

JAMES BLAKE

A S S O C I A T E S

Our Ref: JBA 23/441 ECO01 SW

Aviary Developments

December 2023

Lighting Design Strategy for Biodiversity – Priors Hall, Church End, Lindsell, Dunmow

Introduction

In order to inform discharge of condition 5 on planning permission UTT/22/0320/FUL for the proposed development at Priors Hall, Church End, Lindsell, Dunmow (Uttlesford District Council), Aviary Developments Ltd. appointed James Blake Associates Ltd. (JBA) to assess the ecology aspects in regards to a lighting design strategy for biodiversity.

Condition 5 states;

Prior to commencement a 'lighting design strategy for biodiversity' shall be submitted to and approved in writing by the local planning authority. The strategy shall identify those areas/features on site that are particularly sensitive for bats and that are likely to cause disturbance along important routes used for foraging; and show how and where external lighting will be installed so that it can be clearly demonstrated that areas to be lit will not disturb or prevent the above bats using their territory.

All external lighting shall be installed in accordance with the specifications and locations set out in the scheme and maintained thereafter in accordance with the scheme. Under no circumstances should any other external lighting be installed without prior consent from the local planning authority.

Reason for condition:-

To allow the LPA to discharge its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 as amended and s40 of the NERC Act 2006 (Priority habitats & species) in accordance with ULP Policy GEN7 of the Uttlesford Local Plan (adopted 2005).

Wildlife Sensitive Areas

There are no habitats of significant importance within the site boundary itself; however, woodlands and waterbodies within 100m of the site boundary could provide suitable commuting and foraging habitats for bats and other nocturnal wildlife, such as badgers. These habitats will not be impacted by the proposed development and protected during construction.

These habitats will also provide suitable foraging habitats for insects and birds; however, lighting will not have a significant impact to these species after sunset.

Precautionary Measures During Construction

The following are recommended and should be followed in relation to lighting **during** construction:

- Construction activities on site will be conducted within daylight hours to avoid disturbance on nocturnal wildlife. However, if night working is required, lighting will be restricted to the specific work areas rather than the site as a whole.
- If security lighting is required, then this will be kept to the minimal level (as necessary for safety and security).
- Security lights are to be set on short timers and to be sensitive to large moving objects only.
- All lighting is to be directed away from boundary vegetation.
- Lux level of lamps to be as low as possible (while maintaining safe operations) with covers made of glass rather than plastic as this minimises the amount of UV light.

James Blake Associates Ltd
34-52 Out Westgate
Bury St Edmunds, Suffolk IP33 3PA

01284 335797
Jamesblake@jba-landmarc.com
www.jba-landmarc.com

Registration no.: 08169866 | VAT no.: 512 4127 91



Proposed Lighting After Construction

The following are recommended and should be followed in relation to lighting **after** construction:

- Wall mounted external cylindrical light fittings limited to main front and rear openings of plots only. Locations of all external lights are clearly detailed at Appendix A.
- All lighting is directed away from boundary vegetation (primarily along the northern boundary of the site adjacent to Plot 2's rear garden).
- Lux level of lamps will be as low as possible with covers made of glass rather than plastic as this minimises the amount of UV light.
- All lamps will have a warm white colour temperature of 2700 Kelvin.

The proposed lighting scheme shall adhere to the principles outlined in Bats and Lighting at Night Guidance Note 08/23 produced by The Bat Conservation Trust in partnership within the Institute of Lighting Engineers (2023).

Evaluation

No lighting will be proposed on the boundaries of the site, and no light spillage is expected on wildlife sensitive areas adjacent the site (within 100m); therefore, the areas highlighted to be sensitive to lighting will not be significantly impacted by the proposed development.

Providing the above recommendations during and after construction are followed, the lighting across the development as a whole would be minimal and sensitive to nocturnal wildlife.

Conclusion

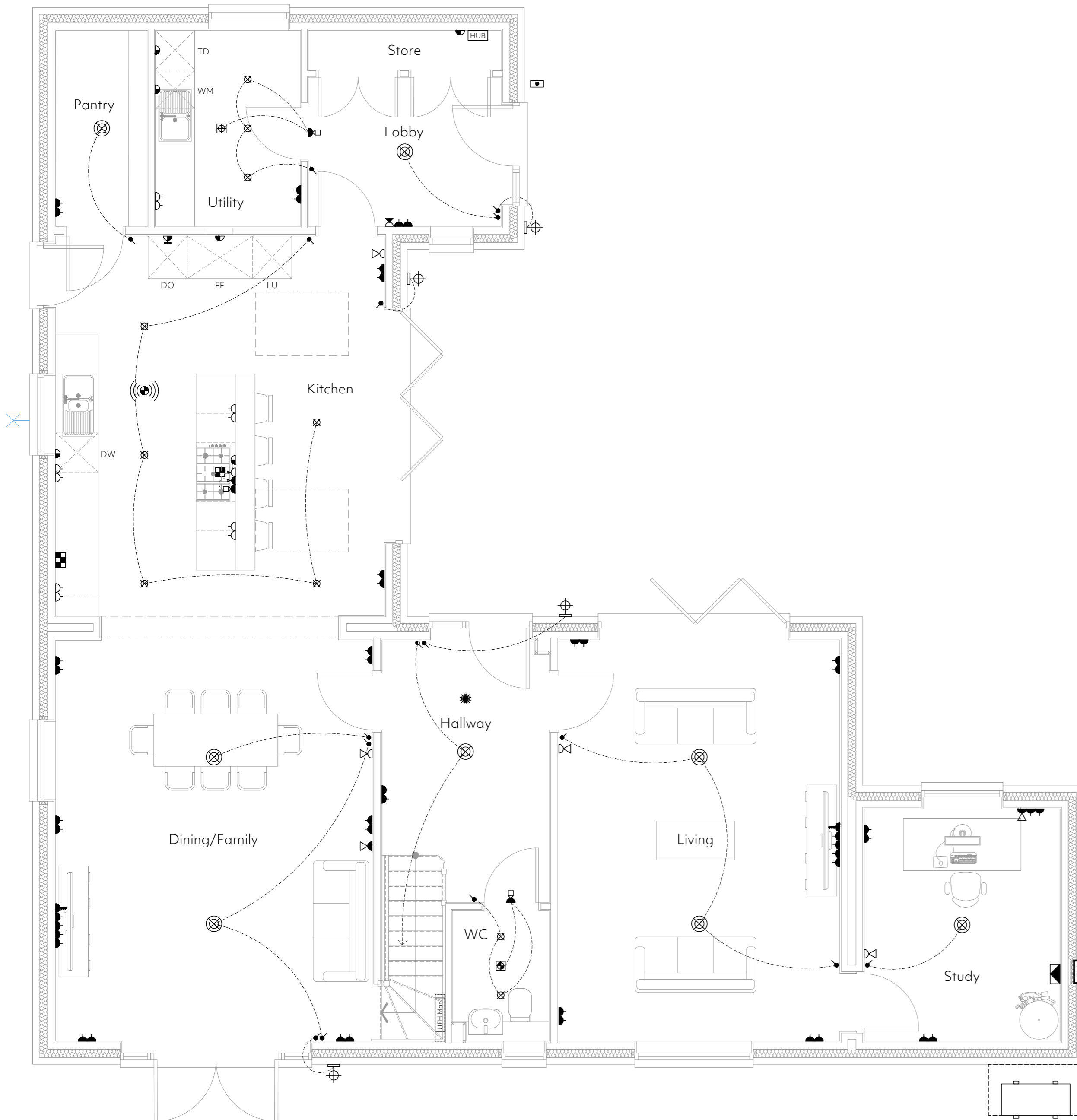
In order to inform discharge of condition 5, Aviary Developments appointed JBA to assess the ecology aspects on site in regards to external lighting in relation to Priors Hall, Church End, Lindsell, Dunmow.

Providing the recommendations detailed above are followed, it is considered that the lighting on site would not have a significant effect on wildlife sensitive areas and nocturnal wildlife, and the condition can be discharged.

Yours sincerely,

Sam Wanner MCIEEM
Ecologist
James Blake Associates Ltd.

Appendix A. Lighting Plans (Project Architecture, 2022)



- General Electrical Notes:**
- Any service control needed to be operated or read on a frequent basis, or in an emergency, should be included within the height band of 450-1200mm from finished floor level, please refer to Approved Document M4(2) of the building regulations.
 - Refer to Aviary developments specification for details of all physical fittings.
 - Switches for permanently wired appliances are located between 450mm and 1200mm above the floor, unless needed at a higher level for particular appliances.
 - The consumer control unit is to be mounted so that the switches are between 1350mm & 1450mm above FFL.
 - Switches, sockets, stopcocks and controls are to have their centre line between 450mm & 1200mm above FFL and a minimum of 300mm (measured horizontally) from an inside corner.
 - Boiler timer controls & thermostats are to be mounted between 900mm & 1200mm above finished floor level.
 - Installation is to be carried out in accordance with the current IEE Regulations, the electricity supply regulations, and CIBSE guides and to the approval of the electricity board.
 - Please refer to the construction specification for further details.
 - All lighting to be low energy.
 - Ventilation shown indicative only. Refer to specialists design.
 - This drawing is to be read in conjunction with the Aviary developments Finishes Specification.

Electrical Legend:

- Light switch (to be multi-gang where shown in multiples)
- Two/Three way light switch
- Door bell sounder
- Door bell
- Hager Design 30 Lockable consumer unit mounted so that the controls are between 1350-1450mm from FFL
- Power supply for kitchen cooker hood extract
- Heat detector
- Switched fused spur
- Mains powered smoke detector (optical only) with battery back up
- Triple pole switch
- BT socket
- Low level TV outlet.
- Low level TV outlet with 1no. RJ54 port.
- Double switched socket at low level
- Low energy pendant
- Low energy batten light
- Thermostat
- Wall mounted external light fitting to have separate PIR sensor
- Indicates indicative electricity recessed meter location
- Comprises of Optical network termination unit, 1no. Double socket, 4no. RJ54 port.
- Cooker outlet

Appliance Legend:

- WM Built-in washing machine.
- FF Built-in fridge freezer.
- HO 4 zone electric hob.
- DW Built-in dishwasher.
- TD Built-in tumble dryer.
- DO Built in double oven.
- LU Tall larder unit.

Important Note:
All electrical items shown upon this drawing are for indication & pricing purposes only and are to be verified by a competent & suitably qualified electrical contractor. All BT points (Voice & Data) to be wired back to master BT point situated at the HUB.

Rev	Date	Amendment
C3	22.03.23	Ventilation requirements revised.
C2	27.07.22	Pantry window removed.
C1	27.07.22	Construction Issue.
P1	01.07.22	Preliminary Issue.

Client: Aviary Developments	project. architecture
Project: Priors Hall Farm, Linsell	
Drawing: Ground Floor Electrical Layout Plot 01	hello@projectarch.co.uk +44 (0) 1371 829095
Date: March 2022	Status: Construction Issue
Scale: 1:50 @ A2	Dwg No: 21-1032-110
C3	

Ground Floor Electrical Plan
Plot 01
Scale 1:50

© This drawing is the copyright of project.architecture ltd. It shall not be in any way used or reproduced without their prior written consent. All dimensions are to be checked on site or in the workshop prior to commencing any work. do not scale from this drawing. Work only to figured dimensions. Any perceived discrepancies are to be reported to the architect at the earliest opportunity.

Heating Legend:
 - Indicates compact radiator position with TVR controls. Sizes are shown indicative only & are subject to heating specialist's design & heat loss calculations.
 - Indicates Heated Towel Rail.

Appliance Legend:
 WM Built-in washing machine.
 FF Built-in fridge freezer.
 HO 4 zone electric hob.
 DW Built-in dishwasher.
 TD Built-in tumble dryer.
 DO Built in double oven.
 LU Tall larder unit.

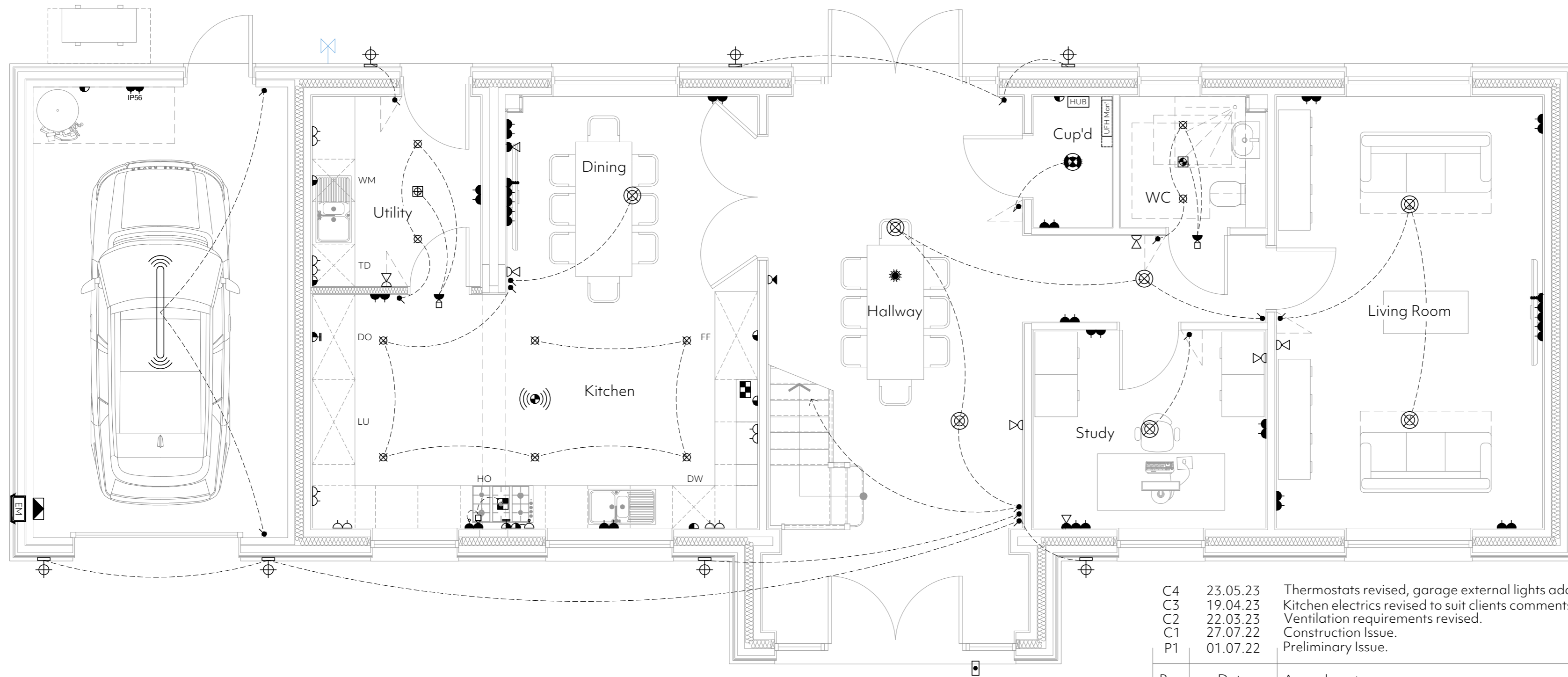
General Electrical Notes:

- Any service control needed to be operated or read on a frequent basis, or in an emergency, should be included within the height band of 450-1200mm from finished floor level, please refer to Approved Document M4(2) of the building regulations.
- Refer to Avairy developments specification for details of all physical fittings.
- Switches for permanently wired appliances are located between 450mm and 1200mm above the floor, unless needed at a higher level for particular appliances.
- The consumer control unit is to be mounted so that the switches are between 1350mm & 1450mm above FFL.
- Switches, sockets, stopcocks and controls are to have their centre line between 450mm & 1200mm above FFL and a minimum of 300mm (measured horizontally) from an inside corner.
- Boiler timer controls & thermostats are to be mounted between 900mm & 1200mm above finished floor level.
- Installation is to be carried out in accordance with the current IEE Regulations, the electricity supply regulations, and CIBSE guides and to the approval of the electricity board.
- Please refer to the construction specification for further details.
- All lighting to be low energy.
- Ventilation shown indicative only. Refer to specialists design.
- This drawing is to be read in conjunction with the Avairy developments Finishes Specification.

Electrical Legend:

- Light switch (to be multi-gang where shown in multiples)
- Two/Three way light switch
- Door bell sounder
- Door bell
- Hager Design 30 Lockable consumer unit mounted so that the controls are between 1350-1450mm from FFL
- Power supply for kitchen cooker hood extract
- Heat detector
- Switched fused spur
- Mains powered smoke detector (optical only) with battery back up
- Triple pole switch
- BT socket
- Low level TV outlet.
- Low level TV outlet with 1no. RJ54 port.
- Double switched socket at low level
- Low energy pendant
- LED tube light fitting
- Thermostat
- Wall mounted external light fitting to have separate PIR sensor
- Indicates indicative electricity recessed meter location
- Comprises of Optical network termination unit, 1no. Double socket, 4no. RJ54 port.
- Cooker outlet
- Double switched socket positioned above work top level
- Kitchen control panel to comprise of 20a grid switches for integrated appliances and switch for extract fan override
- Low voltage warm white led down lights
- IP67 low voltage warm white led down lights
- Indicative route of electric cabling
- 45amp double pole switch for ovens
- dMEV ceiling mounted utility extract fan with minimum high rate of 30L/s
- dMEV ceiling mounted W/C extract fan with minimum high rate of 6L/s
- dMEV ceiling mounted bathroom extract fan with minimum high rate of 15L/s
- Cooker hood extract fan with minimum high rate of 30L/s
- Indicates white shaver socket.
- Indicates indicative location of Union Bib Tap in.
- Indicates external mounted box to house treatment plant control panel to be fed from CCU.

Important Note:
 All electrical items shown upon this drawing are for indication & pricing purposes only and are to be verified by a competent & suitably qualified electrical contractor. All BT points (Voice & Data) to be wired back to master BT point situated at the HUB.



C4	23.05.23	Thermostats revised, garage external lights added, garage internal light revised.
C3	19.04.23	Kitchen electrics revised to suit clients comments.
C2	22.03.23	Ventilation requirements revised.
C1	27.07.22	Construction Issue.
P1	01.07.22	Preliminary Issue.

Rev	Date	Amendment
-----	------	-----------

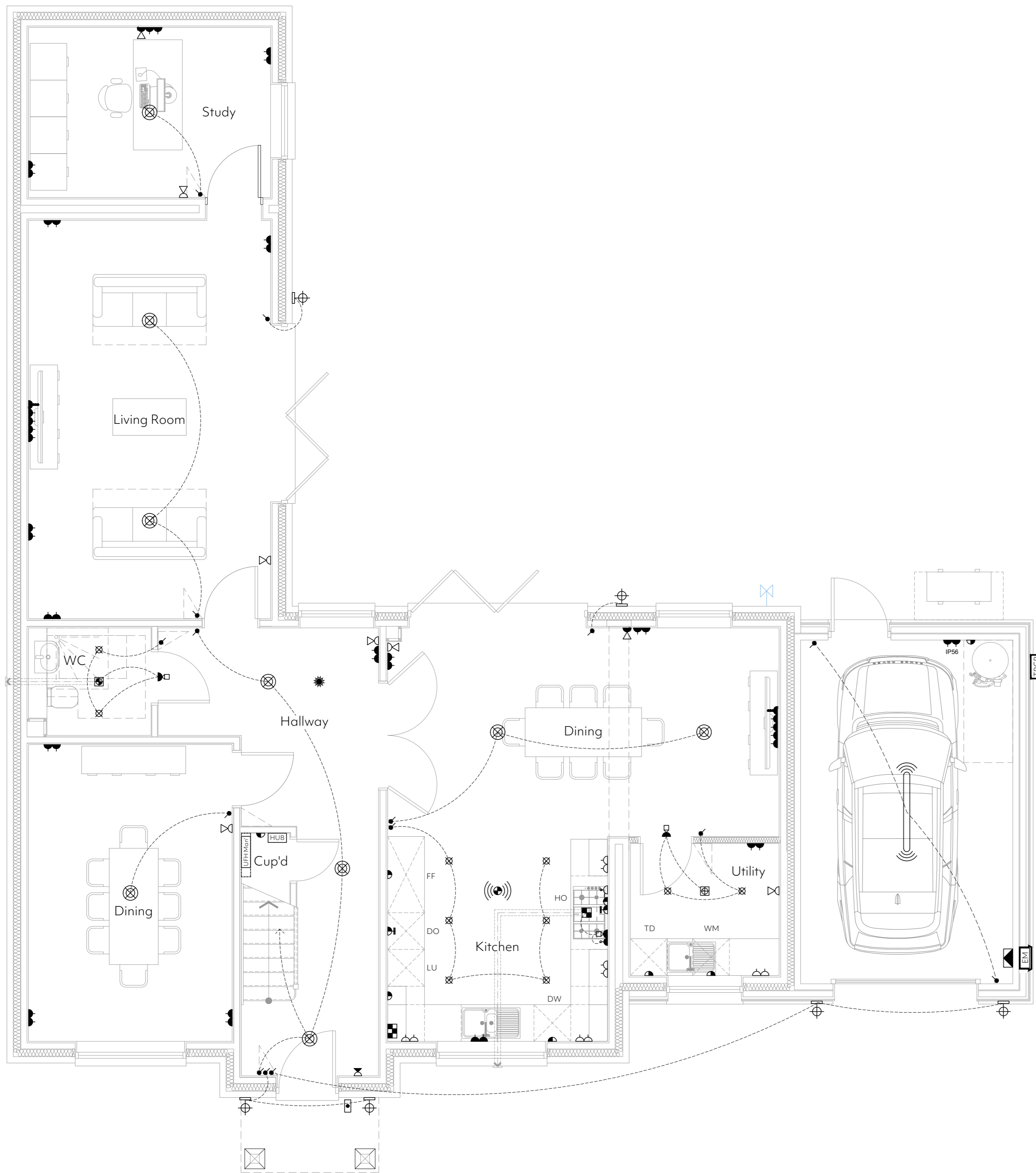
Ground Floor Electrical Plan

Plot 02

Scale 1:50

Client: Avairy Developments			
Project: Priors Hall Farm, Linsell			
Drawing: Ground Floor Electrical Layout Plot 02	hello@projectarch.co.uk	+44 (0) 1371 829095	
Date: March 2022	Scale: 1:50 @ A2	Status: Construction Issue	
Date: March 2022	Scale: 1:50 @ A2	Dwg No: 21-1032-129	C4

© This drawing is the copyright of project.architecture ltd. It shall not be in any way used or reproduced without their prior written consent. All dimensions are to be checked on site or in the workshop prior to commencing any work. do not scale from this drawing. Work only to figured dimensions. Any perceived discrepancies are to be reported to the architect at the earliest opportunity.




- General Electrical Notes:**
- Any service control needed to be operated or read on a frequent basis, or in an emergency, should be included within the height band of 450-1200mm from finished floor level, please refer to Approved Document M4(2) of the building regulations.
 - Refer to Avairy developments specification for details of all physical fittings.
 - Switches for permanently wired appliances are located between 450mm and 1200mm above the floor, unless needed at a higher level for particular appliances.
 - The consumer control unit is to be mounted so that the switches are between 1350mm & 1450mm above FFL.
 - Switches, sockets, stopcocks and controls are to have their centre line between 450mm & 1200mm above FFL and a minimum of 300mm (measured horizontally) from an inside corner.
 - Boiler timer controls & thermostats are to be mounted between 900mm & 1200mm above finished floor level.
 - Installation is to be carried out in accordance with the current IEE Regulations, the electricity supply regulations, and CIBSE guides and to the approval of the electricity board.
 - Please refer to the construction specification for further details.
 - All lighting to be low energy.
 - Ventilation shown indicative only. Refer to specialists design.
 - This drawing is to be read in conjunction with the Avairy developments Finishes Specification.

- Electrical Legend:**
- Light switch (to be multi-gang where shown in multiples)
 - Two/Three way light switch
 - Door bell sounder
 - Door bell
 - Hager Design 30 Lockable consumer unit mounted so that the controls are between 1350-1450mm from FFL
 - Power supply for kitchen cooker hood extract
 - Heat detector
 - Switched fused spur
 - Mains powered smoke detector (optical only) with battery back up
 - Triple pole switch
 - BT socket
 - Low level TV outlet.
 - Low level TV outlet with 1no. RJ54 port.
 - Double switched socket at low level
 - Low energy pendant
 - LED tube light fitting
 - Thermostat
 - Wall mounted external light fitting to have separate PIR sensor
 - Indicates indicative electricity recessed meter location
 - Comprises of Optical network termination unit, 1no. Double socket, 4no. RJ54 port.
 - Cooker outlet
 - Double switched socket positioned above work top level
 - Kitchen control panel to comprise of 20a grid switches for integrated appliances and switch for extract fan override
 - Low voltage warm white led down lights
 - IP67 low voltage warm white led down lights
 - Indicative route of electric cabling
 - 45amp double pole switch for ovens
 - dMEV ceiling mounted utility extract fan with minimum high rate if 30L/s
 - dMEV ceiling mounted W/C extract fan with minimum high rate of 6L/s
 - dMEV ceiling mounted bathroom extract fan with minimum high rate of 15L/s
 - Cooker hood extract fan with minimum high rate if 30L/s
 - Indicates white shaver socket.
 - Indicates indicative location of Union Bib Tap in.
 - Indicates external mounted box to house treatment plant control panel to be fed from CCU.
- Important Note:**
All electrical items shown upon this drawing are for indication & pricing purposes only and are to be verified by a competent & suitably qualified electrical contractor. All BT points (Voice & Data) to be wired back to master BT point situated at the HUB.

- Appliance Legend:**
- WM Built-in washing machine.
 - FF Built-in fridge freezer.
 - HO 4 zone electric hob.
 - DW Built-in dishwasher.
 - TD Built-in tumble dryer.
 - DO Built in double oven.
 - LU Tall larder unit.

C5	23.05.23	Thermostats revised, garage external lights added, garage internal light revised.
C4	19.04.23	Kitchen electrics revised to suit clients comments.
C3	22.03.22	Ventilation requirements revised.
C2	12.10.22	Electrics revised to suit clients comments.
C1	27.07.22	Construction Issue.
P1	01.07.22	Preliminary Issue.

Rev	Date	Amendment
-----	------	-----------

Client: Avairy Developments			
Project: Priors Hall Farm, Linsell			
Drawing: Ground Floor Electrical Layout Plot 03	hello@projectarch.co.uk +44 (0) 1371 829095		
Date: March 2022	Scale: 1:50 @ A2	Status: Construction Issue	C5
Date: March 2022	Scale: 1:50 @ A2	Dwg No: 21-1032-149	

Ground Floor Electrical Plan

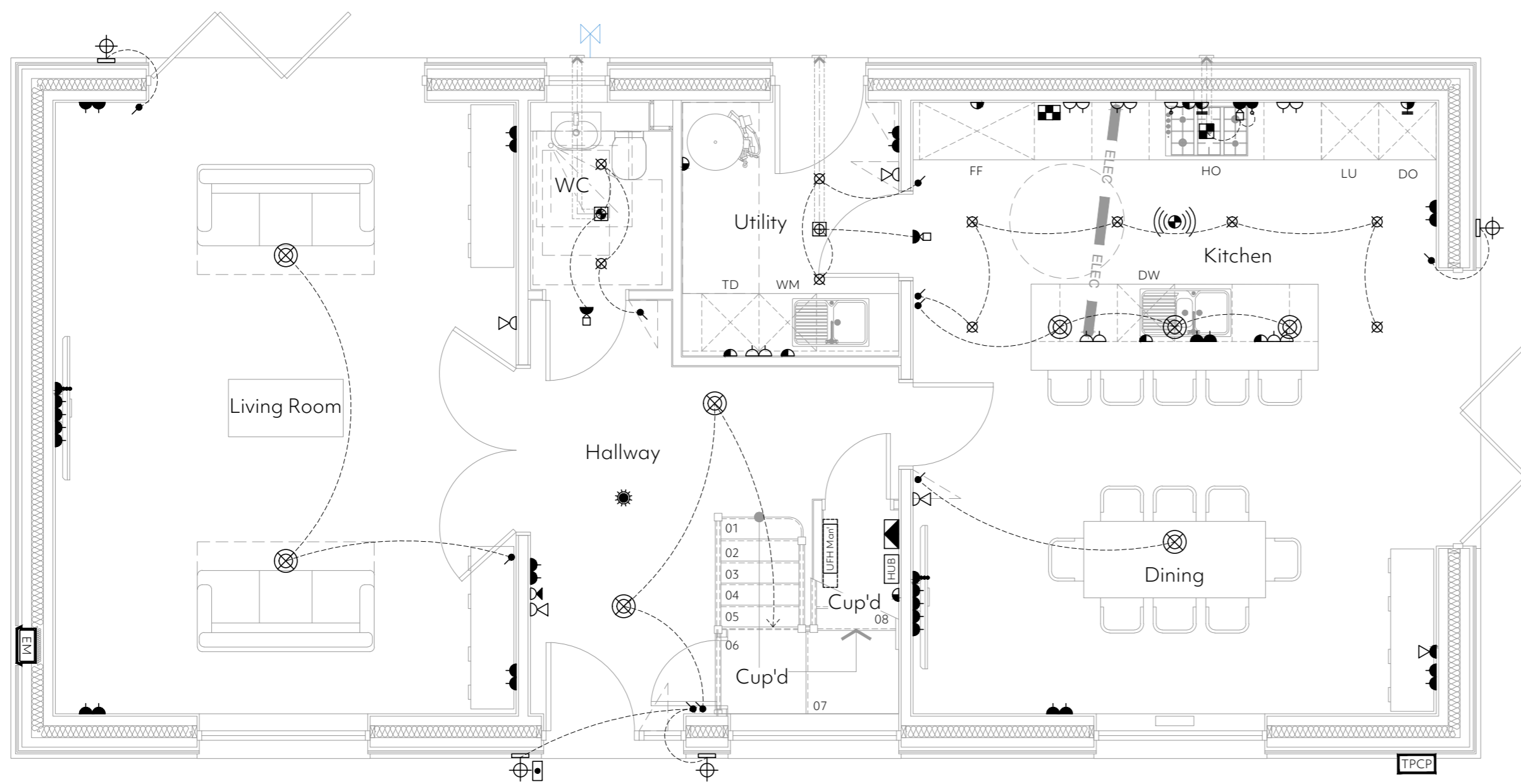
Plot 03
Scale 1:50

© This drawing is the copyright of project.architecture ltd. It shall not be in any way used or reproduced without their prior written consent. All dimensions are to be checked on site or in the workshop prior to commencing any work. do not scale from this drawing. Work only to figured dimensions. Any perceived discrepancies are to be reported to the architect at the earliest opportunity.

- General Electrical Notes:**
- Any service control needed to be operated or read on a frequent basis, or in an emergency, should be included within the height band of 450-1200mm from finished floor level. please refer to Approved Document M4(2) of the building regulations.
 - Refer to Avairy developments specification for details of all physical fittings.
 - Switches for permanently wired appliances are located between 450mm and 1200mm above the floor, unless needed at a higher level for particular appliances.
 - The consumer control unit is to be mounted so that the switches are between 1350mm & 1450mm above FFL.
 - Switches, sockets, stopcocks and controls are to have their centre line between 450mm & 1200mm above FFL and a minimum of 300mm (measured horizontally) from an inside corner.
 - Boiler timer controls & thermostats are to be mounted between 900mm & 1200mm above finished floor level.
 - Installation is to be carried out in accordance with the current IEE Regulations, the electricity supply regulations, and CIBSE guides and to the approval of the electricity board.
 - Please refer to the construction specification for further details.
 - All lighting to be low energy.
 - Ventilation shown indicative only. Refer to specialists design.
 - This drawing is to be read in conjunction with the Avairy developments Finishes Specification.

- Electrical Legend:**
- Light switch (to be multi-gang where shown in multiples)
 - Two/Three way light switch
 - Door bell sounder
 - Door bell
 - Hager Design 30 Lockable consumer unit mounted so that the controls are between 1350-1450mm from FFL
 - Power supply for kitchen cooker hood extract
 - Heat detector
 - Switched fused spur
 - Mains powered smoke detector (optical only) with battery back up
 - Triple pole switch
 - BT socket
 - Low level TV outlet.
 - Low level TV outlet with 1no. RJ54 port.
 - Double switched socket at low level
 - Low energy pendant
 - LED tube light fitting
 - Thermostat
 - Wall mounted external light fitting to have separate PIR sensor
 - Indicates indicative electricity recessed meter location
 - Comprises of Optical network termination unit, 1no. Double socket, 4no. RJ54 port.
 - Cooker outlet
 - Double switched socket positioned above work top level
 - Kitchen control panel to comprise of 20a grid switches for integrated appliances and switch for extract fan override
 - Low voltage warm white led down lights
 - IP67 low voltage warm white led down lights
 - Indicative route of electric cabling
 - 45amp double pole switch for ovens
 - dMEV ceiling mounted utility extract fan with minimum high rate if 30L/s
 - dMEV ceiling mounted W/C extract fan with minimum high rate of 6L/s
 - dMEV ceiling mounted bathroom extract fan with minimum high rate of 15L/s
 - Cooker hood extract fan with minimum high rate if 30L/s
 - Indicates white shaver socket.
 - Indicates indicative location of Union Bib Tap in.
 - Indicates external mounted box to house treatment plant control panel to be fed from CCU.
- Important Note:**
All electrical items shown upon this drawing are for indication & pricing purposes only and are to be verified by a competent & suitably qualified electrical contractor. All BT points (Voice & Data) to be wired back to master BT point situated at the HUB.

- Appliance Legend:**
- WM Built-in washing machine.
 - FF Built-in fridge freezer.
 - HO 4 zone electric hob.
 - DW Built-in dishwasher.
 - TD Built-in tumble dryer.
 - DO Built in double oven.
 - LU Tall larder unit.




Switched fuse to be provided within meter box due to CCU distance from meter.

Ground Floor Electrical Plan

Plot 04
Scale 1:50

C5	23.05.23	Tumber Dryer added to utility room, thermostats revised as per clients comments.
C4	19.04.23	Kitchen electrics revised to suit clients comments.
C3	22.03.23	Ventilation requirements revised.
C2	12.10.22	Electrics revised to suit clients comments.
C1	27.07.22	Construction Issue.
P1	01.07.22	Preliminary Issue.

Rev	Date	Amendment
-----	------	-----------

Client: Avairy Developments		
Project: Priors Hall Farm, Linsell		
Drawing: Ground Floor Electrical Layout Plot 04		
Date: March 2022	Scale: 1:50 @ A2	hello@projectarch.co.uk +44 (0) 1371 829095
Status: Construction Issue		C5
Dwg No: 21-1032-168		

© This drawing is the copyright of project.architecture ltd. It shall not be in any way used or reproduced without their prior written consent. All dimensions are to be checked on site or in the workshop prior to commencing any work. do not scale from this drawing. Work only to figured dimensions. Any perceived discrepancies are to be reported to the architect at the earliest opportunity.