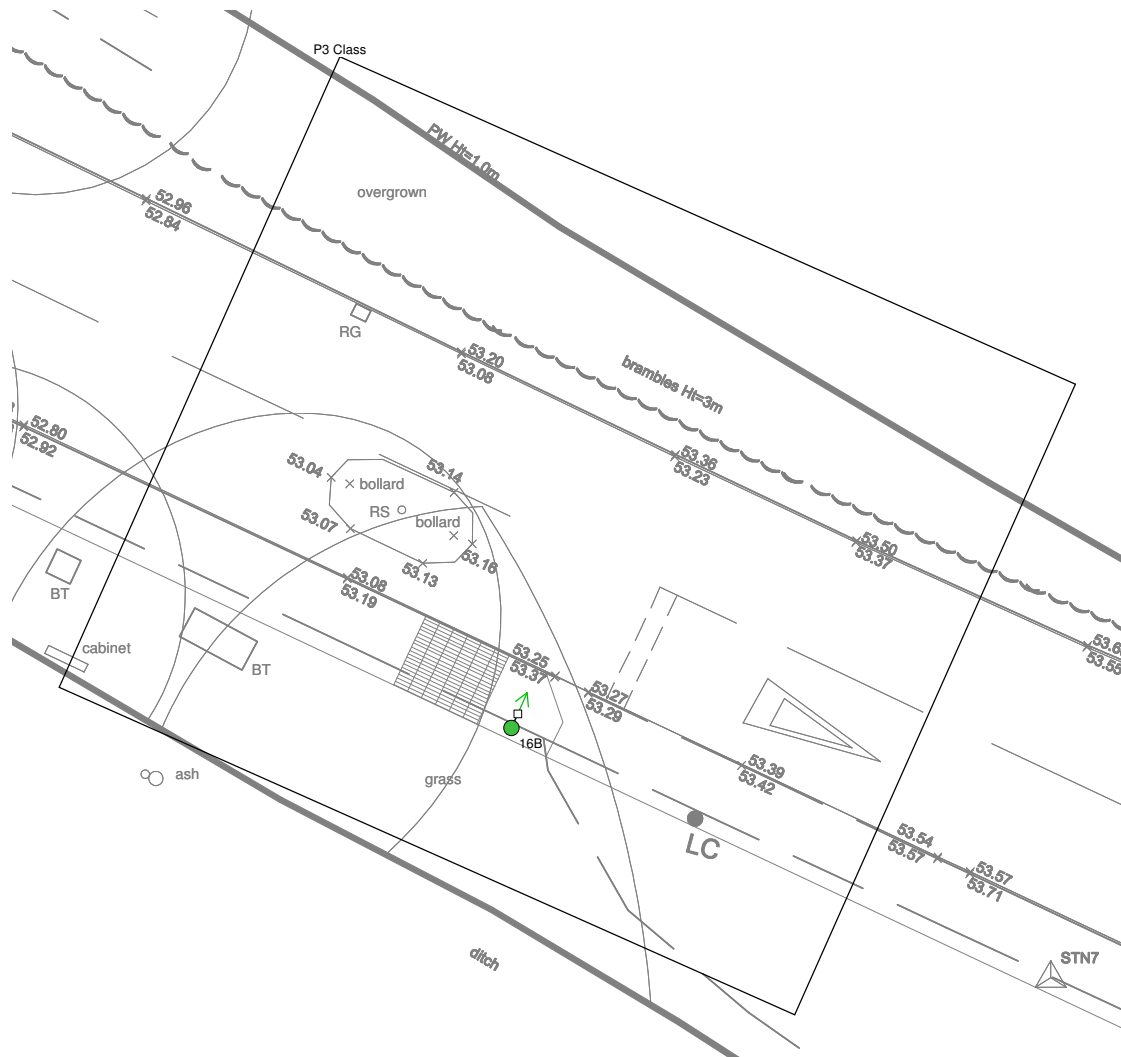
Horizontal Illuminance (lux)

P4 Class



Horizontal Illuminance (lux)

P3 Class

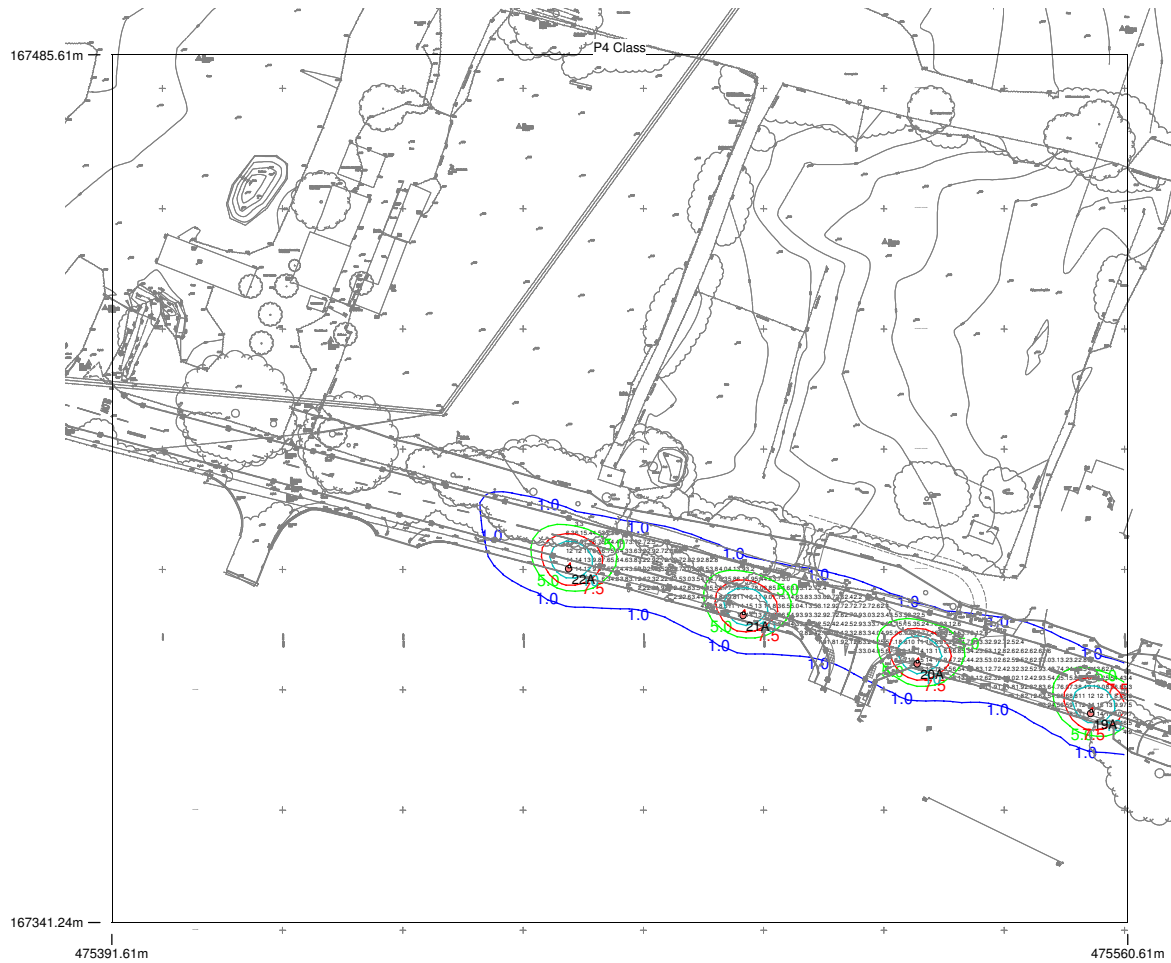


Results

Eav	9.56
Emin	3.93
Emax	20.00
Emin/Emax	0.20
Emin/Eav	0.41

Horizontal Illuminance (lux)

P4 Class

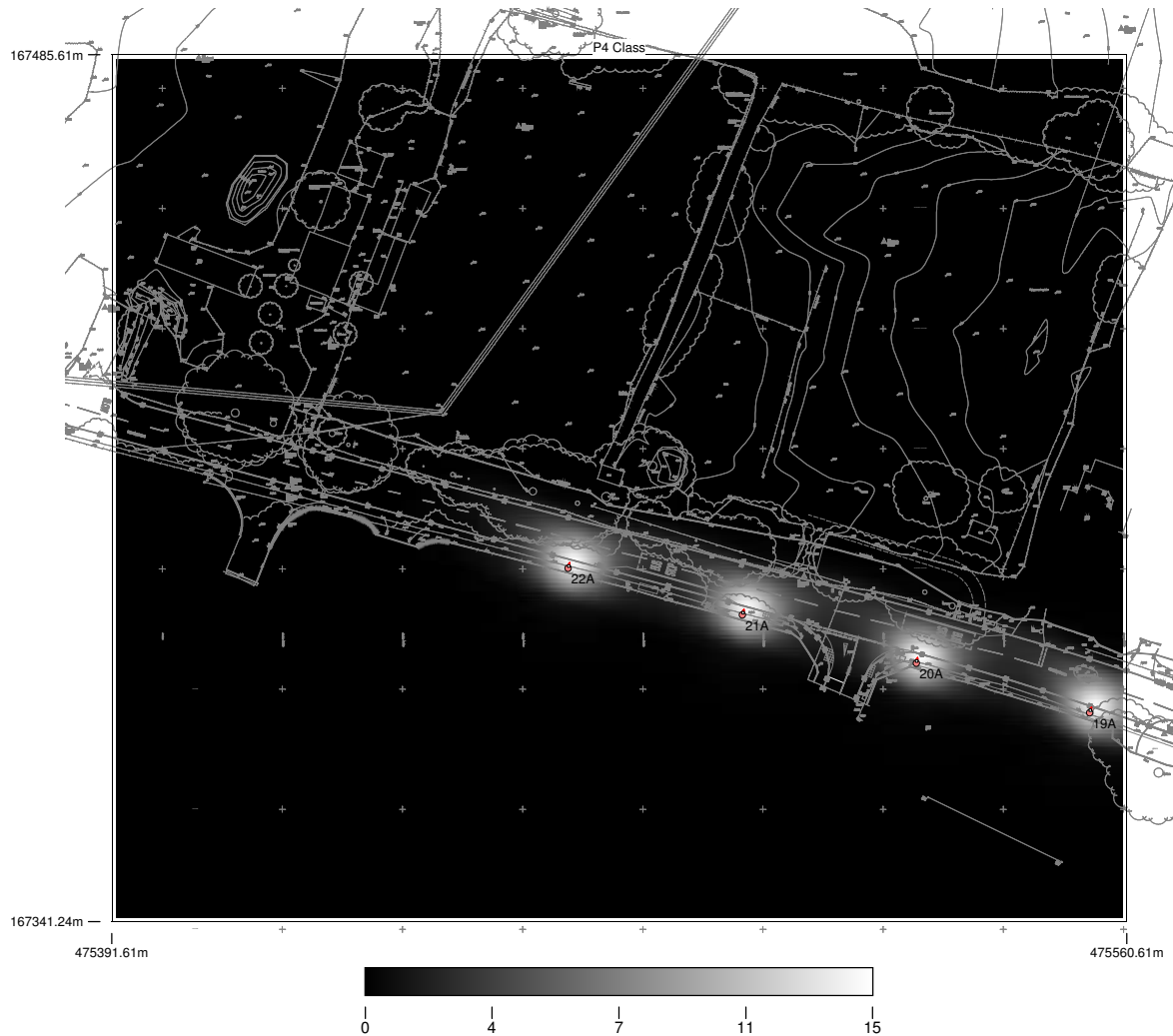


Results

Eav	5.43
Emin	1.78
Emax	14.74
Emin/Emax	0.12
Emin/Eav	0.33

Horizontal Illuminance (lux)

P4 Class





LIGHTING CONSULTANCY

Exterior Lighting Design Specialists

Reading Road, Arborfield S278 Lighting Design

Environmental Impact Assessment & Lighting Design Category Selection Process

MMA Project Number: 19828

Date: 09/10/2025

Produced by: Simon Winch

Revision: R0

Issued by: -

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READING ROAD, ARBORFIELD – S278 LIGHTING DESIGN

EXTERNAL LIGHTING ASSESSMENT

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1.0 INTRODUCTION

This external lighting environmental impact assessment is a desk top exercise to establish the baseline conditions and the likely impact to the surrounding environment for the proposed highway improvements on Reading Road in Arborfield.

2.0 LEGAL REQUIREMENTS

This section summarises government policy on the environment with respect to external lighting.

2.1 STATUTORY DOCUMENTS

The Clean Neighbourhoods and Environment Act 2005 suggests under Town and County Planning (Assessment of Environmental Effects) Regulations 1988, developers should submit an assessment of the impact proposed external lighting will have on the environment.

While not specifically requiring external lighting schemes to be submitted for approval it does suggest planning authorities have the right to request such information as part of the approval process.

The Clean Neighbourhoods and Environment Act 2005 has made light pollution a statutory nuisance under the Environmental Protection Act 1990, which came into force on 6th April 2006.

Section 79 of the Environmental Protection Act 1990 (c43) is amended as follows: "artificial light emitted from premises so as to be prejudicial to health or a nuisance."

Although this specific act refers to artificial light emitted from a premise, it is good practice to ensure any newly installed external street lighting does not emit light on property frontages, nor should any new installation produce excessive upward light (known as light pollution) or be installed so as to 'over light' any street in relation to the external street lighting requirements detailed in the British and European lighting standards.

No prescriptive limits or rules are set for such assessments, but the following guidance documents have been referred to while compiling this assessment and in producing the external street lighting design for this specific project:

- British and European Standards for External Street lighting – BS5489-1:2020 & BSEN 13201-2:2015
- Guidance notes for the reduction of obtrusive light – The Institution of Lighting Professionals (ILP)
- Environmental considerations for exterior lighting – Chartered Institution of Building Services Engineers (CIBSE).
- Outdoor Environment. Lighting guide 6 – CIBSE.
- CDM 2015 Regulations.

3.0 SITE LOCATION

The proposed site location for Reading Road in Arborfield.



4.0 BASELINE CONDITIONS

The following describes the site in relation to existing sources of lighting. A review of areas and features of the landscape are also described.

The surrounding area to the proposed highway improvements is built up and mainly consists of residential dwellings and rural areas.

All the surrounding streets are currently lit by systems of street lighting which are owned and maintained by the local council.

Sensitive receptors to light are surrounding residential properties and local wildlife.

The Institution of Lighting Professionals published a reference document GN01/21 – Guidance notes for the reduction of obtrusive light, which provides definitions of environmental zones and levels of permissible light trespass.

Using Table 2 below, it would indicate that the area would be classified as E3 Medium District Brightness Areas.

Table 2: Environmental Zones			
Environmental Zones	Surrounding	Lighting Environment	Examples
E0	Protected	Dark	Astronomical Observable dark skies, UNESCO starlight reserves, International Dark Sky Association (IDA) dark sky places
E1	Natural	Dark	Relatively uninhabited rural areas, National Parks, Areas of Outstanding Natural Beauty, IDA buffer zones etc.
E2	Rural	Low District Brightness	Sparsely inhabited rural areas, village or relatively dark outer suburban locations
E3	Suburban	Medium District Brightness	Well inhabited rural and urban settlements, small town centres of suburban locations
E4	Urban	High District Brightness	Town/city centres with high levels of night-time activity

Table 3: Maximum values of vertical illuminance on properties						
Light Technical Parameter	Application Conditions	Environmental Zone				
		E0	E1	E2	E3	E4
Illuminance in the vertical plane (Ev)	Pre-curfew	n/a	2 lux	5 lux	10 lux	25 lux
	Post-curfew	n/a	0.1 lux	1 lux	2 lux	5 lux

Table 6: Maximum values of upward light ratio (ULR) of luminaires					
Light Technical Parameter	Environmental Zone				
	E0	E1	E2	E3	E4
Upward light ratio (ULR) %	0	0	2.5	5	15

5.0 ENVIRONMENTAL IMPACT ASSESSMENT CONCLUSION

The proposed lighting scheme will ensure that the neighbouring residences do not have light spillage onto their property as that would be deemed to be unacceptable in line with current guidelines.

It is proposed that the lighting impact can be minimised by using accepted methods of lighting control, essentially limiting illuminance and controlling light spill.

It is proposed that the street lighting shall be installed on 6m lighting columns. Generally lighting shall be selected to provide safety and security without polluting the boundary site residents.

All luminaires are to have electronic drivers. The light source specified for this lighting scheme is LED, this is a low lumen output high efficiency light source.

The electronic drivers and LED's running together produce a very efficient street lighting system which reduces overall energy usage and environmental impact on natural resources.

Desk top calculations and assessments on the proposed street lighting installation indicate (with respect to identified sensitive receptors) that overall surrounding light pollution levels will not be significantly influenced by the proposed street lighting.

These accepted methods have all been adopted within the proposed lighting design to keep the overall impact of the lighting to a minimum.

In summary it is our considered opinion that the proposed street lighting installation will not have any significant negative impact on the immediate environment with respect to lighting pollution or energy usage and that all sensible steps have been taken within the design stage of this lighting scheme to keep the impact to the environment to a minimum.

6.0 LIGHTING DESIGN SELECTION PROCESS

It has been assessed that the lighting levels shall be in accordance with the British Standard BS 5489-1:2020 and BS EN 13201-2:2015 recommendations.

The area of the new works has been identified as a subsidiary road with an environmental zone E3. Therefore, in accordance with BS 5489-1:2020 the lighting class of P4 has been selected for the road with the traffic calming buildouts along the road to be lit one class higher to P3 in line with TR25 (Lighting for Traffic Calming Features) recommendations.

As this is an unlit rural road, the selected lighting class, column heights, and proposed equipment (columns and lanterns) will need to be agreed with the Local Authority before any works commence.

Reading Road, Arborfield: P4 (BS 5489-1:2020) – Road Lighting.

Minimum maintained average illuminance (Eav): >5.00 lux <7.50 lux

Minimum illuminance (Emin): >1.00 lux

Uniformity (Uo) = 0.20 (20%)

Reading Road, Arborfield: P3 (BS 5489-1:2020) – Traffic calming buildouts

Minimum maintained average illuminance (Eav): >7.50 lux <11.25 lux

Minimum illuminance (Emin): >1.50 lux

Uniformity (Uo) = 0.20 (20%)

The street lighting proposals for the road have been submitted using a total of:

- **Fifteen** new Philips Luma Gen2 Micro NW DM10 3.00klm LED luminaires to be post top mounted on new 6m standard ALC aluminium lighting columns with a 0-degree tilt to Wokingham Borough Council standard specification.
- **Five** new Philips Luma Gen2 Micro NW DM10 4.40klm LED luminaires to be post top mounted on new 6m standard ALC aluminium lighting columns with a 0-degree tilt to Wokingham Borough Council standard specification.
- **Two** new Philips Luma Gen2 Micro NW DW10 3.00klm LED luminaires to be post top mounted on new 6m standard ALC aluminium lighting columns with a 0-degree tilt to Wokingham Borough Council standard specification.

The proposed lighting ends before the existing roundabout to the west of Reading Road, this leaves an unlit gap from this proposed lighting to the next existing column of approximately 550m. The general rule is that unlit gaps that are below 4x stopping distance of the speed limit must be illuminated. As this gap is above that threshold, no infill lighting would be required. This approach would need to be agreed with the Local Authority.

Most of the proposed lanterns are as per the "Design Process, Requirements and Specification Guide - Appendix A - V10 (March 2022)" document, however seven of the proposed lanterns are outside the specification in terms of optic and klm output due to the varying width of the road and the existence of the traffic calming buildouts (as above). The use of these out of specification lanterns will need to be agreed with the Local Authority before any works commence. All luminaires shall be complete with Philips Xitanium LED Drivers (DALI standard) and Telensa 5-pin NEMA Telecells with integral Dimming Module (DALI standard) & GPS positioning. The electrical supply connection to the proposed lighting columns shall be via Distribution Network Operator supply into the base of the column. Ordered lanterns should not include constant light output (CLO) as this will cause errors with fault detection and dimming with the specified CMS provider.

No illuminated sign details have been supplied by the client for this scheme. Hand digging shall be required for the installation of the new lighting columns. No illuminated sign details have been supplied by the client for this scheme.

There are overhead National Grid HV lines running across Reading Road, and a Medium Pressure Gas Main. We have designed out the risk by placing the proposed columns away from these hazards as per the Layout Drawing. Statutory service record plans should be obtained by the contractor / overseeing organisation before commencement of any street lighting installation or removal works. All services are to be located and identified prior to installing or removing any lighting columns. Works should be carried out in accordance with HSE GS6, ENA 43-8, HSE HGS47, G39/1 and all relevant HSE regulations.

7.0 SITE SAFETY, CDM AND RISK ASSESSMENTS

All street lighting installation works should be carried out whilst taking into account the current Health and Safety regulations and also where applicable the current CDM2015 regulations. Projects after the 6th April 2015 shall comply with CDM2015 or be in the transitional process.

As the 'Designer' under the CDM2015 Regulations, MMA Lighting Consultancy expects the 'Client' to fully understand their duties and responsibilities under the current CDM2015 Regulations; this statement is set out to make the client aware of "client duties" required under CDM2015. As a designer it is our responsibility to reduce and eliminate foreseeable health and safety risks to anyone effected by the project, take steps to reduce or control risks that cannot be eliminated and take account of any pre-construction information provided to us by the client or principal designer. On submission of this design to the client, the client must pass the full MMA Lighting Consultancy design pack onto the Principal Designer (if involved) for inclusion in the pre-construction information and health and safety file. Under CDM2015 a project is notifiable if construction work lasts longer than 30 working days AND has more than 20 workers working simultaneously at any point, or exceeds 500 person days. An F10 form must be submitted if the above applies and the form can be found online at www.hse.gov.uk.

This form must be submitted by the Client to the Health and Safety Executive. The only exception to this is where the project is for a domestic scheme, in this instance the responsibility automatically passes to the Contractor (or Principal Contractor). The Principal Designer can assume the responsibility for notification of a domestic project, but only where there is a written agreement between the domestic client and the Principal Designer that that they will carry out the client duties. Works that do not exceed the 30 day, 20 workers or 500 person days rule may still need to have the CDM2015 regulations applied but may not be notifiable. It is advised that the companies CDM2015 regulations trained personnel assess the project and make the necessary arrangements to meet the CDM2015 regulation requirements.

If in doubt it is recommended that the company seeks professional advice.

As designers under the CDM2015 regulations it is our duty to recommend that an 'HEA' approved contractor be used for the electrical installation works. All lighting installation works should comply with the IET 18th Edition Wiring Regulations (BS 7671 The IET Wiring Regulations). This is the national standard to which all domestic and industrial wiring installations must conform to.

A Generic Risk assessment should be carried out by the approved contractor prior to the commencement of any site work. Specific Risk Assessments should then be carried out for all electrical street lighting works.

It is recommended that the approved contractor undertakes site supervision of the new installation at all times. Once the contractor has completed the installation works the contractor is to confirm the installation complies with the IET 18th Edition Wiring Regulations by producing electrical test certificates. All electrical test certificates shall be submitted to overseeing organisation.

Prepared By: -



Simon Winch

9th October 2025

..... (Signed) (Print Name) (Date)

Reviewed By: -



Mark Chandler

9th October 2025

..... (Signed) (Print Name) (Date)

Wokingham Borough Council

Proposed Connection Schedule

10 October 2025

Reading Road, Arborfield, Active Travel Link S278 - Proposed Lighting - Equipment Schedule - R0

[illegible]

NOTE: NUMBERS SHOWN ON THE SCHEDULE AND DESIGN DRAWING ARE FOR IDENTIFICATION PURPOSES ONLY - ACTUAL COLUMN NUMBERS TO BE SPECIFIED BY LOCAL AUTHORITY LIGHTING DEPARTMENT OR OVERSEEING ORGANISATION.

Wokingham Borough Council

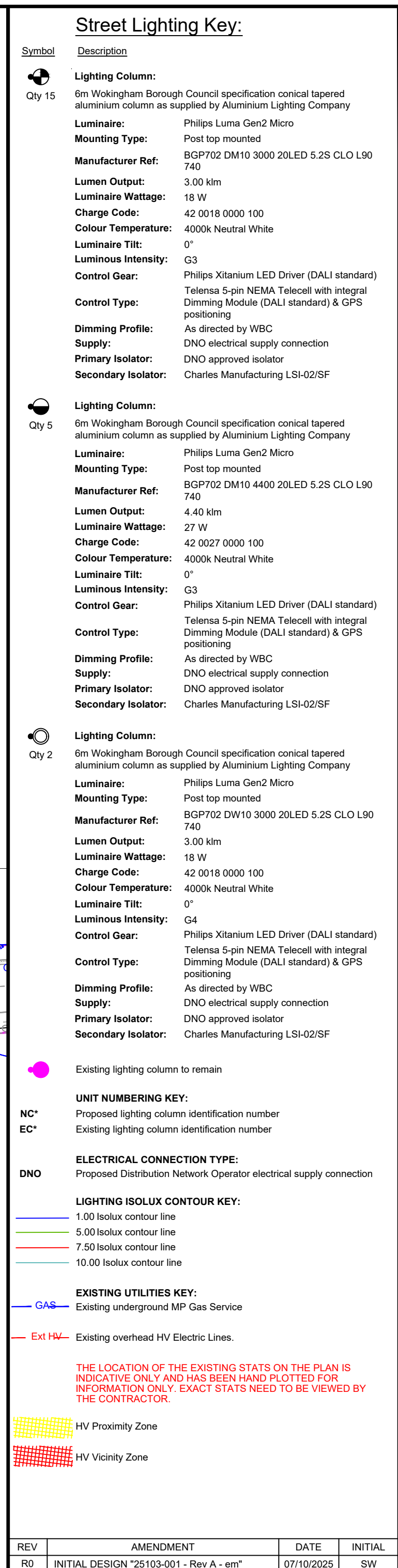
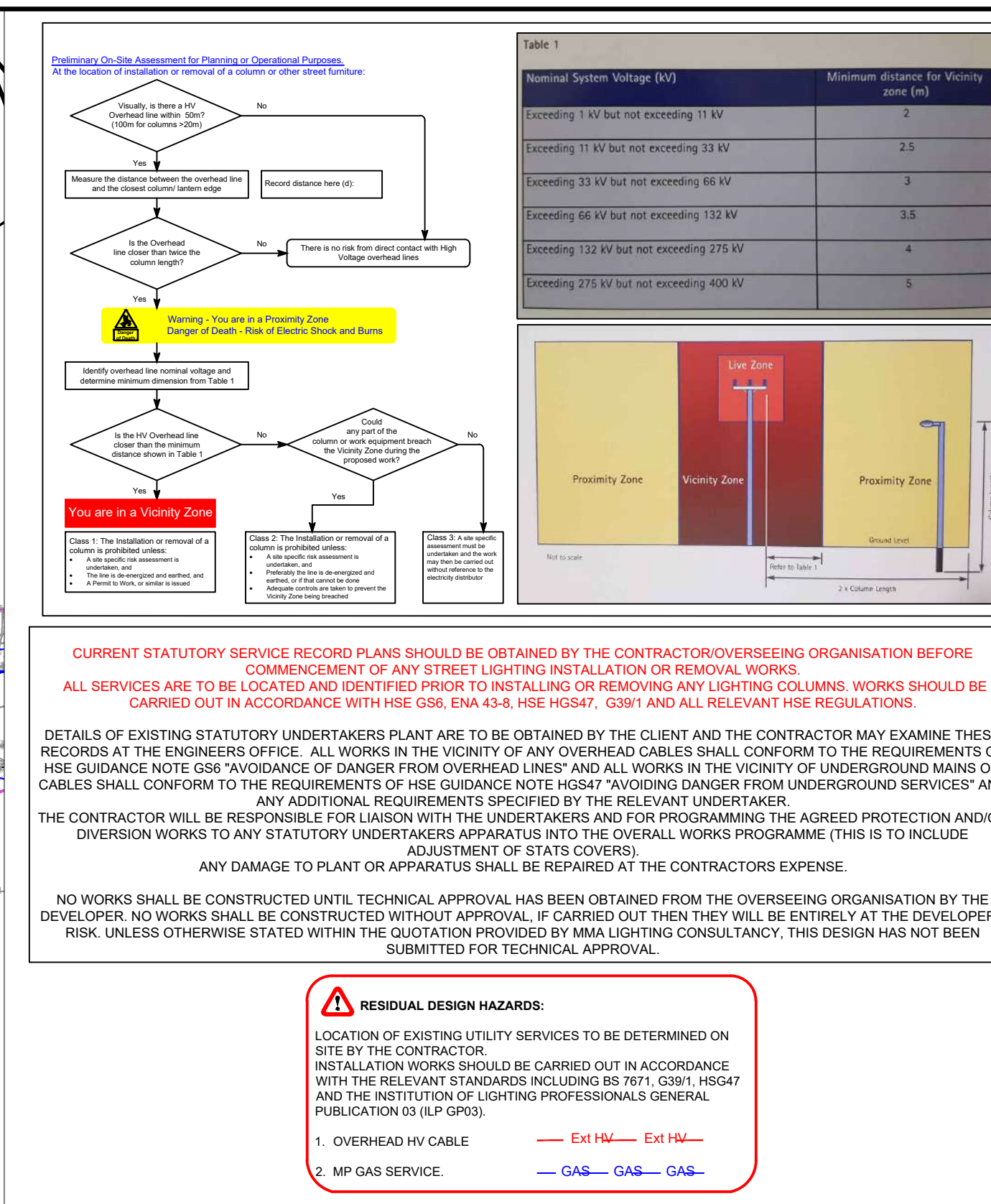
Proposed Connection Schedule

10 October 2025

Reading Road, Arborfield, Active Travel Link S278 - Proposed Lighting - Equipment Schedule - R0

Proposed Unit No.	Easting Coordinates	Northing Coordinates	Service Connection Type	Location	Unit Description	Isolator Type	Termination Type
NC24	475467.5547	167400.1189	Proposed Double Pole DNO Supply Connection	As per Layout Drawing "Reading Road, Arborfield, Active Travel Link S278 - Proposed Lighting - Layout Drawing - R0"	6m Wokingham Borough Council specification ALC aluminium lighting column with post top mounted Philips Luma Gen2 Micro DM10 3.00km NW LED lantern with Philips Xitanium LED Drivers and Telensa 5-pin Telecells with integral Dimming Module & GPS positioning.	DNO Double Pole DNO Isolator with Secondary Isolation	Proposed Double Pole DNO Supply

NOTE: NUMBERS SHOWN ON THE SCHEDULE AND DESIGN DRAWING ARE FOR IDENTIFICATION PURPOSES ONLY - ACTUAL COLUMN NUMBERS TO BE SPECIFIED BY LOCAL AUTHORITY LIGHTING DEPARTMENT OR OVERSEEING ORGANISATION.



Risk Management Form

Street Lighting Department

Project Title: Reading Road, Arborfield, Active Travel Link S278 - Proposed Lighting - Risk Assessment - R0

Project Number: MMA19828

Client: Milestone Transport Planning Limited

Date of Risk Assessment Review: 10/10/2025

Works Stage: SITE SURVEY	Description of Risk: Injury from live parts in lighting column, Risk associated with live traffic, Lone working in potentially dangerous conditions
Risk Level: Med/High	
Consequences and hazards of risk	Description: Risk of injury to yourself and the general public
Potential Impacts on other risks occurring	Description: Risk of injury to the general public, delay to the design process and installation
Actions/incidents which may trigger a risk	Description: Unsafe working, Inappropriate/Damaged Equipment, Not using PPE, Operative not suitably trained
Actions taken to avoid risks and or incidents	Description: See actions below
Risk Assessment Officer: Simon Winch	Date: 10/10/2025

Risk Description: Risk of Electric Shock	Risk Description: Live Traffic	Risk Description: Lone Working	Risk Description:
Risk Level: Med/High	Risk Level: High	Risk Level: High	Risk Level:
Actions arising:-	Actions arising:-	Actions arising:-	Actions arising:-
Wear correct PPE and ensure all equipment is checked and not damaged in anyway. Any damaged PPE or test equipment or hand tools shall be replaced immediately and the damaged PPE disposed of using the correct procedures. Ensure staff are appropriately trained, Always ensure operatives are working in the safe zone.	Wear correct protective equipment (class III PPE as minimum requirements). Ensure where possible operatives walk towards on coming traffic on verge (if possible).	Complete lone working forms, Follow procedures for notification of staff and management when visiting site alone.	
Date: 10/10/2025	Date: 10/10/2025	Date: 10/10/2025	Date:
Assessment Review (Signature) 	Name: Simon Winch	Date: 10/10/2025	

Risk Management Form

Street Lighting Department

Project Title: Reading Road, Arborfield, Active Travel Link S278 - Proposed Lighting - Risk Assessment - R0

Project Number: MMA19828

Client: Milestone Transport Planning Limited

Date of Risk Assessment Review: 10/10/2025

Works Stage: DESIGN	Description of Risk:	Description Of Risk - Lighting design does not comply with current BS5489-1:2013, Risk of injury if design does not comply, Maintenance issues with design eliminated
Risk Level: Medium		
Consequences and hazards of risk	Description:	Risk of injury to contractor, street lighting engineers and the general public
Potential Impacts on other risks occurring	Description:	Lighting design is incorrect or does not comply, Risk of delaying scheme if design is un-buildable or not maintainable by contractor
Actions/incidents which may trigger a risk	Description:	Lighting designer does not design out risk elements such as lighting columns near overhead power cables or in close proximity to refuge islands or other traffic calming measures
Actions taken to avoid risks and or incidents	Description:	See actions below
Risk Assessment Officer: Simon Winch	Date:	10/10/2025

Risk Description: Design does not conform to BS5489-1:2020	Risk Description: Injury risk if not compliant	Risk Description: Maintenance issues considered	Risk Description: Existing Utilities
Risk Level: Medium	Risk Level: Med/High	Risk Level: Medium	Risk Level: High
Actions arising:-	Actions arising:-	Actions arising:-	Actions arising:-
Always use appropriately trained design staff. Always use CDM Trained staff. Ensure staff are competent.	Follow British and European Design Standards. Always use appropriately trained staff. Follow design brief issued by client. Always use the appropriate lighting design packages. Ensure wiring is designed to current BS7671 regulations	Pay attention on site for potential risks and design them out. Ensure designs are checked by an appropriately qualified person. Check site against design plan prior to commencement of installation.	During the lighting design, all column positions have been considered against the location of the existing underground MP Gas Service. "Utilities Report"
Date: 10/10/2025	Date: 10/10/2025	Date: 10/10/2025	Date: 10/10/2025

Risk Description: Existing Utilities	Risk Description:	Risk Description:	Risk Description:
Risk Level: High	Risk Level:	Risk Level:	Risk Level:
Actions arising:-	Actions arising:-	Actions arising:-	Actions arising:-
During the lighting design, all proposed column positions have been located away from the proximity zone of the existing overhead HV lines. Please see the Layout drawing for further information on vicinity and proximity zones. Contractor will need to contact the HV line owners to ensure they are happy that the proposed columns and illuminated signs are a suitable distance from the overheads.			
Date: 10/10/2025	Date:	Date:	Date:
Assessment Review (Signature) 	Name: Simon Winch	Date: 10/10/2025	

Risk Management Form

Street Lighting Department

Project Title: Reading Road, Arborfield, Active Travel Link S278 - Proposed Lighting - Risk Assessment - R0

Project Number: MMA19828

Client: Milestone Transport Planning Limited

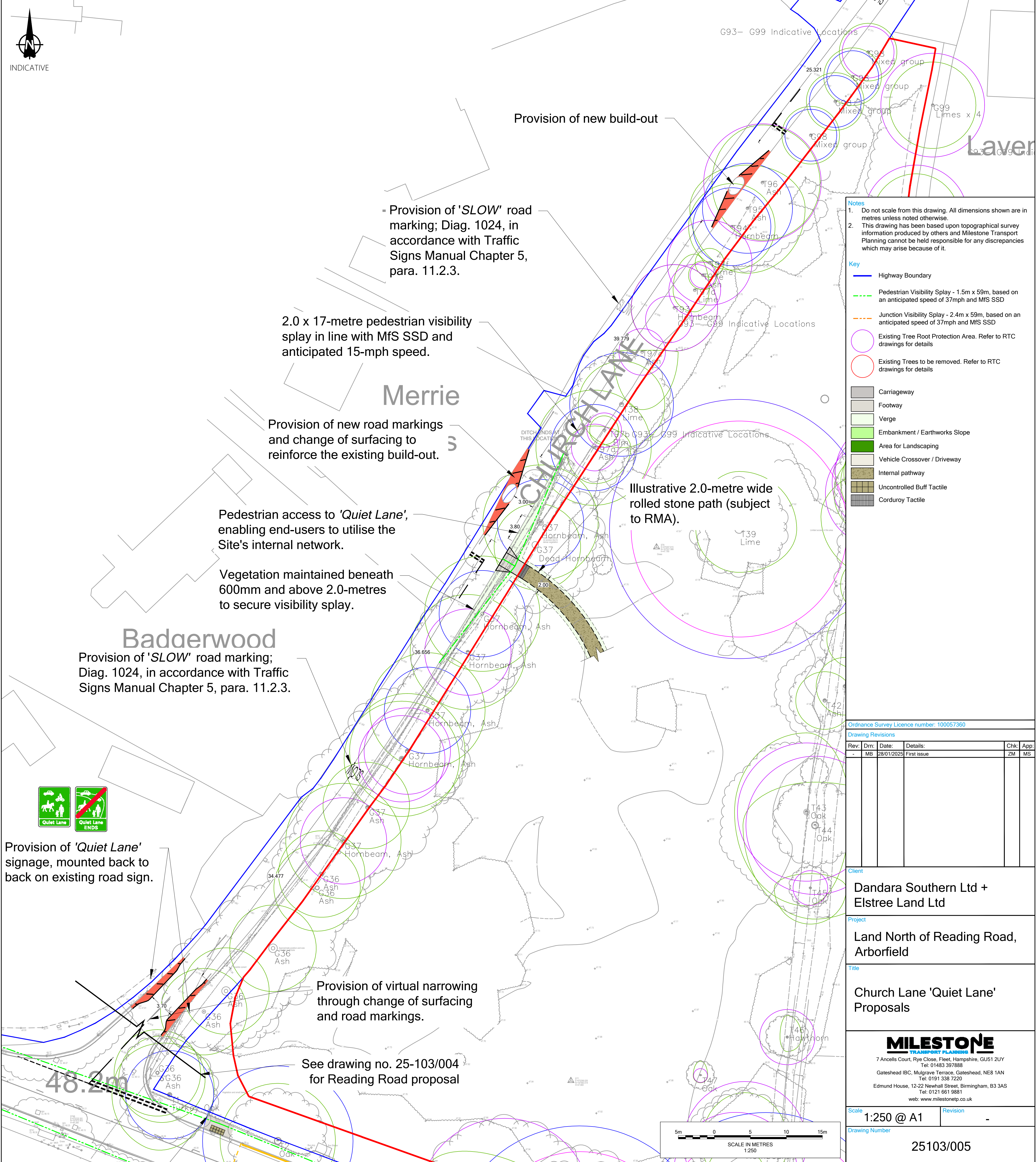
Date of Risk Assessment Review: 10/10/2025

Works Stage: SITE INSTALLATION	Description of Risk: Risk of shock to contractor, Risk of injury from live traffic in carriageway, Delay in project, Cost implication if project is delayed on site installation
Risk Level: High	
Consequences and hazards of risk	Description: Risk of injury to contractor and the general public, Incorrect procedures on site could potentially delay the project completion resulting in default charges/payments
Potential Impacts on other risks occurring	Description: Delay of the installation, Cost implications associated with project delay, Potential bad publicity if project is not successful
Actions/incidents which may trigger a risk	Description: Unsafe working, Inappropriate/Damaged Equipment, Not using PPE, Operative not suitably trained
Actions taken to avoid risks and or incidents	Description: See actions below
Risk Assessment Officer: Simon Winch	Date: 10/10/2025

Risk Description: Risk of Electric Shock	Risk Description: Risk of Injury	Risk Description: Delay to Project	Risk Description: Client Duties
Risk Level: Medium	Risk Level: Med/High	Risk Level: Medium	Risk Level: High
Actions arising:- Wear correct PPE and ensure all equipment is checked and not damaged in anyway. Any damaged PPE or test equipment or hand tools shall be replaced immediately and the damaged PPE disposed of using the correct procedures. Ensure staff are appropriately trained, Always ensure operatives are working in the safe zone	Actions arising:- Wear correct PPE and ensure all equipment is checked and not damaged in anyway. Any damaged PPE or test equipment or hand tools shall be replaced immediately and the damaged PPE disposed of using the correct procedures. Ensure staff are appropriately trained, Always ensure operatives are working in the safe zone	Actions arising:- Ensure the project is correctly managed on the ground and from the office with an agreed realistic programme	Actions arising:- The 'Client' under CDM 2015 has a duty to ensure that they have commissioned a competent 'Contractor' and as such should carry out all necessary checks PRIOR to work commencing to ensure items such as Risk Assessments and Method Statements are in place.
Date: 10/10/2025	Date: 10/10/2025	Date: 10/10/2025	Date: 10/10/2025

Risk Description: Existing Services	Risk Description: Existing Services	Risk Description: Existing Services	Risk Description: Existing Utilities
Risk Level: High	Risk Level: High	Risk Level: High	Risk Level: High
Actions arising:- Care should be taken on site to hand dig all installation trenches/column holes. Site should be surveyed with CAT/GENNY prior to excavation. In general, installation works shall be carried out in accordance with the relevant standards including BS7671, GS6, HSG47 and G39/1	Actions arising:- Lighting contractor to provide site specific risk assessments and method statements to ensure safe working practices, prior to carrying out street lighting installation works.	Actions arising:- There is an existing underground MP Gas Service running along Reading Road. Columns have been placed on the south side of the road, away from pipe however the use of ground penetrating radar should be used to locate the MP Gas Service before any columns are installed.	Actions arising:- Information from the client shows existing HV Lines running across Reading Road. All proposed columns have been located away from this hazard and outside the proximity zone. Statutory service record plans should be obtained by the contractor/overseeing organisation before commencement of any street lighting installation or removal works. All services are to be located and identified prior to installing or removing any lighting columns.
Date: 10/10/2025	Date: 10/10/2025	Date: 10/10/2025	Date: 10/10/2025
Assessment Review (Signature) 	Name: Simon Winch	Date: 10/10/2025	

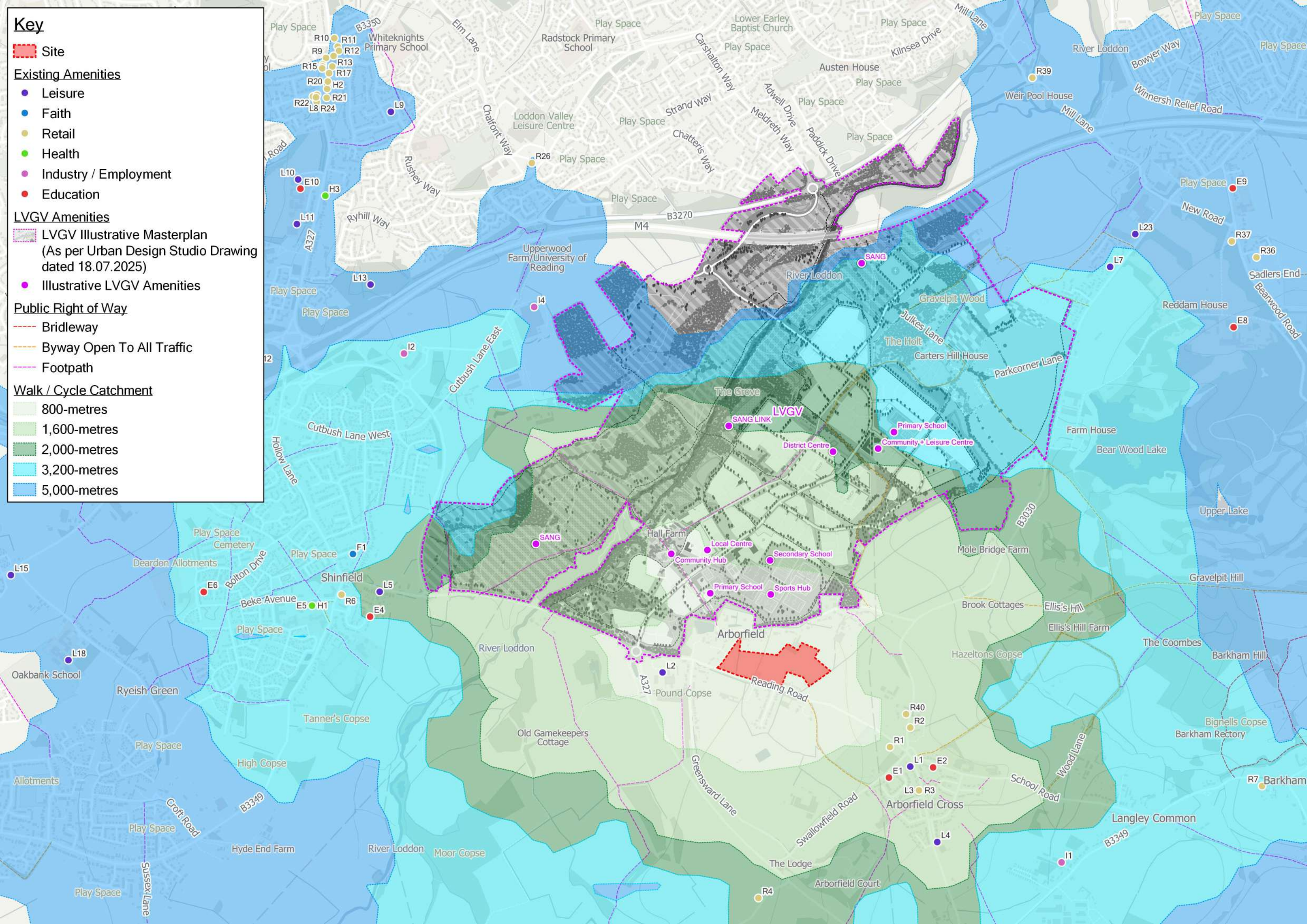
Appendix MS12



Appendix MS13

Key

- Site
- Existing Amenities
- Leisure
- Faith
- Retail
- Health
- Industry / Employment
- Education
- LVGV Amenities
- LVGV Illustrative Masterplan
(As per Urban Design Studio Drawing
dated 18.07.2025)
- Illustrative LVGV Amenities
- Public Right of Way
- Bridleway
- Byway Open To All Traffic
- Footpath
- Walk / Cycle Catchment
- 800-metres
- 1,600-metres
- 2,000-metres
- 3,200-metres
- 5,000-metres



ID	Type	Name
E1	Education	Arborfield Village Montessori Nursery
E2	Education	The Coombes C Of E Primary School
E3	Education	Farley Hill Primary School
E4	Education	Shinfield St Mary's CE Junior School
E5	Education	Shinfield Infant and Nursery School
E6	Education	Alder Grove C Of E Primary School
E7	Education	Bohunt School Wokingham
E8	Education	Reddam House Berkshire
E9	Education	Bearwood Primary School
E10	Education	Crosfields School
F1	Faith	Shinfield Community Church
F2	Faith	Three Mile Cross Church
F3	Faith	St James Church
F4	Faith	St Catherine's Church
H1	Health	South Reading & Shinfield Medical Centre
H2	Health	Vantage Chemist
H3	Health	Cathay Dental Practice
H4	Health	South Reading Surgery
H5	Health	Farley Medical Private Practice
H6	Health	Winnersh Pharmacy and Clinic
I1	Industry / Employment	Arborfield Studios
I2	Industry / Employment	Shinfield Studios
I3	Industry / Employment	Hogwood Industrial Estate
I4	Industry / Employment	British Museum Archaeological Research Collection
L1	Leisure	Arborfield Cross Recreation Ground
L2	Leisure	Clip 'n Climb Reading
L3	Leisure	Arborfield Village Hall
L4	Leisure	Arborfield Royal British Legion Club
L5	Leisure	Arborfield Road Allotments
L6	Leisure	Arborfield Green Leisure Centre
L7	Leisure	Nirvana Health and Spa
L8	Leisure	Whitley Nail bar in Shinfield road
L9	Leisure	Frensham Green Recreation Ground
L10	Leisure	Reading Archers
L11	Leisure	Crosfields Sports Hall
L12	Leisure	The Grove
L13	Leisure	Pearmans Copse
L14	Leisure	TMX Playground
L15	Leisure	May's Farm Meadow
L16	Leisure	Three Mile Cross Bowling Club
L17	Leisure	Star Rise Playground
L18	Leisure	Ryeish Green Sports Hub
L19	Leisure	Barkham Village Hall
L20	Leisure	Barkham Recreation Ground
L21	Leisure	Bearwood Lakes - Golf Club
L22	Leisure	Wokingham Cricket Club
L23	Leisure	Pulse 8 - Gym
R1	Retail	The Bull Inn
R2	Retail	Lockey Farm Shop / Sula Cafe & Pizzeria
R3	Retail	Londis (w/ InPost Locker)
R4	Retail	Henry Street Garden Centre
R5	Retail	Co-op Food Arborfield
R6	Retail	Shinfield Post Office
R7	Retail	The Bull Barkham
R8	Retail	Sainsburys Arborfield
R9	Retail	Honey & Ghee - Indian Supermarket
R10	Retail	Sportsman
R11	Retail	Greggs
R12	Retail	Tesco Express
R13	Retail	KFC Reading - Shinfield Road
R14	Retail	Subway
R15	Retail	Red Onion Tandoori
R16	Retail	Best Kebab House
R17	Retail	Pret A Manger
R18	Retail	Big Bazaar
R19	Retail	Papa Johns Pizza
R20	Retail	Mr Cod
R21	Retail	Pizza Hut Reading Shinfield Rd
R22	Retail	Bodrum Corner Cafe
R23	Retail	Shinfield Local
R24	Retail	Bagaara
R25	Retail	China Garden
R26	Retail	Asda Petrol Station
R27	Retail	The Swan
R28	Retail	Budgens
R29	Retail	Three Mile Cross Post Office
R30	Retail	Miah's Spencers Wood
R31	Retail	The George & Dragon
R32	Retail	Siren Craft Brew
R33	Retail	Elusive Brewing
R35	Retail	Ye Olde Leathern Bottel
R36	Retail	The Walter Arms
R37	Retail	Bluebell Cottage Kitchen
R38	Retail	Java Cafe
R39	Retail	The Poachers Gastropub
R40	Retail	Sula Cafe & Pizzeria

Appendix MS14

