A Report Into Housing Conditions in Phoenix Court

The Case for Retrofit

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Executive Summary

The purpose of this report is to highlight and identify any possible environmental issues residents of Phoenix Court face in their homes. Further to simply listing such issues, the report's main aim is to elaborate how residents' quality of life is impacted. In order to gather this qualitative data, we carried out a series of in-depth interviews with residents. The semi-structured interviews took the form of a conversation in which residents explained any environmental issues present in their homes. Importantly, residents were invited to explain in their own words the various and nuanced consequences of living day to day over many years in such poor housing conditions. The report's main findings are the high prevalence of mould, cold, condensation and damp within homes. Residents consistently described negative impacts on their physical and psychological health, social lives as well as financial hardship and difficulty achieving thermal comfort in their homes. In addition to primary qualitative research gathered through interviews, this report also draws upon research carried out by universities, think tanks and government agencies within the UK. The findings of such research, often carried out with far larger sample sizes over longer periods of time, strongly corroborate the findings of this report. Together, the research presented in this report provides a strong insight into how poor environmental and housing conditions strongly influence residents' quality of life. Phoenix Court was chosen as a case study for this report as residents had approached Lifeafterhummus Community Benefit Society with concerns over housing conditions. The number of concerns raised, and their similarity, has made it apparent that strong action needs to be taken to improve the thermal efficiency and environmental conditions in Phoenix Court. As outlined in this report, the desperate improvements that are needed stand not only to make Phoenix Court a more energy efficient building, but importantly, they offer an immediate and effective solution to improving residents' quality of life. Not only can residents' lived experiences be improved by a potential retrofit, but there is also a possibility to achieve substantial carbon savings. This makes Phoenix Court an ideal candidate for a retrofit project as part of the Somers Town Future Neighbourhood scheme.

Introduction

Phoenix Court is a mixed tenure slab block of 39 flats originally built in the late 1960s. Although not originally intended to be used for housing, the block was later taken over by Camden Council. The 39 flats within Phoenix Court are predominantly two beds, with only the top floor consisting of 7 flats being one bed flats. The tenure is mostly council owned with 22 of the flats being occupied by council tenants. The remaining 17 flats are leasehold, being a mixture of owner occupied or let to private tenants. The efficiency rating of flats in Phoenix Court is poor. Only 4 flats have an energy rating of C, 27 flats have a rating of D and the remaining 8 flats have a rating of E. This is lower than the average efficiency rating for flats in England, which is band C. The average efficiency rating for social rent flats in England is slightly higher than this (ONS, 2022).

Phoenix Court is located in the Ward of St. Pancras and Somers Town, to the west of St. Pancras station and immediately to the north of the Francis Crick Institute. The block is oriented on a north / south axis with individual flats being dual aspect. They are accessed via a communal stairway, walkway and lifts on the block' east side. On the west side flats have windows and balconies that face onto a courtyard comprising private

patios and gardens. Also to the immediate west of Phoenix Court is Monica Shaw Court. Although the two buildings are separate addresses, the two are part of the same structure.

Ward and LSOA level data reveal that there are considerable concentrations of deprivation in the local community that are much higher than the averages for Camden, London or England and Wales. While our research did not seek to calculate whether individual households themselves would be classified as being in some form of relative deprivation using quantitative data on income or expenditure, qualitative responses from interviews are indicative of the challenges that households in fuel or food poverty face.

Before introducing and analysing responses to interviews, it is first necessary to identify the broader socioeconomic features of the local community that residents of Phoenix Court are part of. The data serves to corroborate our findings in that it evidences the high levels and relevant forms of deprivation present within Phoenix court and the immediate local area. The key findings reveal that many households are facing food poverty, fuel poverty, are on low incomes and score highly on indices of multiple deprivation. The following markers are relevant to our report as they evidence the forms of financial hardship present that can act as barriers to achieving thermal comfort:

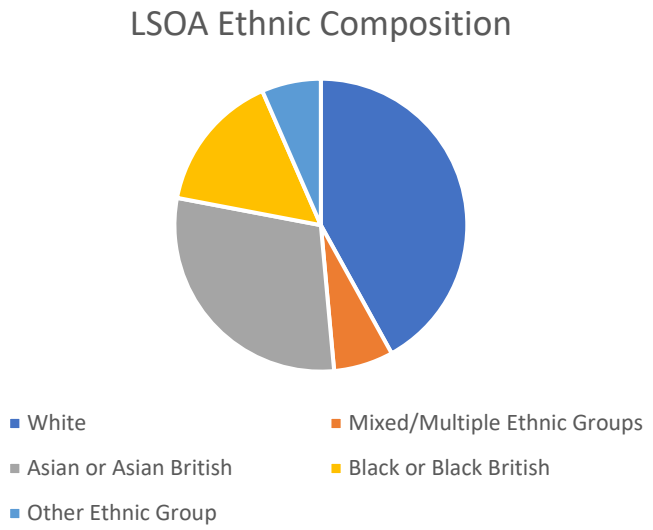
1. As of 2020, **14.8% of households at an LSOA level face fuel poverty** (Department for Business, Energy and Industrial Strategy, 2022). This is higher than the percentage of households in London and Camden that are in fuel poverty which is 11.9% and 13.1% (Department for Energy Security and Net Zero, 2023). Fuel poverty is defined by the government as households with an efficiency rating of below D and with a disposable income below the poverty line after housing and fuel costs. In Phoenix Court, 90% of households have an efficiency rating of D or below.
2. **The ward level equivalised median household income in 2022 was £28,541, this is far lower than the Camden median average of £41,323** (CACI Paycheck, 2022). The highest concentration of Camden households with equivalised median household incomes below £20,000 is in the St Pancras and Somers Town ward. The ward level percentage average is 35% and two thirds of these households have a median income of under £15,000. This is in stark contrast to the Camden average of 13%.
3. **St Pancras and Somers Town has had the highest percentage of children in low-income families** at 49.2% and the highest percentage of households facing food poverty at 14.29% (Camden Council, 2018)
4. **36% of households at an LSOA level are overcrowded,** compared to averages of 9.2% in London and 21.56% in Camden (ONS, 2021)

5. St. Pancras and Somers Town also has the **highest level of residents accessing cost of living support in Camden** (ONS, 2023)
6. **The percentage of children in the ward eligible for free school meals is 55%,** this is considerably higher than the national average which is 23.8% and the Camden average which is 40.9% (Department for Education, 2023)

The qualitative data this report gathered through interviews corroborates the high prevalence of the six sets of socioeconomic markers listed above. Residents on lower incomes will spend a larger proportion of their income on fuel bills, leaving less to spend on other essentials such as food. The financial struggles resulting from this can leave many in fuel poverty. Moreover, the serious overcrowding prevalent in Somers Town is also present in Phoenix Court. Together, overcrowding and deprivation combined with the poor quality of housing in Phoenix Court to seriously impact the quality of life of residents.

Our investigation also did not ask residents to provide information regarding ethnicity, nationality, religion or gender. This decision was made for two reasons. Firstly, LSOA data contains this information of the 708 households that comprise it. Secondly, the purpose of the interviews was to better understand living conditions in Phoenix Court, rather than duplicate readily available census data.

Nevertheless, this information is pertinent to our report as it reveals an over-representation of minority groups in an area of relatively high deprivation and poor housing. With this in mind, a retrofit of Phoenix Court can help to improve the housing conditions of marginalised groups. Such groups, who already face deprivation, will face difficulty in improving their housing conditions without the support of the council. The ethnic makeup of the LSOA in which Phoenix Court is situated is outlined in the chart to the right (Camden Council, 2018).



Structure of This Report

This report adds to statistical knowledge by presenting the lived experiences of residents front and foremost. It is divided into three sections. Firstly, it identifies the physical and environmental problems present within Phoenix Court. These issues have been grouped into three categories of damp and condensation, mould and cold. Secondly, through the voices of residents themselves, the report elaborates how poor environmental conditions interact with other pressures to negatively impact quality of life. Lastly, the final section presents the main benefits for stakeholders of a potential retrofit of Phoenix Court. The report concludes that a retrofit of Phoenix Court is an ideal candidate project for Somers Town Future Neighbourhood 2030 funding. It stands to achieve substantial carbon savings, improved social and health outcomes as well savings to public services.

Methodology

This report seeks to understand the environmental issues in Phoenix Court as perceived and experienced by residents. In order to gather this qualitative data we staged a series of semi-structured interviews with

residents. The interviews were carried out over the phone, in residents' homes and in local parks. The interviews took the form of a free flowing conversation in which interviewees were allowed to talk freely without any biased or partial questions. The questions asked and transcriptions are available upon request. All interviewees and transcriptions have been anonymised. Each interviewee was asked a series of loose and broad questions about their experiences of living in Phoenix Court. The questions were open-ended so that residents could respond by using their own language and express their own thoughts. The interviews ranged in length from 30 to 90 minutes and the responses given were detailed and in depth. By structuring our interviews in this manner, we were able to gather valuable qualitative data that reflects the concerns and experiences of residents.

Sample Size

Of the thirty nine flats in Phoenix Court, six were interviewed. We did not ask residents for information on their ethnicity or gender. Data on these demographic markers is available at a LSOA level which comprises the 708 households in the local area, including Phoenix Court, is presented in the introductory section. The table below lists the households we spoke to, household sizes, tenure type and efficiency rating. In order to safeguard residents' privacy and anonymity, the flat numbers do not correlate with their actual addresses.

Flat	Household size	Age of Occupants	Overcrowding	Location of Flat	Efficiency Rating	Tenure
1	6	2 over 18 and 4 under 18	Yes	Three exterior sides and patio area	E (Has received free insulation)	Council
2	5	2 over 18 and 3 under 18	Yes	Three exterior sides and patio area	D	Council
3	5	All over age of 18	Yes	Two exterior sides and patio area	D	Council
4	2 (previously 4)	2 over 18 (previously 2 under 18)	Not at present	Three exterior sides and patio area	D	Council
5	5	2 over 18 and 3 under 18	Yes	Three exterior sides and balcony area	D	Leasehold
6	2 (previously 4)	2 over 18 (previously 2 under 18)	Not at present	Three exterior sides and balcony area	D (Has received free insulation)	Council

Section 1 - Environmental and Physical Issues in Homes

The first stage of our data collection process was speaking to residents about the environmental issues present in their homes. The purpose of this was to identify which issues are most prevalent, how common they are and which issues concern residents the most. The issues which we identified are listed below and photographs have been provided as supporting evidence where possible. They are damp and condensation, mould and cold.

1. Damp and Condensation

Condensation occurs when warm air with a high moisture content comes into contact with cooler surfaces to form water droplets. The amount of condensation generated is influenced by the amount of moisture the

air is carrying and the difference in temperature between the air and the cooler surface. Condensation is generally exacerbated in properties with poor ventilation that allows moisture to become trapped inside. Additionally, poor insulation can result in colder walls, particularly external walls, that cool nearby air causing moisture to condense. Damp, on the other hand, is a general term for excessive levels of humidity within a building. Whereas condensation results from moisture laden air, damp can arise from various sources including water infiltration and leaks. Damp and condensation can have negative impacts on both residents and the buildings themselves. These include negative impacts on health and degradation to structural components and the construction materials of a building.

Of the six households we spoke to, all had experienced damp and condensation. Flats number 1 and 2 are overcrowded, with more occupants than the two-bed flats are intended for. Higher occupancy levels such as this can lead to more moisture being generated, exacerbating the presence of condensation and damp. A technical term for this is 'wet conditions' and there is abundant research to show that 'wet conditions' are linked to occupancy levels (Hashemi & Khatami, 2015) (British Standards Institution, 2017). This is because everyday activities such as cooking and showering generate moisture which can accumulate inside a flat. If there are more people living in a property, then the amount of moisture generated through these activities is likely to increase. This is especially true in smaller properties with fewer channels for ventilation that can release moisture into the outside air. The data we gathered through interviews corroborates this assumption as the flats which are currently overcrowded reported severe cases of damp and condensation.

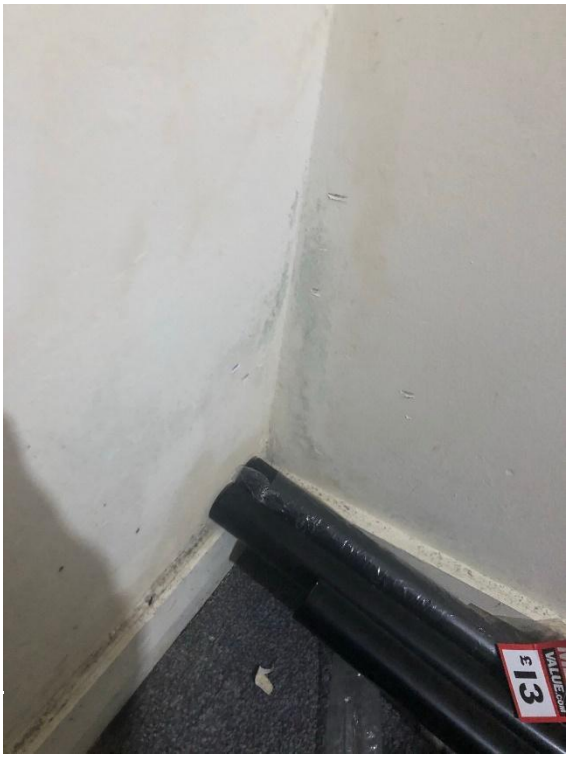
In the case of flat number 1, the levels of condensation reached such a high level that wooden features inside the property began to degrade. At one point, the flat's front door had swollen so much from absorbed moisture that it had become lodged within the doorframe. The resident we spoke to reported that the fire brigade had to be called one morning to remove the lodged door as their children could not leave to go to school. Similarly, window frames began to rot and decay due to the high levels of condensation. The pictures below have been provided by the resident as to evidence the conditions:

Alarmingly, flat 1 had received free insulation from Camden Council in winter of 2022. The resident reported that since insulation had been installed, condensation had worsened within their home. As the flat is already overcrowded and so considered to be in 'wet conditions', it is likely that the added insulation had increased the air-tightness of the property and so trapped moisture within the property and led to increased condensation and damp. Flat 6 has also received free insulation as part of the same scheme. However, due to the lower occupancy levels, the insulation did not cause any increase in damp or condensation.

Flat 2 is also overcrowded and has reported similarly severe issues with damp and condensation. The resident we spoke had originally moved into their flat in Phoenix Court 12 years ago. Although there were no issues

with damp and condensation when they moved into the flat, these issues emerged and worsened with time. It is worth noting that the resident reported condensation and damp increasing with each winter and as the household size increased.

For two reasons, this further supports the assertion that overcrowding is linked with damp and condensation. Firstly, as the outside temperature drops during wintertime, it is not possible to keep windows open for extended periods of time. The closed conditions this creates can trap moisture inside the flat, creating damp and condensation. Secondly, as the resident had children, the household size increased. The added occupants will generate more moisture, creating 'wet conditions' that can cause damp and condensation. It is important that we do not attribute causes of damp and condensation to the behaviour or actions of residents. As discussed in the second part of this report, residents are incredibly active in solving such issues and dedicate much time and effort to managing the poor environmental conditions within their homes. With such high levels of overcrowding in a confined space, it is likely that indoor moisture levels will be high despite the constant efforts of residents.



In addition to damp and condensation arising from indoor moisture levels, water has been seeping into the flat through down pipes fixed to the outside of exterior walls. The resident reported that this began in October of 2020 and had gotten so severe that wooden fixtures within their home had begun to rot and decay. Wooden floorboards in the living room had rotted and subsequently needed to be replaced. This indicates that, in addition to overcrowding, the poor design of down pipes is causing water to pool outside first floor flats and seep into the exterior walls. As well as causing damp in the living room, the mixture of high moisture levels and exterior water infiltration has caused severe levels of damp and condensation within the bedrooms. The various health, psychological and social consequences of living with these issues are discussed in the next section of this report.

Flats 3 and 4 are also overcrowded and the residents we spoke to had reported similar conditions to flats 1 and 2. As expected, the residents reported high levels of damp and condensation on exterior walls. This is because the temperature differences between the two sides of a wall is greatest on exterior walls. Moisture carried in the air forms water droplets when in contact with surfaces that are cooler than the ambient air temperature. As a result, water condenses on cooler exterior walls and can built up over time. With such high

occupancy levels in a small flat with three exterior walls, is it highly likely that condensation and damp will persist if action is not taken.

Flats 5 and 6 are not currently overcrowded. However, they all have been either overcrowded or fully occupied at points in the past. Both residents reported that when occupancy levels were higher, condensation and damp was worse. Again, this supports the knowledge that condensation and damp can be linked with overcrowding. At present the condensation and damp in both flats is bothersome, but not as severe as in the other four flats we interviewed. Nevertheless, in the colder winter months both residents reported high levels of condensation on exterior surfaces. Both flats 5 and 6 are situated above flats 1, 2 and

3 with down pipes that channel water from their balconies towards the lower floor flats. Both residents had reported that their neighbours on lower floors had complained when they washed their balcony floors. This is because water was travelling downwards via the downpipes, but was then collecting in the patio areas and seeping into walls and doors.

The levels of damp and condensation within the flats we spoke to ranges from bothersome to severe. There is a strong correlation between levels of overcrowding and condensation. It is absolutely necessary that this is taken into consideration when exploring options for a potential retrofit. In such 'wet conditions' any increase in air-tightness without adequate ventilation will worsen condensation or damp. This is precisely what we suspect has happened in flat 1 after the bedrooms were insulated.

Damp also arose from the poorly positioned downpipes that channel water from upper stories that lead to water collecting in the patio areas of lower story flats. Again, this has to be taken into consideration when completing a potential retrofit. A potential risk is that physical interventions made to increase energy efficiency or thermal comfort are then damaged by water infiltration.

Nevertheless, a sensible retrofit carried out in accordance with the government's technical recommendations can help to reduce damp and condensation levels within Phoenix Court.

2. Mould

Mould is the colloquial term used to refer to indoor fungi. The growth and spread of mould is influenced by various factors. These include high moisture levels, poor ventilation, water damage, cold surfaces or poor insulation and a lack of sunlight. Mould spores are naturally present everywhere, both indoors and outdoors, but will begin to grow rapidly and persist when these conducive conditions are present. Given the widespread presence of condensation and damp in residents' homes, it is unsurprising that mould was reported as an environmental issue by all of the interviewees.

The distribution of the worst cases of mould roughly reflects the severity of damp and condensation levels. Flats 1, 2, 3 and 4 reported the most severe cases of mould. However, the distribution of mould within individual flats changes according to the orientation, floor level and behaviour of residents. Flats 1, 2, 3 and 5 reported severe cases of mould in bathrooms. Of particular concern are wall surfaces that are near to cold water pipes. The cooler surfaces of these pipes cause airborne moisture to condense when in contact, over time the build of water droplets is absorbed by the porous wall surfaces. These damp conditions in a windowless space makes for ideal conditions for mould growth. In addition to bathrooms, bedrooms were another area where mould growth has been reported. Flats 1 and 2 reported severe and persistent cases of mould in both bedrooms. Flat 1 had received free insulation which had been installed on the exterior walls of the bedrooms. Since installation the levels of mould and condensation have both increased. This is in contrast to flat 6 which has fewer residents in which insulation caused no extra mould growth.

Figure 17: Mould in Flat 3 arising from persistent damp and condensation around cold water pipes in an uninsulated and unheated bathroom

Figure 18: Mould in Flat 3 on cold and damp exterior walls

In flat 4, the resident reported the worst mould was behind fixtures in their kitchen. This is one of the most common spaces for mould as the consistent dark, moist and cool conditions of such nooks and crannies provide the perfect growing conditions. While flat 4 was the only interviewee to report the presence of mould in a kitchen, it is possible that this is true of other flats, but the mould remains confined to such hidden spaces. Flats 4 and 6, which are not overcrowded, have the least severe cases of mould amongst the six households we spoke to. Nevertheless, both residents reported frequent flare ups of mould within their homes. They also reported that when their homes had been fully occupied or overcrowded in the past, that mould growth had been worse.

The environmental conditions described by interviewees are highly conducive to mould growth. It is, therefore, entirely expected that the identical flats in Phoenix Court have suffered from varying degrees of mould growth either at present or in the past. The widespread presence of damp and condensation with poor ventilation allows for mould spores to grow and persist. It is necessary to take this information into consideration when considering a potential retrofit. The one flat which has already received insulation has experienced worsening mould. This is because adding extra insulation can reduce airflow between the inside and outside of a building, leading to a buildup of moisture laden air which is absorbed by surfaces with a temperature lower than the inside air. Without adequate ventilation to compensate for this increased airtightness, it is highly likely that mould growth can increase or at the very least, persist after insulation has been installed. This further highlights the need to carry out retrofit works with an in-depth knowledge of the unique physical conditions of each building. Similarly, the behavioural patterns and household sizes must also be taken into account in order to avoid deteriorating indoor air quality and environmental conditions.

3. Cold

Achieving a comfortable indoor temperature is and has been a challenge for all of the residents we spoke to. Through speaking with residents we identified four main causes of difficulties achieving thermal comfort (the

technical term for a comfortable indoor temperature). Firstly, drafts and air leaks can bring in colder outside air, lowering the indoor temperature of a flat. Secondly, poor insulation allows cold air to penetrate a home while also failing to retain heat, meaning that a flat will begin to cool at a much faster rate in colder seasons. Thirdly, insufficient and inefficient heating units lead to an uneven distribution of heat or fail to warm flats to a comfortable temperature. Fourthly, the prohibitively high cost of heating means that residents can sometimes simply not afford to heat their homes to the temperatures they desire. To varying degrees, all of the households we spoke to reported these issues within their homes.

Flats 1 and 2 had the most extreme issues with drafts and air leakage. As mentioned earlier, flat 1 had experienced extensive damage to their front door as a result of moisture damage. When the door became blocked, a technician sourced by the council shaved off the bottom inch of the door so that it would close properly. This left a substantial gap between the door and the doorframe, allowing cold air from outside to penetrate the flat. The resident reports extremely uncomfortable temperatures as a result, describing the conditions as freezing cold throughout the winter months. Flat 2 also reported cold air seeping in through the front door and accumulating in the hallway area.

Both flats 1 and 2 also report cold air accumulating in non-heated rooms such as the bathroom, hallway or kitchen. These rooms either don't have a heating unit or are not heated in order to save on energy costs. However, the lack of internal insulation means that cold air from these spaces seeps into other rooms, resulting in uncomfortably low temperatures throughout their homes. Poor insulation, or the complete lack of it, was reported by all interviewees as a source of thermal discomfort. This can be identified through the interview responses of residents as reported that entire walls would be cold to the touch. This differentiates sources of cold from drafts or air leaks which residents described as channels of cold air moving around their homes. A further reason that we can attribute thermal discomfort to poor insulation is the rate at which flats fail to retain heat. Residents reported that it was often not financially worthwhile to heat their homes as the warm air would simply dissipate.

As mentioned earlier, flat 1 did receive free insulation in their two bedrooms. Despite the persistent damp, condensation and mould, the resident did report that the insulation had made the bedrooms warmer compared to previously. This further evidences that insufficient insulation is contributing to thermal discomfort in Phoenix Court.

The six households we spoke to all use the same type of storage heater and reported the same issues with them. Residents told us that the heaters unevenly distributed heat in their homes. This led to either the living rooms or bedrooms being warm, depending on the preference of residents, while other areas were left cold. An issue with this is that, due to poor insulation, cold air from unheated spaces seeps into warmer rooms and lowers the temperature to an uncomfortable level. Due to the design of the heating systems in the flats, residents are unable to heat their homes to a comfortable level and distribute warmth throughout all areas of their homes. A further issue with the storage heaters is their unreliability and their size. Flats 1, 2, 5 and 6 reported that the heaters have broken numerous times, leaving them with no source of warmth. Residents of overcrowded flats told us that the size of the heaters was inconvenient. In these homes, space is at a premium and so, having a large and bulky heating unit fixed to the wall takes up valuable space. For these reasons, flat 2 declined having new larger heating units installed so as to not lose further space in their overcrowded home.

Lastly, all the residents we consulted reported high costs of heating their homes. This led to all of them purposefully using heaters less than they would like to. Residents of flats 4, 5 and 6 told us that over the last winter they did not use their heaters at all in order to save on energy costs. Instead, residents used cheaper methods to stay warm throughout the colder months. The effects of living in thermal discomfort and the actions taken by residents to mitigate this are discussed in the subsequent section of this report.

The interviews we carried out with residents reveal that thermal discomfort is a severe and common problem in Phoenix Court. The similarities in responses indicate that there are structural issues that need to be addressed in order to resolve these issues. Importantly, they suggest that an improved heating system is just as important as added insulation.

Conclusion

The first section of this report has identified three key environmental issues in Phoenix Court as reported by residents. These issues interrelate with each other as mould will grow best in damp conditions, which are exacerbated by poor insulation and cold surfaces. Importantly, resolving these issues are beyond the capabilities of residents as they are either too costly or require a comprehensive retrofit to address and solve structural causes. A potential retrofit of Phoenix Court can go a long way to ending thermal discomfort, condensation, damp and mould. The cycle of moisture build up in cold conditions that leads to mould growth can be broken, avoiding a further decline in environmental conditions.

Section 2 - Impacts of problems in residents' homes

This report moves beyond simply identifying and listing environmental issues in Phoenix Court. It elaborates the various social, physical, psychological and financial costs of poor housing conditions. By doing so, this report highlights that Phoenix Court is a strong candidate for retrofit, not only due to the physical repairs that are needed, but also because of the wide ranging negative impacts caused by environmental problems. The qualitative data we gathered through interviews reveals a strong causal link between the physical problems presented in the previous section and negative impacts on quality of life. The impacts on residents can be classified into three broad categories that interact with each other to create negative cycles. The categories are physical health, financial hardship and mental health and well-being. The following section describes each of these three categories as reported by residents and concludes by outlining the link between housing conditions and quality of life.

1. Physical health

All of the six households we spoke to reported that they suspect a strong link between their physical health and the environmental conditions in their homes. The most common of these physical health effects is respiratory illnesses. All six interviewees reported that at least one member of their household had suffered from a respiratory illness they attributed to cold, damp or mould within their homes. Four of the six households had these suspicions confirmed by medical professionals whom they consulted about their illnesses. Children living in these households are particularly vulnerable with all of the interviewees reporting that their children have at some point developed respiratory illnesses that they attribute to environmental conditions in their homes.

The high prevalence of respiratory illnesses in Phoenix Court is not surprising given the environmental conditions that were identified in the first stage of this report. There is a strong and growing body of research that evidences the causal links between housing conditions and respiratory illnesses published by research centres, universities and government agencies. These include smaller case studies, as well as much larger statistical analyses of national housing and health outcomes (BMJ, 2019) (British Lung Foundation, 2016) (The Health Foundation, 2023) (Shaw, 2004) (Public Health England, 2014). Much like outdoor air quality, poor indoor air quality is a key cause of respiratory illnesses. In particular, a combination of persistent mould, high humidity and poor ventilation can seriously decrease indoor air quality, which can irritate the respiratory system and cause or worsen conditions such as asthma, allergies and respiratory infections. In addition to air

quality, low indoor temperatures can also contribute to respiratory illnesses. Prolonged exposure to cold air can further irritate the respiratory system and worsen symptoms for those with underlying conditions.

Further to respiratory illnesses, three of the six interviewees reported other health conditions caused or worsened by housing conditions. Two residents told us that they suffer from cold urticaria, a condition that causes an allergic reaction to cold temperatures. Both residents reported that the symptoms would begin and persist throughout the winter. Being in a poorly insulated home with inadequate heating, they reported feeling uncomfortable in their own homes. A third resident reported that the two adult occupants of their home suffered from arthritis and dystonia. Both conditions worsened throughout the winter months and like other residents, they struggled to pay for heating and so suffered from worse health in cold seasons.

The link between health and housing is both undeniable and strong. A potential retrofit of Phoenix Court can help to drastically improve public health outcomes by mitigating one of the leading and most avoidable causes of poor health; poor housing conditions. Improving ventilation and thermal comfort can help to improve health outcomes in Phoenix Court by protecting children and those with underlying health problems from mould, cold and damp.

2. Financial Struggles

In addition to costing residents' health, the poor housing conditions in Phoenix Court also have financial costs for residents. These financial costs mainly arise from poor insulation and inefficient heating systems, but repair work to deal with damp and mould damage represents a significant expenditure for some residents.

All of the six residents we spoke to reported that they struggle at present to pay their energy bills or have struggled in the past. Since the energy price surge of last winter, four of the six residents told us that they struggle more than ever to pay their energy bills. Each household and resident has found their own way of making ends meet that works for them. In the case of flats 1, 2, 4 and 5 adult household members have begun taking extra shifts at work or taken on another job simply to cope with the increased cost of energy. In the case of flat 5, one of the household members returned to work recently despite long-term illness in order to pay for heating.

As well as spending more time working and less time at home, residents have been forced to find other ways to make savings on energy bills or elsewhere. These include accessing support from the council, local charities or relatives. Despite never having done so before, the high cost of energy forced the residents of flat 2 to make use of a local food bank just so that there was enough food for the family. The same resident told us that they used their overdraft facility to pay for energy costs last winter, taking on debt just to stay warm. Flats 4, 5 and 6 rely on the financial support of relatives in order to pay for energy bills. All of the residents we spoke to also reported that they either heat their homes less than they would like to in order to save money or cut back on other essentials such as food as they cannot afford both.

In some cases, mould and damp damage has been so severe that it has become a significant cost for residents. In flat 2, the resident reported that mould and damp had damaged clothes and soft furnishings. The resident told us that their children’s clothes had been damaged and needed to be thrown away. In order to avoid future damage, the resident bought airtight boxes to store clothes in. In flat 4, the resident needed to undertake significant works to their home as a result of damp, mould and excessive cold. This included cladding walls and ceilings inside in order to retain heat. In addition to these permanent changes, the resident regularly cleans walls and surfaces to get rid of mould growth. The resident of flat 5 reported a similar situation in their home as managing the persistent mould growth required ongoing efforts.

Poor insulation costs residents money as heat dissipates more quickly, meaning that more energy is required to consistently keep a home warm. Similarly, an inefficient heating system requires more energy to heat the same volume of air or water than a more modern and efficient unit. This extra energy required translates

into higher bills and therefore costs for residents. Given that accessing social housing is means tested, we can confidently assume that council tenants in Phoenix Court have relatively lower disposable incomes than the Camden or London averages. As such, energy bills will consume a far larger percentage of these relative incomes. Any increase in energy prices will, therefore, lead to a substantial decrease in disposable income and material standard of living. A potential retrofit of Phoenix Court that addresses its thermal inefficiency by improving insulation and replacing heating systems will save residents considerable sums of money on their energy bills. This means they will be able to work fewer hours, instead spending more time with their partners and children.

3. Mental health and well-being

The responses to our interviews reveal that the biggest impact on residents of the issues outlined in this report has been psychological distress. Residents reported constant stress, anxiety, worry and frustration caused by living in poor housing conditions, financial struggles arising from high energy costs and the constant need to manage damp or mould growth. Collectively, all of the issues discussed so far in this report generate considerable levels of psychological distress among residents of Phoenix Court. Based upon the responses to interviews, it can be considered that this is the biggest impact on residents. These impacts can be grouped into three main categories; concerns over health and the future, a loss of control and social dynamics.

Flats 1, 2 and 4 have young children living in the households. We spoke to the parents of these children who told us that they feared that damp and mould was affecting their children's health. Whether their health is impacted or not, to a certain extent, can be considered irrelevant as the psychological stress and anxiety caused by this fear is in itself a key problem. Parents in Phoenix Court are permanently worried that their homes may be causing illnesses in their children and living with this fear causes a great deal of distress. Parents of young children told us they want to provide a better environment for their children to grow up in, such as a home without mould, damp or cold. A potential retrofit of Phoenix Court could eliminate parents' worries over their children's home environment by creating warm, dry and well-ventilated homes.

It is not only households with young people that live with health-related anxieties. Residents of flat 5 told us that they feared long-term exposure to damp and mould in their home would put them at greater risk of health complications as they enter their old age. These residents live with a constant source of anxiety that their homes, the very place that should be a safe environment, particularly for the young, are actually harming their health. It is not just concerns over potential health impacts that causes anxiety and stress. Residents also reported that they often fear the onset of winter as they know that the physical conditions in their homes will deteriorate and that their energy bills will increase, leaving them with less disposable income. For many people, housing is now a leading cause of anxiety and stress. The findings of this report are corroborated by research carried out by organisations as diverse as the universities of Leeds, Sheffield, UCL as well as Newham Borough Council, the House of Commons, Mind and The Health Foundation (Hardy & Gillespie, 2016) (Mind, 2017) (Kulakiewicz & Wilson, 2022) (The Health Foundation, 2023).

The poor housing conditions, anxiety and stress can combine to unmake residents' feeling of home. That is, they are not in control of shaping their home environments as no matter what action is taken, the mould, damp and condensation persists, leaving residents feeling powerless and frustrated. The residents we spoke to have lived in Phoenix Court for periods of time ranging from 10 to 40 years. They reported that throughout this time there were constant issues with damp, mould, cold and condensation. Living in an environment that you recognise is not good for your health, but with little recourse for action has left some residents feeling despondent. The situation has severely undermined trust in Camden Council, which many residents perceive as indifferent and negligent to the poor housing conditions in Phoenix Court. Retrofitting the block of flats could help to repair what little trust remains between residents and the local authority. Similarly, it stands to reframe residents' relationship with their homes. If the environmental issues outlined in this report are dealt

with, residents' flats would no longer be a source of stress and anxiety, but become a warm, dry and comfortable home environment. Worryingly, two of the residents we spoke to told us that they were considering leaving Phoenix Court as their housing conditions had deteriorated so far. These two residents, like the other four we spoke to, told us how much they enjoyed living in Somers Town. Many residents have lived here for decades and have family and friends in the area. Against the backdrop of London's rampant gentrification, it would be shameful if residents of Phoenix Court had to abandon their community due to the council's failure to solve issues of mould and damp. The residents we spoke to have all described declining trust in the intentions and actions of the council as their housing conditions continue to worsen. Residents reported that they perceived the council as indifferent and negligent towards poor housing conditions. Many attributed the declining state of Phoenix Court to the inaction of the council or poor maintenance work of contractors. As such, not only are environmental problems undermining residents' psychological wellbeing, but it also severely damages trust between residents and the local authority. A genuine and comprehensive retrofit of Phoenix Court will go a long way to improving the perception of Camden Council amongst residents in Somers Town at a moment when trust appears very difficult to come by.

Lastly, the poor environmental conditions in Phoenix Court, have in the cases of flats 1, 2, 4 and 5, have impacted relations between residents. This can be caused by high energy bills causing tension between family members. The constant pressure to budget and make savings in order to pay for heating can cause arguments between adults responsible for household finances. Parents also have to reduce how much money they can spend on their children, causing tension between parents and children. Interviewees reported how uncomfortable it was having to tell their children they would need to forego heating or other essentials in the winter time so as to save money. In addition to relations between family members, young people's social lives and education have also been affected. Given the persistent damp and mould, many interviewees reported that they prefer not to have guests over or encourage their children to socialise elsewhere. In the winter months this situation can severely impact young people who have few other inside spaces in which they can meet with their friends. Parents also told us that the conditions in Phoenix Court have impacted their children's education. Poor sleep quality, housing conditions and overcrowding made the children's homes an unsuitable environment in which to do homework and studying. Sleepless nights are, however, not confined to young people. It was one of the most common answers at interviews with all but one resident mentioning it of their own accord.

The psychological distress experienced by the residents we spoke to flows from the poor environmental conditions and high costs of heating. Both of these issues can be solved through retrofit. As such, not only can Phoenix Court become a more sustainable and efficient building, but it can also become a much better home for its residents.

Section 3 - The case for retrofitting Phoenix Court

This section introduces the potential benefits a retrofit of Phoenix Court could bring for all stakeholders involved and how it would mitigate the issues raised in this report. Some of the benefits have been briefly mentioned in the previous sections and will be expanded upon now. The following is a list of the nine key outcomes of a potential retrofit of Phoenix Court .

1. Improved mental health for residents

The findings of this report indicate a strong and causal relationship between the environmental issues of damp, condensation, mould and cold in Phoenix Court and the anxiety, stress and nervousness as reported by residents. A retrofit of Phoenix Court can solve these physical issues that cause psychological distress

amongst residents. This represents a significant opportunity to improve the quality of life of residents, achieving substantial social and psychological health benefits.

2. Lower energy bills for residents

A large amount of stress and anxiety stems from the proportionally high amount of income that residents spend on heating and energy. A retrofit of Phoenix Court that makes homes more thermally efficient will reduce heating costs by making flats retain warmth for longer. Replacing heating systems with more energy efficient units will also reduce the amount of energy required to heat a flat, therefore, reducing energy bills. Retrofitting Phoenix Court is an opportunity to substantially increase the disposable income of residents. In addition to reducing stress resulting from financial insecurity, this can bring numerous other benefits. Firstly, residents could spend less time working and more time caring for their health, spending time with their families or pursuing activities that improve their mental health. Secondly, it frees up funds for residents to pay off debts or to begin a savings pot. Thirdly, it also makes extra money available for residents to spend on things that improve their quality of life. It is also possible that much of this money will be spent locally, representing a diversion of thousands of pounds away from large energy companies to local businesses within Somers Town.

3. Improved physical health

Much like mental health, residents' physical health can be substantially improved and protected through a retrofit. Improvement works that address the rampant mould, damp and cold can eliminate the causes and aggravations of the health conditions reported by residents.

4. Savings to public services

Demand for public services can be reduced through a retrofit in various ways. Firstly, improved public health through better housing conditions will reduce demand for the NHS. It is estimated that poor housing conditions cost the NHS £1.4 billion a year (BRE, 2021). By eliminating the causes of preventable illnesses and mitigating poor housing conditions that make existing health conditions worse, a retrofit of Phoenix Court would represent a large saving in future costs to the NHS. Increased thermal efficiency will also reduce energy consumption and bills. As some residents access Camden's cost of living fund to help fund energy bills, a reduction in energy consumption in Phoenix Court also represents a reduction in demand for such financial assistance funds. Lastly, improved mental health and better home environments for children can also result in less demand for NHS services and improved education outcomes. Combined, these potential savings for public services and improved health and education come to represent cost-effective savings for public services.

5. Lower maintenance costs for the council and leaseholders

In addition to reduced demand for and an optimisation of public services, a retrofit of Phoenix Court can also save Camden Council on maintenance costs and preserve the value of its housing assets. Persistent mould, damp and condensation are costly to fix, especially when there are frequent and ad hoc attempts to deal with its symptoms. If left unchecked, these issues can seriously degrade the physical structure of Phoenix Court. A retrofit can reduce these long-term maintenance costs as the causes of these issues will have been solved. Similarly, it will extend the lifetime of Phoenix Court and reduce any depreciations in value due to deteriorating structural conditions. This further represents savings for Camden Council by avoiding future repair costs as well as safeguarding the value of its housing assets.

6. Carbon savings

Camden has announced an ambitious and laudable ambition to achieve net zero by 2030. Around 14% of the UK's greenhouse emissions are caused by domestic heating and a further 11% from construction (ONS, 2023). In order to achieve net zero, emissions from domestic heating and construction activities have to be reduced. Retrofitting existing housing stock is a crucial tool in the road to achieving Camden's ambitions. A retrofit of Phoenix Court can reduce energy consumption as well as avoiding the need to demolish and rebuild by extending the lifetime of existing buildings. As such, a retrofit of Phoenix Court can not only help make financial savings, but also substantial reductions in carbon emissions. In order to maximise carbon savings, it is necessary to first conduct a technical appraisal of Phoenix Court. Each household has its own unique pattern of energy usage and each building needs different strategies depending on its construction material, layout and existing thermal efficiency. As such, Phoenix Court needs a bespoke strategy to achieve carbon reductions that engages with the specifics of its residents and its design. This report represents a strong starting point for devising a retrofit strategy that will maximise social and environmental outcomes.

7. Preserving the community of Phoenix Court and Somers Town

The residents we spoke to all expressed their desire to stay in Somers Town and the valuable feeling of community arising from having family and friends in the area. Despite feeling pride and a connection to their local area, many expressed the opposite feelings about their own homes. By retrofitting and improving Phoenix Court, Camden can help to stop the alienation and marginalisation caused by poor housing. Residents aspire to be proud of the places they call home, but cannot achieve this without the support of Camden Council. If Phoenix Court continues to deteriorate the existing community risks being broken up as residents move on to seek better housing conditions elsewhere. To avoid this displacement and rupturing of social ties, Phoenix Court needs to be retrofitted and improved.

8. Improving trust in Camden Council

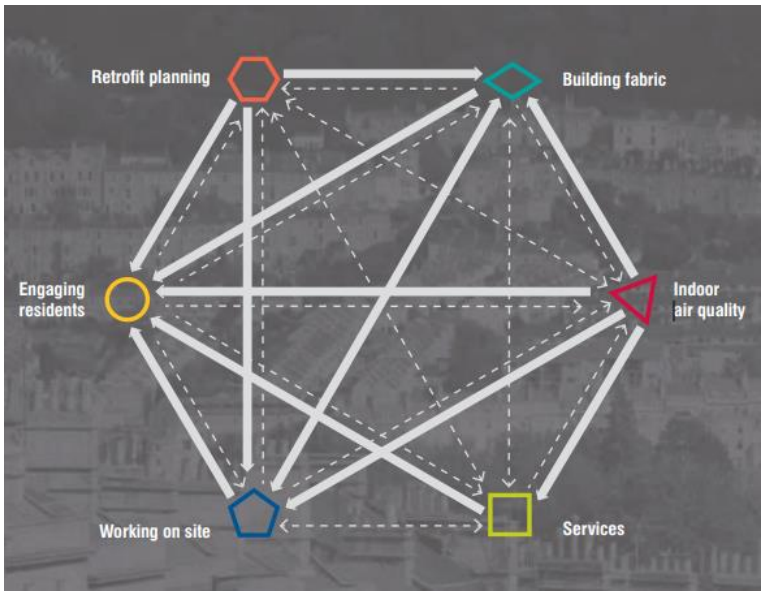
The declining physical state of Phoenix Court, as with many other Council owned residential buildings in Somers Town, is attributed to the inaction of Camden Council as perceived by residents. As outlined in this report, the poor housing conditions are generating lower standards of living for residents. A retrofit that improves quality of life by addressing housing conditions will go a long way to restoring trust in Camden Council. At present, the Council is perceived as indifferent, uncaring and negligent towards residents of Phoenix Court, many of whom have described deteriorating standards of maintenance and difficulties in having housing issues addressed. The residents we spoke to are dependent upon Camden Council for their housing conditions, who as their landlord, exerts a great deal of influence over their quality of life. With this in mind, a retrofit of Phoenix Court would be a great boost for local democracy and trust in the local authority at a turbulent and unpredictable time. If Camden Council wishes to improve how it is perceived and trusted by residents, exploring retrofit opportunities as desired by residents themselves is an excellent place to start.

9. Using Social Value

As established in this report, housing plays a leading and causal role in health outcomes, well-being and demand for public services. Quantifying the cost savings of intangible and long-term positive outcomes such as improved well-being or carbon reductions can be challenging. Social value calculations are a useful tool for determining these potential savings for stakeholders in a potential retrofit of Phoenix Court. The Social Value Bank, HACT, has estimated that the savings of improving a flat's energy efficiency rating by two bands can outweigh the costs by £434.

Conclusions

This report has revealed the extent of poor housing conditions in Phoenix Court and the various negative impacts these have on residents. Broader research corroborates this report's findings that poor housing conditions exert a huge influence over quality of life and mental and physical wellbeing. The argument that improving housing conditions through a retrofit will lead to savings for all stakeholders as well as increases in life satisfaction are evident and supported by robust research and case studies. Nevertheless, achieving a good quality retrofit requires a sensitive approach that considers the unique character of each building and its occupants. This report provides a strong starting point for retrofit as does the government's own guidelines. Both this report and advice from bodies such as the government funded Social Housing Retrofit Accelerator scheme and Retrofit Academy highlight the importance of technical pre and post work assessments in order to identify bespoke solutions to maximise energy performance gains and generate social value. Importantly, this report identifies that insulation already provided to households in Phoenix Court has had mixed results, further suggesting the need to develop unique retrofit strategies for each building or household. The graphic to the right shows the six key steps in achieving retrofit as outlined by the government's innovation agency. This report provides a stepping stone to engaging with residents. In order to achieve further retrofit ambitions in Phoenix Court, the next five steps will need greater sensitivity and expert technical engagement before works begin and after they are completed.



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