BROADWATER SAILING EXTERNAL LIGHTING DESIGN CONSIDERATIONS

AT

BROADWATER WATER SPORTS & ACTIVITY CENTRE

STUART McCURRY & PARTNERS LTD
11 Chiltern Court
Asheridge Road
Chesham
Buckinghamshire
HP5 2PX

Tel: (01296) 696780
Email: engineers@smpengineering.co.uk
Website: www.stuart-mccurry-partners.co.uk

Project Ref: 24-070
Issue: P02
November 2025

REPORT

ISSUE AND AMENDMENT RECORD SHEET

REVISION	DATE	DETAILS	AUTHOR	CHECKED BY
P01	19/08/25	Preliminary Issue	CS	GR
P02	28/11/25	Re-issue with additional Drawings	CS	GR

Table of Contents

BROADWATER SAILING EXTERNAL LIGHTING DESIGN CONSIDERATIONS

EXECUTIVE SUMMARY

The overall approach for the site's external lighting is as follows:

A number of pathways and routes have been carefully lit to allow for safe wayfinding from the site's main building elements to two muster points as identified on the drawings.
Care has been taken in the selection of fittings.

These fittings have been chosen for their zero upward light spill – dark skies – sharp illumination cut off and colour temperature that will have a minimal impact on wildlife, particularly flying insect feeders.

The site location and relative isolation, occupying a heavily wooded isthmus type area within the lake and to the West of the canal will greatly assist in the lighting design. With careful selection of light fittings, light spill and upward light pollution can be reduced to zero so it has a negligible effect on the surrounding areas and neighbourhoods.

This being said, some form of lighting for wayfinding between the site's major buildings as well as safe wayfinding illumination from these buildings to the designated muster points in event of a building emergency needs to be designed.

Bollards have been chosen for their short height (250mm) and their dark sky zero spill cut off.

The site is surrounded by dense vegetation and natural woodland. The presence of this vegetation will naturally prevent light spill out across the lake or across to the east and the canal tow path.

Two muster points have been identified and short bollards placed along the individual routes from the main buildings to these muster points. The bollards are short but achieve a good level of illumination without adverse light spill away from the routes to the muster points.

Consideration has also been given to pedestrian routes around such obstacles as boat racks and storage areas in an aid to prevent trip hazards in the event of a building evacuation scenario.

Every effort has been made to keep illumination levels as low as possible, to avoid over illumination.

1. CAMP ZONE TO MUSTER POINT

From the camp zone to the muster point a line of bollards will be placed along the side of the access road to allow for wayfinding, in event of an emergency. The bollards will be at low level – 250mm above the ground to allow for effective wayfinding and the prevention of glare, creating a clear illuminated path to the camp site's muster point. Light spill will be eliminated due to the zero upward light spill and the sharp cut off illumination angle given out by the bollards.

2. SAFETY ZONE TO MUSTER POINT

From the Safety Zone to the muster point, a line of bollards will be placed along the side of the access road, around the boat racks and storage areas to allow for wayfinding, in event of an emergency. The bollards will be at low level – 250mm above the ground to allow for effective wayfinding and the prevention of glare creating a clear illuminated path to the camp site's muster point. Light spill will be eliminated due to the zero upward light spill and the sharp cut off illumination angle given out by the bollards.

3. OPERATIONAL ZONE TO MUSTER POINT

From the operational zone to the muster point a line of bollards will be placed along the side of the access road, around the boat racks and storage areas to allow for wayfinding, in the event of an emergency. The bollards will be at low level – 250mm above the ground to allow for effective wayfinding and the prevention of glare creating a clear illuminated path to the camp site's muster point.

Light spill will be eliminated due to the zero upward light spill and the sharp cut off illumination angle given out by the bollards.

4. CAMP ZONE TO OPERATIONS ZONE

The access road and walkway linking the Camp Zone to the Operations Zone will be lit to the same levels and design criteria as the Camp Zone muster point wayfinding. This will allow the Camp Zone to be safely linked to the Operations Zone for safe pedestrian access; as with the Muster point illumination, short bollards will be used.

Light spill will be eliminated due to the zero upward light spill and the sharp cut off illumination angle given out by the bollards.

5. 19 SPACE CAR PARK

The 19-space car park will be lit to the same levels and design criteria as the Camp Zone muster point wayfinding. This will allow for the safe operation and parking of vehicles as well as pedestrian orientation and interaction. As with the Muster point illumination, short bollards will be used.

Light spill will be eliminated due to the zero upward light spill and the sharp cut off illumination angle given out by the bollards.

6. 26 SPACE CAR PARK

The 26-space car park will be like the 19-space car parking area, also to be lit to the same levels and design criteria as the Camp Zone muster point wayfinding. This will allow for the safe operation and parking of vehicles as well as pedestrian orientation and interaction. As with the Muster point illumination, short bollards will be used.

Light spill will be eliminated due to the zero upward light spill and the sharp cut off illumination angle given out by the bollards.

7. WILDLIFE CONCERNS

Colour of Light Source for External Lighting.

All lighting to the site is 3000K – this colour is acceptable to nighttime feeders found in this area, especially foraging species such as bats (Nathusius' pipistrelle and Soprano Pipistrelle) which are the most affected. The 3000K light source has a peak spectral distribution of less than 450nm.

8. CONTROL OF THE LIGHTING

The Area Lighting, when connected to a dusk till dawn photocell will automatically reduce output of the light source by 50%. This will occur 4 (+/- 1 hour) hours pre-astral midnight and 4 (+/- 1 hour) post-midnight creating a curfew period where night foraging species are most active.

The lighting can be controlled, where in event of a building emergency, it is switched on automatically to aid in the evacuation.

9. BOLLARD POSITIONS

Again, in best practice, bollards are placed at maximum intervals and at lowest height to reduce further intrusion into nighttime feeding patterns.

10. LIGHT POLLUTION IN REGARD TO WILDLIFE

All luminaires are directional in design; focused optics ensure a sharp cut off between the task and where light effects are not required. In addition, the optics are all 100% downlight, this reduces skyglow to limits as stated by the ILP, the addition of a warmer coloured light source (3000k) reduces light pollution further – the higher the red content of the light, source reduces skyglow effects.

11. EXTERNAL BUILDING MOUNTED EMERGENCY LIGHTING

External Building mounted Emergency lighting will be fitted to the Safety Zone, Operational Zone and Camp Zone buildings. This lighting, in addition to the Bollard and wayfinding lighting will assist in the routing of people around the buildings.

In an emergency this lighting will be designed to give a clear indication of each building's orientation and particularly the locations of the entrance and exit door, to give the pedestrian approaching a building a firm target to aim for.

The lighting, as with the wayfinding lighting will be of low glare and zero upplight spill (Dark Skies) design. Again, as with the bollards the 3000k colour temperature will be more acceptable to wildlife and nighttime inset feeders.

The presence of heavy vegetation surrounding the buildings will assist in their being no light spill from the site to the lake or, canal tow path or surrounding areas.

If the building external lighting is operated illuminated (maintained) and carefully mounted, it would be able to assist in the orientation of the site's users in the hours of darkness and to assist them in locating each building's entrance and exits.

12. APPENDIX A – DRAWINGS – LUX LEVELS SHEETS 01 – 04

Notes

1. SEE EXTERNAL SERVICES DRAWING FOR WIRING AND INSTALLATION DETAILS
2. ALL LIGHT FITTINGS WITH A 0% ULOR DARK SKIES - ZERO LIGHT SPILL RATING.
3. GLARE CONTROL AND UPWARD LIGHT POLLUTION COMPLIANT (0% ULOR RATING).
4. FITTINGS COLOR TEMPERATURE OF 3000K OR LOWER TO LESSEN IMPACT ON FLYING INSECT FEEDERS SUCH AS BATS.
5. LIGHTING TO BE CONTROLLED USING ASTRO TIME CLOCK.
6. LIGHTING TO BE SWITCHED OFF AT NIGHT WHEN FACILITY IS CLOSED.
7. FITTINGS TO BE PLACED TO MINIMISE LIGHT SPILL AND HAVE GOOD GLARE CUT OFF.
8. ONLY WALKWAYS AND WAYFINDING FEATURES TO BE ILLUMINATED FOR PEDESTRIAN ACCESS TO MUSTER POINTS IN EVENT OF EMERGENCY.
9. ALL PHOTOMETRIC DATA AND SOFTWARE MODELING TO BE TO: EN 13032-4:2015+A1:2019.

FOR INFORMATION

THE CONTRACTOR SHALL NOTE THESE DRAWINGS ARE DESIGN DRAWINGS. THE CONTRACTOR IS TO DEVELOP THE DESIGN INTO WORKING DRAWINGS IN COORDINATION WITH ALL ARCHITECTS, STRUCTURAL & SERVICES DRAWINGS AND SPECIFICATIONS.
THE CONTRACTORS WORKING DRAWINGS SHALL BE USED AS THE BASE DRAWINGS FOR THE INSTALLATION. THESE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER & ARCHITECT FOR THEIR COMMENTS/APPROVAL PRIOR TO INSTALLATION.

FAILURE TO ADHERE TO THE ABOVE MAY RESULT IN THE CONTRACTOR HAVING TO REMOVE AND REINSTALL THE EQUIPMENT AT THEIR OWN COST.

Legend

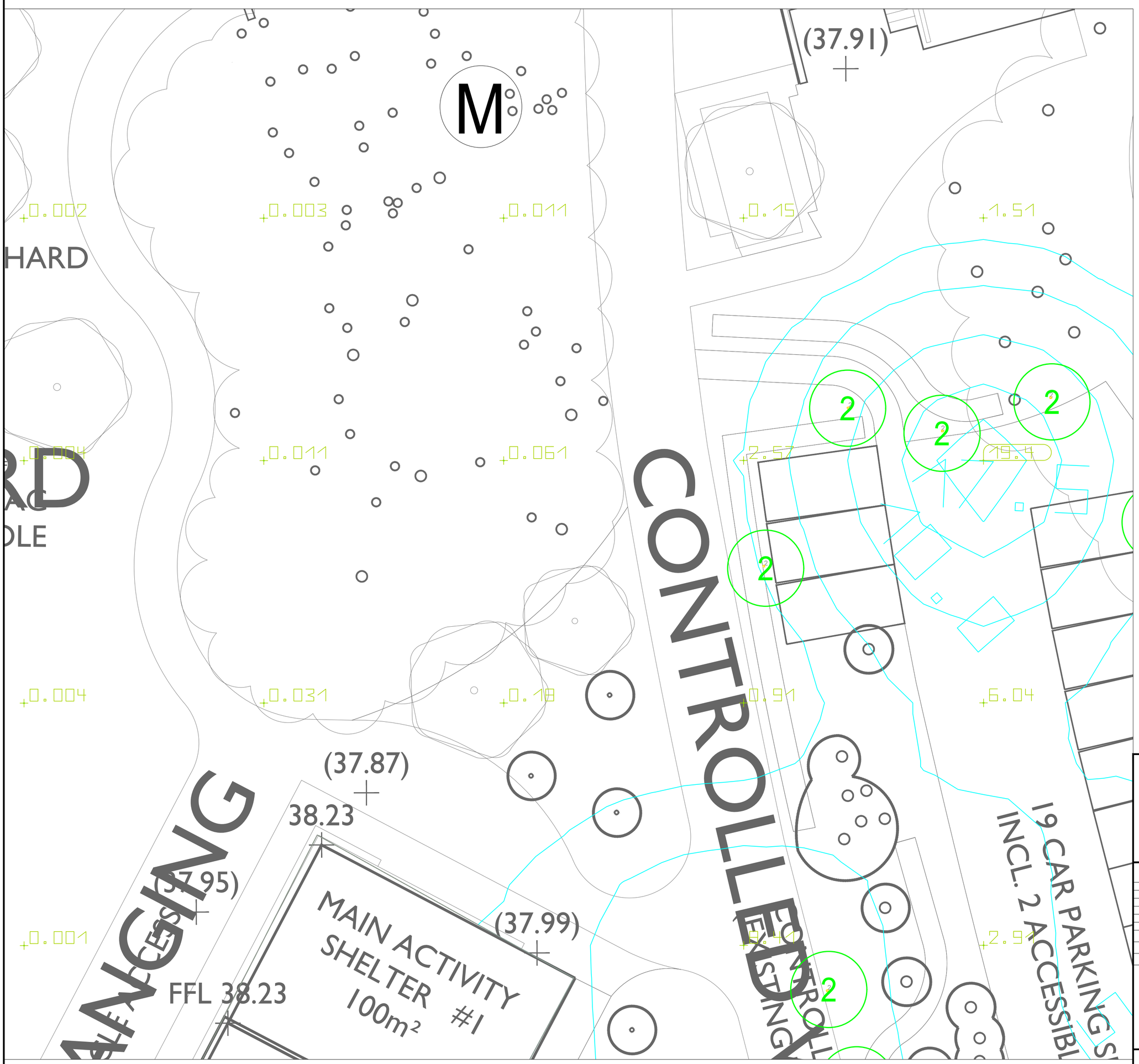
ISOLINES: LUX LEVELS

10 = 10lx
15 = 15lx
20 = 20lx
25 = 25lx
30 = 30lx
40 = 40lx
50 = 50lx

M MUSTER POINT

1 LIGMAN MASK 4 IN-GROUND LUMINAIRE 223lm

2 DW WINDSOR PHAROLA DS 2.7K 696lm



Do not scale this drawing.
Verify all dimensions & structural details on site.
If in doubt, ask before acting.

Read this drawing in conjunction with the appropriate Specification(s).

The purpose of this drawing when issued as a Tender Drawing is to enable tenderers to interpret correctly the design and to submit competitive tenders for the works.
A Tender Drawing whether original or amended shall not be used as an installation Drawing except under the terms contained in the conditions of Tender.

edition	date	designed	drawn	checked
P1	15.08.25	CS	CP	
P2	19.08.25	CS	CP	
P3	28.11.25	CS	JR	
P1	PRELIMINARY ISSUE			
P2	PRELIMINARY ISSUE			
P3	PRELIMINARY ISSUE			

SMP
Consulting Engineers ~ Building Services

Stuart McCurry & Partners Limited
11 Chiltern Court
Asheridge Road
Chesham
Buckinghamshire HP5 2PX
Email : engineers@smpengineering.co.uk
Web : www.stuart-mccurry-partners.co.uk
Tel : 01296 696780

job title

BROADWATER WATER SPORTS & ACTIVITY CENTRE

drawing title

Electrical Services

EXTERNAL LIGHTING
CAMP ZONE
MUSTER POINTS - WAY FINDING
LUX LEVELS SHEET 1 OF 4

job no.	scale	status
24-070	1:100@A1	PRELIMINARY

drawing no.	edition
24070-SMP-CZ-00-DR-E-2001	P3

Notes

1. SEE EXTERNAL SERVICES DRAWING FOR WIRING AND INSTALLATION DETAILS
2. ALL LIGHT FITTINGS WITH A 0% ULOR DARK SKIES - ZERO LIGHT SPILL RATING.
3. GLARE CONTROL AND UPWARD LIGHT POLLUTION COMPLIANT (0% ULOR RATING).
4. FITTINGS COLOR TEMPERATURE OF 3000K OR LOWER TO LESSEN IMPACT ON FLYING INSECT FEEDERS SUCH AS BATS.
5. LIGHTING TO BE CONTROLLED USING ASTRO TIME CLOCK.
6. LIGHTING TO BE SWITCHED OFF AT NIGHT WHEN FACILITY IS CLOSED.
7. FITTINGS TO BE PLACED TO MINIMISE LIGHT SPILL AND HAVE GOOD GLARE CUT OFF.
8. ONLY WALKWAYS AND WAYFINDING FEATURES TO BE ILLUMINATED FOR PEDESTRIAN ACCESS TO MUSTER POINTS IN EVENT OF EMERGENCY.
9. ALL PHOTOMETRIC DATA AND SOFTWARE MODELING TO BE TO: EN 13032-4:2015+A1:2019.

THE CONTRACTOR SHALL NOTE THESE DRAWINGS ARE DESIGN DRAWINGS. THE CONTRACTOR IS TO DEVELOP THE DESIGN INTO WORKING DRAWINGS IN COORDINATION WITH ALL ARCHITECTS, STRUCTURAL & SERVICES DRAWINGS AND SPECIFICATIONS.
THE CONTRACTORS WORKING DRAWINGS SHALL BE USED AS THE BASE DRAWINGS FOR THE INSTALLATION. THESE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER & ARCHITECT FOR THEIR COMMENTS/APPROVAL PRIOR TO INSTALLATION.

FAILURE TO ADHERE TO THE ABOVE MAY RESULT IN THE CONTRACTOR HAVING TO REMOVE AND REINSTALL THE EQUIPMENT AT THEIR OWN COST.

Legend

ISOLINES: LUX LEVELS

10 = 10lx
15 = 15lx
20 = 20lx
25 = 25lx
30 = 30lx
40 = 40lx
50 = 50lx

M — MUSTER POINT

1 — LIGMAN MASK 4 IN-GROUND LUMINAIRE 223lm

2 — DW WINDSOR PHAROLA DS 2.7K 696lm

WET WOODLAND PLANTING
MULTI-FUNCTIONAL GRASSED ACTIVITY AREA
CONCRETE LUMPS FOR RETENTION
TOW 39.10
RACKS FOR 52 SMALL DINGHYS
RACK
RACK
EMERGENCY VEHICULAR ACCESS TO CREEK
RACKS FOR 42 SMALL DINGHYS
BOAT
WC / CHANGING
WC & CHANGING
FFL 38.23
RAISED BED
BENCH
KAYAK/ CANOE & PADDLE BOARD RACK
RAFTING BARRELS
26x DINGHY STORAGE SPACES (3.5x1.7m)
TROLLEY PARK
SAFETY EQUIPMENT STORE
SAFETY EQUIPMENT STORE
TROUGH
WHEELCHAIR CHARGING
AMBULANCE DROP-OFF POINT
TROLLEY PARK
SECURE YARD
MAIN BUILDING / OBSERVATION AND OPERATIONS
MAIN BUILDING
1.2m WIDE ELEVATED METAL GRATE FIRE ESCAPE WALKWAY
CONCRETE LUMPS
WORKSHOP
WORKSHOP
FFL 38.23
1:40
45x DINGHY STORAGE SPACES (4.5x1.8m)
ACCESSIBLE PARKING
ACCESSIBLE PARKING BAYS
BOAT WASH
TROLLEY PARK
WILLOW PLANTING IN SUBMERGED PLANTERS FOR VISUAL SCREENING
SUBMER
WILLOW
PLANTI
ENERG
CENT
CHESTNUT PALING FENCE
ND (G5)

FOR INFORMATION

edition	date	designed	drawn	checked
P1	15.08.25	CS	CP	
P2	19.08.25	CS	CP	
P3	28.11.25	CS	JR	
P1	PRELIMINARY ISSUE			
P2	PRELIMINARY ISSUE			
P3	PRELIMINARY ISSUE			

SMP
Consulting Engineers ~ Building Services

Stuart McCurry & Partners Limited
11 Chiltern Court
Asheridge Road
Chesham
Buckinghamshire HP5 2PX
Email : engineers@smpengineering.co.uk
Web : www.stuart-mccurry-partners.co.uk
Tel : 01296 696780

job title
BROADWATER WATER SPORTS & ACTIVITY CENTRE

drawing title
Electrical Services
EXTERNAL LIGHTING
OPERATIONS & SAFETY ZONES
MUSTER POINTS - WAY FINDING
LUX LEVELS SHEET 2 of 4

job no.	scale	status
24-070	1:200@A1	PRELIMINARY

drawing no.	edition
24070-SMP-CZ-00-DR-E-2002	P3

Notes

1. SEE EXTERNAL SERVICES DRAWING FOR WIRING AND INSTALLATION DETAILS
2. ALL LIGHT FITTINGS WITH A 0% ULOR DARK SKIES - ZERO LIGHT SPILL RATING.
3. GLARE CONTROL AND UPWARD LIGHT POLLUTION COMPLIANT (0% ULOR RATING).
4. FITTINGS COLOR TEMPERATURE OF 3000K OR LOWER TO LESSEN IMPACT ON FLYING INSECT FEEDERS SUCH AS BATS.
5. LIGHTING TO BE CONTROLLED USING ASTRO TIME CLOCK.
6. LIGHTING TO BE SWITCHED OFF AT NIGHT WHEN FACILITY IS CLOSED.
7. FITTINGS TO BE PLACED TO MINIMISE LIGHT SPILL AND HAVE GOOD GLARE CUT OFF.
8. ONLY WALKWAYS AND WAYFINDING FEATURES TO BE ILLUMINATED FOR PEDESTRIAN ACCESS TO MUSTER POINTS IN EVENT OF EMERGENCY.
9. ALL PHOTOMETRIC DATA AND SOFTWARE MODELING TO BE TO: EN 13032-4:2015+A1:2019.

THE CONTRACTOR SHALL NOTE THESE DRAWINGS ARE DESIGN DRAWINGS. THE CONTRACTOR IS TO DEVELOP THE DESIGN INTO WORKING DRAWINGS IN COORDINATION WITH ALL ARCHITECTS, STRUCTURAL & SERVICES DRAWINGS AND SPECIFICATIONS.
THE CONTRACTORS WORKING DRAWINGS SHALL BE USED AS THE BASE DRAWINGS FOR THE INSTALLATION. THESE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER & ARCHITECT FOR THEIR COMMENTS/APPROVAL PRIOR TO INSTALLATION.

FAILURE TO ADHERE TO THE ABOVE MAY RESULT IN THE CONTRACTOR HAVING TO REMOVE AND REINSTALL THE EQUIPMENT AT THEIR OWN COST.

SUBMERGED WILLOW PLANTING

WILLOW PLANTING IN SUBMERGED PLANTERS FOR VISUAL SCREENING

1.2M CHESTNUT PALING FENCE

ZIP LINE

GATEWAY

EXISTING CONCRETE STRUCTURES TO BE RETAINED AND RE-PURPOSED FOR ZIP LINE AND WALL CLIMBING

M

ORCHARD

CAMPING & ACTIVITIES ON GRASS

FLAG POLE

MAIN ACTIVITY SHELTER #1 100m²

FFL 38.23

WC / CHANGING

TROLLEY PARK

CONTROLLED ENVIRONMENT ZIP LINE ACCESS

19 CAR PARKING SPACES INCL. 2 ACCESSIBLE SPACES

CAR PARK

BICYCLE SHELTER

COACH REVERSING BAY

REFUSE STORE

FOR INFORMATION

Legend

ISOLINES: LUX LEVELS

10 = 10lx
15 = 15lx
20 = 20lx
25 = 25lx
30 = 30lx
40 = 40lx
50 = 50lx

M — MUSTER POINT

1 — LIGMAN MASK 4 IN-GROUND LUMINAIRE 223lm

2 — DW WINDSOR PHAROLA DS 2.7K 696lm

edition	date	designed	drawn	checked
P1	28.11.25	CS	JR	
P1	PRELIMINARY ISSUE			

SMP
Consulting Engineers ~ Building Services

Stuart McCurry & Partners Limited
11 Chiltern Court
Asheridge Road
Chesham
Buckinghamshire HP5 2PX
Email : engineers@smpengineering.co.uk
Web : www.stuart-mccurry-partners.co.uk
Tel : 01296 696780

job title

BROADWATER WATER SPORTS & ACTIVITY CENTRE

drawing title

Electrical Services

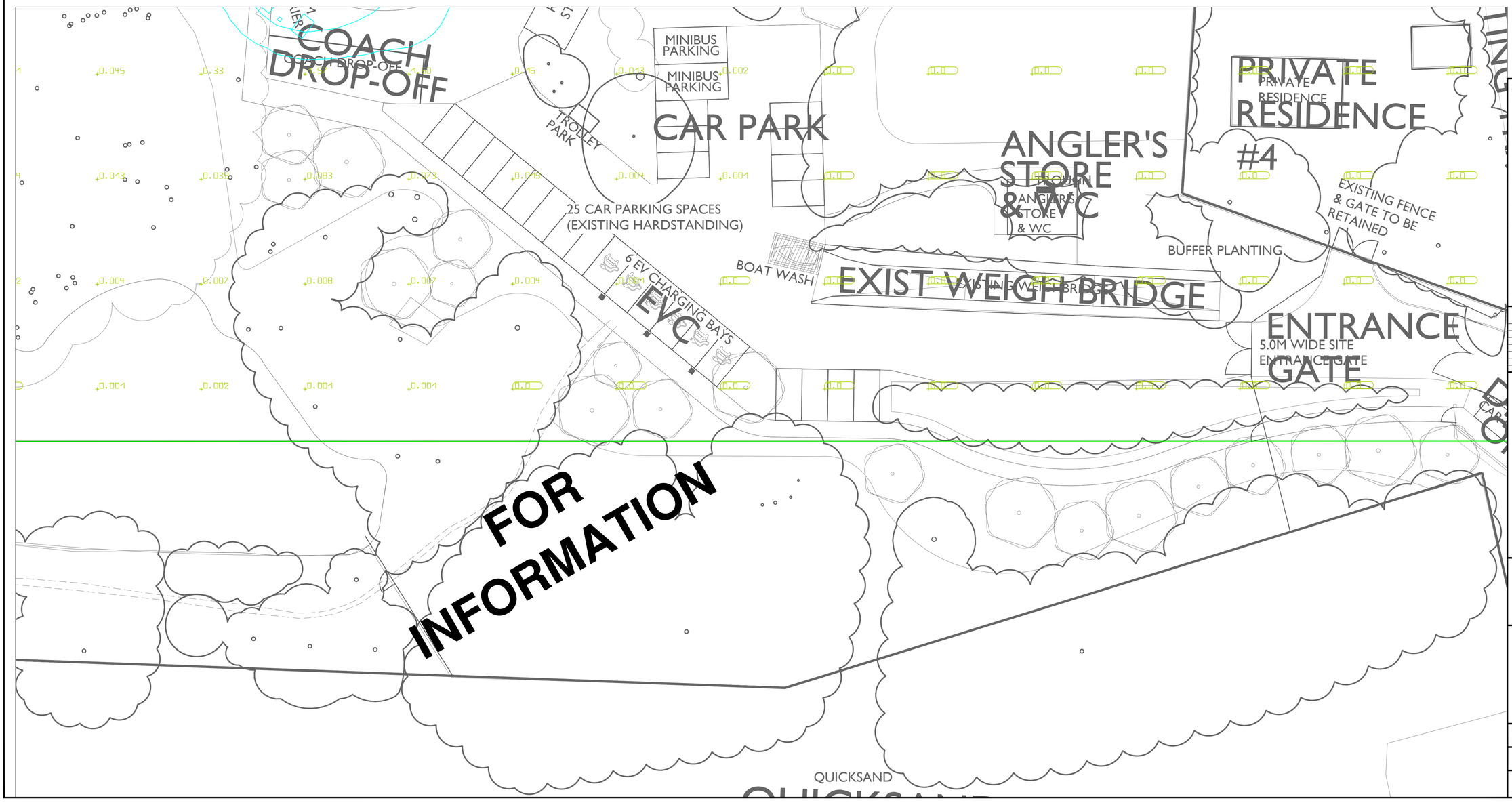
EXTERNAL LIGHTING
CAMP ZONE TO OPERATIONS
& 19 SPACE CARPARK
ILLUMINATION & LUX LEVELS

job no.	scale	status
24-070	1:200@A1	PRELIMINARY

drawing no.	edition
24070-SMP-CZ-00-DR-E-2003	P1

Notes

1. SEE EXTERNAL SERVICES DRAWING FOR WIRING AND INSTALLATION DETAILS
2. ALL LIGHT FITTINGS WITH A 0% ULOR DARK SKIES - ZERO LIGHT SPILL RATING.
3. GLARE CONTROL AND UPWARD LIGHT POLLUTION COMPLIANT (0% ULOR RATING).
4. FITTINGS COLOR TEMPERATURE OF 3000K OR LOWER TO LESSEN IMPACT ON FLYING INSECT FEEDERS SUCH AS BATS.
5. LIGHTING TO BE CONTROLLED USING ASTRO TIME CLOCK.
6. LIGHTING TO BE SWITCHED OFF AT NIGHT WHEN FACILITY IS CLOSED.
7. FITTINGS TO BE PLACED TO MINIMISE LIGHT SPILL AND HAVE GOOD GLARE CUT OFF.
8. ONLY WALKWAYS AND WAYFINDING FEATURES TO BE ILLUMINATED FOR PEDESTRIAN ACCESS TO MUSTER POINTS IN EVENT OF EMERGENCY.
9. ALL PHOTOMETRIC DATA AND SOFTWARE MODELING TO BE TO: EN 13032-4:2015+A1:2019.



THE CONTRACTOR SHALL NOTE THESE DRAWINGS ARE DESIGN DRAWINGS. THE CONTRACTOR IS TO DEVELOP THE DESIGN INTO WORKING DRAWINGS IN COORDINATION WITH ALL ARCHITECTS, STRUCTURAL & SERVICES DRAWINGS AND SPECIFICATIONS.
THE CONTRACTORS WORKING DRAWINGS SHALL BE USED AS THE BASE DRAWINGS FOR THE INSTALLATION. THESE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER & ARCHITECT FOR THEIR COMMENTS/APPROVAL PRIOR TO INSTALLATION.

FAILURE TO ADHERE TO THE ABOVE MAY RESULT IN THE CONTRACTOR HAVING TO REMOVE AND REINSTALL THE EQUIPMENT AT THEIR OWN COST.

Legend

ISOLINES: LUX LEVELS

10 = 10lx
15 = 15lx
20 = 20lx
25 = 25lx
30 = 30lx
40 = 40lx
50 = 50lx

M — MUSTER POINT

1 — LIGMAN MASK 4 IN-GROUND LUMINAIRE 223lm

2 — DW WINDSOR PHAROLA DS 2.7K 696lm

GENERAL NOTES:

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
3. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS TOLERANCES AND REFERENCES BEFORE PROCEEDING WITH WORKS.
4. ANY DISCREPANCY FOUND BETWEEN THIS DRAWING AND ANY OTHER DOCUMENTS MUST BE REPORTED IMMEDIATELY TO THE CONTRACT ADMINISTRATOR.
5. REMOVE THIS DRAWING FROM CURRENCY WHEN REVISED DRAWING IS ISSUED.
6. COPYRIGHT OF DESIGNS SHOWN ON THIS DRAWING REMAINS WITH SMP LTD.
7. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL MECHANICAL, ELECTRICAL & PUBLIC HEALTH DRAWINGS, SPECIFICATIONS & SCHEDULES.
8. THE CONTRACTOR SHALL COORDINATE THE LOCATION/POSITION OF ALL PLANT ITEMS AND ASSOCIATED SERVICES WITH THE ARCHITECT/INTERIOR DESIGNER, STRUCTURAL ENGINEER AND OTHER SPECIALIST TRADES AND ASSOCIATED DRAWINGS.
9. ALL SERVICES SHALL BE INSTALLED NEAT, LEVEL AND PARALLEL TO ADJACENT SURFACE, IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE & SHALL TAKE DUE ACCOUNT OF THE STRUCTURE.
10. ALL PLANT LOCATIONS AND SERVICES ROUTES ARE INDICATIVE AND SHALL NOT BE RELIED UPON FOR SETTING OUT. ALL PLANT LOCATIONS, SERVICE ROUTE SETTING OUT, LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO ORDERING AND MANUFACTURE/FABRICATIONS OF ALL PLANT SERVICES.
11. ALL PLANT AND ASSOCIATED EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
12. ADEQUATE ACCESS AND/OR ACCESS PANELS SHALL BE PROVIDED BY THE CONTRACTOR FOR TESTING, SERVICING AND MAINTENANCE OF ALL BUILDING SERVICES IN ACCORDANCE WITH BRITISH STANDARDS, BEST PRACTICE DOCUMENTS AND WITH MANUFACTURERS' RECOMMENDATIONS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE OR DETAILING AND ADEQUATELY SUPPORTING/FIXING FOR ALL PLANT AND ASSOCIATED SERVICES.

Rev	Date	Description	Designed	Checked
P1	28.11.25	PRELIMINARY ISSUE	CS	

SMP
Consulting Engineers ~ Building Services

Stuart McCurry & Partners Limited
11 Chiltern Court
Asheridge Road
Chesham
Buckinghamshire HP5 2PX
Email : engineers@smpengineering.co.uk
Web : www.stuart-mccurry-partners.co.uk
Tel : 01296 696780

Job Title
BORADWATER WATER SPORTS & ACTIVITY CENTRE

Drawing Title
Electrical Services
EXTERNAL LIGHTING 29 SPACE CAR PARK ILLUMINATION AND LUX LEVELS
SHEET 4 OF 4

Status: PRELIMINARY

Job No.	Scale	Drawn
24-070	1:200@A1	CP

Drawing No.: 24070-SMP-CZ-00-DR-E-2004
Revision: P1