



**The 13th Meeting of the Department of Computer Science and Technology
Buildings and Environment Committee**

10 a.m. on Friday, 7 February 2020, Room SW00, William Gates Building

Agenda

Committee Members:

Prof Simon Moore, Chair (SWM)
Dr Piete Brooks (PB)
Ms Celia Burns, Secretary (CB)
Mr Ian Burton-Palmer (IBP)

Mr Martin McDonnell (MJM)
Dr Richard Mortier (RMM)
Mrs Caroline Stewart (CS)
Dr Graham Titmus (GT)

1. Apologies for Absence

2. Minutes

The Minutes of the meeting held on 22 November 2019 are attached (2020-02-02).

3. Matters Arising

4. Reducing Energy Consumption

a) New Chiller

IBP to update on remediation work required to ensure cooling to GN09.

5. Building Matters

a) Lighting

i) Atrium lighting

IBP has reported by circulation that the Atrium lighting works are now complete: all the lighting units in The Street have been converted to the LED 11-watt lamps except for the café, where the 42-watt lamps have been retained to provide evenness of light. The low-level lamps in The Street were also going to be reverted to fluorescent lamps (to provide evenness of light); however, this would require the ballast units to be re-fitted. Does the Committee wish to reconsider this item, taking into consideration any energy savings made so far and reinstallation costs?

ii) Lighting in the LTs

Committee members had discussed the issue of the lighting control system in the LTs, which is at risk of failing. IBP was going to approach EM to discuss the installation of a simple lighting control system with the ability to turn off separate rows of lamps for a dimming effect, to be carried out during the summer break 2020. IBP to update.

iii) *Emergency Lighting in the Atrium and LTs*

EM were running an investigation into the inverter controlling the emergency lighting in the Atrium and LTs, which causes the emergency lighting to strobe or flash. IBP was going to ask EM when the problem is likely to be fixed. IBP to update.

b) *Vent leaks*

The two vent leaks over the lifts and Reception are due to warped frames. New frames will be installed but the timeframe for these works was not known. IBP to update.

c) *Fire strategy for the William Gates building*

i) *Relocation of smoke detectors in all offices*

Relocation of the smoke detectors was expected to be complete before Christmas. IBP to update.

ii) *Refurbishment of the doors to the courtyards*

Tenders had been requested. IBP to update.

d) *Office recycling*

Since early January, bins with commercial signage have been installed in or near the kitchens on the GC and FC corridors and will be trialled until mid/late February. Office bins have been removed. IBP to update.

Following clarification about where to place used paper towels (in the non-recyclables bin), a staff member has requested a general waste bin in the kitchen on the GC corridor.

e) *Verex security system*

Chubb had carried out inspections and we were awaiting a quote for the maintenance contract and software updates. IBP to update.

f) *Microwaves*

A ticket was to be raised for EM to install the microwaves, hard-wired and with a fused spur and a push-button timer switch. IBP to update.

g) *Building management system (cooling and heating)*

Remedial works are required to ensure that a better flow of chilled water is supplied to the Rittal Machines in GN09. IBP/GT to update.

h) *Treatment of sound in the Atrium*

Installation of additional panels was scheduled for 12 and 13 December 2019. GT to update.

i) *FW03 kitchen*

IBP has suggested a re-fit for the FW03 kitchen. Does the Committee wish to proceed?

6. *AV Matters*

a) *Projection booth*

CS to update on the Department's plans.

b) Projector in FW26

The FW26 projected image is small, so the projector is to be moved further away and the screen moved up. A support bracket had been ordered. IBP to update.

7. William Gates Cycle Parking Options

See Matt Danish's email of 12 December 2019 for information (2020-02-07).

8. Any Other Business

9. Date of Next Meeting



**The 12th Meeting of the Department of Computer Science and Technology
Buildings and Environment Committee**

Friday, 22 November 2019, Room SW00, William Gates Building

Minutes

Present:

Dr Piete Brooks (PB) (in attendance
from item 5d)

Mr Ian Burton-Palmer (IBP)

Ms Celia Burns (CB)

Dr Richard Mortier (RMM)

Mrs Caroline Stewart (CS)

Dr Graham Titmus (GT) (acting Chair)

1. Apologies for Absence

Apologies were received from Simon Moore (SWM) and Martin McDonnell (MJM).

2. Minutes

The Minutes of the meeting held on 3 October 2019 were approved.

3. Matters Arising

There were no matters arising.

4. Reducing Energy Consumption

a) New Chiller

The new chiller is working well, with some remediation work required to ensure cooling to GN09. Once these works are complete, the new system should run well.

5. Building Matters

a) Internal/Atrium window installation in SW02

The lighting in SW02 is now satisfactory and it was felt it is no longer necessary to keep the matter of internal windows under review. If the issue is raised again, it will be considered again once we have been able to trial the new lighting.

b) Fixing mains extensions from the projection booth to power cameras

Extra sockets fitted with USB ports, along with data points, have been fitted in both LTs. This project is now complete.

c) Lighting

i) Atrium lighting

EM are planning to update the William Gates Building lighting in 2023/24. In the meantime, various makes and designs of lighting have been explored, some of which have been on test in the Central Corridor and Atrium:

1. *Thorlux lighting unit*: at £265 each unit, this option is too expensive as over 100 would be needed in the atrium.
2. *Medium-price LED conversion*: approx. £120 each; although this option allows for retention of the existing lighting and a lower running cost, feedback from the trial was that the light was too bright and left a white circular footprint.
3. *A simple LED lamp*: approx. £13 each; runs on a 230v connection; uses 11 watts (vs. 42 watts with the existing lamps) and provides 1000 lumens; allows for the retention of the existing lighting units (requires only removal of the ballast unit from each lamp and fitting of the LED replacement lamp, which can be done by Building Services). Several of these have been on test for a while and feedback is that the light is uneven, with the lamps creating a bright circular rim of light with a dark centre.

Committee members discussed how lighting requirements differed depending on the area concerned. For example, evenness of light is less important in open areas (such as The Street and the second floor landing) than in areas where people might be reading or holding meetings (such as the café, SW00, and the hangout area).

It was agreed that the existing fluorescent lamps would be retained, or where they had already been changed, reverted back to, in the café as well as the low level lamps in the Street. The Committee felt it was very important these areas have evenness of light. It was agreed that the lamps on the second floor landing and the high level lights in The Street (approximately 80) could be converted to the simple LED lamp (option 3 above). This strategy would provide reductions in both energy and expenditure and provide spares for the areas where evenness of light is important. In addition, the Library conversion would also provide spare fluorescent bulbs sufficient for a few years.

Action: IBP

ii) Lighting in the LTs

Committee members discussed the issue of the lighting control system in the LTs, which is at risk of failing. It was agreed that IBP would approach EM with a view to the works being carried out during the summer break, 2020. This should provide enough time to get the works done in both LTs, with room for slippage; however, IBP reported that in terms of EM arranging the funding, the lead-time might not be long enough. Committee members agreed that the specification should be for a simple lighting control system, if possible, with the ability to turn off separate rows of lamps for a dimming effect but it was felt that dimmers would not be required.

Action: IBP

iii) Emergency Lighting in the Atrium and LTs

EM are currently running an investigation into the inverter controlling the emergency lighting in the Atrium and LTs. The large number of LEDs in the Atrium upset the harmonics of the current when the emergency lighting is activated and cause the lighting to strobe or flash on or off. Failure of the emergency lighting is naturally a concern and it was agreed that IBP would enquire with EM as to when the problem would be fixed.

Action: IBP

d) Intel Lab ceiling (bowing panel)

Since there has been no movement during the last year, the building surveyor has recommended that monitoring of the panel can now be discontinued. It was agreed that this should be dropped from the agenda for future meetings; however, the Health and Safety Officer requested that IBP report to the H&S Committee on a six monthly basis.

e) Vent leaks

The two vent leaks (over the lifts and Reception) are due to warped frames. New frames will be installed, but the time-frame for these works is currently not known.

f) Fire strategy for the William Gates building

IBP reported that the relocation of the smoke detectors in every office (from the chilled beam to the concrete ceiling) is underway and should be complete by Christmas. The drilling works will take place before 10.30 a.m. in order to minimise the period of noise disturbance. Fixing works will take place during the rest of the day.

Tenders are currently requested for the refurbishment of the doors to the courtyards.

g) Office recycling

Since the new signage from EM is still not available, it was agreed that bins with commercial signage would be purchased by the Department (for GC and FC only to start with) and the experiment would be run as previously outlined. The bins are expected to arrive in December, and an update on the recycling experiment will be provided at the next meeting.

Action: IBP

h) Solar panels (PVs) for the roof

Works on the roof are complete and the roof is now suitable for the installation of solar panels. This is an EM project, and a works schedule is currently not known.

i) Verex security system

Chubb have carried out their inspections and we are expecting in mid-December to receive a quote for the maintenance contract and software updates.

j) Microwaves

Two 5–50-minute timers were trialled but it has proven too easy to over-ride the 5-minute setting. It was agreed that a ticket would be raised for EM to install a microwaves, hard-wired and with a fused spur and a push-button timer switch.

k) Building management system (cooling and heating)

The heating and cooling systems are running well and the new chiller means there is now capacity to cool the building and the GN09 Machine Room without any failures when the outside temperature reaches 30 degrees or more. Some remedial works are required to ensure that a better flow of chilled water is supplied to the Rittal Machines in GN09.

The previous minutes referenced to Trend and Honeywell related to the desire by researchers to access the building's control data. This is possible for Trend but not for Honeywell.

l) Treatment of Sound in the Atrium

The actions proposed at the October meeting were approved by the Head of Department. The additional moveable panels have already been received, and the other additional panels will be installed on 12 and 13 December 2019.

6. AV Matters

a) Projection booth in LT2

Committee members discussed options for increasing the seat capacity in LT2 in response to the increase in student numbers. Although exact student numbers are not known, it was thought that 10-20 extra seats are required. Removal of the projection booth had been proposed. The following options were discussed:

(i) Removing the booth completely

There would still be a need for somewhere to mount and control the projectors. Without the booth's soundproofing, there would be noise from the projector (from both the high-intensity projection and the cooling function). Whether the noise level would be disrupting would be hard to gauge without actually mounting a projector outside the current booth (the closest representation being to listen to a lecturer with the projection booth door open).

(ii) Producing a minimal booth

This option would entail reducing the size of the current booth to allow space for additional seating, possibly by fixing the projector to the ceiling.

(iii) Leaving the projection booth as it is

It was noted that the row of seats that had been removed from the back of the LT some time ago had been reinstated, resulting in 13 more seats. However, this option limits the access to and from that area and does not provide adequate additional seating.

It was noted that any works carried out must leave the LT in a usable state. If works are to be carried out, EM will require a feasibility study to be done by a third party. Timing of any works was also considered.

It was agreed that IBP would feedback the Committee's views to Prof Beresford, who is overseeing the space management exercise.

Action: IBP

b) Projector in FW26

The FW26 projected image is small, so the projector is to be moved further away and the screen is to be moved up. A support bracket has been ordered and works are in hand.

7. Any Other Business

There was no other business.

8. Date of Next Meeting

The next meeting is planned for mid to end of Lent term, to be arranged by Doodle poll.

From: cl-buildings-environment-bounces@lists.cam.ac.uk on behalf of [Matthew Danish](#)
To: HoD-team@cl.cam.ac.uk; cl-buildings-environment@lists.cam.ac.uk
Subject: Cycle Park options
Date: 12 December 2019 16:43:59
Attachments: [William Gates Cycle Parking Options-1-2.pdf](#)

Hello,

Sorry that this got a bit lost in the shuffle of the past couple weeks. Estate Management sent over a couple of options regarding the reconfiguration of the cycle park out front. I would like to get some more comments and preferences so we can pass them back to the architects.

EM is asking whether we want to continue developing Option 1 or Option 2 (see attached PDF).

The primary difference is to do with the location of the Sheffield stands that lie outside of the tent:

- (1) expands the Sheffield stands over the existing grassy area,
- (2) puts Sheffield stands underneath the overhang next to the cafe, along the blank area of wall (that is, blank apart from the building vents).

I have talked in person with about 15 people and the general feeling has been a preference for Option 2 and keeping more of the grass intact, as well as covering more of the stands.

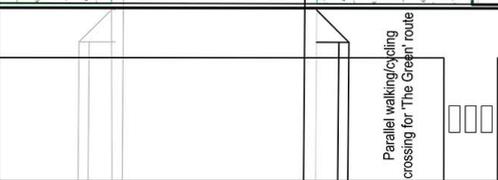
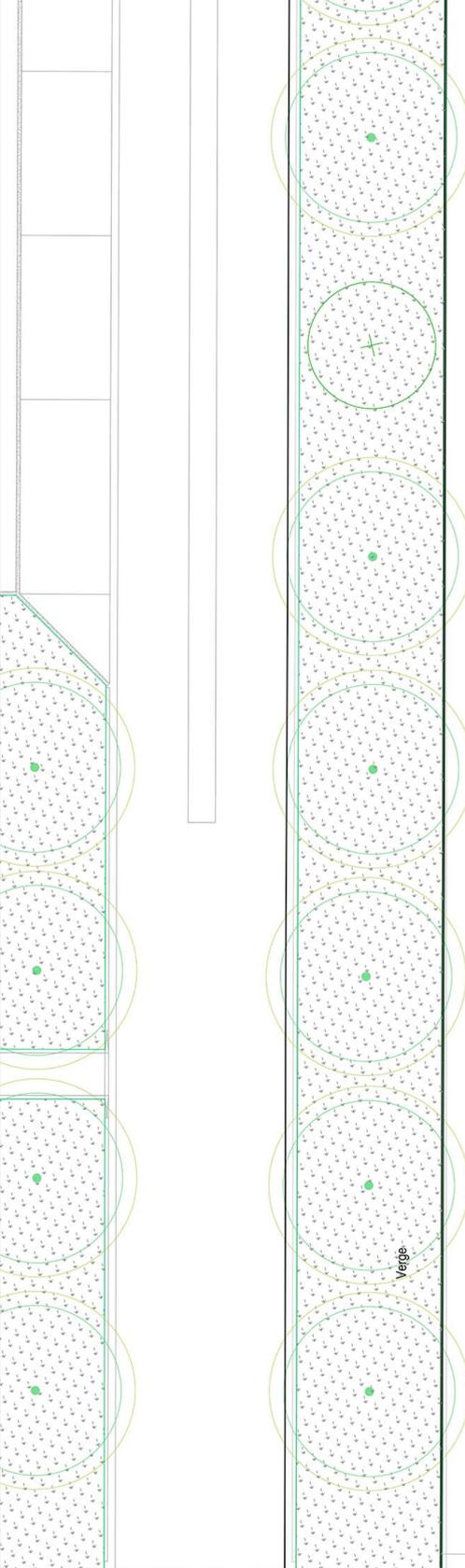
Several people noted that with Option 2, it should be modified such that there is a wider space for walking between the building door and the pathway to the street. I would like to know if there are any other issues with the use of this space.

Apart from that, if the general sentiment is to prefer developing Option 2, then I would like to feed that back to EM as soon as possible because they are going to default to Option 1 otherwise.

We can also make it clear that the funding is coming from the Cavendish development, because this reconfiguration is a condition of that planning application.

Please let me know what else you think.

Thanks,
Matt



Stage 1 (measures in millimetres and slope %)
 430 accessible cycle parking spaces (including 4.2% larger cycle parking spaces) to be provided to meet the City of Cambridge Cycle Parking Guide for New Residential Developments (2010) standards.
 Assumptions: steep grades at western edge of cover are avoided by under cover. Cycle parking spaces shaded by pillars are not counted.

EXISTING FOOTPATH SHOWN AS CYCLEWAY AT PROVIDED DIAGRAM

THIS IS CYCLEWAY AT MASTERPLAN PROVIDED BY AECOM. IT IS NOT SHOWN AS CYCLEWAY AT THE MOMENT. IT SHOULD BE 3M FOR BI-DIRECTIONAL CYCLEWAY. IT IS 2M AT THE MOMENT.

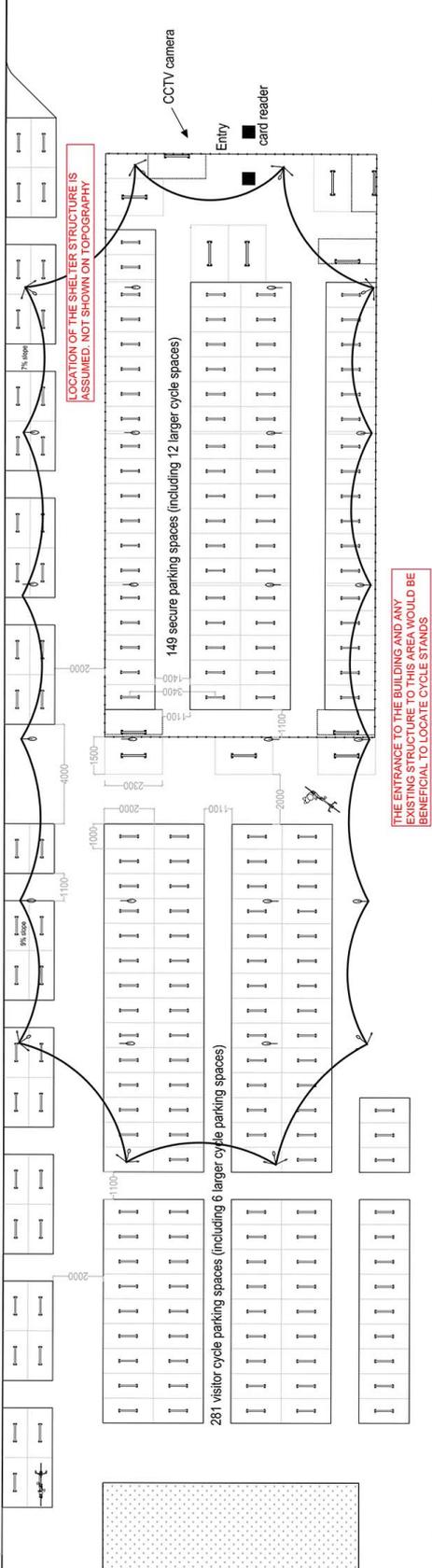
LOCATION OF THE SHELTER STRUCTURE IS ASSUMED. NOT SHOWN ON TOPOGRAPHY

THE ENTRANCE TO THE BUILDING AND ANY ENTRANCE STRAITS SHOULD BE BENEFICIAL TO LOCATE CYCLE STRAITS

LINE IN AECOM MASTERPLAN - PLEASE CONFIRM DESIGN INTENT

Footway

Bi-directional cycleway



WILLIAM GATES BUILDING

OPTION 1



UNIVERSITY OF CAMBRIDGE

2020-02-07

BDP.

City Engineers
 16 Brewin House, 100
 Cambridge
 CB2 3RQ
 Tel: 020 7812 8833

CAV/III/SH/INFRA

PM1119
 JJ THOMSON CYCLE STORE EXPANSION

1:100

04.09.2019

Stage 4

S3-For Review

EM01233

BDP

ZZ

XX

SK

L

951001

P01

Stage 1 (measures in millimetres and slope %)
420 accessible cycle parking spaces (including 4.2% larger cycle parking) designed to Cambridge City Cycle Parking Guide for New Residential Developments (2010) standards
Assumptions: steep grades at western edge of cover are avoided by routing footway under cover, cycle parking spaces blocked by pillars are not counted

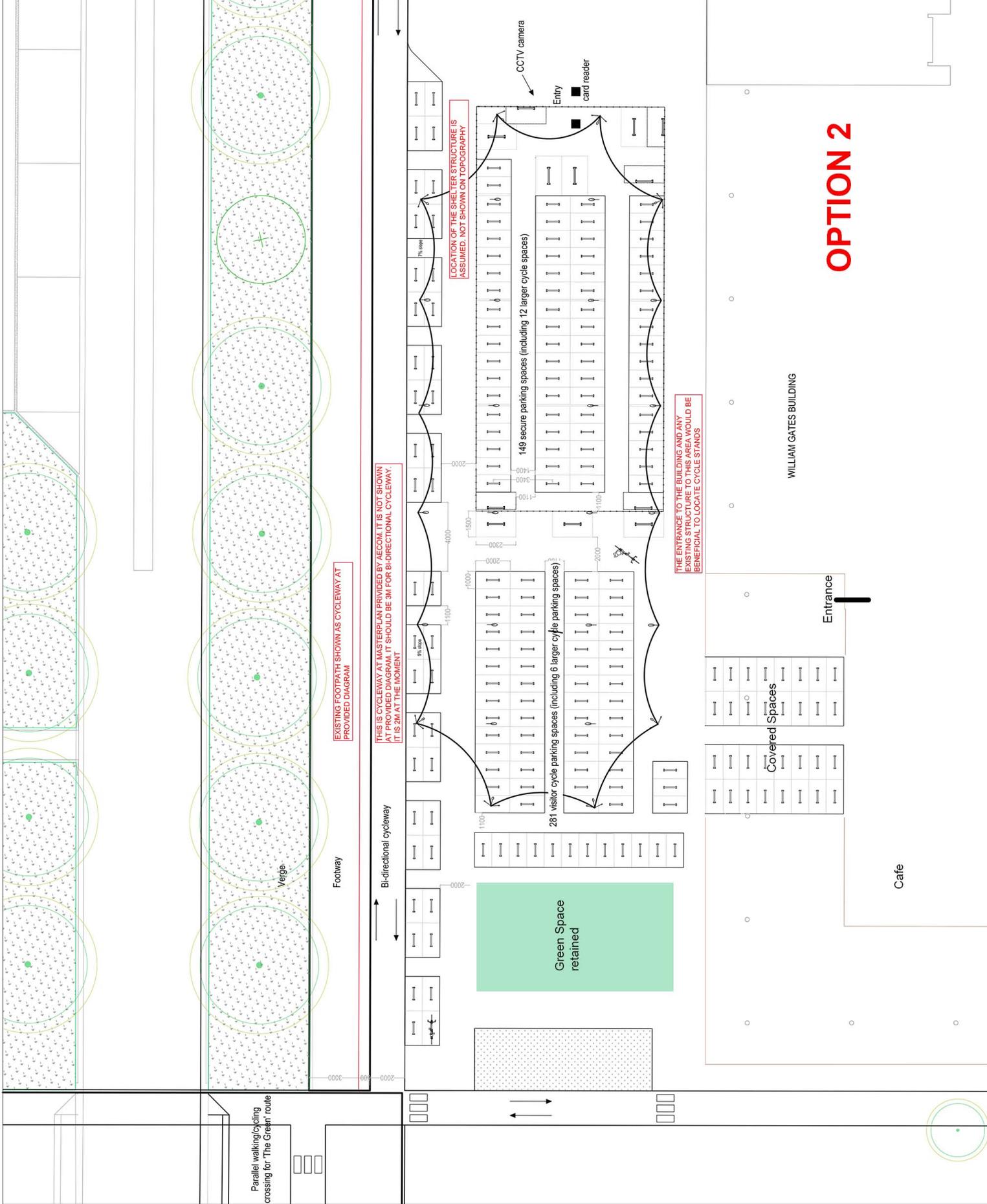
LINE IN AECOM MASTERPLAN - PLEASE CONFIRM DESIGN INTENT

EXISTING FOOTPATH SHOWN AS CYCLEWAY AT PROVIDED DIAGRAM

THIS IS CYCLEWAY AT MASTERPLAN PROVIDED BY AECOM. IT IS NOT SHOWN AT PROVIDED DIAGRAM. IT SHOULD BE 3M FOR BI-DIRECTIONAL CYCLEWAY. IT IS 2M AT THE MOMENT

LOCATION OF THE SHELTER STRUCTURE IS ASSUMED. NOT SHOWN ON TOPOGRAPHY

THE ENTRANCE TO THE BUILDING AND ANY EXISTING STRUCTURE TO THIS AREA WOULD BE BENEFICIAL TO LOCATE CYCLE STANDS



OPTION 2



UNIVERSITY OF CAMBRIDGE

2020-02-07
Civil Engineers, 100
Cherrywell Road,
London E9 6EQ, UK
Tel: +44 (0)20 3754 8500

CAV/III/SH/INFRA

PM1119
JJ THOMSON CYCLE STORE EXPANSION

1:100

04.09.2019

Stage 4

S3-For Review

EM01293

R0D

77

XY

LSK

1

95/001

DN1