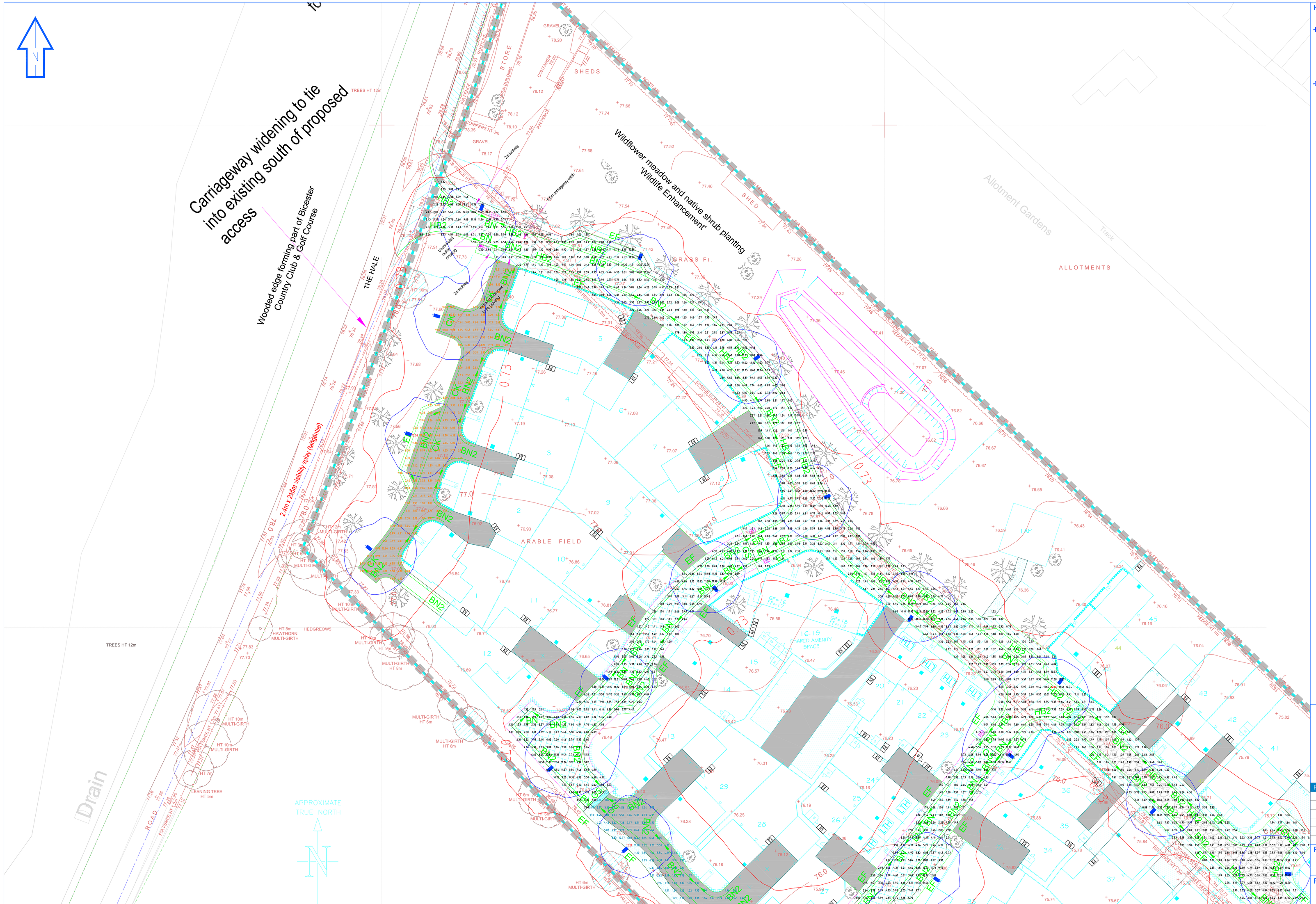

Key:

Luma Micro BGP615 20 LED DX10 3KLM NW @ 5m
lamp(s) LED-HB 4S/4000k
candela file 'Luma Micro_ BGP615_ DX10_ 3000_ 20LED_ 288mA_ 4S_ CL0 L90_ NW.ies'
1 lamp(s) per luminaire, 3000 initial lumens per lamp
Maintenance Factor = 0.760, watts per luminaire = 20
Outreach (from mounting axis to photometric center)= 400 mm
tilt angle= 5 deg
mounting height= 5 m
number locations= 21, number luminaires= 21

Luma Micro BGP615 12 LED DM10 1.4KLM NW @ 5m
lamp(s) LED-HB 4S/4000k
candela file 'Luma Micro_ BGP615_ DM10_ 1400_ 12LED_ 221mA_ 4S_ CL0 L90_ NW.ies'
1 lamp(s) per luminaire, 1400 initial lumens per lamp
Maintenance Factor = 0.760, watts per luminaire = 9
Outreach (from mounting axis to photometric center)= 400 mm
mounting height= 5 m
number locations= 2, number luminaires= 2

Calculation Area (Roadway)
1611 points at z=0, sp 1.5m by 1.5m
HORIZONTAL LUX

Average	4.56
Maximum	12.66
Minimum	0.78
Min/Avg(Uo)	0.171
Min/Max	0.062
Coef Var	0.656
UnifGrad	2.24

Calculation Area (Footpath)
53 points
HORIZONTAL LUX

Average	3.85
Maximum	10.05
Minimum	0.76
Min/Avg(Uo)	0.197
Min/Max	0.076
Coef Var	0.714

Private Roadway 1
225 points at z=0, sp 1.5m by 1.5m
HORIZONTAL LUX

Average	4.77
Maximum	12.26
Minimum	1.00
Min/Avg(Uo)	0.210
Min/Max	0.082
Coef Var	0.579
UnifGrad	1.94

Private Roadway 2
151 points at z=0, sp 1.5m by 1.5m
HORIZONTAL LUX

Average	4.74
Maximum	12.27
Minimum	1.17
Min/Avg(Uo)	0.24-7
Min/Max	0.095
Coef Var	0.615
UnifGrad	1.43

Private Roadway 3
218 points at z=0, sp 1.5m by 1.5m
HORIZONTAL LUX

Average	4.29
Maximum	12.32
Minimum	0.91
Minimum	0.212
Min/Max	0.074
Coef Var	0.702
UnifGrad	2.25

PROPOSAL
(NOT FOR CONSTRUCTION)

PHILIPS

Philips Lighting UK Limited
Registered Office:
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Registered in England No.291612
Telephone 0845 6011283

Rev	DSR no.	Comment	Date
0	D-082096	INITIAL PROPOSAL	19/08/2015
1	D-167465	NEW LAYOUT	14/09/2016
2	D-180965	NEW LAYOUT	06/01/2017

Proposed By
CHRIS PARKES

Philips Account Manager
LEIGH CLARKE

Project Number and Name
0244065358
LAND NORTH OF GREEN LANE

Sheet Title
NEW PROPOSED LIGHTING LAYOUT

Scale & Sheet Size
1:250 @ A0

Sheet No
1 / 2

Lighting Proposal Terms and Conditions of Use
These terms and conditions apply to any proposal(s) supplied by Philips Electronics UK Limited ("**Philips**") to which this document has been attached or accompanies, whether or not this is specifically acknowledged or referenced within the proposal.

For the purposes of these terms and conditions a proposal ("**proposal**") is understood to mean a CAD drawing, lighting calculation, written document, verbal conversation, or in fact any medium used to demonstrate or communicate a proposed lighting arrangement using Philips lighting products. A customer ("**customer**") is the person or organisation for whom the proposal is intended, whilst a design ("**design**") or principal designer/designer ("**principal designer**") shoul
ork Act 2005 The Construction (Design & Management) Regulations (Northern Ireland) 2007 as amended. This legislation is referred to in this document, collectively, as the "**CDM Regulations**".

General Statement
The proposal has been provided in order to demonstrate how Philips lighting products could be arranged in order to facilitate the requirements particular to the relevant project, and is therefore only a suggested lighting design.

This information is provided subject to the following limitations:
- Unless Philips has been appointed as the principal designer which appointment shall be in writing, Philips will not have undertaken any risk assessment for this design. Philips will not be held liable for any risk associated with the implementation of the design.

General Statement
- Where Philips has not had physical access to the site of the project to verify the information which has been provided, the proposal is based solely on information provided by the customer to Philips. The customer is therefore responsible for ensuring that the proposal can be safely implemented in compliance with any laws and regulations.

Accordingly, the information contained in the proposal will not constitute a design for the purposes of the CDM Regulations, unless Philips has been appointed principal designer. In the absence of a appointment in writing as principal designer, Philips does not accept or assume this role.

The nominal values described in the proposal are likely to have been as a result of precision calculations, based upon precisely positioned luminaires in a fixed relationship to each other and to the area under examination which is usually considered to be a flat surface with no solid obstructions. In practice the values may vary due to a number of tolerances including; positions of lamps, luminaires, gear/drivers, ambient temperature, electrical supply behaviours, road camber, surface reflections, obstructions, and the precise positioning and angle of the luminaires for example.

The proposal should be considered as guidance only and must not be used in place of the final principal or construction drawings. Philips recommends that in the event that this proposal is taken forward as the preferred solution, that the calculations and arrangements are first scrutinised, verified and approved by a suitably qualified designer before being transposed onto the relevant working drawings as appropriate.

Installation and Maintenance Notes
1) The proposal must be read in conjunction with all other relevant project drawings and specifications.
2) Do not scale from the proposal. If in doubt please request further information.
3) Unless Philips has been appointed as the principal designer in writing, the proposal may show lighting layout information, but should not be used for installation purposes or construction drawings. Please refer to the official contractor's working drawings which should also include additional information such as electrical connections, other illuminated equipment, and site specific hazards and other safety considerations.
4) The customer shall ensure that all relevant laws and regulations including the CDM Regulations must be fully complied with including the undertaking of any required site risk assessments before installation commences unless Philips has been appointed as the principal designer in which case it shall ensure compliance with the CDM Regulations for purposes of that part of the design for which it is responsible.
5) The proposal is based upon customer supplied information and it should be assumed that no survey on site has been carried out by Philips. Utility information such as underground and over ground cables and gas pipes etc. will need to be checked on site by the appropriate person/organisation before any excavation works or installation of lighting equipment.
6) The proposal may contain symbols which indicate the proposed locations of the lighting equipment. For further information please refer to the luminaire schedules and details.
7) Locations and orientation of all equipment must be confirmed with the client prior to installation. Exact orientation of luminaires may need to be finalised during final focusing. Please refer to the Philips lighting solutions drawings and specifications for details of electrical engineering associated with lighting works.
8) The customer shall ensure that all proposed lighting equipment is suitable for the particular environmental conditions prevalent at the proposed location.
9) All lighting equipment must be supplied with adequate means for protection during transport to site and any subsequent storage prior to installation.
10) For lighting on structures such as bridges, tunnels, buildings, canopies, furniture or water features for example, please refer to the relevant drawings and details.
11) For details of all luminaires please refer to the Philips lighting solutions luminaire schedule.
12) For cable routes, driver locations and any electrical works associated with the lighting installation please refer to the contractor's installation drawings and documentation.
13) The lighting installation requires a variety of luminaire types to achieve the desired effects. Information has been provided on the proposal as general guidance and outline of good practice. For more specific recommendations please refer to manufacturer's details for application, operation, handling cleaning and disposal instructions.
14) Installation and maintenance of lighting equipment installed at any height above ground requires specific precautions to be taken. Access arrangements should be in strict accordance with the projects access report, method statement and health and safety guidelines.
15) All fixtures must be electrically isolated prior to any testing or maintenance.
16) Luminaries may need to be powered up for focusing during the hours of darkness, and in which case they must be specified as being fully enclosed and earthed, or operated at extra low voltage.
17) Certain lighting fixtures need to be protected from thermal damage caused by over heating by means of thermal cut-out or similar device. Please refer to the relevant documentation.