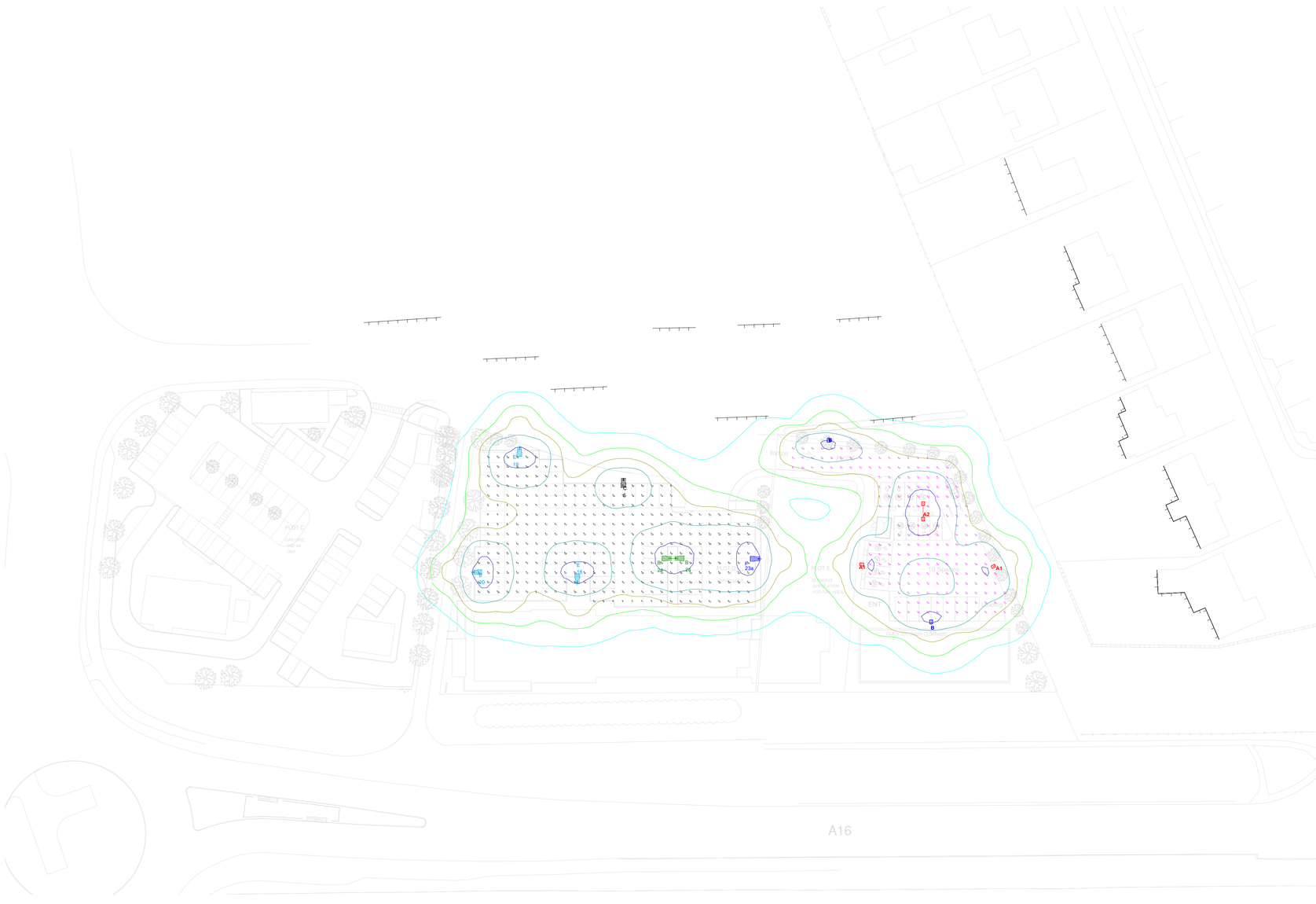
Abacus®
Leaders in Lighting



EXISTING

LIGHTING EQUIPMENT

1 x 6m Columns Each Carrying the Following Luminaires:-
B: 2x AL62007 / 1 / 80 / 4K
Bracket projection: 0.5m
Lantern: 0°

1 x 6m Columns Each Carrying the Following Luminaires:-
C: 1x AL62002 / 1 / 60 / 4K
Post Top
Lantern: 0°

3 x 6m Columns Each Carrying the Following Luminaires:-
E: 1x AL62007 / 1 / 80 / 4K
Bracket projection: 0.5m
Lantern: 0°

1 x 6m Column Each Carrying the Following Luminaires:-
F: 1x AL62007 / 1 / 80 / 4K
Bracket projection: 0.5m
Lantern: 0°
Please check the suitability of existing column (F23a) to carry a twin head.

HORIZONTAL ILLUMINANCE LEVELS

Plot D Carpark
Average Horizontal Illuminance (E.av): 23 lux
Minimum Horizontal Illuminance (E.min): 7 lux
Uniformity Ratio (E.min / E.av): 0.31

NEW

S-Lum AL61000

Lighting Schedule

Symbol	Tag	Qty	Description	Mounting Height (m)	Luminaire Watts	Luminaire Lumens
	A1	2	1 x AL61003_40W_4K S-Lum Single Post Top Mounted Luminaire Elevation 0°	6	40	6077
	A2	1	2 x AL61003_40W_4K S-Lum Twin Bracket Outreach 0.5M Luminaire Elevation 0°	6	40	6077
	B	2	1 x AL61009_40W_4K S-Lum Single Post Top Mounted Luminaire Elevation 0°	6	40	6076

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Min/Avg	Min/Max
Plot E Carpark	Illuminance	Lux	24.11	56	8	0.33	0.14

Area Summary

Label	Total Watts
Site Total	740

Calculation Grid Intervals

Label	Grid
All grids	2m x 2m

Isoline Legend
Illuminance (Lux)

Colour	Value
	2
	5
	10
	20
	50

Maintenance Factor 0.9
LED lifetime
LM80 TF = 60,000 hours

Dirt depreciation factor:
BS5489-1:2020 Table C.1
12 month cleaning intervals

Notes:
This scheme has been designed based upon a flat and open area. Shadowing from obstructions have not been taken into account.

Drawing converted from a CAD file, please check dimensions before ordering and installing.

ISO contours and Obtrusive Light calculated at initial lighting levels.

OBTRUSIVE LIGHT - COMPLIANCE REPORT
CIE 150:2017, E3-Medium District Brightness, Pre-Curfew
Filename: LS24783_4_Travelodge Boston
29/11/2023 10:20:21
Illuminance
Maximum Allowable Value: 10 Lux

Calculations Tested (28):

Calculation Label	Test Results	Max. Num.
ObtrusiveLight_Houses East_1_III_Seg1	PASS	0
ObtrusiveLight_Houses East_1_III_Seg2	PASS	0
ObtrusiveLight_Houses East_1_III_Seg3	PASS	0
ObtrusiveLight_Houses East_1_III_Seg4	PASS	0
ObtrusiveLight_Houses East_1_III_Seg5	PASS	0
ObtrusiveLight_Houses East_2_III_Seg1	PASS	0
ObtrusiveLight_Houses East_2_III_Seg2	PASS	0
ObtrusiveLight_Houses East_2_III_Seg3	PASS	0
ObtrusiveLight_Houses East_2_III_Seg4	PASS	0
ObtrusiveLight_Houses East_2_III_Seg5	PASS	0
ObtrusiveLight_Houses East_3_III_Seg1	PASS	0
ObtrusiveLight_Houses East_3_III_Seg2	PASS	0
ObtrusiveLight_Houses East_3_III_Seg3	PASS	0
ObtrusiveLight_Houses East_3_III_Seg4	PASS	0
ObtrusiveLight_Houses East_3_III_Seg5	PASS	0
ObtrusiveLight_Houses East_4_III_Seg1	PASS	0
ObtrusiveLight_Houses East_5_III_Seg1	PASS	0
ObtrusiveLight_Houses East_5_III_Seg2	PASS	0
ObtrusiveLight_Houses East_5_III_Seg3	PASS	0
ObtrusiveLight_Houses East_6_III_Seg1	PASS	0
ObtrusiveLight_Houses North_7_III_Seg1	PASS	0
ObtrusiveLight_Houses North_6_III_Seg1	PASS	0
ObtrusiveLight_Houses North_5_III_Seg1	PASS	0
ObtrusiveLight_Houses North_6_III_Seg1	PASS	0
ObtrusiveLight_Houses North_4_III_Seg1	PASS	0
ObtrusiveLight_Houses North_3_III_Seg1	PASS	0
ObtrusiveLight_Houses North_2_III_Seg1	PASS	0
ObtrusiveLight_Houses North_1_III_Seg1	PASS	0

Locations of residential properties North of the site have been estimated.

LLOYD'S REGISTER LRQA
ISO 9001 · ISO 14001
OHSAS 18001

ABACUS LIGHTING LTD.
Sutton-in-Ashfield, Nottinghamshire
NG17 5FT England
Tel: (+44) 01623 511111
Fax: (+44) 01623 552133
Email: light@abacuslighting.com
Home page: www.abacuslighting.com

Lighting Project: Travelodge, The Quadrant, Boston - Plot D+E

Title: Horizontal illuminance Levels

Design Ref: LS24783_4

Design By: Anna Whittaker

Date: 29/11/2023 Scale: 1:500@A1

Revision(s) From Previous Design:
Plot E car park layout changed slightly from previous design
Plot D only
Plot E added - new layout

All illuminance values are the result of computer calculations, based upon precisely positioned luminaires in a fixed relationship to each other and to the area under examination. In practice the values may vary due to tolerances on luminaires, luminaire positioning, reflection properties and electrical supply.