



1930B - Thatchers Cider

Delivery Report

Post-construction

10 Mar 2023

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Report Details

Management

Man 01 - Project brief and design

Number of credits available:	2
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Criteria

2 credits available as follows:

Credit	
1	Project delivery planning
1	Stakeholder consultation (interested parties)
1	BREEAM AP (concept design)
1	BREEAM AP (developed design)

Validation Statement

1 of 2 credits awarded.

Credit 1 - Project delivery planning

Requirement 1 - Prior to completion of the Concept Design, the project delivery stakeholders (Thatchers Cider and Forward Planning) have met to identify and define for each key phase of project delivery. This has been confirmed in a letter from the client (**Ref. 15**) and is supported by a Project Execution Plan (**Ref. 1**) which clearly defines roles and responsibilities (**Section 3.2**).

Requirement 2 - A checklist completed by the client PM has been provided (**Ref. 16**) indicating who has been responsible for each of the BREEAM requirements. There are only two parties involved with the early project development and the client is retaining a project management role throughout the project duration. The lead designer is employed on a full-time basis by Thatchers Cider (the client)

Examples of early design meeting minutes demonstrate how collaboration has taken place:

13.11.19 (**Ref. 18**) An internal meeting (Thatchers Cider) takes place to discuss project amongst those potentially affected by it (production and warehousing). The meeting also notes a change of location to rear loading bays.

02.01.20 (**Ref. 19**) A meeting between Thatchers Cider (client & PM) and Krone System Logistics (racking and conveyors) to discuss how proposed layout and system design for process can be integrated. An example of this discussion is ...*Gary asked if conveyers in the rear load section can do both in and out to improve performance as we have lost a rear bay. Tony Blackburn and Gareth Roberts have confirmed they will ask Martin Reil to investigate once he's back to work on the 6th Jan 2020. They suspect that conveyers can only be programmed to go one way by the software, however we have asked them to come up with a solution.*

19.11.20 (**Ref. 17**) A meeting between Thatchers Cider (client & PM), Progressive Systems (cladding & roofing), Morgans (steel frame), Forward Design (design lead) shows that early discussions were taken to decide the best procurement route.

Requirement 3 - An example of how the project delivery stakeholders' contributions and the consultation process outcomes influenced the Concept Design is the two iterations of the proposed block plan (**Ref. 5 & 6**) showing how the proposed layout has evolved and office space has been redesignated as picking space.

Post-construction

Requirements 1-3 - No further action required

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
1	Project Execution Plan	report		27/09/21
5	block plan rev.F	plan		27/09/21
6	block plan rev.K	plan		27/09/21
15	TEM01_Thatchers_Cider	Other		21/12/21
16	BREEAM_2018_NC_Man01_Proforma_1__002_	Consultant's report		21/12/21
17	Warehouse_Construction_Meeting_Notes_19.11.20_1_	Other		21/12/21
18	Thatchers_Automated_Warehouse_meeting_13.11.2019_1_	Other		21/12/21

19	Krones_System_Logistics_Warehouse_New_Layout_Discussion_Meeting_Notes_02.01.2020__1_	Other		21/12/21
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Management

Man 02 - Life cycle cost and service planning

Number of credits available:	1
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.

Criteria

1 credit available as follows:

Credit	
1	Capital cost reporting

Validation Statement

1 of 1 credits awarded.

Credit 3 - Capital cost reporting

Requirement 6 - The client confirms by letter (**Ref. 4**) the estimated capital cost for the building in £/m.² of gross internal floor area.

The letter also confirms that the cost includes the following expenses related to the initial construction of the building:

- Construction, including preparatory works, materials, equipment and labour
- Site management
- Construction financing
- Insurance taxes during construction
- Inspection and testing

The total estimated capital cost for the proposed new warehouse extension is £5,610,714.18 which equates to £628.44/m²

Post-construction

Requirement 6 - The client has update the capital cost reporting letter with the final costs (**Ref. 78**).

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
4	Man02 capital cost reporting	letter		27/09/21
78	MAN02_Capital_Cost_Reporting_-_Thatchers_Post_Construction	Other		01/12/22

Management

Man 03 - Responsible construction practices

Number of credits available:	4
Number of credits achieved:	2
Minimum Standards met?	✓

Aim

To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Criteria

4 credits available as follows:

Credit	
0	Prerequisite - Legally harvested and traded timber
1	Environmental management
2	Responsible construction management
1	Monitoring of construction site impacts - Simple Buildings
1	Responsible construction management
1	Monitoring of construction site impacts - Exemplary level criteria - Simple Buildings

Validation Statement

2 of 4 credits awarded.

Pre-requisite Legally harvested and traded timber

Requirement 1 - Thatchers Cider have confirmed via letter (**Ref. 44**) that all site timber and timber-based products will be sourced in accordance with the Central Point of Timber (CPET) 5th Edition of the UK Government Timber Procurement Policy (TPP). For the avoidance of doubt, 100% of the timber and timber-based products will be compliant.

Post-construction

Thatchers confirm by e-mail (**Ref. 134**) the timber suppliers FSC certification (**Ref. 135**).

Credit 1 - Environmental management

Requirement 3 - The client has provided their ISO14001 certificate (**Ref. 64**), confirming they operate an EMS. It only covers *The Production of Cider* though and not the whole period of the construction phase. Credit currently withheld

Requirement 4 - The client has completed the PPG6 checklist (**Ref. 65**) to show how pollution is being managed on site.

Credit 3 - Responsible construction management

Requirement 7 - The client has completed the Man03-03 proforma and provided evidence to confirm the required items from Table 4.1 have been achieved (**Ref. 23&24**).

Post-construction

The client has completed the Man03-03 proforma and provided evidence to confirm the required items (a, d, f, g, h, j, n, o & r) from Table 4.1 have been achieved (**Ref. 23&24**). The

safe and clear access has been confirmed by the assessors site inspection (**Ref. 115 & 116**).

Credit 4 - Monitoring of construction management

Requirement 10,11 and 15 - Thatchers Cider have confirmed via letter (**Ref. 44**) that Rob McCarthy and Kristine Rowlands have been assigned responsibility to monitor, record and report energy use, water consumption and transportation data resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme.

Requirement 12&13 - The letter confirms that the appointed persons will set targets for, monitor and record data on energy consumption (kWh) from the use of construction plant, equipment (mobile and fixed) and site accommodation necessary for completion of all construction processes.

Requirement 14 - The assessor can confirm this will be reported via the Scoring and Reporting Tool.

Requirement 16&17 - The letter confirms that the appointed persons will set targets for, monitor and record data on potable water consumption (m3) from the use of construction plant, equipment (mobile and fixed) and site accommodation necessary for completion of all construction processes.

Requirement 18 - The assessor can confirm this will be reported via the Scoring and Reporting Tool.

Post-construction

The client has provided records of the energy and water data (**Ref. 79, Ref. 80**). This has been reported via the Scoring and Reporting Tool.

Credit e1 - Transportation of construction materials and waste

Requirement 19 - Thatchers Cider have confirmed via letter (**Ref. 44**) that Rob McCarthy and Kristine Rowlands have been assigned responsibility to monitor, record and report energy use, water consumption and transportation data resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme.

Requirement 20&21 - The letter confirms that the appointed persons will set targets for, monitor and record data on transport resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum this will cover:

- Transport of materials from the factory gate to the building site, including any transport, intermediate storage, and distribution.
- Materials used in major building elements (i.e., those defined in BREEAM issue Mat 01 - Roof and External Walls) including insulation materials.
- Ground works and landscaping materials.

Requirement 22 - The assessor can confirm this will be reported via the Scoring and Reporting Tool.

Post-construction

The client has provided records of the transportation data (materials & waste) (**Ref. 81, Ref. 82**). This has been reported via the Scoring and Reporting Tool.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
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23	RCM	Other		03/02/22
24	Responsible_Construction_Management_Table	Consultant's report		31/01/22
44	MAN03_Construction_Site_Impacts	Other		10/03/22
64	ISO_14001_Certificate	Other		01/09/22
65	BREEAM_New_Construction_2018_-_PPG6_checklist	Consultant's report		07/09/22
79	Energy_consumption_data-meter	Consultant's report		01/12/22
80	Water_consumption_data-meter	Consultant's report		01/12/22
81	Transport_data-materials	Consultant's report		01/12/22
82	Transport_data-waste	Consultant's report		01/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report		19/12/22
116	MAN03	Photograph		19/12/22
134	FSC_Certificate	Email		22/12/22
135	FSC_Certificate_Q_C_timber_supplier	Other		22/12/22

Management

Man 04 - Commissioning and handover

Number of credits available:	2
Number of credits achieved:	2
Minimum Standards met?	N/a

Aim

To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.

Criteria

2 credits available as follows:

Credit	
0	Prerequisite (Very Good to Outstanding)
1	Commissioning - testing schedule and responsibilities
1	Handover

Validation Statement

2 of 2 credits awarded.

Credit 1 - Commissioning - Testing schedule and responsibility

Requirement 1 - n/a

Requirements 2 & 4 - Thatchers Cider have confirmed via letter (**Ref. 45**) that Peter Taylor, System Engineer Manager, from Thatchers Cider will oversee pre-commissioning, commissioning and testing during the construction phase and that the extension will meet Building Regulations and where appropriate lighting will meet the relevant CIBSE and BSRIA guideline for lighting.

Requirement 3 - The letter goes onto confirms that there is no BMS specified and the extent of buildign services in the extension is limited to emergency and maintenance lighting only in the main warehouse; a small driver welfare facility with comfort cooling, electric heating and localised hot water for showers and hand washing; a picking area adjacent to the loading bays with high bay lighting.

Requirement 5 - The client acting as principal contractor it can reasonably be assumed that commissioning has been allowed for in the construction budget and would become part of daily/monthly/yearly scope of Peter Taylor being permanently site based.

Post-construction

Requirement 1-4 - The following commissioning certificates have been received:

- Welfare area air-con (**Ref. 74**)
- Fire installation and commissioning (**Ref. 97, Ref. 98**)
- Electrical installation (**Ref. 99**)
- Lighting test certs (**Ref. 100**)

Credit 4 - Handover

Requirement 11 - Thatchers Cider have confirmed via letter (**Ref. 43**) that a Building User Guide (BUG) will be developed prior to handover for

distribution to the building occupiers at Thatchers Cider Warehouse and Offices. It will provide dedicated building and site-specific guidance for the technical and non-technical building user.

The purpose of the guide is to help building users access, understand and operate the building efficiently and in a manner in keeping with the original design intent. The guide will provide easily accessible and understandable information relevant to the following stakeholders:

- The building's occupiers
- The technical facilities management team/building manager
- Other building users

The content of the guide will include information on the following:

- Overview of the building and its environmental strategy, e.g., energy, water or waste efficiency policy or strategy, and how users should engage with and deliver the policy or strategy.
- Provision of, and access to, shared facilities.
- Safety and emergency information or instructions.
- Building-related operational procedures specific to building type or operation, e.g., laboratories.
- Building-related incident reporting and feedback arrangements.
- Provision of and access to transportation facilities, e.g., public transport, cyclist facilities, pedestrian routes etc.
- Provision of and access to local amenities.
- Links, references, and relevant contact details.

Additionally, for the non-technical building user guide for building occupiers:

- Building services overview and access to building occupant controls, e.g., where to find them, what they control, how to operate effectively and efficiently etc.
- Pre-arrival information for visitors, e.g., access and security procedures or provisions.

Requirement 12 - The letter confirms that a technical and non-technical training schedule will be prepared, timed appropriately around handover and proposed occupation plans, which will include the following content as a minimum:

- The building's design intent.

Additionally, for the building occupiers' training schedule:

- Introduction to the non-technical building user guide for building occupiers and other relevant building documentation. Additionally, for the facilities managers' training schedule:
- The available aftercare provision and aftercare team main contacts, including any scheduled commissioning and post occupancy evaluation
- Introduction to, and demonstration of, installed systems and key features, particularly building management systems, controls, and their interfaces.
- Introduction to the technical building user guide for facilities managers' and other relevant building documentation, e.g., design data, technical guides, maintenance strategy, operations, and maintenance (O&M) manual, commissioning records, logbook etc.
- Maintenance requirements, including any maintenance contracts and regimes in place.

Post-construction

Requirement 11a - A Building User Guide (**Ref. 71**) for the entire building has been provided for non-technical users. It covers the following:

- Overview of the building and its environmental strategy, e.g. energy, water or waste efficiency policy or strategy, and how users should engage with and deliver the policy or strategy (**Section 2**)
- Provision of, and access to, shared facilities (**Section 2**)
- Safety and emergency information or instructions (**Section 3**)
- Building-related operational procedures specific to building type or operation (**Sections 4 - 6**)
- Building-related incident reporting and feedback arrangements (**Section 9**)
- Provision of and access to transportation facilities (**Section 7**)
- Provision of and access to local amenities (not covered - it would be reasonable to assume given its rural location, lack of external amenities and provision of site amenities i.e. canteen, public house, outside space that this section would not be relevant)
- Links, references and relevant contact details (not relevant to building operation and ownership i.e occupier and facilities based on site)

Requirement 11b - The Building User Guide (**Ref. 71**) confirms in the Introduction that A separate Operations and Maintenance (O&M) manual provides more detailed technical information for contractors and Thatchers own Site Maintenance team. Please contact the Site Maintenance Team if the O&M manual is required.

A copy of the contents page from the O&M manual (**Ref. 76**) has been provided which provides information for the facility management. It does carry now reference to the actual building (as its from a bigger document) however it is clear from the e-mail trail (**Ref. 77**) that it is from the client and relates the new extension.

Requirement 12 - The client confirms by e-mail (**Ref. 75**) that *all users to this building are current employees and have been given a walkthrough of the new extension understanding the design intent, access, and location of facilities.* This would be a sensible solution to ensure that all users are aware of the extensions design and environment.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
43	MAN04_Building_User_Guide	Other		10/03/22
45	MAN04_Commissioning	Other		21/12/22
71	THE_HIVE_-_Building_User_Guide	Other		22/11/22
74	Air_Conditioning_Welfare_Room_Certificate_1_	Other		23/11/22
75	Building_Users_Training	Email		23/11/22
76	Contents_Page_O_M_Manual	Other		23/11/22
77	RE_Building_User_Guide	Email		23/11/22
97	INS3_1-3_Fire_Installation_certificate_Thatchers_Warehouse_Extension	Other		06/12/22
98	INS3_3-4_Fire_commissioning_certificate_Thatchers_Warehouse_Extension	Other		06/12/22

99	Electrical_Installation_Certificate_-_ICN18C_1666886496	Other	06/12/22
100	THATCHERS_CIDER_LIGHTING_TEST_CERTIFICATES_150432_04082022	Other	06/12/22

Management

Man 05 - Aftercare

Number of credits available:	3
Number of credits achieved:	3
Minimum Standards met?	✓

Aim

To ensure the building operates in accordance with the design intent and operational demands, through providing aftercare to the building owner and occupants during the first year of occupation.

Criteria

3 credits available as follows:

Credit	
1	Aftercare support
1	Commissioning - implementation
1	Post occupancy evaluation (POE)

Validation Statement

3 of 3 credits awarded.

Credit 1 - Aftercare

Requirement 1 - The main sub-contractor, Progressive Systems, have confirmed via letter (**Ref. 47**) that operational infrastructure and resources to provide aftercare support to the building occupier(s) will be put in place, which includes the following as a minimum:

- a. A meeting programmed to occur between the aftercare team/individual and the building occupier/management (prior to initial occupation, or as soon as possible thereafter) to:
 - i. Introduce the aftercare team or individual to the aftercare support available, including the Building User Guide (where existing) and training schedule/content.
 - ii. Present key information about the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible.
- b. On-site facilities management training, to include a walkabout of the building and introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands.
- c. Initial aftercare support provision for at least the first month of building occupation, e.g., on-site attendance on a weekly basis to support building users and management (this could be more or less frequent depending on the complexity of the building and building operations).
- d. Longer term aftercare support provision for occupants for at least the first 12 months from occupation, e.g., a helpline, nominated individual or other appropriate system to support building users/management.

Requirement 2 - The letter also confirms that Thatchers Cider will also put in place operational infrastructure and resources to co-ordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months once the building is occupied. This is done to facilitate analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and/or user behaviours accordingly.

Post-construction

The BUG (**Ref. 71**) confirm in **Section 9.1** the Reporting Procedure. Part of this reporting procedure confirms *....Any structure of building issues which have been noticed, such as a leaking roof, damage to cladding etc., contact site maintenance team on 01934 827407 (Ext 435) or 01934 827409 (Ext 211) who will then assess the situation and arrange for repairs to be made via Progressive Systems.*

Credit 2 - Commissioning - Implementation

Requirement 3 - The client has confirmed via letter (**Ref. 45**) that Peter Taylor, System Engineer Manager, from Thatchers Cider will be responsible for the following on building completion:

- Review thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation, either by measurement or occupant feedback
- Identify deficiencies and areas in need of improvement
- Re-commission systems and incorporate any relevant revisions in operating procedures into the O&M manuals

Post-construction

No further evidence required

Credit 3 - Post Occupancy Evaluation

Requirement 4 - The client has confirmed via letter (**Ref. 42**) that they are committed to carry out a post occupancy evaluation (POE) exercise one year after the building is substantially occupied. This will be done to gain in-use performance feedback from building users and identifies gaps between design intent and in-use performance. The aim is to

highlight any improvements or interventions that need to be made, and to inform operational processes, including re-commissioning activities, and maintain or improve productivity, health, safety, and comfort.

Requirement 5 - The letter confirms that the POE will be carried out by an independent party (a third party, or person or body internal to a party involved, who shall not be involved in the issue in question and can robustly demonstrate the independence of the consultation process), and shall not have conflicts of interests resulting from their position.

The POE will cover the following issues:

- A review of the design intent and construction process (review of design, procurement, construction, and handover processes).
- Feedback from a wide range of building users including facilities management on the design and environmental conditions of the building covering:
 - Internal environmental conditions (light, noise, temperature, air quality)
 - Control, operation, and maintenance
 - Facilities and amenities
 - Access and layout
 - Energy and water consumption
 - Other relevant issues, where appropriate

Requirement 6 - The letter confirms that an independent party provides a report with lessons learned to the client and building occupiers.

Requirement 7 - The letter confirms that the client will also commit funds to pay for the POE in advance. This requires an independent party to be appointed to carry out the POE. Evidence of the appointment of the independent party and schedule of responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
42	MAN05_Post_occupancy_evaluation	Other		10/03/22
45	MAN04_Commissioning	Other		21/12/22
47	MAN05_Aftercare_Support	Other		20/04/22
67	MAN05_Commissioning_-_Implementation	Other		12/10/22
71	THE_HIVE_-_Building_User_Guide	Other		22/11/22

Health & Wellbeing
Hea 01 - Visual comfort

Number of credits available:	4
Number of credits achieved:	4
Minimum Standards met?	N/a

Aim

To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Criteria

4 credits available as follows:

Credit	
1	Control of glare from sunlight
1	Daylighting (building type dependent)
1	View out
1	Internal and external lighting levels, zoning and control
1	Daylighting (building type dependent)
1	Internal and external lighting levels, zoning and control

Validation Statement

4 of 4 credits awarded.

Credit 1 - Control of glare from sunlight

Requirement 1-3 - BREEAM Technical Manual defines glare control to include areas of the building where lighting and resultant glare could be problematic for users, e.g. those areas that

have been designed to contain or use workstations, projector screens etc. and sports halls. None of these areas exist within this project (**Ref. 7, Ref. 8, Ref. 9**).

KBCN1086 confirms that *if the scope of the assessment does not include any relevant building areas, as defined within the manual, the criteria for Control of glare from sunlight can be considered as met by default.*

Post-construction

No additional evidence required

Credit 2 - Daylighting

Requirement 4 - Thatchers cider confirm by e-mail (**Ref. 63**) that the warehouse area is only occupied between 5-20 minutes at a time whilst a vehicle is loaded therefore there are no relevant areas that are occupied. The assessor has visited the site and can confirm that a majority of the existing warehouse is fully automated without operatives. Artificial lighting is also minimal (just for safety).

Post-construction

No additional evidence required

Credit 3 - View Out

Requirements 5&6 - BREEAM Technical Manual defines a relevant building area to be areas where there are desks or workstation or areas where close work will be undertaken. None of these areas exist within this project (**Ref. 7, Ref. 8, Ref. 9**). Therefore credit awarded by default

KBCN0876 - confirms that *if the scope of the assessment does not include any relevant building areas, as defined within the manual, the criteria for 'view out' can be considered as met by default.*

Post-construction

No additional evidence required

Credit 4 - Internal and external lighting levels, zoning and control

Requirement 7 - A technical note from Peter Taylor of Thatchers (**Ref. 108**) confirms:

- *Internal lighting in all areas of the building has been designed to provide an illuminance (lux) level appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. This is demonstrated through a lighting design that provides illuminance levels in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard.*
 - In summary this is a welfare area that is lit to an average lux of 570 and a picking area that is lit to an average lux of 346 and the external canopy area is lit to an average lux of 361 These levels are within the design limits of SLL Code of Lighting 2012.
 - The main warehouse area is fully automated and generally unlit. Lighting is provided only for safety and maintenance purposes.

Manufacturers datasheet for Zeta2LED (**Ref. 131**)

Requirement 8 - The technical note (**Ref. 108**) goes on to confirm:

- that there are no areas present where computer screens would be regularly used.

Requirement 9 - The technical note (**Ref. 108**) confirms:

- All external lighting has been designed to provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night. All external lighting is in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of workplaces - Part 2: Outdoor workplaces
 - This is supported by an external lighting drawing (**Ref. 83**)

Requirement 10 - n/a

Requirement 11 - The technical note (**Ref. 108**) confirms:

- Internal lighting is not zoned as the welfare area is under 40m2 and the picking area needs to be lit to all spaces whilst loading takes place. Lighting to the picking area is controlled by PIR. Each Light fitting operates via its own integral PIR, setting back to a reduced Light level after 5 minutes of zero activity and switching off completely following a further 5 minutes of zero activity.
 - It has been established that the warehouse area is generally unlit because it is fully automated

Requirement 12 - n/a

Requirement 13 - n/a

Post-construction

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 127**), can confirm the installation of internal and external lighting fittings as per the design stage. It can also confirm that all lighting is controlled by PIR or photocell.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
7	Ground Floor plan_rev G	plan		27/09/21
8	Mezzanine plan_rev E	plan		27/09/21
9	Upper Levels plan_rev G	plan		27/09/21
63	RE__Warehouse_Occupancy	Email		31/08/22
83	DN-SW-0920-001-R09__lux_plan_	Drawing/Plan		01/12/22
108	Lighting_technical_note_Thatchers_Cider	Other		15/12/22
115	Thatchers_Warehouse_Extension-Site_Inspection_Report	Consultant's report		19/12/22

127	HEA01	Photograph		19/12/22
131	Zeta2LED_-_Data_Sheet	Manufacture's literature		21/12/22

Health & Wellbeing

Hea 02 - Indoor air quality

Number of credits available:	0
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To encourage and support healthy internal environments with good indoor air quality.

Criteria

0 credit available as follows:

Credit	
0	Prerequisite - Indoor air quality (IAQ) plan

Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

Health & Wellbeing

Hea 05 - Acoustic performance

Number of credits available:	3
Number of credits achieved:	3
Minimum Standards met?	N/a

Aim

To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.

Criteria

3 credits available as follows:

Credit	
3	Acoustic performance

Validation Statement

3 of 3 credits awarded.

Credit 1 - Acoustic performance

Requirement 1 - n/a

Requirement 2 - Peter Ashford from Acosutic Associates SW Ltd confirm by letter (**Ref. 25**) that:

- He is a suitably qualified acoustician i.e. a member of the IoA with at least three years' experience in the last five years
- The building does not have areas relevant to the Room Acoustics criteria (**see KBCN1291**)
- For Sound Insulation (Hea05) there are no rooms or occupied areas that can be measured under the criteria given in Section 7 of BS8233:2014 and in his professional opinion there is no need for bespoke performance requirements
- For Indoor Ambient Noise Levels (Hea05) there are no rooms or occupied areas that can be measured under the criteria given in Section 7 of BS8233:2014 and in his professional opinion there is no need for bespoke performance requirements

For context the building is an extension to an existing storage warehouse with a very small welfare area only. The main warehouse space is unconditioned and would typically only have transient occupation.

Post-construction

No additional evidence required

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
25	6580_letter_to_Jamie_Best_Melin_Consultants_re_Thatchers_warehouse_extension_3-2-22	Other		06/02/22

Health & Wellbeing

Hea 06 - Security

Number of credits available:	1
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.

Criteria

1 credit available as follows:

Credit	
1	Security of site and building
1	Security of site and building

Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

Health & Wellbeing

Hea 07 - Safe and healthy surroundings

Number of credits available:	2
Number of credits achieved:	2

Minimum Standards met?	N/a
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Aim

To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.

Criteria

2 credits available as follows:

Credit	
1	Safe access
1	Outside space

Validation Statement

2 of 2 credits awarded.

Credit 1 - Safe access

Requirement 1&2 - The client has provided a plan showing the safe pedestrian and cyclist paths from the site entrance to the building, parking, outside space and external routes (**Ref. 48-49**).

Requirement 3 - drop-off areas have not been provided.

Requirement 4 - The site access plan (**Ref. 48**) shows that delivery areas are not accessed through general parking, pedestrian and cyclist paths, or outside space. The plan shows that there is a dedicated waiting and parking area for delivery vehicles.

Requirements 5&6 - There is a lorry park area for waiting and parked lorries. Swept path analysis plan (**Ref. 50**) confirms the area is for simple manoeuvring.

Post-construction

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 126**), can confirm there are safe pedestrian and cyclist paths from the site entrance to the building entrance, cycle storage, and outside space. It can also confirm the delivery areas are appropriately sized and not accessed via general parking areas.

Credit 2 - Outside space

Requirement 7 - The client has provided a plan showing the area of outside space dedicated for building users (**Ref. 49**). They have confirmed via letter that the space is BREEAM

compliant (**Ref. 61**). This is supported by a site smoking area plan (**Ref. 107**) which indicates that there are only 3 areas on site that smoking is permissible.

Post-construction

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 126**), can confirm that a compliant outside space has been installed.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
48	Site_Access_Plan_Routes	Drawing/Plan		14/07/22
49	Outside_Seating_Plan	Drawing/Plan		14/07/22
50	20_P_2619_FUL-PROPOSED_LORRY_PARK_SWEPT_PATH_ANALYSIS-3044670	Drawing/Plan		14/07/22
61	HEA07_Outside_Space	Other		08/08/22
107	Welfare_Plan	Drawing/Plan		07/12/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
126	HEA07	Photograph		19/12/22

Energy

Ene 01 - Reduction of energy use and carbon emissions

Number of credits available:	9
Number of credits achieved:	6
Minimum Standards met?	✓

Aim

To minimise operational energy demand, primary energy consumption and CO₂ emissions.

Criteria

9 credits available as follows:

Credit	
9	Energy performance
3	Beyond zero net regulated carbon
2	Post-occupancy stage - Exemplary level criteria
2	Prediction of operational energy consumption - Exemplary level criteria - Simple Buildings ONLY

Validation Statement

6 of 9 credits awarded.

Credit 1 - Energy performance

Requirement 1 - An as-designed BRUKL (**Ref. 58**) has been provided which confirms:

Actual heating & cooling demand (MJ/m²) 338.91

Notional heating & cooling demand (MJ/m²) 222.64

Actual primary energy (kWh/m²) 136.36

Notional primary energy (kWh/m²) 93.76

Actual total emissions (kg/m²) 3.3

Notional total emissions (kg/m²) 16.6

The brukl.inp file (**Ref. 59**) when calculated using BREEAM Projects on-line tool shows an EPR_{nc} of 0.633 and a % improvement of 81.0%. This give 6 credits.

Darren Baker the energy assessor confirms by letter (**Ref. 60**) that he undertook the calculations, is registered with CIBSE Low Carbon Consultants (accreditation no. LCEA125299) and used an approved building energy calculation software (IES VE).

The assessor confirms that they were not involved or discussed the outcomes of the energy modelling with the enregy assessor. The potential for conflict of interest has been removed.

Post-construction

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
58	Warehouse_Extension_brukl	Other		01/08/22
59	Warehouse_Extension_brukl	Other		01/08/22
60	Ene01_Thatchers	Other		01/08/22

Energy

Ene 02 - Energy monitoring

Number of credits available:	2
Number of credits achieved:	2
Minimum Standards met?	✓

Aim

To encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.

Criteria

2 credits available as follows:

Credit	
1	Sub-metering of end use categories
1	Sub-metering of high energy load and tenancy areas

Validation Statement

2 of 2 credits awarded.

Credit 1 - Sub-metering of end use categories

Requirements 1-3 - The only fuel type used in the building extension is electricity. All electric use has been assigned to an end-use category (**Ref. 109**)

- Welfare area PMS110
- Goods lift PMS110
- Internal lighting PMS110
- External lighting PMS110

Overall the building energy demands are small with only a small welfare area heated by an ASHP, a small amount of internal lighting (as referenced in Hea01 the amin warehouse is designed to be unlit as its fully automated. Internal lighting is just to welfare area and a picking area), external lighting and a goods lift.

It would not be appropriate to sub-meter any further given it is a simple building and following CN1.0

The Electrical Metering Installation schematic (**Ref. 109**) shows that sub-metering is via a modbus linked back, via ethernet, to an IT connection. Building users can eitehr identify energy consuming end uses directly from the node or via an internet connection.

Credit 2 - Sub-metering of high energy load and tenancy areas

Requirement 4-5 - The building extension does not have any tenanted or function areas. The only occupied space is under 40m2

Post-construction

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 125**), can confirm the extension has been equipped with four electrical submeters which have pulsed output and appropriate labelling.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
109	Warehouse_Metering_Network_Rev3	Drawing/Plan		15/12/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
125	ENE02	Photograph		19/12/22

Energy

Ene 03 - External Lighting

Number of credits available:	1
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To recognise and encourage the specification of energy efficient light fittings for external areas of the development.

Criteria

1 credit available as follows:

Credit	
1	External lighting

Validation Statement

1 of 1 credits awarded.

Credit 1 - External lighting

Requirement 1 - n/a

Requirement 2 - The external lighting plan (**Ref. 83**), e-mail from client (**Ref. 86**) and manufacturer datasheets for the following lamps confirm the following:

- Lamp type X1. 14no. fittings. HWDP/B4LED0870-S1. **112.87lm/W (Ref. 95)**
- Lamp type X2. 5no. fittings. Ramsey Marine Grade Flood light NET-23-04-13. **145lm/W with motion and photocell sensor (Ref. 91)**
- Lamp type X4. 51no. fittings. LHS/B1AL4LED50 **64lm/W (Ref. 96)**
- Lamp type X5. 8no. fittings. HR3/BLE4LED1800 **47.49lm/W with motion and photocell sensor (Ref. 88)**
- Lamp type X6 18no. fittings. Dextra PRO65 I240 **138.55lm/W (Ref. 87)**

A further e-mail from the client (**Ref. 89**) confirms that the external lighting has timeclocks and photocells. This is further supported by a marked up note (**Ref. 90**) from the client that was included with the e-mail showing a photocell located on an external warehouse wall, timeclock and automated lighting remote control panels which *is controlled from a centralised system which overrides the day-night sensor and time clock for times of abnormal site activities. We can remotely shutdown unnecessary use of lights during shutdowns, holiday periods and occasional unusual shift patterns.*

All the above evidence supports that *external light fittings within the construction zone* meet:

1. Average initial luminous efficacy of no less than 70 luminaire lumens per circuit Watt. **Total Watts 5611W. Total lumens 560858lum. Average 121.63lm/W**
2. Automatic control to prevent operation during daylight hours
3. Presence detection in areas of intermittent pedestrian traffic

A technical note from Peter Taylor of Thatchers (**Ref. 108**) confirms:

- *The average luminous efficacy of the external light fittings within the construction zone is not less than 70 luminaire lumens per circuit Watt.*
- *External lighting is controlled by means of night/day sensor to disable during periods of day light and further by a time-clock to control the lighting when required, i.e. the lighting is turned off when the site is not operational.*

Post-construction

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 117**), can confirm the installation of the external light fittings and photocell control as per the design stage.

The client has provided evidence of the timeclock control (**Ref. 129**).

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
83	DN-SW-0920-001-R09__lux_plan_	Drawing/Plan		01/12/22
86	Hea01__Ene03_Lighting	Email		05/12/22
87	Dextra_-_Verteco	Manufacture's literature		05/12/22
88	ASDLighting_HR3-BLE4LED1800_Datasheet	Manufacture's literature		05/12/22
89	Pol05_Evidence_of_timeclock_and_photocells	Email		05/12/22
90	Warehouse_Lighting_-_evidence_of_day-night_sensor_and_time-clock	Other		05/12/22
91	NET-23-04-13_Summary_-_Design_DES-38-1	Manufacture's literature		05/12/22
95	ASDLighting_HWDP-B4LED0870-S1_Datasheet_X1	Manufacture's literature		06/12/22
96	ASDLighting_LHS-B1AL4LED50_Datasheet_X4	Manufacture's literature		06/12/22

108	Lighting_technical_note_Thatchers_Cider	Other	15/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	19/12/22
117	ENE03.POL04	Photograph	19/12/22
129	Pol05_Evidence_of_timeclock_and_photocells	Email	20/12/22

Energy

Ene 04 - Low carbon design

Number of credits available:	3
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.

Criteria

3 credits available as follows:

Credit	
2	Passive design
1	Low and zero carbon technologies

Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

Transport

Tra 01 - Transport assessment and travel plan
--

Number of credits available:	2
Number of credits achieved:	2
Minimum Standards met?	N/a

Aim

To reward awareness of existing local transport and identify improvements to make it more sustainable.

Criteria

2 credits available as follows:

Credit	
2	Travel plan

Validation Statement

2 of 2 credits awarded.

Credit 1 Transport assessment and travel plan

Requirement 1 - A travel plan, with transport assessment, developed at RIBA 2, has been provided (**Ref. 20**).

Requirement 2 - The travel plan covers the following:

- 2a. - The travel pattern and attitudes of the existing building and site users towards cycling, walking and public transport (**Page 7-9**)
- 2b. - Predicted travel patterns and transport impact of future building or site users (**Page 10**)
- 2c. - Current local environment for pedestrians and cyclists (**Page 5**)
- 2d. - Reporting of the number and type of existing accessible amenities (**Page 2**)
- 2e. - Disabled access (**Page 5**)
- 2f. - Calculation of the existing public transport Accessibility Index (AI) has been undertaken by the assessor (**Ref. 21&22**)
- 2g. - Current facilities for cyclists (**Page 4**)

Requirement 3 - The travel plan includes a series of measures and initiatives to encourage sustainable transport:

- Bicycle purchase scheme.
- 56 covered cycle parking spaces to be provided.
- A transport and sustainable travel noticeboard.
- Research providing umbrellas for those staff who walk to and from work.
- Establish a car sharing database.
- Install 8 electric vehicle charging points.
- All new starters to be provided with a travel information pack.
- To monitor the usage of the newly installed cycle storage spaces.

Requirement 4 - The Travel Plan has been developed by the client using the ModeShift Stars System and has been certified (**Ref. 38**)

Requirement 5 - The Travel Plan is to be implemented by a Travel Plan Champion (details on **Page 2**).

Post-construction stage

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 124**), can confirm the following sustainable transport measures:

- 10no. EV charging points
- Infrastructure for future EV charging points
- 56 compliant BREEAM cycle storage spaces
- Shower in the welfare area.

The client has provided evidence of the pool umbrellas having been implemented (**Ref. 130**).

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
20	THATCHERS_CIDER_LTD_-_TP	Consultant's report		31/01/22
21	Buses	Other		31/01/22
22	BREEAM_UK_NC_2018_Tra01_02_AI_v2.0__3_	Excel/XML output		31/01/22
38	Travel_Plan_Accreditation_Certificate	Other		03/03/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
124	TRA01.02	Photograph		19/12/22
130	FW_Pool_Umbrellas_-_Evidence	Email		21/12/22

Transport

Tra 02 - Sustainable transport measures

Number of credits available:	10
Number of credits achieved:	4
Minimum Standards met?	N/a

Aim

To maximise the potential for local public, private and active transport through provision of sustainable transport measures and incentive mechanisms that are appropriate to the site.

Criteria

10 credits available as follows:

Credit	
0	Pre-requisite
10	Transport options implementation

Validation Statement

4 of 10 credits awarded.

Pre-requisite

Requirement 1 - Criteria 3-5 in the Tra 01 Transport assessment and travel plan credit have been achieved

Credit 1 - Transport Options Implementation

Requirement 2&3 - The sustainable transport measures, identified from Table 7.4 of the Technical Manual, are as follows:

Option 4: The Car sharing plan (**Ref. 52**) confirms that there are 209 car parking spaces. The *proposed block plan* (**Ref. 51**) shows a total of 10no. EV charging points and 20 spaces with infrastructure for future installation. This confirms that 5% of the car parking spaces have EV infrastructure.

Option 5: The car sharing plan (**Ref. 52**) confirms 209 car parking spaces and 11 car sharing spaces.

Option 7: Thatchers Cider confirm by e-mail (**Ref. 37**) that there are 202 full time staff for the site. A new covered cycle storage area is proposed as part of the development but to provide facilities for the whole site (**Ref. 39**). This facility will provide 56no. storage spaces. Based on total site employed the total storage space required is 21 (1 per 10 staff). Therefore one credit can be awarded.

Option 8: A plan has been provided (**Ref. 46**) showing the welfare area with shower.

Option 9: An assessor's report (**Ref. 62**) confirms that 3 applicable amenities are within 500m of the site entrance.

Post-construction Stage

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 124**), can confirm the installation of the following sustainable transport measures:

- 10no. EV charging points
- Infrastructure for future EV charging points
- 56 compliant BREEAM cycle storage spaces
- Shower in the welfare area.

The client has provide photographs of the car sharing spaces (**Ref. 133**).

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
37	FW__Employment_Status__1__	Email		03/03/22
39	Cycle_Storage_-_Proposed_Plan	Drawing/Plan		03/03/22
40	Electric_Vehicle_Points_-_Allocated__proposed__	Drawing/Plan		03/03/22
46	Welfare_Facility_Plan	Drawing/Plan		31/03/22
51	EV_Charging_Points_-_Site_Plan	Drawing/Plan		14/07/22
52	500-41-08-004_rev_A_-_Car_Sharing_Plan	Drawing/Plan		27/07/22
62	Amenities	Consultant's report		08/08/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
124	TRA01.02	Photograph		19/12/22
133	FW__Car_Sharing_Spaces	Email		22/12/22

Water
Wat 01 - Water consumption

Number of credits available:	5
Number of credits achieved:	3
Minimum Standards met?	✓

Aim

To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.

Criteria

5 credits available as follows:

Credit	
5	Water consumption
1	Water consumption

Validation Statement

3 of 5 credits awarded.

Credit 1 - Water consumption

Requirement 1 - The BREEAM Wat 01 calculator (**Ref. 101**) has been used to assess the efficiency of the domestic water-consuming components.

Requirement 2 - The standard Wat 01 method to compare the water consumption (L/person/day) for the assessed building against a baseline performance has been used.

This is based on information provided by the client (**Ref. 102**) on e-mail regarding the toilet and kitchenette facilities in the welfare area:

- All toilets flushed by by Tavistock Vortex Slimline cistern (**Ref. 103**). The assessor has checked the suppliers website for flush volumes and can confirm that <https://www.tavistock-bathrooms.co.uk/product/vortex-bottom-inlet-concealed-cistern/> had the dual flush cistern listed as 6/3ltr flush
- Showers Tavistock Quantum Cool Touch (**Ref. 104**). 1 bar has a flow rate of 11.5ltr/min
- Oceana Dee basin mono mixer (**Ref. 105**). No flow rates provided on literature or website
- River Loire single lever mixer tap (**Ref. 106**). No flow rates provided on literature or website

Rob McCarthy goes on to confirm in the e-mail *that the flows have been restricted to 4.2l/min.*

Post-construction

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 123**), can confirm the installation of the domestic scale water consuming components as per the design stage specification. The component information has been entered into the Wat01 calculator (**Ref. 128**) which confirms 3 credits have been achieved.


Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
101	Thatchers_Cider_Wat01_Calc	Excel/XML output		06/12/22

102	Tap_and_shower_specs	Email		06/12/22
103	Tavistock_Vortex_Slimline_Cistern	Manufacture's literature		06/12/22
104	Tavistock_Shower_Valve_SQT2416-Specification-Sheet-1	Manufacture's literature		06/12/22
105	Oceana_Deer_basin_Mono_Mixer_Tap	Manufacture's literature		06/12/22
106	River_Loire_single_lever_mixer_tap	Manufacture's literature		06/12/22
115	Thatchers_Warehouse_Extension-Site_Inspection_Report	Consultant's report		19/12/22
123	WAT01	Photograph		19/12/22
128	BREEAM_UK_NC_2018_and_V6_Wat01_Calculator_v2.3_3_3	Excel/XML output		19/12/22

Water

Wat 02 - Water monitoring

Number of credits available:	1
Number of credits achieved:	1
Minimum Standards met?	

Aim

To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.

Criteria

1 credit available as follows:

Credit	
0	Prerequisite (Good to Outstanding)

1	Water monitoring
---	------------------

Validation Statement

1 of 1 credits awarded.

Credit 1 - Water monitoring

Requirement 1 - A water meter on the mains water supply to the entire building water supply has been provided (**Ref. 93, Ref. 94, Ref. 109, Ref. 110**). The is supported by an e-mail from Kris Rowlands, Thatchers, confirming that the meter supplies The Hive which is the warehouse the extension being assessed is named.

Requirements 2-3 - The is no area of the extension where an area consumes >10% of the buildings total demand. however the client has installed a sub meter to monitor water use in the welfare facility that i slinked back via Modbus (**Ref. 109**)

Requirements 4-6 - n/a

Post-construction

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 122**), can confirm the installation of a mains and sub water meter in teh building.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
92	FW__Water_Meter_to_Hive	Email		05/12/22
93	processed-55aa6084-83b8-4324-9768-80b1acab2c0e_DcFpUtkv	Photograph		05/12/22
94	processed-c0193b0f-206b-4cbe-9e9f-7bd0a14abc24_aTq8ejfs	Photograph		05/12/22
109	Warehouse_Metering_Network_Rev3	Drawing/Plan		15/12/22
110	water_meter	Photograph		15/12/22
115	Thatchers_Warehouse_Externsion-Site_Inspection_Report	Consultant's report		19/12/22
122	WAT02	Photograph		19/12/22

Water

Wat 03 - Water leak detection

Number of credits available:	2
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.

Criteria

2 credits available as follows:

Credit	
1	Leak detection system
1	Flow control devices

Validation Statement

1 of 2 credits awarded.

Credit 2 - Flow control devices

Requirement 3 - A schematic for the welfare facility (**Ref. 136**) shows flow control devices that regulate the supply of water to each WC and shower facility according to demand.

Post-construction

This is supported by photographs of installed flow devices (**Ref. 137, Ref. 138**)

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
136	SP0111-008_Welfare_Lighting	Drawing/Plan		22/12/22
137	20221221_152426	Photograph		22/12/22
138	20221221_152439	Photograph		22/12/22

Materials

Mat 01 - Environmental impacts from construction products - Building life cycle assessment (LCA)

Number of credits available:	7
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Criteria

7 credits available as follows:

Credit	
6	Superstructure
1	Substructure and hard landscaping options appraisal during Concept Design (all building types)
1	Core building services options appraisal during Concept Design (all building types)

1	LCA and LCC alignment (all building types)
1	Third party verification (all building types) - Exemplary level criteria

Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

Materials	
Mat 02 - Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)	
Number of credits available:	1
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.

Criteria

1 credit available as follows:

Credit	
1	Specification of products with a recognised environmental product declaration (EPD)


Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

Materials
Mat 03 - Responsible sourcing of construction products

Number of credits available:	4
Number of credits achieved:	1
Minimum Standards met?	

Aim

To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.

Criteria

4 credits available as follows:

Credit	
0	Prerequisite
1	Enabling sustainable procurement
3	Measuring responsible sourcing
1	Measuring responsible sourcing

Validation Statement

1 of 4 credits awarded.

Pre-requisite Legally harvested and traded timber

Requirement 1 - Thatchers Cider have confirmed via letter (**Ref. 44**) that all site timber and timber-based products will be sourced in accordance with the Central Point of Timber (CPET) 5th Edition of the UK Government Timber Procurement Policy (TPP). For the avoidance of doubt, 100% of the timber and timber-based products will be compliant.

Post-construction

Thatchers confirm by e-mail (**Ref. 134**) the timber suppliers FSC certification (**Ref. 135**).

Credit 1 - Enabling sustainable procurement

Requirement 2 - A sustainable procurement plan has been provided by the client (**Ref. 11**) which is being used to guide specification towards sustainable construction products. The plan is:

- in place before Concept Design - the doc is dated Oct 2020 which align with planning application submission
- includes sustainability aims, objectives and strategic targets to guide procurement activities (**pages 10-12**)
- includes a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. (**section 4.8**)
- includes details of procedures in place to check and verify the effective implementation of the sustainable procurement plan. (**section 5**)

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
11	Thatchers_Cider_-_Warehouse_Ph2_Sustainable_Procurement_Plan	Other		28/10/21

44	MAN03_Construction_Site_Impacts	Other		10/03/22
134	FSC_Certificate	Email		22/12/22
135	FSC_Certificate_Q_C_timber_supplier	Other		22/12/22

Materials

Mat 05 - Designing for durability and resilience

Number of credits available:	1
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.

Criteria

1 credit available as follows:

Credit	
1	Protecting vulnerable parts of the building from damage/material degradation

Validation Statement

1 of 1 credits awarded.

Credit 1 Protecting vulnerable parts of the building from damage/material degradation

Requirement 1 - The architect has provided a plan (**Ref. 70**) showing the protection measures included in the design to reduce damage to the building.

Requirement 1a - Negative impacts of high user numbers in relevant areas of the building - the building is designed to be used by minimal numbers of users therefore not relevant

Requirement 1b - Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas

Requirement 2-4 - The architect has provided a study (**Ref. 69**) on how the building has been designed to limit long and short term degradation due to environmental factors.

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 121**), can confirm the installation of the protection measures as per the design stage.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
69	MAT05_Degredation_table_ver_2__completed_	Excel/XML output		01/12/22
70	500-41-08-006_rev_-_1_	Drawing/Plan		26/10/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
121	MAT05	Photograph		19/12/22

Materials

Mat 06 - Material efficiency

Number of credits available:	1
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.

Criteria

1 credit available as follows:

Credit	
1	Material efficiency


Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

Waste
Wst 01 - Construction waste management

Number of credits available:	5
Number of credits achieved:	0
Minimum Standards met?	

Aim

To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.

Criteria

5 credits available as follows:

Credit	
1	Pre-demolition audit - Simple Buildings
1	Construction resource efficiency - Simple Buildings
2	RMP measurements and reporting - Simple Buildings
1	Diversion from landfill - Simple Buildings
1	Construction resource efficiency/Diversion of resources from landfill - Simple Buildings

Validation Statement

0 credits awarded.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
57	Waste_Management_Procedure__1_	Other		01/08/22
72	Wst1_Pre-Demolition_Audit_-_Thatchers_Cider	Consultant's report		22/11/22
73	WST01_Thatchers_Cider_-_Resource_Management_Plan	Consultant's report		22/11/22

Waste

Wst 02 - Use of recycled and sustainably sourced aggregates

Number of credits available:	1
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.

Criteria

1 credit available as follows:

Credit	
0	Prerequisite
1	Project Sustainable Aggregate points
1	Project Sustainable Aggregate points

Validation Statement


0 credits awarded.

Schedule of Evidence

No References Available

Waste

Wst 03 - Operational waste

Number of credits available:	1
Number of credits achieved:	1
Minimum Standards met?	

Aim

To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.

Criteria

1 credit available as follows:

Credit	
1	Operational waste

Validation Statement

1 of 1 credits awarded.

Credit 1 - Operational Waste

Requirements 1&2 - The client has provided a plan (**Ref. 56**) showing the location of the current operational waste facilities. This is supported with some in operation photographs which also show that bins are clearly labelled (**Ref. 53, Ref. 54, Ref. 55**).

Post-construction

All waste containers have now been labelled (**Ref. 111, Ref. 112, Ref. 113, Ref. 114**).

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 120**), can confirm the waste bins have all been labelled and the locations are appropriate.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
53	Bin_Drawing_1	Photograph		01/08/22
54	Bin_Drawing_2__1_	Photograph		01/08/22
55	Bin_Drawing_3	Photograph		01/08/22
56	Waste_Bin_Drawing_Plan	Drawing/Plan		01/08/22
111	20221215_113248__1_	Photograph		15/12/22
112	20221215_112002__1_	Photograph		15/12/22
113	20221215_111944__1_	Photograph		15/12/22
114	20221215_111852__2_	Photograph		15/12/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
120	WST03	Photograph		19/12/22

Waste
Wst 05 - Adaptation to climate change

Number of credits available:	1
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.

Criteria

1 credit available as follows:

Credit	
1	Resilience of structure, fabric, building services and renewables installation
1	Responding to climate change

Validation Statement

1 of 1 credits awarded.

Credit 1 Resilience of structure, fabric, building services and renewables installation

Requirement 1 - The project architect has provided a climate change risk assessment covering criteria 1ai-1av **(Ref. 84)**.

Requirement 2 - The risk assessment identifies recommendations or solutions to mitigate the identified impacts.

Requirement 3 - The architect has provided an update at RIBA 4 **(Ref. 85)**.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
84	WST05-RIBA2	Consultant's report		05/12/22
85	WST05-RIBA4	Consultant's report		05/12/22

Waste

Wst 06 - Design for disassembly and adaptability

Number of credits available:	2
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.

Criteria

2 credits available as follows:

Credit	
1	Design for disassembly and functional adaptability -recommendations
1	Disassembly and functional adaptability - implementation

Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

Land Use & Ecology

LE 01 - Site selection

Number of credits available:	2
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.

Criteria

2 credits available as follows:

Credit	
1	Previously occupied land
1	Contaminated land

Validation Statement

1 of 2 credits awarded.

Credit 1 - Previously occupied land

Requirement 1 - The existing block plan (**Ref. 33**) and proposed block plan (**Ref. 34**) clearly show the vast majority of the proposed extension is on land that has been previously built on. Obviously in excess of 75%. This is supported by an ariel view of the site pre-development (**Ref. 35**) which clearly shows hardstanding for vehicle parking.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
33	existing_block_plan	Drawing/Plan		09/02/22

34	proposed_block_plan_3_	Drawing/Plan		09/02/22
35	thatchers_ariel_view	Photograph		09/02/22

Land Use & Ecology

LE 02 - Ecological risks and opportunities

Number of credits available:	2
Number of credits achieved:	2
Minimum Standards met?	N/a

Aim

To determine the existing ecological value associated with the site, including surrounding areas, and the risks and opportunities for ecological protection and enhancement as part of the project.

Criteria

2 credits available as follows:

Credit	
0	Prerequisite - Statutory obligations
2	Survey and evaluation/Determining ecological outcomes
1	Wider site sustainability - Exemplary level criteria

Validation Statement

2 of 2 credits awarded.

Pre-requisite

Requirement 1 - The SQE (confirmed by his CV (**Ref. 26**)) has confirmed that the client confirmed that compliance is monitored against all relevant UK and EU or International legislation relating to the ecology of the site (**Ref. 27**).

Credit 1 Survey and Evaluation

Requirement 3 - GN40 (**Ref. 27, page 17**) confirms that *Ethos Environmental Planning* have been appointed as project ecologists and have been involved at all stages of the project. This has included a preliminary ecological appraisal (PEA) which was used to inform early design and layout options. This included advice in relation to mitigation for habitats and protected species. (**Ref. 28**)

Requirement 4 - GN40 (**Ref. 27, page 17**) confirms that prior to the completion of the preparation and brief stage, was an appropriate level of survey and evaluation carried out to determine the ecological baseline of site taking into account the zone of influence. It confirms that *the project and planning application was informed by an initial ecological walkover, which was then followed up with a full ecology assessment, Shadow Habitat Regulations Assessment (HRA) and Biodiversity Net Gain Assessment (BNG). The ecology assessment included a UKHab survey and targeted surveys for protected species. This information was used to inform the detailed designs including measures to avoid impacts on ecology, and where this was not possible measures to mitigate and compensate.* (**Ref. 28-30**)

Requirement 5 - GN40 (**Ref. 27, page 18**) confirms that *regular communication was had between Ethos and the project team by email and phone. Recommendations within the Ecological Assessment were discussed with the project team to ensure that they were achievable within the layout constraints.*

Credit 2 Determining Ecological Outcomes

Requirement 7 - GN40 (**Ref. 27, page 18&19**) confirms that *Ethos had regular meetings/communication with the project lead architect and were party to more formal project team meeting with the client and other disciplines. Issues related to ecology were discussed at these meetings and were integrated into the design development.*

This was done in accordance with the hierarchy of actions:

- Avoidance
 - The design proposals avoid negative impacts on an active badger sett on the boundary of the site, which enabled the sett to be retained in situ.
- Protect
 - Key commuting features for bats have been protected through the use of fencing and additional planting to retain dark corridors for bats. Foraging routes for badgers were maintained through
- Reduce/limit negative impacts
 - As per measures for avoidance and protection
- On-site compensation
 - Additional habitat creation including grassland and trees
- Enhancement
 - Additional habitat creation to deliver BNG (**Ref. 30**)

The ecological outcome has been described:

The development layout has ensured that mitigation and compensation for bats using the site has been delivered. This has included the provision of appropriate mitigation and compensation habitat creation in line with the North Somerset and Mendip bats SAC SPD. This was used to inform a shadow HRA which was agreed with the LPA and Natural England. Mitigation measures were also put in place to protect and retain an existing badger set on the boundary of the site. Additional habitat planting over and above the measures required for bat compensation will be delivered which means the proposals deliver a measurable net gain for biodiversity.

Post-construction Stage

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 119**), can confirm the ecologist's recommendations have been implemented.

The ecologist has provided a report from their compliance checks throughout the construction phase (**Ref. 132**) which confirms that all recommendations have been carried out in accordance with the ecology report and proposed landscape plan.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
26	CV	Other		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1_1_	Consultant's report		08/02/22
28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report		08/02/22
30	Thatchers_BNG__excluding_bat_replacement_habitat_Mar_21	Consultant's report		08/02/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
119	LE02-04	Photograph		19/12/22
132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report		21/12/22

Land Use & Ecology

LE 03 - Managing impacts on ecology
--

Number of credits available:	3
Number of credits achieved:	3
Minimum Standards met?	N/a

Aim

To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.

Criteria

3 credits available as follows:

Credit	
0	Prerequisite - Ecological risks and opportunities
1	Planning and measures on-site
2	Managing negative impacts

Validation Statement

3 of 3 credits awarded.

Pre-requisite

Requirement 1 - LE 02's 'Survey and evaluation and Determining ecological outcomes' criteria have been achieved

Credit 1 Planning and Measures On-site

Requirement 2 - GN40 (**Ref. 27, page 22**) confirms that *Ethos were the appointed ecologists to the project and informed early stages of design following an ecological walkover and then detailed designs through the full ecology assessment.*

Requirement 3 - GN40 (**Ref. 27, page 22**) confirms that *the ecology assessment and CEMP sets out mitigation measures to protect ecology during this stage. An ecological clerk of works (ECOW) was appointed to oversee works in proximity of the badger sett.*

Requirement 4 - GN40 (**Ref. 27, page 22**) confirms that *the project team held meetings to discuss design options. Measures for mitigation for bats and badgers were discussed with the local authority ecologist and Natural England. During works, the ecow oversaw sensitive working practices and provided toolbox talks to contractors.*

Credit 2 Managing Negative Impacts

Requirement 8 - The SQE has confirmed via GN40 (**Ref. 27, page 23**) that there has been no overall loss of ecological value. He has confirmed that *the scheme was designed to ensure it delivered the habitat required for the bat SPD and on top of that delivered BNG. The CEMP and ecology assessment set out measures for protecting ecology during construction.*

Post-construction Stage

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 119**), can confirm the ecologist's recommendations have been implemented.

The ecologist has provided a report from their compliance checks throughout the construction phase (**Ref. 132**) which confirms that all recommendations have been carried out in accordance with the ecology report and proposed landscape plan.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
26	CV	Other		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1_1_1_	Consultant's report		08/02/22
28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report		08/02/22
30	Thatchers_BNG_excluding_bat_replacement_habitat_Mar_21	Consultant's report		08/02/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report		21/12/22

Land Use & Ecology

LE 04 - Ecological change and enhancement
--

Number of credits available:	4
Number of credits achieved:	2
Minimum Standards met?	N/a

Aim

To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

Criteria

4 credits available as follows:

Credit	
0	Prerequisite - Managing negative impacts on ecology
1	Change and enhancement of ecology / Ecological enhancement
3	Change and enhancement of ecology
1	Change and enhancement of ecology - Exemplary level criteria

Validation Statement

2 of 4 credits awarded.

Pre-requisite

Requirement 1 - Criterion 8 (for Comprehensive route) in LE 03 has been achieved.

Requirement 2 - The SQE (confirmed by his CV (**Ref. 26**)) has confirmed that the client confirmed that compliance is monitored against all relevant UK and EU or International legislation relating to the ecology of the site (**Ref. 27**).

Credit 1 Ecological Enhancement

Requirement 4 - GN40 (**Ref. 27, page 26**) confirms that measures will be implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02, on-site.

Requirement 5 - GN40 (**Ref. 27, page 26**) confirms that relevant data has been offered to the local environmental records centre nearest to, or relevant for, the site.

Credit 2 Change and Enhancement of Ecology

Requirement 6 - The SQE has completed the BREEAM, CEEQUAL, HQM Change in Ecological Value tool (**Ref. 31**) which confirms a Total Post Development % of Pre Development of 85%.

Post-construction Stage

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 119**), can confirm the ecologist's recommendations have been implemented.

The ecologist has provided a report from their compliance checks throughout the construction phase (**Ref. 132**) which confirms that all recommendations have been carried out in accordance with the ecology report and proposed landscape plan.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
26	CV	Other		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1_1_1_	Consultant's report		08/02/22
28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report		08/02/22
30	Thatchers_BNG_excluding_bat_replacement_habitat_Mar_21	Consultant's report		08/02/22
31	BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3_completed	Excel/XML output		08/02/22

115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report		19/12/22
132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report		21/12/22

Land Use & Ecology

LE 05 - Long term ecological management and maintenance

Number of credits available:	2
Number of credits achieved:	2
Minimum Standards met?	N/a

Aim

To secure ongoing monitoring, management and maintenance of the site and its habitats and ecological features, to ensure intended outcomes are realised for the long term.

Criteria

2 credits available as follows:

Credit	
0	Prerequisite - Statutory obligations, planning and site implementation
2	Management and maintenance throughout the project / Landscape and ecology management plan

Validation Statement

2 of 2 credits awarded.

Pre-requisite

Requirement 1 - The SQE (confirmed by his CV (**Ref. 26**)) has confirmed that the client confirmed that compliance is monitored against all relevant UK and EU or International legislation relating to the ecology of the site (**Ref. 27**).

Requirement 2 - Criterion 8 in LE 03 has been achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' has been awarded.

Credit 1 Management and Maintenance Throughout the Project

Requirement 3 - The SQE has confirmed that *'the habitat that are being created are simple in nature and do not require long term monitoring. The areas will be incorporated into the wider management of the site to be delivered by the land owner. On completion of the habitat/landscape creation, a one off compliance check will be undertaken by the ecologist.'*

Requirement 4 - The client/principal contractor has confirmed via letter (**Ref. 66**) that a section on ecology and biodiversity will be included in the Building User Guide.

Credit 2 Landscape and Ecology Maintenance Plan

Requirement 5 - The SQE has confirmed that the Landscape Management Plan has been developed in accordance with BS 42020:2013 (**Ref. 27, page 29**), covering the first 5 years, for the entire Thatchers site. The plan (**Ref. 32**) is compliant with the BREEAM requirements and covers the first 5 years of the site after handover.

Requirement 6 - **Section 3.1** of the landscape management plan confirms that *'the effectiveness of the management operations is to be closely and continually monitored and reviewed annually against this Landscape Maintenance Plan, with any resulting changes incorporated into the subsequent years' programme.'*

Post-construction Stage

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 119**), can confirm the ecologist's recommendations have been implemented.

The ecologist has provided a report from their compliance checks throughout the construction phase (**Ref. 132**) which confirms that all recommendations have been carried out in accordance with the ecology report and proposed landscape plan.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
26	CV	Other		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1__1_	Consultant's report		08/02/22
28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report		08/02/22

30	Thatchers_BNG_excluding_bat_replacement_habitat_Mar_21	Consultant's report		08/02/22
31	BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3_completed	Excel/XML output		08/02/22
32	20_P_2619_FUL-1410_REV_B_THATCHERS_LANDSCAPE_MANAGEMENT_PLAN-3069952	Consultant's report		08/02/22
66	LE05_-_Monitoring_and_Maintenance_Plan	Other		30/09/22
132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report		21/12/22

Pollution

Pol 02 - Local air quality

Number of credits available:	2
Number of credits achieved:	2
Minimum Standards met?	N/a

Aim

To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.

Criteria

2 credits available as follows:

Credit	
2	Local air quality

Validation Statement

2 of 2 credits awarded.

Credit 1 - Local Air Quality

Requirement 1 - DEFRA outputs have been procured in accordance with the correct methodology (**Ref. 36**) confirming that the PM10 annual mean max is over 10 µg/m³. Therefore, the site is in a high pollution area.

An e-mail from the client (**Ref. 41**) confirms that no combustible sources are used. This also aligns with the developing m&e strategy and the evidence recieved for Pol01.

Post-construction stage

The assessors site inspection report (**Ref. 115**), and its associated evidence (**Ref. 118**), can confirm that the heatnig and hot water is provided by non-combustion plant only.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
36	DEFRA_Outputs	Other		11/02/22
41	Warehouse_2_Hot_Water	Email		07/03/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
118	POL02	Photograph		19/12/22

Pollution

Pol 03 - Flood and surface water management

Number of credits available:	5
Number of credits achieved:	3
Minimum Standards met?	N/a

Aim

To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.

Criteria

5 credits available as follows:

Credit	
2	Flood resilience
2	Surface water run-off - Simple Buildings
1	Minimising watercourse pollution
1	Surface water run-off - Exemplary level criteria - Simple Buildings

Validation Statement

3 of 5 credits awarded.

Credit 1 - Flood resilience

Requirement 1 - A completed GN38 by Jamie Purdue the FCA author is signed confirming that he is *an appropriate consultant as defined by BREEAM*.

Requirement 2 - A site-specific flood risk assessment (FRA) (**Ref. 3, Section 4**) confirms the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA takes all current and future sources of flooding into consideration.

- Watercourses
- Land runoff
- Groundwater
- Drainage
- Other sources

Requirement 3 - n/a

Requirement 4 - n/a

Credit 2 - Surface water run-off

Requirements 5 - The completed GN38 (**Ref. 10**) confirms that surface water run-off design solutions are bespoke.

Requirement 6 - The completed GN38 confirms that drainage measures are specified so that the peak rate of run-off from the site to the watercourses shows a 30% improvement for the developed site compared with the predeveloped site and that this complies with the 1-year and 100-year return period events.

Requirement 7 - n/a

Requirement 8 - An attenuation pond is being installed.

Requirement 9 - The completed GN38 confirms that run-off calculations include an allowance for climate change. These calculations have been made in accordance with current best practice planning guidance.

Requirement 10 - The completed GN38 confirms that flooding of building will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance).

Requirement 11-16 - The completed GN38 confirms that the drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for the 100-year 6-hour event, including an allowance for climate change. The project engineer confirms that peak run-off will be 0 l/s post development because of the inclusion of an onsite attenuation pond therefore both credits can be awarded.

Credit 3 - Minimising watercourse pollution

Requirement 17 - The completed GN38 (**Ref. 10**) confirms that there is no discharge from the developed site for rainfall up to 5 mm.

Requirement 18 - The completed GN38 confirms that the specification of source control are in areas of relatively low risk source of watercourse pollution.

Requirement 19 - The completed GN38 confirms that the specification of oil/petrol separators where there is high risk of contamination

Requirement 20 - The completed GN38 confirms that chemical/liquid gas storage areas are not present

Requirement 21 - The completed GN38 confirms that all water pollution prevention systems have been designed in accordance with the recommendations of documents such as the SuDS manual and other relevant industry best practice.

Requirement 22 - The completed GN38 confirms that a comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers.

Requirement 23 - The completed GN38 confirms that relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.

Requirement 24 - The completed GN38 confirms that all external storage and delivery areas are designed and detailed in accordance with the current best practice planning guidance.

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
3	flood risk and drainage strategy	report		27/09/21
10	GN38	pro-forma		16/10/21

Pollution

Pol 04 - Reduction of night time light pollution

Number of credits available:	1
Number of credits achieved:	1
Minimum Standards met?	N/a

Aim

To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.

Criteria

1 credit available as follows:

Credit	
1	Reduction of night time light pollution

Validation Statement

1 of 1 credits awarded.

Credit 1 - Reduction of night time light pollution

Requirement 1 - n/a

Requirement 2 - A technical note from Peter Taylor of Thatchers (**Ref. 108**) confirms:

- *The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 2011.*

Requirement 3 - A technical note from Peter Taylor of Thatchers (**Ref. 108**) confirms:

- *All external lighting (except for safety and security lighting) will be able to be automatically switched off between 23:00 and 07:00*

A further e-mail from the client (**Ref. 89**) confirms that the external lighting has timeclocks and photocells. This is further supported by a marked up note (**Ref. 90**) from the client that was included with the e-mail showing a photocell located on an external warehouse wall, timeclock and automated lighting remote control panels which *is controlled from a centralised system which overrides the day-night sensor and time clock for times of abnormal site activities. We can remotely shutdown unnecessary use of lights during shutdowns, holiday periods and occasional unusual shift patterns.*

Requirement 4 - A technical note from Peter Taylor of Thatchers (**Ref. 108**) confirms:

- *Where safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes*

Requirement 5 - A technical note from Peter Taylor of Thatchers (**Ref. 108**) confirms:

- *No illuminated advertisements are specified.*

This is all supported by an external lighting plan (**Ref. 83**), e-mail from client (**Ref. 86**) and manufacturer datasheets for the following lamps confirm the following:

- Lamp type X1. 14no. fittings. HWDP/B4LED0870-S1. **112.87lm/W (Ref. 95)**
- Lamp type X2. 5no. fittings. Ramsey Marine Grade Flood light NET-23-04-13. **145lm/W with motion and photocell sensor (Ref. 91)**
- Lamp type X4. 51no. fittings. LHS/B1AL4LED50 **64lm/W (Ref. 96)**
- Lamp type X5. 8no. fittings. HR3/BLE4LED1800 **47.49lm/W with motion and photocell sensor (Ref. 88)**
- Lamp type X6 18no. fittings. Dextra PRO65 I240 **138.55lm/W (Ref. 87)**

Post-construction

The assessor's site inspection report (**Ref. 115**), and its associated evidence (**Ref. 117**), can confirm the installation of the external light fittings and photocell control as per the design stage.

The client has provided evidence of the timeclock control (**Ref. 129**).

Schedule of Evidence

Ref #	Document Title	Document Type	Document Reference/Comments	Upload Date
83	DN-SW-0920-001-R09_lux_plan_	Drawing/Plan		01/12/22
86	Hea01__Ene03_Lighting	Email		05/12/22
87	Dextra_-_Verteco	Manufacture's literature		05/12/22
88	ASDLighting_HR3-BLE4LED1800_Datasheet	Manufacture's literature		05/12/22
89	Pol05_Evidence_of_timeclock_and_photocells	Email		05/12/22
90	Warehouse_Lighting_-_evidence_of_day-night_sensor_and_time-clock	Other		05/12/22
91	NET-23-04-13_Summary_-_Design_DES-38-1	Manufacture's literature		05/12/22
95	ASDLighting_HWDP-B4LED0870-S1_Datasheet_X1	Manufacture's literature		06/12/22
96	ASDLighting_LHS-B1AL4LED50_Datasheet_X4	Manufacture's literature		06/12/22
108	Lighting_technical_note_Thatchers_Cider	Other		15/12/22
115	Thatchers_Warehouse_Extensnion-Site_Inspection_Report	Consultant's report		19/12/22
117	ENE03.POL04	Photograph		19/12/22
129	Pol05_Evidence_of_timeclock_and_photocells	Email		20/12/22

Innovation
AI - Approved Innovation

Number of credits available:	0
Number of credits achieved:	0
Minimum Standards met?	N/a

Aim

To support innovation within the construction industry through the recognition of sustainability-related benefits which are not rewarded by standard BREEAM issues.

Criteria

0 credit available as follows:

Credit	
1	Approved innovations

Validation Statement

0 credits awarded.

Schedule of Evidence

No References Available

1930B - Thatchers Cider Evidence Table , Post-construction

Ref #	Document Title	Document Type	Assigned to	Document Reference/Comments	Upload Date
1	Project Execution Plan	report	Man 01		27/09/21
2	Man03 ISO:4001	Other	Man 03		27/09/21
3	flood risk and drainage strategy	report	Pol 03		27/09/21
4	Man02 capital cost reporting	letter	Man 02		27/09/21
5	block plan rev.F	plan	Man 01		27/09/21
6	block plan rev.K	plan	Man 01		27/09/21
7	Ground Floor plan_rev G	plan	Hea 01		27/09/21
8	Mezzanine plan_rev E	plan	Hea 01		27/09/21
9	Upper Levels plan_rev G	plan	Hea 01		27/09/21
10	GN38	pro-forma	Pol 03		16/10/21
11	Thatchers Cider - Warehouse Ph2 Sustainable Procurement Plan	Other	Mat 03		28/10/21
12	Thatchers Cider new warehouse extension	Email	Pol 01		08/12/21
13	PLA-M-R32_Single_Phase_	Manufacture's literature	Pol 01		07/12/21
14	BREEAM_UK_NC_2018_Pol01_Calculator_v1.0_1_-_thatchers	Excel/XML output	Pol 01		07/12/21
15	TEM01_Thatchers_Cider	Other	Man 01		21/12/21
16	BREEAM_2018_NC_Man01_Proforma_1_002	Consultant's report	Man 01		21/12/21
17	Warehouse_Construction_Meeting_Notes_19.11.20_1_	Other	Man 01		21/12/21
18	Thatchers_Automated_Warehouse_meeting_13.11.2019_1_	Other	Man 01		21/12/21
19	Krones_System_Logistics_Warehouse_New_Layout_Discussion_Meeting_Notes_02.01.2020_1_	Other	Man 01		21/12/21
20	THATCHERS_CIDER_LTD_-_TP	Consultant's report	Tra 01		31/01/22
21	Buses	Other	Tra 01		31/01/22
22	BREEAM_UK_NC_2018_Tra01_02_AI_v2.0_3_	Excel/XML output	Tra 01		31/01/22
23	RCM	Other	Man 03		03/02/22
24	Responsible_Construction_Management_Table	Consultant's report	Man 03		31/01/22
25	6580_letter_to_Jamie_Best_Melin_Consultants_re_Thatchers_warehouse_extension_3-2-22	Other	Hea 05		06/02/22
25	6580_letter_to_Jamie_Best_Melin_Consultants_re_Thatchers_warehouse_extension_3-2-22	Other	Pol 05		06/02/22
26	CV	Other	LE 02		08/02/22
26	CV	Other	LE 03		08/02/22
26	CV	Other	LE 04		08/02/22
26	CV	Other	LE 05		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1_1_	Consultant's report	LE 02		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1_1_	Consultant's report	LE 03		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1_1_	Consultant's report	LE 04		08/02/22
27	Guidance_Note_40_-_Ecology_Assessment_Route_2_Issue_Reporting_Template_Thatchers_Completed_V1_1_	Consultant's report	LE 05		08/02/22
28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report	LE 02		08/02/22

28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report	LE 03		08/02/22
28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report	LE 04		08/02/22
28	20P2619FUL_Warehouse_Extension_Addendum_v1_March_21	Consultant's report	LE 05		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report	LE 02		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report	LE 03		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report	LE 04		08/02/22
29	20P2619FUL_warehouse_shadow_HRA_May_21	Consultant's report	LE 05		08/02/22
30	Thatchers_BNG_excluding_bat_replacement_habitat_Mar_21	Consultant's report	LE 02		08/02/22
30	Thatchers_BNG_excluding_bat_replacement_habitat_Mar_21	Consultant's report	LE 03		08/02/22
30	Thatchers_BNG_excluding_bat_replacement_habitat_Mar_21	Consultant's report	LE 04		08/02/22
30	Thatchers_BNG_excluding_bat_replacement_habitat_Mar_21	Consultant's report	LE 05		08/02/22
31	BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3_completed	Excel/XML output	LE 04		08/02/22
31	BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3_completed	Excel/XML output	LE 05		08/02/22
32	20_P_2619_FUL-1410_REV_B_THATCHERS_LANDSCAPE_MANAGEMENT_PLAN-3069952	Consultant's report	LE 05		08/02/22
33	existing_block_plan	Drawing/Plan	LE 01		09/02/22
34	proposed_block_plan_3_	Drawing/Plan	LE 01		09/02/22
35	thatchers_ariel_view	Photograph	LE 01		09/02/22
36	DEFRA_Outputs	Other	Pol 02		11/02/22
37	FW_Employment_Status_1_	Email	Tra 02		03/03/22
38	Travel_Plan_Accreditation_Certificate	Other	Tra 01		03/03/22
39	Cycle_Storage_-_Proposed_Plan	Drawing/Plan	Tra 02		03/03/22
40	Electric_Vehicle_Points_-_Allocated_proposed_	Drawing/Plan	Tra 02		03/03/22
41	Warehouse_2_Hot_Water	Email	Pol 02		07/03/22
42	MAN05_Post_occupancy_evaluation	Other	Man 05		10/03/22
43	MAN04_Building_User_Guide	Other	Man 04		10/03/22
44	MAN03_Construction_Site_Impacts	Other	Man 03		10/03/22
44	MAN03_Construction_Site_Impacts	Other	Mat 03		10/03/22
45	MAN04_Commissioning	Other	Man 04		21/12/22
45	MAN04_Commissioning	Other	Man 05		21/12/22
46	Welfare_Facility_Plan	Drawing/Plan	Tra 02		31/03/22
47	MAN05_Aftercare_Support	Other	Man 05		20/04/22
48	Site_Access_Plan_Routes	Drawing/Plan	Hea 07		14/07/22
49	Outside_Seating_Plan	Drawing/Plan	Hea 07		14/07/22
50	20_P_2619_FUL-PROPOSED_LORRY_PARK_SWEEP_PATH_ANALYSIS-3044670	Drawing/Plan	Hea 07		14/07/22
51	EV_Charging_Points_-_Site_Plan	Drawing/Plan	Tra 02		14/07/22
52	500-41-08-004_rev_A_-_Car_Sharing_Plan	Drawing/Plan	Tra 02		27/07/22
53	Bin_Drawing_1	Photograph	Wst 03		01/08/22
54	Bin_Drawing_2_1_	Photograph	Wst 03		01/08/22
55	Bin_Drawing_3	Photograph	Wst 03		01/08/22
56	Waste_Bin_Drawing_Plan	Drawing/Plan	Wst 03		01/08/22

57	Waste_Management_Procedure_1_	Other	Wst 01		01/08/22
58	Warehouse_Extension_brukl	Other	Ene 01		01/08/22
59	Warehouse_Extension_brukl	Other	Ene 01		01/08/22
60	Ene01_Thatchers	Other	Ene 01		01/08/22
61	HEA07_Outside_Space	Other	Hea 07		08/08/22
62	Amenities	Consultant's report	Tra 02		08/08/22
63	RE_ Warehouse_Occupancy	Email	Hea 01		31/08/22
64	ISO_14001_Certificate	Other	Man 03		01/09/22
65	BREEAM_New_Construction_2018_-_PPG6_checklist	Consultant's report	Man 03		07/09/22
66	LE05_-_Monitoring_and_Maintenance_Plan	Other	LE 05		30/09/22
67	MAN05_Commissioning_-_Implementation	Other	Man 05		12/10/22
69	MAT05_Degradation_table_ver_2_completed_	Excel/XML output	Mat 05		01/12/22
70	500-41-08-006_rev_-_1_	Drawing/Plan	Mat 05		26/10/22
71	THE_HIVE_-_Building_User_Guide	Other	Man 04		22/11/22
71	THE_HIVE_-_Building_User_Guide	Other	Man 05		22/11/22
72	Wst1_Pre-Demolition_Audit_-_Thatchers_Cider	Consultant's report	Wst 01		22/11/22
73	WST01_Thatchers_Cider_-_Resource_Management_Plan	Consultant's report	Wst 01		22/11/22
74	Air_Conditioning_Welfare_Room_Certifcate_1_	Other	Man 04		23/11/22
75	Building_Users_Training	Email	Man 04		23/11/22
76	Contents_Page_O_M_Manual	Other	Man 04		23/11/22
77	RE_Building_User_Guide	Email	Man 04		23/11/22
78	MAN02_Capital_Cost_Reporting_-_Thatchers_Post_Construction	Other	Man 02		01/12/22
79	Energy_consumption_data-meter	Consultant's report	Man 03		01/12/22
80	Water_consumption_data-meter	Consultant's report	Man 03		01/12/22
81	Transport_data-materials	Consultant's report	Man 03		01/12/22
82	Transport_data-waste	Consultant's report	Man 03		01/12/22
83	DN-SW-0920-001-R09_lux_plan_	Drawing/Plan	Ene 03		01/12/22
83	DN-SW-0920-001-R09_lux_plan_	Drawing/Plan	Hea 01		01/12/22
83	DN-SW-0920-001-R09_lux_plan_	Drawing/Plan	Pol 04		01/12/22
84	WST05-RIBA2	Consultant's report	Wst 05		05/12/22
85	WST05-RIBA4	Consultant's report	Wst 05		05/12/22
86	Hea01__Ene03_Lighting	Email	Ene 03		05/12/22
86	Hea01__Ene03_Lighting	Email	Pol 04		05/12/22
87	Dextra_-_Verteco	Manufacture's literature	Ene 03		05/12/22
87	Dextra_-_Verteco	Manufacture's literature	Pol 04		05/12/22
88	ASDLighting_HR3-BLE4LED1800_Datasheet	Manufacture's literature	Ene 03		05/12/22

88	ASDLighting_HR3-BLE4LED1800_Datasheet	Manufacture's literature	Pol 04		05/12/22
89	Pol05_Evidence_of_timeclock_and_photocells	Email	Ene 03		05/12/22
89	Pol05_Evidence_of_timeclock_and_photocells	Email	Pol 04		05/12/22
90	Warehouse_Lighting_-_evidence_of_day-night_sensor_and_time-clock	Other	Ene 03		05/12/22
90	Warehouse_Lighting_-_evidence_of_day-night_sensor_and_time-clock	Other	Pol 04		05/12/22
91	NET-23-04-13_Summary_-_Design_DES-38-1	Manufacture's literature	Ene 03		05/12/22
91	NET-23-04-13_Summary_-_Design_DES-38-1	Manufacture's literature	Pol 04		05/12/22
92	FW_Water_Meter_to_Hive	Email	Wat 02		05/12/22
93	processed-55aa6084-83b8-4324-9768-80b1acab2c0e_DcFpUtkv	Photograph	Wat 02		05/12/22
94	processed-c0193b0f-206b-4cbe-9e9f-7bd0a14abc24_aTq8ejfs	Photograph	Wat 02		05/12/22
95	ASDLighting_HWDP-B4LED0870-S1_Datasheet_X1	Manufacture's literature	Ene 03		06/12/22
95	ASDLighting_HWDP-B4LED0870-S1_Datasheet_X1	Manufacture's literature	Pol 04		06/12/22
96	ASDLighting_LHS-B1AL4LED50_Datasheet_X4	Manufacture's literature	Ene 03		06/12/22
96	ASDLighting_LHS-B1AL4LED50_Datasheet_X4	Manufacture's literature	Pol 04		06/12/22
97	INS3_1-3_Fire_Installation_certificate_Thatchers_Warehouse_Extension	Other	Man 04		06/12/22
98	INS3_3-4_Fire_commissioning_certificate_Thatchers_Warehouse_Extension	Other	Man 04		06/12/22
99	Electrical_Installation_Certificate_-_ICN18C_1666886496	Other	Man 04		06/12/22
100	THATCHERS_CIDER_LIGHTING_TEST_CERTIFICATES_150432_04082022	Other	Man 04		06/12/22
101	Thatchers_Cider_Wat01_Calc	Excel/XML output	Wat 01		06/12/22
102	Tap_and_shower_specs	Email	Wat 01		06/12/22
103	Tavistock_Vortex_Slimline_Cistern	Manufacture's literature	Wat 01		06/12/22
104	Tavistock_Shower_Valve_SQT2416-Specification-Sheet-1	Manufacture's literature	Wat 01		06/12/22
105	Oceana_Deer_basin_Mono_Mixer_Tap	Manufacture's literature	Wat 01		06/12/22
106	River_Loire_single_lever_mixer_tap	Manufacture's literature	Wat 01		06/12/22
107	Welfare_Plan	Drawing/Plan	Hea 07		07/12/22
108	Lighting_technical_note_Thatchers_Cider	Other	Ene 03		15/12/22
108	Lighting_technical_note_Thatchers_Cider	Other	Hea 01		15/12/22
108	Lighting_technical_note_Thatchers_Cider	Other	Pol 04		15/12/22
109	Warehouse_Metering_Network_Rev3	Drawing/Plan	Ene 02		15/12/22
109	Warehouse_Metering_Network_Rev3	Drawing/Plan	Wat 02		15/12/22
110	water_meter	Photograph	Wat 02		15/12/22

111	20221215_113248_1_	Photograph	Wst 03		15/12/22
112	20221215_112002_1_	Photograph	Wst 03		15/12/22
113	20221215_111944_1_	Photograph	Wst 03		15/12/22
114	20221215_111852_2_	Photograph	Wst 03		15/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Ene 03		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Man 03		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Hea 01		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Hea 07		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Mat 05		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Wst 03		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Pol 02		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Pol 04		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Ene 02		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Tra 01		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Tra 02		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Wat 01		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	Wat 02		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	LE 02		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	LE 03		19/12/22
115	Thatchers_Warehouse_Extensio-Site_Inspection_Report	Consultant's report	LE 04		19/12/22
116	MAN03	Photograph	Man 03		19/12/22
117	ENE03.POL04	Photograph	Ene 03		19/12/22
117	ENE03.POL04	Photograph	Pol 04		19/12/22
118	POL02	Photograph	Pol 02		19/12/22
119	LE02-04	Photograph	LE 02		19/12/22
120	WST03	Photograph	Wst 03		19/12/22
121	MAT05	Photograph	Mat 05		19/12/22
122	WAT02	Photograph	Wat 02		19/12/22
123	WAT01	Photograph	Wat 01		19/12/22
124	TRA01.02	Photograph	Tra 01		19/12/22
124	TRA01.02	Photograph	Tra 02		19/12/22
125	ENE02	Photograph	Ene 02		19/12/22
126	HEA07	Photograph	Hea 07		19/12/22
127	HEA01	Photograph	Hea 01		19/12/22
128	BREEAM_UK_NC_2018_and_V6_Wat01_Calculator_v2.3_3_	Excel/XML output	Wat 01		19/12/22
129	Pol05_Evidence_of_timeclock_and_photocells	Email	Ene 03		20/12/22
129	Pol05_Evidence_of_timeclock_and_photocells	Email	Pol 04		20/12/22
130	FW_Pool_Umbrellas_-_Evidence	Email	Tra 01		21/12/22
131	Zeta2LED_-_Data_Sheet	Manufacture's literature	Hea 01		21/12/22

132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report	LE 02		21/12/22
132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report	LE 03		21/12/22
132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report	LE 04		21/12/22
132	BREEAM_habitats_landscape_compliance_check_Dec_22	Consultant's report	LE 05		21/12/22
133	FW__Car_Sharing_Spaces	Email	Tra 02		22/12/22
134	FSC_Certificate	Email	Man 03		22/12/22
134	FSC_Certificate	Email	Mat 03		22/12/22
135	FSC_Certificate_Q_C_timber_supplier	Other	Man 03		22/12/22
135	FSC_Certificate_Q_C_timber_supplier	Other	Mat 03		22/12/22
136	SP0111-008_Welfare_Lighting	Drawing/Plan	Wat 03		22/12/22
137	20221221_152426	Photograph	Wat 03		22/12/22
138	20221221_152439	Photograph	Wat 03		22/12/22