

Obtrusive Light - Compliance Report

AS/NZS 4282:2019, A2 - Low District Brightness, Non-Curfew L1
 Filename: 20211207 - Flower Power
 14/12/2021 3:03:54 PM

Illuminance

Maximum Allowable Value: 5 Lux

Calculations Tested (2):

Calculation Label	Test Results	Max. Illum.
ObtrusiveLight_2_III_Seg1	PASS	2
ObtrusiveLight_1_III_Seg1	PASS	0

Luminous Intensity (Cd) At Vertical Planes

Maximum Allowable Value: 7500 Cd

Calculations Tested (2):

Calculation Label	Test Results
ObtrusiveLight_2_Cd_Seg1	PASS
ObtrusiveLight_1_Cd_Seg1	PASS

Threshold Increment (TI)

Maximum Allowable Value: 20 %

Calculations Tested (6):

Calculation Label	Adaptation Test Luminance	Results
ObtrusiveLight_TI_1	10	PASS
ObtrusiveLight_TI_2	10	PASS
ObtrusiveLight_TI_3	10	PASS
ObtrusiveLight_TI_4	10	PASS
ObtrusiveLight_TI_5	10	PASS
ObtrusiveLight_TI_6	10	PASS

Upward Waste Light Ratio (UWLR)

Maximum Allowable Value: 1.0 %

Calculated UWLR: 0.4 %

Test Results: PASS

DESIGN NOTES:

1. SCHEME FOR GUIDANCE ONLY, NOT FOR CONSTRUCTION SCHEME BASED UPON ARCHITECTURAL DRAWING: 4932_DA101(2)_GROUND FLOOR PLAN WHILST ALL REASONABLE EFFORTS TO ENSURE ACCURACY IT IS RECOMMENDED THAT ALL DIMENSION SHOULD BE VERIFIED INDEPENDENTLY OF THIS DRAWING.

2. THIS SCHEME WAS DESIGNED TO MEET AUSTRALIAN STANDARD, AS PER AS/NZS 1158.3.1 CATEGORY PC1 FOR CARPARK GENERAL AREA, PCX FOR PEDESTRIANS CROSSING AREA, PR1 FOR TRUCK AND CAR ACCESS & EXIT. EXTERIOR LIGHTING IS IN ACCORDANCE WITH AS4282 "CONTROL OF THE OBTRUSIVE EFFECTS OF OUTDOOR LIGHTING" INFORMATION REGARDING TO OBTRUSIVE EFFECTS AND THRESHOLD INCREMENT HAS BEEN REFERENCE FROM THE SURVEY DOCUMENT "10115-002-C". THIS HAS BEEN APPLIED AS A MINIMUM STANDARD.

3. A LIGHT LOSS FACTOR (MF) OF 0.8 HAS BEEN APPLIED IN ACCORDANCE WITH AS1680.4 AND 1158.3.1(LDD*LLD) A TYPICAL MAINTENANCE PROGRAM TO PROVIDE THIS WOULD BE:
 - CLEAN AND INSPECT ON THREE YEARS CYCLE
 - SPONTANEOUS FAILURES BEFORE THIS TIME SHOULD BE ASSESSED FOR IMPACT AND REPLACED IF CONSIDERED NECESSARY

4. THIS SCHEME IS SUBJECT TO THE NORMAL ACCURACIES AND TOLERANCES OF PHOTOMETRY AND SOFTWARE AS DESCRIBED WITHIN AS3827. FOR THE PURPOSES OF THIS SCHEME THESE HAVE BEEN ASSESSED TO PLUS OR MINUS 15%.

Symbol	Qty	Tag	Label	Lum. Watts	Total Lamp Lumens	LLF	Description
	7	W1	H22-65-3B	65	9230	0.800	NIKKON Zeal II LED flood light type III 65W 4000K
	4	W8	H22-150-2B	151.1	19500	0.800	NIKKON Zeal II LED flood light type II 150W 4000K
	13	W6	H22-150-4B	149.4	19370	0.800	NIKKON Zeal II LED flood light type IV 150W 4000K
	1	W5	H22-150-3B	150.294	21934	0.800	NIKKON Zeal III LED flood light type III 150W 4000K
	1	W4	H22-90-3B	90.512	12896	0.800	NIKKON Zeal II LED flood light type II 90W 4000K
	13	W2	Campaq 30W T2 - Wallmounted	30.7	3200	0.800	NIKKON Campaq LED flood light type II 30W 4000K

UWLR Area Summary		
Label	Area	UWLR
UWLR	31189	0.004

Calculation Summary						
Label	Units	Avg	Max	Min	Min/Avg	Max/Avg
Car entry exit 1	Lux	14.6	59	2	N.A.	4.0
Car entry exit 2	Lux	37.0	207	3	N.A.	5.6
Landscape zone carpark	Lux	19.7	82	3	N.A.	4.2
Landscape zone carpark vertical	Lux	7.1	13	4	0.6	1.8
Loading carpark	Lux	31.1	40	20	N.A.	1.3
Loading carpark vertical	Lux	35.8	47	20	0.6	1.3
Main carpark	Lux	20.5	63	5	N.A.	3.1
Main carpark vertical 1	Lux	9.0	11	5	0.6	1.2
Main carpark vertical 2	Lux	8.4	10	6	0.7	1.2
ObtrusiveLight_1_Cd_Seg1	N.A.	604.7	2121	0	N.A.	N.A.
ObtrusiveLight_1_III_Seg1	Lux	0.0	0	0	N.A.	N.A.
ObtrusiveLight_2_Cd_Seg1	N.A.	2561	5241	3	0.0	N.A.
ObtrusiveLight_2_III_Seg1	Lux	0.6	2	0	0.0	N.A.
ObtrusiveLight_TI_1	%	0.0	0	0	N.A.	N.A.
ObtrusiveLight_TI_2	%	0.0	0	0	N.A.	N.A.
ObtrusiveLight_TI_3	%	0.0	0	0	N.A.	N.A.
ObtrusiveLight_TI_4	%	0.0	0	0	N.A.	N.A.
ObtrusiveLight_TI_5	%	0.0	0	0	N.A.	N.A.
ObtrusiveLight_TI_6	%	0.0	0	0	N.A.	N.A.
PCX 1	Lux	23.3	35	9	N.A.	1.5
PCX 2	Lux	29.1	63	8	N.A.	2.2
PCX 3	Lux	26.7	58	7	N.A.	2.2
PCX 4	Lux	27.5	60	6	N.A.	2.2
Truck entry exit	Lux	23.5	171	2	N.A.	7.3

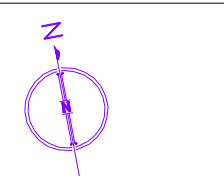
PROJECT:
 FLOWER POWER GARDEN
 CENTRE TERRY HILLS
 277 MONA VALE RD,
 TERRY HILLS NSW

TITLE:
 PROPOSED EXTERNAL LIGHTING

Date:14/12/2021



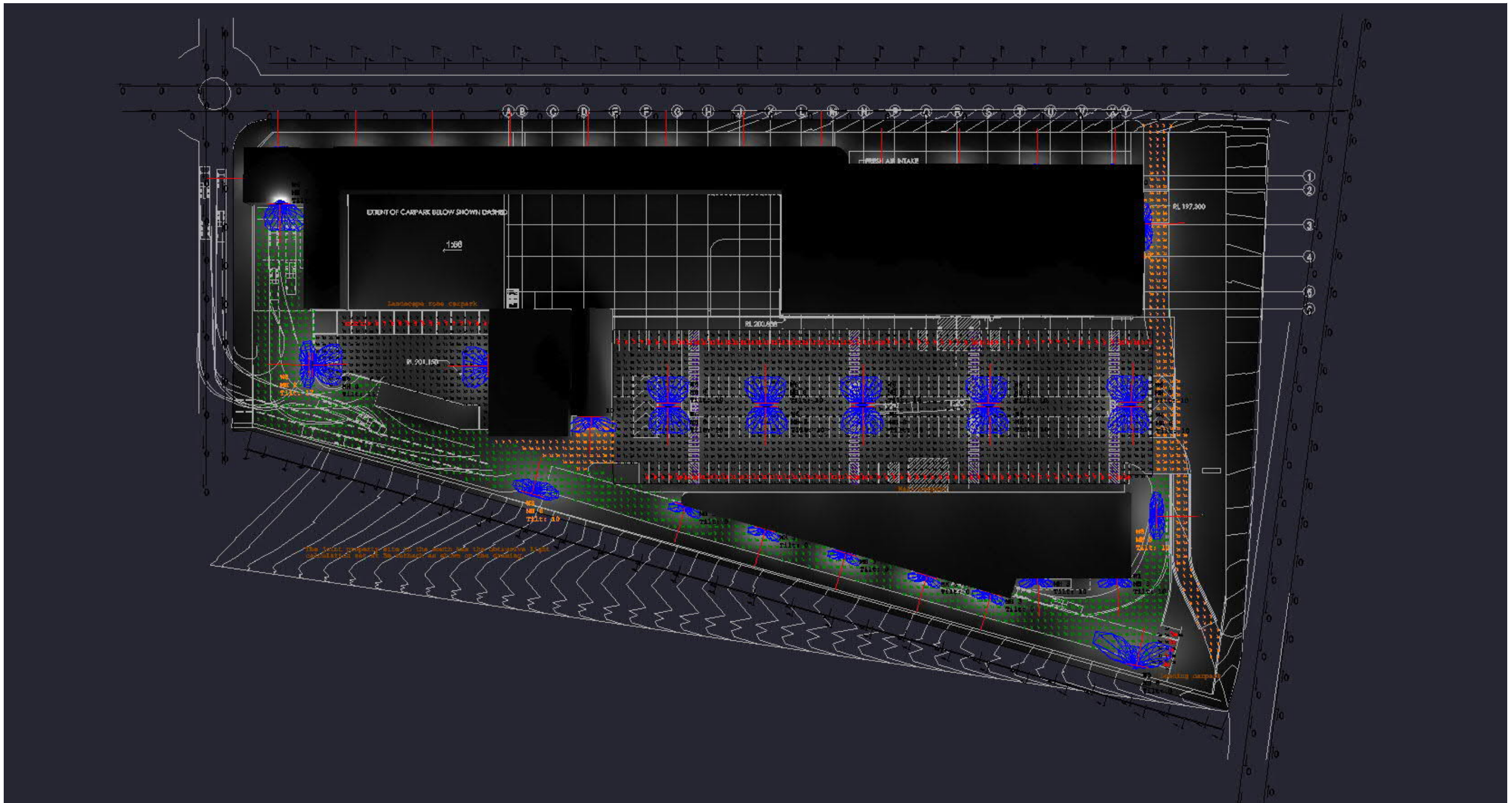
Rev	Date	Description	Drawn By
P1	06/12/2021	Preliminary	EC



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SHEET:
 A3

Page 1 of 2



PROJECT:
FLOWER POWER GARDEN
CENTRE TERRY HILLS
277 MONA VALE RD,
TERRY HILLS NSW

TITLE:
PROPOSED EXTERNAL LIGHTING



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Page 2 of 2