

Ekin Road Options Appraisal

STAGE 2 REPORT

Cambridge City Council

26th February 2024

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2 EXECUTIVE SUMMARY

2.1 Introduction and project background

The Ekin Road Estate (“the Estate”) is a local authority estate comprising 122 homes (maisonettes, flats, bungalows and houses) situated in East Barnwell in Cambridge. East Barnwell is a mixed residential and commercial area with retail, educational and industrial uses close by. The Ekin Road Estate itself comprises of a mix of traditional and non-traditional ‘Easiform’ construction buildings that are in a fair condition, benefitting from essential maintenance works. However, the buildings do not meet the current standards that are applied to new developments with many of the units having ongoing maintenance problems and structural issues.

In 2021, Cambridge City Council (‘the Council’) informed residents of a review into the condition of the Ekin Road Estate to understand the issues affecting leaseholders and tenants which identified Ekin Road as an estate to be considered for redevelopment in a report presented at the City Council’s Housing Scrutiny Committee in September 2021. Since then, the Council has been exploring potential options for the Estate and in June 2022 began a resident engagement process.

In June 2023, JLL was appointed to assess the potential options in a two-stage approach. Options ranged from minimal changes through to refurbishment, partial redevelopment, or full redevelopment of the site. During the summer of 2023, JLL began Stage 1: a thorough review of the sites and assessment of the options by considering the potential economic, social, environmental, financial, and strategic benefits. Three shortlisted options were identified which were presented to residents and the Housing Scrutiny Committee in September 2023 (Appendix J).

From September 2023 onwards, JLL has been conducting further, detailed analysis of the three shortlisted options to determine their viability. Alongside the analysis, residents have been engaged with to find out their views on the three options, their current homes, and their general wellbeing in order to complete an independent survey to inform the evaluation process. This report will outline the detailed analysis conducted by JLL along with the recommendation of the preferred option for the future of the Ekin Road Estate.

2.2 The Case for Change

The 122 existing homes in their current form require improvements with the estate classified as being in a fair condition. However, there are ongoing maintenance problems, some structural issues and aspects of noncompliance with new build regulations for sustainability, accessibility and health and safety meaning the accommodation on the estate falls below the standard desired by the Council. Therefore, there are a number of key factors which are driving the case for changes. These are outlined further in the report.

2.3 The Options Assessed

After initially evaluating seven options for the estate, three options were shortlisted and taken forward for further evaluation.

The three shortlisted options that have been considered for the Estate as part of this options appraisal are:

- Option 1 - Refurbishment of the existing council housing across all building types. The leasehold flats and maisonettes would also be included in the refurbishment programme but the freehold houses would not take part
- Option 2 - Partial Redevelopment and refurbishment of the Estate. The majority of the houses are retained with some refurbished and the remainder of the estate is redeveloped into new build housing and flats
- Option 3 - Full redevelopment of the estate include the re-provision of existing Social Rented affordable housing

2.4 Options Appraisal Methodology

The three shortlisted options from Stage 1 have been further assessed using the HM Treasury Green Book Approach which builds upon the Stage 1 methodology that incorporated the strategic alignment, economic and social value alignment, lifecycle carbon impact and financial performance.

The HM Treasury Green Book Approach is used to appraise projects by assessing the costs, benefits and risks in a five-case model:

- The Strategic Case sets out the key Council policies specifically related to residential properties which were incorporated into a set of Critical Success Factors (“CSF”) in which the preferred option must meet. The Case for Change is also presented to demonstrate the current situation and the rationale for intervention. This was framed in the context of the findings from the resident engagement, planning and economic considerations.
- The Economic Case qualitatively evaluates the shortlisted options against the CSFs and a rating of either Green (Good), Amber (Acceptable) or Red (Unacceptable) has been provided to reflect each option’s ability to deliver the CSFs identified in the strategic case. Additionally, options for delivery and phasing have been qualitatively evaluated. A Benefit-Cost analysis was calculated for each option with an output above 1 indicating the benefits outweigh the costs. This allowed for each option to be assessed in terms of its ability to deliver social value through broader social and economic benefits.

- The Commercial Case builds upon the evaluation of the delivery models in the Economic Case, to outline the preferred method to successfully deliver each shortlisted option. The commercial mechanisms of delivering each option via the selected delivery model will also be detailed.
- The Financial Case assesses the financial impact of each shortlisted option on the Council budget in terms of the cost of both capital and revenue. The cost of development/refurbishment for each option is also determined as well as any consideration of funding.
- The Management Case outlines the project management, governance, and risk management of the delivery of each shortlisted option via the selected delivery route. This case also outlines the assumed phasing and how it will work.

Alongside the HM Treasury Green Book Approach, supporting documents have been created to support the five cases and inform the final recommendation. These include:

- **Ekin Road Resident Survey**

Feedback from the Resident Survey (Appendix A) was analysed to identify common themes, trends and issues raised by residents. These findings are important to gain insight into the preferences and needs of the residents which can be incorporated into the Strategic Case to identify additional issues on the estate. This will support in understanding their priorities in relation to the proposals which in turn will inform the evaluation process in the Economic Case.

- **JLL Development Options Assessment**

A Development Options Assessment (Appendix I) has been conducted by the JLL Affordable Housing and Building Consultancy teams to assess the financial feasibility of each shortlisted option. This analysis assisted in determining the preferred option. Market led (98x Social Rented homes with the rest being private units) and 100% affordable housing scenarios (98x Social Rented units with the additional private units converted to Affordable Rent) for the partial and full redevelopment options were assessed alongside the refurbishment option using Argus Developer appraisal software to calculate the deficit/surplus arising from each option.

- **JLL Ekin Road EPC Improvement Study**

An EPC Improvement Study (Appendix B) was produced to detail the potential works needed to improve the EPC ratings of the properties located on the Estate. This will inform the sustainability improvements required in the refurbishment option to improve the energy performance of each building typology. In understanding these improvements, the JLL team was able to assess the

refurbishment option's ability to bring the buildings up to the standard of the Cambridge City Council Sustainability Housing Design Guide.

- **JLL Ekin Road Estate Refurbishment Feasibility Assessment**

The JLL Building Consultancy team assessed the technical and financial viability of refurbishing the Estate (Appendix H), to achieve the same standard as the redevelopment scheme, in alignment with Cambridge City Council's Sustainability Housing Design Guide and a life cycle expectation that makes the scheme viable. Inspections of the Estate were conducted alongside additional concrete testing carried out by Curtins Consultancy to report on the condition of both the traditional and non-traditional 'Easiform' construction buildings on the estate (Appendix AH). This will establish the overall life expectancies of each building type as well as the improvements required to improve their current condition.

Through carrying out additional studies, assessments and surveys, an informed decision can be made regarding the viability of the shortlisted options that meets both building and sustainability requirements and residents' needs while being financially viable.

2.5 Appraisal Outcomes

2.5.1 The Strategic Case

The Strategic Case confirmed there is a case for change. Based on technical reports and qualitative data received from surveys, it is clear the Estate in its current form and layout requires improvement despite being in a fair condition. There are general issues in relation to fire safety, health, and wellbeing as well as problems with accessibility across the estate and numerous incidents of anti-social behaviour. Internally and externally, the traditionally constructed properties (houses, bungalows, and maisonettes) have been kept in fair order with improvements carried out on a cyclical basis. However, the non-traditional construction flats have been identified to have met the end of their useful life with signs of cracking, poor thermal integrity, and risk of structural degradation from the effects of carbonation. Many residents have stated they are experiencing mould and condensation problems that is impacting the health and wellbeing of residents. This issue was also noted in other building types. Therefore, significant investment would be needed to improve the accommodation across the estate from a condition, safety, sustainability, and accessibility perspective. The current housing does not align with the Council's aims of providing high-quality design and quality of homes. Options have been assessed in terms of their ability to address these problems and provide long-term benefits.

2.5.2 The Economic Case

The Economic Case has strategically analysed each option against the 11 agreed critical success factors (CSFs). When analysing alignment with the CSFs, it is clear that the refurbishment option is not capable of achieving a satisfactory number of CSFs. Out of the 11 CSFs, there was one green flag, six amber flags and four red flags. While it offers short-term energy and repair improvements, it fails to fully address the buildings' issues as well as the health and wellbeing concerns present on the Estate. Where a BCR result is greater than 1, this indicates the costs are outweighed by the benefits. The refurbishment option had a poor BCR result of 0.09 over a 10-year period indicating limited benefits are created from this option in comparison with the cost to deliver.

The partial redevelopment has potential to achieve a satisfactory number of CSFs, with improvements in housing quality, safety, and green outdoor space that have created benefits in return for the cost. This is particularly evident for the 100% affordable housing option which has the greatest BCR result of 1.64. However, the market led scheme has a lower than 1 BCR result indicating there are limitations with this option. The limitations arise from retaining the low-density houses. It results in a fragmented estate in terms of design and quality and causes constraints in meeting housing demands and needs as a lower number of homes can be delivered. Therefore, there is an inability to achieve maximum unit uplift but there are clear benefits from this option for residents, the wider community, and the Council.

The full redevelopment option presents the highest potential for achieving the CSFs, by delivering a comprehensive transformation of the estate that includes the provision of modern, high-quality housing that meets sustainability standards for all residents on the Estate. Although there are immediate positive and negative impacts on the residents' health and wellbeing from decanting, long-term benefits include improved housing conditions for existing tenants who exercise their right to return or residents who find a new home of a higher quality and better condition than their current home. Residents who will live on the estate following redevelopment will benefit from safety, accessibility improvements, better housing design and quality and improved placemaking with a new green outdoor space on the estate. The result is a cohesive, modern estate with high-quality housing for all. This option demonstrates a positive BCR of 1.44 for the market led option and 1.29 for the 100% affordable housing option. While this BCR result is slightly lower than the partial redevelopment 100% affordable housing option due to the higher costs, there is an ability to deliver significant benefits in return for this. A unified estate can be created with a greater number of new, high-quality accommodation, more amenities, and new public realms. The benefits could have wider-reaching impacts as the increased housing capacity allows for more households to be housed on the estate.

2.5.3 The Commercial Case

The Commercial Case has set out the commercial arrangements for delivering the shortlisted options. The assumed delivery route for the shortlisted options are as follows:

- Option 1: Refurbishment option - Cambridge City Council self-delivers via contractors
- Option 2: Partial redevelopment option - Procuring a development partner to deliver the development elements and contractors for the refurbishment work
- Option 3: Full redevelopment option - A joint venture partnership

These delivery routes offer an acceptable level of control for the Council that ensures the Council's vision and objectives are met. The Council has the capacity in-house to self-deliver refurbishment projects of this scale using suitably experienced contractors procured through a competitive tendering process. Whereas using a joint venture partnership allows the Council to leverage the expertise and resource of a joint venture partner to deliver large-scale redevelopment schemes efficiently and to a high quality that aligns with sustainability and design standards. By utilising a joint venture structure, the delivery can be accelerated.

The partial redevelopment option could utilise either of the delivery routes.

2.5.4 The Financial Case

The Financial Case assesses the financial viability of the shortlisted options through the Development Options Assessment. The results indicate the full redevelopment option with 100% affordable provides the least-worst financial outcome as all options produce a deficit. This option has a lower deficit than the market-led equivalent. There is an ability to maximise the opportunities to deliver additional affordable housing units that produce additional revenue and access grant funding. Net cost per affordable housing unit is therefore lower and the financial burden on the Council can be reduced. Therefore, the full redevelopment 100% Affordable Housing option provides the least-worst option financially.

2.5.5 The Management Case

The Management Case establishes the robust arrangements for the successful delivery, monitoring and evaluation of the shortlisted options. For the partial and full redevelopment options, planning permission, significant decanting and multiple phases are required for delivery. Similarly, the refurbishment option also requires a phased decanting of affected residents in alignment with a rolling refurbishment programme. This includes the acquisition of the leasehold flats in order to do works to the structure of the blocks and common parts. It has been assumed freehold houses will be excluded and remain in occupation throughout. Clear project management and governance are vital in supporting the implementation of each option so effective decision making and progress reviews can

be conducted. For the partial and full redevelopment options, this can be achieved through using a joint venture partnership. A clear governance structure with the selected development partner is needed that aligns under the Council's objectives and has equal representatives from both parties. The refurbishment option also benefits from a strong governance process and resourcing within the Council. Risks associated with each option have been identified with the risks increasing with the higher degree of redevelopment. However, through proactive risk management these risks could be mitigated. This will allow the Council to implement the preferred option efficiently, in line with best practice to ensure a positive outcome for residents.

2.6 Conclusion

Based on the outcomes of the report, and the options considered, option 3: the full redevelopment option with 100% affordable housing is the preferable option. It aligns best with the Council's strategic objective and vision while addressing the current issues on the estate. It also presents the greatest opportunity to achieve the critical success factors (CSFs) with 8 out of 11 CSFs fully achievable. This option will offer significant long-term improvements at a lower financial deficit. The highest number of additional units can be created alongside providing the greatest improvement in the quality, accessibility, and safety of housing across the whole estate. A new green outdoor space can also be provided.

Although the full redevelopment option with 100% affordable housing is the "least-worst" option, the financial viability of the option must be seriously considered. The Council should examine the affordability and risk of this option in relation to the Housing Revenue Account (HRA) against a backdrop of building cost inflation and higher interest rate environment.

With this in mind, alternate development or delivery options should be explored with a development partner should this option prove not to be financially viable for Cambridge City Council.

3 THE STRATEGIC CASE

3.1 Introduction

The Strategic Case outlines the requirement for the transformation of the Ekin Road Estate by documenting the case for change. The basis for this case is alignment with the Cambridge City Council wider strategic objectives as outlined in its “One Cambridge – Fair for All” vision statement. It also considers feedback from residents which identifies and unpacks a variety of issues relating to health and wellbeing, maintenance, anti-social behaviour, and accessibility which have been assessed as part of the case to identify the need for intervention.

Based on the case for change, planning considerations and resident feedback, we determine if there is an opportunity to deliver the Council’s vision and development objectives whilst factoring in the needs and sentiment of the residents.

3.2 Strategic context

3.2.1 The Estate

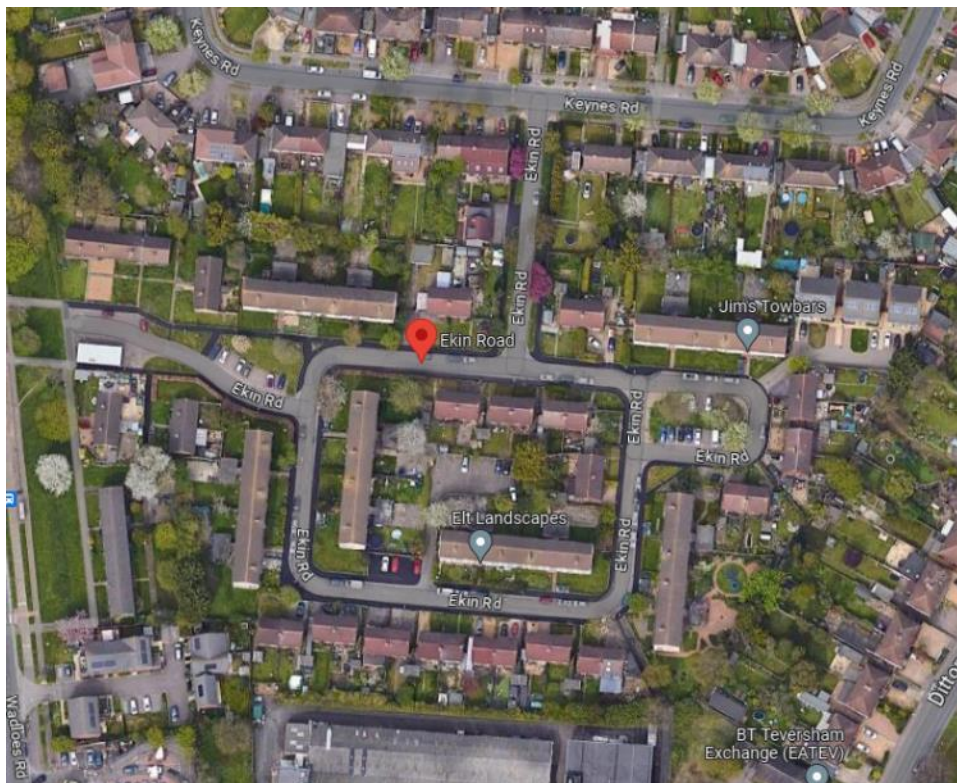
Cambridge is a major regional centre with good road and rail access into London, the Midlands and the North and access to Stansted Airport. Cambridge is best known for its university and colleges with approximately 25,000 students forming part of the 145,700 population. Cambridge is continuing to grow rapidly, and housing is in high demand.

The Ekin Road Estate is situated within the East Barnwell area of Cambridge with residential, retail, educational and industrial uses close by. The existing estate comprises of six flat blocks each containing 12 flats as well as 32 semi-detached houses, 10 bungalows and 8 maisonettes. In total there are 122 units built in the typical 1950s-1970s style. For this report, we have adopted the tenure mix outlined in the Potter Raper report to allow for consistency across reports. In August 2020, the Ekin Road Estate comprised of:

Type	Council	Leasehold / Freehold	Total
Flats	62	10	72
Maisonettes	5	3	8
Bungalows	10	0	10
Houses	21	11	32
Total	98	24	

The flat blocks are all purpose-built three-storey blocks with four flats on each level, accessed either side of two access cores. The buildings are 'Easiform' non-traditional cavity wall construction made with either precast or insitu concrete panels. The 32 two-storey semi-detached houses and 10 single-storey bungalows are c.1950 construction with traditional cavity walls and fair faced brickwork. The maisonettes are two-storey purpose-built flat blocks constructed c.1970s with traditional cavity walls, fair faced brickwork and concrete floor slabs.

Vehicular access to the estate is via a single road from the north (Keynes Road) which leads onto Ekin Road. Properties line either side of the loop road to form a square in the centre. The current estate configuration provides several designated parking areas and private gardens.



To the east of the estate is Ditton Road which consists of private houses that borders the estate to form the boundary. To the south there are commercial buildings and to the west is Wadloes Road which is lined with a wide grassed verge and public footpath on one side and two-storey properties on the other side.

The estate is located 2.9 miles away from the city centre. The area is a large neighbourhood to the northeast of the city. Key features of the area include the Cambridge United Football ground, Coldham's Common, Cambridge City Cemetery, the Abbey Leisure Complex, and various light industrial areas.

3.3 Council Key Objectives

When identifying and evaluating the options under consideration for the Ekin Road Estate it is essential to understand the broader strategic objectives of the Council and in particular the housing strategy. Reviewing Cambridge's vision and understanding their core requirements is essential to determine the critical success factors used to assess these options.

3.3.1 Cambridge's Vision

Cambridge City Council has a clear vision to lead a united city, 'One Cambridge – Fair for All'¹, in which economic dynamism and prosperity are combined with social justice and equality.

In line with this vision, the Council has developed its Corporate Plan for 2022-2027² which sets out 4 key priorities over the next 5 years. These four key priorities for 2022 to 2027 are:

- Leading Cambridge's response to the climate and biodiversity emergencies and creating a net zero council by 2030;
- Tackling poverty and inequality and helping people in the greatest need;
- Building a new generation of council and affordable homes and reducing homelessness; and
- Modernising the council to lead a greener city that is fair for all.

3.3.2 Cambridge's Core Requirements

The Greater Cambridge Housing Strategy 2019-2023³ identifies the following strategic objectives related to housing:

- Increasing the delivery of homes, and in particular affordable housing, including Council homes, to meet housing need;
- Diversifying the housing market and accelerating housing delivery;
- Achieving a high standard of design and quality of new homes and communities;
- Improving housing conditions and making best use of existing homes;
- Preventing and tackling homelessness and rough sleeping; and
- Working with key partners to innovate and maximise available resources.

¹ Cambridge City Council Corporate Plan 2022-2027 [available at: <https://www.cambridge.gov.uk/corporate-plan-2022-27-our-priorities-for-cambridge>]

² Cambridge City Council Corporate Plan 2022-2027 [available at: <https://www.cambridge.gov.uk/corporate-plan-2022-27-our-priorities-for-cambridge>]

³ Greater Cambridge Housing Strategy 2019-2023 [available at: <https://www.scambs.gov.uk/media/19971/greater-cambridge-housing-strategy-2019-2023.pdf>]

There has since been a new housing strategy for 2024 to 2029 which sets out the strategic direction and priorities in relation to new and existing homes and communities⁴. This strategy is currently out for consultation.

3.3.3 Sustainability and Social Value

Cambridge City Council has a clear vision to create a Cambridge that cares for the planet⁵. This vision statement states they will take robust action to tackle the local and global threat of climate change, both internally and in partnership with local organisations and residents, and to minimise its environmental impact by cutting carbon, waste, and pollution.

3.4 Engagement with residents

The Cambridge City Council Code of Best Practice⁶ on Consultation defines the resident consultation as the active participation of local residents and community groups in the decisions that affect their lives. To ensure that the evaluation of the options is holistic and considers all relevant stakeholders, there has been a range of engagement and consultation with Ekin Road residents in accordance with the Code of Best Practice on Consultation and associated the Council and Local Government Association's "Gunning Principles"⁷. Openness, accessibility and inclusivity, and transparency and accountability were adhered to throughout the engagement with the residents. The aim was to share information and provide a forum to voice their thoughts and opinions on the proposed options, through the following methods:

- Regular letters to all households;
- Regular Liaison Group meetings;
- Drop in events;
- Regular website updates;
- Events such as participating in community events; and
- Printed material held in the local library.

The Liaison Group met regularly where the Council kept residents engaged to ensure residents were heard throughout the process. These sessions were not decision-making groups but rather opportunities for the Council to report on progress and for residents to feedback on the information provided.

⁴ Greater Cambridge Housing Strategy 2024-2029 [available at: <https://www.cambridge.gov.uk/media/bg3hic2u/greater-cambridge-housing-strategy-2024-29.pdf>]

⁵ Cambridge City Council: Our Vision [available at: <https://www.cambridge.gov.uk/our-vision>]

⁶ Cambridge City Council, Code of Best Practice on Consultation and Community Engagement, [available at: <https://www.cambridge.gov.uk/media/7144/consultation-and-community-engagement-code-of-best-practice.pdf>]

⁷ Local Government Association, The Gunning Principles, [available at: <https://www.local.gov.uk/sites/default/files/documents/The%20Gunning%20Principles.pdf>]

3.4.1 June-Sept 2022 Residents' Survey

Initial resident engagement was conducted from June to September 2022. The Council engaged with residents of the estate in June 2022 to conduct a resident survey. The initial public consultation event was held on the 8th June 2022. This resulted in 112 people attending in person, 11 webinar attendees, 2,771 website views and 63 survey responses.

Key findings from the stage 1 survey consultation provided insight into the current state of the Ekin Road Estate⁸. Summary findings included:

- 46.2% of respondents believing their current home meets their requirements, 30.8% responding their homes do not meet their requirements and 23.1% saying they were 'unsure'.
- 35.8% of respondents wanting new public spaces and other improvements including improved security (22.0%), improved connectivity (6.6%) and other (35.8%) such as better insulation, improve accessibility and reduced anti-social behaviour.
- Residents liking: the lack of traffic on the Estate; the GP surgery; and connectivity.
- Residents disliking: the security; parking; accessibility; damp/ mould; and energy inefficiency in the buildings.

Overall, out of the 63 survey responses, 58.1% strongly agreed Ekin Road needs redevelopment, 19.4% 'agreed', and 6.5% responded 'strongly disagree' and 4.8% said 'disagree'. 4.8% and 6.5% of residents who responded to the survey said 'neutral' or 'unsure' respectively. 33.9% of respondents said they would return to the Estate after redevelopment.

Although, over half of the estate were in support of redevelopment, there were some residents who disagreed. Following consultation resident groups have formed. An option appraisal supported by additional consultation would enable the Council to arrive to an informed, evidence-based preferred option.

3.4.2 Resident groups

JLL has acknowledged that across the estate, there are different resident groups which have emerged. Cambridge City Council has worked with these groups and passed on communications and statements to JLL to ensure transparency throughout.

One group is the "Save Ekin Road" Community Group. The group is a resident group, formed following the June to September 2022 survey, who are opposed to the development but has since revised their statement, calling for the 72 flats to be demolished while retaining all 32 houses. The group considered the survey "inadequate", "problematic", and "extremely leading". Cambridge City Council

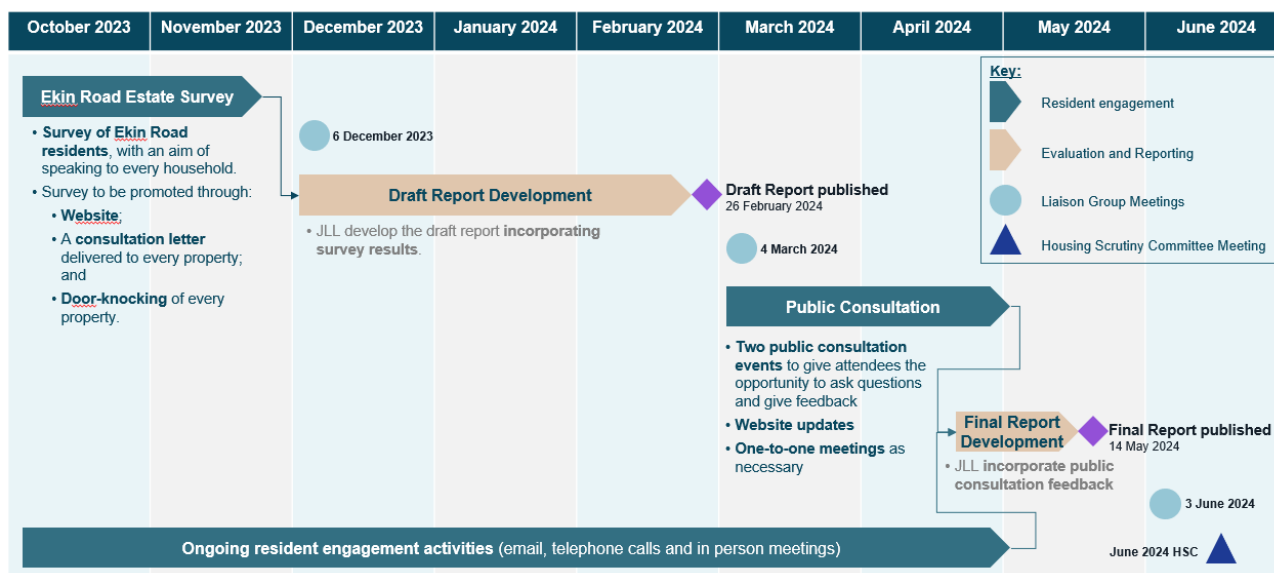
⁸ Ekin Road Resident Questionnaire Final Report (14th September 2022)

have worked with the group and shared their statements with JLL, so they are aware of all opinions. However, it is not known as to the extent of the membership of the “Save Ekin Road” Community Group on the estate.

Other groups on the estate have also been acknowledged. The Council has met with 85 householders (69 council tenants, 10 leaseholders and freeholders) including one who acts as a collective voice for the tenants in the flats. This group formed in recent months. Other residents have acted individually raising queries with the Council. All groups have been considered so all residents are treated fairly with their opinions recognised as part of the options appraisal.

3.4.3 Stage 2 Residents’ Survey

As part of JLL’s work in Stage 2 to assess the shortlisted options for the future of the Ekin Road Estate, an independent resident consultation was required to engage with residents to encourage active participation in sharing their view regarding the decisions that affects their lives. JLL appointed Marengo Communications, an independent specialist public consultation company, to act independently to conduct a two-staged, comprehensive resident engagement to support the technical work. A resident engagement plan was created and published to ensure all residents had an opportunity to voice their thoughts about the shortlisted options for the estate. The resident engagement plan is detailed in the diagram below⁹.



As part of the resident engagement, a community survey was conducted with subsequent door knocking sessions. When engaging with residents via the selected consultation methods, Marengo Communications maintained alignment with the Council’s guiding principles and the Local Government Association’s “Gunning Principles” for undertaking consultation and community

⁹ JLL Resident Engagement Plan 2023

engagement. Marengo Communications ensured openness, accessibility and inclusivity, and transparency and accountability to deliver a legitimate consultation that provided results for JLL that accurately represented the view of the residents.

The aim of the survey was to listen and learn by engaging in meaningful dialogue with residents including those people who have already attended liaison groups and drop-in events and those who have not. This ensured all residents' voices are listened to and in doing so, it allowed JLL and the Council to understand the needs of the residents which will help ensure the preferred option selected through the technical work is providing the outcome that residents need. As well as the survey, residents were given the option to provide further views confidentially to members of the Marengo team in person during the door knocking exercise or via a phonenumber. Alternatively, residents were invited to arrange in-person appointments with Council officers at a local venue.

Completed surveys were returned from 63 households on the estate, representing a response rate of 52% of total households. Out of the total number of units per tenure, the response rates were 56% of Council tenants, 60% of leaseholders and 70% of freeholders.

Key feedback received from residents during the Stage 2 Residents' Survey (Appendix A) indicated:

- Many residents experiencing issues relating to the condition of their homes;
- Some residents having accessibility and overcrowding problems;
- Differing personal experiences living on the estate, with some enjoying living there while others have experienced instances of conflict with neighbours and anti-social behaviour; and
- A minority of residents have family/support networks in the area.

Based on these findings, it is clear many residents, particularly those in the flat blocks, are unhappy with their current living conditions. Many residents (42 respondents) are experiencing issues with mould, damp, condensation as well as accessibility issues (17 respondents) and overcrowding. 43 respondents communicated discontent in regard to personal safety with issues of anti-social behaviour occurring on the estate while 22 expressed there's a lack of available open spaces. This suggests the buildings may not be fit for purpose and therefore increasing in the quality of council accommodation was the second most important priority for residents.

In relation to the future of the Ekin Road Estate, the majority of residents believe there is a need to prioritise increasing the quality of Council accommodation, improving sustainability to assist in decreasing energy bills and reducing crime.

57% of responding households to the survey expressed support for a redevelopment of the estate, with some in opposition (41%). 49% of responding households voiced a preference for a full

redevelopment, while 24% preferred partial redevelopment. 27% responded with no preference. However, from further analysis of the results, it must be noted the strong support for redevelopment is primarily from the responding leaseholders (83%) and Council tenants (62%). Among the responding freehold houses there is a high level of opposition to redevelopment (72%). This group of residents want to preserve their homes and community.

Despite the split in preferences, there is a common consensus on a feeling of uncertainty with residents indicating a prompt decision on the way forward is in the best interest for the residents and the wider community.

Ultimately, whilst there are dispersed views on the estate regarding what the future of the estate will look like, it is clear many believe the current living conditions are not up to standard from a health and wellbeing perspective due to the issues expressed in the survey. This highlights the need for these issues to be properly addressed through one of the shortlisted options.

For full details and results from the survey, please refer to Appendix A of this report.

3.4.4 Ongoing Resident Engagement plan

Marengo Communication and the Council are monitoring all communications and statements from residents and resident groups during the process. This information is being passed onto JLL to ensure transparency throughout.

In March 2024, a programme of public consultation related to this report will commence as part of Marengo's wider resident engagement programme. This is likely to involve two public consultation events to allow attendees the opportunity to ask questions and provide feedback. The Council's Regeneration team will continue to offer one-to-one meetings if requested.

3.5 The Case for Change

When examining the Council's vision and objectives with the feedback from the resident engagement, it is clear that the Ekin Road Estate in its current form and layout requires improvement. There are several key themes that are driving the case for change. These are outlined below.

3.5.1 Maintenance Concerns

Several investigations have been carried out to determine the condition of the buildings on the estate.

- **Potter Raper Options Appraisal Report**

In August 2020 an initial option appraisal regarding the future of the Ekin Road Estate was conducted by Potter Raper. The report assessed the current condition and suitable options

regarding maintenance requirements, as well as the possibility for incorporating energy reducing measures and redevelopment options.

Areas of concern identified either through the Potter Raper Report¹⁰ include:

- **Carbonation of concrete** – The flats are Easiform Type 2 construction. Easiform Type 2 construction has not been designated ‘defective’ under the Housing Defects Act 1984 (Part XVI Housing Act 1985) but these structures can have the common inherent defect of all Pre-Cast Reinforced (PRC) structures whereby the carbonation of concrete may cause structural issues that could impact the health and safety of flat residents.
- **Structural movement** – Specific structural issues to the rear of each flat block were noted with evidence of structural movement around and above the rear doorway and extensive cracking observed.
- **Balustrade heights** – There are issues of noncompliance with the current Building Regulations Part K and Housing Health and Safety Rating Systems in relation to the height of the balustrades on the internal staircases, landings, and external balconies of the flat blocks and the internal staircases in the maisonettes. This issue was critical to resolve so has already been addressed as part of urgent Council work.
- **Asbestos** – All the flat blocks have asbestos containing materials. These materials are in good condition but would require encapsulation or removal if affected by proposed works.
- **Carbon monoxide detection** – None of the flats, houses and bungalows inspected during the first investigation contained carbon monoxide detection which poses a health and safety concern to residents.

Other issues identified in initial investigations include:

- **Drainage** – In a separate investigation in 2019 it was identified there were numerous issues with the main drains and storm drains to the rear of the flat blocks due to root ingress.
- **Leaks and water damage** – The responsive repairs team at the Council have had reports of leaks in almost every flat on the estate which has sometimes caused further damage and mould in the properties.

¹⁰ Potter Raper Options Appraisals Report (August 2020)

The initial investigations concluded all the building typologies on the estate are in a fair standard and have an anticipated remaining life of in excess of 30 years, if maintained to their present standard. The report noted the flats would require considerable investment to ensure a life span similar to those of the houses.

It is clear there were some issues of non-compliance, some of which were essential to address for the safety of residents during the period of the options appraisal. Alongside the necessary repairs to ensure the buildings remain compliant with current safety standards, there is a requirement to carry out day-to-day repairs and planned replacements of elements which have reached the end of their serviceable life. This is a cost to the Council and leaseholders depending on the tenure, but it is required in order to maintain the buildings in their current condition.

- **JLL Ekin Road Estate Refurbishment Feasibility Assessment**

In October 2023, JLL Building Consultancy were engaged to carry out further investigations to establish the current standard and expected life expectancy of each building typology by inspecting and reporting on the condition of the traditional construction building archetypes. Inspections were conducted in one property from each of the four archetypes on the estate. Below lists the findings from their report (Appendix H) on each building type that was inspected. Please note it cannot be assumed findings are applicable across all units for each building type.

- **Bungalow**

The pitched roof has been renewed since the time of construction and appears to be generally sound although some of the detailing to the dry verge requires attention. The chimney also appears sound besides some minor cracking to the cement flaunching. The PVCU fascia board and ventilated soffit to the front and rear evaluations are in good condition but there are some stepped cracks to the front corner of the building despite repairs. Internally, the plaster boarding appears sound although many of the joints have cracked. The resident has complained that the flank wall is cold, but there is no evidence that this property has received retrospective cavity insulation and so we would recommend that this is installed.

- **House**

Both the roof and chimney appeared in sound condition. The walls also appeared straight and plumb. However, penetrating damp into ground floor w.c., caused by

backfall on concrete when planter was infilled was noted. The front porch canopy was also in a poor condition being covered with moss and lichen so some of the paint was flaking, indicating that moisture may be penetrating the concrete. Internally, the plasterboard appeared sound although many of the plasterboard joints had cracked.

- **Flat**

Externally, it was clear the roof had been renewed since time of construction so appeared sound. The chimney stack was also plumb and sound. However, the tarmac paving and drying areas are in poor condition and require replacements. Internally, some of the glazing sealed units have failed.

- **Maisonette**

The roof appeared sound with no defects. There was evidence of retrospective cavity insulation being installed despite the age of construction. Internally, the ceiling appears in sound condition.

The report concluded the houses, bungalows, and maisonettes are of traditional construction with most likely strip foundations, uninsulated concrete ground floor slab, cavity walls and cut timber roofs. Windows and doors have been replaced in the past although these are now at the end of their economic life and repairs will likely increase over the coming years if not replaced. The roof tiles on the house and bungalow inspected have been replaced, although this is not typical of those archetypes. Internally, the house and bungalow are in fair condition and kitchens have been renewed since construction. The Ekin Walk flats are of later construction than the houses and bungalows and have some storey height window frames, and tiled pitched roofs. Windows and doors have been replaced since construction and again these are at the end of their economic life.

- **Curtins Ekin Road Estate Structural Survey**

Alongside the JLL Building Consultancy's work, Curtins Consulting were also engaged to carry out structural investigations of the non-traditional flats on Ekin Road through a high-level, non-intrusive survey. The Curtins report (Appendix AH) acknowledged that in 2019, Millward Integrated Engineering Consultants carried out a visual inspection to assess the condition of the six blocks and identified cracked concrete on external walls and balconies. Intrusive tests were also conducted to check for the depth of concrete cover to reinforcement and carbonation depths. The tests concluded the depth of carbonation was found to be greater than the cover to reinforcement in the majority of the test locations, indicating a high

risk of corrosion due to carbonation. For the chloride content tests, the balcony edge beams in two blocks showed a moderate risk of chloride induced corrosion while the rest of the blocks showed low risk of chloride induced corrosion.

There were widespread repairs carried out to all six flat blocks to address cracks caused by the corrosion of the steel reinforcement. The repairs done in 2019 appear to have generally been carried out successfully to a high standard, but similar problems have occurred in the intervening five years. Curtins observed new defects during their inspections including:

- The presence of diagonal cracking in the render beneath windows / window boxes at all levels across the six buildings. In some locations there has been deterioration to window surrounds, with spalling of concrete and exposed reinforcement visible. There is section loss and corrosion to the underside of the external store roof slabs, along with cracks in the masonry wall of the main building which supports these roof slabs.
- Common reports of water ingress, damp, and cosmetic cracks in plaster finishes. Water ingress around windows is one of the routes by which water is entering the concrete walls and causing the steel reinforcement to corrode. No damage to the primary structural frame of the building was observed.

Based on these findings, it was concluded the embedded steel reinforcement is no longer adequately protected from corrosion. This is in part due to the age of the building, as carbonation of the concrete is well advanced which removes protective alkaline zone around the steel. While this alone does not cause corrosion, the scale of issues in both 2019 and the present day indicates widespread water ingress in the concrete frame. The rate of corrosion is unpredictable, and it might take several years for it to cause cracking.

The buildings are also not suitable for installing external wall insulation. Installing external wall insulation to the buildings would mean that the outer leaf of the concrete construction is permanently enclosed so future defects would not be visible nor accessible. Given there is a high degree of certainty that there is ongoing corrosion throughout each block, which can lead to further cracking and, if left unattended, spalling, and potential instability, it is not practicable to install external wall insulation.

To conclude, based on all the investigations, internally and externally, the traditional construction properties have been kept in fair order with improvements carried out on a cyclical basis. Some of the cyclical works may be ad-hoc. Generally, the traditional building structures and envelope raise no concerns, with only minor defects noted that would generally be considered catch-up repairs or maintenance. There was some historic movement in the gable end wall of the bungalow surveyed but

this has been repaired with only some minor cracking reoccurring. Improvements can be done to improve aesthetic, bring all homes to a good standard of repair, and improve energy efficiency. This should extend the life expectancy of those buildings in the longer term. However, the non-traditional construction flats are at the end of their useful life. During the resident engagement and the survey many residents have stated that they are experiencing issues in their current living conditions which is impacting upon their health and wellbeing. In terms of long-term planning, Curtins concluded demolition is the most appropriate solution for redevelopment of the estate. In the short term, if the buildings are to be kept in operation for a lengthy period, another programme of repair works should be considered. Investment would be needed to improve the standard of the flat blocks. Therefore, it is clear the current condition of the buildings does not align with the Council’s requirement to deliver a high standard of design, quality and energy efficiency in new homes and communities.

3.5.2 Fire Safety Concerns

Cambridge City Council carried out Fire Risk Assessments in 2022¹¹. There are a total of five risk levels ranging from Trivial Risk to Intolerable Risk with Tolerable Risk ranked number two on the scale. Tolerable Risk is defined as requiring no major additional fire precautions. However, there might be a need for reasonably practicable improvements that involve minor or limited cost.

The following fire risk concerns have been identified:

Assessed Properties	Risk Grading	Impacted Sections requiring action
1-4 & 5-8 Ekin Walk	Tolerable Risk	Housekeeping, Means of Escape and Measures to limit fire spread and development
5-7B & 9-11B Ekin Road	Tolerable Risk	Arson, Housekeeping, Means of Escape and Measures to limit fire spread and development.
18-20B & 22-24B Ekin Road	Tolerable Risk	Arson, Housekeeping, Means of Escape and Measures to limit fire spread and development.
25-27B & 29-31B	Tolerable Risk	Arson, Housekeeping, Emergency Escape Lighting, Means of Escape and Measures to limit fire spread and development.

¹¹ Cambridge City Council Housing Services, Regulatory Reform (Fire Safety) Order 2005 Fire Risk Assessment (November/December 2022)

Assessed Properties	Risk Grading	Impacted Sections requiring action
26-28B & 30-32B Ekin Road	Tolerable Risk	Arson, Housekeeping, Means of Escape and Measures to limit fire spread and development
61-63B & 65-67B Ekin Road	Tolerable Risk	Arson, Housekeeping, Emergency Escape Lighting, Means of Escape and Measures to limit fire spread and development.
89-91B & 93-95B Ekin Road	Tolerable Risk	Arson., Housekeeping, Emergency Escape Lighting, Means of Escape and Measures to limit fire spread and development

There are also issues with the compliance with current safety standards in particular of Building Regulations Part B Emergency Egress¹². The flat blocks and houses' bedroom window openings fail to comply due to the non-compliant openable areas. The windows on Ekin Walk are within the window replacement programme 2028 and 2029. Whilst there is no requirement to bring the building up to current building regulations, these findings demonstrate where the buildings fall short of current standards.

Additionally, in a small number of flats, the kitchen doors are missing or non-fire related and there is an isolated occurrence of a missing smoke seal on the entrance door and non-fire related glazing. In terms of the maisonettes, the undersides of the stairs lacked suitable fire rated materials.

3.5.3 Health and Wellbeing Concerns

It has been identified there are several health and wellbeing concerns on the estate caused by the living conditions, the anti-social behaviour and the uncertainty relating to the estate's future.

Some of the following themes have emerged which are impacting on residents' health and wellbeing:

- **Condition of accommodation**

As mentioned in section 3.5.1, there are maintenance concerns regarding specific structural issues to the rear of the flat blocks and elements of non-compliance within some of the buildings, which may directly impact the safety and enjoyment of the buildings by its residents and their visitors.

¹² Potter Raper Options Appraisals Report (August 2020)

During the ongoing resident engagement and in the Stage 2 Survey, many residents have voiced their concerns surrounding the severity of the issue of damp, mould, and condensation in their homes. Many are worried about the impact this will have upon both their and their children's health. Due to the level of concern regarding the condensation related issues on the estate, a specialised team has been created by the Council to handle cases. As of January 2024, the Damp, Mould, Condensation (DMC) team have reported 18 reports of condensation related mould in different properties on the estate since 9th December 2022¹³.

- **External areas**

Around the current estate, there are poor amenities for residents to use and enjoy with only small areas of grass in the centre of the estate that is surrounded by parking and adjacent to Wadloes Road. Residents have indicated that they would like to see more green space to provide areas for their children to play. The current configuration of the estate limits the ability to create larger amenity spaces for residents, locals and those moving through the estate which can negatively impact their health and wellbeing as there is a lack of sufficient outdoor space to enjoy.

- **Anti-social behaviour**

The current layout of the estate means there are a number of alleyways and circulation routes with low visibility on the estate. This does not meet Secured by Design Gold Standard that would be applied to a new development and therefore indicates there is room for improvement. There is also poor legibility for a pedestrian on the estate because of the number of dead ends and poor visibility in alleyways due to the lack of lightning. This is a security concern as these areas can be prone to anti-social behaviour which directly impacts the safety and enjoyment of the residents and their visitors. Some residents have communicated feeling unsafe on the estate with instances of anti-social behaviour in these areas being noted by residents and the Council. In the resident survey, drug dealing was noted as a significant problem on the estate, particularly in these low visibility areas such as the garages.

From 1st October 2021 to date, there have been numerous incidents reported to the local police detailed in the table below¹⁴:

Category of crime/ incident	Abbey Ward	Ekin Road Estate including Ekin Walk
Criminal Damage	246	7
Robbery	31	2
Theft from person	15	2

¹³ Cambridge City Council DMC Team Report

¹⁴ Cambridge Police Statistics

Category of crime/ incident	Abbey Ward	Ekin Road Estate including Ekin Walk
Bicycle Theft	128	0
Theft other (incl. shoplifting)	401	3
Theft from a vehicle	124	1
Theft of a vehicle	74	0
Public Order	267	4
Burglary Business	48	0
Burglary Dwelling	86	4
Possession of drugs	37	2
Trafficking of drugs	35	0
Possession of weapons	25	1
Violence (including stalking)	822	28
Arson	10	1
Vehicle Nuisance	84	1
Rowdy Nuisance	285	3
TOTAL	2,718	59

It is important to note that Ekin Road / Ekin Walk are within a busy area in terms of crime and anti-social behaviour so it is possible additional incidents reported to the Council may have not been reported to the police so are therefore not reflected in the figures above.

Based on these figures in relation to the number of people in each area, the Ekin Road Estate has a crime rate (number of incidents per person) of 19.34% compared to 1.87% in Abbey Ward. *(Note: it has been assumed there is an average of 2.5 people per household on the Ekin Road Estate).*

There is also a known issue of fly tipping on the estate and more than 5 tonnes of waste were cleared on the 6th July 2023 during a recent community day. The waste collected consisted of household waste that was predominately fly tipped. This is a regular occurrence on the estate and has been mentioned frequently in the FRA.

- **Uncertainty around the future of the estate**

Some residents have communicated feeling uncertain and concerned about the future of the Ekin Road Estate. Responses from the Stage 2 Resident Survey shows that the mental health of some residents is being impacted by the decision process. There is uncertainty and stress around the redevelopment options, the prospect of moving and the potential loss of community.

The local GP surgery has felt the impacts of the deprivation and health and wellbeing issues in the local area which includes the Ekin Road Estate. The area in which the Ekin Road Estate is located

has an IMD of 40.29¹⁵. IMD also known as the Indices of Multiple Deprivation is the official measure of relative deprivation for small areas in England based on the number of domains. This shows there is a high level of deprivation in the area. As a result of the deprivation levels, Ditton Walk Surgery have had to look to increase their financial investment per patient to handle the increase in residents' issues. Four additional consulting rooms have also been created for additional staff to work from and increase patient access. A report on poor housing by BRE concluded improvements in the home to make it healthy and safe has long-term benefits for residents and society including health and wellbeing benefits and a reduction in direct care¹⁶. Based on this, it could be assumed improvements on the Ekin Road Estate could improve the health and wellbeing of local residents and therefore decrease the number of residents visiting the GP surgery.

3.5.4 Sustainability Concerns

The current buildings were developed in the 1950s-1970s and are not aligned with the Council's vision of being a net zero carbon council by 2030 and delivering sustainable housing solutions.

A review of the EPC ratings of the current units was conducted by Potter Raper and concluded an EPC rating of Band C for the existing flats, houses, and bungalows. B and C was noted as a good score for this type of property.

Cambridge City Council have proposed to potentially improve EPC ratings of existing properties to Band B¹⁷. Additionally, there is a target to reach a minimum of EPC C (B where possible) in at least 140 Council Properties that are currently EPC D or below. Therefore, the EPC ratings of the existing buildings do not meet the desired EPC rating by the Council. This is impacting the operating carbon of the buildings and the energy costs that are being incurred by the residents. 41 residents selected improving sustainability as the top priority for the Ekin Road Estate in the resident survey with many listing specific sustainability improvements such as insulation. Many are also experiencing problems relating to temperature control, mould, damp, and condensation.

3.5.5 Accessibility

The maisonettes and flat blocks are not currently accessible to Part M4 Category 2 or above¹⁸. Part M4 Category 2 refers to accessible and adaptable dwellings that meet the needs of occupants with differing needs including some older or disabled people. Category 3 refers to wheelchair user dwellings whereby dwellings should have reasonable provisions for people to gain access and use the dwelling as well as make adaptations to meet the needs of occupants. Currently, the flats are only

¹⁵ Cambridgeshire and Peterborough ICS

¹⁶ BRE, The Cost of Poor Housing in England 2021

¹⁷ Cambridge City Council Climate Change Strategy Action Plan 2021-2026

¹⁸ HM Government, The Building Regulations 2010: Access and use of buildings

accessible by communal staircases. The staircases are narrow and there is no lift option. This has been noted by residents during the door knocking and survey as some residents with mobility issues are struggling to access their homes via stairs. Therefore, the current accessibility of the maisonette and flat blocks is below the desired standard, and this is impacting the accessibility and movement of a wide range of people around the buildings. While improving accessibility was a low-ranking priority for residents in the resident survey, it is important these issues are addressed to ensure housing is accessible to all.

Accessibility around the estate is poor with a lack of legibility¹⁹. This is due to the current routes having dead ends, bad visibility, and poor connections through the estate because of ambiguously defined routes and estate lines. The frontage along Wadloes Road was also identified as indistinct. The current layout of the estate is therefore limiting legibility and wayfinding within the estate making accessibility for both residents and their visitors poor. Additionally, it was identified existing paths and hardstanding to the communal entrances and garden areas throughout the estate are uneven, containing potential trip hazards. While the circulation paths around the estate are County Highway owned, the paths leading to the flats are the responsibility of the city and will be replaced as part of the refurbishment work if the flats remain.

3.6 Planning

Based on the case for change, this section details the planning context that must be considered to facilitate the change.

3.6.1 Locality

The estate is located within a part of Cambridge that is characterised by low rise residential developments. The three storey flat blocks that exist on the current estate are some of the few examples of taller residential buildings located in the area. The scale of the majority houses in the area are two storeys. The scale and massing of the estate will be important in both the context of character, housing provision and residential amenity.

As shown in the image below, the estate has buildings adjacent to its southern, eastern, and northern boundaries. Residential developments exist to the north and east so the relationship the estate shares with the existing developments will be a constraint. However, there are already residential buildings on the estate neighbouring this boundary. Commercial buildings are located to the south of the estate meaning the relationship between the commercial buildings and the residential homes on the estate

¹⁹ BPTW, Pre-App 4 Presentation (June 2022)

will need to be assessed. It should also be noted that vehicle access to the residential buildings on Ekin Close will need to be maintained so this is also a key construction consideration.



3.6.2 Green space

There are a number of existing trees in various conditions on the estate. There are no Category A trees but there are 12 Category B trees and 37 Category C trees as shown in the image below from BPTW²⁰. Consideration is needed for the existing trees on the estate when assessing the shortlisted options. The Green Corridor running along the west side of the estate must also be retained and improved. The existing buildings do not make a positive contribution to improving the green corridors, biodiversity and connectivity across the estate given their current position and layout. Therefore, there are opportunities presented from redevelopment of the estate to make improvements in these areas including the provision of additional green space.

(Note: the number of trees is estimated, subject to confirmation from Landscape Architect and discussions with Cambridge City Council Tree Officers)

²⁰ BPTW, Capacity Studies F – Critical Success Factor Assessment (January 2024)



3.6.3 Affordable Housing

The Cambridge Local Plan states on sites with a capacity of 15 dwellings or more, a minimum of 40% of affordable housing should be provided on-site²¹.

3.6.4 Development options and constraints

If the entire estate is developed, there will be greater opportunities to accommodate taller buildings especially to the south of the estate. A partial redevelopment option will likely cause limitations in terms of where buildings can be located and how tall they can be. There must also be a consideration of potential overlooking of properties and private gardens.

There are many significant opportunities presented from the redevelopment of the estate. The existing buildings have issues in terms of quality of accommodation and accessibility inside the buildings which can be addressed.

3.7 Scope

Based on the case for change, and within the planning context, it is clear there is a need to improve the current condition of the Ekin Road Estate. The scope of this report is to identify the best way forward for the Ekin Road Estate that aligns with Cambridge's vision and objectives as well as the needs of residents.

From the long list of seven options, a two staged evaluation approach has been conducted. Options ranging from minimal changes through to refurbishment, partial redevelopment, or full redevelopment of the estate were identified. These options were initially assessed in Stage 1 through an assessment that qualitatively assessed each option from an economic, environmental, financial, and strategic perspective. The outcome

²¹ Cambridge City Council, Cambridge Local Plan 2018

of this assessment was a shortlist of three options. These three options have been further assessed as part of this Stage 2 report to evaluate their viability and ultimately determine the preferred option.

3.7.1 Long List of Options

In order to address the case for change, a long list of options was generated by Cambridge City Council with the support of the architects BPTW and planning consultants Carter Jonas.

The long list of seven options included:

- **Option 1 – Do Nothing**

No additional capital work done to the buildings to address concerns, however there will be a continuation with standard ongoing maintenance and repairs (under decent homes).

- **Option 2 – Retain the buildings in existing form and undertake essential repairs and retrofitting**

The repairs include structural, fire related works, ventilation, rainwater pipe diversion, pipe maintenance, asbestos removal, and lifetime maintenance costs to all buildings. Net Zero retrofitting will address the energy performance, sustainability standards and could include loft insulation, PV panels, and accessibility in the buildings.

- **Option 3- Partial Redevelopment involving the demolition of the flats only**

The flats will be demolished and redeveloped to be replaced with new high-quality homes consisting of houses and stacked maisonettes.

- **Option 4 – Partial Redevelopment involving the retention of all houses**

The existing flats, bungalows, and maisonettes will be demolished to provide new high-quality homes consisting of low to midrise houses and maisonettes as well as potentially some midrise flat blocks to the west. A new pedestrian route to the southwest should address anti-social behaviour concerns.

- **Option 5 – Partial Redevelopment involving the retention of most of the houses**

The houses to the south, north and some to the east will be retained. The existing flats, bungalows, maisonettes, and central houses will be demolished to provide new low to midrise blocks as well as potentially some midrise flat blocks to the east. A new central green amenity will be provided.

- **Option 6 – Partial Redevelopment involving the retention of house to the south and east**

All buildings, apart from the houses to the south and east of the estate, will be demolished to provide new high-quality homes consisting of houses and stacked maisonettes. This option will also provide new additional parking and amenities as well as a central green space with areas of play.

- **Option 7 – Full Redevelopment**

Demolish all buildings on the estate to provide new buildings of various heights including houses and flats. The roads will be realigned to provide new green routes as well as a potential central green space and area for play, enhancing the amenities.

3.7.1.1 Evaluation of Long-list

An evaluation matrix comprising 11 critical success factors derived from the Council's vision and development objectives assessed the viability of the longlist options from an economic, social, environmental, financial, and strategic perspective along with the associated benefits and impacts. The results from Stage 1 were as follows:

- **Option 1**

Option 1 was considered unviable as it is not feasible to maintain the estate in its current condition due to the ongoing issues with stock not meeting modern standards, particularly in relation to condition and sustainability. The maintenance costs on these units are also increasing and many flat blocks are nearing end of life meaning significant improvements were required. This option was discounted as it was unable to facilitate these improvements.

- **Option 2**

Option 2 (comprehensive refurbishment) had the potential to address ongoing maintenance issues as well as provide some improvements in the condition, and energy performance of buildings which aligns with some of the CSFs. Therefore, option 2 was selected for further assessment as the new baseline.

- **Options 3 & 4**

Options 3 and 4 were concluded not viable as these options are not able to provide substantial benefits for residents and the local community in terms of housing condition, quality and health and wellbeing by retaining the majority of buildings. Although it is possible to address the issues in the flat blocks, the limitations of infill development such as space constraints on the estate, incoherent housing condition and existing infrastructure make it challenging to achieve comprehensive improvements across the entire estate. There is an inability to fully maximise

the number of additional units to provide new homes in the area as well as enhance placemaking throughout the estate and improve housing condition, design, and quality for all. By not comprehensively implementing these improvements, the broader, long-term benefits for residents and the local community are restricted and the Council's strategic objectives are not suitably met.

- **Option 5 & 6**

The choice to further assess an option which requires the removal of the central houses was selected due to the ability to provide an overall positive transformation of the estate across the building types.

While the conditions of the houses are fair, the properties are not to the standard and condition of new builds and fail to meet sustainability standards. Therefore, through redeveloping the majority of units, there is an overall improvement in the quality, condition, and sustainability of homes. This redevelopment would also allow for a significant number of additional new units to be provided in return for the removal of the eight central houses, creating more homes in the local area that meet people's needs and ease housing demand. Issues regarding overlooking and overshadowing would be resolved through redevelopment as there is an ability to open up the estate through incorporating a new central green space for residents to enjoy. Retaining the central houses would have implications on the layout and design of the estate, impacting the estate's overall development capacity. All other retained houses are in locations that have minimal impact on the overall design and layout of the estate, and therefore do not hinder the overall development capacity. In all, the partial redevelopment option that retains the majority of houses could provide long-term positive impacts on residents and the wider community and thus indicated potential viability that required further assessment. Based on these findings, it was concluded option 5 was excluded during Stage 1. However, a follow-up assessment was required to determine the impact of a flat-led and housing-led scheme on the resultant net gain of houses from the removal of north four houses.

- **Option 7**

Option 7 was shortlisted because it has the potential to fully achieve a significant number of the CSFs through providing comprehensive improvements across the estate. The option benefits from the ability to maximise height and massing based on the relationship between the estate and neighbouring buildings and alter the layout of the estate. These modifications will both significantly increase the number of additional units on the estate by removing the outer houses but also provide new amenities in the form of a large open green space for residents and the community to enjoy. Therefore, redevelopment has resultant benefits for

both those living on the estate and within the local community. To exclude, this option would hinder the opportunities to comprehensively address the issues on the estate, achieve significant overall estate improvements for residents and create wider-reaching benefits in the local community. This option was therefore selected for further assessment.

3.7.2 Short List of Options

Following the Stage 1 evaluation, three options were short-listed for further assessment in order to determine the preferred option. These options have been further developed and refined with JLL Building Consultancy, JLL Net Zero Design, independent planners and architects as part of the Stage 2 evaluation. The shortlisted options for evaluation in Stage 2 are:

- **Option 1 – Retain the buildings and refurbish the existing Council housing**

Under this option refurbishment work will be carried out to all leasehold and tenants' units on the estate. The assumption has been taken that the 11 freehold houses are excluded from the refurbishment work. The refurbishment work includes general repairs and improvements to improve their condition as well as sustainability upgrades to align with the Cambridge Sustainability Housing Design Guide.

- **Ongoing Repairs**

General essential repairs include structural work, fire related works, rainwater good renewal, asbestos removal, balustrade renewal, and lifetime maintenance costs to all buildings. Other ongoing maintenance includes replacing kitchens, bathrooms, boilers, external doors, windows, and electrics once they have reach end of life.

- **Sustainability Improvements**

The JLL Net Zero Design team concluded in their report (Appendix B), the net zero retrofitting will address the energy performance of the buildings by incorporating:

- LED and fluorescent lighting – new LED lighting proposed to be installed throughout the properties.
- Loft insulation – the thickness of the current loft insulation should increase.
- New double-glazed windows – replace the windows with new double-glazed windows to improve U-values and air tightness.

- Air source heat pump outdoor units with indoor air to water heat pumps connected to hot water tanks – install heating and cooling systems that extract heat from outdoor air and transfer it indoors to provide heating and cooling.
- Mechanical ventilation – install a mechanical ventilation system in each property to combat moisture problems arising from the increased air tightness and improved building fabric from the upgrades.
- Solar PV panels – install PV panels on all properties.

Other types of insulation such as external wall insulation was concluded not viable for the Ekin Road flats. Curtins Consultancy concluded external wall insulation would not be suitable as it hides potential future structural defects on the facades of the buildings which is unsafe. This will make identifying future structural issues more difficult.

The improvements identified for each archetype will provide aesthetic improvements that will raise the appearance of the buildings on the estate, cyclical improvements that will bring all homes to a good standard of repair, and energy efficiency measures that will provide residents with energy efficient homes. Based on the list of identified sustainability measures the EPC ratings of the houses and bungalows can improve to A or high B rating due to the larger number of PVs that can be installed on the roofs compared to the flats. The Ekin Road flats could not achieve better than a C EPC Rating due to the external wall fabric not being improved and the restricted roof space for PVs. The Ekin Walk maisonettes could achieve a low B rating due to the significantly less PVs compared to the houses and bungalows. These improvements should also extend the life expectancy of the buildings in the longer term.

- **Option 2 – Partial Redevelopment and refurbishment involving the retention of the majority of houses and the remainder of the estate is redeveloped**

The partial redevelopment option involves the redevelopment of the majority of the estate to provide 153 new build units while retaining the 24 outer houses of which the 14 council houses will be refurbished.

A revised partial redevelopment option has been created where all buildings apart from the houses to the north, east and south of the site will be demolished to provide new high-quality homes consisting of houses and stacked maisonettes. The existing Social Rented affordable housing will be re-provided. It was concluded the retention of the north four houses in a flat-led scheme was required as the overall net gain from removing these houses was not substantial due to their location on the estate but satisfactory levels of transformation on the estate can still be provided. The locations of the houses to the south and east of the estate does not have a significant impact on the overall design and layout of the estate that could affect development capacity. The main constraint in relation to the

houses in the east is the need to maintain access to Ekin Close. In a housing-led scheme, the north four houses might need to be removed to create clear legibility through gateway buildings to lead people into the estate.



- **Option 3 – Full Redevelopment of the estate**

This option will involve demolishing all buildings on the estate to provide new buildings of various heights including houses and flats. New green routes as well as a central green space and area for play will be created to enhance the amenities on the estate.



3.8 Constraints

When determining the preferred option, the following constraints bear a weighting in impacting the strategic context for assessing the shortlisted options' viability and deliverability so therefore must be acknowledged and considered as part of the evaluation.

3.8.1 Economic context

- **Affordability in Cambridge**

Cambridge is an expensive place to buy or rent a home. Based on JLL's Residential Report²², houses prices in Cambridge are £565,016 which is significantly above the national average of £284,950. The area with a 1-mile radius of the estate is below the Cambridge average at £455,723, but this is still above the national average. As a result, there is an issue of housing affordability in Cambridge. Many households are experiencing difficulty in finding affordable homes in the area and there is a growing affordability gap where middle income households are being pushed out of the market due to limited housing options for home ownership or in the private rented sectors. In the area there is also a high demand for affordable 3 and 4 bed houses. Therefore, there is a risk of not being able to house local people or attract and retain workforce within Cambridge. This could have a knock-on effect on the city's economic growth as housing and affordability are key constraints to economic growth in the city.

The city is also experiencing limited availability of development sites meaning a large proportion of new homes need to be built on existing council housing land.

- **Economic Conditions in the UK**

More broadly, the ongoing conflict in Ukraine continues to disrupt global markets, resulting in a destabilised economic environment driven primarily by higher energy costs and supply chain issues. This has directly affected the UK as higher inflation and increasing interest rates are impacting the affordability of goods and services for households, leaving many households with lower disposable incomes. The high interest rates are also hindering mortgage affordability causing market activity to decline with a drop in sales and house prices. In terms of the rental market, the growing gap between supply and demand is resulting in rents increasing.

Building costs are forecasted to rise by just over 3% in the year to Q4 2024, while tender prices are expected to increase by just over 2% in the same period²³.

The assessment of the viability and affordability will account for this economic context.

²² JLL Residential Report 2023

²³ BCIS, BCIS Building Forecast, [available at: <https://bcis.co.uk/news/bcis-construction-industry-forecast/#:~:text=Building%20costs%20are%20forecast%20to,in%20the%20beginning%20of%202024.>]

3.8.2 Viability

A key component of this paper is to determine the viable options in terms of delivery, achievability and financial returns in line with the critical success factors.

3.8.3 Affordability

The affordability component is focused on determining if the costs related to the different options are affordable to the Council in terms of capital outflows and operating costs.

3.8.4 Funding

Aligned to Affordability, this constraint looks at the sources of public and private funding that the Council may access to fund any development. We will look to define the different types of funding available for each shortlisted options and if there is an option to create a hybrid funding model.

3.8.5 Requirement to Repurchase

Given not all the units on the estate are Council-owned, the Council will look to acquire properties through normal market means. Should negotiations break down there is a potential to require Compulsory Purchase Order (CPO) in order to facilitate the delivery of the shortlisted options. To date the Council has been able to resolve negotiations without having to enforce compulsory purchase orders. This will be considered as part of the deliverability assessment for each option.

3.9 Conclusion

The Strategic Case has confirmed there is a case for change to meet the Council's strategic objectives. The Ekin Road Estate in its current form and layout requires improvement. There are general issues in relation to the buildings' standards, health, and wellbeing as well as anti-social behaviour and accessibility across the estate.

Internally and externally, the properties have been kept in fair order with improvements carried out on a cyclical basis. There were only some minor defects noted about the traditional construction buildings' structures that would generally be considered catch-up repairs or maintenance. The non-traditional construction flats on Ekin Road have reached the end of their useful life. There are structural issues that are causing cracks, poor thermal integrity and are at risk of structural degradation from the effects of carbonation. Additionally, some residents experience accessibility issues in the flats due to the lack of a lift. Many properties across the estate are also having issues with condensation and mould which could be impacting residents' health and wellbeing.

Further maintenance and improvement are required for each archetype to improve aesthetic, increase energy efficiency, and bring all homes to a good standard of repair by addressing the issues and non-compliance

with building regulations. This should extend the life expectancy of the buildings in the longer term, but investment would be needed.

The broader strategic objectives of the Council are not being met with the estate in its current form. This highlights the need for issues to be properly addressed through the transformation of the Ekin Road Estate that provides new homes, better land use and improved placemaking while resolving issues regarding housing condition and quality. It is vital that the preferred option ensures the estate is fit for purpose in the long term and fulfils the needs of the residents and the Council.

4 THE ECONOMIC CASE

4.1 Introduction

The Economic Case summarises the shortlisted options that are being considered in response to the scope identified in the Strategic Case. Each shortlisted option is evaluated to determine their ability to deliver the Council’s vision and objectives and provide net value to society whilst factoring in the needs and sentiments of the residents. The Economic Case also assesses the wider benefits arising from each option. This includes exploring the quantitative social and economic benefits on the basis of “additionality” as well as the broader sustainability impact.

4.2 Critical Success Factors (CSF) and Evaluation Methodology

The Critical Success Factors are the key elements that need to be achieved for the project to be considered a success in light of the key issues driving the case for change at the estate, and the wider strategic objectives of the Council. The methodology taken for each CSF is outlined in the table below.

The critical success factors for this project are tied to the broader Cambridge vision and development objectives, namely:

#	Critical Success Factors	Evaluation Methodology
1	Increasing the number of homes	Determine the volume change in the delivery of homes per option by examining the capacity, layout, and height of the buildings for each option.
2	Diversify the housing market and accelerate delivery	Determine the ratio of council and market homes delivered to the housing market per option by aligning with the Cambridge housing demand.
3	High standard of design and quality for the homes and communities	By using the recommended high standard of design, determine which option provides the ability to meet the required standard and the cost associated with each to assess the viability.
4	Improve housing condition	The current condition of the buildings on the Estate will be used as a baseline to compare each option’s proposed new building condition to determine the level of improvement.

#	Critical Success Factors	Evaluation Methodology
5	Innovate and maximise available resources	Determine which option will make the best use of the resources on the land in a sustainable way to enhance biodiversity, reduce water consumption and improve air quality.
6	Meet energy efficiency criteria to align with Net Zero Carbon ambitions	Determine which option best achieves the Council's Net Zero Carbon ambitions and the standards outlined in the Sustainable Housing Design Guide through making improvements in energy efficiency, design and Net Zero retrofit.
7	Reduce planned and preventative maintenance costs	Compare the current and predicted future maintenance costs produced from each option alongside any costs to achieve the reduction.
8	Provide an accessible, safe, and secure environment	Compare each option's layout and design of the Estate and its buildings to determine their ability to secure Secured by Design Gold Standard Certification and provide an accessible, safe, and secure environment for the residents and community.
9	Comply with current fire safety standards	Determine each option's ability to comply with the latest fire safety requirements through examining the proposed buildings' design, safety features and accessibility.
10	Improve resident amenities and community benefits	Compare each option's placemaking strategy and ability to improve the amenities on the Estate and the accessibility for the residents and community both in the buildings and around the Estate.
11	Improve the health and wellbeing of residents	Assess each option's ability to improve the health and wellbeing of the residents, through providing open green spaces, accessibility, and healthy living environments, whilst also examining the impacts on the community.

4.3 Approach to appraising the shortlisted options

The shortlisted options for the Ekin Road Estate were evaluated using the following three key categories which have been assessed in a linear process:

- Critical Success Factor Evaluation – choices in terms of specifications and coverage of the options in relation to the CSFs (the “what”)
- Implementation Evaluation – choices in terms of the phasing (the “when”)
- Delivery Evaluation – choices in terms of method of delivery (the “how”)

4.4 Critical Success Factor Evaluation

Each of the shortlisted options have been further assessed against the equally weighted CSFs as part of an evaluation matrix that uses a qualitative assessment on a RAG basis:

- R = Red – Indicates that under this scenario, the CSF will not be met and that it falls materially short of meeting this requirement
- A = Amber – Indicates that the CSF meets, or falls just below the requirement, but that it does not materially impact the overall decision
- G = Green – Indicates that the CSF requirement has been met or exceeded.

It is necessary to evaluate each option against the CSFs to ensure the preferred option successfully delivers the objectives. The number of flags has been used as the primary assessment regarding the options' ability to meet the required standard.

4.4.1 Refurbishment Option

#	Critical Success Factor	Options Response
1	The buildings should positively contribute to increasing the delivery of homes, and in particular affordable housing	The refurbishment option maintains the status quo. The number of units does not increase, so while this does not negatively contribute to this CSF, there is an inability to meet housing demands and needs through this option.
2	The buildings should contribute to diversifying the housing market and accelerating housing delivery	The refurbishment option maintains the status quo meaning there is no diversification in the housing market which does not positively or negatively contribute to this CSF. As a result, there is an inability to provide the right type of homes to meet housing needs through this option.
3	The buildings should achieve a high standard of design and quality of new homes and communities	Refurbishment will contribute some improvements to the buildings' internal quality and design, but structurally, the design of the buildings will remain unchanged. This means the ability to incorporate lifts in the flat blocks is challenging.
4	The buildings should improve housing conditions and making best use of existing facility	The buildings' condition will be improved via refurbishment by making best use of the existing buildings. Some improvements in condition can be achieved from ongoing repairs but the extent of repair work required will not solve the overall condition of the buildings. Even with refurbishment work, the long-term condition and standard

#	Critical Success Factor	Options Response
		of accommodation is likely to deteriorate and could require redevelopment in the future.
5	Working with key partners to innovate and maximise available resources	There will be limited innovation through the refurbishment work. However, all trees will be retained meaning there should be a lower impact on the biodiversity of the estate.
6	The buildings should meet the required energy efficiency criteria that aligns with Cambridge's ambition to have net zero carbon housing stock by 2030 and reduce energy usage for residents	Most properties will experience an uplift in EPC rating through the installation of sustainability features including LED lighting, double-glazed windows, heat pumps systems and mechanical ventilation for each property. Solar PVs are proposed for all buildings, but the number of PVs will vary by property type which can have an impact on EPC ratings. Additional loft insulation will also be added but the inability to install external wall insulation on the flats will impact their thermal efficiency. Therefore, the flats' EPC rating will not improve and align with the Council's low carbon ambitions.
7	The buildings should result in a reduction of planned and preventative maintenance costs compared to the current level	All planned maintenance will need to be carried out as part of the refurbishment work. However, by refurbishing the units there should result in a reduction in ongoing maintenance costs.
8	The buildings should provide a safe and secure environment for all residents and visitors	While the security of buildings can be improved, given the layout is not altered, areas such as alleyways, dead ends and garages that are conducive of anti-social behaviour will remain. Therefore, there would be little reduction in anti-social behaviour from refurbishment.
9	The building should be bought up to standard in terms of fire safety compliance	Any fire safety compliance issues within the buildings will be addressed as part of essential works.
10	The buildings should provide improved resident amenities and wider community benefits	The current amenities including the number of parking space and minimal open green space will not be improved through refurbishment as the layout of the estate is unchanged.
11	Improve the health and wellbeing of residents	The improvements to residents' health and wellbeing cannot be maximised through refurbishment. The need to decant residents in order to achieve refurbishment will impact residents' health and wellbeing due to the stress of moving. While there would be some improvements in the condition of units which would have associated health and wellbeing

#	Critical Success Factor	Options Response
		improvements, the ability to bring about significant long-term improvements is limited.

4.4.2 Partial Redevelopment Option

#	Critical Success Factor	Options Response
1	The buildings should positively contribute to increasing the delivery of homes, and in particular affordable housing	There is considerable improvement in the number of units provided increasing the number of units from 122 to 177 units on the estate of which 153 new units will be provided which has a positive impact on housing options in the area. By demolishing the central 8 houses, additional homes for individuals or families can be provided as there is a better use of land. However, the relationship between the new build units and existing houses means height and density cannot be maximised.
2	The buildings should contribute to diversifying the housing market and accelerating housing delivery	There is a replacement of housing units with some additionality and diversification as a greater number of 3 bed units (flats, and terrace houses) can be provided to meet housing needs. This will help support a wider range of demographics including young people who find it difficult to get onto the housing ladder. The provision of additional accessible homes will also support older people as well as those with mobility issues. However, the increase in flats provided by this option does not meet the need for affordable 3 and 4 bed houses in the area. There is also a risk the area will be oversaturated by affordable flats given the East Barnwell site, located across the road from Ekin Road, will provide c.120 affordable flats.
3	The buildings should achieve a high standard of design and quality of new homes and communities	The new builds will likely be of a high standard of design and quality which will help better accommodate more residents in high-quality housing. The new units will be built to modern home standards and Cambridge City Council's Sustainability Housing Design Guidelines. Through improving the design and quality of buildings, resident's living experiences within the buildings will improve as a result. Aspects such as lifts which are desired by

#	Critical Success Factor	Options Response
		some residents can be incorporated more easily.
4	The buildings improve housing conditions and making best use of existing facility	Redevelopment of the majority of the estate will improve housing conditions in most units. All new builds will be constructed to modern day standards meaning on average across the estate there is overall a positive uplift in terms of housing standard for residents.
5	Working with key partners to innovate and maximise available resources	There are some opportunities to innovate and maximise resources in the redeveloped buildings. This option also maintains all category B trees, and plants over 30 new trees in varying types and sizes across the development. New trees are also proposed to the existing green verge along Wadloes Road to continue the line of existing planting. There is an inability to innovate and incorporate biodiverse roofs to create a balance between PV's and biodiversity within the estate. However, circa 12 category C trees will need to be removed on the estate.
6	The buildings should meet the required energy efficiency criteria that aligns with Cambridge's ambition to have net zero carbon housing stock by 2030 and reduce energy usage for residents	All redeveloped buildings will be built to a standard that aligns with the Cambridge Sustainability Housing Design Guide and the Council's low carbon ambitions. All undeveloped units will receive sustainability improvements during refurbishment work. This includes the installation of PV panels, mechanical ventilation, LED lighting and space heating and domestic hot water via heat pumps. This will support improving the energy efficiency of units which in turn could lower residents' energy bills.
7	The buildings should result in a reduction of planned and preventative maintenance costs compared to the current level	It is assumed the general maintenance of redeveloped units will be lower than retained units but one-off maintenance payments for sustainable features will be higher. The retained houses will require ongoing maintenance and should eventually reach end of life.
8	The buildings should provide a safe and secure environment for all residents and visitors	The redesigned layout and orientation of the buildings and estate will create natural surveillance on all sides and over public spaces. Alleyways will be opened up with a small green space and garages, courtyards and dead ends to the west and centre of the estate will be removed, thus reducing the areas prone to anti-social

#	Critical Success Factor	Options Response
		behaviour. New and improved external lighting across the estate will also improve resident safety. Legibility can be increased through opening up the alleyways, extending roads to connect to the green verges along Wadloes Road and the new central green space that will increase connections between access points.
9	The building should be bought up to standard in terms of fire safety compliance	The redeveloped units will be built in accordance with the latest fire safety regulations and any fire safety compliance issues in the remaining buildings can be addressed as part of essential works.
10	The buildings should provide improved resident amenities and wider community benefits	By redeveloping the centre of the estate, new amenities can be incorporated as well as improvements to the existing connections through the estate that will enhance the availability to local facilities for residents. New central green space, tree lined green corridor routes to the south of the estate that incorporate play elements and biodiverse green roofs on the flat blocks can be provided. This alongside appropriate height and massing will improve community amenities, resolve issues of overlooking and open the estate to the wider community and connect adjacent public spaces.
11	Improve the health and wellbeing of residents	The decanting of residents will be required which can induce stress and uncertainty as well as disrupt the community established on the estate. This will have knock-on impacts that can directly affect current residents' health and wellbeing. However, to minimise the associated impacts, residents who are decanted will be supported through the Council's decanting process. Existing residents could move to accommodation with improved living conditions, thus potentially having a positive effect on their health and wellbeing. Those living on the estate following redevelopment will benefit from improvements in housing condition, accessibility, wayfinding and open space which should create long-term health and wellbeing improvements.

4.4.3 Full Redevelopment Option

#	Critical Success Factor	Options Response
1	The buildings should positively contribute to increasing the delivery of homes, and in particular affordable housing	There is a significant increase in the number of units on the estate, increasing from 122 to 236 units, thus providing new housing stock in the market to help reduce housing demand in the area. By demolishing the 24 outer houses, a significant number of additional units can be delivered in its place. By completely redeveloping, height and massing can be maximised on the estate to facilitate greater development capacity.
2	The buildings should contribute to diversifying the housing market and accelerating housing delivery	Full redevelopment will provide the greatest variety of new flats and houses to the local housing market. Some of this will be replacement but there is a significant amount of diversification from the additional units provided. These new units will be the right type of housing to meet people's housing needs. A large number are flats which will help support a wider range of demographics including young people who find it difficult to get onto the housing ladder. The provision of additional accessible homes will also support older people as well as those with mobility issues. However, the increase in flats provided by this option does not meet the need for affordable 3 and 4 bed houses in the area. There is also a risk the area will be oversaturated by affordable flats given the East Barnwell site, located across the road from Ekin Road, will provide c.120 affordable flats.
3	The buildings should achieve a high standard of design and quality of new homes and communities	All units on the estate will be new builds of a high standard of design and quality which will allow all residents living on the estate to benefit from more high-quality housing that better accommodates their needs. The homes will be built to modern home standards and Cambridge City Council's Sustainability Housing Design Guidelines. Through improving the design and quality of buildings, resident's living experiences within the buildings will improve as a result. Aspects such as lifts which are desired by some residents can be incorporated more easily.
4	The buildings should improve housing conditions and making best use of existing facility	Redevelopment of the entire estate will improve housing conditions for all units on the estate. All units will be new build,

#	Critical Success Factor	Options Response
		constructed to modern day standards meaning there is uplift in terms of housing standard for all residents on the estate.
5	Working with key partners to innovate and maximise available resources	Full redevelopment will provide opportunities for innovation, but it is assumed resources cannot be fully re-used. There is a small number of trees removed from estate, but all category B tree will remain. This allows the mature tree filled landscape to be utilised by placing homes within it. New trees will be planted throughout the estate in the pocket gardens and the public realm. The species selected will be resilient to climate change, visually interesting and support biodiversity.
6	The buildings should meet the required energy efficiency criteria that aligns with Cambridge's ambition to have net zero carbon housing stock by 2030 and reduce energy usage for residents	All buildings on the estate will be built to a standard that aligns with the Cambridge Sustainability Housing Design Guide and the Council's low carbon ambitions. This will support improving the energy efficiency of units which in turn could lower residents' energy bills.
7	The buildings should result in a reduction of planned and preventative maintenance costs compared to the current level	General maintenance of the new builds will be required but it is likely to be lower than the current buildings on the estate. However, the specialised sustainability maintenance could be higher.
8	The buildings should provide a safe and secure environment for all residents and visitors	Safety around the estate will improve through increased surveillance, secure boundary treatment to provide secure block access and removal of anti-social prone area such as alleyways and garages. Gateway buildings will help improve legibility and wayfinding while the orientation of the new buildings provides natural surveillance over the central green to provide a safe public realm for residents.
9	The building should be bought up to standard in terms of fire safety compliance	All buildings on the estate will be built in alignment with the latest fire safety regulations.
10	The buildings should provide improved resident amenities and wider community benefits	By redeveloping the whole estate, there is a greater ability to provide more extensive amenities and community benefits. A larger central green, play area and green walk. The linking green routes will increase not only biodiversity on the estate but provide additional open space and clear cycle and pedestrian paths for residents and visitors. These green routes will also be car-free so residents and the

#	Critical Success Factor	Options Response
		community can safely and easily get to and enjoy.
11	Improve the health and wellbeing of residents	This option requires the full decanting of residents which will impact current residents' health and wellbeing due to the associated stress and uncertainty from moving that will impact resident's lives. As well as the loss of their home, residents could lose their community and support networks. To minimise the associated impacts, the Council has a comprehensive decanting process to support tenants in finding a new home. Homeowners will also be supported throughout the process. Therefore, this option ultimately has a significant short-term impact on current residents but creates future long-term improvements across the whole estate. Both new and existing residents' health and wellbeing will benefit in the long-term from improved living conditions. This improvement could be experienced by current residents who could move to higher quality housing as well as new residents who will experience the estate's improvements. There will also be improvements in accessibility, outdoor space, and safety which will have positive impacts.

4.4.4 Conclusion

The critical success factor evaluation uses the 11 critical success factors identified from the strategic objectives and vision of the Council to assess the three shortlisted options on a qualitative basis. The summary of the overall RAG for the shortlisted options is summarised in the table below.

#	Critical Success Factor	Refurbishment	Partial Redevelopment	Full Redevelopment
1	The buildings should positively contribute to increasing the delivery of homes, and in particular affordable housing	Red	Yellow	Green
2	The buildings should contribute to diversifying the housing market and accelerating housing delivery	Red	Yellow	Yellow
3	The buildings should achieve a high standard of design and	Yellow	Green	Green

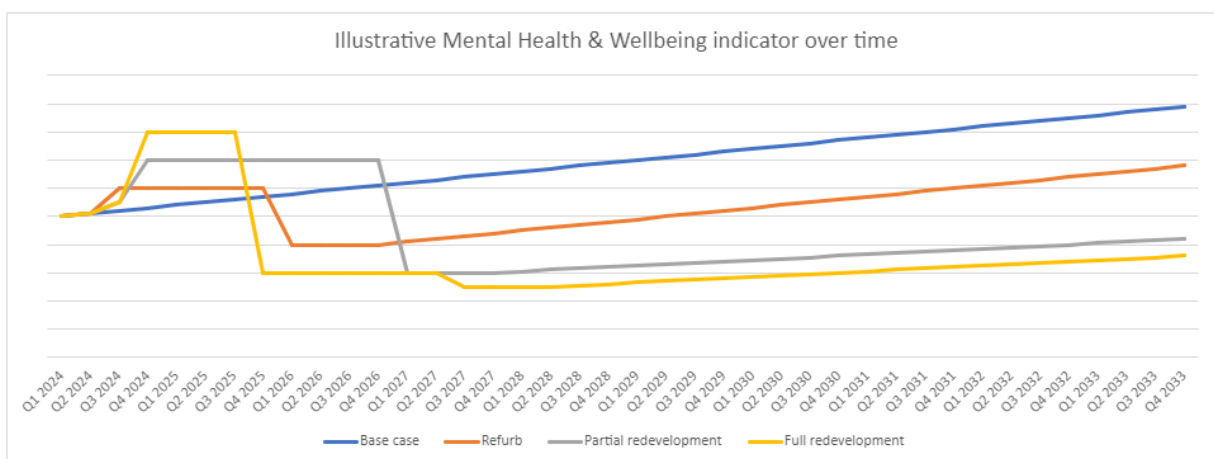
#	Critical Success Factor	Refurbishment	Partial Redevelopment	Full Redevelopment
	quality of new homes and communities	Yellow	Green	Green
4	The buildings should improve housing conditions and making best use of existing facility	Yellow	Green	Green
5	Working with key partners to innovate and maximise available resources	Yellow	Yellow	Yellow
6	The buildings should meet the required energy efficiency criteria that aligns with Cambridge's ambition to have net zero carbon housing stock by 2030 and reduce energy usage for residents	Yellow	Green	Green
7	The buildings should result in a reduction of planned and preventative maintenance costs compared to the current level	Yellow	Yellow	Green
8	The buildings should provide a safe and secure environment for all residents and visitors	Red	Green	Green
9	The building should be bought up to standard in terms of fire safety compliance	Green	Green	Green
10	The buildings should provide improved resident amenities and wider community benefits	Red	Green	Green
11	Improve the health and wellbeing of residents	Yellow	Yellow	Yellow

Based on the strategic analysis of each option against the CSFs, it is clear the refurbishment option is not able to achieve a satisfactory number of the CSFs. By retaining all buildings, it would comprise the potential opportunities on the estate to improve the number of units, the diversification of the housing market and the quality and condition of homes across the estate. While the buildings will have improved energy performance and some improvements in condition from refurbishment work, the extent of the work required will not solve the overall condition of the buildings, particularly in the flat blocks which are at the end of their useful life. This will impact residents' health and wellbeing. As shown in the figure below, refurbishment will have a small impact on residents' health and wellbeing from decanting but in the long term, issues relating to health and wellbeing will remain.

The partial redevelopment option will achieve a satisfactory number of the CSFs through improving the overall condition and quality on the estate through redeveloping the majority of units and refurbishing the retained houses to a better standard. Though it must be noted, at some point in the

future the retained units will reach end of life and may require redevelopment. Redevelopment of the majority of the estate can support wider placemaking improvements by provisioning a larger outdoor space for residents and removing some of the areas prone to anti-social behaviour including the dead-ends and alleyways. By removing these areas, not only will safety improve on the estate but also wayfinding and legibility. However, there are some limitations from the exclusion of the outer low-density buildings as infill development limits the overall house gains on the estate and therefore the extent of the benefits for residents and the wider community.

The full redevelopment option has the potential to achieve the most CSFs. While it will have the greatest immediate impact on the health and wellbeing of residents due to the need for relocation of residents, the long-term health and wellbeing impacts are lower due to the ability to provide a complete, positive transformation of the estate. All buildings will be redeveloped into modern, high-quality housing that meet the needs of residents from a quality, sustainability, and accessibility perspective by aligning with the Cambridge Sustainable Housing Design Guide. By fully redeveloping there is also the ability to provide more extensive community amenities and improve placemaking across the estate: a large outdoor space for residents and the wider community to enjoy. Areas prone to anti-social behaviour will also be removed which will support improvements in safety in the area. This will have an overall positive impact on long-term health and wellbeing for both residents and the wider community. The limitation of the full redevelopment option is the need to decant residents, but support will be provided to help with relocation and minimise disruption. There is also the potential for those residents to secure alternative housing options that could better meet their needs and be of a higher quality and condition than their previous housing.



4.5 Implementation Evaluation

There are two options to consider for the implementation of the three shortlisted options. It is assumed both partial and full redevelopment will be phased in the same manner.

The phasing options are:

Refurbishment		Partial & Full Redevelopment	
<u>Single Phase:</u>	<u>Multiple Phases:</u>	<u>Single Phase:</u>	<u>Multiple Phases:</u>
All the required services could be delivered in a rolling programme	Refurbishment completed in separate phases	All the required services could be delivered within one, single phase of the project.	Phased redevelopment in two stages

To determine the viability of the implementation options, we have considered the advantages and disadvantages.

4.5.1 Refurbishment

Phasing Options	Advantages	Disadvantages
Single Phase	<ul style="list-style-type: none"> • There is a timing advantage of delivering the scheme in one phase as the speed of delivery will most likely be quickest with this option compared to the Council's current maintenance programme. • There could be cost efficiencies as a quicker rolling programme could have lower overall costs. • Ability to refurbish multiple units alongside one another to reduce disruption and shorten the timeline of delivery. • Potential ability to use completed blocks as permanent accommodation for tenants. 	<ul style="list-style-type: none"> • There is a risk of a lack of availability of suitable housing. • Potential lack of available of construction workers to carry out all the work within a single timeframe. • Some of the part of the estate may not be available for refurbishment at the same time as others. • Potentially longer vacant periods for properties meaning there is a risk of rent loss and vandalism/theft
Multiple Phases	<ul style="list-style-type: none"> • A phased approach would enable work to begin on vacant parts of the estate while more work can be done to unlock other parts of the estate for refurbishment. • A longer-phased decanting of residents allows for the opportunity to use completed blocks as permanent accommodation for residents. This will allow some residents to remain on the estate, thus decreasing the impacts of decanting. 	<ul style="list-style-type: none"> • There may be negative implications for existing tenants who will remain on the estate while the other phases are being delivered. • Some of the estate may remain undeveloped for some time which could cause issues from residents who want to move. • Longer construction timeline with each phase requiring separate pre-construction processes.

4.5.2 Conclusion

It is assumed the refurbishment option should be completed in a single phase. Opting for a single phase in a rolling programme allows for a quicker delivery compared to the Council's current maintenance programme which will improve cost-effectiveness and minimises long-term disruption. All refurbishment work required for a building could be completed at the same time so the timeframe can reduce. Tenant relocation will be required given the type of refurbishment work but it can be aligned with the refurbishment programme which could allow some residents to be decanted within the estate. Therefore, not only is the rolling programme the faster option but also minimises work costs and inflation and provides lower long-term disruption to residents. To ensure the estate is ready for work to commence, appropriate time prior should be given to ensure residents are successfully decanted. There is a suitable stock of properties in the Cambridge area available for decanting. Ultimately, choosing a single-phase refurbishment is a strategic decision that optimises efficiency while prioritising the needs of residents.

4.5.3 Redevelopment

Phasing Options	Advantages	Disadvantages
Single Phase	<ul style="list-style-type: none"> The timing advantage of delivering the scheme in one phase as the speed of delivery to the end state will most likely be quickest with this option. In an all-affordable redevelopment scheme, there is a stronger ability to secure full grant funding in a single all-affordable phase There would be cost efficiencies as a single phased redevelopment scheme could have lower overall costs compared to a phased approach. Reduced disruption as a single phased approach will have a shorter timeline 	<ul style="list-style-type: none"> Greater peak funding and debt costs through the presence of high upfront costs. Limited ability to successfully decant all residents in the same period as there could be a risk of a lack of available housing. Availability of construction workers to carry out all the work within a single timeframe cannot be guaranteed. Some parts of the estate would not be available for redevelopment at the same time as others due to tenure. This can cause delays in work commencement due to the need to secure a vacant possession. Constraints on providing access to Ekin Close for the duration of the work. Risk of oversupplying the market with market homes in a full redevelopment market-led scheme which can lower the profitability of the scheme.
Multiple Phases	<ul style="list-style-type: none"> Potential cross-subsidy across the estate whereby the value achieved from the first phase can enable the delivery of the second phase. Some parts of the estate may not be available to redevelop 	<ul style="list-style-type: none"> There may be negative implications for residents who are part of phase 2 as they may have to remain on the estate while the other phase is being brought forward for delivery. Some of the estate may remain undeveloped for some time which

Phasing Options	Advantages	Disadvantages
	<p>immediately due to existing tenancies, decanting constraints and accessibility to Ekin Close. A phase approach would enable the work to begin on parts of the estate that can be redeveloped immediately while more work can be done to unlock other parts of the estate.</p> <ul style="list-style-type: none"> • Greater flexibility for the Council and development partner • There will be a lower impact to Ekin Close as only one phase of the work would impact access. • A phased approach allows for a phased decant of residents. • Ability to decant residents into the completed buildings from phase so residents can remain on the estate. • Dispersing costs for the Council and development partner so peak funding and debt should be lower. • Ability to achieve greater unit pricing uplift in the second phase. 	<p>could cause issues for residents who want to move.</p> <ul style="list-style-type: none"> • Coordination complexities given the scale of the project – effective coordination and communication across the stakeholders is required. • Disruption issues could arise with the undeveloped adjacent properties. • Potential heightened security risk for residents who are part of the later phases • Longer construction timeline with each phase requiring separate pre-construction processes.

4.5.4 Conclusion

A phased redevelopment is assumed as it offers the advantage of greater flexibility for the Council and developer in the project timeline if some areas of the estate are not ready for redevelopment while prioritising resident decanting. This will minimise disruption and impact on residents and the surrounding properties such as Ekin Close. Residents can be decanted in phases meaning there is potential to be decanted into completed units from phase 1, thus minimising the number of residents leaving the estate. Therefore, there is an ability to reduce the impacts on residents while allowing for lower costs and greater unit price uplift. Costs can be dispersed and units in phase 2 could achieve a higher value, thus allowing for a more sustainable financial model. Therefore, from a practicality and financial perspective, a phased approach to the development options is preferred.

4.6 Delivery Evaluation

There are a range of delivery routes available for Cambridge City Council to deliver the shortlisted options. Delivery routes have been divided into redevelopment and refurbishment as it is assumed regardless of which shortlisted options is selected, the delivery model for redevelopment and/or refurbishment elements are the same.

Redevelopment (Partial & Full)			Refurbishment
1	2	3	1
Cambridge City Council self-deliver via procuring a contractor	Joint Venture (JV) with a development partner	Disposal of the land to a developer	Cambridge City Council manage the contractors

4.6.1 Redevelopment Route

The three proposed delivery routes for the redevelopment options have been evaluated against 10 key criteria:

	Success factor	CCC Self-deliver	JV partnership	Disposal	Commentary
1	Cost burden on Cambridge City Council <i>What is the cost burden on Cambridge City Council?</i>				<p>Schemes delivered in-house with Cambridge City Council have been delivered at a lower cost, but required significant management input from the Council which is not reflective in the cost burden.</p> <p>In a JV partnership, Cambridge City Council would share the cost with the development partner. The Council would not have to cashflow the planning risk, nor provide any running costs. The JV partner would provide the forward funding to progress planning and design as well as the cost of delivery.</p> <p>Disposing of the land would have the lowest cost burden on the Council.</p>
2	Housing Objectives <i>How well does each route achieve</i>				Using a development partner via a JV partnership will ensure alignment with Cambridge City Council's housing objectives

	Success factor	CCC Self-deliver	JV partnership	Disposal	Commentary
	<i>Cambridge City Council Housing objectives?</i>				<p>through the greater certainty in the scheme's design and housing mix.</p> <p>Self-delivering could mean the Council achieve a higher percentage of their housing objectives due to the level of control and input allowed in the scheme's design, but this is subject to viability.</p> <p>Disposing of the land to a developer would reduce the Council's input into the outcome of the scheme.</p>
3	<p>Cambridge City Council Control</p> <p><i>How much control does Cambridge City Council maintain?</i></p>				<p>Schemes delivered in-house allow Cambridge City Council to maintain full control of the development and its outcome which will allow the Council to achieve their objectives and vision for the estate.</p> <p>A JV partnership offers the Council a satisfactory level of control over the scheme through collaboration with the development partner over the scheme.</p> <p>Disposing of land to a developer would reduce control over planning, timings and the type of scheme delivery.</p>
4	<p>Planning Risk</p> <p><i>What level of planning risk will Cambridge City Council have?</i></p>				<p>In the event of self-delivery Cambridge City Council would hold all the planning risks of the development.</p> <p>Through forming a JV partnership with a development partner, the planning risk would be shared, and the Council</p>

	Success factor	CCC Self-deliver	JV partnership	Disposal	Commentary
					<p>could benefit from commercial risk management delivered by the development partner.</p> <p>Disposing the land would carry no planning risk unless the Council retained the land.</p>
5	<p>Development Risk</p> <p><i>What level of development risk will Cambridge City Council have?</i></p>				<p>In the event of self-delivery Cambridge City Council would hold all the development risks.</p> <p>Through using a JV, the development risk would be shared with the development partner as both parties would be involved in the management of the scheme's delivery.</p> <p>Disposing of the land would carry no development risk for the Council.</p>
6	<p>Resourcing / expertise</p> <p><i>What level of resource would Cambridge City Council have access to?</i></p>			N/A	<p>Self-delivering hinders the Council's ability to benefit from a development partner's expertise in the pre-contract stage as they may have to take on a degree of design liability for works prior.</p> <p>In terms of in-house expertise, the capacity of the Council has self-developed, but the past projects have been small scale and required a substantial level of management resource throughout the development process. By forming a JV partnership with a development partner, Cambridge City Council and the Housing Development Agency (HDA) can benefit from their commercial and delivery expertise as well as resourcing for the project.</p>

	Success factor	CCC Self-deliver	JV partnership	Disposal	Commentary
					The need for accessing skills when disposing of land is not applicable.
7	Speed of delivery <i>How fast can the scheme be delivered?</i>				<p>Self-delivering or using a JV partnership could require a procurement process which can be complex and time consuming. This could impact delivery.</p> <p>Disposing of the land would provide little certainty over delivery and timescales. There could also be an issue if a CPO is required because of an inability to demonstrate delivery.</p>
8	Return (profit share) <i>What profit share will Cambridge City Council receive?</i>				<p>Both a JV partnership and self-delivery provides development profits of varying degrees upon the completion of the scheme.</p> <p>In a 50:50 JV partnership with a development partner, Cambridge City Council would receive a proportion of the development profit while self-delivery would allow all development profits to be retained within the Council.</p> <p>Disposing of the land could provide an opportunity to share an element of the profit depending on the agreement with the development partner.</p> <p>However, if the scheme produced a deficit for the parties, a profit share is not applicable.</p>
9	Return (land receipts)				Depending on the JV partnership structure, the

	Success factor	CCC Self-deliver	JV partnership	Disposal	Commentary
	<i>What land receipts will Cambridge City Council receive?</i>				<p>Council may receive a land receipt.</p> <p>Disposing of the land typically means the developer would purchase the land in return for a receipt.</p> <p>Self-delivering and retaining the land as Council-owned would not produce a land receipt for the Council.</p>
10	<p>Market appetite</p> <p><i>How strong is the market appetite for the project?</i></p>				<p>There is a strong market appetite across the three options as development land in Cambridge is scarce. This means the Council are in a strong position to either dispose of the land or secure a development partner.</p> <p>In the event of self-delivering the project, there would also be strong appetite from contractors to be involved in the development of the units.</p>

Key: Unfavourable (Red), Some favourability (Amber), Favourable (Green)

4.6.1.1 Conclusion

Using a JV with a development partner is a preferred delivery option for the Council. This delivery route allows the Council to share the risk and delivery liability with the development partner, who will be responsible for the resourcing, funding, and delivery of the scheme in alignment with the Council's objectives and vision. The Council can also benefit from the development partner's expertise and experience to both develop their inhouse capabilities and work in conjunction with the Council's experience in supporting resident decanting. This will allow for accelerated development and delivery while minimising council risk. The Council would also be able to retain a satisfactory level of control and have certainty in the scheme's design, delivery, and timing while receiving returns in the form of a land receipt and a share of the development profit depending on the final scheme. Therefore, for options requiring redevelopment, a Joint Venture with a

development partner is the assumed delivery route due to the lack of control over the development outcome by disposing of the land and the inability for the Council to self-deliver a project of this nature.

4.6.2 Refurbishment Route

The refurbishment option will be delivered by the Council who will self-manage the refurbishment work using contractors. As this is the standard delivery route used for all council maintenance and refurbishment work, this delivery route did not require evaluation. For full details regarding how the refurbishment option would be delivered by the Council please refer to the Commercial Case.

4.7 Environmental Impact Appraisal – Carbon Assessment

Given CSF 6 relates to delivering energy efficiency criteria, new zero housing stock and reducing energy usage and sustainability was identified as top priority for residents in the survey, a separate carbon assessment has been conducted. This section provides a deeper dive into how the different options are able to deliver on this CSF.

When assessing the environmental impact of the different options, an analysis was prepared using JLL’s Carbon Twin Track methodology which considers all aspects of embodied carbon and operational carbon and attaches a financial number to this carbon to indicate not only the absolute carbon impact, but also the financial impact.

When examining the delivery of environmental value and its impacts for the different options, the Sustainable Housing Design Guide and Checklist as the recommended standard that outlines the requirements for a sustainable development. The opportunities and constraints of providing a sustainable development has been examined from a practical and financial perspective.

The three options have been modelled and appraised for absolute carbon emissions, carbon emissions per housing unit and carbon cost.

4.7.1 Assumptions

The below table documents the key assumptions that were used in preparing the carbon analysis:

Scenario	Refurbishment	Partial Redevelopment	Full Redevelopment	Commentary
Units	122	177	236	Breakdown by unit type
Area (m²)	7,472	12,763	16,986	Residential floor area for refurbishment based on sampled EPCs. Accommodation

Scenario	Refurbishment	Partial Redevelopment	Full Redevelopment	Commentary
				schedules used for Residential floor area in other scenarios
Energy Intensity (kWh/m²)	144	60	49	Blended energy intensity based on predicted EPCs for refurbished and new units
Area Refurbished (m²)	6,614	1,092	0	Assumed that all retained buildings were refurbished except for freehold houses
Embodied Carbon (kgCO₂e/m²) Refurbishment	330			Refurbishment targets MEP, Internal Finishes and Façade – assumed 33% of whole building embodied carbon (LETI Embodied Carbon Primer, Figure 8.2) built to 2021 Good Practice Benchmark (1,000 kgCO ₂ e/m ² – RIBA 2030 Climate Challenge)
Area Developed (sqm)	0	10,891	16,986	Floor area for all new buildings
Embodied Carbon (kgCO₂e/m²) Development	800			New builds assumed to be built to a RIBA 2025 Target Standard (800 kgCO ₂ e/m ² – RIBA 2030 Climate Challenge)
Electricity Emission Factors (kgCO₂e/kWh)	<ul style="list-style-type: none"> • 0.207 • 0.01792 			UK Government GHG Conversion Factors for Company Reporting 2023: <ul style="list-style-type: none"> • Grid Electricity • Transmission & Distribution Losses
Electricity Price (p/kWh)	34			Average UK Electricity (34p) and Gas Price (10p) Electricity rate has been used for analysis
Carbon Price Low (£/tonne)	95			GLA London Plan
Carbon Price High (£/tonne)	121			HM Treasury Green Book

Floor areas and energy intensity for existing units calculated based on sampled representative EPCs:

- Flats: 18a Ekin Road (241 kWh/m²)
- Houses: 41 Ekin Road (240 kWh/m²)

- Bungalows: 83 Ekin Road (238 kWh/m²)
- Maisonettes: 3 Ekin Walk (207 kWh/m²)

New building floor areas aligned to accommodation schedules for each scenario.

Energy intensity for refurbished units have been calculated on predicted EPCs ratings aligned with modelled building improvements:

- Flats: EPC C73 (179 kWh/m²)
- Houses: EPC B91 (41 kWh/m²)
- Bungalows: EPC A95 (17 kWh/m²)
- Maisonettes: EPC B83 (127 kWh/m²)

It is noteworthy that the energy intensity for Flats and Maisonettes is significantly higher than that of houses and bungalows, which is largely due to ability to install PVs on the roofs of Houses and Bungalows. Furthermore, due to the smaller roof area to floor area ratio of multi-floor buildings, the impact of PVs for each unit's energy efficiency is limited.

For new buildings, the energy intensity has been aligned with the performance of recent developments built to a similar standard:

- Houses: EPC A90 (33 kWh/m²) – blended representative EPCs for Five Tree Court 1-12
- Flats: EPC B86 (55 kWh/m²) – blended representative EPCs for Tottenhoe Court 29, 30 and 31

Operational energy consumption was calculated based on the above energy intensity assumptions applied to the floor areas in each scenario. Operational energy consumption was converted into location-based carbon emissions using UK Government GHG Conversion Factors for Company Reporting 2023. The Government's 'Environmental reporting guidelines' require that Scope 2 electricity emissions are reported using location-based emission factors, therefore the specific electricity tariff (market-based emissions) to be procured for this development was not included in these calculations. While the emission factors used for this appraisal are specific to 2023, it is understood that the grid will continue to decarbonise, and the operational emissions of the scheme will continue to decrease year-on-year. However, this projected decarbonisation of the grid will affect the operational emissions for all options equally and will not have a significant impact on the appraisal.

Whole life embodied carbon assumed to be 330 kgCO₂e/m² for refurbishments, and 800 kgCO₂e/m² for new developments. The benchmark for refurbishments has been developed by assuming that a portion of the building equivalent to 33% of the whole life embodied carbon (MEP, internal finishes

and façade) will be redeveloped to RIBA 2021 good practice benchmark standard. The benchmark for new developments is in line with the assumption that sustainable methodologies will be used and materials will be retained on site where possible in alignment to RIBA 2025 target for residential buildings. The benchmarks have been chosen based on the best information available at this stage and will need to be recalculated at every stage of the development and upon completion in order to determine accurate figures – design choices, material availability and other factors will cause variations to embodied carbon figures throughout the development process.

4.7.2 Environmental analysis

When calculating the cost of carbon, we could not find published data on what the Council’s cost of carbon is, so we used two comparative rates. The first is the Greater London Authority rate of £95/tonne and the second is the HM Treasury Green Book rate of £121/tonne.

Keeping embodied carbon low during the development phase is difficult and all of this carbon would need to be offset for a Net Zero construction. In contrast, operational carbon can be eliminated by using exclusively renewable sources of electricity.

Operational energy over the 30-year period is also included in the below analysis and shows similar trends in the level of decrease across the different scenarios.

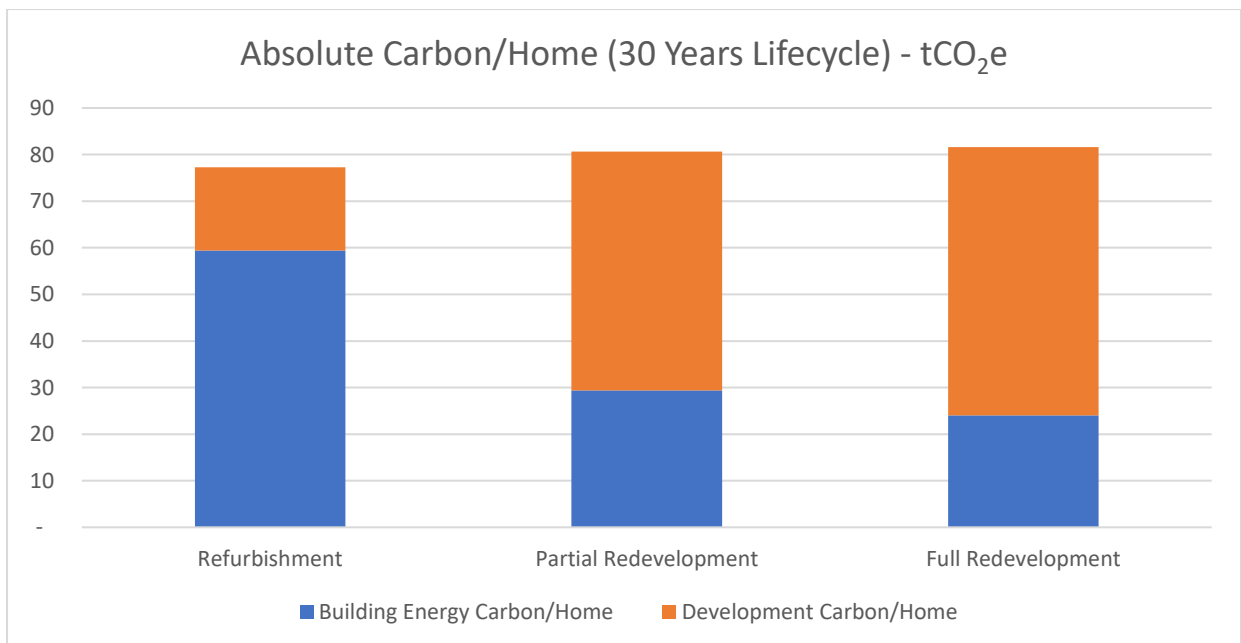
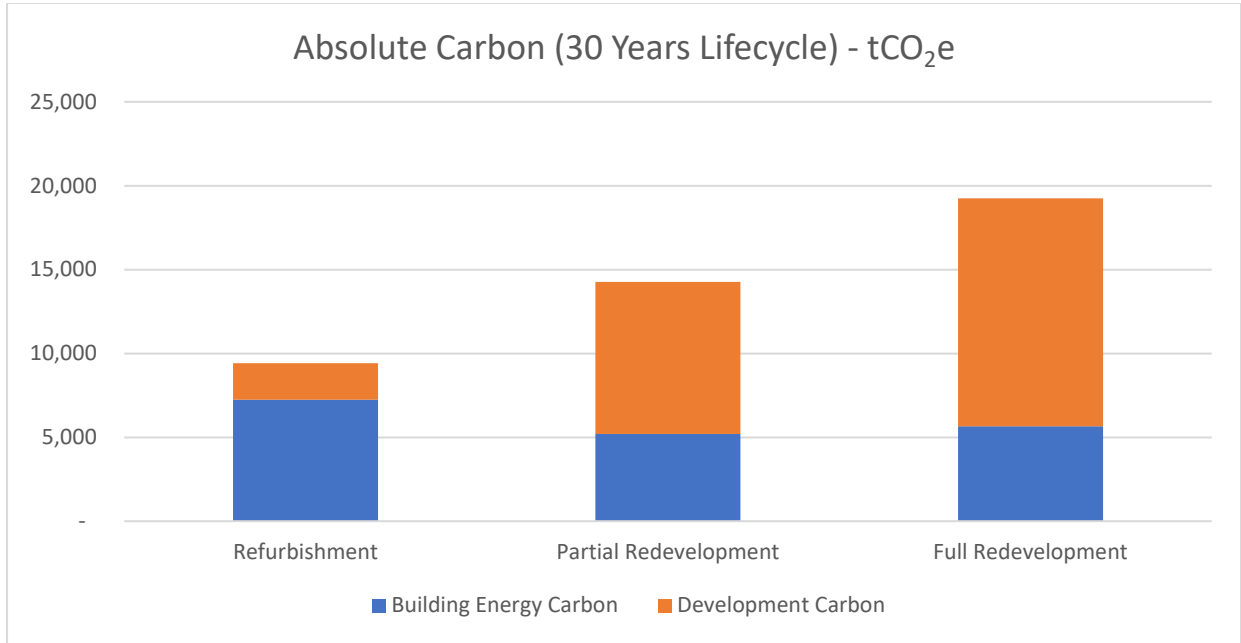
It was assumed that for both Refurbishment and Partial Redevelopment options, the Freehold Houses will remain untouched. Refurbishing these houses has the potential to yield up to 15% additional operational carbon savings at the expense of more embodied carbon.

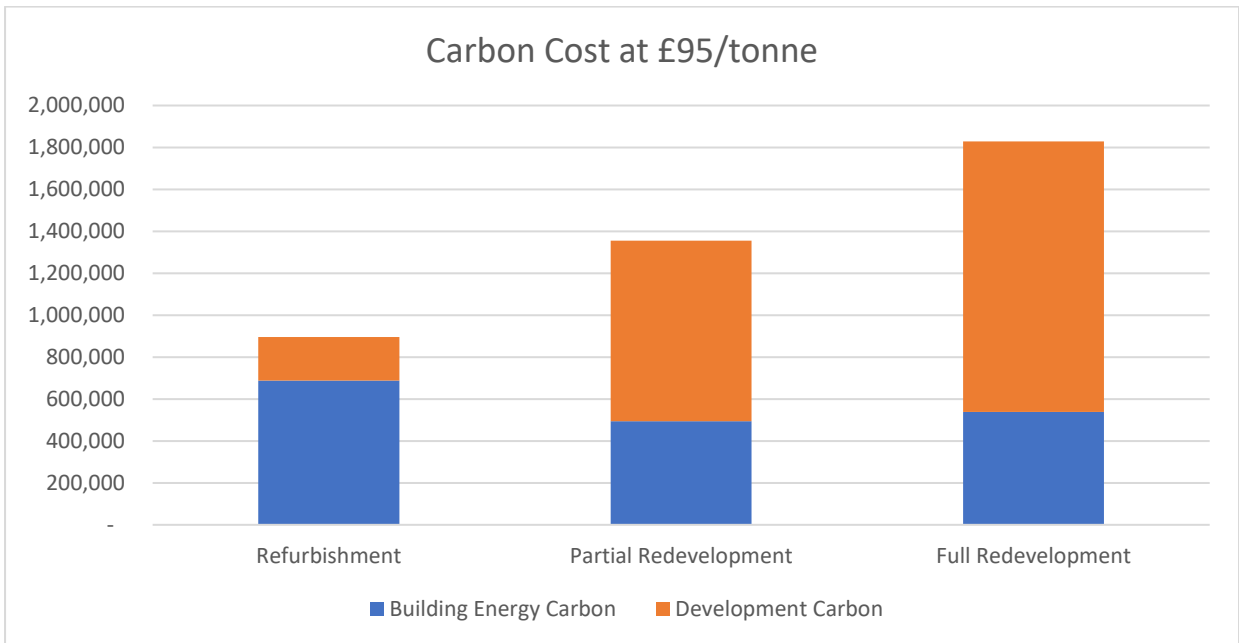
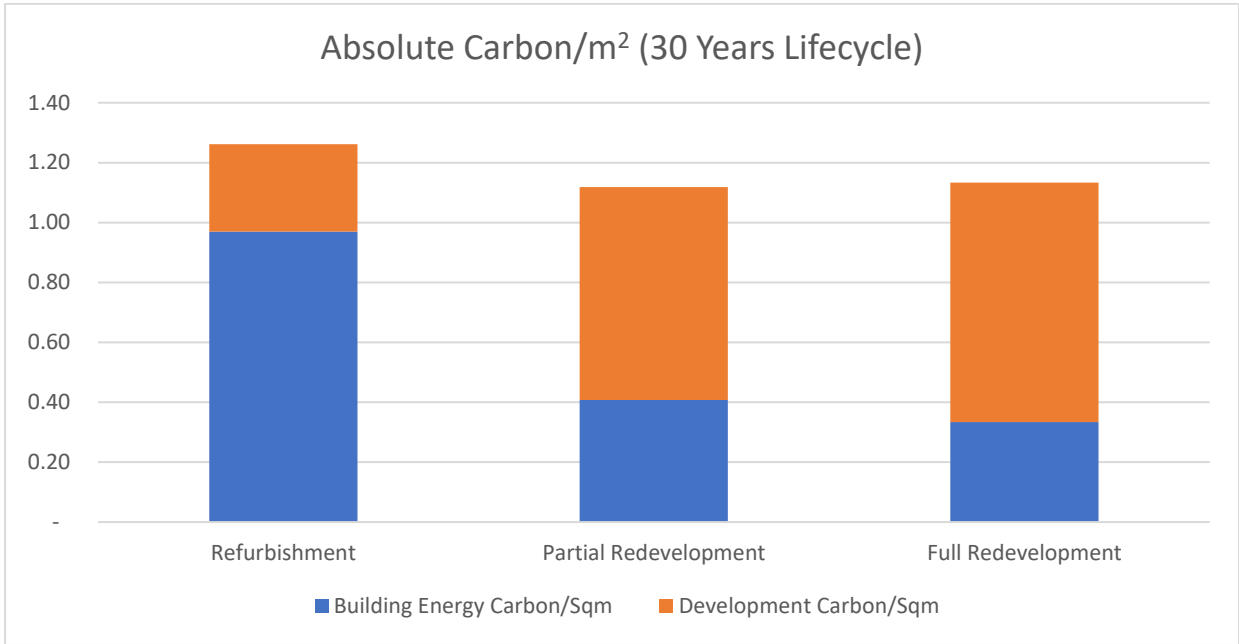
4.7.3 30-year model

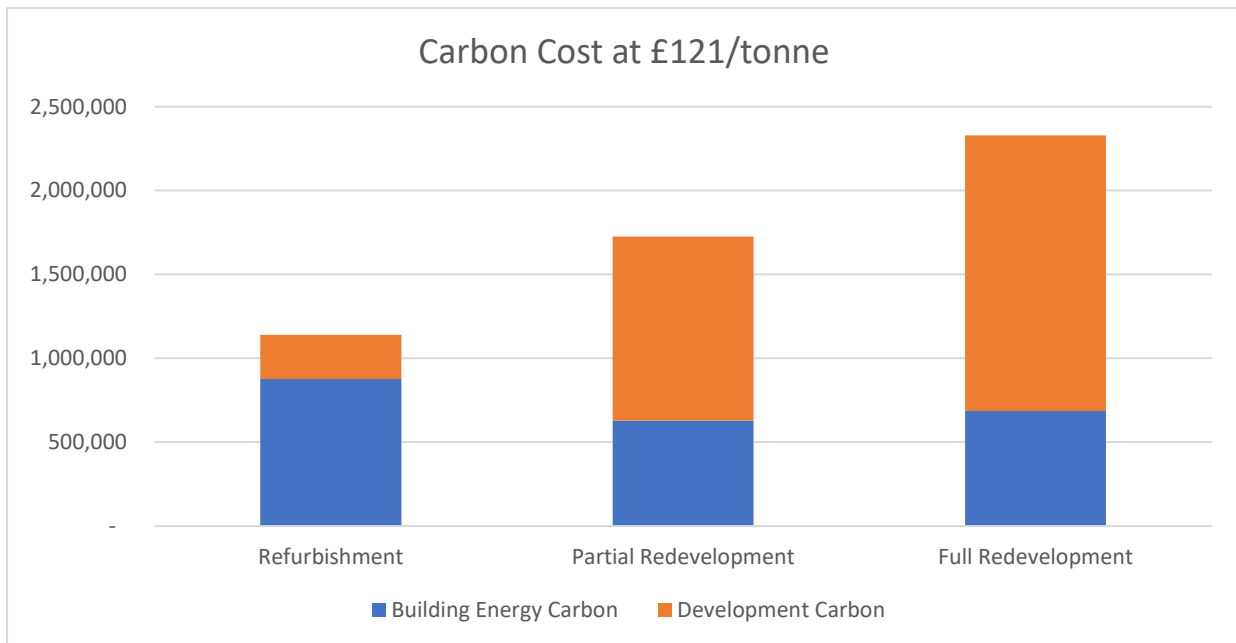
Absolute Carbon (tCO₂e)	Refurbishment	Partial Redevelopment	Full Redevelopment
Building Energy Carbon	7,245	5,199	5,666
Development Embodied Carbon	2,183	9,073	13,589
Total Carbon (tCO₂e)	9,428	14,272	19,255

Carbon/Unit (tCO₂e)	Refurbishment	Partial Redevelopment	Full Redevelopment
Building Energy Carbon	59	29	24
Development Embodied Carbon	18	51	58
Total Carbon (tCO₂e)	77	81	82

Carbon/m ² (tCO ₂ e)	Refurbishment	Partial Redevelopment	Full Redevelopment
Building Energy Carbon	0.97	0.41	0.33
Development Embodied Carbon	0.29	0.71	0.80
Total Carbon (tCO₂e)	1.26	1.12	1.13







Energy Cost (£)	Refurbishment £'000	Partial Redevelopment £'000	Full Redevelopment £'000
Operational Energy	10,953	4,883	3,998
Savings over Base Cost	7,568	13,052	13,333

4.7.4 Carbon Impact Summary

- **Refurbishment**

This is the lowest absolute carbon option due to the relatively low embodied carbon profile combined with energy efficiency improvements, especially to Houses and Bungalows where installation of rooftop PVs significantly improve operational energy figures. However, while the Flats and Maisonettes also benefit from significant energy efficiency improvements, energy intensity remains high. This option also does not provide any additional homes as no new units are created.

- **Partial Redevelopment**

Partial Redevelopment is the middle option with regards to absolute carbon. Both in absolute terms and per unit, this option offers significant operational improvement due to further reductions in energy intensity for Flats when compared to refurbishment while offering a large increase in housing units within the development. This option, however, will have a much higher embodied carbon footprint due to the large number of new units being developed.

- **Full Redevelopment**

This option produces the highest absolute carbon figures, largely due to the increase in housing units created. This option has a slightly lower absolute carbon footprint per unit and per floor area to Partial Redevelopment but has a slightly higher embodied carbon footprint due to the % of new buildings on the estate. This option produces the highest number of housing units with the lowest operational carbon footprint per unit of all options. Due to the high number of new units being developed, this option has the highest embodied carbon footprint and the highest absolute carbon footprint overall.

- **Overall Carbon Impact Assessment**

The balance of highly efficient homes will have a positive effect due to increasing the number of carbon-efficient housing units within the Council. Refurbishing or redeveloping houses will have a very positive operational carbon impact due to the roof area available to install PVs. New Flats will provide a high number of energy efficient housing units but will not be able to achieve the same energy efficiency as Houses due to the limited rooftop area available to install PVs. Overall, the Full Redevelopment option produces the best operational carbon performance and the highest amount of residential floor area while compromising on embodied carbon and producing a marginally higher footprint per unit than the Partial Refurbishment option. Both the Partial and Full Redevelopment options produce a better overall result per floor area.

4.8 Benefits Cost Appraisal

A Benefits Cost Ratio (BCR) is a tool that has been adopted from HM Treasury's appraisal guidance and looks at the public sector and broader economy benefits. The BCR is a ratio used to summarise the overall relationship between the relative costs and benefits of each shortlisted option as each differs in timing, risk, cost and benefit delivery. If a project has a BCR greater than 1, the project is expected to deliver positive social value with the costs being outweighed by the benefits.

In Stage 1, a high-level benefit-cost analysis was conducted to identify the high-level public sector and broader economy benefits and the associated beneficiaries. Through the consideration of additionality over what is current being provided and redevelopments that includes social housing, three benefit themes were identified:

- Social – health and wellbeing and anti-social behaviour improvements
- Economic – job creation, land receipts, infrastructure uplift, and energy costs
- Environmental – biodiversity, operating carbon, and energy efficiency improvements

There are both quantitative and qualitative benefits within each theme. Some benefits are for the 'all economy' and others are for the public purse. The definitions of these benefit types are detailed below:

- All Economy – benefits that will directly affect the local Cambridge economy and potentially have a multiplier effect on the wider economy.
- Public Purse – benefits generated that will directly benefit Council or the National Government by taxation or other means.

In Stage 2, an in-depth benefit-cost analysis has been conducted that includes the calculation of the BCR. The BCR analysis includes:

- An assumptions log that drives the cost benefit analysis for socio-economic benefits
- A cost benefit analysis considering the deadweight (do nothing/minimum) scenario and the additionality (incremental benefits), leakage, substitution, multiplier and displacement of the options
- The BCR result
- Sensitivity analysis and optimism bias to demonstrate impact of changes to cost inputs/benefit outputs.

The principle taken was one of additionality. The rationale behind this approach is that the Ekin Road Estate in its current form and layout requires improvement and no longer represents the best possible accommodation offering for residents. Therefore, the improvements provided by each option are based on addressing the current issues on the estate and providing additional wider benefits such as providing additional homes for people. It is anticipated that any additional units created will be backfilled by existing demand in the residential market.

4.8.1 Quantitative Benefits

The high-level benefit themes identified in Stage 1 have been developed to identify specific benefits within each theme. In calculating the specific benefits, we have used benchmarks and local market data as well as the expertise of the JLL Residential team to align our assumptions.

The quantitative benefits included in this analysis are:

- Additional Council Tax Receipts
- Increase in local spend from workers during the duration of the works
- Increase in local spend from new residents

- SDLT and proceeds from the sale of new homes
- Rental income from new units
- Increase in land values of the surrounding areas
- Reduction in damp related health costs
- Reduction in anti-social behaviour
- Grant receipts

These benefits have been considered over a 30-year period. The table below summarises the result of the BCR analysis for each of the shortlisted options, categorising the benefits into two types: All Economy and Public Purse. The two categories of benefits are combined and highlighted in the BCR calculations. The benefits for each option are then divided by the estimated development cost for each option to determine the ratio.

4.8.2 BCR Calculations

Separate BCR calculations have been prepared for each of the 3 options (including calculations for Affordable and Market) for the partial and full development options.

4.8.2.1 Refurbishment BCR

Benefit Theme	Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit
1	Employment generation from construction	Job creation related to contractors appointed for the site development	All Economy	972,494	972,494
		Income Tax and NI Contributions based on under 65-year-old employee	Public Purse	551,252	551,252
2	Reduction in Damp related health costs	Insulating the flats and upgrading windows will reduce damp and the related NHS and society costs as a result	Public Purse	142,961	142,961
Total value of benefits				1,666,707	1,666,707
Present value of All Economy benefits				2,435,524	4,772,434
Present value of Public Purse benefits				1,504,034	3,840,944
Present value of Costs				27,731,165	27,731,165
BCR for All Economy				0.09	0.17
BCR for Public Purse				0.05	0.14

4.8.2.2 Partial Redevelopment Affordable Housing BCR

Benefit Theme	Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit	
1	Increase in Council Tax receipts	Assumed that the increase in the condition and quality of units will result in additional units that have to pay Council Tax	RIBA 2025 consumption target x current electricity price less current consumption EPC E level	All Economy	806,623	4,964,678
2	Reduction in anti-social behaviour	The antisocial behaviour is resulting in additional cleaning costs which will be reduced in the new development.	Current cost per unit per annum x 5%	Public Purse	80,583	495,981
3	Employment Creation	Job creation related to contractors appointed for the site development	Assumed 50% of net salary of c.£40k will be spent locally	All Economy	2,654,542	2,654,542
			Income Tax and NI Contributions based on under 65-year-old employee	Public Purse	1,504,710	1,504,710
		Assumed additional homes will have economically active adults spending money in the local economy	1.5 economically active people per additional home spending 50% in the local economy and all new people living on the estate will be originally non-local people	All Economy	6,483,877	30,527,816
4	Reduction in Damp related health costs	Insulating the flats and upgrading windows will reduce damp and the related NHS and society costs as a result	A reduction in damp, prevalent in the flats and bungalows, will reduce the related NHS and Society costs related to illness caused by damp conditions in poor quality housing.	Public Purse	146,690	146,690
5	Uplift in land value of surrounding units	The improvement in the condition and quality of units will cause an uplift in land value of surrounding properties	Assumed 50% of the households with 1 mile are within 750m of the estate and will benefit from a 3% value uplift	All Economy	1,523,731	1,523,731
6	Grant receipts	Grants from Homes England for new or replacement units	Assumed Council will receive sale receipts from the market units	Public Purse	12,810,265	12,810,265

Benefit Theme	Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit	
		in an affordable housing scheme				
7	Rental Income	Rental income from the additional units	Assumed the additional units will have a £ average rental income per unit	Public Purse	7,802,094	41,645,298
Total value of benefits				33,813,116	96,273,711	
Present value of All Economy benefits				33,813,116	96,273,711	
Present value of Public Purse benefits				23,150,966	61,567,622	
Present value of Costs				57,584,793	58,679,741	
BCR for All Economy				0.59	1.64	
BCR for Public Purse				0.40	1.05	

4.8.2.3 Partial Redevelopment Market BCR

Benefit Theme	Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit	
1	Increase in Council Tax receipts	The additional units will generate additional Council Tax receipts	New build houses will pay CT Band D and new flats will pay CT band C	Public Purse	995,085	5,153,140
2	Reduction in anti-social behaviour	The antisocial behaviour is resulting in additional cleaning costs which will be reduced in the new development.	Current cost per unit per annum x 5%	Public Purse	201,627	617,025
3	Employment Creation	Job creation related to contractors appointed for the site development	Assumed 50% of net salary of c.£40k will be spent locally	All Economy	3,308,199	3,308,199
			Income Tax and NI Contributions based on under 65-year-old employee	Public Purse	937,616	937,616
		Assumed additional homes will have economically active adults spending money in the local economy	1.5 economically active people per additional home spending 50% in the local economy and all new people living on the estate will be originally non-local people	All Economy	-	-
4	Stamp Duty from sales	Assumed Stamp Duty is payable on all market sales units	Assumed the better-quality units will not require as	Public Purse	543,117	543,117

Benefit Theme	Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit
		much ongoing maintenance			
5	Reduction in Damp related health costs	A reduction in damp, prevalent in the flats and bungalows, will reduce the related NHS and Society costs related to illness caused by damp conditions in poor quality housing.	Public Purse	334,638	334,638
6	Uplift in land value of surrounding units	Assumed 50% of the households with 1 mile are within 750m of the estate and will benefit from a 3% value uplift	All Economy	3,017,585	3,017,585
7	Proceeds from sale	Assumed Council will receive sale receipts from the market units	Public Purse	13,216,119	13,216,119
8	Rental Income	Assumed the additional units will have an increased rental income per week	Public Purse	7,802,094	41,645,298
Total value of benefits				30,356,080	68,772,737
Present value of All Economy benefits				26,435,533	46,019,146
Present value of Public Purse benefits				20,792,153	40,375,765
Present value of Costs				58,283,570	58,283,570
BCR for All Economy				0.44	0.78
BCR for Public Purse				0.35	0.69

4.8.2.4 Full Redevelopment Affordable Housing BCR

Benefit Theme	Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit
1	Increase in Council Tax	Assumed that the increase in the condition and quality of units will result in additional units that have to pay Council Tax	Public Purse	1,714,698	9,152,559

Benefit Theme		Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit
2	Reduction in anti-social behaviour	The antisocial behaviour is resulting in additional cleaning costs which will be reduced in the new development.	Current cost per unit per annum x 5%	Public Purse	96,364	514,362
3	Employment Creation	Job creation related to contractors appointed for the site development	Assumed 50% of net salary of c.£40k will be spent locally	All Economy	2,479,859	2,479,859
			Income Tax and NI Contributions based on under 65-year-old employee	Public Purse	1,405,692	1,405,692
		Local job creation from the increase in the number of economically active people living on the estate	1.5 economically active people per additional home spending in the local economy and all new people living on the estate will be originally non-local people	All Economy	9,667,814	59,504,342
4	Maintenance Costs	The improvement in the condition and quality of units will reduce ongoing maintenance costs	Assumed the better-quality units will not require as much ongoing maintenance	Public Purse	-	-
5	Reduction in Damp related health costs	Insulating the flats and upgrading windows will reduce damp and the related NHS and society costs as a result	A reduction in damp, prevalent in the flats and bungalows, will reduce the related NHS and Society costs related to illness caused by damp conditions in poor quality housing.	Public Purse	148,000	148,000
6	Uplift in land value of surrounding units	The improvement in the condition and quality of units will cause an uplift in land value of surrounding properties	Assumed 50% of the households with 1 mile are within 750m of the estate and will benefit from a 3% value uplift	All Economy	1,504,928	1,504,928

Benefit Theme		Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit
7	Rental Income	Rental income from the additional units	Assumed the additional units will have a rental income per week	Public Purse	14,306,090	78,992,707
10	Grants received	Rental income from the additional units	Assumed the additional units will have a rental income per week	Public Purse	20,811,106	20,811,106
Total value of benefits					52,134,553	174,513,557
Present value of All Economy benefits					45,274,824	107,659,821
Present value of Public Purse benefits					34,115,285	71,095,175
Present value of Costs					81,060,840	83,235,095
BCR for All Economy					0.56	1.29
BCR for Public Purse					0.42	0.85

4.8.2.5 Full Redevelopment Market BCR

Benefit Theme		Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit
1	Increase in Council Tax receipts	Assumed that the increase in the condition and quality of units will result in additional units that have to pay Council Tax	New build houses will pay CT Band D and new flats will pay CT band C	Public Purse	1,442,875	8,880,735
2	Reduction in anti-social behaviour	The antisocial behaviour is resulting in additional cleaning costs which will be reduced in the new development.	5% of annual maintenance cost is for ASB	Public Purse	81,088	499,086
3	Employment Creation	Development contractor jobs	Estimated 50 local contractors on an average salary of £40,580 for 3 years of which 50% is spent in the local economy	All Economy	4,959,719	4,959,719
			£5600.20 tax and £3361.20 NI	Public Purse	1,405,692	1,405,692
		Local job creation from the increase in the number of economically active people living on the estate	1.5 economically active people per additional home spending in the local economy and all new people living on the estate	All Economy	9,667,814	59,504,342

Benefit Theme	Hypothesis	Assumptions	Benefit Type	10 Y Benefit	30 Y Benefit	
		will be originally non-local people				
4	Stamp Duty	There will be Stamp Duty receipts for the public purse on all sales	Payable at current rates on a non-first-time buyer rate	Public Purse	1,007,572	1,007,572
5	Reduction in Damp related health costs	Insulating the flats and upgrading windows will reduce damp and the related NHS and society costs as a result	NHS and Society cost of damp related conditions was £1,276.85 (2018), escalated at CPI to £1,511.46 in 2023 per unit	Public Purse	448,938	448,938
6	Uplift in land value of surrounding units	The improvement in the condition and quality of units will cause an uplift in land value of surrounding properties	Assumed 50% of the households within 750m of the estate and will benefit from a 3% value uplift	All Economy	1,504,928	1,504,928
7	Proceeds from sale	Sale of units post development	Assumed all sale receipts will be received by the Council	Public Purse	53,194,452	53,194,452
8	Rental Income	Rental income from the additional units	Assumed the additional units will have a increased rental income per week	Public Purse	12,347,648	77,034,265
Total value of benefits					86,060,726	208,439,730
Present value of All Economy benefits					74,678,151	137,063,147
Present value of Public Purse benefits					61,223,636	98,203,527
Present value of Costs					95,143,219	95,143,219
BCR for All Economy					0.78	1.44
BCR for Public Purse					0.64	1.03

4.8.2.6 BCR summary and optimism bias

		Base	Low	Medium	High
Refurbishment	All Economy 10 year	0.09	0.08	0.07	0.06
	All Economy 30 year	0.17	0.16	0.14	0.13
	Public Purse 10 year	0.05	0.05	0.05	0.04
	Public Purse 30 year	0.14	0.13	0.12	0.10

		Base	Low	Medium	High
Partial Development Affordable Housing	All Economy 10 year	0.59	0.57	0.53	0.49
	All Economy 30 year	1.64	1.58	1.47	1.36
	Public Purse 10 year	0.40	0.39	0.36	0.34
	Public Purse 30 year	1.05	1.00	0.92	0.83
Partial Development Market	All Economy 10 year	0.45	0.42	0.39	0.35
	All Economy 30 year	0.79	0.75	0.71	0.65
	Public Purse 10 year	0.36	0.33	0.30	0.28
	Public Purse 30 year	0.69	0.66	0.62	0.58
Full Development Affordable Housing	All Economy 10 year	0.56	0.52	0.49	0.45
	All Economy 30 year	1.29	1.18	1.09	0.97
	Public Purse 10 year	0.42	0.40	0.38	0.35
	Public Purse 30 year	0.85	0.79	0.73	0.67
Full Development Market	All Economy 10 year	0.78	0.75	0.69	0.63
	All Economy 30 year	1.44	1.40	1.31	1.23
	Public Purse 10 year	0.64	0.61	0.56	0.51
	Public Purse 30 year	1.03	1.00	0.93	0.87

The above table indicates that none of the options deliver a favourable BCR result over a 10-year period. The refurbishment option delivers the lowest BCR return across all time frames and optimism biases.

Over a 30-year period, for both the partial and full redevelopment options that include a full affordable scheme, which is primarily driven by the increased grant receipts, deliver favourable BCR results. The most favourable option is the partial redevelopment option 100% affordable housing which has a BCR of 1.64 for the all economy and 1.05 for the public purse. The full redevelopment 100% affordable housing option also performs well with a 1.29 BCR result for the all economy. The market lead full development option has a BCR result above 1 for the all economy and shows a more positive public purse impact as a result of Stamp Duty receipts on the sales. Whereas the partial redevelopment market scheme fails to achieve a favourable BCR result above 1.

4.8.3 Qualitative Benefits

In addition to the quantitative benefits included in the sub-section above, there are a number of qualitative benefits which have not yet been quantified. Not all of these qualitative benefits are applicable to all of the shortlisted options. The qualitative benefits include:

- **Long term health and wellbeing of residents**

Through improving the quality and condition of homes on the estate as well as the ability to incorporate new public realms on the estate, the long term physical and mental wellbeing of residents will increase. Physical wellbeing is achieved through the minimisation of the presence

of mould, damp and condensation in homes which is impacting some residents' health. The addition of new outdoor public realms will help improve both the physical and mental health of residents through the additional exercise benefits from the pedestrian routes and the biophilic benefits from being outside more in the fresh air, surrounded by plants and nature. This is expected to put less pressure and financial burden on local NHS providers. Health and wellbeing improvements can reduce the number of lost workdays as well as the number of hospital visits – both having a positive effect.

- **Local Population Growth**

The higher net additional homes on the estate will have a direct impact on the local population levels as more residents move to the area. This could have a knock-on effect on local economic growth, local infrastructure, and amenity improvements.

- **Improvement in biodiversity and air quality**

The provision of new green space of varying sizes as well as the replacement and addition of new trees on the estate can support improvements in the estate's biodiversity. There could also be air quality improvements in the surrounding area by the increase in the number of trees.

- **Indirect carbon benefits or carbon benefits outside the estate boundary**

The creation of additional homes in the redevelopment options will provide opportunities for residents outside of the estate boundary to move into more efficient homes reducing carbon impact in the broader community. Additionally, the improved estate accessibility and local amenities (e.g., green space, pedestrian and cycle access) may reduce the driving needs for the residents meaning the levels of carbon emitted by residents will decrease.

- **Provision of more affordable housing in the area**

Depending on the selected option, the potential creation of additional affordable housing in the local area will relieve pressures on the Council's housing list as well as provides more permanent homes for more local people in the area.

4.9 Economic Case Conclusion

Based on the strategic analysis of each option against the critical success factors (CSFs), it is evident that the refurbishment option is not capable of achieving a satisfactory number of the CSFs. Out of 11 CSFs, there was 1 green flag, 6 amber flags and 4 red flags. The refurbishment would improve energy performance of most buildings' besides the flats due to the exclusion of external wall insulation and limited roof space for PV panels. These repairs and improvements could be delivered in a single phase, rolling programme which should reduce resident disruption while improving cost-efficiencies through the speed of delivery. However, this option does not adequately address the overall condition of the buildings, particularly the flat blocks that are at the end of their useful life. Substantial investment would be required to continually upgrade and repair the buildings. This could also have a knock-on effect on resident's long-term health and wellbeing as the core issues are only somewhat resolved. Although, there would be a small short-term improvement in health and wellbeing from the improvement in the condition of housing, long-term issues would persist. It is also evident there would be limited benefits associated with refurbishment. The BCR for the refurbishment option is poor at 0.09 pence received for every £1 spent over 10 years and 0.17 over 30 years.

The partial redevelopment option, on the other hand, has the potential to achieve a satisfactory number of the CSFs by improving the average condition and quality of housing on the estate. Out of the 11 CSFs, 6 can be fully achieved. The majority of units would be redeveloped during a phased delivery via a joint venture partnership, and the retained houses would be refurbished alongside to a high standard. By delivering through a phased approach, the Council can prioritise resident relocation, thus minimising disruption, and impact. Therefore, while there are short-term health and wellbeing impacts from decanting, efforts will be made to minimise disruption to bring about significant long-term benefits. Current residents could move to properties of a higher standard, so there is the potential to enhance their health and wellbeing while improving those who will live on the redeveloped estate. This option allows for the provision of a larger outdoor space for residents while removing areas prone to anti-social behaviour, such as dead-ends, garages, and alleyways. These improvements would enhance safety, wayfinding, and overall liveability for both residents and the wider community. However, there are limitations in terms of excluding the outer low-density buildings as it could create a lack of cohesion across the estate with inconsistent quality between new and retained buildings and potential challenges in creating a unified community. Additionally, there is a restriction in the overall housing gain on the estate meaning the opportunity to meet Cambridge's housing demand and create more homes for people is hindered.

The full redevelopment option presents an opportunity to achieve the most CSFs. Out of the 11 CSFs, 8 CSFs can be fully achieved. While it may have the greatest adverse immediate impact on residents' health and wellbeing due to the need for relocation, the long-term benefits are substantial. This option would enable a comprehensive positive transformation of the whole estate, with all buildings being redeveloped in phases into modern, high-quality housing that aligns with sustainability and accessibility standards outlined in the

Cambridge Sustainable Housing Design Guide. This will create a modern, cohesive estate with improved placemaking and safety for residents. Areas prone to anti-social behaviour will be removed and a large outdoor space can be provided for residents and the wider community to enjoy. More residents can benefit from these improvements as the lack of constraints from infill development allows the greatest uplift in the number of units on the estate. By removing the outer houses, a significant number of units can be provided in their place. Such improvements would have an overall positive impact on the long-term health and wellbeing of residents living on the estate and in the surrounding area. It is important to note that immediate decanting of residents may be necessary in this option, but efforts would be made by the Council to provide support and minimise disruption. Residents who are decanted off the estate could move to housing of a better condition and quality that is more suited to their needs. By ultimately redeveloping the whole estate, the Council can deliver on its strategic objectives, provide the highest level of benefits and create a thriving community for its residents. The extent of the benefit creation in return for the investment is demonstrated through the 1.29 (affordable) and 1.44 (market lead) full development BCR result over a 30-year period.

5 THE COMMERCIAL CASE

5.2 Introduction

The Commercial Case concerns the commercial strategy and arrangements relating to the delivery of the services and assets that are required by each shortlisted option. The purpose is to demonstrate each option's ability to result in a deliverable scheme. The commercial dimension feeds into the costs, risk management and timing in the other cases.

5.3 Commercial Delivery Model

This section confirms the preferred commercial delivery model for each option and how each delivery model works in terms of processes.

- **Refurbishment Option**

As outlined in the Economic Case, the preferred delivery model for the refurbishment option is for Cambridge City Council to self-deliver the project by managing the contractors that will be carrying out the refurbishment work on the Ekin Road Estate. Given the scale and nature of the refurbishment option, Cambridge City Council will be required to procure a contractor to carry out the work. This will require a tendering and procurement process.

- **Redevelopment Options**

It is assumed options involving redevelopment are best delivered through a joint venture partnership with a development partner. In this instance it is assumed Cambridge City Council would procure a developer to form a JV partnership and deliver the development with both parties sharing the risk and rewards that are generated.

The full redevelopment option would be fully delivered through a joint venture partnership while the partial redevelopment option would involve using a developer to deliver the development elements of the scheme while the refurbishment work would be carried out alongside by contractors procured through a tendering process.

For all-affordable schemes, a joint venture partnership should still be used but the development partner could be procured through a framework.

5.3.1 Procurement Strategy

Should the Council need to go out to tender for either a development partner or contractor, there are requirements to comply with the current Public Contract Regulation when carrying out a procurement for a council service. The procurement strategy aims to²⁴:

- Make all contracts accessible;
- Ensure all contracts deliver the needs of the community;
- Support small to medium enterprises by simplifying and standardising the process;
- Encourage spending in the local economy; and
- Ensure the Council receive value for money.

5.3.1.1 Procurement Process

The standard practice in alignment with Public Contract Regulations and EU compliance is to use an open tender process. This process is designed to ensure that there is a robust methodology for the selection of bidders and the award of the contract to the successful bidder. Using a competitive market process will ensure the preferred bidder has the correct expertise and experience to meet the Council's requirements in successfully delivering a project that aligns with the vision and critical success factors.

Within the regulations, the contract would be advertised to allow any interested parties to submit a tender and complete a tender evaluation. The tenders are reviewed and evaluated for completeness and compliance with the specification and the Council's stated requirements²⁵. Each tender submission would be evaluated and scored on the following factors:

- Price: price considerations in terms of the lowest cost.
- Quality: identify how the tender will address various elements of the specification and the skills and experience of the supplier.

Once the tender evaluation is completed and a preferred bidder is identified, Cambridge City Council would inform all bidders at the same time through the portal.

5.3.1.2 The Cambridge Investment Partnership (CIP)

Cambridge City Council is experienced in delivering schemes through a JV structure as they already have a strong track record of a successful JV partnership. In January 2017 Cambridge

²⁴ Cambridge City Council, Procurement and Contracts [available at: <https://www.cambridge.gov.uk/procurement-and-contracts#:~:text=Guided%20by%20our%20procurement%20strategy,the%20needs%20of%20the%20community>]

²⁵ Cambridge City Council, How we evaluate tender submissions, [available at: <https://www.cambridge.gov.uk/how-we-evaluate-tender-submissions#:~:text=All%20submissions%20will%20be%20reviewed,provide%20the%20greatest%20economic%20advantage.>]

City Council established a mechanism for the development and delivery of sites: a joint venture (JV) partnership called the Cambridge Investment Partnership (CIP). The CIP agreement is an equal 50:50 Limited Liability Partnership (LLP) between Cambridge City Council and Hill Investment Partnerships on a 20-year member's agreement. In the Members Agreement²⁶, there are four agreed objectives of CIP that must be met:

- Investment in the development of land to create successful new places that meet both the financial objectives (primarily a revenue return) and social objectives of the Cambridge City Council (particularly housing that is affordable and is needed locally), provided always that the individual sites may be developed to meet either financial or social objectives;
- Improve the use of Council assets and those of other Public Sector Bodies in the Cambridge, or Cambridge wide, area;
- Maximise financial return through enhanced asset value;
- Provide a return to the Investment Partners commensurate to their investment and the level of risk in respect to such investment.

CIP aims to meet the Council's key objectives in line with planning policy. As a result, CIP became the main vehicle to support addressing the housing shortage across Cambridge by building high-quality, brand-new council homes and market sale homes.

The principle of the agreement underpinning the partnership is that both partners will share any development risk and uplift from a scheme equally²⁷. Each partner shares the profits in proportion to the value of their input²⁸. For the Council, benefits include a capital receipt for the land as well as a portion of the profits which is highly beneficial in a time of economic constraint. As well as the financial benefits, the Council benefit from Hill's expertise and resource. CIP also provides early scheme appraisals to bring forward new opportunities as well as commercial input in finding sites and mixed tenure developments. This has supported the ability for the Council to deliver schemes at an accelerated pace. To date, there has been a strong track record of supporting the delivery of the 'devolution 500' programme in Cambridge²⁹. The 500 programme would not have been delivered at the pace it did without CIP. Based on the success of the 500 programme, a new programme was announced in 2021 to deliver an additional 1,000 council homes³⁰. Through completing several projects in the Cambridge area via CIP, there is an ability to have ongoing learning and development within the partnership and Cambridge City Council can maintain

²⁶ Cambridge City Council, Agreement Relating to Cambridge City Partnership LLP 2019

²⁷ HSC Report on Development Programme 2021

²⁸ Cambridge City Council, Cambridge Investment Partnership (CIP) Land Transactions 2017 Document [available at: <https://democracy.cambridge.gov.uk/documents/b11083/Cambridge%20Investment%20Partnership%20CIP%20Land%20Transactions%2009th-Oct-2017%2017.00%20Strategy%20and%20Resource.pdf?T=9>]

²⁹ HSC Report on Development Programme 2021

³⁰ HSC Report on Development Programme 2021

satisfactory levels of control to ensure value for money and the delivery of high-quality developments.

5.4 Conclusion

The Commercial Case outlined the commercial arrangements to support the delivery of each shortlisted option. The assumed commercial delivery routes are as followed:

- Option 1: Refurbishment – Cambridge City Council self-delivers via contractors
- Option 2: Partial Redevelopment – a blended mix of using a developer for the redevelopment and contractors for the refurbishment work
- Option 3: Full Redevelopment – A JV partnership

These delivery options were selected as they provide the Council with an acceptable level of control over delivery and timings whilst ensuring the Council's vision and critical success factors are suitably met. By maintaining satisfactory control and leveraging resources and expertise, delivery can be executed effectively to result in a successful transformation of the estate.

The Council has the capacity in-house to manage and deliver projects using contractors. This commercial process can be used for the refurbishment option as a competitive market process can be undertaken to ensure Council vision fulfilment, local economic spending, and value for money. The outcome is the procurement of a suitable contractor with the correct knowledge and experience to support the Council in delivering a project that meets their requirements.

While it is important to develop in-house expertise, the ability to deliver a redevelopment scheme of this scale and nature within the Council requires the support of a development partner through a joint venture partnership. This will enable the Council to manage and share the risk and reward while benefitting from their expertise and delivering a scheme aligned with their objectives.

The Council already has an established joint venture partnership set up which could potentially be used for this project. The Cambridge Investment Partnership supports the delivery of new council and market homes in Cambridge. The 50:50 Limited Liability Partnership is a 20-year partnership with Hill Partnerships. Hill are a well-established developer who already has a track record of delivering high quality developments that align with the requirements of the Council and delivered at an accelerated pace, to a high quality and design standard.

In the case of the partial redevelopment option that involves refurbishment of the retained council houses as well as redevelopment of the rest of the estate, the refurbishment work of the retained units would follow the same delivery model as the full refurbishment option, undergoing a tendering process managed by Cambridge City Council. The redevelopment work would be delivered by a developer.

6 THE FINANCIAL CASE

6.1 Introduction

The Financial Case incorporates a detailed set of market development appraisals aligned with a set of agreed assumptions. The purpose of this case is to build upon the work conducted in Stage 1. The content of this case has been prepared specifically to support feasibility discussions in respect of the proposed refurbishment and redevelopment options for the site by producing a residual deficit/surplus for each option. A cost per unit has also been calculated along with a comparison with the base case which in this instance is the refurbishment option as this is the minimum the Council must do to address the issues on the estate. All development appraisals (Appendices C-G) were carried out by the JLL Affordable Housing Team.

All RICS members inputting into this financial assessment have acted objectively, impartially, without interference and with reference to all appropriate available sources of information. Furthermore, in preparing this report, no performance related or contingent fees have been agreed.

The calculations in this case do not comprise a valuation and therefore has not been produced in accordance with the RICS Valuation Standards – Global Standards 2022 or the RICS Valuation – Global Standards 2022 – UK national supplement (The RICS Red Book UK National Supplement): effective 22 January 2022. The advice contained in this case cannot be used for purposes other than those mentioned, including loan security purposes and may not be used or duplicated without the prior written consent of JLL.

6.2 Approach and Rationale

We have considered, in an open book format, the financial feasibility of:

- Option 1: Refurbishment of the existing Council housing

The proposed refurbishment scenario comprises the refurbishment of all leasehold and tenanted flats and houses. Whilst the estate houses 122 properties, the 11 freehold houses are assumed not to take part in the refurbishment. As such the remaining 111 properties will be refurbished with the existing 98x Social Rented units would be retained as per their current tenure with 13x leasehold interests acquired to facilitate the refurbishment of the flat and maisonette blocks and sold once refurbished.

- Option 2: Partial Redevelopment and refurbishment of the estate (also referred to as hybrid) –

This option involves the redevelopment of the majority of the estate to provide 153x newbuild apartments with the retention 24x existing houses, of which 14x Council houses will be refurbished.

- Option 3: Full redevelopment of the estate – including the re-provision of existing Social Rented affordable housing.

The two development led options have been appraised on both a market led and 100% affordable housing basis:

- With respect to the market led partial redevelopment option, it is assumed that the existing 98x Social Rented homes would need to be re-provided equating to approximately 58% of the scheme. In the 100% affordable housing option the 98x units would be re-provided with the additional private units converted to Affordable Rent. We have assumed that the retained houses would remain in their current tenure with only the Council houses refurbished:

	Market Appraisal			100% AH Appraisal		
	Phase 1	Phase 2	Refurb	Phase 1	Phase 2	Refurb
Social Rented	36	48		36	48	
Affordable Rented				57	12	
Private	57	12				
Refurbished Houses			14			14
Total	93	60	14	93	60	14

- With respect to the market led full redevelopment option it is assumed that the existing 98x Social Rented homes would need to be re-provided equating to approximately 42% of the scheme. In the 100% affordable housing option the 98x units would be re-provided with the additional private units converted to Affordable Rent.

	Market Appraisal		100% AH Appraisal	
	Phase 1	Phase 2	Phase 1	Phase 2
Social Rented	62	36	62	36
Affordable Rented			60	78
Private	60	78		
Total	122	114	122	114

Costs, values, and timescales associated with the delivery of the scenarios have been considered in detail and supported by specialist input from third party consultants where appropriate. Values and costs are current day and non-inflationary. The development appraisals have been modelled using recognised development appraisal software – Argus Developer. We have undertaken an appraisal for each scenario to demonstrate the residual surplus or less each scenario achieves.

For applicable options, the appraisals also factor in grant funding where available. A detailed development appraisal was deemed appropriate for this analysis as we are conducting a detailed assessment that comprehensively evaluates the shortlisted options from a strategic, economic, financial, commercial and management perspective. A separate viability study will need to be conducted by the Council/CIP.

For each scenario the following steps were conducted:

- Determine the number of units provided by each option
- Assume tenure split of completed units
- Calculate the residual value and timings of revenue
- Determine the level of grant funding available
- Estimate conceptual development costs and timings
- Calculate decant and land acquisition costs for the affected units
- Determine associated disposal costs, fees and finance

For full details of the development appraisals conducted to support this case, please refer to Appendices C-G of this paper. The final report can be found in Appendix I.

6.3 Values and Assumptions

To determine the values of the building types post redevelopment/refurbishment, the JLL Building Consultancy team have spoken to a number of local agents who know the Ekin Road surrounding area well, and who have described the location as ‘run-down’ and ‘desperately in need of regeneration’. In addition, there is limited achieved data for new build properties in the wider area, with the exception of Knight’s Park. As such second-hand stock in the local area and local agents’ opinions have been relied upon.

6.3.1 New Build Private Values

	Value per unit type	£psf
Flats		
1 beds*	£310,000	£561 psf

	Value per unit type	£psf
2 beds	£390,000	£507 psf
3 beds	£465,000	£495 psf
Houses		
3 beds	£500,000	£489 psf
4 beds	£565,000	£409 psf

**the 1 bed value has been adopted on the assumption these units will not benefit from a parking space.*

At the time of calculating these values, the team was not provided with detailed floor plans for the proposed units so average values per unit type has been applied.

Based on the assumptions above, the private sales revenue for the full redevelopment option is summarised below:

Beds	Type	£/unit	No. of units Phase 1	Total Phase 1 Revenue	No. of units Phase 2	Total Phase 2 Revenue
1	Flat	£310,000	18	£5,580,000	25	£7,750,000
2	Flat	£390,000	28	£10,920,000	24	£9,360,000
3	Flat	£465,000	0	£0	10	£4,650,000
3	House	£500,000	10	£5,000,000	12	£6,000,000
4	House	£565,000	4	£2,260,000	7	£3,955,000
Sub-total			60	£23,760,000	78	£31,715,000
Total			138	£55,475,000		

Based on the assumptions, the private sales revenue for the partial redevelopment option is summarised below:

Beds	Type	£/unit	No Phase 1	Total Phase 1	No Phase 2	Total Phase 2
1	Flat	£310,000	24	£7,440,000	0	£0
2	Flat	£375,000	23	£8,625,000	0	£0
3	Flat	£450,000	3	£1,350,000	0	£0
3	House	£500,000	4	£2,000,000	9	£4,500,000
4	House	£565,000	3	£1,695,000	3	£1,695,000
	Parking (Flats)	£15,000	18	£270,000	0	£0
	Extra Parking (Houses)	£20,000	2	£40,000	0	£0
Sub Total			57	£21,420,000	12	£6,195,000
Total			69	£27,615,000		

6.3.2 Refurbished Private Values

It has been assumed to deliver the refurbishment scenario it will be necessary to acquire 13 leasehold interests to allow the blocks and units in which they reside to be refurbished. Once refurbished the units will be sold on the open market or offered back to the market value to the leaseholders.

These properties will be of a higher standard compared to the existing stock, but they do not comprise new build properties so adjustments to values have been made. A 30% discount to the above unit values has been applied to deliver an aggregate value of £3,082,857.

6.3.3 Existing Refurbished Social Rent Values

The JLL Affordable Housing and Building Consultancy team have prepared a package price assessment of the existing refurbished rental properties on the basis of Existing Use Social Housing (EUV-SH). A valuation of the portfolio using fully explicit discounted cashflow models, over a 50-year period, with the net income in the final year capitalised into perpetuity was conducted.

The assumptions taken for this valuation are as follows:

	Assumption
Rental value (average one bed pw)	£106.49

	Assumption
Rental value (average two bed pw)	£123.63
Rental value (average three bed pw)	£137.51
Discount Rate Income	6.0% (excluding flats) 6.5% (flats only)
Management costs	£550
Management cost growth inflator	0.5%
Day to day costs	£350
Planned & Cyclical costs (98x units)	£5,515
Planned & Cyclical costs (14x houses)	£3,905
Rental income growth (All years real)	1.0%
Bad debts and voids (% of gross income)	2.5%

Based upon these assumptions we have arrived at the following package prices:

- Full Refurbishment (All) – £3,970,000 equating to circa £34,000 per unit
- Partial Redevelopment / Partial Refurb (Houses) - £1,250,000 equating to circa £89,000 per unit

6.3.4 New Build Social Rent Values

A valuation of the proposed affordable housing using the DCF model was conducted to arrive at a 'package price' equating to the amount a Registered Provider would pay a developer for the delivery of the Social Rent units. A formula set out by Homes England was used which applies a 70% weighting to relative average county annual earnings and a 30% weighting to relative capital values (EUUV, as at January 1999), with an adjustment factor for the number of bedrooms in the respective properties.

In order to assess the social rent values, we have opined average unrestricted market values for the Social Rent units, assuming they are delivered to a lower level of specification than the private units.

The assumptions used for the calculations of values were as follows:

	Social Rent
Target Rent (per week)	1 Bed flat: £117

	Social Rent
	2 Bed flat: £134
	3 Bed flat: £155
	3 Bed house: £159
	4 Bed house: £177
Management, major repairs, and maintenance (pcm)	£1,500
Void and Bad debts (%)	2%
Rental income growth (All years real)	1.0%
Discount Rate (%)	5.25%

Based on these assumptions the following new build social rent values were calculated:

	Full Redevelopment		Partial Redevelopment	
	Market	100% AH	Market	100% AH
Phase 1	£7,995,000	£7,995,000	£4,155,000	£4,155,000
Phase 2	£5,045,000	£5,045,000	£6,415,000	£6,415,000
Total	£13,040,000	£13,040,000	£10,570,000	£10,570,000

The above averages to approximately £184 psf or £133,000 per unit which the teams consider commensurate with the level of value of similar affordable housing offerings.

6.3.5 Affordable Rent Values

For the full and partial redevelopment option, there is a scenario with 100% affordable housing provision. In this instance, the private tenure units become Affordable Rent units set at 80% Market Rent.

A valuation of the proposed affordable housing using the DCF model to arrive at a 'package price' equating to the amount a Registered Provider would pay a developer for the delivery of the additional affordable units (excluding grant) was conducted.

In order to assess the capital values, we have opined average unrestricted market rental values for the Affordable Rent units, assuming they are delivered to a similar level of specification to the private units.

The valuation assumptions are detailed below:

	Assumptions
Affordable Rent (per week)	1 Bed flat: £249 2 Bed flat: £277 3 Bed flat: £323 3 Bed house: £351 4 Bed house: £406
Service Charge	£2.50 psf
Management, major repairs, and maintenance	£1,500
Voids and Bad debts (%)	3.00%
Discount Rate (%)	5.5%

It was also assumed all affordable rent units are unrestricted by tenure and are delivered to a lower level of specification than the private units.

Based on these assumptions the following values were determined:

	Full Redevelopment		Partial Redevelopment	
	Market	100% AH	Market	100% AH
Phase 1	N/A	£15,970,000	N/A	£13,970,000
Phase 2	N/A	£21,345,000	N/A	£3,850,000
Total	£0	£37,315,000	£0	£17,820,000

The above averages to approximately £328 psf or £266,000 per unit which the teams consider commensurate with the level of value of similar affordable housing offerings.

6.3.6 Other Assumptions: Car Parking

Based on the following information from BPTW or the car parking allowance on the estate:

Unit Type	Partial Redevelopment	Full Redevelopment
Houses	25 spaces (1 per house)	39 spaces (1 per house)
Flats	55 spaces	84 spaces

The following explicit assumptions regarding the parking provision, have been made:

- All houses have one allocated space;
- All three bed flats have one allocated space;
- 52 x 2B4P flats have one allocated space; and
- 3 x 2B3P wheelchair accessible units have one allocated space.

6.4 Construction Costs

A cost plan for the refurbishment and new build construction costs for each scenario where relevant. All costs provided are inclusive of contractors OHP/Margin, preliminaries and, in relation to refurbishment, VAT. Allowances for contingency and professional fees have been made.

Summaries of the totals (exclusive of contingency and professional fees) can be found below:

	Refurbishment Costs	New Build Costs	Total
Refurbishment	£16,989,894 (£195 psf)	N/A	£16,989,894
Partial Redevelopment	£2,896,885 (£156 psf)	£44,690,000 (£298 psf)	£47,586,885
Full Redevelopment	N/A	£66,520,000 (£285 psf)	£66,520,000

6.5 Contingency

A 5% contingency across the new build construction costs and a 10% contingency for the refurbishment costs has been adopted. A higher contingency for refurbishment costs was adopted to reflect a higher degree of uncertainty.

6.6 Professional Fees

It is normal to see professional fees in the order of 8% to 12% of the net construction costs with the adopted percentage depending upon the type of project, site, scale and complexity of the proposals. A 10% fee for all refurbishment costs has been applied, and 7% fees have been applied to the new build elements reflecting the inclusion of 3% novated fees within the new build costs themselves. No novated fees have been included in the refurbishment costs.

6.7 Appraisal Assumptions

The following assumptions have been applied to all development appraisals. The assumptions are based on available information, market conditions and professional judgement at the time of the appraisal.

Cost	Assumption
Acquisition Cost	Notional land cost of £1
	No other allowances
Planning Contributions	No CIL*
	S106 Contributions: £3,750 per unit above the existing 122 units: <ul style="list-style-type: none"> ○ Refurbishment: £0 ○ Redevelopment: £435,000 ○ Partial: £116,450
Decant Costs	Home loss Payment: £8,100 per Council tenant
	Decant Payment: £1,250 per Council tenant
	Assumed 20% of tenants will return and require a double decanting payment
	Assumed these costs are paid over 6 months prior to construction for redevelopment
Buy Back Costs	Assumed these costs are paid on a rolling basis for refurbishment
	1 Bed Flat: £215,000
	2 Bed Flat: £280,000
	3 Bed House: £402,000
	4 Bed House: £467,000
	10% home loss, 5% disturbance and 1% legal and valuation fees have been assumed
Marketing Costs	Assumed these costs are paid 6 months prior to construction of each new build phase
	1% for private units

Cost	Assumption
Disposal Costs	Private Sale Agent: 2%
	Affordable Sales Agent: 1%
	Private Sales Legal: £1,000 per unit
	Affordable Sales Legal: 0.5%
Finance	7% on a notional 100% debt basis
Developer return/profit requirement	Not included

*we understand CIL is not currently adopted within Cambridge City Council's jurisdiction so allowances have not been made for these costs in either the full or partial redevelopment options.

6.8 Funding

The shortlisted options all require significant capital investment to successfully deliver them. Some funding options are available, but this will depend on the level of affordable housing in the scheme, the delivery route and availability of funding. A combination of grant funding and direct council investment has been assumed.

6.8.1 Direct Council Investment

- HRA Resources

HRA (Housing Revenue Account) Resources direct from the Council can be used to fund redevelopment work. A part of the HRA resources is Right to Buy Receipts. Councils hold Right to Buy receipts under the retention agreement with the Department for Levelling Up, Housing and Communities (DLUHC) which must be spent within 5 years of their original receipt date. The receipts can be used to fund a maximum of 40% of the cost of any new affordable unit. The use of Right to Buy receipts has been considered which could provide significantly more funding than Homes England grant. We understand that while this could be applied to the scheme, projected RTB funds have already been allocated to other developments in the City and therefore we have discounted this for the purposes of our assessment.

6.8.2 Grant Funding

- Homes England

The Council should liaise and prepare bids where appropriate to submit when funding streams/grants become available particularly around affordable housing.

A 100% affordable housing provision should be eligible to Homes England grant, applicable to both the additional Affordable Rented and replacement Social Rented units. We have been advised of the likely grant rates by Cambridge which accords with our expectation.

The expected revenue for both scenarios is summarised below:

	Partial Redevelopment		Full Redevelopment	
	Phase 1	Phase 2	Phase 1	Phase 2
Social Rent Unit No	36	48	62	36
Grant @ £95k /un	£3,420,000	£4,560,000	£5,890,000	£3,420,000
Aff Rent Unit No	56	13	60	108
Grant @ £60k /un	£3,640,000	£845,000	£3,900,000	£7,020,000
Sub-Total	£7,060,000	£5,405,000	£9,790,000	£10,440,000
Total Grant	£12,465,000		£20,230,000	

Based upon Homes England guidance we have assumed the following funding profile for each phase:

- 40% on notional site acquisition
- 35% start of construction
- 25% on practical completion

However, Homes England Grant funding cannot be granted until planning permission is secured, therefore the Council is actively bidding through continuous market engagement with Homes England to support securing funding.

- **Other Grant Funding**

Other grant funding could be used to support funding the refurbishment work. However, the availability of applicable funding varies depending on the time so therefore it is not guaranteed grant funding can be secured. Given this grant funding is not currently known, it has not been factored into the calculations.

6.9 Results

After conducting individual development appraisals on each scenario for the three shortlisted options, a summary of the results and input is provided below:

Appraisal Inputs	Inputs	Refurb	Full Dev - Market Led	Full Dev - 100% Affordable	Partial Dev - Market Led	Partial Dev - 100% Affordable
Unit Numbers	Private	13	138	236	69	167
	Affordable	98	98	0	98	0
	Total	111	236	236	167	167
Revenue						
Private Sales	1 Bed Flat - £310,000					
	2 Bed Flat - £390,000					
	3 Bed Flat - £465,000	£3,082,857	£55,475,000	£0	£27,615,000	£0
	3 Bed House - £500,000					
	4 Bed House - £565,000					
Affordable Housing	Social Rent - £184psf / £133k per un					
	Aff. Rent - £327 psf / £266k per un Existing Refurb (All) - £34k/unit Existing Refurb (Houses) - £89k/unit	£3,352,000	£13,040,000	£50,355,000	£10,570,000	£29,640,000
Grant	£95,000 per Social Rent unit £60,000 per Affordable Rent unit	£0	£0	£20,230,000	£0	£12,465,000
Total Revenue		£6,434,857	£68,515,000	£70,585,000	£38,185,000	£42,105,000
Costs						
Fixed Cost	Land					
	Notional Price	-£1	-£1	-£1	-£1	-£1
Decant + Buy Back Costs	Home loss (Tenant) - £8,100/un					
	Decant Disbursements - £1,250/un					
	Buy Backs - £215k to £467k per unit	-£4,784,800	-£9,912,520	-£9,912,520	-£5,575,920	-£5,575,920
	Home loss (Owner) - 10%					
	Disturbance - 5% Legals / Valuation - 1%					
Construction Costs	Equating to:					
	Refurb - £195 psf GIA Full Development - £285 psf GIA Hybrid - £283 psf GIA	-£16,989,894	-£66,520,000	-£66,520,000	-£47,586,885	-£47,586,885

Appraisal Inputs	Inputs	Refurb	Full Dev - Market Led	Full Dev - 100% Affordable	Partial Dev - Market Led	Partial Dev - 100% Affordable
Contingency	5% (on construction) (on 10% refurbishment)	-£1,698,989	-£3,326,000	-£3,326,000	-£2,524,188	-£2,524,188
Professional Fees	7% (on construction costs) (on 10% refurbishment)	-£1,868,888	-£4,889,220	-£4,889,220	-£3,603,372	-£3,603,372
Financial Contributions	S.106 (£3,750 per additional unit)	£0	-£435,000	-£435,000	-£116,450	-£116,450
Disposal Costs	Marketing – 1% Sales Agents – 2% Sales Legals – £800-£1500 per unit Affordable Agents - 1% Affordable Legal - 0.5%	-£162,266	-£1,997,850	-£755,325	-£1,074,750	-£444,600
Finance	Debit Rate (100%) - 7.00%	-£2,295,192	-£8,086,611	-£810,481	-£4,718,100	-£1,455,081
Total Cost		-£27,800,030	-£95,167,202	-£86,648,547	-£65,199,666	-£61,306,497
=						
Deficit / Surplus		-£21,365,171	-£26,652,202	-£16,063,546	-£25,764,667	-£19,201,497
Difference to Base case		[Base case]	-£5,287,031	£5,301,625	-£4,399,496	£2,163,674
Cost per AH unit		-£218,012	-£271,961	-£68,066	-£262,905	-£114,979
Cost per extra AH unit		N/A	N/A	-£116,403	N/A	-£278,283

6.10 Conclusion

The Financial Case summarises the Development Options Assessment conducted by JLL Affordable Housing team which considers the financial feasibility of the shortlisted options.

A high-level summary of each appraisal can be found in the table below which demonstrates the residual surplus or less each scenario achieves. The surplus/deficit that can be achieved reflects the financial outcome of each scenario, highlighting the potential financial viability or shortfall associated with each option.

Appraisal Inputs	Refurb	Full Dev - Market Led	Full Dev - 100% Affordable	Partial Dev - Market Led	Partial Dev - 100% Affordable
Revenue	£6,434,857	£68,515,000	£70,585,000	£38,185,000	£42,105,000
Costs	-£27,800,030	-£95,167,202	-£86,648,547	-£52,236,456	-£49,051,377
=					
Surplus / Deficit	-£21,365,171	-£26,652,202	-£16,063,546	-£25,764,667	-£19,201,497
Difference to Base case	[Base case]	-£5,287,031	£5,301,625	-£4,399,496	£2,163,674
Cost per AH unit	-£218,012	-£271,961	-£68,066	-£262,905	-£114,979
Cost extra per AH unit	N/A	N/A	-£116,403	N/A	-£278,283

Each of the development options assessed results in a loss. The best, or least worst, performing option is the full redevelopment of the site with 100% affordable housing at -£16,063,546, with the partial 100% affordable housing closely following at -£19,201,497. Although the cost per unit is noticeably higher compared to refurbishment, these options have a lower deficit than its market equivalent and offer an attractive proposition to leverage access to grant funding to provide more units. The number of units provisioned on the estate can be maximised at a lower deficit.

Market led appraisal results are worse at -£26,652,202 and -£25,764,667 with the refurbishment sitting between these at -£21,365,171. We consider that this is due to the relatively low market values in comparison to construction costs and lack of grant funding for the existing 98x Social Rented units in this scenario. This suggests these options may pose a financial challenge for delivering affordable housing in the city.

Notwithstanding the above, it is our understanding that a 'do nothing' scenario is not an option with the 'base case' scenario being the refurbishment of the existing estate at -£21,365,171. Consequently, a more

appropriate barometer of financial performance is a comparison to this appraisal and the other options. The 100% affordable housing options results in improvements of £5,301,625 and £2,163,674 respectively.

An alternative form of analysis is the cost in terms of affordable housing provision and additional provision over the existing 98x units. The full redevelopment (100% Affordable) equates to -£116,403 per additional affordable unit and -£68,066 per affordable unit (including the 98x re-provided Social Rented units). By comparison the hybrid scheme equates to -£278,283 and -£114,979 per unit respectively which is considerably more expensive. Therefore, from a financial perspective, the full redevelopment with 100% affordable housing is the least-worst performing option to meet housing demands and the issue of affordability in Cambridge.

7 THE MANAGEMENT CASE

7.2 Introduction

The Management Case aims to demonstrate the robust arrangements in place for the delivery, monitoring and evaluation of the shortlisted options in order to show how each option could be delivered and managed in accordance with best practice. This will support in determining the capability of each shortlisted option in being delivered successfully.

The Management Case sets out the project deliverability, implementation, governance and project management, and contract management. Both the benefits and risks associated with the shortlisted options have also been collated.

7.3 Deliverability

Any preferred option must be a well-considered deliverable project. To demonstrate the deliverability of each shortlisted option, the following elements must be considered to facilitate their delivery.

7.3.1 Planning

In all shortlisted options planning permission will be required:

- **Refurbishment Option**

It has been assumed planning consent would be required for elements on the outside of the buildings, such as the installation of PV panels, air source heat pumps, and external wall insulation. Any other external work such as roof replacement, and window replacement would also qualify to require planning permission. This can be delivered in a single package of repair works requiring the submission of a planning application.

- **Partial and Full Redevelopment Options**

The approach to securing planning permission will be based on compliance with local and national requirements and early, continual involvement with the local planning authority regarding affordable housing, biodiversity, open space, flood, and water. Specifically relating to the provision of affordable housing, there is a need for a minimum of 40% of the buildings in new housing developments over a certain size to be classed as affordable. This includes the replacement of the current provision of affordable housing on an estate. In the case of the Ekin Road Estate, there is a minimum requirement of re-providing the 98 social rented units which equates to approximately 58% of the partial

redevelopment scheme and 42% of the full scheme. This ensures a like-for-like replacement of social rented units. These figures form one of the scenarios for the partial and full redevelopment options. However, a 100% affordable housing scenario was also assessed which aligns with planning requirements. In this scenario, the 98 social rented units will be re-provided with the additional private units converted to Affordable Rent.

7.3.2 Phasing

As outlined in the Economic Case, we have assessed the three shortlisted options in terms of their implementation method: a single or multi-phased delivery.

- **Refurbishment Option**

A single phase through a rolling programme of works has been assumed as the implementation method for the refurbishment option. Buildings would be decanted and refurbished together which could allow some residents to be decanted in the estate depending on the timing within the programme. A rolling programme would enable greater control over the works and less disruption for residents. A detailed programme and timescales for refurbishment will be determined at a later stage.

- **Partial Redevelopment Option**

The partial redevelopment option involves the redevelopment of the majority of the estate to provide 153 new build apartments while retaining the 24 existing houses, of which 14 are Council houses that will be refurbished. The houses to remain are the ones denoted under the grey lines below and include Odd Nos 1-23 Ekin Road, 33-59 Ekin Road, and 97-99 Ekin Road. It is assumed the retained houses excluding the freeholders will be refurbished on a rolling basis alongside ongoing construction and maintenance work conducted on the estate. It has been assumed the freehold houses will not take part in the refurbishment programme and therefore do not form part of this option. Based on the Economic Case, it has been determined for the partial redevelopment option two phases will be required as shown below:



In alignment with the phased decant and demolition plan, construction will follow the same plan as shown in the estate map below:



In total, it has been assumed based on the phasing plans outlined, the following provision of tenure would be provided per phase. It has been assumed the retained houses will remain in their existing tenure.

	Market Appraisal		100% AH Appraisal		Refurbishment
	Phase 1	Phase 2	Phase 1	Phase 2	
Social Rented	36	48	36	48	-
Affordable Rented	-	-	57	12	-
Private	57	12	-	-	-
Refurbished Houses	-	-	-	-	14
Total	93	60	93	60	14

- **Full Redevelopment Option**

The full redevelopment option involves the redevelopment of all buildings on the estate to provide 236 new build units. The proposed accommodation will be a mixture of flatted blocks containing one-, two- and three-bedroom flats, alongside three- and four-bedroom houses. Overall, 197 flats and 39 houses are proposed.

The delivery of the redevelopment will be done in two phases as shown in the phasing demolition plan below:



In alignment with the phasing demolition plan, the construction will be done in two phases as shown below:



The two development led options have been appraised on both a market led and 100% affordable housing basis. Local planning policy requires a provision of 40% affordable housing. With respect to the market led full redevelopment scenario it is assumed that the existing 98x Social Rented homes would need to be re-provided equating to approximately 42% of the scheme. In the 100% affordable housing scenario the 98x units would be re-provided with the additional private units converted to Affordable Rent. The split of units per phase and tenure is detailed below:

	Market Appraisal		100% AH Appraisal	
	Phase 1	Phase 2	Phase 1	Phase 2
Social Rented	62	36	62	36
Affordable Rented	-	-	60	78
Private	60	78	-	-
Total	122	114	122	114

7.3.3 Decanting

In all three shortlisted options it has been assumed decanting will be required due to the duration of the works.

- **Refurbishment Option**

The refurbishment option will require a phased decant with a right to return for residents on the estate. A phased decanting will involve groups of residents to be decanted at different stage in line with the rolling programme of the refurbishment.

- The council tenants impacted by decanting will be prioritised for finding a new home on Homes Link. They will be able to select from Cambridge City Council's existing house stock in the area. The Council recognise that moving home can be a disruptive and stressful experience so assistance throughout the process will be provided to ensure residents are supported and reassured. This aims to minimise the impacts of moving on residents' health and wellbeing.
- For leaseholders, it is assumed the Council will purchase and refurbish the properties. Depending on the result of negotiations CPO proceedings may be required.
- It is assumed freeholders will be excluded from the refurbishment work.

- **Partial Redevelopment Option**

The partial redevelopment option will require decanting on a phased basis in alignment with the development phases and refurbishment programme:

- Council tenants in properties marked for redevelopment will be decanted in two phases in alignment with the construction phases. Like the refurbishment option, these tenants will be prioritised for finding new homes on Homes Link.
- Given the scale of the works we envisage the leasehold interests that are part of redevelopment will be purchased by the Council and depending on the result of negotiations CPO proceedings may be required.

- In relation to the retained houses, it is assumed that the freehold houses will not take part in the refurbishment and the Council tenants in the 14 retained houses will be decanted on a rolling basis to allow refurbishment work.

- **Full Redevelopment Option**

For the full redevelopment option, all residents will be decanted in two phases in alignment with the two-phased demolition and construction plan. The Council has considerable experience working with tenant and leasehold households throughout the moving process. During the decant process, the Council aim to do what is best for each family based on their individual circumstances and needs.

- The Council will carry out a needs assessment for all Council tenants. Tenants are given the highest banding on the Home-link choice-based lettings system and support is provided to register and access the system on an ongoing basis. Tenants are able to bid on properties of their choosing and there is no limit as to how many properties are viewed. Council tenants will be able to choose from the available housing stock meaning it could be possible for a household to stay close to schools, GPs, and other amenities. Financial assistance is provided with an initial payment of £1,250 to help with moving costs or the Council can make arrangements on the tenant's behalf, particularly if they are more vulnerable. A further statutory compensation payment is payable of £7,800. Special consideration is given to those tenants who require adapted properties, and these will be arranged in advance of a tenant moving, with full involvement of an OT and social care where applicable. To reduce the stress of moving, additional support can be provided in terms of helping with the change of address, mail redirection, and coordinating with other agencies to manage the transition. Regular communication and support can also be offered. In many cases, once tenants have relocated it is unlikely, they will move back to the estate as many are happy with their new homes.
- Homeowners have the reassurance of an independent market valuation that can be arranged by the Council or with a RICS surveyor of their choosing. Once agreed, support is provided throughout the lease / property surrender process in terms of the conveyance and finding another property. Further payments are made to cover legal costs, stamp duty land tax, mortgage redemption fees and the various incidental moving costs.

7.3.4 Compulsory Purchase Order

If engagement from leaseholder and freeholders during the negotiation process is unsuccessful, a Compulsory Purchase Order (“CPO”) process would begin. A CPO is a tool that public-sector

organisations can use to obtain land or property compulsory³¹. Compulsory Purchase should be seen as a last resort by the Council, to be used only when all other options have failed. It should never be a first option, and meaningful attempts to negotiate must be demonstrated. However, government guidance supports the use of compulsory purchase to secure redevelopment or to improve substandard or defective properties. It recognises that, due to the time taken to make and confirm a compulsory purchase order, it may be appropriate to run the compulsory purchase process in parallel with other efforts to acquire interests such as negotiations. This also demonstrates the seriousness of the Council and can help progress the negotiation process by showing the Council are willing to be open and treat the concerns of those who are affected with respect. If compulsory purchase powers are used, all those affected will be entitled to compensation. To date the Council has been able to resolve negotiations without having to enforce compulsory purchase orders.

7.3.5 Vacant Possession

The Council will be required to obtain vacant possession and to transfer the land for development for the partial and full redevelopment options, depending on the joint venture structure used. The development partner may also have a role to play in securing vacant possession e.g., the carrying out of demolition works (where needed) but the Council would be responsible for carrying out the decanting of residents.

7.3.6 Viability

The financial viability of all shortlisted options has been set out in the Financial Case of this report. Please refer to section 6 for full details.

7.4 Programme

An indicative programme has been assumed for this report. Following approval of the preferred option and the appointment of a delivery partner (development partner or contractor) a full programme with finalised timescales will be developed collaboratively between the Council and the delivery partner.

7.4.1 Development Programme

The JLL Building Consultancy team have assumed the following development programme. It has been advised that refurbishment of all existing properties can be reasonable completed within 3 years (36 months). A refurbishment programme of the houses within the partial redevelopment option could be completed in one year (12 months). As planning would only be required for specific parts, it is assumed any planning applications would run alongside the procurement of the contractor and would be in place by the time it is required. Based on this assumption, a 3-month preconstruction period to

³¹ Cambridge City Council, CPO [available at: [https://www.cambridge.gov.uk/compulsory-purchase-orders#:~:text=A%20compulsory%20purchase%20order%20\(CPO,the%20consent%20of%20the%20owner.](https://www.cambridge.gov.uk/compulsory-purchase-orders#:~:text=A%20compulsory%20purchase%20order%20(CPO,the%20consent%20of%20the%20owner.))]

tender and appoint contractors has been allowed. A notional sale of the affordable housing has been modelled on a monthly basis over the construction period deferred 3 months to account for the timings of hand backs.

With respect to the new build elements the BCIS duration calculator has been used in order to assess the likely development timings, split out by phase. We have adopted 9 months to gain planning permission and 6 months preconstruction. The second phase pre-construction period is extended to ensure a suitable construction delay and that sales of each phase do not overlap. We have assumed a sales rate of 4 per unit pcm starting approximately 18 months into construction as the first blocks or houses complete. Sales of the new build affordable housing in each scenario has been modelled on a traditional golden brick basis with 30% of revenue received 3 months after start of the relevant phase with the remaining capital value S-curved over the construction period.

Below is a summary of the development timings that have been assumed for each scenario:

Duration (months)						
	Refurbishment	Full Redevelopment		Partial Redevelopment		
		Phase 1	Phase 2	Phase 1	Phase 2	Refurb
Purchase	0	0	0	0	0	0
Planning	0	9	9	9	9	0
Pre-Construction	3	6	24	6	22	3
Construction	36	24	21	22	21	12
Sale	36	15	19	14	3	12
Total	75	54	73	51	55	21

(Note: overlapping timings)

7.5 Contract Management

The management of contracts during the delivery period will be overseen by Cambridge City Council, led by its procurement team to ensure compliance with the necessary laws and regulations while protecting the

Council from risk. As outlined in the Cambridge City Council Constitution³², the contracts manager is typically responsible for:

- ensuring that the contract is carried out in accordance with its terms and conditions;
- monitoring the supplier's performance, compliance with standards and policies
- monitoring cost and Best Value requirements, risk management
- monitoring equalities and sustainability data, where appropriate;
- monitoring user satisfaction;
- ensuring any minor changes to the contract are agreed and approved before they are carried out;
- monitoring sub-contracting
- in consultation with Legal Services and the Chief Financial Officer, consenting to sub-contracts, assignment or novation to new suppliers

During the contract, the delivery partner should be required to attend review meetings and provide reports in accordance with the contract and specification. Any amendments to the specification or terms of the contract should be agreed and detailed in the contract. This ensures the Council and the delivery partner work cooperatively with effective communication throughout. If this proves unsuccessful, the Council can apply a principle of escalation in preference to a legal intervention.

Specific terms and specification of the contract will be finalised as part of the delivery partner's appointment.

7.6 Governance and Project Management

It is important to establish strong governance and project management to ensure the programme is delivered on time and in line with best practice. This section outlines the governance and project management needed for each shortlisted option.

7.6.1 Refurbishment Option

The refurbishment option is to be self-managed by the Council and delivered through a procured contractor. The different streams of work required for this option will be managed by separate teams within the Council³³:

³² Cambridge City Council, Constitution, [available at: <https://www.cambridge.gov.uk/media/hqblcz3j/constitution.pdf>]

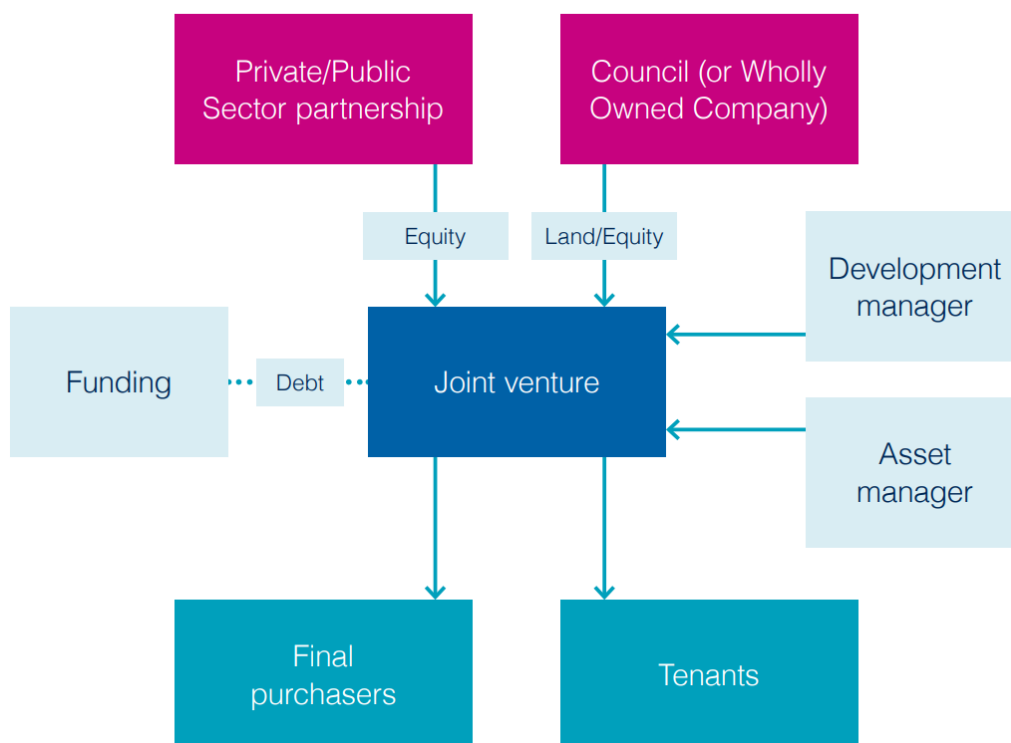
³³ Cambridge City Council, Procurement of Planned Maintenance Contractor 2022-2028, [available at: <https://democracy.cambridge.gov.uk/documents/s55888/Maintenance%20contractor%20procurement%202021-22%20-%20committee%20report%20-%20final%20-%208th%20June%202021.pdf>]

- The procurement work will be managed by the Estates and Facilities team working closely with the Strategic Procurement Team.
- The management of contracts during the delivery period will be led by the Council's procurement team to ensure compliance with the necessary laws and regulations while protecting the Council from risk.
- External contractors will be managed by the Estates and Facilities Contractors and Procurement Manager.
- Legal Services will be able to provide legal contract advice when needed.
- In relation to managing the temporary decanting, the Housing Office or Assistant Housing Office would support and advise tenants during the process.

7.6.2 Partial and Full Redevelopment Options

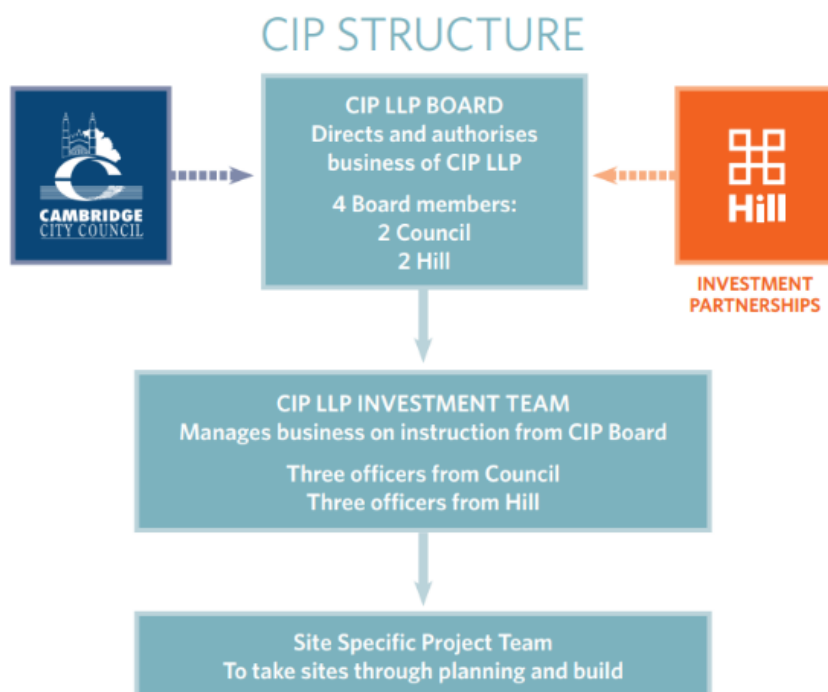
The governance required for the partial and full redevelopment options will likely be a typical joint venture structure. In this structure it is generally a 50:50 partnership between the partners where the aims and objectives align so the local authority can secure a longer-term return on land while retaining suitable control over the overall development.

Below is the structure of a typical JV partnership³⁴:



³⁴ Grant Thornton, Housing Partnerships, [available at: <https://www.grantthornton.co.uk/globalassets/1.-member-firms/united-kingdom/pdf/publication/2021/housing-partnerships-delivering-the-homes-that-london-needs.pdf>]

Cambridge City Council has experience working with this type of governance structure. The Council already has a joint venture partnership established with Hill Partnerships. If CIP is used as the delivery mechanism for either of the redevelopment options, there is a formal governance process in place to govern the project management and decision making of a CIP scheme. The governance processes and procedures are set out in the Members Agreement and CIP’s governance structure³⁵ is summarised below.



- **The CIP Board**

Pivotal in the governance process is the CIP Board which consists of equal membership from Cambridge City Council and Hill. The Board has strategic oversight meaning it directs and authorises business of CIP LLP. Both parties have equal weighting in the decision making and governance processes of CIP whereby each partner has one collective vote. The partnership is a deadlock partnership which allows either partner to exercise its powers under the deadlock if there is a disagreement between the partners or if a proposal does not align with the agreed CIP objectives outlined in the Commercial Case. This can result in the veto of the proposal and the land being transferred from CIP back to the Council. In the event of a dispute, it can also be escalated to the Chief Executives of both partners.

³⁵ Cambridge Investment Partnership (CIP), [available at: https://www.cdbb.cam.ac.uk/files/cip_site_visit_brochure_v6_jb_nov_21.pdf]

- **The Investment Team**

The Investment Team leads on the day-to-day running of CIP through managing the business on instruction from the CIP Board. The team set out the strategy for bringing forward Project Plans for the sites. There are separate finance and PR subgroups with at least one representative from each party.

- **Project Team**

In terms of delivering of a scheme, a project team is specifically selected to ensure the right skills and experience are available to deliver a high-quality development. The site-specific project team will take the estate through planning and build to deliver a successful scheme.

- **Project Management**

For project management, there would be both a Hill and Cambridge City Council lead representative Project Manager.

- For the Council, the project manager is typically from the Housing Development Agency (HDA) who manages housing development schemes and provides council staffing contributions to the development of schemes. The HDA team ensures new housing schemes are effectively managed by bringing the expertise of the Council in areas such as resident liaison and decanting. Additional development officers can also be provided if needed to support work in progressing.
- In relation to decanting, the Council's specific Regeneration Team will manage the process.
- The Hill project manager will provide the technical development expertise.

- **Quarterly Reviews**

The project team will need to provide highlight reports through the Council's Project Management system. Quarterly reports on progress will have to be submitted to the Housing Scrutiny Committee and subsequently the Combined Authority's Housing Committee.

7.7 Risk Management

Risk Management is a key requirement to enable the Council and delivery partner to identify, evaluate and control risks and opportunities. This is a continuous process throughout the project.

During the delivery of the project, the risks will be identified, recorded, and managed with appropriate owners allocated to each risk along with a method of mitigation. The allocated owner will be responsible for mitigating the risk.

To understand the feasibility of delivering each option, the risks associated have been examined. However, given the nature of the scheme, the risks and benefits will likely evolve over time, such as through the planning process. It is necessary to take this into account when examining the risk evaluation.

Common risks were identified across the shortlisted options but, the level of occurrence and impact will differ between options. Each risk has been scored on a scale of low, medium, or high. The table below includes a summary of the financial risks expected to be encountered for each of the shortlisted options, the associated risk level per option and the method to mitigate. As details of the scheme for the preferred option are finalised, it is possible to update this table.

#	Risk	Description	Refurb	Partial Redevelopment		Full Redevelopment		Mitigation
				AH	Market Led	AH	Market Led	
1	Cost inflation	There is a risk that development costs escalate at a rate higher than anticipated due to interest rates, inflation, etc., impacting financial viability	Medium	High	High	High	High	<ul style="list-style-type: none"> • Include contingency in cost calculations • Manage risk exposure through contracting
2	Revenue	Risk that the expected market sale rates are not achieved, impacting financial viability	N/A	N/A	Medium	N/A	Medium	<ul style="list-style-type: none"> • Sales prices based on latest market research • Phased development ensures market is not oversupplied resulting in lower prices.
3	Grant receipts	The risk that grant funding cannot be secured	Low	High	Low	High	Low	<ul style="list-style-type: none"> • The HDA will engage an Employers Agent to scrutinise costs.

Additional wider risk factors have also been analysed below for the shortlisted options.

#	Risk	Description	Refurbishment	Partial Redevelopment	Full Redevelopment	Mitigation
1	Planning	A risk relating to a failure in obtaining planning permission which could cause delays and increase costs for a revised application	Low	Medium	Medium	<ul style="list-style-type: none"> The pre-app process is used effectively, and schemes aim to be policy compliant
2	Legal challenge	The risk of a potential legal challenge regarding the selected option	Medium	Medium	High	<ul style="list-style-type: none"> Due consideration and process
3	Health and Wellbeing	The risk of harm due to the condition of the buildings	Medium	Low	Low	<ul style="list-style-type: none"> Ensure all essential repairs are completed for retained buildings and conduct continual monitoring
4	Design	The risk that there is an inability to meet design standards	Medium	Low	Low	<ul style="list-style-type: none"> Continue to work closely with the professional team to deliver a suitable scheme
5	Delivery	The risk that the construction / refurbishment of buildings is not delivered on time	Medium	Medium	Medium	<ul style="list-style-type: none"> Continue to work with the professional team to project manage effectively
6	Environment	There is a risk of not achieving the desired sustainability standards	Medium	Low	Low	<ul style="list-style-type: none"> Continue to work with planners and the professional team to deliver a suitable scheme.
7	CPO	A risk of negotiations breaking down which could result in a full CPO process	Low	Medium	High	<ul style="list-style-type: none"> Officers are in place to help support the leaseholders and freeholders.
8	Archaeology	A risk that excavation could result in a requirement for further detailed / costly investigations.	Low	Low	Low	<ul style="list-style-type: none"> Continue to work with planners and the professional team to deliver a suitable scheme.
9	Procurement	The risk that can arise from the contractual arrangements with the selected delivery partner	Medium	Low	Low	<ul style="list-style-type: none"> Ensure a strong governance process is in place on the appointment of

#	Risk	Description	Refurbishment	Partial Redevelopment	Full Redevelopment	Mitigation
						contractors/development partner.
10	Decanting	A risk of delays if residents are not decanted	Medium	Medium	High	<ul style="list-style-type: none"> Officers are in place to manage the decant process and there are policies in place for home loss and disturbance.
11	Project Management	A risk of improper project management	Low	Low	Low	<ul style="list-style-type: none"> Monitor resource capacity

As the Council's investment liability and the level of redevelopment increases, the associated risk level rises as the complexity of the project and its delivery heightens. However, these risks will be monitored, controlled, and reassessed. Upon selection of the preferred option and engagement of the delivery partner, the head of the programme will prepare and monitor the risks. The Council can use a risk management system to record and manage risks and controls whereby the risk is identified, analysed and then subsequent actions to mitigate the risk are assigned to a risk owner/s who will review and update regularly.

7.8 Contingency Arrangements and Plans

Contingency allowances have been factored into all aspects of the illustrative financial and BCR models. Contingency levels are relatively conservative at this stage but may reduce as further work is completed.

7.9 Conclusion

The Management Case demonstrates the robust arrangements in place for the delivery, monitoring and risk evaluation of each of the shortlisted options. The deliverability of each option has been outlined to set out the project management and governance arrangements required.

To facilitate the successful delivery of an option, all prior arrangements including planning, phasing, and decanting must be carried out. Each of the shortlisted options has its own level of complexity and all include resident decanting making it vital that there is a strong governance process in place to ensure all aspects of the delivery are suitably managed and controlled while supporting the needs of residents.

A clear governance structure defines the decision-making mechanisms, project teams and quarterly reviews required during the implementation:

- For the redevelopment options which are delivered by a joint venture partnership, a governance structure will need to be adopted and agreed between the partners.

- The refurbishment option must also have a strong internal governance process utilising resources from different Council departments, minimising risk and enabling suitable resourcing to be provisioned with clear responsibilities.

There are a several risks categories, common across all the shortlisted options, that have been identified at this stage and will require monitoring. Risk increases from refurbishment through to partial and full redevelopment as there more dependencies, liabilities, and challenges to consider. However, these are risks that can be mitigated with appropriate action from the accountable parties and will be regularly monitored to identify, evaluate, and control their likelihood and impact.

Through effective planning, project management, contract management and risk mitigation, the Council aims to ensure the chosen option is implemented in a timely and efficient manner in line with best practices to deliver a positive outcome for residents and the Council.

8 CONCLUSION

This report has explored the viability of the three shortlisted options for the Ekin Road Estate in Cambridge. The Strategic Case confirmed there is a case for change based on investigations of the current state of the buildings and the estate. The case firstly outlined Cambridge City Council's strategic vision and objectives for the city and in particular the provision of housing to demonstrate the benchmark in which housing in the city should meet. It is clear from investigations, the Ekin Road Estate in its current form and layout does not align with both strategic Council objectives as well as the needs of residents. The flats in particular have specific structural issues, cracks as well as poor accessibility and thermal integrity. Through the resident engagement, many residents have echoed these issues. Many properties across the estate are experiencing mould, and condensation. This suggests the buildings are not fit for purpose and could be impacting their health and wellbeing. While the houses and bungalows are in a better condition, there are issues regarding their quality, design and sustainability that does not currently align with desired standards. Therefore, improvements are required on the estate through one of the shortlisted options.

Each option has been assessed in detail to determine the preferred option:

- **Refurbishment Option**

When assessing the refurbishment option against the 11 CSFs, it was determined this option is not capable of achieving a satisfactory number of the CSFs. While the refurbishment option has the lowest absolute carbon impact, Council risk and disruption to residents and their immediate health and wellbeing, the long-term issues would persist due to the lack of significant improvements on the estate. There will be some improvement in the condition and quality of units, but refurbishment does not fully address the overall condition of the buildings, particularly the flats, and areas prone to anti-social behaviour will not be removed. There are also minimal improvements in operating carbon, no additional units provided, or new green outdoor space created. Therefore, the refurbishment option will provide short-term improvements, but it is unable to resolve the long-term issues as key concerns cannot be fully addressed.

From financial perspective, the revenue generated from the refurbishment option is significantly lower compared to the redevelopment options. When compared to the costs, a significant deficit of -£21,365,171 is produced. While some of this cost could be covered by external grant funding, this is a significant financial burden for Cambridge City Council that will not create significant long-term improvements on the estate. This is further demonstrated in the poor BCR result of 0.17 over a 30-year period. This suggests the costs are greater than the associated benefits refurbishment can create

for residents and the wider community. Therefore, this directly impacts the financial and economic viability of the refurbishment option.

In terms of commercial delivery, the refurbishment option can be self-delivered by Cambridge City Council. The Council has the capacity in-house to manage and deliver projects using contractors. However, through self-delivering, the overall risk and delivery liability of the project sits with the Council. Measures such as a competitive market process can be undertaken to ensure a suitable contractor is procured with the correct knowledge and experience to ensure value for money and sufficient delivery. However, to minimise risk, a strong governance process is required.

- **Partial Redevelopment Option**

The partial redevelopment option demonstrates potential in achieving a satisfactory number of the CSFs. While considerable decanting will be required, a partial, positive transformation of the estate can be achieved by redeveloping the majority of units. New high-quality, energy-efficient housing can be provided that diversifies the housing market and eases the housing demand by increasing the number of units on the estate. A large outdoor space for residents can also be provided as well as creating a safe environment by removing areas prone to anti-social behaviour and establishing good surveillance across the estate. This will enhance the long-term benefits for residents, the wider community, and the Council. The limitation is the need to decant residents, but support will be provided to help with relocation and minimise disruption. There is also the potential for those residents to secure alternative housing options that could better meet their needs and be of a higher quality and condition than their previous housing. By retaining the outer houses, there is a difference in housing standards across the estate. Additionally, there are limitations in the opportunity to:

- Substantially increase the number of units on the estate, and
- Improving the overall housing quality across all of the estate.

The inability to maximise development capacity through retaining the outer houses will limit the ability to better address the housing demand and affordability issues in Cambridge. Therefore, this option has a shortfall in terms of maximising the opportunities on the estate.

Financially, both the partial redevelopment scenarios (market led and 100% affordable) require significant financial investment. While the 100% affordable housing scenario benefits from grant funding to minimise the Council's financial burden, both scenarios have a significant deficit as well as a high net cost per affordable housing unit. This suggests a cost ineffectiveness that impacts the financial feasibility of both scenarios. The lower cost efficiency coupled with the limitations of infill redevelopment to fully transform the estate, has constrained the BCR output for the market led option. The number and intensity of the associated benefits is limited despite the significant investment. This

is demonstrated in the BCR of 0.78 for the 30-year period which shows the costs outweigh the benefits. The 100% affordable housing option has a more favourable BCR result of 1.64 over the 30-year period due to the lower costs compared to the benefits produced. While the 100% affordable housing scenario produces a better BCR result and could benefit from grant funding, there is an element of inability to maximise the transformation of the estate through the investment due to the constraints of infill development.

In terms of commercial delivery, the mix of refurbishment and redevelopment running in tangent adds an element of complexity to the option. Not only will decanting be required but two delivery model will be needed:

- Redevelopment delivered by a developer via a JV partnership
- Refurbishment delivered by the Council through a contractor.

For new schemes, it has been assumed the main delivery mechanism is a joint venture partnership. These partnerships will benefit the council in that they can share the risk and delivery liabilities with the development partner while ensuring outcomes are aligned with objectives.

Cambridge City Council already has a joint venture partnership so are experienced in using this delivery mechanism. This partnership could be potentially used for this option. The Cambridge Investment Partnership is a 20-year agreement with Hill Partnerships to deliver new council and market units in Cambridge. This partnership was formed in 2017 so is well-established in delivering successful mixed-tenure development schemes. In the all-affordable housing scenario, Hill could be procured on a separate agreement using a framework. For the refurbishment, a well-experienced contractor should be procured through a competitive tendering process to ensure the selected contractor has the expertise to deliver the refurbishment elements alongside the rest of the work. To facilitate the multi-stream work, clear governance and project management is needed to manage delivery and risk. By having two work streams, the complexity and risk is higher but appropriate mitigation will be in place to identify and control this.

- **Full Redevelopment Option**

As the level of redevelopment increases, the number of green flags associated with the CSFs increases accordingly. The full redevelopment option presents the greatest opportunity to achieve the CSFs of which 8 out of 11 can be fully achieved. While this option has increased political risk from opposing residents and the greatest immediate impact on residents' health and wellbeing, significant long-term improvements could be achieved. A comprehensive, positive transformation of the whole estate can substantially increase the number of units whilst improving the condition, quality, and safety of housing. By removing the outer houses, a significant number of additional units can be provided in their place so all homes on the estate will be modern, high-quality, energy-efficient housing. This will

help towards meeting the housing demand in Cambridge by enabling more families to find a home in the area whilst improving the overall long-term health and wellbeing for residents living on the estate. Areas prone for anti-social behaviour will be removed and a large outdoor space for residents can also be provided for residents and the local community to enjoy. This options also produces the best operational carbon performance and the highest amount of residential floor area but compromises on embodied carbon due to the scale of redevelopment. The improvements in the energy efficiency of units aligns with the low carbon ambitions and could reduce energy bills for residents. Therefore, by ultimately redeveloping the whole estate, the Council can deliver the highest level of benefits for residents and the wider community while aligning with strategic objectives.

In order to comprehensively transform the estate, significant investment is required. Both full redevelopment scenarios have the greatest overall costs but through the ability to create additional units, greater revenue is created. The 100% affordable housing scenario can also utilise the grant funding to minimise the financial burden on the Council while the market led scenario benefits from greater sale proceeds from private units. However, in terms of financial feasibility, the 100% affordable housing scenario offers the least-worst scenario with both the lowest deficit of -£19,201,497 and net cost per affordable housing unit. It is able to maximise the delivery of affordable housing in the area while uplifting the rest of the estate through the improved quality, condition, wayfinding as well as the creation of new amenities. Therefore, the full redevelopment option with 100% Affordable Housing is the least-worst performing option that maximises Council investment, by creating a significant number of new additional units as well as greater associated benefits as demonstrated in the positive 1.29 BCR result over the 30-year period.

In terms of delivery, the market led scenario could be delivered through a joint venture partnership. This delivery route is the main vehicle for the Council to deliver development schemes of this kind. By forming a joint venture partnership, the Council maintains a satisfactory level of control but is able to share the risk and delivery liability with the development partner. Given the associated risk with redevelopment work from a cost, design, planning and timings perspective, by sharing the responsibilities and risk, the Council can minimise overall exposure. In both scenarios there are opportunities to benefit from the development partner's expertise and resources. The partner's development expertise can work in conjunction with the Council's in-house capability in areas such as supporting residents during the decanting process. This will support the delivery of a successful scheme.

- **Recommendation**

Overall, JLL has conducted a comprehensive assessment of the three shortlisted options and the sub-scenarios:

- Refurbishment
- Partial redevelopment (market led and 100% affordable housing)
- Full redevelopment (market led and 100% affordable housing)

After assessing each against various factors, the full redevelopment option should be considered the option for transforming the Ekin Road Estate as it has the greatest opportunity to achieve the CSFs and provide long-term benefits. While it involves significant initial investment and immediate disruption to residents through decanting, it offers substantial long-term improvements in terms of:

- The number of units provided
- The quality, condition, safety, and accessibility of housing
- The creation of green outdoor space

With 8 out of the 11 CSFs fully achievable, this option provides the greatest level of benefits for residents, the wider community and the Council while addressing the housing demand and affordability issue in the area.

Financially, the 100% affordable housing option has the lowest deficit by maximising Council investment and grant funding, making it the least-worst option financially.

In terms of delivery, using a joint venture partnership provides the necessary expertise and resources, although an all-affordable scheme heightens the associated risk for the Council.

Therefore, the full redevelopment option with 100% affordable housing is the preferable option. It aligns best with the Council's strategic objective and vision while addressing the current issues on the estate. It also presents the greatest opportunity to achieve the largest number of critical success factors (CSFs). This will offer significant long-term improvements at a lower financial deficit. The highest number of additional units can be created alongside providing the greatest improvement in the quality, accessibility, and safety of housing across the whole estate. A new green outdoor space can also be provided.

Although full redevelopment option with 100% affordable housing is the "least-worst" option, the financial viability of the option must be seriously considered. The Council should examine the affordability and risk of this option in relation to the Housing Revenue Account (HRA) against a backdrop of building cost inflation and higher interest rate environment.

With this in mind, alternate development or delivery options should be explored with the development partner should this option prove not to be financially viable for Cambridge City Council.

9 EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment³⁶ has been conducted by Cambridge City Council for the options appraisal in alignment with the legal obligations of the Public Sector Equality Duty.

This Equality Impact Assessment seeks to ensure:

- The elimination of discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010;
- The advancement of equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- The fostering of good relations between persons who share a relevant protected characteristic and persons who do not share it.

The option appraisal considers major changes that will impact the following groups:

- Housing applicants registered on Home-Link (the Council's choice-based lettings system) i.e. households who need to find somewhere to live.
- Existing council tenants, leaseholders, freeholders and any subtenants in the existing residential units

Consultation has been conducted to identify equality impacts from the shortlisted options which have been taken into consideration during the evaluation process.

The Public Sector Equality Duty should continue to inform the evaluation to ensure that there is appropriate consideration for the equalities impact on residents.

³⁶ Cambridge City Council, Equality Impact Assessment: Ekin Road September 2023

10 OVERALL ASSUMPTIONS TABLE

Section	Assumptions
Economic Case	
Phasing	Two phases for partial and full redevelopment
Phasing	A rolling programme for refurbishment
Decanting	Full decanting will be required for all options
CSFs	All CSFs are weighted equally
Financial Case	
Current tenure	The current tenure on the estate outlined in the Potter Raper Report has been adopted.
Tenure	In the refurbishment option the existing 98 social rented units will be retained as per their current tenure
Leaseholders	It is assumed the leasehold interests will be acquired and sold once refurbished
Freeholders	Freehold houses would not take part in the refurbishment programme in either the refurbishment or partial redevelopment option
Phasing	The full and partial redevelopment options will be delivered in two phases
Decanting	Full decanting will be required
Social rent %	The existing 98 social rented homes will need to be pre-provisioned
Retained Houses	The retained houses in the partial redevelopment option will be main in their current tenure
Future cost growth	An appropriate level of future growth in the costs of management and administration; planned major repairs; cyclical maintenance; day-to-day repairs
Homes England Grant Funding	We have assumed the following funding profile for each phase: <ul style="list-style-type: none"> • 40% on notional site acquisition • 35% start of construction • 25% on practical completion
Sale Rate	We have assumed that on average, the sales rate for the private units will be 4 a month.
Right to Return	We have assumed that 20% of tenants will return to the estate and therefore require a double decant payment.
Decant Costs	We have assumed that these costs are paid over 6 months prior to construction of a new build phase. In relation to the refurbishment elements we have assumed that such costs are borne on a rolling basis.
Buy Back Costs	The costs assumed are: <ul style="list-style-type: none"> • £215,000 per 1 bed flat; • £280,000 per 2 bed flat; • £402,000 per 3 bed house; and • £467,000 for a 4 bed house. <p>Additionally, 10% Home loss, 5% Disturbance and 1% for Legal and Valuation fees have been assumed.</p> <p>We have assumed that these costs are paid over 6 months prior to construction of a new build phase.</p>
Marketing Costs	The assumed disposal costs comprise 1% marketing for the private units assumed in each scenario.

Section	Assumptions
Disposal Costs	<p>We have assumed the following disposal costs across the full redevelopment and hybrid scenarios:</p> <ul style="list-style-type: none"> • Private sale agent – 2% • Affordable sales agent – 1% • Private sales legal - £1,000 per unit • Affordable sales legal – 0.5%

11 GLOSSARY

Term	Definition
Affordable Housing	This is a broad term for housing that is subsidised for eligible households. It includes various different products or tenures, both for long term rent, such as Social Rent or Affordable Rent, or ownership, such as Shared Ownership
Affordable Rent	This is a low cost rental product. The maximum rent that can be charged is 80% of Market Rent. It includes all service charges which cannot be charged to tenants.
Building Regulations Part K	Part K contains guidance on the safety of stairs, guarding and glazing within and around buildings ³⁷ .
Category Trees	Category A Trees: these are generally large, high-quality trees to be retained if at all possible. Category B Trees: smaller, not as high-quality trees that should be preferably retained though the removal of occasional trees may be acceptable. Category C Trees: smaller, low-quality trees that are generally acceptable to be removed.
Consultation	The active participation of local residents and community groups in the decisions that affect their lives.
Easiform Type 2 construction	Easiform is a type of non-standard construction buildings built from cast-in-situ concrete.
EPC ratings	An EPC contains information about a property's energy use and typical energy costs as well as recommendations about how to reduce energy use ³⁸ .
Green Corridor	Networks of natural vegetation that create living pathways and boundaries in urban areas.
Green Routes	Green routes support active lifestyles, community cohesion nature connections that benefit physical and mental health and wellbeing and quality of life ³⁹ .
Gunning Principles	The court uses the 'Gunning Principles' to decide if a consultation is lawful.
Indices of Multiple Deprivation	The official measure of relative deprivation for small areas in England based on the number of domains.
Legibility	The ability to navigate through the urban environment ⁴⁰
Part M4 Category 2 or above	Approved document M provides guidance for meeting Part M of the building regulations: access to and use of buildings which requires the inclusive provision of ease of access to and around buildings.
Placemaking	The placemaking process capitalises on local community assets, inspiration and potential to create quality public spaces that contribute to people's health, happiness and wellbeing ⁴¹ .
Secured by Design Gold Standard	Secured by Design operates an accreditation scheme on behalf of the UK police for products or services that have met recognised security standards ⁴² .

³⁷ LABC, Approved Document K: Protection from falling, collision and impact, [available at: <https://www.labc.co.uk/professionals/building-regulations-guidance-documents/approved-documents-and-technical-guidance-england/approved-document-k-protection-falling-collision-and-impact#:~:text=collision%20and%20impact,Approved%20Document%20K%3A%20Protection%20from%20falling%2C%20collision%20and%20impact,glazing%20within%20and%20around%20buildings.>]

³⁸ GOV.UK, Energy Performance Certificates, [available at: <https://www.gov.uk/buy-sell-your-home/energy-performance-certificates>]

³⁹ Natural England, Green Infrastructure Principles, [available at: <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Principles/GIPinciples.aspx>]

⁴⁰ Landscape Institute Technical Information Note TIN 05/2017, Townscape Character Assessment

⁴¹ Project for Public Spaces, What is placemaking?, [available at: <https://www.pps.org/article/what-is-placemaking>]

⁴² Secured by Design, [available at: [https://www.securedbydesign.com/guidance/standards-explained#:~:text=Secured%20by%20Design%20\(SBD\)%20operates,a%20'Police%20Preferred%20Specification'.](https://www.securedbydesign.com/guidance/standards-explained#:~:text=Secured%20by%20Design%20(SBD)%20operates,a%20'Police%20Preferred%20Specification'.)]

Term	Definition
Social Rent	This is a low-cost rental product calculated by a nationally set formula. Most existing rented Council housing will be Social Rent but could be Affordable Rent. It does not include service charges which will be charged in addition to the Social Rent payable.
Wayfinding	A method for relaying messages to help people navigate their way around an environment.

12 LIST OF SOURCES

Section	Document	
The Strategic Case		
Options Appraisal	Housing Scrutiny Committee in September 2023	Appendix J
Estate Condition	Potter Raper Options Appraisals Report (August 2020) JLL Building Consultancy Refurbishment Feasibility Assessment Curtins Ekin Road Estate Structural Survey	Appendix K Appendix H Appendix AH
Affordable Housing	Cambridge Local Plan 2018	Appendix L
Decanting	Cambridge City Council Decant Policy	Appendix M
Building Standards	Potter Raper Options Appraisals Report (August 2020) JLL Building Consultancy Refurbishment Feasibility Assessment	Appendix N Appendix H
Asbestos	ADF Environmental, Asbestos Refurbishment Surveys (2019)	Appendix O
Fire Safety	Cambridge City Council Housing Services, Regulatory Reform (Fire Safety) Order 2005 Fire Risk Assessment (November/December 2022) Potter Raper Options Appraisals Report (August 2020)	Appendix P Appendix K
Drain Issues	Millward, Structural Inspections for Cambridge City Council (September-November 2019)	Appendix Q
Health and Safety	Potter Raper Options Appraisal Report (August 2020)	Appendix K
Damp, Mould and Condensation Incidents	Damp, Mould, Condensation Team, DMC Reports	Appendix R
Legibility	BPTW, Pre-App 4 Presentation (June 2022)	Appendix S
Anti-social behaviour	Cambridge Police Estate Champion	Appendix T Appendix U
EPC Ratings	Potter Raper Options Appraisals Report (August 2020)	Appendix K
EPC Target	Cambridge City Council Climate Change Strategy Action Plan 2021-2026	Appendix V
Accessibility	HM Government, The Building Regulations 2010: Access and use of buildings Potter Raper Options Appraisals Report (August 2020)	Appendix W Appendix K
Tree Strategy	BPTW, Pre-App 4 Presentation (June 2022) BPTW, Capacity Studies F – Critical Success Factor Assessment (January 2024)	Appendix S Appendix X
Consultation Process	Ekin Road Resident Questionnaire Final Report (14 th September 2022)	Appendix Y
Critical Success Factors	Greater Cambridge Housing Strategy JLL Team	Appendix Z
Carbon Assessment	RIBA 2030 Potter Raper Options Appraisal Report GLA London Plan HM Treasury Green Book EPCs for Tottenham Court and Five Tree Court	Appendix AA Appendix K Appendix AB Appendix AC Appendix AI
Resident Engagement	Ekin Road Resident Questionnaire Final Report (14th September 2022) JLL Resident Engagement Plan 2023 JLL Resident Survey Report	Appendix Y Appendix AD Appendix A

Section		Document	
Equality Impact Assessment		Cambridge City Council, Equality Impact Assessment: Ekin Road September 2023	Appendix AF
Affordability		JLL Residential Team Report	Appendix AG
Health and Wellbeing		BRE The Cost of Poor Housing in England 2021 Report	Appendix AJ
The Economic Case			
Unit value, size		JLL Affordable Housing Development Options Assessment	Appendix I
Decant and home loss tenant		Cambridge City Council Ekin Data Decant Calculations	Appendix AE
Construction/build costs		JLL Building Consultancy Refurbishment Feasibility Assessment	Appendix H
Repairs and Maintenance Cost		JLL Building Consultancy Refurbishment Feasibility Assessment	Appendix H
EPC Improvements		JLL Ekin Road EPC Improvement Study	Appendix B
The Financial Case			
Development Appraisals		JLL Affordable Housing Development Appraisals	Appendices C-G

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