

Camelford Court

Roof Improvement Works

Detailed Design Options



Webinar 02

Date: Thursday 3rd June

Lancaster West Neighbourhood Team



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This Session

- Introduction
- Summary of resident feedback received on initial design ideas
- Three Detailed Design ideas to choose from
- Frequently asked questions
- Choosing your preferred option

Why are we doing this?

Benefits to residents

- Improving the thermal performance of the roof will help to keep energy inside your home, which will help to reduce your energy bills.
- Roof improvement works are the first step in the refurbishment of the block.
- The work will contribute to the aspiration for the estate to be net zero carbon by 2030.

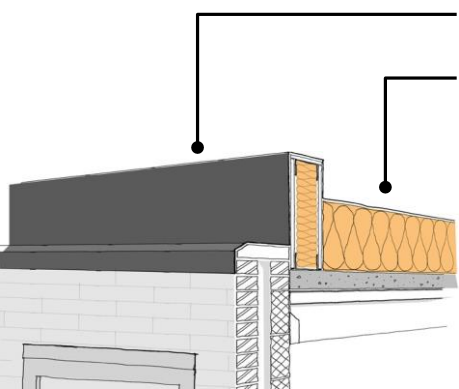
1. Lower energy bills

2. Warmer homes in winter, cooler in the summer

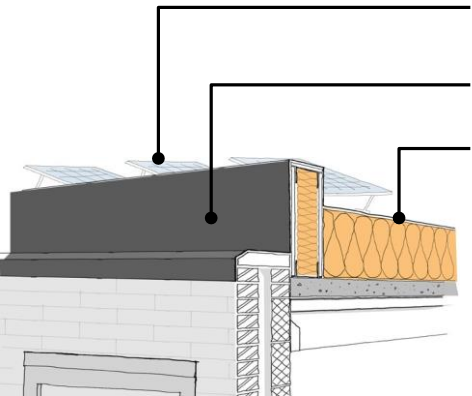
3. Lower carbon footprint

4. Improve building quality and fire safety

Initial Design Ideas - Summary



New parapet
A1 rated non-combustible insulation



Solar panels
New parapet
A1 rated non-combustible insulation

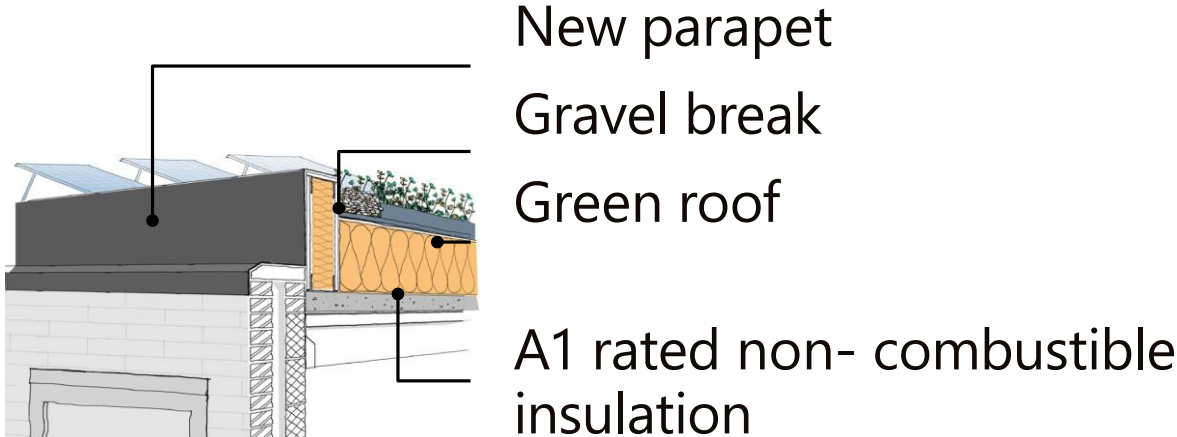
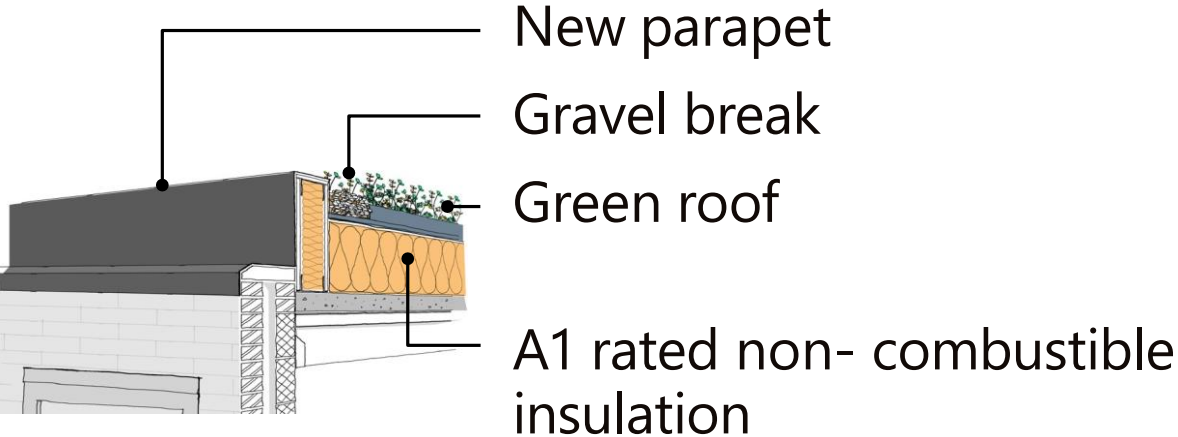


Previous Option 01 -
Warm Roof



Previous Option 02 -
Warm Roof + Solar Panels

Initial Design Ideas - Summary



Previous Option 03 -
Green Roof



Previous Option 04 -
Green Roof + Solar Panels

Feedback received so far

Resident' Choices

Options	1st	2nd	3rd	4th
Warm Roof Only	4	1		3
Warm Roof with Solar PV Panels	0	6	2	0
Warm Roof with Green Roof	2	2		1
Warm roof, Green roof PLUS solar panels	4	1	1	1

Vote Results

- Residents who voted were split on preferences.
- A majority preferred some combination of green roof and solar panels as the preferred option.
- Design team to develop sub-options to explore a mixture of green roof and solar panels, and to address resident concerns received.

Feedback received...

A critical issue is security, this needs to be addressed as part of the works.

I'm concerned the green roof will attract bees and other insects.


I am really excited about the solar panels and focus on reduction of CO2 emissions because we need to protect the environment!

During sunny days, the flat heats to very high temperatures. Would like to know if there is a possibility to have a air conditioner installed.

I'm concerned that adding insulation may make the overheating of my home worse.

Your Refurb. Your Choice: Camelford Court Roof Works on the Lancaster West Estate

Camelford Court Roof Improvement Works



Date: Thursday 4th February
Time: 5:30pm - 6:30pm

LANCASTER WEST
NEIGHBOURHOOD TEAM
WTI

Penoyre
@Priced
pos

+12 PH TW SA

Heather, Nick & Sarah RBCC
Fenella, Linda RBCC
David O'Connell, Vice Chair - LWBA
Cargill, James RBCC
Sharon, Susan RBCC

Feedback received...

In what way will I directly benefit from the solar panels?

We have windows in poor conditions that we can barely open in the day and cannot be left open at night as there is no safety latch.


What is the risk of the green roof and solar panels, for example in relation to fire?

Solar panels require too much maintenance.

The green roof will cost too much to maintain.

Your Refurb. Your Choice: Camelford Court Roof Works on the Lancaster West Estate

Camelford Court Roof Improvement Works



Date: Thursday 4th February
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LANCASTER WEST
NEIGHBOURHOOD TEAM
WTI

Penoyre
pospice

+12 PH TW SA

Hashemi, Rohanvari RBCC
Fennell, Linda RBCC
David O'Connell, Vice Chair - LWBA
Cargill, James RBCC
Shelton, Susan RBCC

Improving health and safety

What you have told us...

- It's too easy to climb onto the vents and over the railings
- The garden walls provide a route to run across, onto the balconies and on to the roof
- The ramp and underpass create spaces for anti-social behavior
- The cat ladders are easily breached

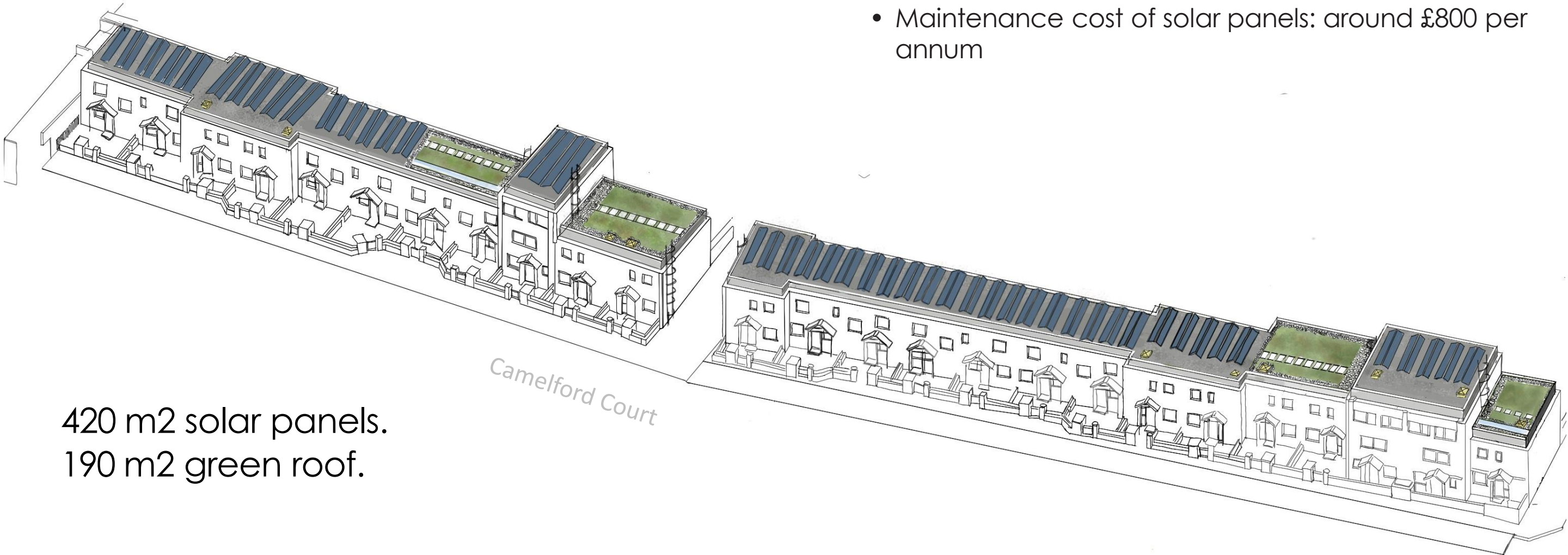


Design Option 01

Maximum solar PV panels:

69:31 Solar Panels to Green Roof

- Maximising area of solar panels but allowing for green roof in areas where solar panels may be less effective.
- Solar panels would generate 83300 kWh of electricity, which could result in **energy bill savings of £12,103.49** per annum at 14.53p/kWh, **the most of all three options.**
- Maintenance cost of green roof: around £1,500 per annum
- Maintenance cost of solar panels: around £800 per annum



420 m2 solar panels.

190 m2 green roof.

Design Option 01

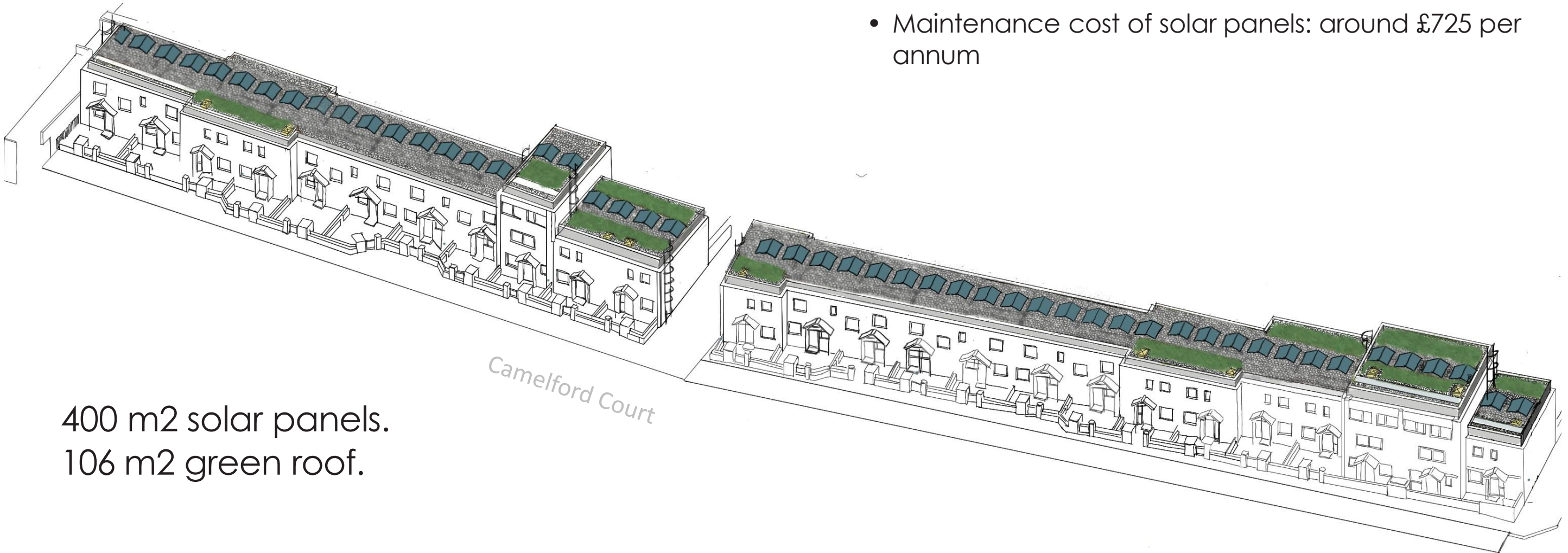
Maximum solar PV panels:
69:31 Solar Panels to Green Roof



Design Option 02

Mainly solar PV panels, very little green roof

- Solar panels run along the centre of the roof, with some areas of green roof either side of the solar panels wherever possible.
- Solar panels would generate 79424 kWh of electricity, which could result in **energy bill savings of £11,540.31 per annum** at 14.53p/kWh
- Maintenance cost of green roof: around £1,400 per annum
- Maintenance cost of solar panels: around £725 per annum



400 m² solar panels.
106 m² green roof.

Design Option 02

Mainly solar PV panels, very little green roof



Clarendon Road

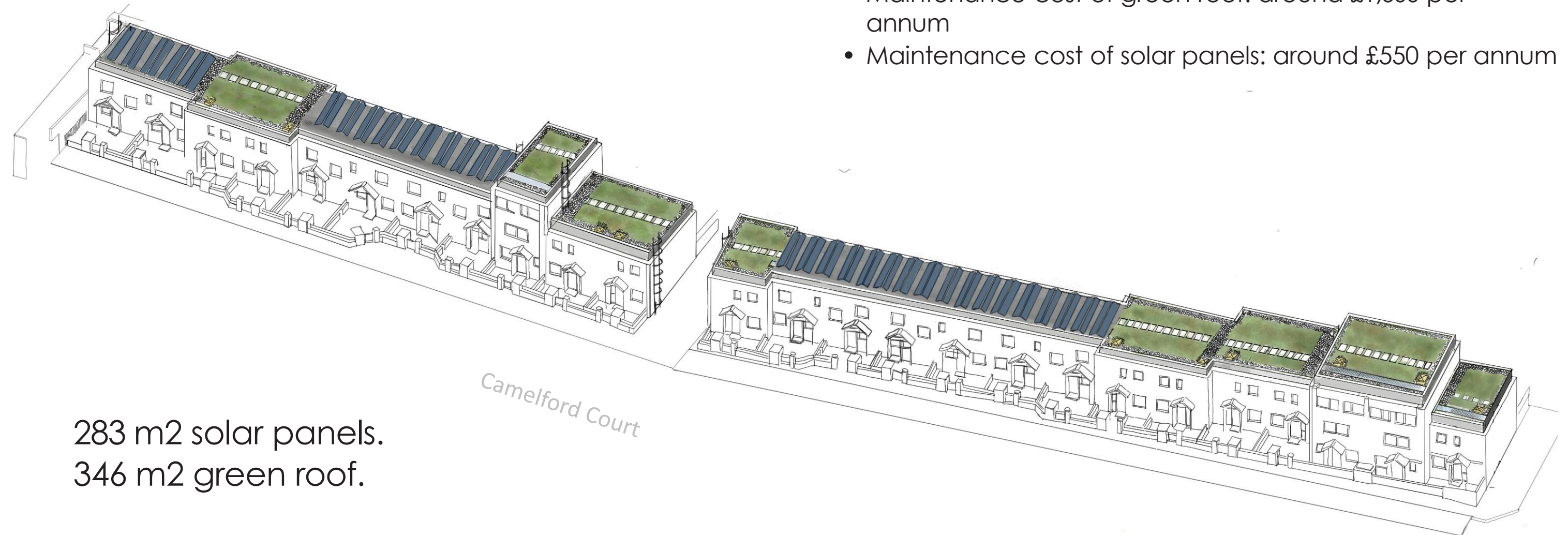
Cornwall Crescent

Design Option 03

Maximum green roof

45:55 Solar panels to green roof

- Mix of solar panels and sedum green roof, with larger areas of green roof.
- Solar panels would generate 56256.63 kWh of electricity, which could result in **energy bill savings of £8,174.09 per annum** at 14.53p/kWh, **the least of all three options.**
- Maintenance cost of green roof: around £1,600 per annum
- Maintenance cost of solar panels: around £550 per annum



283 m² solar panels.

346 m² green roof.

Design Option 03

Maximum green roof
45:55 Solar panels to green roof



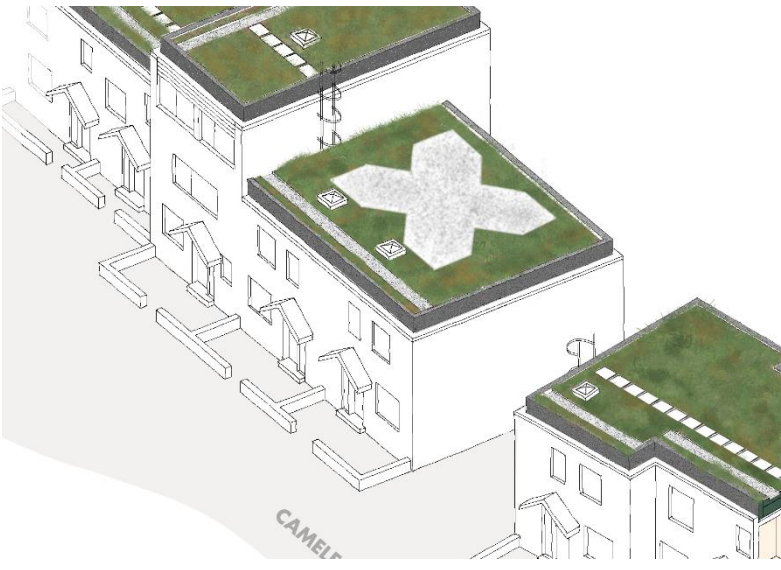
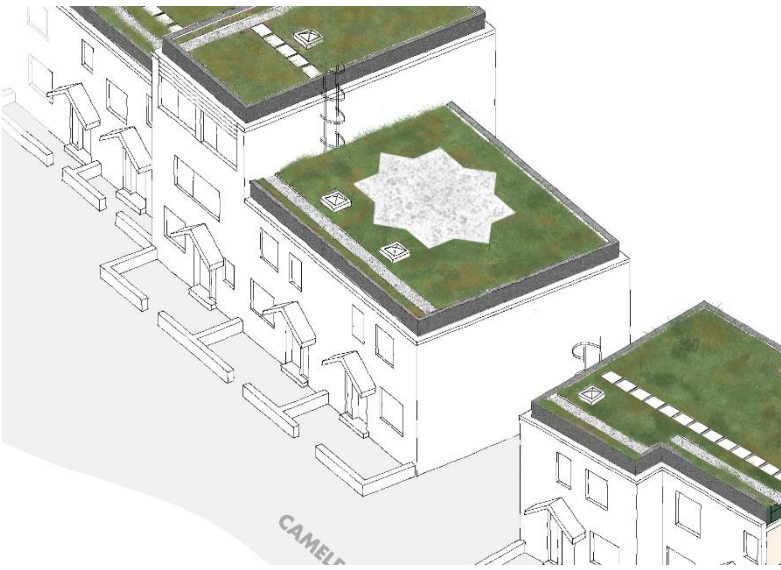
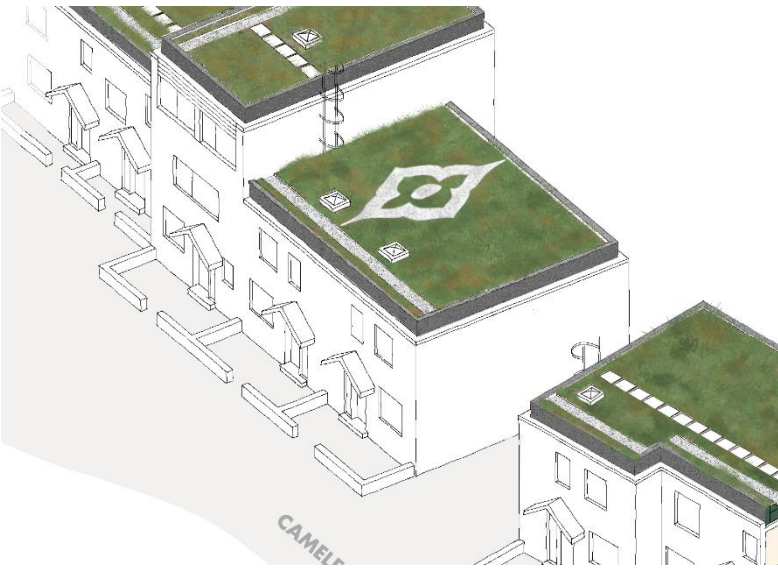
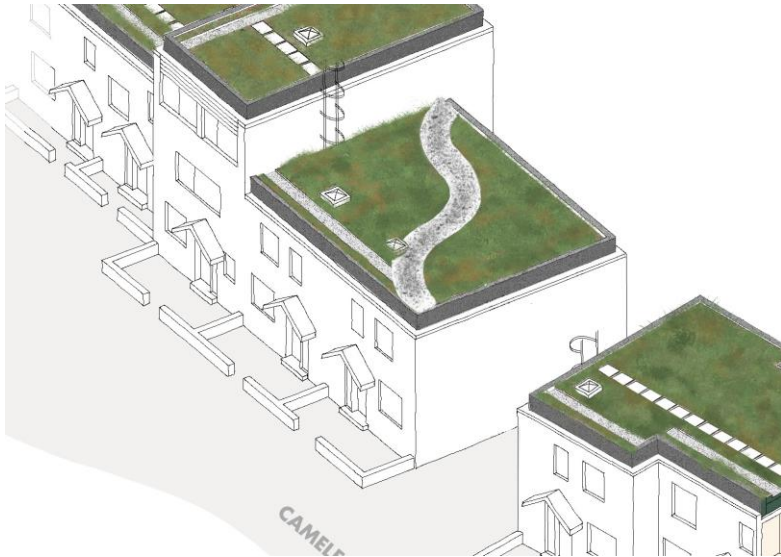
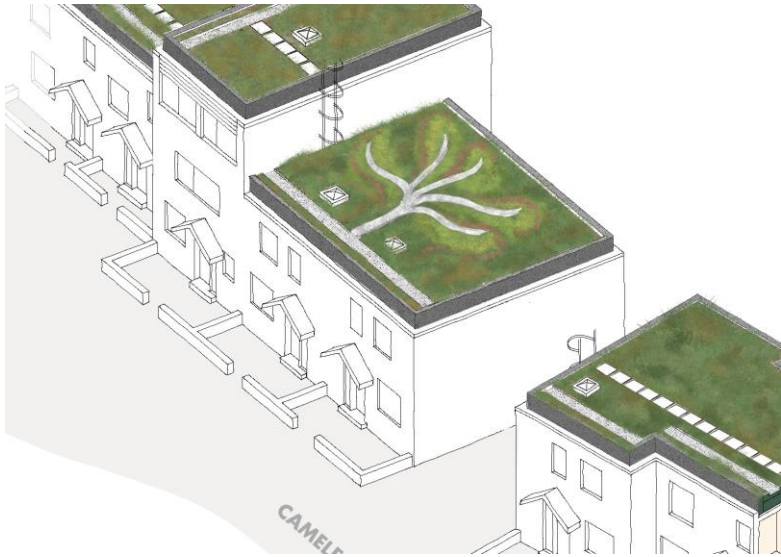
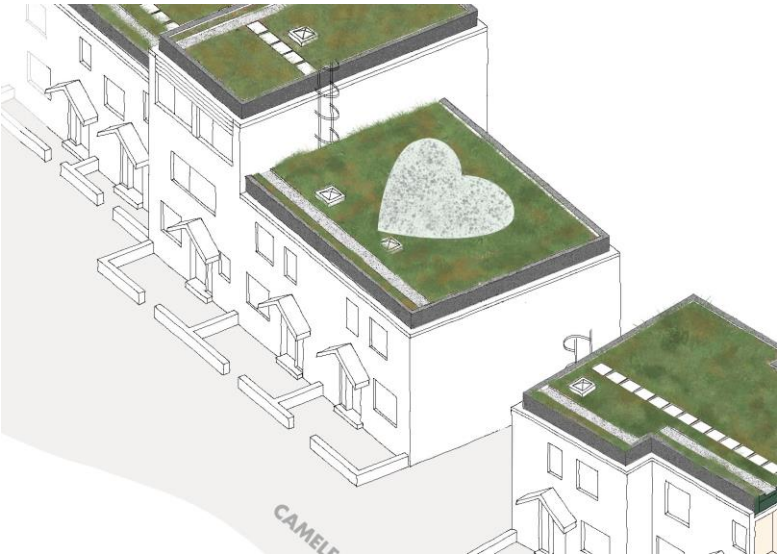
Green Roof Design Options

These designs only possible with Option 1 or 3



Green Roof Design Options

These designs only possible with Option 1 or 3



Replacing the handrails

All options will include this to improve the aesthetic of the block



From this...



To this.

Maximising fire safety

The roof proposals will be designed to meet and surpass all fire safety standards and maximise safety.

Where possible, A1 / A2 rated materials will be used – meaning that they are "non-combustible".

In addition, the following are recommended for green roof elements:

- **Strict management** of any green roof to ensure it is kept from drying out.
- The **growing** media should contain at least 80% inorganic matter.
- Choice of planting - **succulent plants** such as those on a sedum roof a retain water within their structure and thus reduce the risk of the substrate drying out.
- **Gravel fire stops** are designed into the planting layout to restrict spread of fire, particularly to the edges and around the rooflights.
- Planting should be at least 2.0m from the adjacent building (Camelford Walk is over 6m away from Camelford Court).

Maintenance of the new roofs

Maintenance of Green Roofs

- The green roof system proposed is recommended to be maintenance checked 2-4 times a year.
- To maintain the warranty by the green roof supplier, regular maintenance must be agreed through contract to ensure it is performing as it should.

Maintenance of Solar Panels

- The solar panel system is recommended to be checked once a year to maintain the warranty.
- As part of this, the roof must be checked by an accredited body to comply.
- Rare to have damage.
- Fire risk of solar panels is low. Accredited installers and isolators will be used to minimise any risk. Lancaster West Neighbourhood Team will liaise with London Fire Brigade so they are aware of the presence of solar panels, as they are elsewhere on the estate

FAQs - Overheating

Will the proposals add to overheating?

- We are looking at the whole building design holistically to provide a comfortable temperature all year round.
- Shading windows from the sun is important to avoid overheating, combined with the improved district heating system and MVHR ventilation.
- We have undertaken an initial Overheating Risk Assessment to understand the impacts of the roofing proposals on indoor temperature, ahead of the main refurbishment works. The new roof will (very slightly) reduce the risk of overheating. New windows and MVHR will make the biggest difference.

Overheating assessment

- Our **Sustainability Engineers** have undertaken an initial **Overheating Assessment** reviewing overheating in the existing homes in Camelford Court and the impact of the roof replacement.
- The Overheating Assessment reviews the internal temperature of the homes and is done through a thermal simulation software.
- **The existing homes were found to overheat** - all bedrooms overheat at night and 3/5 of other rooms do not meet the criteria for comfortable temperature.

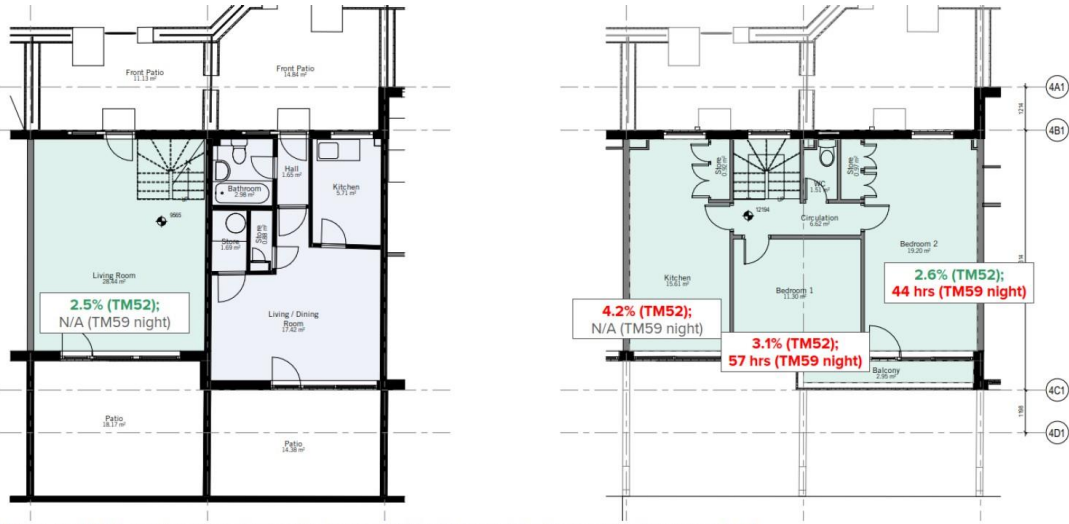


Figure 6: TM59 overheating risk results for the D2 Flat type with all measures implemented

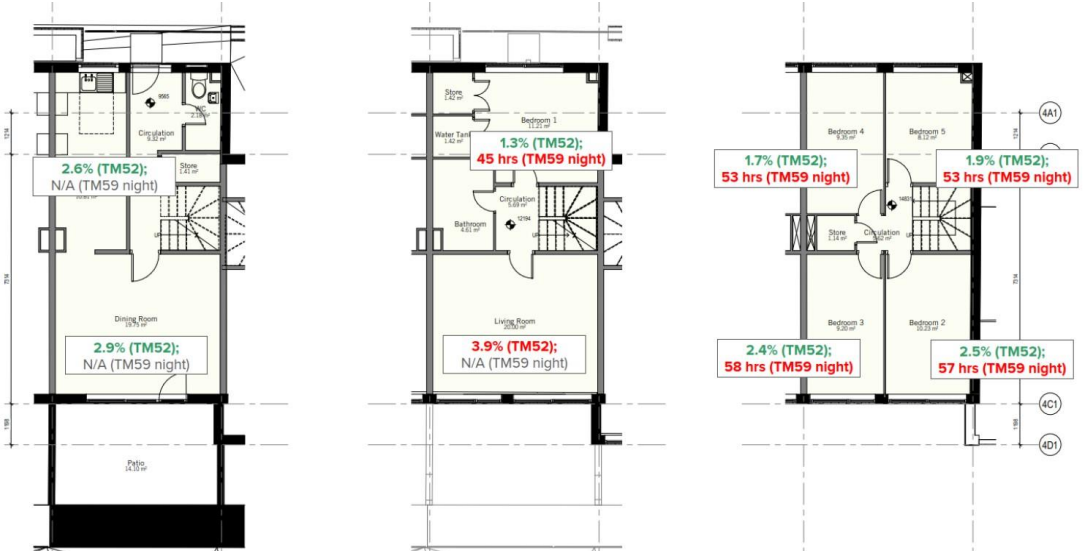


Figure 5: TM59 overheating risk results for the G1 Flat type with all measures implemented

New roof is first step to tackle overheating in your homes

- New roof will help with reducing overheating, but with the roof works alone this will not be noticeable.
- **Triple glazing** will have the biggest impact on reducing overheating, as it will reduce the solar gains into the homes. We will also review the impact of MVHR ventilation, solar shading and external wall insulation as part of the main refurbishment works to help reduce overheating.
- Triple glazed windows are currently planned to be installed in 2022 onwards in Camelford Court.

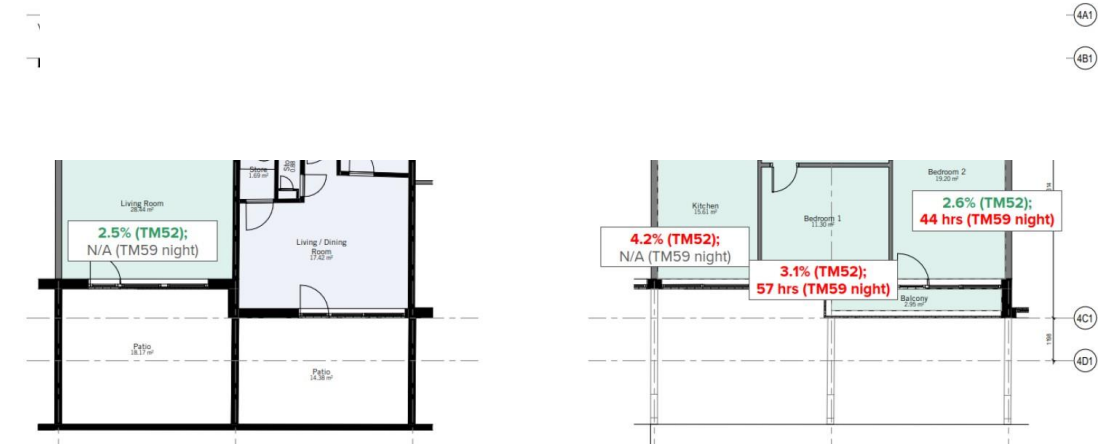


Figure 6: TM59 overheating risk results for the D2 Flat type with all measures implemented

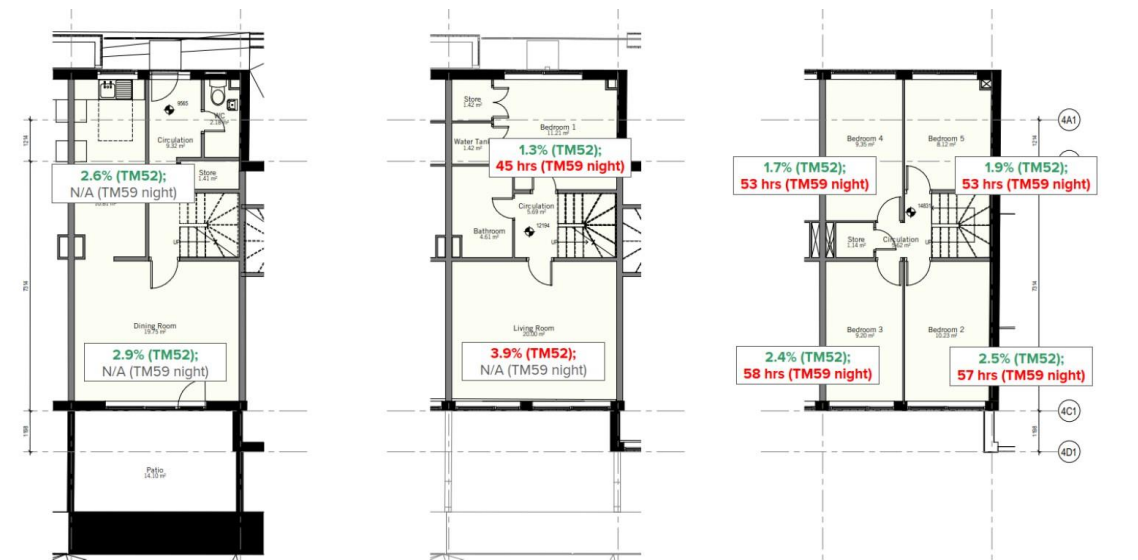


Figure 5: TM59 overheating risk results for the G1 Flat type with all measures implemented

FAQs – Solar Panels

In what way will I directly benefit from the solar panels?

- Solar panels will generate electricity by converting radiation absorbed from the sun.
- Any electricity generated through the panels can contribute to electricity used by residents, which means you will need less from grid electricity.
- **This will result in lower energy bills for residents.**

FAQs – Roof Weight

What about the additional weight to the roofs from the planting and solar panels?

- Our structural engineer is reviewing the additional loads of the proposed warm / green roofs and solar panels to ensure the existing roofs can take the new loadings.
- Structural surveys have been undertaken, including two structural roof surveys and a party wall survey.
- There may be some normal movement in the roof following the works which may result in hairline cracks in the ceiling as the building adjusts to the new roof. Residents will be able to notify the Lancaster West Team if any minor non-structural cracks occur for them to review and repair.

FAQs – Allergies

Will the green roof attract insects and pests?

- Green roofs can be sedum planting instead of wildflowers; which is more of a succulent in greens and reds, with few flowers to attract nectar collecting insects.
- A sedum roof will be less biodiverse than a meadow roof, but it does still bring other added benefits such as cooling and improving air quality.



Providing respite

- As the construction works take place, the team understands for some residents, respite will need to be considered due to disturbance when carrying out noisy or disruptive work.
- For quiet work and study, we are offering newly furnished **workspace at Baseline Studios**. There are workstations, free Wi-Fi, **free refreshments, and access to a printer or photocopier**.
- Residents can book available slots, and the engagement team will be asking residents what their individual respite needs might be, including use of **temporary respite flats** if needed in other blocks.
- We are also in the process of expanding our respite offer as covid restrictions ease



TIME OF WORKS

Work will be carried out between 8am - 6pm, Monday to Friday. This may include both low and high impact noisy works. Any works outside of these times would only be emergencies.



HIGH IMPACT NOISE

To minimise disruption, structural works requiring the use of heavy duty power tools and breaking of concrete, will be restricted to the following times:
9am - noon and 2pm - 5.30pm, Monday to Friday.



WEEKEND WORK

Sometimes, it might be necessary for work to take place on a Saturday but this will be non-noisy work such as painting and decorating.



Maximising safety of the works

In accordance with their legal duties under the Construction (Design & Management) Regulations 2015, RBKC have appointed Derisk UK Ltd as the Principal Designer for all refurbishment works at the Lancaster West Estate. Derisk's role is to plan, monitor, and manage health and safety at the pre-construction phase and to monitor the construction works whilst they are ongoing.

Ensuring the safety of residents is Derisk's primary responsibility. They do this in part by;

- Reviewing designs to ensure that safety considerations are being duly considered
- Auditing designs to ensure that only materials that meet stringent Fire and Building Regulations are specified
- Supporting the Project Teams to plan the construction works ensuring that all surveys and investigations are undertaken safely, particularly those that take place within resident's homes

Maximising safety of the works

- Reviewing tendering contractor's health and safety competencies to ensure that only those with a strong safety performance are selected to work on the Estate
- Undertaking risk assessments to identify situations where resident's may be affected by construction works and plan control measures to eliminate or reduce the risks
- Ensuring that contractors sufficiently plan their construction works and review relevant safety documentation and proposals before and during construction works. This is especially relevant to works that take place in communal areas or resident's homes – Derisk assists RBKC to ensure that residents are not put at risk during the works.
- Undertaking monthly H&S spot checks during the construction works to audit the Contractors whilst they are working

Your chance to choose!



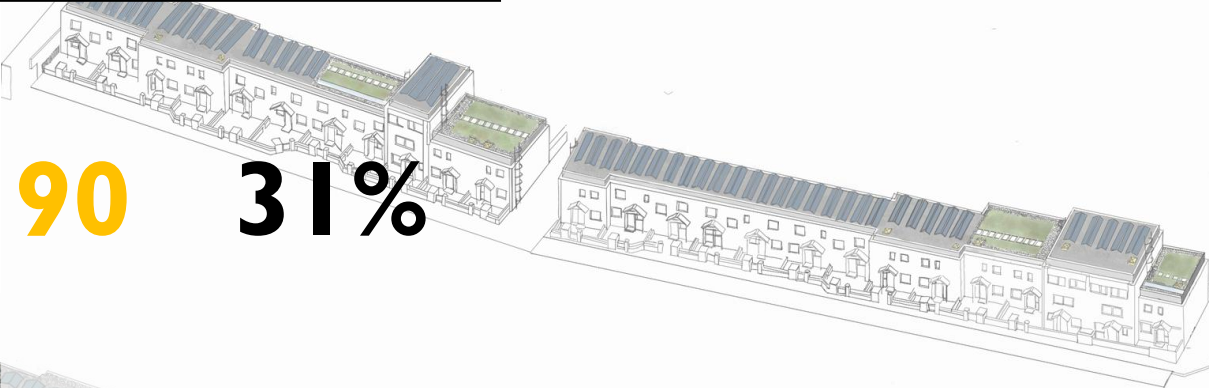
Detailed Design Option	Solar PV panels m2	Green roof m2
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Option

1

Maximum solar PV panels

420 69% 190 31%



Option

2

Mainly solar PV panels, very little green roof

400 79% 106 21%

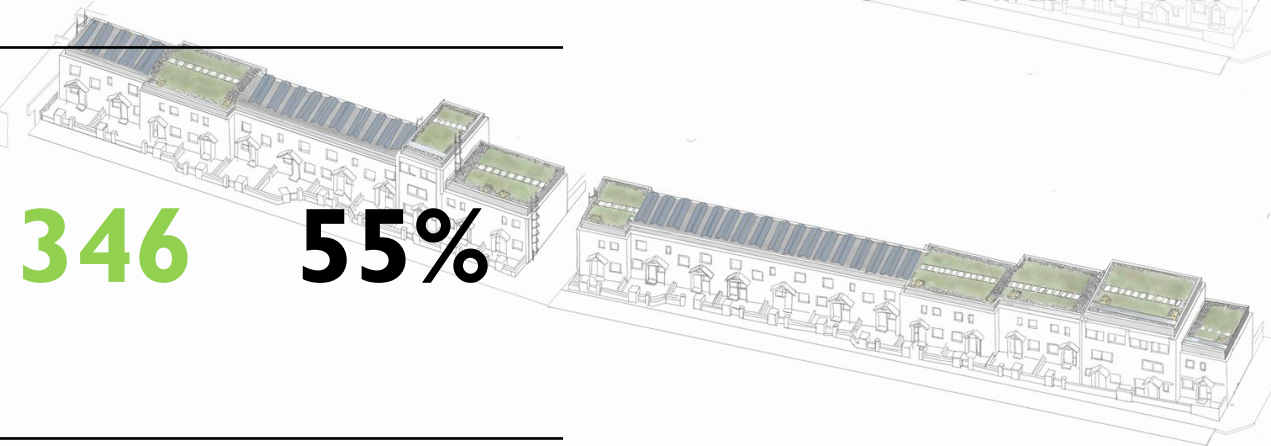


Option

3

Maximum green roof

283 45% 346 55%



Your Home. Your Choice.



- A **copy of this presentation will be made available for all residents** and a recording of this **presentation will be available on W11 website:**
<https://www.wearew11.org/en>
- We will be sending **all residents a letter and a ballot paper**, to get your feedback on everything shared in this webinar
- We will be doing **phone engagement and door-knocking** to gather your views.
- There is also an **online feedback survey to vote** and we ask that this be **submitted by 10pm Friday 25th June:** **<https://lwnt.typeform.com/to/oRrsTzhH>**

If you would like to follow anything up, please contact:

Telephone: 0800 389 2005

Email: lancasterwestoffice@rbkc.gov.uk

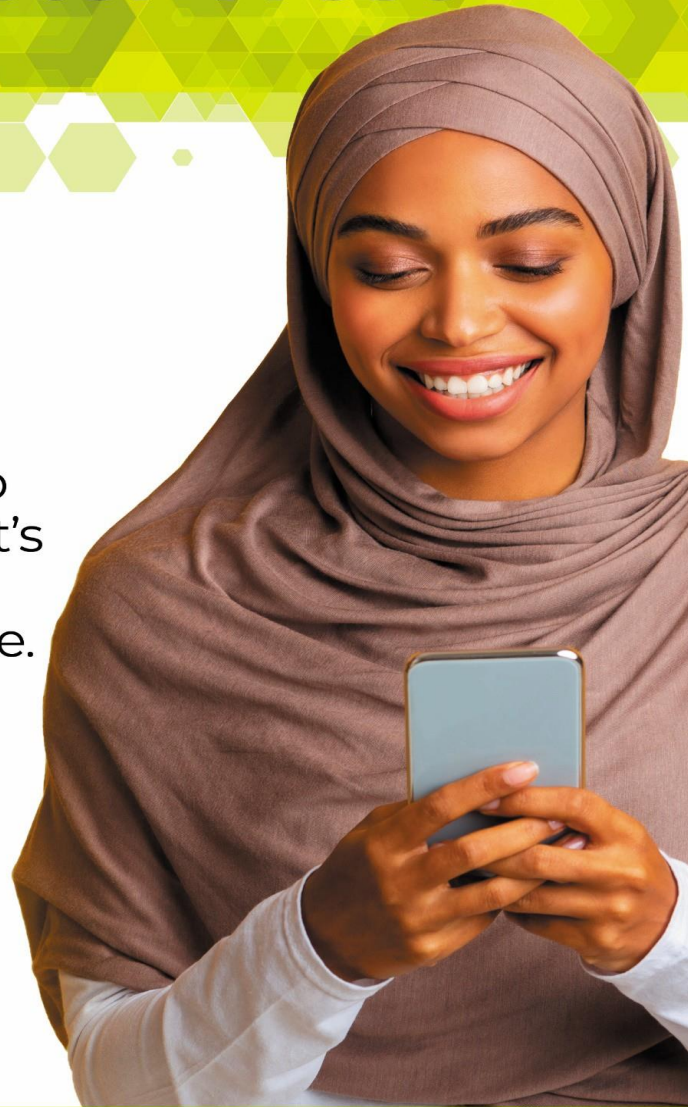
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