Lancaster West Refurbishment

Emerging **preferences** and **choices**

ECD Architects
ENERGY CONSCIOUS DESIGN

LANCASTER WEST
NEIGHBOURHOOD TEAM
W11

Talbot Grove House and Morland House

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Introductions

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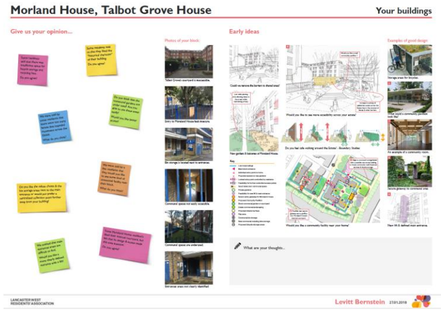
Co-design Timeline

AUTUMN 2017
Initial refurbishment consultation

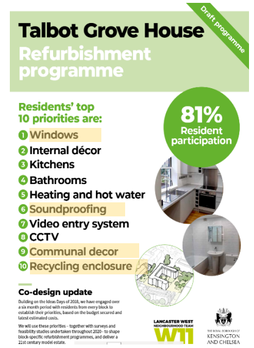
WINTER 2017/18
Residents Ideas Day

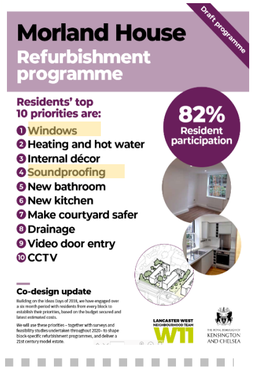


Block meetings 1: Latymer Centre

SPRING 2018
Residents Ideas day + Block meetings 2: Methodist Church

WINTER 2019/20
Co-Design Workshop Top 10s



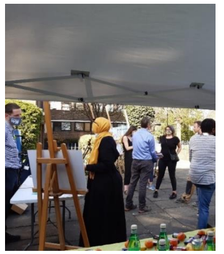


AUTUMN 2020
Block Reps Presentation

SPRING 2021
Door Knocking

WINTER 2020/21
Residents Webinar and Booklet

AUTUMN 2021
Initial design ideas Pop-up Event



WINTER 2021/22
WE ARE HERE

Emerging Preferences and Choices Event

Residents Webinar and Booklet

WHAT'S NEXT?
Detailed Design Event

Phase 1
Initial design ideas

Phase 2
Emerging Preferences and Choices

Phase 3
Detailed Design

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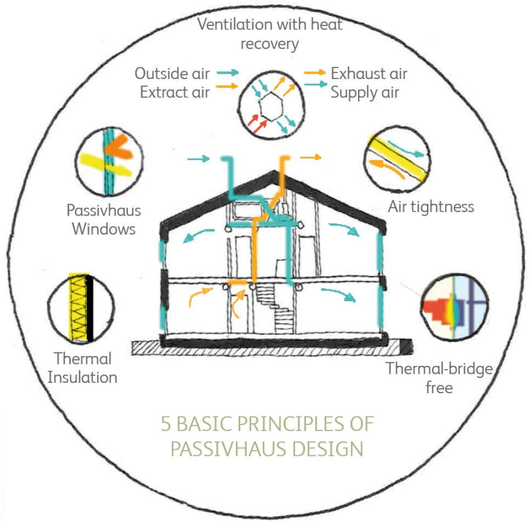
Refurb overview

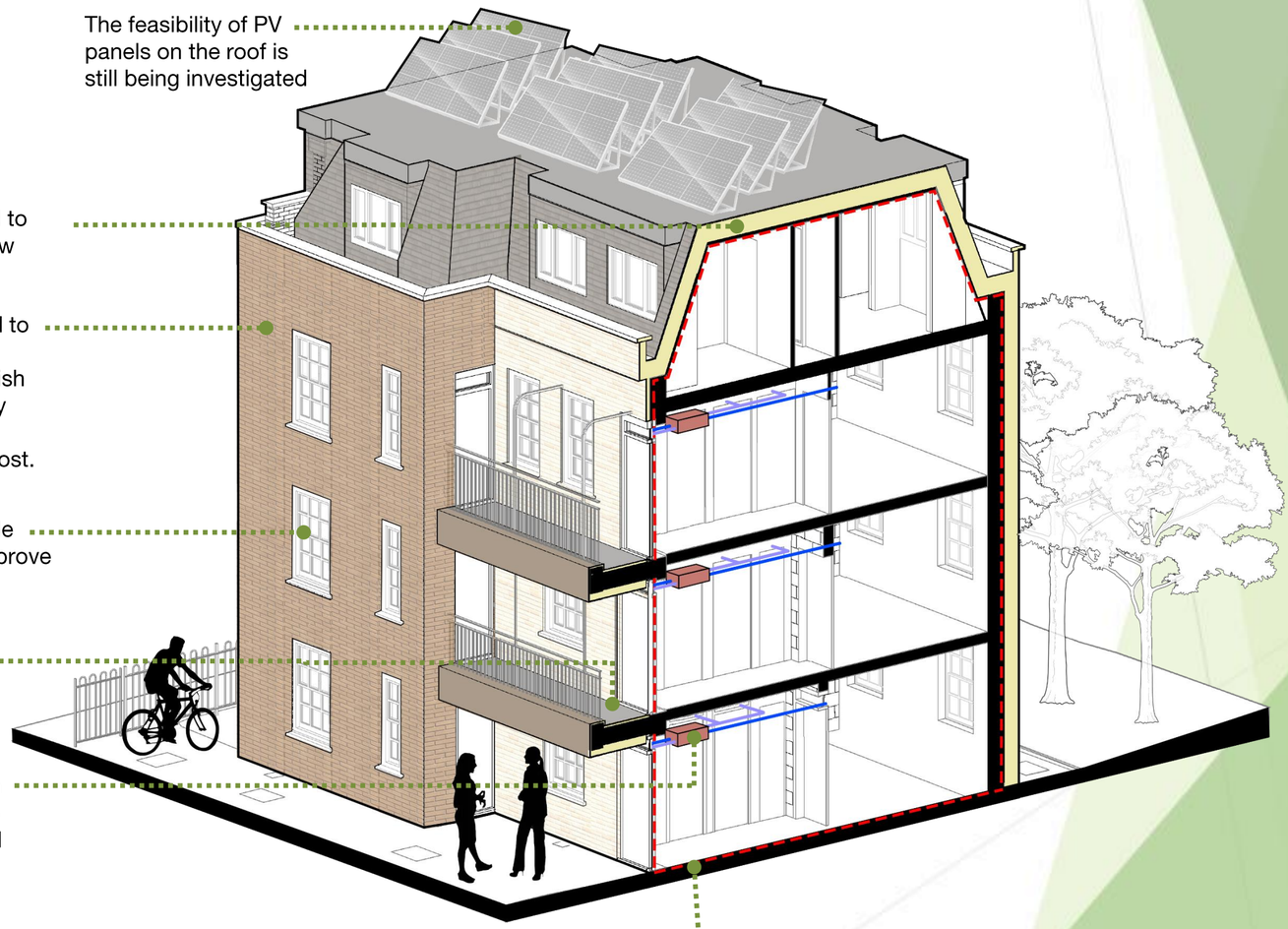
Deep Retrofit

An innovative approach to retrofitting homes which dramatically reduces energy requirements creating a healthier living environment. Generally, it can be delivered whilst residents remain in their homes.

Components being refurbished

1. Walls, Roof, Ground Floor
2. Windows
3. Ventilation system





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Overview of the co-design process

We are here!

1st Webinar: Initial Design Ideas

- Key Products:
- **Presentation slide deck**
- **Webinar video**
- **Summary feasibility report** – posted and online
- **Full report** (online only)
- **In person drop-ins/pop ups**
- **Video content for IG, IGTV and YouTube**

Feedback and FAQs, drop-ins and phone calls

2nd Event: Emerging preferences and choices

- Key Products:
- Summary of feedback so far (**you said, we did plus FAQ**)
- **Models, pilots and building elements**
- Any **assumptions or conclusions drawn** for discussion/agreement
- **Updated slides** based on latest surveys and preferences with technical information

Drop-ins and follow-up phone calls

3rd Event: Finalising detailed designs

- Key Products:
- **Final design** for sign off
- **Models and building elements**
- **Aesthetic choices** still to be made?
- **Building elements** yet to be finalised – lifts, door entry

Over 50% engagement for each lot

Phase 1 recap - Issues identified so far

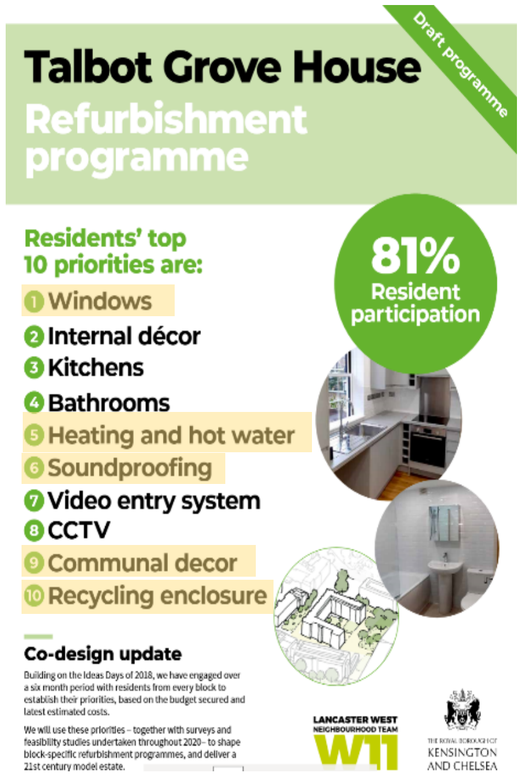
What isn't working well?

You've told us about those elements of your home that you're unhappy with, and your chosen priorities in regard to the refurbishment.

We are working alongside the LWNT, and are proposing works for the envelope of your block, the external façade of the building.

Issues identified so far; our surveys have found:

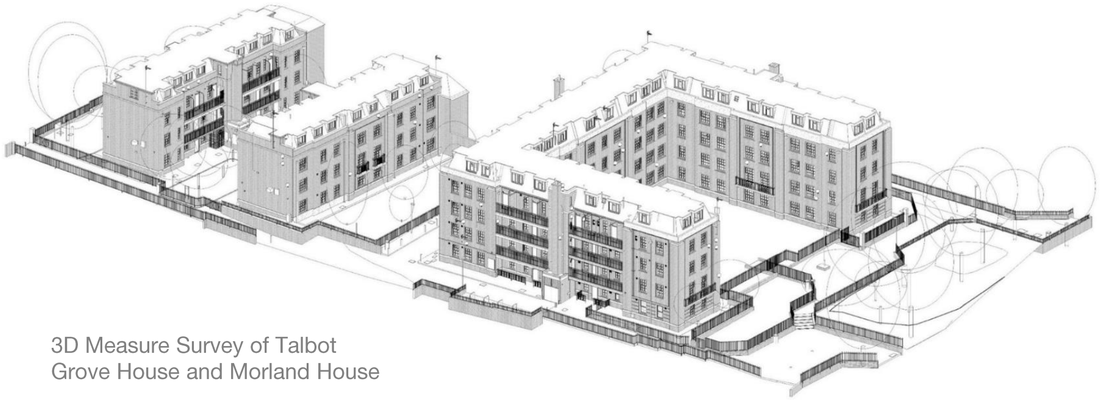
- Thermal bridges (cold spots) due to non-insulated walls
- Poor roof condition
- Poor ventilation



Phase 1 recap - Surveys done to date

Measured Surveys

Measured surveys of the external facades and communal areas were done earlier this year. We used this information to help us come up with the designs and proposal for the blocks.



3D Measure Survey of Talbot Grove House and Morland House

Thermal and Humidity Surveys

Build Test Solutions (BTS) undertook temperature and humidity monitoring in some of the occupied flats, This helps us to understand how comfortable your flats are to live in.

Thermal and Humidity sensors

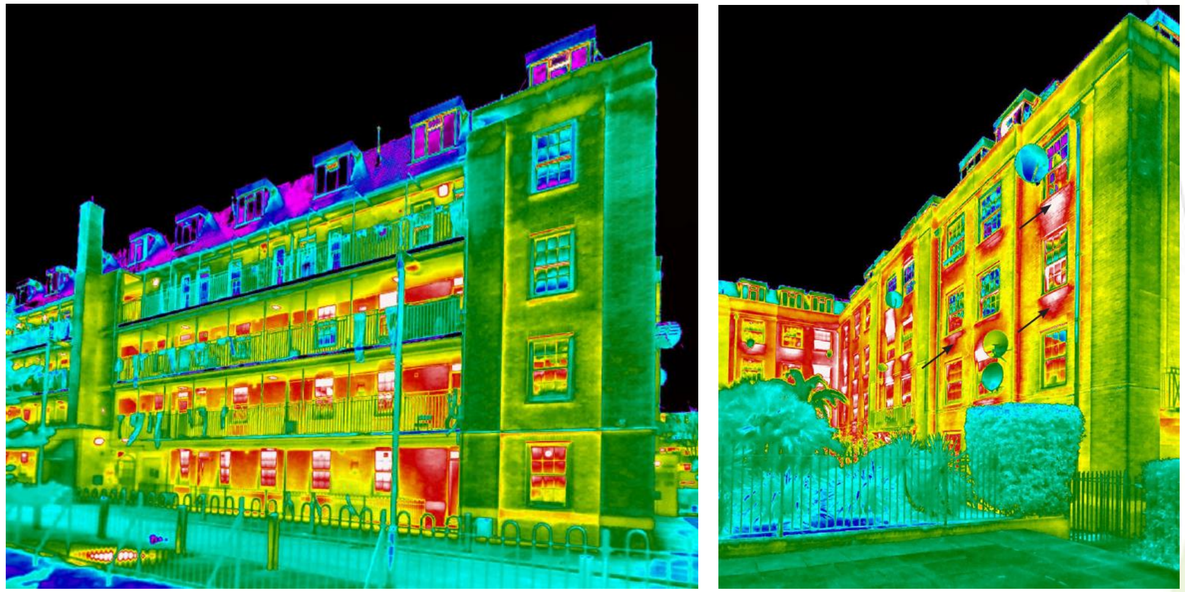
Phase 1 recap – Thermal imagery

External Thermographic Images

A Thermal Image Report was carried out on Talbot Grove and Morland House in March 2021. Thermal Imaging allows us to check the thermal performance of a building envelope. It lets us make an assessment of the amount of energy lost through the walls of the building. The images illustrate that there are several areas of heat loss evident across the facade of both buildings. The latest thermographic report states that, generally, the thermal performance of the blocks is quite poor.

Thermal and Humidity Surveys

Build Test Solutions (BTS) undertook temperature and humidity monitoring in some of the occupied flats, This helps us to understand how comfortable your flats are to live in.



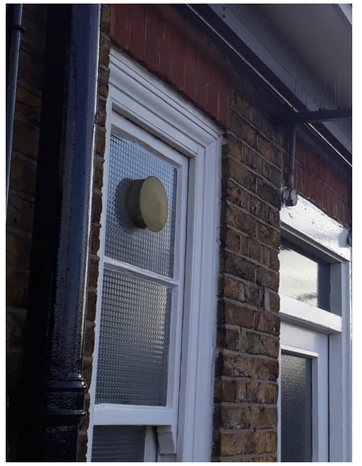
Thermal Imagery of Talbot Grove House and Morland House showing heat loss through façade (red/orange area)

Phase 1 recap – Issues with existing buildings

Single glazed sash windows do not keep heat in

Walls have poor insulation, allowing heat to escape from the home

Roof has poor insulation, which allows heat to escape



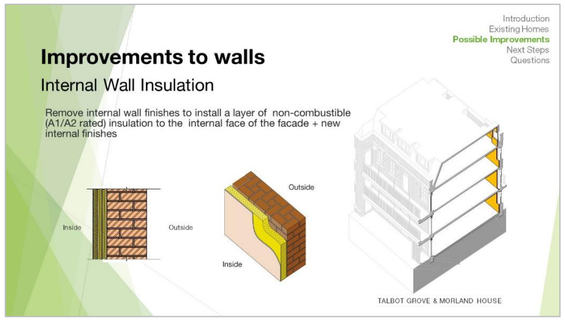
Current ventilation system in homes perform poorly

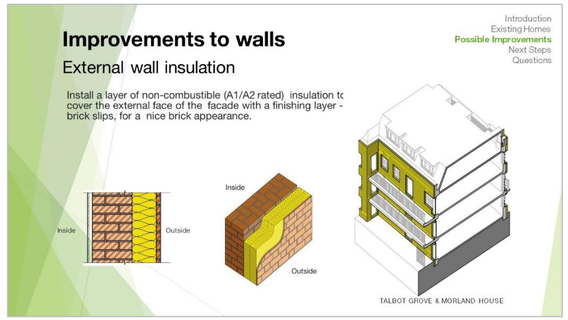
Phase 1 recap - Initial design ideas

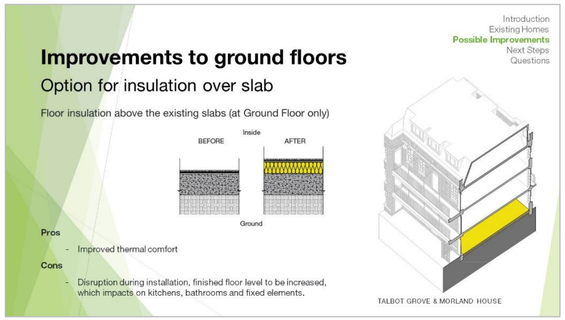
The slides show the key ideas and concepts presented at the Initial Design Ideas Phase 1 Webinar to residents in February 2021.

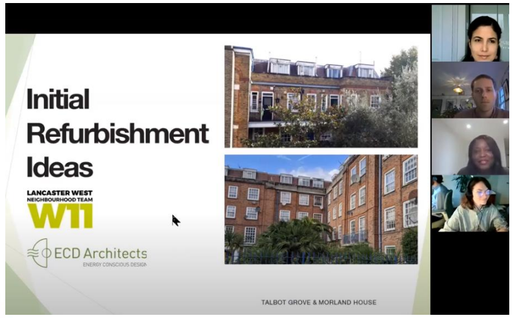
A survey was sent out, which **32%** of residents from Morland House and **43.9%** from Talbot Grove House completed.

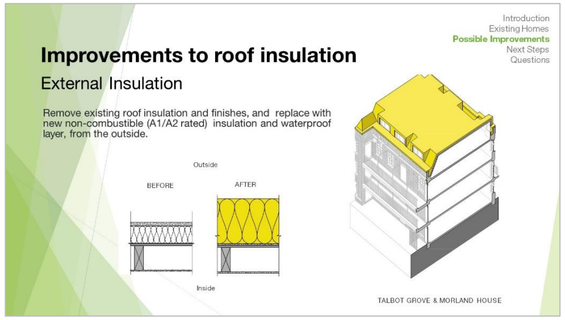
The Initial design ideas Pop-up Event took place in March followed by door knocking in April.

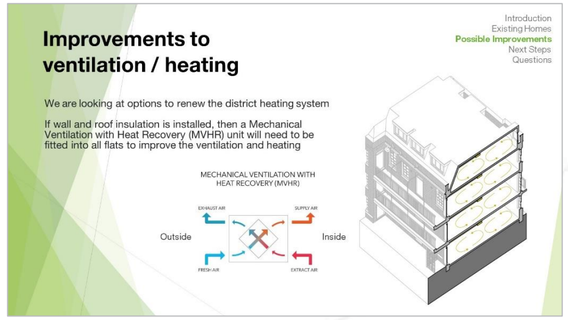












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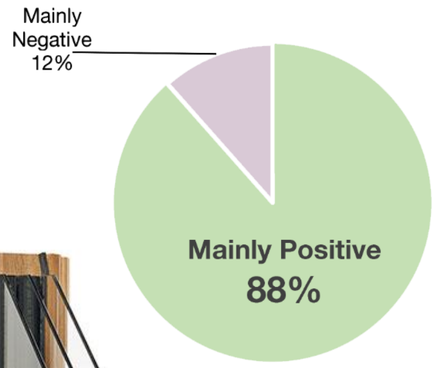
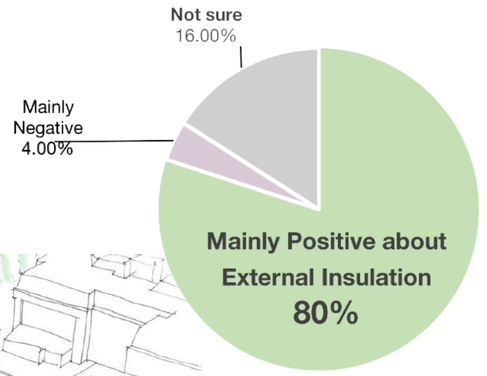
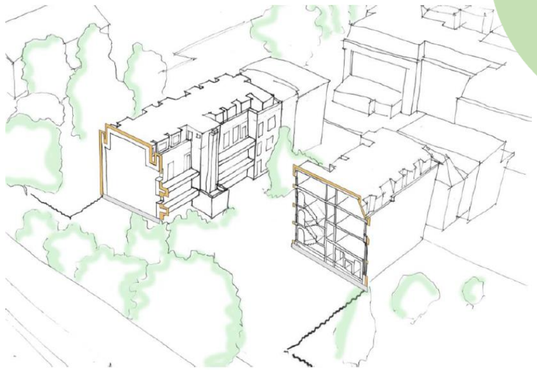
Phase 1 recap - Feedback



New triple-glazed windows

Majority of the respondents, 88.46%, were mainly positive about the prospect of triple glazed windows.





Wall and Roof Insulation

External Insulation was overall more positively received than internal insulation, with 80% of respondents across both blocks largely positive

MVHR

68% of respondents were generally positive at the prospect of a MVHR

Following the resident's feedback on the measures proposed during the Initial Design Ideas phase, the designs have been further developed to produce the Emerging Preferences and Choices phase.

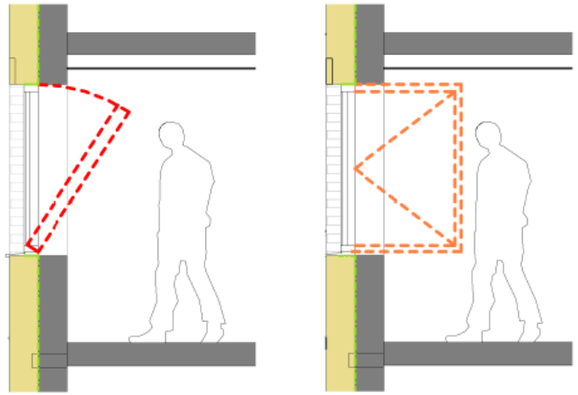
Phase 2 – Emerging Preferences and Choices

Emerging preferences and choices - Morland House and Talbot Grove House

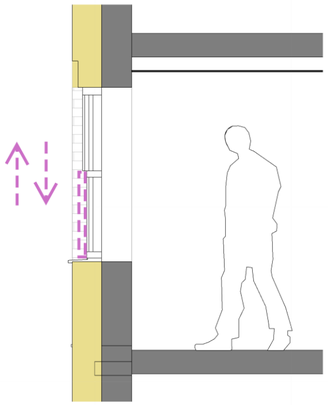
Window options – Opening Mechanism

- Triple-glazed windows are substantially better in terms of thermal comfort, energy savings, sound-proofing, and reducing energy bills.
- Installing new windows will affect the appearance of the homes but can still be kept relatively similar to the existing appearance if preferred.
- They are available in numerous opening mechanisms, Tilt & Turn, top hung and swing opening in traditional or a more modern appearance.
- Frames available in a Timber, aluminum and composite (timber+ aluminium material).

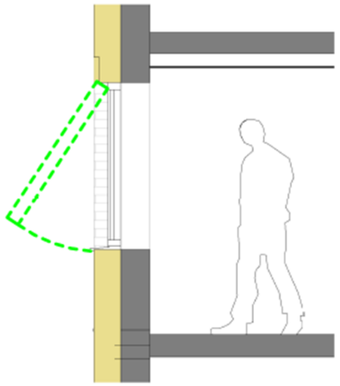
Tilt and turn opening



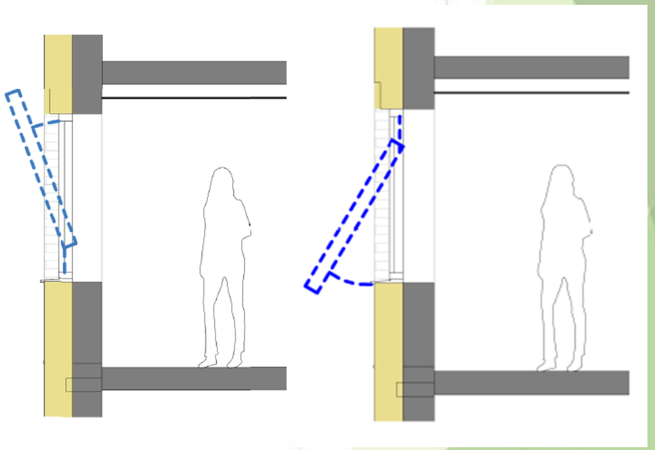
Sash opening



Top hung opening



Top hung reversible opening



Window opening types options for all levels

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Window options - Frames

TIMBER

Pros

- Traditional aesthetics.
- Long lifespan, over 60yrs+
- Low thermal conductivity, a good insulating material.
- Eco-friendly when using FSC certified timber.

Cons

- High maintenance to protect the timber, if left untreated can suffer from pest, rot, mold and fungi attacks.
- Susceptible to the outside elements, such as weather. Timber shrinks, swells, twists, cracks and bends over time.

ALUMINIUM

Pros

- Extremely durable, light material and strong.
- Slimline frame.
- Low maintenance, resistant to corrosion and decay.
- Provides a modern aesthetic, available in a wide range of colours, sizes and styles.

Cons

- High thermal conductivity, poor insulator does not hold heat very well.
- Moisture/ frost can form inside aluminium-frame windows, leading to condensation problems.

COMPOSITE (TIMBER+ ALUMINIUM)

Pros

- Combination of timber and aluminum provides a strong durable frame with a contemporary exterior finish.
- The insulation properties of a timber interior mean less heat loss and a more comfortable home.
- Low maintenance.
- Available in a wide range of styles, sizes and colours.
- Environment-friendly, both aluminum and timber are recyclable materials.

Timber, aluminium and composite (timber+ aluminium) window frames options for all levels

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Window options - Overview

Opening Type	Manufacturer (Model)	Reference Image	Style	Frame Material			Frame Width	Opening Direction		Window Cleaning	U_w (W/m^2K)	G-value	Acoustics DB/rw	PAS24	Passivhaus Certified
				Aluminium	Timber	Composite*		In	Out						
Sash	Nica Design (Sash Ovolo)		Heritage		✓		145mm/ 95mm**	Not Applicable		Outside	0.99-1.0 ****	0.53	32	✓***	✗
Tilt and Turn	Green Building Store (Mock Sash Ultra)		Heritage		✓		118mm/ 99mm**	✓		Inside	0.75	0.54	35	✓	✓
	Green Building Store (Mock Sash Performance)		Heritage		✓		115mm/ 92mm**	✓		Inside	0.85	0.52	32	✓	✗
	Idealcombi (Futura+i)		Modern	✓			53mm	✓		Inside	0.74	0.53	41	✓	✗
	Velfac (Velfac In)		Modern			✓	93mm	✓		Inside	0.8-0.9	0.53	33-46	✓	✗

* Aluminium exterior and timber interior
**When two values are displayed for frame width, the first value corresponds to the top frame and the second to the bottom frame
***Ironmongery compliant, glazing compliant if opting for laminate glass to the outer pane
****This u-value is not compliant with the minimum u-values required

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Window Options - Overview

Opening Type	Manufacturer (Model)	Reference Image	Style	Frame Material			Frame Width	Opening Direction		Window Cleaning	U_w (W/m^2K)	G-value	Acoustics DB/rw	PAS24	Passivhaus Certified
				Aluminium	Timber	Composite*		In	Out						
Top Hung	Idealcombi (Futura+)		Modern			✓	53mm	✓		Inside	0.74	0.53	42	✓	✗
	Velfac (Velfac 200E)		Modern			✓	54mm		✓	Outside	0.8-0.9	0.53	33-43	✓	✗
Top Hung Reversible	Idealcombi (Futura+)		Modern			✓	53mm	✓	✓	Inside/ Outside	0.74	0.53	42	✓	✗
	Velfac (200E)		Modern			✓	54mm	✓	✓	Inside/ Outside	0.8-0.9	0.53	33-43	✗	✗

* Aluminium exterior and timber interior
**When two values are displayed for frame width, the first value corresponds to the top frame and the second to the bottom frame
***Ironmongery compliant, glazing compliant if opting for laminate glass to the outer pane
****This u-value is not compliant with the minimum u-values required

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Windows options

Window Frame Colour Options

Windows are available in a variety of external and internal colours.

External Colour Options

Silver grey (RAL 7001)

Signal grey (RAL 7004)

Anodised aluminium

Anthracite grey (RAL 7012)

Basalt grey (RAL 7016)

White

Which window colours do you prefer?

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Windows options

Window Frame Colour Options

Windows are available in a variety of external and internal colours.

Internal Colour Options

Silver grey (RAL 7001)

Signal grey (RAL 7004)

Anodised aluminium

Wood finish

Anthracite grey (RAL 7012)

Basalt grey (RAL 7016)

White

Other

Which window colours do you prefer?

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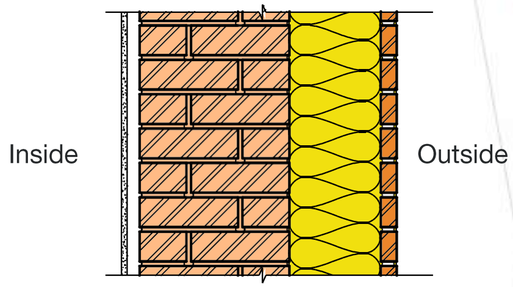
External Wall Insulation

Having received your feedback from Phase 1, we understand the majority of respondents do not wish to have internal wall insulation installed in their home. Instead, using non-combustible (A1/A2 rated) insulation, we would cover the block with a finishing layer (brick slips, for a nice brick appearance). This system provides high levels of insulation. External Wall Insulation (EWI) can be fixed from the outside, with minimal disruption and no internal area losses.

Adding external wall insulation to the outside of a building



Section showing External wall insulation (EWI)

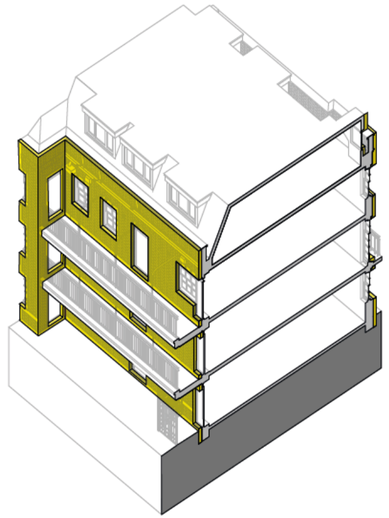
Pros

- Improved thermal comfort
- No impact on recent internal kitchen and bathrooms works
- Little internal disruption (only to finish the windows installation), no decant required
- No internal area loss
- Opportunity to co-design new facades

Cons

- All facade attachments (downpipes, gutters, satellite dishes, etc) will need relocating

Example of an external wall insulation system



3D section view of EWI insulation

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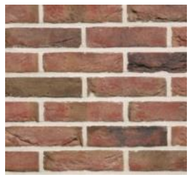
Finishes Options

Brick slip matching at Talbot Grove House and Morland House

BRICK OPTIONS

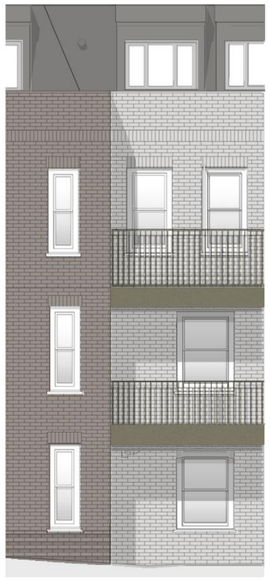
DESIGN OPTION 1 – SIMILAR TO EXISTING

London Yellow Weathered brick slips



Topaz brick slips

DESIGN OPTION 2 – MODERN APPEARANCE

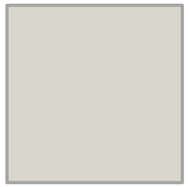


Cortona brick slips

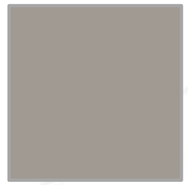
Rega brick slips

RENDER OPTION

DESIGN OPTION 3 – RENDER FINISH



Light grey render



Medium grey render

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Finishes options

BRICK-SLIP

Pros

- Eco-Friendly: Made from minerals and naturally abundant clay, bricks are a sustainable building material with a long life 50yrs +.
- Versatile, available in a vast variety of colours, textures, and finishes.
- Opportunity to enhance the traditional look or create a modern appearance.
- High-impact, durable and water resistance.
- Low maintenance.

Cons

- Due to the build-up thickness in a brickslip systems there is less opportunity to provide as much insulation as a rendered system.
- Over time, brickslips require re-pointing with new mortar.

Brick slip finishes proposed for Talbot Grove House and Morland House

RENDER

Pros

- Versatile, available in a wide range of colours, textures, and finishes.
- Opportunity to enhance and change the appearance of the building.
- When painted in a light colour render systems improve the thermal protection of the building.
- Provides water resistance against wind and rain.

Cons

- High maintenance, needs to be re-painted every 10-15 years.
- Render systems are more vulnerable to weathering, which over time causes fading and stains.
- Planning permission required as render is a material change to the façade.

Render finishes proposed for Talbot Grove House and Morland House

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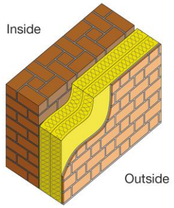
Finishes options



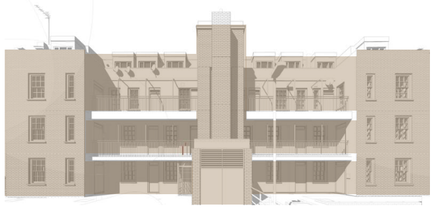
Initial design proposals to improve the existing facade exploring options for the brickwork in Talbot Grove House and Morland House

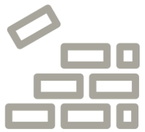
Pros

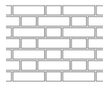
- Eco-Friendly, a sustainable building material with a long life 50yrs +
- Versatile
- Low maintenance
- Water resistant

Cons

- Over time, brickslips require re-pointing with new mortar.







FLEMISH BOND

TOPAZ

LONDON WEATHERED YELLOW

MOCK SASH WITH GEORGIAN BARS

TIMBER

WHITE

DESIGN OPTION 1 – SIMILAR TO THE EXISTING

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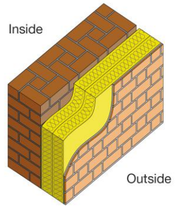
NEIGHBOURHOOD TEAM
W11

Finishes options



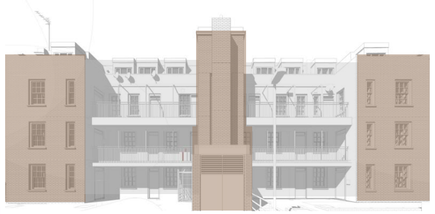
Initial design proposals to improve the existing facade exploring options for the brickwork in Talbot Grove House and Morland House

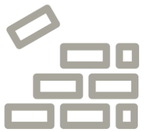
Pros

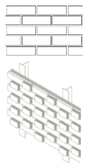
- Eco-Friendly, a sustainable building material with a long life 50yrs +
- Versatile
- Low maintenance
- Water resistance

Cons

- Over time, brickslips require re-pointing with new mortar.



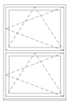




STRETCHER BOND AND PROJECTING

CORTONA

REGA



TILT AND TURN

TIMBER

WHITE AND GREY

DESIGN OPTION 2 – MODERN APPEARANCE

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NEIGHBOURHOOD TEAM
W11

Finishes options

Initial design proposals to improve the existing facade exploring render options for Talbot Grove House and Morland House

Pros

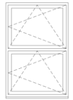
- Versatile, available in a wide range of colours, textures, and finishes.
- Opportunity to change the appearance of the building

Cons

- High maintenance
- Vulnerable to weathering, over time causes fading and stains.

R1 LIGHT GREY RENDER

R2 MEDIUM GREY RENDER



TILT AND TURN

TIMBER

DARK GREY

DESIGN OPTION 3 – RENDER FINISH

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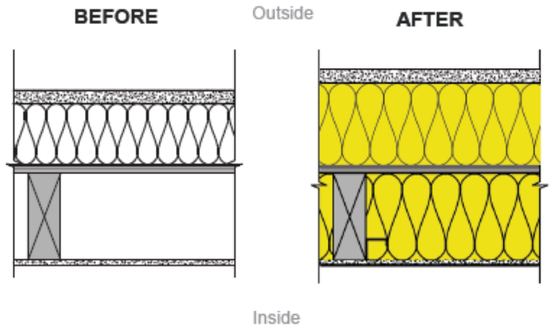
Roof options

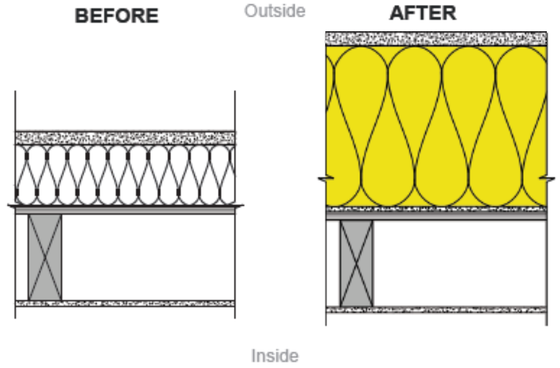
Insulation to be installed to roof to address the following:

- Poor waterproofing of the existing roof
- Draughty dormers
- High levels of heat loss
- Coldness during the winter

Mineral Wool Insulation added between rafter externally

Insulation added between and over rafters





INSULATION BETWEEN AND ABOVE EXISTING CEILING JOISTS

Pros

- Reduce heat loss through roof

Cons

- Planning permission required
- Roof structure investigation required
- Hard to ensure airtightness continuity with walls which may result in thermal bridges and condensation risk

INSULATION OVER EXISTING ROOF

Pros

- Improved thermal comfort, reduce heat loss through roof
- No internal disruption, no decant required

Cons

- Planning permission required
- Roof structure investigation required
- All façade attachments (downpipes, gutters, etc) will need relocating

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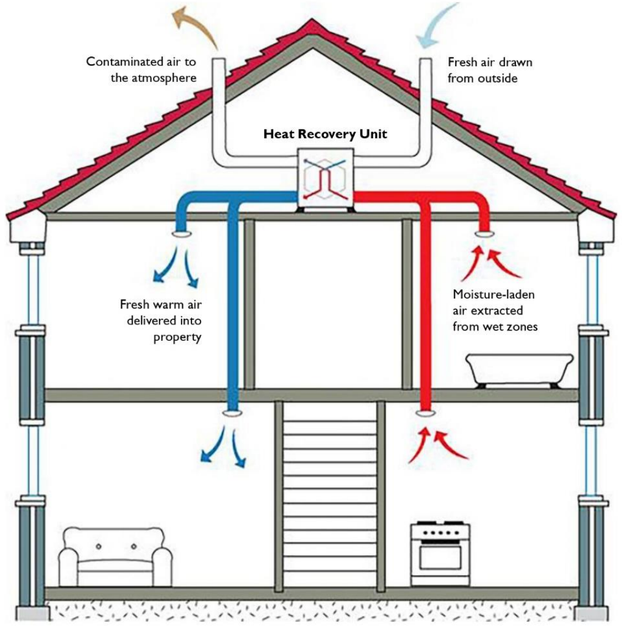
MVHR technical

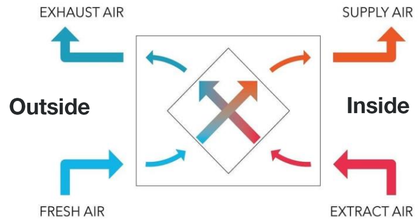
Mechanical Ventilation with Heat Recovery (MVHR) is a unit that brings in fresh air and pre-warms this with the heat from outgoing air. This fresh, warmed air is then distributed to living areas, while stale air is extracted from kitchen and bathrooms.

This unit will need to be fitted into all flats to improve the ventilation and heating, including ductwork and acoustic attenuators to all bedrooms, living rooms, kitchens and bathrooms. As these units recover the heat from the internal air, they reduce the need for heating. In summer time there is an automatic by-pass mode where heat is not recovered by the unit, and you still receive fresh filtered air from the outside.

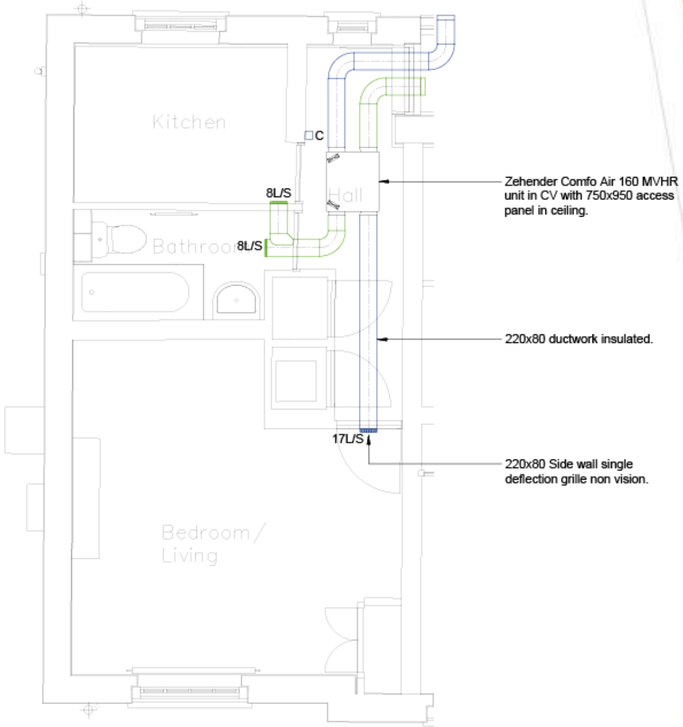


Section showing MVHR System

The design team will work with residents, to identify the best possible locations to install this ventilation unit inside each flat. They can be mounted at ceiling height or in a cupboard depending on the flat type and available space.



MVHR diagram



Ventilation Layout

MVHR unit inside cupboard

MVHR unit to be hidden above ceiling

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MVHR options overview

							
Manufacturer	**Nuaire**	**Nuaire**	**Vent Axia**	**Vent Axia**	**Zehnder**	**Zehnder**	**Zehnder or Brink**
Model	MRXBOXAB-ECO2	MRXBOXAB-LP2	Sentinel Kinetic BH	Sentinel Kinetic H	ComfoAir 155 WM	Comfoair Q350	Comfoair 160 Renovent Sky
Dimensions	607 W x 356 D x 507 H	900 L x200 D x700 W	550 W x 285 D x 640 H	895 W x 849 D x 200 H	546 W x 298 D x 644 H	725 W x 570 D x 850 H	670 W X 268 D X 864 L
Passivhaus Certified						✓	✓
Wall Mounted	✓		✓		✓	✓	✓
Ceiling Mounted		✓		✓			✓
Sound Power	24 dBA @ 3m	23 dBA @ 3m	30.8 dBA @ 3m	29.7 dBA @ 3m	27.4 dBA @ 3m	19 dBA @ 3m	22.8 dBA @ 3m
Thermal Efficiency	89%	79%	91%	82%	91%	96%	95%

LANCASTER WEST NEIGHBOURHOOD TEAM W11

MVHR comparison

Zehnder Comfoair Q350

What we will install:

Zehnder Comfoair Q350

Key Features

- Standard or preheater models available
- Suitable for house sizes up to 200m²
- **Provides up to 90% heat recovery efficiency (reducing heating costs)**
- **2 x G4 filters and F7**
- **Passive House certified**
- Counter flow heat exchanger
- **A+ energy efficiency**
- Left or right-hand configuration via the unit's software
- **Noise reduction**

Technical Features

- **Thermal efficiency @ 96%**
- Features EC motors
- Airflow rate @ 100Pa - 350 m³h/r
- Maximum airflow rate – 350 m³h/r
- 4 Variable speed flow rate set points
- **100% full summer bypass**
- **Sound level @3m – 19 dB(A)**
- Dimensions W x H x D - 725mm x 850mm x 570mm
- Weight - 50kg
- Duct diameter internal - 160mm
- Duct diameter - 190mm
- **Controllability:** This unit can be controlled via ComfoSense LCD Controller, ComfoConnect LAN application interface or ComfoConnect KNX Building management interface
- Installation: Suitable for vertical wall mounting or floor stand with the ability to allow left or right-hand configuration through the unit's software
- Construction: This unit is constructed of powder coated sheet steel and is fully insulated using high quality EPP to maintain excellent thermal features

Various control options – Easy operation

- **The display** is the simplest controller – it is always available and is integrated directly into the ventilation unit.
- **ComfoControl app** - Whether you're on the move or on the sofa, control your ComfoAir Q conveniently via your smartphone or tablet. Just download the free ComfoControl app from the App Store.
- **Remote control** - The control panel ComfoSense C allows to control the ventilation unit ComfoAir Q via wireless communication.

Brink Flair 325

What we will install:

LANCASTER WEST NEIGHBOURHOOD TEAM W11

Brink Flair 325

Key Features

- Adjustable air flow rates via control panel
- Filter change indication
- Frost protection
- Summer by pass
- **Provides up to 91% heat recovery efficiency (reducing heating costs)**
- **2 x G4 filters and F7**
- Low energy consumption
- High efficiency
- **Passive House certified**
- **A+ energy efficiency**
- Left or right-hand configuration via the unit's software
- For humidifying, purifying, heating and cooling

Technical Features

- **Thermal efficiency @ 95%**
- Airflow rate range 69 m3/h - 251 m3/h
- 4 Variable speed flow rate set points
- **100% full summer bypass**
- Sound level 33dBA
- Dimensions W x H x D - 750 x 650 x 560
- Weight – 37kg
- Duct diameter -160mm
- Installation and maintenance: The convenient **installation wizard** makes installation quicker. This tool guides you step-by-step through the installation process and makes it impossible to overlook anything. The appliance itself also offers you **smart help** by the maintenance wizard when maintaining and replacing filters.

Various Control options – Easy operation

- **Easy display control panel** – includes smart help for maintenance
- **Modbus** - Ensures an easy link with building management systems
- **Brink Home** - Online control through an App or our web portal
- **Internet** - Extensive options for the Internet of Things

Passive House is an internationally recognised standard for high quality, low energy buildings.

cool, temperate climate
phB
CERTIFIED COMPONENT
Passive House Institute

Maximising Fire Safety

Maximising Fire Safety is a priority in all decisions made during the refurbishment. Our independent fire consultant IFC continue to have oversight of all design proposals. The proposed fire safety provisions will exceed those recommended for compliance with the Building Regulations.

Maximising Fire Safety:

1. Rigorously assess the current fire safety of existing buildings
2. Improve fire safety of existing buildings where assessment indicates that change is required
3. Ensure that wider refurbishment utilises materials that are of limited or no combustibility.

Type 4 Fire Risk Assessments

The Fire Safety consultants have been carrying out Type 4 Fire Risk Assessments for Talbot Grove House and Morland House.

IFC have been working closely with RBKC Fire Safety team to identify key actions and fire strategy moving forward.

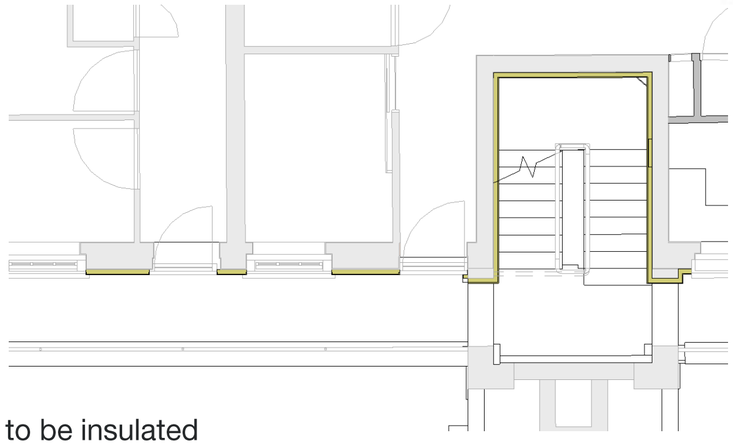
LANCASTER WEST NEIGHBOURHOOD TEAM W11

Communal areas

What do you like about the existing communal areas?

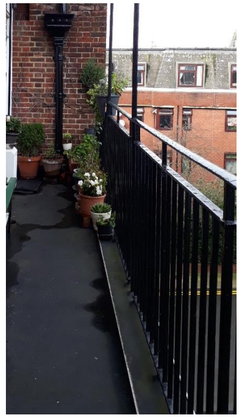
What would you like to see improved?

What could work better?

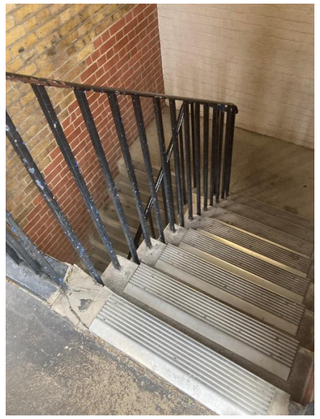


Staircases and Walkways to be insulated

STAIRCORES AND WALKWAYS



Walkway railings



Stairs railings

Stairs and landing finishes

Lighting

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Improving waste/recycling

What do you like about the existing refuse areas?

Where do you put your recycling waste? Food waste?

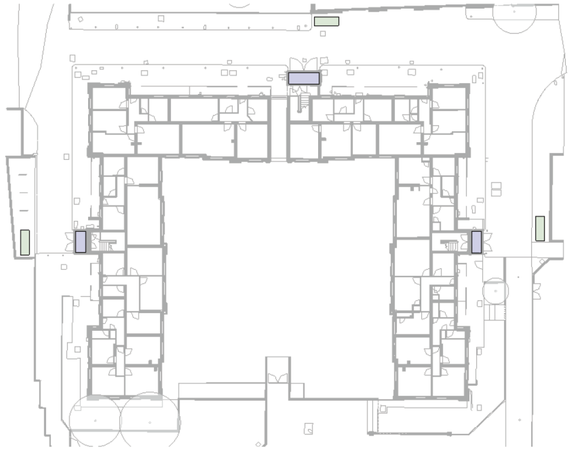
What would you like to see improved?

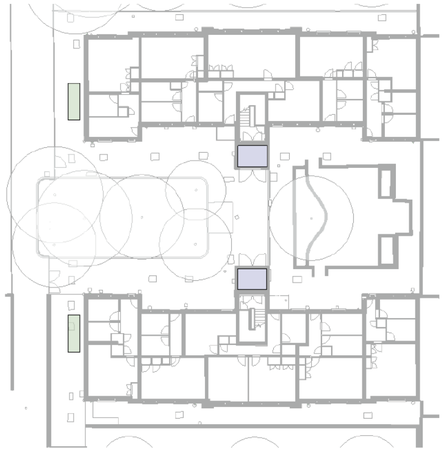
What could work better?

Talbot Grove House refuse storage and bin chute

Morland House refuse storage and bin chute

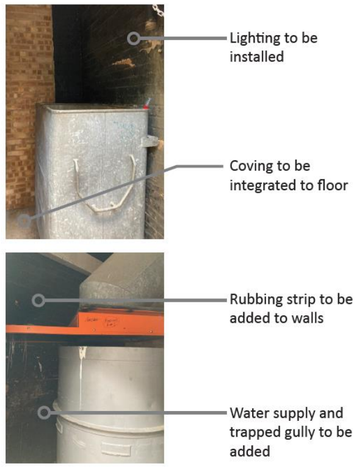
BIN CHUTES, STORAGE AND RECYCLING PROPOSALS





Talbot Grove House and Morland House ground level plan highlighting refuse storages and recycling zones

Food waste units to be added



Improvements to bin storages

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Real life examples

Wilmcote House

Location: Somerstown, Portsmouth

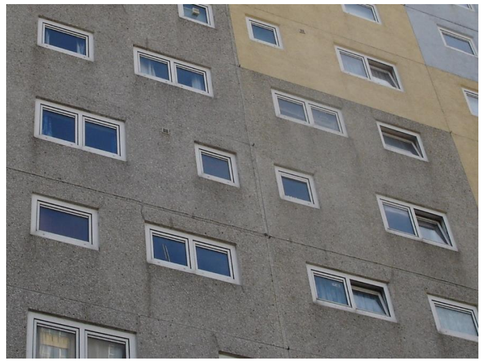
Completion year: 2017-2018

Architects: ECD Architects

Portsmouth City Council commissioned ECD Architects for the building's regeneration to be achieved with the residents in occupation. The project aimed to achieve over 80% reduction in space heating demand and was designed to the EnerPHit standard.

Measures

- Improved thermal comfort thanks to External Wall Insulation and new triple glazed windows
- Improved indoor air quality thanks to MVHR ventilation system
- Radically improved thermal performance with estimated space heating demand reduced from 188 kWh/m2/yr to approx. 23 kWh/m2/yr.
- Savings of up to 90% over the existing heating bills
- Reduced maintenance cost for council
- Step-by-step Passivhaus-EnerPHit standard



Wilmcote House Pre-Retrofit

Wilmcote House Post-Retrofit

"It is better because before all this was old. We had draughts, condensation and mould everywhere but now because of the new windows that's gone, it's a lot better."
- Resident of Wilmcote House

"In the winter its much, much better and warmer, the heater provides heat for the whole flat not like before."
- Resident of Wilmcote House

"Before you had heaters in every room and it was storage heaters which cost a lot."
- Resident of Wilmcote House

LANCASTER WEST NEIGHBOURHOOD TEAM W11

Real life examples

Enerphit Retrofit Project, Great Yarmouth

Beattie Passive, Enhabit, Oxford Brookes University

“I used to have mould and condensation in my living room, kitchen and bedroom, but now that’s all gone. I don’t have to use the heating very much now either, and when I do its only for an hour or so.”
- Lina Resident of King Street, Great Yarmouth

“I used to get condensation on my windows, so much that I had to use a dehumidifier, but since the retrofit I’ve been able to put that away as it doesn’t happen anymore”
- Mrs. Mitchell Resident of King Street, Great Yarmouth

“I haven’t had to use my heating all year. I’ve even had my energy supplier call me up to enquire why my energy use is so low”
- Peter Resident of King Street, Great Yarmouth

Gascoyne Estate, Hackney

Wetherby

The thermally inefficient blocks have been transformed into modern, insulated, energy efficient homes, finished in brick slip. The retrofit has significantly brought down the average running costs by approximately two-thirds

“It’s good to see the improvement of the blocks. It’s much quieter and warmer since the works have taken place and we are really happy with the results.”

- Veronica Davis, Secretary for the Tenant and Resident Association

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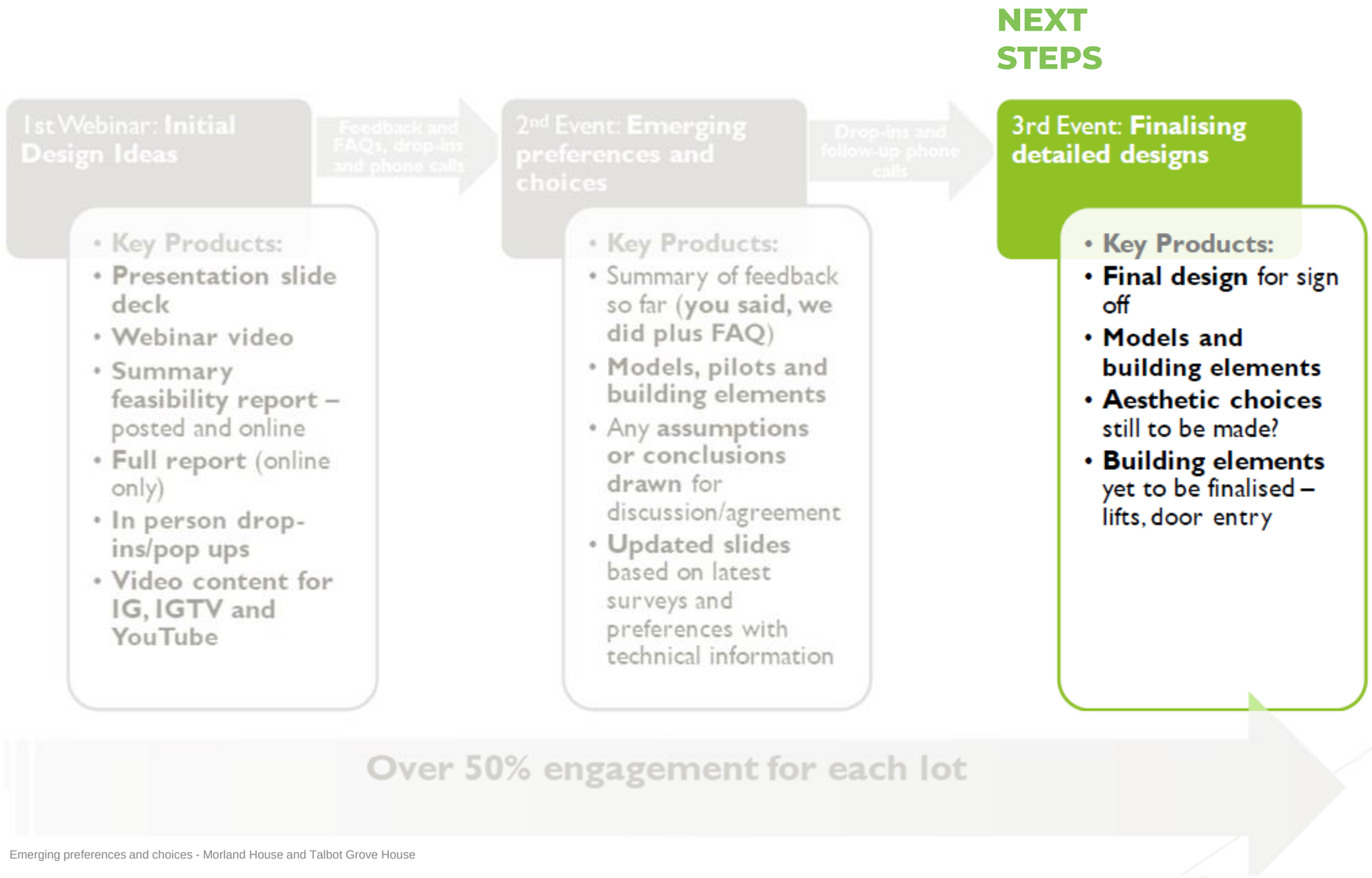
Next steps



Phase 3: Finalising Detailed Design

We will present your chosen options from Phase 2 along with:

- Final wall finishes and colour options
- Final window configuration, finishes and colour options
- Final roof colour options

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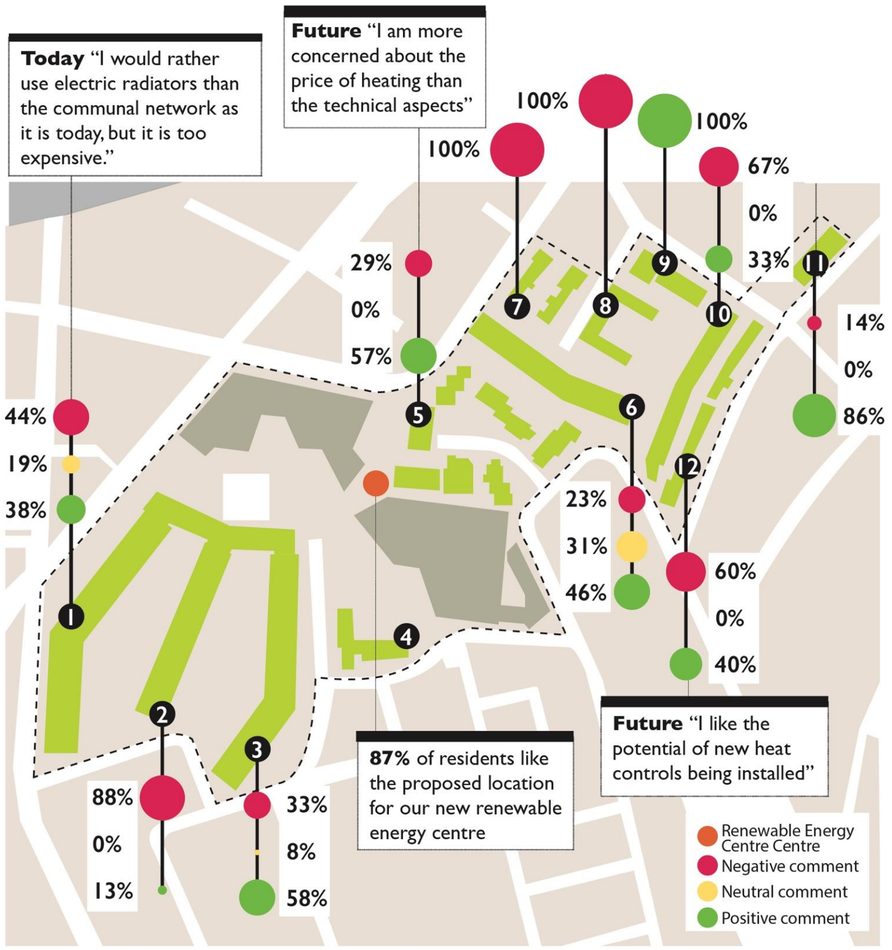
Notting Dale Heat Network
Lancaster West Estate

Talbot Grove House
and Morland House

LANCASTER WEST NEIGHBOURHOOD TEAM W11

Finding an estate-wide heating and hot water solution



Benefits of an estate-wide solution

- Address all existing heating problems, replace temporary boiler and failing pipework to blocks
- Move away from gas, to become a carbon neutral estate
- Deliver safe, reliable heating suitable for energy efficient homes

The traffic light map (left) shows what residents think of their heating today. The full Resident Summary report is available online.

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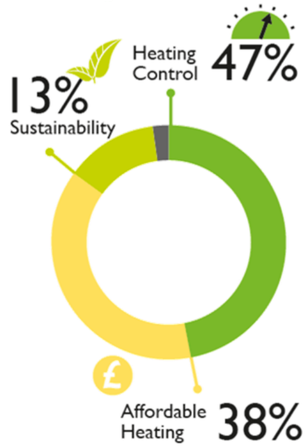
Co-Designing future heating with residents

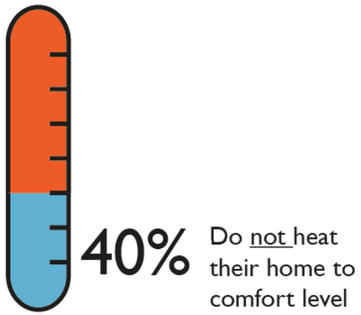
Heating survey → Refurb pop-ups → Refurb webinars → Resident focus groups → **Emerging Preferences & Choices**

Resident heating survey responses

Thinking about heating, what is your priority?



Do you heat your home to a comfortable level?



Responses to your initial design ideas…

Affordable heating
To ensure affordable heating, we are developing a Resident Price Promise.

Use of solar panels
Rooftop solar panels could contribute electricity to heating on the estate.

Heating controls
We are doing pilots for different types of heat controls.

Resident involvement
Future field visits and workshops are planned for the heat network. Two resident board members will also help manage the local energy centre.

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What do you think of your heating today?

What you said…

Comfort level

80% of residents said they heating their homes to a comfortable level. (40% Estate-Wide)

Warmth in winter

100% in Morland House are always warm, overheating is a problem for some homes

40% in Talbot Grove House found it was never warm enough, 40% found it ok in winter.

Cool in Summer

100% in Morland House are never cool

60% in Talbot Grove House are never cool, 40% found the temperature ok.

11% Talbot Grove House residents participated
6% Morland House residents participated

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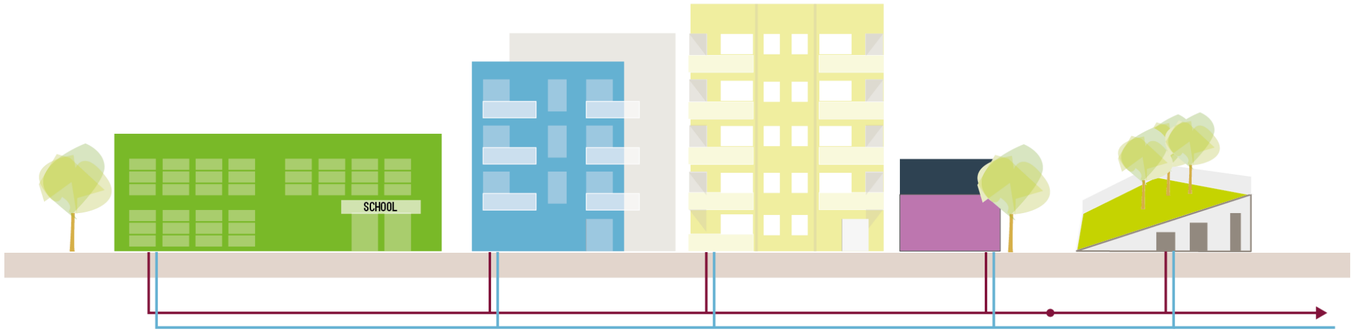
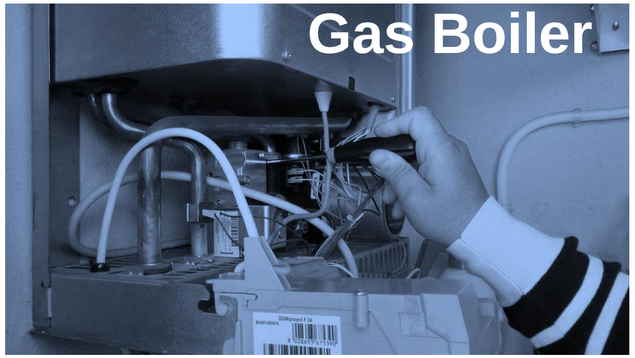
What is a renewable heat network?

Heat is produced by renewable technology at a local energy centre. Heat is then delivered through underground pipes to individual buildings and homes.



Replacing gas boilers
The UK Government has a plan to phase out individual and communal gas boilers by 2035.

A heat network can replace gas boilers and will work with ‘wet radiators’, like those in homes across the Estate today.



Lancaster West Estate relies on gas heating today

LANCASTER WEST NEIGHBOURHOOD TEAM W11

Renewable heating – What options were considered?

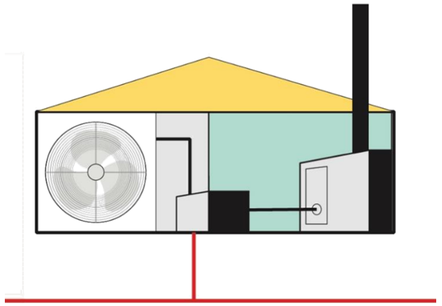
	Option 1 Electric radiators	**Option 2** Individual air source heat pump	**Option 3** Renewable Heat Network	
Energy efficiency	✓	✓✓	✓✓✓	How much heat do you get from the energy put in!
Durability & reliability	✓✓✓	✓✓	✓✓✓	How long the installations will last
Cost to install	£	£ £ £	£ £	Cost to install heating systems in homes
Cost of heat	£ £ £	£ £	£	All heating types use electricity, some use less electricity and so are cheaper than others

Option 3 - A renewable heat network was selected

How does it work?

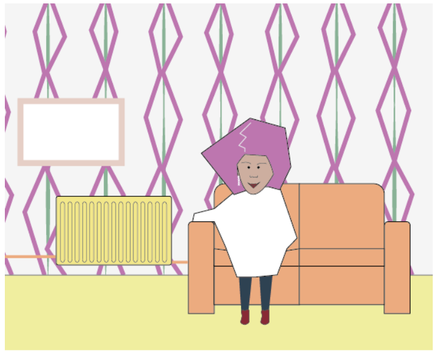
Local Energy Centre

Based at LWE, the energy centre will supply renewable heat using a large air source heat pump. The pump requires electricity to produce heat. 5-10% of the electricity could be supplied by rooftop solar panels from across the Estate.



Heat delivery

Hot water is delivered through underground pipes, to each block, and each home. A heat interface unit transfers heat to your radiators and can supply instant hot water to taps.



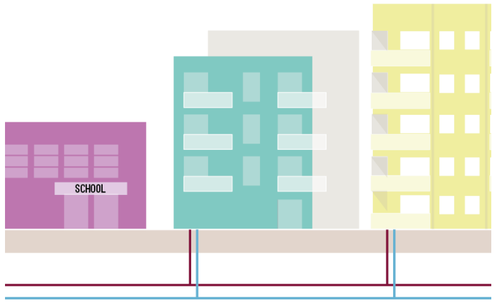
Billing

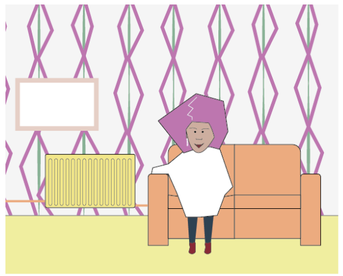
You will pay for the heat and hot water you use. The amount of heat used will be individually measured in each home.

LANCASTER WEST NEIGHBOURHOOD TEAM W11

How will the heat network be installed?

The heat network will be installed in roads, blocks, and individual homes on the estate.





Roads

- Underground pipes will be installed underneath roads.
- This may cause some disruption to cars.
- The old heating system should be unaffected

Blocks

- Pipes will be installed in communal, or external areas of your block.
- These works will take place alongside the main refurbishment works in your block.
- The old heating system should be unaffected.

Your home

- The heating system in your home will be replaced as part of the refurbishment works. This will include radiator replacement.
- There may be a short period when you have no heating or hot water.

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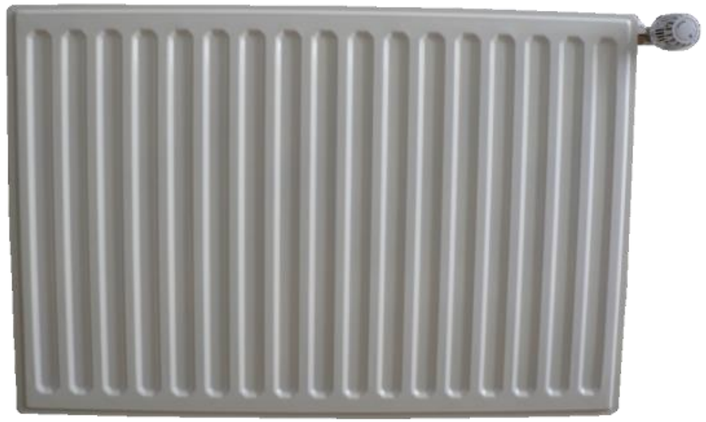
What will be installed in your home?

New plumbing + heat controls

Heat interface unit

Will replace your existing boiler completely.



New radiators + pipes

Existing radiators will be replaced with a similar type.

Thermostats

Controls for heating

Heat Meter

Measures heat use

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How will your heating change...

Today	Future renewable Heat Network
Radiators supply space heating	**New radiators** will be installed
Hot water delivered direct to taps	Hot **water pressure will improve**
Some heat controls available, but no heat delivered in 'summer'	**Smart heat controls** will be available in every room, all year round
Pay a fixed amount to the Council for heating (based on number of bedrooms)	**Pay for heat used** in your home to the Council

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What does this mean for Morland & Talbot Grove House?

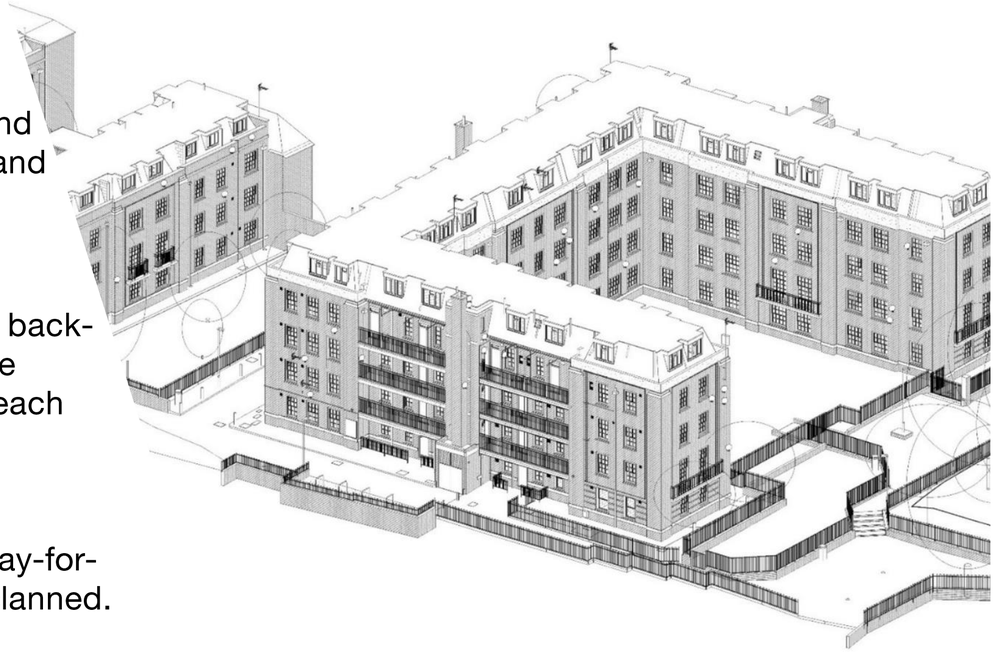
- **New heat controls in your flat**
  individual smart heat controls will be available in each flat, throughout the year

- **End to overheating**
  Replacing the pipework in your home and communal areas will prevent heat loss and overheating

- **Improved reliability**
  The renewable heat network will have a back-up boiler and heat store. Outages will be prevented by replacing pipes between each block and the energy centre also.

- **New metering & billing**
  To meet UK legislation, heating will be pay-for-use. Further engagement on pricing is planned.

- **Electric cooker offer**
  Residents with a gas cooker, will be offered an electric alternative. To support the Estate going Net Zero.



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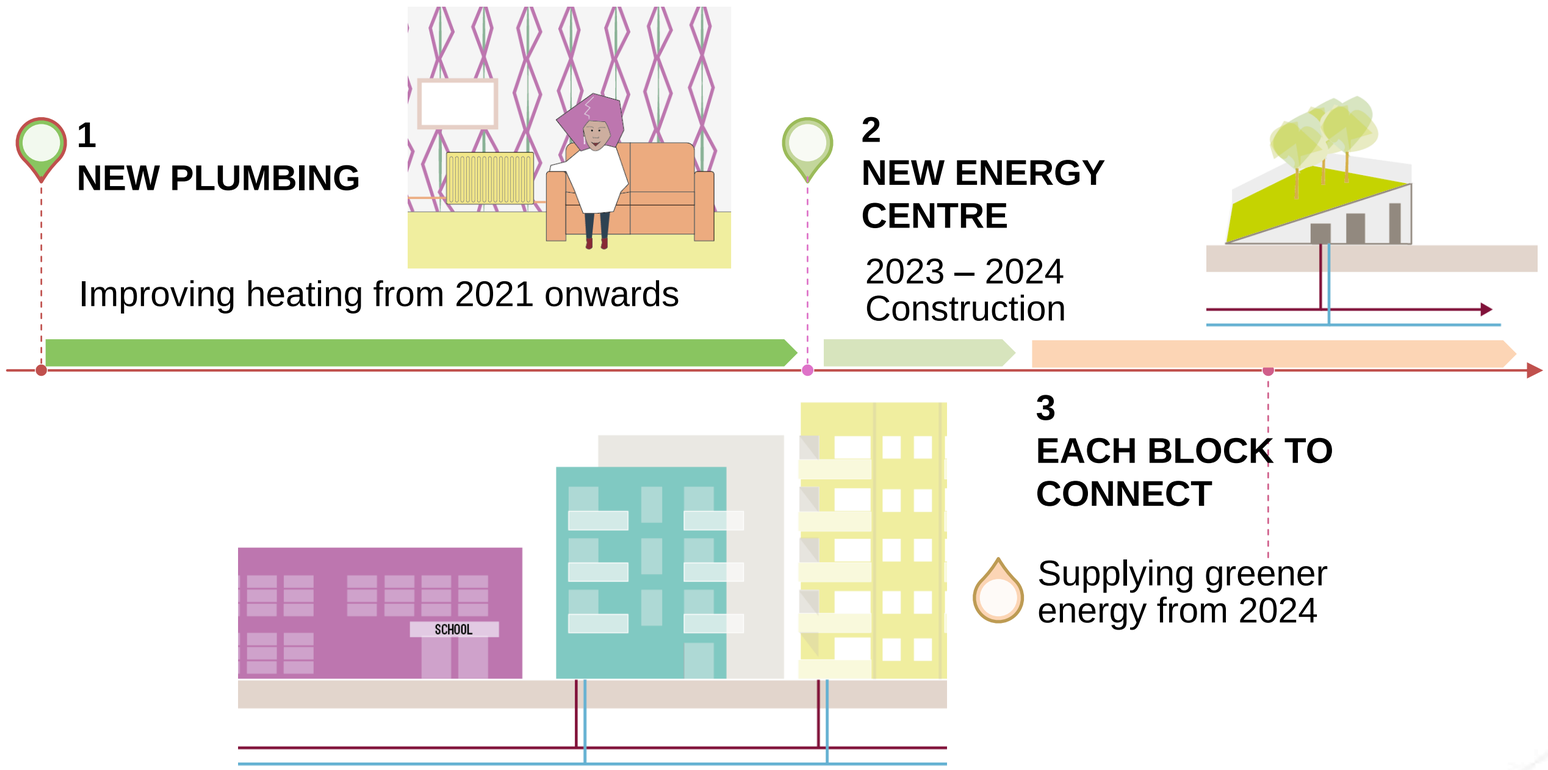
When will renewable heat be available?

The heat network will be delivered alongside the refurbishment works, to minimise disruption.



Earliest connections available from 2024

Next steps

Resident Co-Design

- Refurbishment & Heat Network co-design
- Local Energy Centre co-design
- Resident field trips
- Trial heat meter installation

Refurbishment co-design

- Spring 2022
- Phase 3 Engagement – Date TBC

Heat Network Champions

- Join now to attend future field visits and workshops on the Heat Network
- Contact janet.hall@rbkc.gov.uk

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Resident Enewsletter

JOIN HERE

Please specify which block you live in when subscribing, to allow us to send out block newsletters in the future.

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