

DESIGN GUIDE



Eastlight
Community Homes

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Introduction

1.0

1.0 Introduction

Together with our **communities**, creating **affordable homes** and **great neighbourhoods**

Eastlight Community Homes is a vibrant, resident-led community gateway housing association for the East of England. We are trailblazing and ambitious for our residents who influence services and help improve the customer experience.

Together we build better, stronger, sustainable communities embracing partnerships which benefit our communities and create solutions to shared strategic challenges.

Together with our residents and communities, we create safe, affordable homes and neighbourhoods that people are proud to live in. People who work at Eastlight put residents first, they are committed to our communities and doing the right thing to make a positive difference for our residents and communities.



Together with our **communities**, creating **affordable homes** and **great neighbourhoods**

We own and look after 12,500 social homes in the East of England and plan to build and have under construction another 3,800 by 2025.

People who live in our homes pay rents and charges that are less than the market rate. We reinvest every pound and use our strong finances to fund new homes, improve services and communities.

The primary objectives of our New Homes Strategy are to:

- Create mixed communities, set in great places, which are well stewarded in the long-term
- Deliver 3,175 new affordable homes and start building 625 more homes by 2026
- Deliver new homes for social rent, maximise opportunities to secure homes England grant for social rent and support delivery using existing funds
- Build low-rise affordable homes for rent and low-cost home ownership
- Undertake developments that produce financial and social returns on our investment
- Implement our Design Brief to ensure all our new homes are built to an Eastlight standard
- Listen to our customers and design homes and communities that meet their needs
- Build homes that are environmentally sustainable and meet the Future Homes Standard in advance of regulation
- Work with appropriate partners where this supports delivery of our objectives
- Continue to build new homes in our heartland
- Deliver new homes across the East of England, where these can be built, managed and maintained effectively.



Barnham Court - KC+A architects

The Context of the Design Guide

2.0

2.0 The Context of the Design Guide

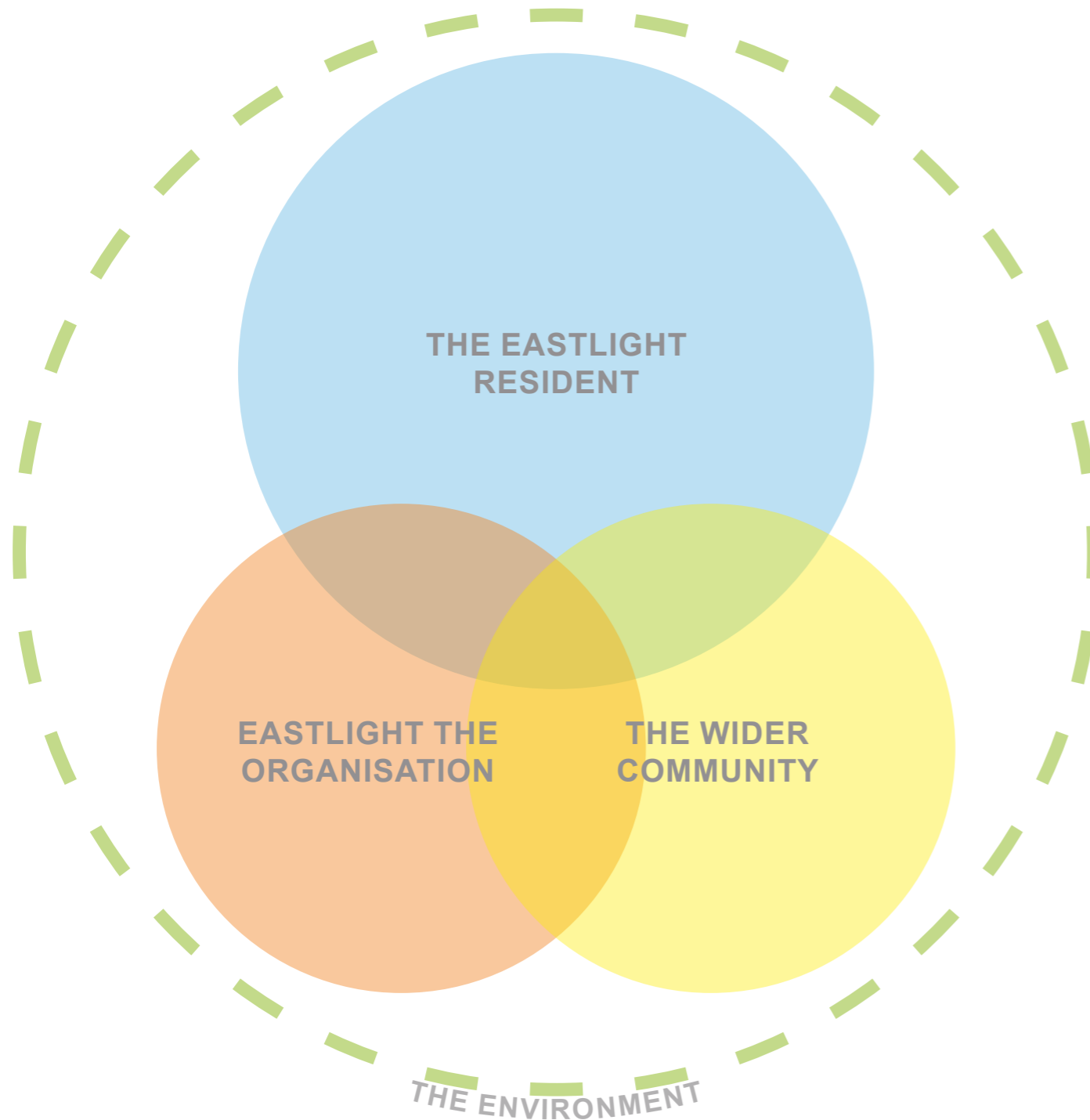


2.1 The aim of the Design Guide

The aim of the design guide is to instil 'good design' as a guiding principle for all aspects of a scheme's inception, design, use and maintenance.

Prioritising resident experience, the design guide considers what good design is from four perspectives:

1. The resident
2. The organisation
3. The community
4. The environment



The design guide is intended as a point of continual reference for the client, stakeholders, consultant teams and contractors, to promote best practice and good quality design.

The design guide is intended as an aspirational document recognising that good design can have a positive impact on people's physical and mental health, their well-being, improve community ties, and help avoid antisocial behaviour.

Alongside the three principal client groups, and in response to the climate emergency, the design guide also focusses on the scheme's impact on the environment throughout its life cycle.

It aims to give context to the regulatory changes that will come into effect in 2022 and 2025 in achieving the 'Future Homes Standard' as a stepping stone to achieving zero carbon for all new build dwellings by 2030.

Alongside this, the design guide also considers the ever more important and changing, multi-dimensional role of the home, particularly since the Covid-19 global pandemic.

2.2 What is good design?

Good design encompasses the following indicators:

1. It prioritises the resident experience and creates homes rather than units.
2. It creates an inspiring and pleasant place to live.
3. It facilitates people leading rich and fulfilling lives.
4. It contributes to people's health and well-being.
5. It creates a safe and secure environment for residents of all ages.
6. It has as minimal an impact on the environment as possible.
7. It promotes a rich, diverse multicultural community.
8. It complements the social and demographic needs of the existing local communities.
9. It has synergy with existing townscapes and places.
10. It responds to the changing requirements of people's lives as families grow and change.
11. It is inclusive and tenure blind.
12. It results in homes that are simple to operate and reduces running costs for tenants.
13. It reduces future maintenance and facilitates effective maintenance where necessary.
14. It delivers housing that is achieved within program and budgetary constraints.

2.0 The Context of the Design Guide



2.3 Who is the Design Guide intended to be used by?

The design guide is intended to be used by the whole development team at all stages of a project, from its inception through to its handover and subsequent occupation, management, maintenance and possible adaptation. The guide should be used wherever decisions are made that contribute to good design as defined above. Here are some examples of when the guide can be used by members of the development team:

Client

- The conception of projects and acquiring sites
- Commissioning projects
- Brief writing
- Appointment of consultants
- Appointment of contractors

Architects

- Feasibility studies
- Preparation of the design for planning submission
- Technical design and production of tender documents

Consultants

- Effective design coordination
- Design efficiencies
- Appropriate design strategies

Project managers

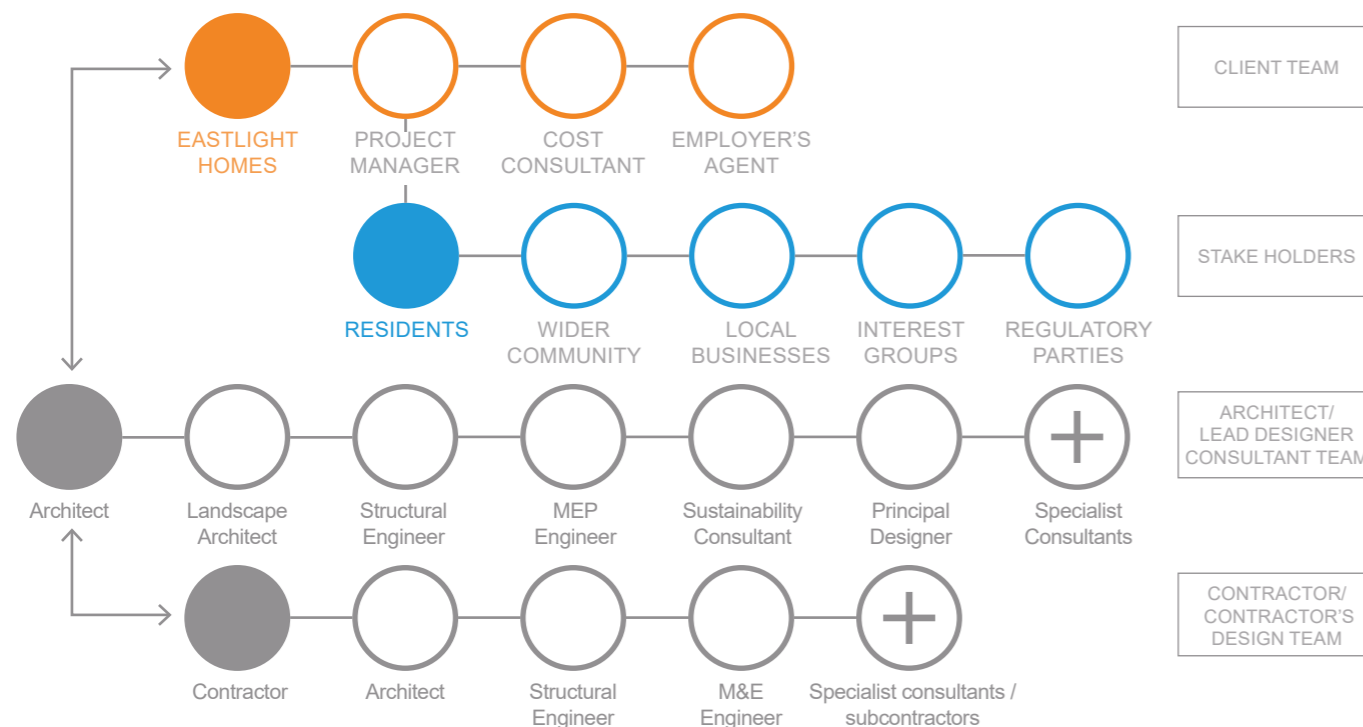
- Appointing the consultant team
- Development of the project program
- Development of the cost plan

Contractors

- Contractors Proposals
- Value engineering and procurement
- Construction systems
- Design management
- Build quality

Management Organisations

- Facility management



Organogram of the development team

2.4 The Design Guide's role in the process

The design guide therefore seeks to act not only as a bench mark of what good quality design is, but also as a single 'golden thread' running through all stages of a project and for all involved parties that maintains focus on design quality, often in the face of competing issues of legislation, budget, program and delivery.

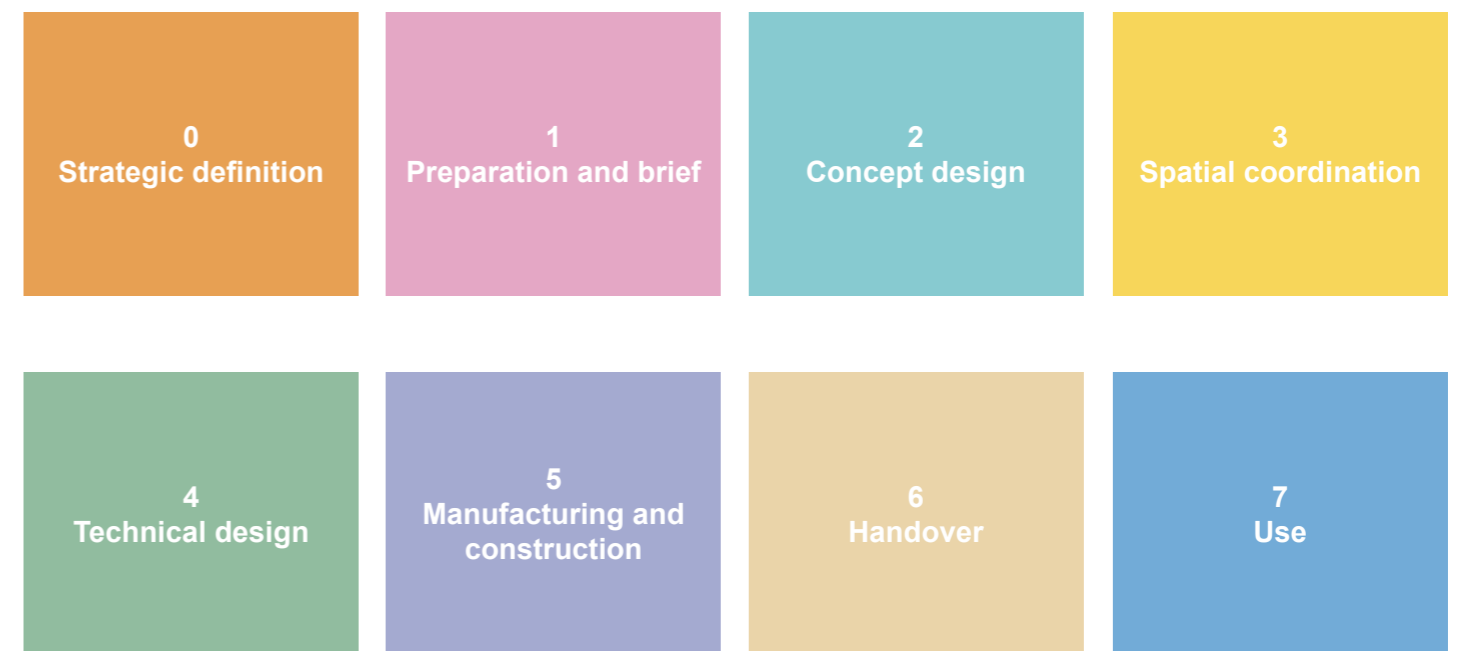
It is therefore important that the design guide not only seeks to outline what design quality looks like, but also covers the process of achieving good design.

Effective and timely coordination and communication is at the heart of every successful project. These become increasingly important as planning and other legislative and technical constraints become more onerous. Put simply, good advice given too late in the project at best can be a missed opportunity to achieve design quality and at worst can put the project at risk.

It is also important that all parties have a common understanding of what design quality is as this makes achieving it more likely.

Each consultant's brief and scope needs to allow them to collectively deliver on the ambitions of the design guide.

Lastly, the design guide should be used both by the client, the wider design and consultant team, and contractor team to help monitor and evaluate emerging proposals.



RIBA Plan of Work Stages 2020

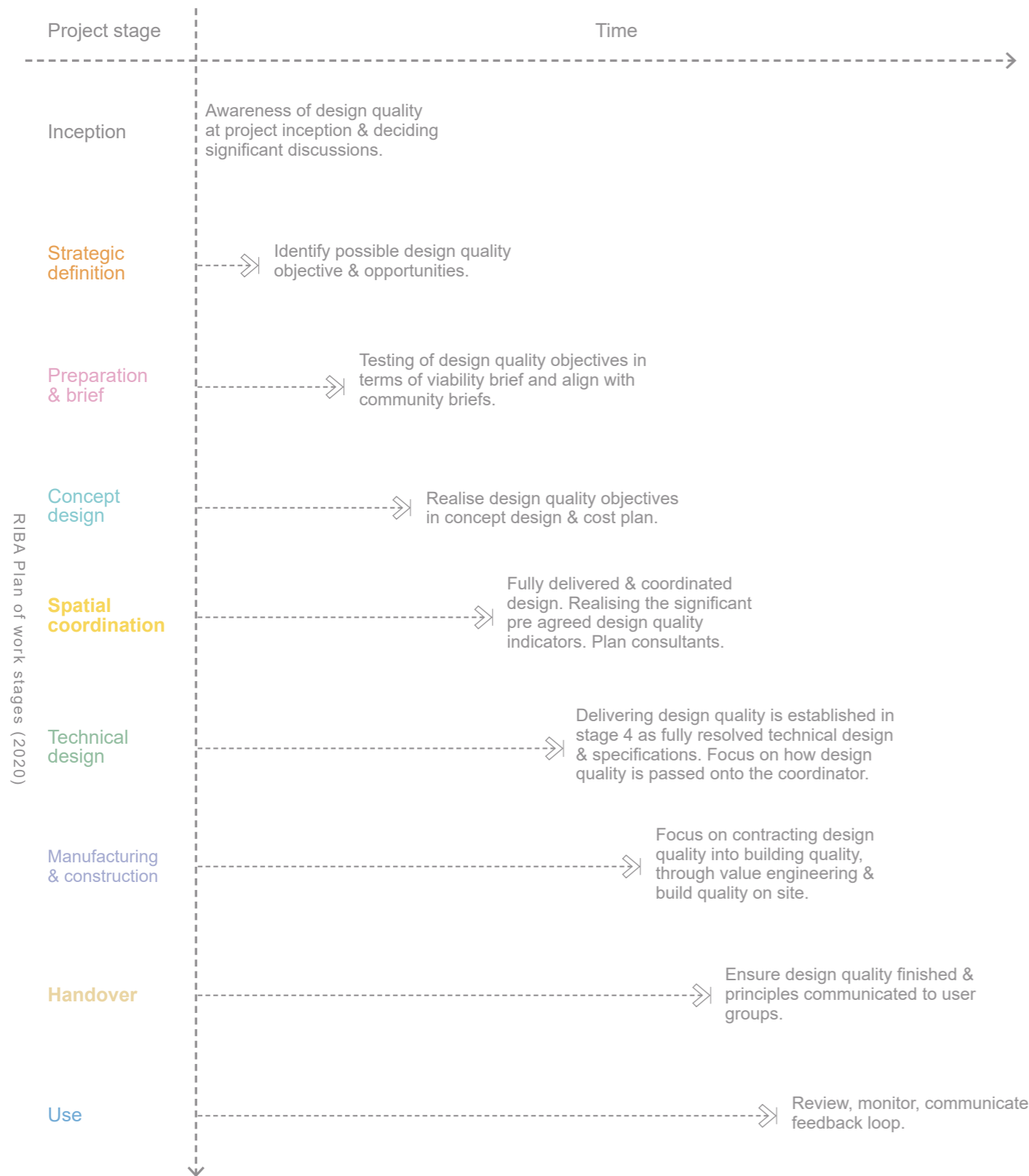
'What are the total costs of ownership? We need to consider whole life cycle costing.'

2.0 The Context of the Design Guide



2.4 The Design Guide's role in the process can't

Design quality front program:



2.5 How the Design Guide sits alongside other guidance

Good design is an aspiration but also a subjective idea.

The design guide needs to be considered alongside the more prescriptive, technical and performance aspects of Eastlight Homes Design and Technical brief and Employers Requirements. These documents also need to be considered alongside other requirements, a few of which are:

- Building regulations
- National space standards
- Housing Quality Indicators
- Secure by design
- Future Homes Standard
- National Design Guide
- Building for a Healthy Life
- Local and national planning policy and guidance

Achieving the requirements of the technical and legislative documents should be considered an absolute minimum requirement, the aspirations of the design guide are intended to add value and elevate the quality of the homes and places that Eastlight Homes create.

The very first decisions made by the client during the project's inception should be informed by these aspirations and help set the project objectives.

Opportunities to achieve good quality design need to be thoroughly explored as part of a project's very first feasibility work. The extent to which it can be delivered should be a key part of the evaluation criteria.

As part of these early works the benchmarks against which the project will be judged need to be outlined and agreed with Eastlight homes. They then form part of the brief going forward and against which the success of the project can be measured.



Achieving Design Quality (The Process)

3.0

3.0 Achieving Design Quality (The Process)



Chapter introduction

Design quality is achieved not only by the timely and creative involvement of the design team, but is as a result of a process. This process enables designs to evolve in response to complex and sometimes competing drivers and to optimise proposals often over multiple iterations with the singular view of achieving high quality results.

For the process to be successful it is essential that balanced, realistically ambitious and quantifiable targets are set. These should be communicated to all parties involved and delivery against the targets checked at key stages in the life cycle of the project.

Finally, the process should include a mechanism for continuous improvement.

3.1 Implementing and controlling the process

Achieving good design should be the primary focus of all parties and at all stages of a project however a champion is needed to preserve the golden thread throughout the project and the check it is being achieved.

The role of the Design Champion (which can be an individual or a panel of members) is to carry out a series of Design Reviews at key stages of the project.

Developing design proposals will be assessed against the key quality targets set out in the brief and the wider quality aspirations set out in this Guide. To protect design quality, the review should be documented and produce a series of recommendations to be taken into account as the project progresses.

Another potential role is that of the Design Guardian. This role is distinct from the Design Champion, Employers Agent and Clerk of Works and is often the architects who have provided services for RIBA stages 0-3+.

The role is to review Contractor's proposals through the construction period and advise the Client on the achievement of the design intent.

3.2 the project start

Eastlight will deliver new homes via a variety of procurement and development routes including, land led schemes, joint ventures and S106 agreements.

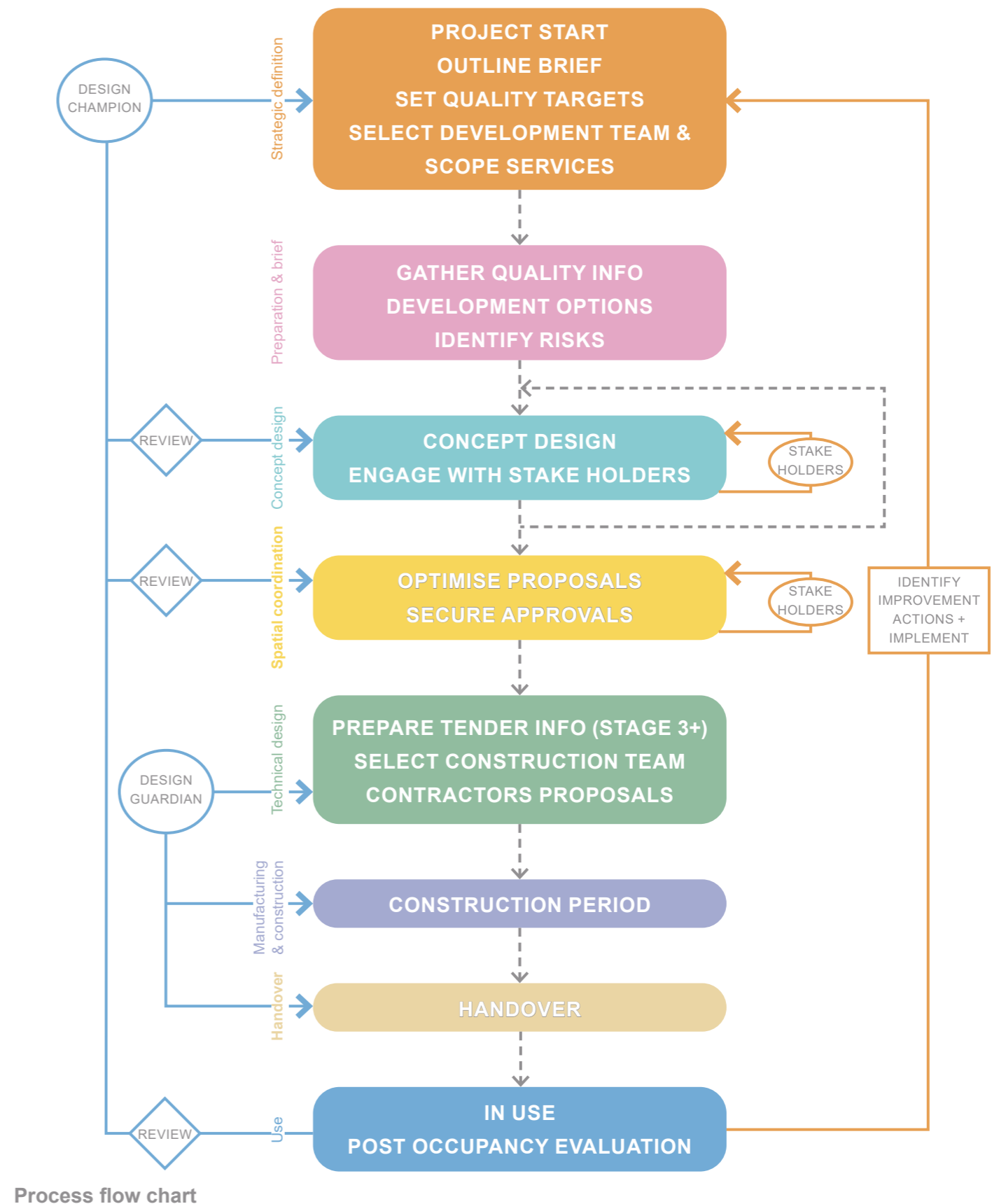
In each case the overall aspiration and specific quality targets for the scheme need to be defined and communicated to the development team at the outset in the form of an outline brief.

The outline brief can then be used in the procurement of the core design team. However it is equally important make the team aware of the process intended to achieve quality so that they understand the full scope of services and are empowering to deliver quality designs.

At early feasibility stages of a project the quality and extent of information available is important. The less the information the higher the level of risks to the design.

Good quality designs are the product of research and good data.

'Eastlight is a community gateway - organisation. We take the time to talk to people, consult, listen and not to assume.'





3.0 Achieving Design Quality (The Process)

3.3 The design team

The core design team should be brought on board as early as possible in order to contribute to the project vision and concept design. The core team will depend on the scale and complexity of the project but will normally consist of the architects, MEP, structural engineer, civil engineer and landscape consultants.

The core design team needs to be supported by a range of professional experts in order to fully understand the constraints and unearth the opportunities of the site.

These supporting professionals should be added to the team in a timely manner through feasibility and concept design in order to coordinate emerging proposals.

The project set up and design process should promote a collaborative work ethic. To achieve the projects full potential, it is necessary to resolve often complex and competing drivers requiring both innovation and compromise.

Design development is by its nature an iterative process and so having the right team members on board at the right time, empowered to contribute in a constructive way is key to delivering the process efficiently.

3.4 Stakeholder engagement

Engaging with stakeholders is a vital element in the process of developing high quality designs. It should be an open process of talking to, listening to and responding to the range of parties affected. This helps ensure a good quality result is experienced by those who have a stake in the completed scheme.

Stakeholders may include future residents, who can help in understanding needs and priorities. Neighbours and the wider local community can provide a deeper understanding of the context and setting of the scheme and any local challenges faced.

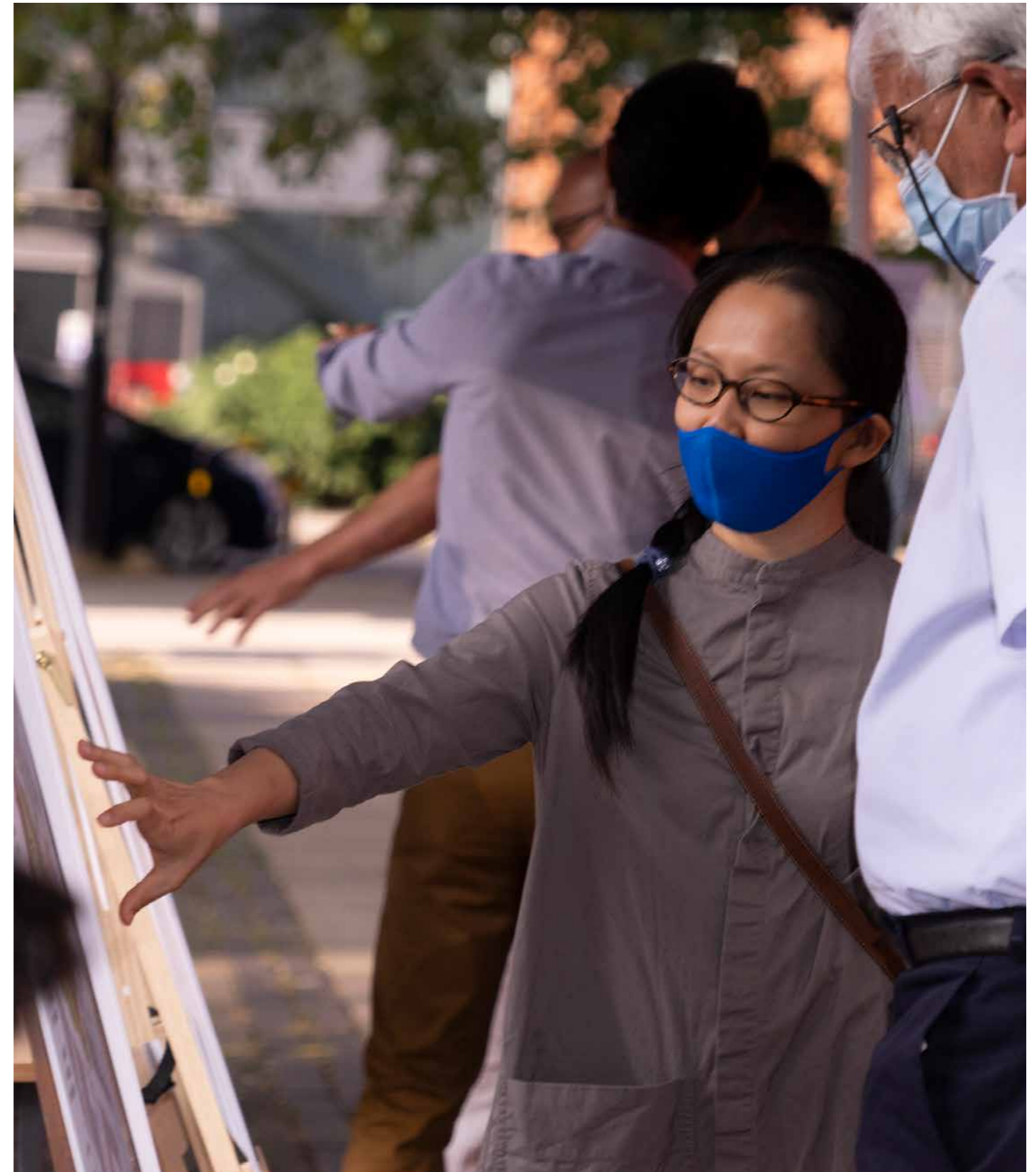
Also, stakeholders internal to the organisation will provide guidance on requirements for successful operation and management.

3.5 Design development

Once the concept proposals have been developed in consultation with stakeholders and reviewed the next stage of design development will involve coordination of the proposals.

To optimise the design, the process of collaborative and iterative team working continues challenging the team to resolve issues and arrive at the best possible design.

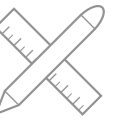
Engagement with local authority for planning and other regulatory approvals is also a vital part of the process.



Core Design Principles

4.0

4.0 Core Design Principles



4.1 The Home - summary page

The Resident

1. Compact, simple layouts maximising usable space and keeping circulation to a minimum.
2. Entrance halls to be sized sufficiently to accommodate family life. Adequate storage and movement space.
3. Regular shaped rooms to allow residents to customise furniture layouts and use space saving furniture & bed arrangements.
4. Test rooms with furniture layouts with adequate movement zones, coordinated with window, door, radiator and built in cupboards etc.
5. Consider separate living kitchen dining versus open plan and future adaptability.
6. Consider ease of access route to kitchen.
7. Design built in storage to be easily accessible and of a usable format.
8. Assess number and provision of WC, bathroom and shower rooms according to occupant needs.
9. Consider locating washing machine within a utility room rather than within kitchen.
10. Provide accessible dedicated service cupboard of sufficient size for MVHR, ASHP, HW etc.
11. Design outdoor space that visually extends living space and is of usable size and format.
12. Homes should be dual aspect to optimise the opportunity for cross ventilation and access to daylight and sunlight.
13. Consider the comfort of residents, providing natural light to circulation areas, preventing overheating in the summer. The home should have good ventilation and air quality. Noise transfer between rooms and from plant and equipment should be limited.
14. Residents should feel safe in their homes, and enjoy privacy.
15. Homes should be designed so that residents are able to enjoy views, and outlook over landscape and greenery from within their homes.
16. Design the home to be safe and easy to operate, clean and maintain. Consider access for window cleaning, replacement of light fittings, cleaning of air filters etc.



Illustrative Home

The Environment

17. Homes should be designed to maximise passive lighting, passive heating and passive ventilation. Ideally circulation areas should also be naturally lit and ventilated.
18. Compact and efficient layouts help minimise both in use and embodied energy.
19. Design in passive cross ventilation to help reduce the potential for overheating.
20. Train residents to operate their home to achieve optimum low energy performance and user comfort.
21. Consider the specification of internal fittings and finishes in terms of life cycle costs, natural materials, recycling and the circular economy.

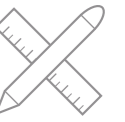
The Client

22. Design for resident satisfaction.
23. Clarify division of responsibility between resident and landlord for operation and maintenance and provide access and training accordingly.
24. Consider life cycle costs of FF&E.
25. Design for the digital landlord incorporating technology to monitor, report and resolve defects.
26. Provide induction, training and user guidance.
27. Carry out post occupancy monitoring.

The Wider Community

28. Design homes to be accessible and adaptable over time.
29. Design homes and outdoor amenity spaces where residents can enjoy privacy without negative impact upon neighbours.
30. At the same time design homes that are not isolated but part of a neighbourhood.

4.0 Core Design Principles



4.1 The Home

4.1 The home - the front line of the resident experience

The demands on the home have never been greater and include: providing security and shelter, to be a workplace, to be adaptable, to nurture, to inspire, to be spacious whilst at the same time being compact, to have synergy with the environment, to be energy efficient, to be as low cost and simple as possible to operate. To meet these often-competing requirements, good quality design needs to be innovative and resident focussed, designed from the inside out.

4.1.1 The user experience

General planning of the homes layout - National Space Standards:

The usability of the home directly effects resident satisfaction. There should be an aspiration to exceed the minimum national space standards and provide more generous homes which are user friendly, multifunctional and adaptable. It is sensible to design in some tolerance to the internal dwelling areas at the early design stages in order to allow for design development to meet for example ever increasing energy performance criteria which can increase external walls thickness' and increase service cupboard sizes to accommodate heat recovery and heat pump technologies.

Layouts should be compact, simple and flexible:

The house should first and foremost be conceived to support family life. House and apartment layouts are generally more usable and conducive to family life if they are compact and simply laid out in a manner that is both legible and efficient. Layouts should maximise usable area within rooms and minimise circulation space whilst avoiding it being cramped.

Efficient layouts also tend to be more energy efficient. However, care must be taken to facilitate natural ventilation and daylight. If plans are overly deep with limited external surface area, this can limit natural light in the middle of the plan and prevent natural cross ventilation.

General room planning:

Rooms generally should be regularly shaped and carefully planned to optimise flexibility for residents when arranging furniture without wasted spaces.

Room layouts should always be drawn with furniture layouts and movement zones to optimise positions of glazing, doors and services layouts and ensure usability from a resident point of view.

Open plan versus cellular arrangements:

Careful consideration needs to be given to whether a property is open plan or cellular. Whilst open plan arrangements offer a degree of flexibility and are sociable, they also have inherent problems such as noise and air pollution.

Where a home requires a range of competing environments for working and other quiet activities, TV and media, cooking and eating, cellular or partially cellular arrangements are often better.

There are also cultural considerations, such as whether the living room and functions such as cooking should be kept separate. Cellular plan arrangements can achieve a degree of flexibility with large openings, doorways or moving partitions. Open plan arrangements also have certain technical constraints, such as fire performance and ventilation. Completely open plan designs should be avoided in family houses.

The front door:

The importance of the front door cannot be over stated, it contributes to a sense of security, individual identity and frames the view of surrounding landscape and nature. It also defines the relationship with neighbours and the wider community. The front door is the threshold between public and private and so needs to be very carefully considered. The front door should central to a dwelling's layout and highly visible.

Entrance halls and circulation areas:

The entrance should open into a hall and not directly into a living space. Hallways should be generous, open and welcoming, and benefit from natural light either via fanlights or side windows to front doors.

The entrance needs to be sized sufficiently to accommodate all aspects family life. Consideration needs to be given to storage generally, but specially prams, wheelchairs, cupboards for shoes, coats, bags and deliveries.

At the same time circulation areas should be kept to a minimum, be simply laid out without excessive changes in direction or inefficiency in plan. Circulation should be naturally lit the ventilated and provide views out of the property wherever possible

Living room:

Living rooms should be separate from the kitchen diner and be as accessible and flexible as possible.

The space should benefit from high levels of natural daylight and sunlight, and have strong physical link to external spaces which can act as an extension of the living room.

Kitchen diner:

The kitchen is often the centre of family life, fulfilling a multitude of roles including for homework, working from home, and socialising. A kitchen that is also a dining room offers opportunities for these activities to co-exist. This should be reflected in the spatial planning of the kitchen.

Space for home working / home office / school home work:

There should be provision for adults and children alike to all work separately at home. This might take the form of a separate dedicated office space, or a dedicated space within a larger space such as a living room, or incidental space such as under a stair on a stair landing. The need for daylight, ventilation and a view should all be part of this consideration.

Bathroom provision in family dwellings:

Natural light and ventilation are preferred in all bathrooms.

Bedrooms:

Bedrooms should be regular in shape and avoid being overly narrow. Bedroom layouts should show furniture and circulation zones to optimise usability, ventilation and natural daylight. Multiple furniture arrangements should be possible.

Storage:

All built in storage should be provided in a location and format that allows residents to conveniently access and fully utilise it.

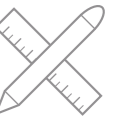
Usability of garden / balcony:

All dwellings should have access to a generous and pleasant external space to allow residents to spend quality time outside and to have a relationship with nature and plants thereby improving well-being.

It should be considered an extension of the main living spaces. The external space should have good daylight and sunlight and consider other aspects of micro-climate. Access, security, privacy and overlooking should be taken into account. As with internal spaces, furniture layouts should be shown for balcony and terrace areas to ensure that they are usable.

'We should be looking at the affordability of the home.'

4.0 Core Design Principles



4.1 The Home

4.1.2 Health, well-being and safety

Well-being:

Although where we live is not the only factor that influences the overall level of well-being experienced by an individual it is an important contributor & good design can positively improve it. Resident satisfaction with the home (as discussed in the previous section), feeling safe and part of a community, environmental comfort, access to nature and opportunities to improve health and fitness all contribute to well-being.

Safety, security and privacy:

Residents should to feel safe and have privacy in their homes. This should be achieved through layouts that define a clear hierarchy of public, shared amenity and private outdoor spaces. Designs should promote passive surveillance, activity and a sense of community rather than a reliance on technology and over fortification. The requirements of the Secure by Design standard should also be met.

Environmental comfort:

Homes should be designed to support resident well-being by prioritising thermal and acoustic comfort. Building envelope design has particularly important role to play in the internal conditions for residents.

Homes should ideally be dual aspect and predominantly north facing units with no access to sunlight should be avoided. Designs should optimise daylight and sunlight distribution internally, limit heat loss and facilitate easy ventilation.

Design should at the same time mitigate over heating and allow passive cooling without introducing noise pollution problems.

External noise pollution as well as noise from adjoining properties can all be the source of significant complaint and discomfort for residents and needs to be mitigated.



Access to nature and health and fitness:

Homes should ideally be dual aspect, and orientated to take advantage of aspect and views to facilitate an awareness of nature and green space so residents benefit from biophilia. Homes and neighbourhoods should provide opportunities for residents and exercise to play and lead a healthy lifestyle.

4.1.3 Sustainability

Efficiency of layout and Passive heating, cooling, lighting:

The layout of the property should underpin the passive fabric first approach taken for the overall building design (see section 4.2)

Daylight / sunlight / passive solar gains:

Layouts should optimise passive heat gains during the day to reduce heating load requirements at night. Living spaces should ideally be orientated within 90° of due south. Bedrooms and other such spaces should avoid direct overheating and can be located ideally within 90° of due north, together with other ancillary spaces. Glazing will typically be smaller in such rooms and this lends itself to being on a more northerly aspect to limit heat loss.

Thermal performance:

Layouts should be zoned to allow a simple control of thermal comfort during the different stages of the day. Passive solar gains during the day, can be redistributed around the home when radiated at night, into areas such as bedrooms. This can be done relatively effectively by opening doors, and creating air movement through a central stairwell into upper floor areas using the stack effect of warmer air rising.

Internal material specification contributes to a whole-dwelling dynamic thermal model where heavy weight material absorbs energy where exposed, and radiates this heat at night, turning the fabric into a storage heater, giving better thermal comfort and smoothing out thermal gradients.

Natural ventilation and cooling:

Rooms that are at risk of overheating should include a sufficient level of natural ventilation via opening windows and internal apertures to passively cool a space without a reliance on mechanical cooling wherever possible. Ideally, to optimise efficiency, windows should be on opposite or adjacent elevations of a room and well-spaced out.

Energy usage:

The design of a home should generally take the following approach to energy;

- Firstly, reduce the need for energy usage in the first place.
- Where it is necessary, reduce the amount that is actually needed.
- It should then aim to optimise the efficiency of energy use.
- And recycle as much energy as possible.

Water usage:

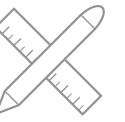
The design of a dwelling should aim to reduce potable water usage as far as is practical. Consideration should be given to recycling rainwater and grey water where ever possible for watering gardens and flushing toilets, and to recycling the heat from pre heated water. Not only should designs seek to reduce water usage, but they should seek to optimise water quality and promote accessibility to good quality water.

Flexibility and ease of use:

The resident interface has to be both flexible and simple to use, particularly if the use is different to a more traditional expectation, for example a whole house ventilation system that is on continuously.

Smart technology can improve resident awareness and provide a user friendly interface. Low tech solutions also reduce possible system problems and reduce future maintenance burdens.

4.0 Core Design Principles



4.1 The Home

Specification of materials and finishes:

Generally, material specification should consider the material hierarchy;

1. Reduce
2. Reuse
3. Recycle

Construction materials, systems and internal finishes should generally consider the following;

- Internal material specification should among other things support the overall building energy strategy, for example providing thermal mass to help regulate internal thermal comfort and at the same time be robust and fit for purpose.
- All materials should be responsibly sourced and from sustainable sources with low volatile organic compounds (VOC).
- Materials that have a low carbon footprint that is documented and demonstrable.
- Have high recycled content and are easily recyclable considering the materials role in the circular economy.

Materials should be robust, fit for purpose with low maintenance throughout the lifespan of the building.

Air quality:

Developments should aim to optimise and achieve high indoor air quality. The primary strategy should be to avoid exposing residents to sources of low air quality and avoid specification of low VOC materials.

Mitigation could also include the removal of airborne contaminants through purification coupled with highly efficient ventilation systems with heat recovery.

4.1.4 Community and inclusivity

Access:

Over and above the requirements of the building regulations all dwellings should be designed to be as genuinely accessible and inclusive as possible.

Adaptability - Designing adaptable homes to change and meet residents' needs:

Layouts should have inherent flexibility and adaptability built in, such as lightweight non load bearing partitions or moveable internal screens.

Disability:

Eastlight homes provide homes that are specifically designed to resident's specific needs and disabilities. Notwithstanding this, Eastlight Homes developments should have a very high level of accessibility and the full range of disabilities.

Adopting a high level of accessibility and building in future adaptations from an early stage will help ensure the longevity of the property and the possible future adaptation and alteration as the demographic and local requirements change over time.

4.1.5 Responding to place, creating character and identity

Each development should invoke a unique sense of identity and place within the development and the wider community. Dwellings should be planned to maximise views of surrounding landscapes and towns, as well as take advantage of natural aspect of a site.

Each home should be uniquely aware of its place within the neighbourhood and its surroundings. The design should also allow residents to impose their own personal identity.

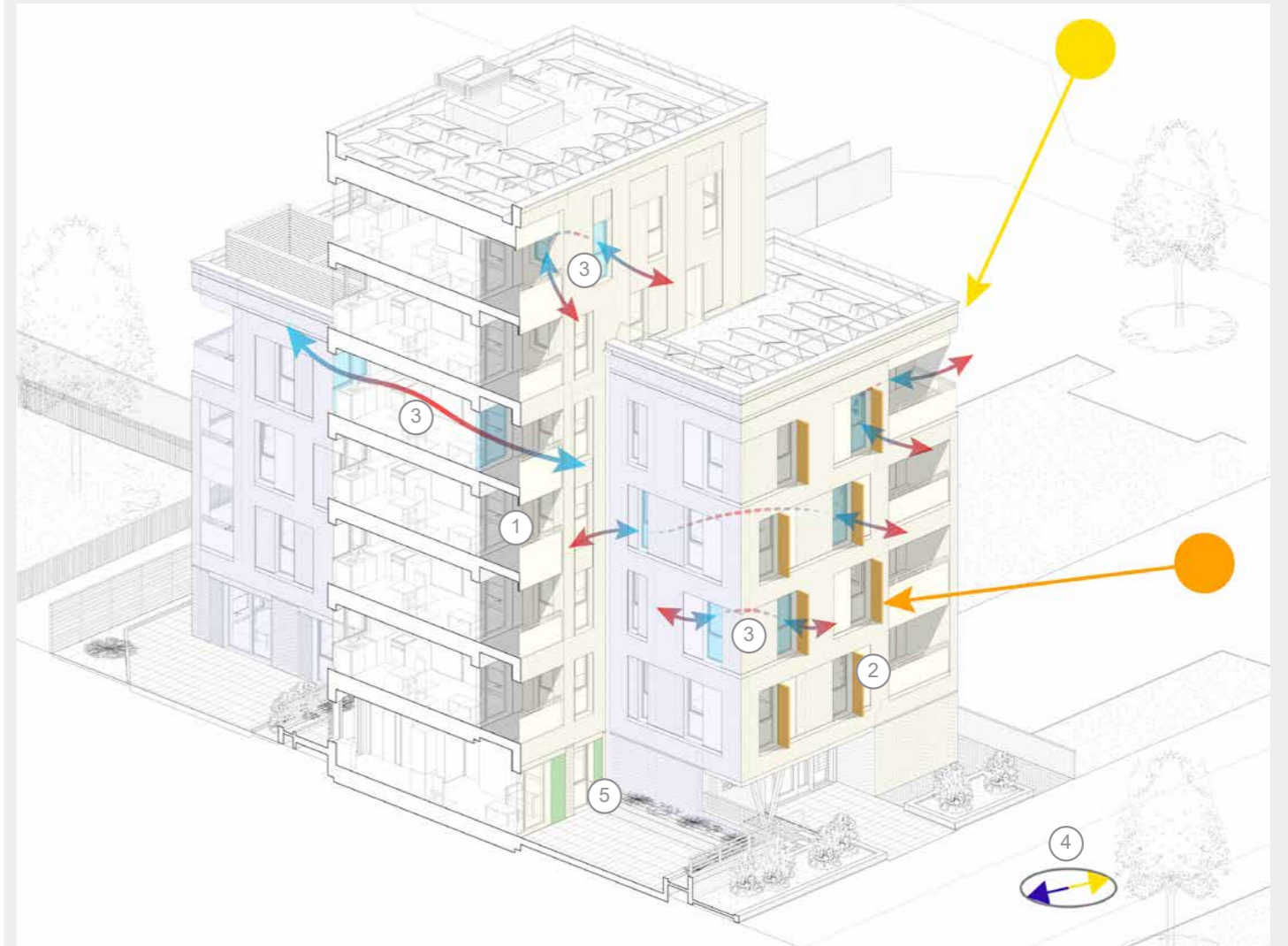
4.1.6 Operation and maintenance

Post occupancy monitoring:

As part of the resident / landlord agreement, there should be provision to allow for post occupancy monitoring by the landlord, to include both energy and services installation, but also fixtures and finishes. Residents should be informed as to the reasons and the benefits of this to them in terms of internal comfort, operating efficiencies, maintenance costs and sustainability, as part of their induction.

Case study

AFFORDABLE HOUSING, HARINGEY



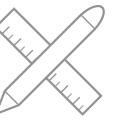
A scheme of 15 apartments on a redundant garage court within a wider housing estate. The scheme demonstrates how multiple design factors including carbon reduction, mitigation of overheating, night cooling via cross ventilation, security and daylight can all be brought together into a cohesive resilient architectural design that provides comfortable and secure homes for residents.

Balconies have been placed on the western elevation where the risk of overheating is highest, to provide shading to windows. Louvres have been integrated where necessary into the architectural design rather than added on as an afterthought.

1. Overhangs over balconies provide shading
2. Vertical louvres provide effective shading against evening sun
3. Additional windows to allow cross ventilation
4. Careful consideration of the orientation of the building ensures appropriate measures have been taken to control the thermal gain at all times of the day, as the sun moves.
5. Secure louvres ensure ventilation at night; cooling internal temperatures.

Windows have been positioned and sized in order to optimise good levels of natural light whilst avoiding overheating. Homes have been designed to be dual aspect to facilitate cross ventilation and night cooling. At the ground floor the scheme includes louvres to allow secure night ventilation.

4.0 Core Design Principles



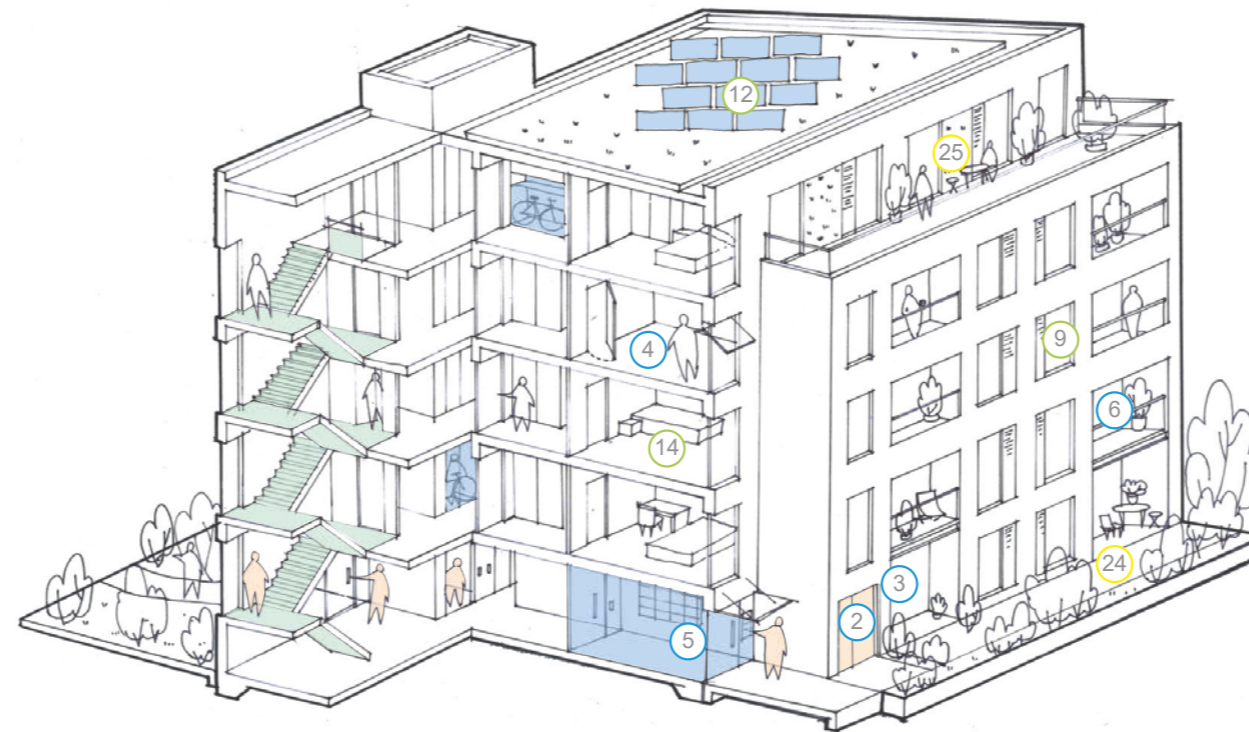
4.2 The Building - summary page

The Resident

1. The building should express character and identity.
2. The entrance should be visually prominent, generous and welcoming.
3. Provide Safety, security and privacy, particularly at the building and dwellings entrance.
4. Comfort and well-being: optimise daylight, sunlight, ventilation, avoid overheating, and consider heating and acoustics.
5. Communal facilities such as deliveries, post, internet shopping, pram storage, bikes and bins etc should be easy to use.
6. Include biophilic design elements, make visual connections with nature and landscape outside of the building.

The Environment

7. Maximise the efficiency of the building considering ratio of usable space to gross floor area.
8. Optimise the building form factor and orientation.
9. Optimise the glazing design and distribution for daylight, sunlight, passive heat gain and minimise heat loss.
10. Take a passive fabric first, design approach.
11. Design to mitigate overheating.
12. Use renewable technologies.
13. Consider Modern Methods of Construction.
14. Capital versus life cycle costs.
15. Monitor and educate post occupancy.
16. Increase biodiversity.
17. Decrease surface water runoff.



Illustrative Building

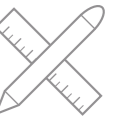
The Client

18. Consider robustness, attractiveness, functionality and life cycle of fittings and finishes.
19. Ease of access to services such as meters, access panels, cupboards, risers and the roof.
20. Define who is responsible for maintenance and cleaning.
21. Consider access, safety and ease of maintenance and cleaning.
22. Allow for post occupancy monitoring and management.
23. A Digital landlord – Use technology for reporting and resolving defects.

The Wider Community

24. Design entrance, common parts and shared facilities to promote positive interactions between residents.
25. Balance opportunities to get to know your neighbours with privacy and quiet enjoyment.
26. Provide natural surveillance.
27. Design for accessibility.
28. Design for inclusivity, multi-generational neighbourhoods and later living.
29. Create a sense of identity, aesthetics and attractiveness.
30. Respond to local context, character and townscape.

4.0 Core Design Principles



4.2 The Building

This section considers good design in the context of the house, terrace of houses or apartment building, the external envelope, and in the context of apartment buildings, the shared internal and external communal areas.

The user experience remains the primary focus, recognising that those areas outside of the private demise contribute significantly to safety, security, privacy and well-being. A sense of community and the developments place in a wider community and surrounding landscape starts in many respects at the front door.

The building envelope is the also the development's primary response to the local environment and sustainability and so is an important consideration both in terms of carbon footprint and energy performance. The building fabric, and particular its management and maintenance, is historically the source of the majority of complaints from tenants and future maintenance issues for building managers.

4.2.1 The user experience

Sense of community:

An awareness of the community, your neighbours and the opportunity to meet people starts at the front door. The external spaces around buildings are as important as internal. They allow people to meet and be sociable and are the threshold between public and private space. Communal gardens similarly facilitate community and contact with nature.

The Building entrance:

Building entrances should be clearly visible from the approach and clearly legible. Entrances should be well lit, open, generous in size and welcoming.

Internal circulation:

Internal circulation areas should generally be kept to a minimum, and occupy no more than 20% of the GIA when combined with other communal areas, stairwells and facilities.

The design of entrances and common parts needs to consider both privacy and noise, so as not to create conflict and allow residents to interact in a friendly and safe environment discouraging anti-social behaviour.

Circulation areas should wherever possible have natural daylight, sunlight and ventilation for the benefit of the internal environment, and allow views out of the building to surrounding landscaping.

Communal facilities:

Communal facilities should generally be accessible to all and should prioritise use by residents. There should be generous provision for postal deliveries, parcels and online shopping. Easy to access waste and recycling facilities needs to be provided and secure cycle storage should be generous and easily accessible from the buildings entrance.

4.2.2 Health, Well-being and Safety

Well-being:

As discussed in the previous section on the home resident satisfaction, feeling safe and part of a community, environmental comfort, access to nature and opportunities to improve health and fitness all contribute to well-being.

Safety, security and privacy:

Residents should feel safe and secure in and around their home with a high degree of privacy whilst at the same time encouraging neighbourly interaction and a connection with the wider community.

Individual dwellings should be laid out with well-considered levels of natural passive surveillance over neighbouring properties and in particular entrances.

Developments should be laid out to provide adequate separation distance between habitable windows or should be orientated to avoid direct overlooking.

Environmental comfort:

In designing common parts, a high value should be placed on natural daylight, sunlight and ventilation to optimise psychological comfort, avoiding overheating and optimising thermal comfort.

Layouts of adjacent homes should be designed to avoid noise transfer. Both intended and incidental noise can have a significant effect on resident's well-being.

Awareness of nature:

All internal areas should optimise views out to surrounding greenery, trees and landscape. A connection and awareness of nature, landscape plants, trees and biodiversity have a positive effect on people's well-being.

Facilitate exercise:

The link between physical exercise and emotional well-being is well documented. The design of landscape and surrounding areas should facilitate a variety of physical activities from gardening, to walking, running, cycling, children's' play and sports activities.

The opportunities should be for people of all ages, gender and cultures. Developments should also seek to integrate with existing local networks to broaden the opportunities for residents.

4.2.3 Sustainability

Sustainable development:

A principal driver for all developments should be to reduce the CO2 emissions of the development to a minimum including; in use, embodied carbon and life cycle emissions.

Developments should aim to have a synergy with the natural world, as well as the local and wider environment

Innovation:

Technological development will offer opportunities for innovative approaches to reduce both operational and embodied carbon and should be embraced as part of the design development of a project. Good design should always aspire to be innovative.

Future proofing: designing for a changing climate:

Projects should be designed to respond to the various ways in which the environment is changing due to global warming. During the design life of a building, projected temperature increases coupled with improved thermal performance of buildings will lead to increasing risk of overheating.

The increased frequency and intensity of storms also increases the risk of surface water flooding and changes availability of water generally.

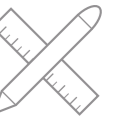
Future Homes Standard and 2050 net zero target:

There are two significant planned changes to the Building Regulations during the design life of this document. Changes to the parts of the building regulations due to become legislation in June 2022 covering thermal performance, ventilation and the introduction of a new part addressing overheating, will aim to reduce overall carbon in use by 31%.

This interim measure is intended as a 'stepping stone' measure to the adoption of the Future Homes standard in 2025 which will seek the overall reduction of carbon in use by between 75 – 80%.

In anticipation of this, as part of its overarching commitment to being a market leader, Eastlight Homes are committed to achieving at least a minimum 25% improvement over and above building regulations requirements for all of its projects, but there should be an ambition for zero carbon in operation for all projects.

4.0 Core Design Principles



4.2 The Building

Fuel poverty:

Fuel poverty is an increasing reality for many people, with ever-increasing costs for gas and electricity.

Eastlight homes are committed to addressing fuel poverty for all of its tenants and will no longer specify gas for heating or cooking in their properties, irrespective of current building regulations.

What is important is to design very low energy homes and that the technologies and heating methods that are specified are efficient to use, cheap to run and maintain.

Circular economy:

In the current society, materials and resources are taken from the earth, products are made from them, consumed and eventually thrown away. In a circular economy, by contrast, waste is reduced and reused as a valuable resource.

The circular economy is based on three principles that can inform every stage of the process:

- Eliminate waste and pollution
- Circulate products and materials (at their highest value)
- Regenerate nature

Eastlight Homes are committed to their projects considering opportunities for developments to contribute to the circular economy through reuse, material selection, recycling, and reduction of waste.

Efficiency:

There must be significant focus on designing an efficient building. An efficient building uses less material, creates less waste during the construction, uses less energy to operate and uses less resources to maintain. It will also minimise construction costs.

Efficiency is often measured by the ratio of net usable area to gross area but other factors include standardisation of plot types, construction detailing, components, fixtures and fittings.

The energy hierarchy – Be Lean, Be Clean, Be Green:

When considering energy in operation, the following hierarchy should be used to prioritise the design development:

1. Be Lean. Firstly, focus on a fabric first approach. Maximising passive heating and lighting and using high levels of thermal performance and air tightness along with heat recovery systems.
2. Be Clean. Once works to the fabric have been optimised, focus should be on the source of the required heat energy necessary to achieve thermal comfort, heat water and to cook. District heating and CHP systems examples of community wide, infrastructure energy systems that are generally considered to be more carbon efficient and present opportunities to recycle and redistribute heat on an estate or town wide scale.
3. Be Green. Lastly, the focus needs to be on using renewable sources for any residual energy demand. Such as, air source or ground source heat pumps (ASHP and GSHP), and Photo Voltaic panels.

Fabric first approach – Be Lean:

The principal concern in sustainability terms in designing the building should be the building's form, orientation and fabric, rather than a reliance on technology and mechanical systems, this is described as a 'passive' approach.

This will reduce the need for electrical and mechanical systems to create internal thermal comfort, and focus mechanical systems on ventilation, hot water and cooking only.

An over reliance on technology rather than passive means will lead to increased future maintenance and operational costs for both tenant and management and should be avoided if possible.

At all stages of a project there should be a high degree of coordination between the overall energy strategy, actual plant and building fabric.

Case study

RAMSEY COURT, HARINGEY

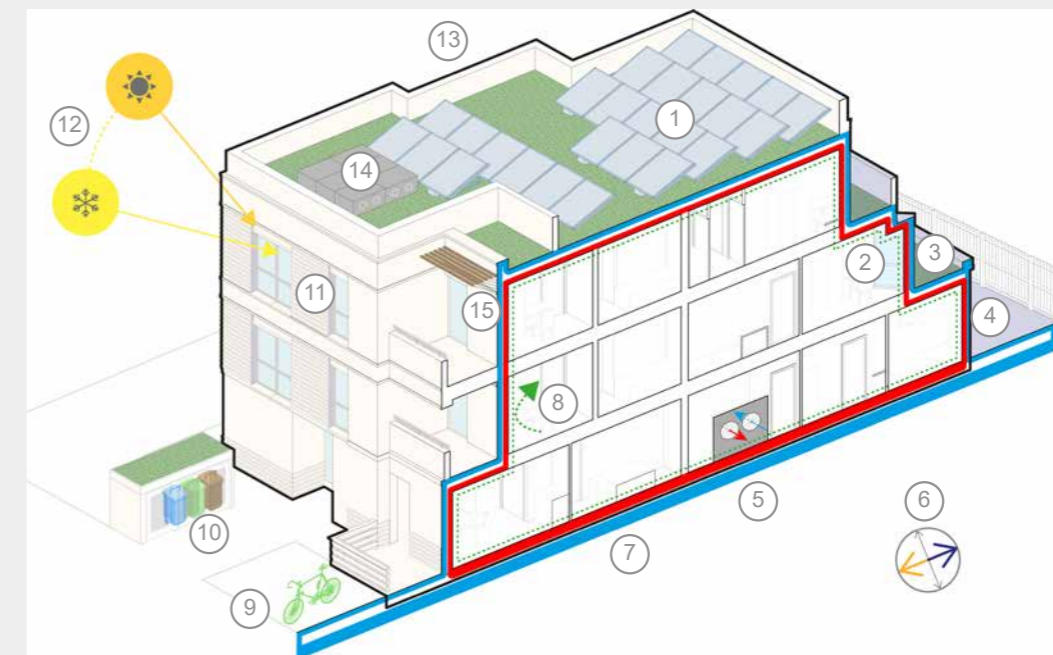
Ramsey Court for LB Haringey has been designed to achieve net zero carbon in use on site. The project will deliver six apartments and three family houses on underutilised land and redundant garages adjacent to an existing apartment building. The diagram below summarises the sustainability strategy for the scheme.

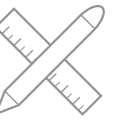
The scheme utilises an efficient form factor, takes advantage of the open southerly aspect and optimises window design to achieve an in-use CO₂ saving of 103% against Building Regulations. The scheme also has a thermally efficient envelope, Mechanical Ventilation Heat Recovery, ASHP and Photovoltaic panels providing hot water, space heating and power. All of which has been developed collaboratively using BIM with the consultant team to assess performance.

Ramsey Court also demonstrates how it is possible to achieve a net gain in biodiversity and urban greening through a range of measures including, native species hedge rows, species rich grassland, nesting boxes, bio-diverse green roofs and the provision of additional street trees to increase canopy shading and improve air quality.



1. PV Panels
2. Reduced area of glazing on north elevation
3. Green roofs to provide ecological habitat and reduce surface water run-off
4. High levels of insulation in walls, U-value = 0.15 W/m²K
5. MVHR ventilation
6. Building orientation
7. Floor insulation U-value = 0.1 W/m²K
8. Air tightness less than 3 ac/h
9. Cycle storage to promote sustainable travel
10. Bin storage to promote recycling
11. Deep window reveals to improve shading of windows
12. Improved passive solar gain to South elevation
13. Form factor, refined external envelope reduces cold bridging
14. Air source heat pump
15. Brise soleil to mitigate overheating





4.2 The Building

Heat Loss Form factor:

The building form and envelope should be as compact and as rational as possible reducing the amount of external envelope whilst maximising the internal floor area. This ratio is the heat loss form factor. An efficient form also limits the number of cold bridges that result from external junctions.

Orientation and position on the site:

Buildings should aim to be orientated along an east to west axis, with the principal elevation facing south, to optimise passive solar gains and reduce heat loss.

Reducing east and in particular west facing elevations will also reduce the risk of overheating. The position of buildings on site should also consider over shadowing from adjacent buildings and other objects such as trees, which can provide seasonal shade.

Glazing:

The arrangement and amount of glazing is especially critical to the building performance. The glazing to fabric ratio will directly affect building performance due to the increased heat loss through glazing.

The proportion of glazing facing south, east, west and north should also be carefully considered to balance the need to optimise daylight and sunlight with over heating, ventilation, cooling, air quality, privacy and views out.

Building fabric - thermal performance and air tightness:

The building fabric should be designed to be as thermally efficient as possible within the budgetary constraints of project, to limit heat loss and to help regulate internal thermal comfort, whilst controlling unwanted excessive solar gains. Alongside this, the buildings fabric should be as air tight as possible to limit unwanted heat loss and to exclude cold air.

Over heating and cooling:

With improved levels of thermal performance and air tightness, coupled with areas of glazing required by modern standards, overheating and the subsequent effect on thermal comfort is an increasing problem.

It is important that detailed analysis is carried out early in the design development so that glazing sizes and locations, as well as shading devices that mitigate overheating can be effectively coordinated within the design of the building envelope.

To address over heating external shading coupled with natural cross ventilation is effective. This approach needs to take into account any acoustic considerations. Also, security concerns over opening windows for night time cooling to bed rooms at ground floor level need to be mitigated.

Communal heating – Be Clean:

Wherever available communal heating represents a more sustainable source of hot water and space heating. Typically takes one of two forms, either district heating or combined heat and power (CHP).

Furthermore, the energy generated is often as a by-product of an industrial process. District heating systems supply heat to a number of dwellings from a common heat source.

Renewable technologies – Be Green:

Renewable energy technologies are a general term that is used to describe energy production using a renewable source like solar, wind, water (hydro and tidal), biomass and geothermal heat.

Photovoltaic panels are an increasingly accessible and affordable form of electrical energy, creating electrical energy that then returns to the grid. They should be considered from the outset of a project, as their optimisation may inform the development of the form of the building, particular the roof. Further consideration should also be given to on-site battery storage and smart controls so that the energy generated is directly used by the residents and more directly responding to fuel poverty.

A heat pump captures heat from outside and moves it into the home. It uses electricity to do this, however the quantity of heat delivered into the home is much greater than the quantity of electricity used to power the system.

The heat is delivered to a heat exchanger and then used to heat the home, usually using a central heating system. In a domestic setting heat pumps are one of two types: air source or ground source (GSHP). With lower capital and infrastructure costs, air source heat pumps (ASHP) whilst less efficient than ground source, are the more likely to be specified for residential projects.

Both variants are considered low temperature systems (when compared to convection radiators for example) and are ideally suited where coupled with under floor heating for example.

Smart controls:

Smart controls can contribute to increasing energy efficiency by self-regulating internal comfort in response to external climatic conditions and people's lifestyles and varying energy tariffs.

They can make adjusts to heating systems to optimise efficiency, report energy usage and report problems in their simplest form they can give actual real time energy usage which can help educate residents to make energy savings and become more sustainable.

On site energy storage:

Consideration should be given to on-site storage of energy rather than simply passing the energy created to networks outside of the site, so that it more directly benefits the residents and addresses fuel poverty.

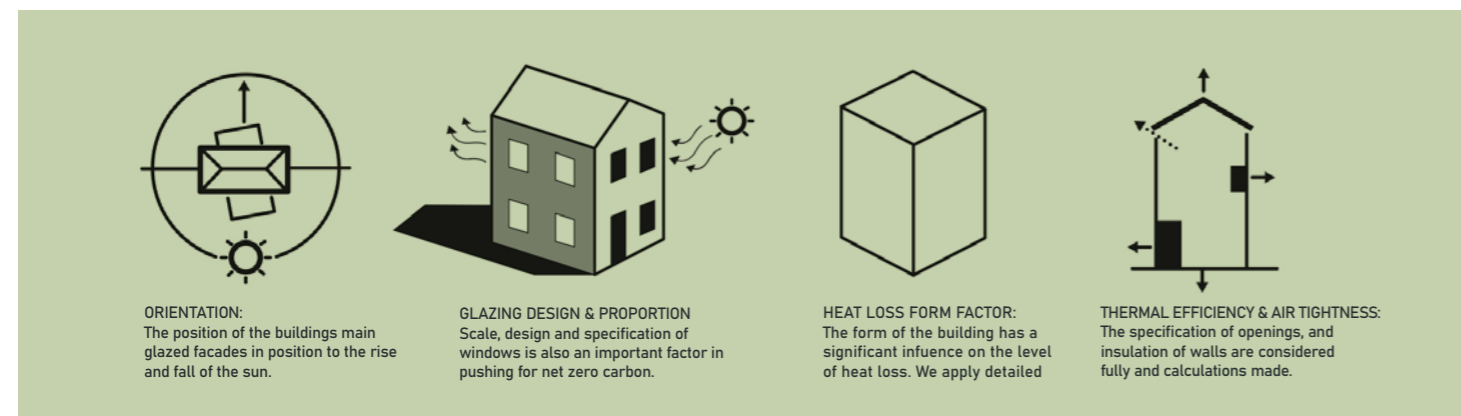
Water usage:

Water should be prioritised as a valuable resource in the same ways as energy and materials. The use of potable water should reduce wherever possible using certified low water fixtures, fittings and appliances throughout the building as well as heat recovery for waste water.

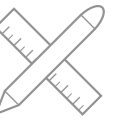
The material hierarchy – Reduce, Reuse, Recycle:

Materials are also a finite resource. The design team and contractors should use the following hierarchy when considering material specification:

1. Reduce. An efficient building form will reduce material and resource requirements. Designs should be simple and as rational as possible with no element that is superfluous to the overall purpose of the project, regardless of its carbon footprint.
2. Reuse. Recognising that the vast majority of materials are finite, re-using buildings and installations has a far smaller carbon footprint and impact on the environment than creating each new building from scratch.
3. Recycle. When re use it's not possible, consideration should be given to using recycled materials and specifying materials and components that easily be recycled in the future. This may also require close collaboration with the main contractor.



4.0 Core Design Principles



4.2 The Building

Embodied and life cycle carbon:

Alongside consideration of the requirements of the technical brief for robustness, fitness for purpose, life span and guarantees, schemes should undertake a whole life cycle carbon assessment at critical stages and consider where there may be opportunities to reduce the embodied and life cycle carbon footprint of the scheme.

Capital versus life cycle costing:

In considering the cost of developments, the whole life cycle cost of the design should be considered and form an important part of decision making and project specification. This will require linking capital expenditure with asset management costs as well as corporate carbon commitments.

Retrofit:

Where appropriate, as part of the very first feasibility works, consideration should be given to the re-use and retrofit of properties rather than their demolition and replacement with new buildings.

The demolition of buildings should only be considered when supported by a whole life cycle carbon analysis of demolition and new build compared to the equivalent retrofit.

Modern Methods of Construction (MMC) and buildability:

Housing schemes can be designed to have a high degree of repetition and so design teams should consider the benefits of modern methods of construction (MMC) in terms of reduction of resources, waste and construction time.

MMC can take arrange of forms from completely off-site fabrication of whole units to the production of individual building components.

Inspect to reduce performance gap between as designed and as built:

Low carbon building performance requires very precise standards of construction. To achieve this there needs to be put in place a rigorous and systematic inspection of the works when under construction to ensure that the completed building matches its aspiration. It is far more cost effective to identify problems during the process rather than at the end of the process.

Furthermore, there should be continual feedback between site operatives and the client and design team to benefit future projects with continuous improvement.

Up skill the supply chain:

Delivering high quality designs in combination with increasingly challenging regulatory standards requires collaboration and a high degree of skill throughout the supply chain.

It is therefore important as part of the process to develop relationships and skills to benefit current and future projects. This will optimise building construction and maintenance whilst providing economies of scale having a beneficial social impact.

Monitor post occupancy:

A further and equally important dimension of the feedback loop is to continue to monitor the building post occupancy.

Post occupancy monitoring is extremely important to identify possible inefficiencies and problems in as timely a manner as possible, but also to learn lessons that will inform future Eastlight Homes developments.

Recycling and waste management:

Both housing and apartment design should facilitate and encourage resident recycling generally and make provision within the kitchen design and in external bin provisions / storage.

Eastlight Homes will seek to educate residents as opportunities to reduce their own personal waste.

Provision should also be considered for recycling for larger, bulky items, for garden waste and for building materials through local recycling networks.

4.2.4 Operation and maintenance

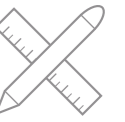
Ease of operation and maintenance needs to be fully considered by all parties at each of the key stages of a project.

Access to and ease of maintenance for all services, both internally and externally should be considered from the outset and agreed in consultation with management and maintenance teams. The requirement for a cleaning regime needs to be avoided where possible, and where necessary the implications understood and simplified.

Access to meters and incoming services should always be considered and incorporated into the building entrance design. Surface mounted incoming service boxes should be avoided. This should form part of the scheme approved at planning stage where possible to safe guard the detail.

It is Eastlight Homes' ambition that the resident will retain a degree of responsibility for the buildings to help foster a sense of ownership and care. This will involve a degree of cleaning and maintenance where specialist knowledge, cleaning or materials are not required and where undertaking these activities doesn't give rise to health and safety concerns.

'People like where they live, they just don't want the place to become broken down, so maintenance and management is key.'



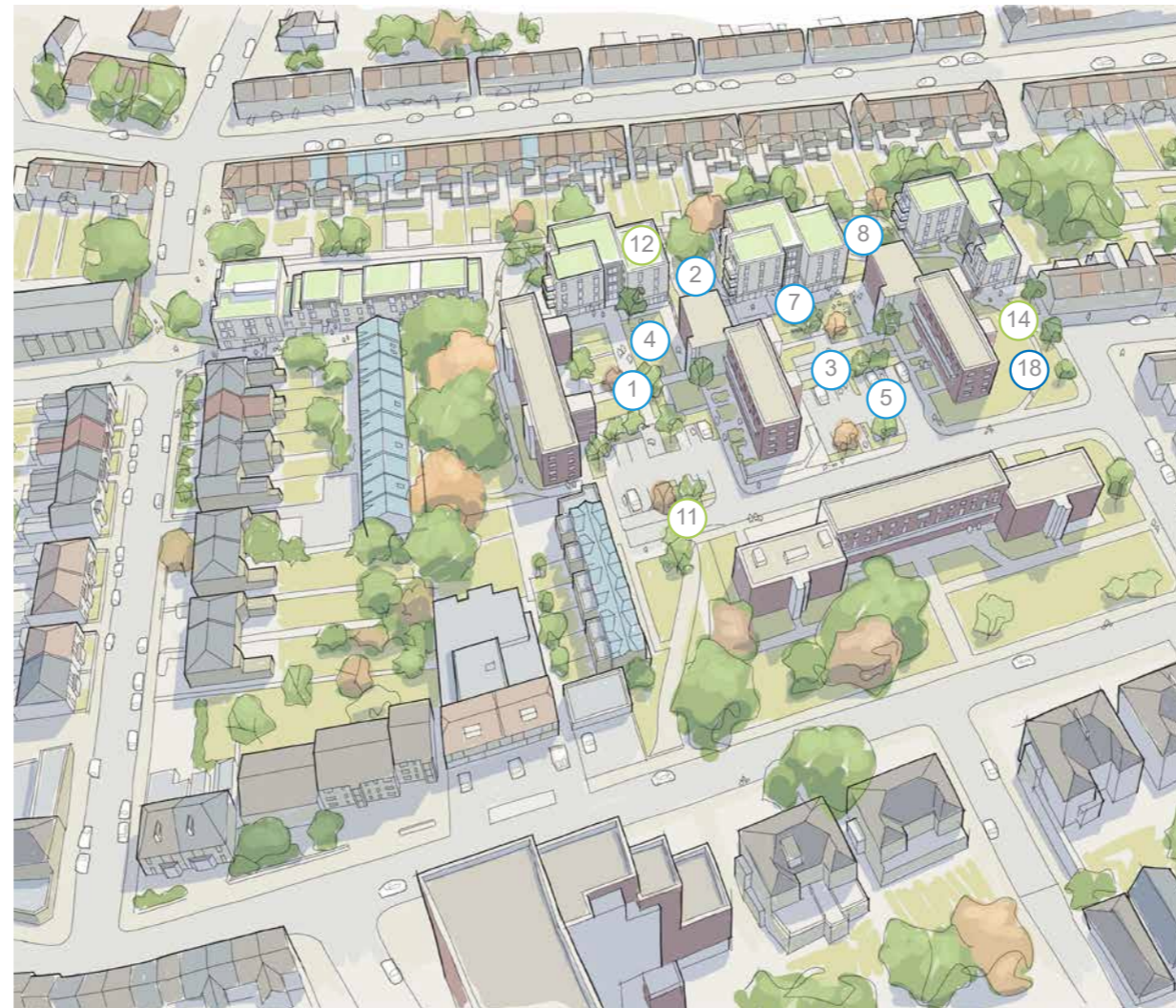
4.3 The Site - summary page

The Resident

1. Clear and legible movement and way finding.
2. Define public, private shared and private outdoor spaces.
3. Consider servicing and access, refuse, deliveries, emergency services.
4. Play areas of appropriate type in appropriate locations.
5. Integrate car parking, cycle parking and EV charging points.
6. Design for safety, security, road safety and lighting.
7. Provide progressive levels of security and good passive surveillance over neighbourhood.
8. Integrate nature, ecology, biodiversity, trees and landscaping.
9. Health and fitness: Access to nature, biophilia, walking and cycling, leisure facilities, communal gardens, allotments.

The Environment

10. Travel & transport, create walkable neighbourhoods, encourage cycling, car sharing.
11. Provide tree canopy to reduce overheating.
12. Include urban greening to reduce heat island effect.
13. Protecting ecology and provide a net increase in biodiversity.
14. Sustainable Urban Drainage to mitigate flood risk.
15. Consider communal renewable energy.
16. Consider on site energy storage.
17. Reduce water usage and increase recycling.



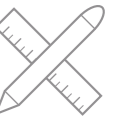
Illustrative Site in Context

The Client

18. Consider maintenance and responsibility for public realm, landscape, communal areas and shared amenity areas.
19. Investigate community stewardship.
20. Cost effective maintenance and operation to limit service charges.
21. Specify good quality materials, fittings and fixtures which are robust, easily replaceable and maintainable.

The Wider Community

22. Respond to place and local context.
23. Develop designs with character and identity.
24. Prioritise place making.
25. Design to be tenure blind.
26. Provide a range of home sizes and types.
27. Carry out engagement, listen to needs and involve stakeholders in design stages. Foster a sense of ownership.
28. Include social infrastructure that enhances neighbourhoods. Recognise value of participation and community activities e.g. allotments, exercise classes etc.



4.3 The Site

4.3.1 The user experience

Human centred:

Developments should prioritise the human experience. Cars and roads should be marginalised in favour of pedestrians and cycle infrastructure. Landscapes should be designed to allow exercise, play and provide biophilia and biodiversity improvements.

At the same time homes and neighbourhoods need to be serviceable in a pragmatic and safe way. Above all else the development should be a human focussed, memorable, attractive, happy, safe and healthy place to be experienced at street level.

4.3.2 Responding to place, creating character and identity

Sense of identity, aesthetics and attractiveness:

There should be a simple test of all buildings: is the proposed building a unique response to the individual site? Could the development exist anywhere else other than where it is proposed?

With the ever-expanding list of technical constraints and aspirations, a development needs to have character and a strong sense of identity. The buildings and outdoor spaces should be attractive, well designed, uplifting and provide beautiful and healthy homes and places to live in.

Place making:

Successful place making generates vibrancy and builds a sense of community. It should encourage many people to come together and provide the shared experiences that form the basis of a community.

Physical design characteristics, economic and commercial aspects as well as well-being and social connectivity can also contribute significantly to place making.

Examples of aspects of design that contribute

significantly to place making include: residential streets, market squares, resident shared gardens and parks or playgrounds. Place making should be a significant focus for all developments.

Responding positively to local context and character:

All designs should be informed by a granular analysis of local history, townscape, urban grain, height and mass, building typology, local vernacular, materiality and detail to ensure that a development is a contextual response to its setting.

Historic townscape patterns and the prevailing urban grain can be a starting point for layouts that integrate with the surrounding urban fabric. An understanding of context: rural, sub-urban, urban, and the building typologies: detached, terrace etc. in the area will again allow proposals to be developed that complement the existing townscape.

Proposals should take the form of a contemporary response and interpretation rather than a faithful reproduction as designs should be both contextual and of their time. There should be an avoidance of superfluous details and materials.

Buildings should make a positive contribution to the wider townscape. Buildings should be outward looking and seek to take advantage of existing views, aspect, access routes and approaches to ensure that the building optimises the opportunities of the site and displays an awareness of their position in the wider townscape.

Building scale:

Particular care needs to be taken when considering the scale of buildings, the spaces in between buildings and the resultant urban form. From an early stage a scheme should be developed both in plan and section to understand the scale of the space around buildings, the juxtaposition between buildings and the impact on the user experience of the development

Building types:

Rather than developments consisting of a single building typology, thought should be given to developments consisting of a varied mix of building types, and scales. This is particularly important in larger developments where legibility, place making and vibrancy are a particular concern.

Building materiality:

Material should not only be good quality and with excellent sustainability credentials but should also reference local building typologies, details, traditions and vernacular. Materials have a significant contribution to the experience of place and sense of identity. Materiality and details should be specified to help define character, identity, human scale and longevity.

Legibility and way finding:

Sites need to be very clearly set out and easy to navigate as part of a wider place making agenda.

Developments layouts should be permeable with visual points of reference planned in that make way finding through them easy and avoid complicated and confusing urban layouts.

4.3.3 Landscape and outdoor spaces

The design quality of the landscape and outdoor spaces within a scheme is as important as the buildings themselves. The landscape makes a key contribution to the overall character and relationship of the development with the wider townscape.

The landscape design is also vital in contributing to encouraging community cohesion as well as to people's health and well-being. It can deliver sustainability aims such as improved air quality, noise reduction, carbon sequestration, biodiversity and surface water management.

Schemes should generally be landscape led with considerable thought and resource allocated to the landscaping aspects of a development from the project's inception. Landscapes can fulfil a multitude of equally important rolls, including but not limited to:

- Places to meet and be sociable
- For leisure, play, physical activity, health and well-being
- Learning landscapes
- Productive landscapes
- Invoke a sense of ownership, community and neighbourliness
- Biodiversity net gain and urban greening

Simplicity:

The landscape design should be as natural and as simple as possible, with a limited palette of robust and appropriate materials. The specification should be carefully considered to consider cost, design life, maintenance, recycled content and carbon footprint.

Historic landscapes and traditional land use pattern:

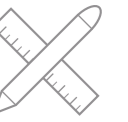
Where possible landscape design should look to retain existing landscape features of note, those that have specific historic reference either to the site or the place, and those that make a significant contribute to local character or scale. Such examples of such features include:

- Trees and hedgerows (sometimes over and above already protected trees or ancient woodlands)
- Site boundaries and landscape plots
- Roads and access

Site Topography:

The scheme should generally aim to work with the natural topography of a site as much as possible to optimise outlook from properties, to limit excessive cut and fill, to minimise disruption to drainage and water courses and generally have greater synergy with existing natural landscapes.

4.0 Core Design Principles



4.3 The Site

4.3.4 Sustainability

Transport:

The most sustainable approach to travel is to limit the need for travel in the first place. The general approach to pedestrian, cycle and vehicle movement should be:

- Select sites that are sustainable in terms of social infrastructure, accessible and linked into existing transport links, in particular public transport wherever possible.
- The development of the landscape and the layout of a development should generally prioritise all forms of sustainable transport including pedestrian and cycle movement over vehicle movement, traffic engineering and vehicle parking.
- Scheme design should encourage sustainable forms of transport such as cycling, walking and how they can be enhanced through landscape design. It is however unrealistic to think that cycling or walking will ever completely replace the reliance on the motor car, particular in more rural locations.
- Provide dedicated and generous cycle routes and secure covered cycle storage sufficient for all residents and visitors.
- In larger developments, consideration should be given to car sharing clubs and cycle hire schemes.
- The schemes management also has a role to play. Car sharing schemes should be supported to help reduce the number of car journeys.

Links to existing infrastructure:

To improve links beyond the site to the existing infrastructure, site layouts should always seek to strengthen existing pedestrian links, public footpaths and rights of way beyond the site boundaries.

Furthermore, new pedestrian links should be formed where they strengthen the link to adjoining areas and especially if they facilitate connection to existing public transport routes.

Water and drainage:

Water in the landscape should be considered a scarce resource to be carefully utilised and managed.

As a result of climate change the UK is experiencing more frequent and more intense storm weather events. Landscape design plays an important role in limiting and managing the effect of these storms.

Sites should take an innovative and sustainable approach to managing water, both for the maintenance of landscape proposals, to enhance the experience of the landscape and to have as minimal an impact on surrounding infrastructure as possible.

Rainwater can be used for a number of purposes; for resident amenity, as part of a natural landscape strategy, contributing to landscape maintenance such as rain gardens. All drainage should be sustainable urban drainage (SUDS) wherever site conditions permit.

Urban greening factor:

Proposals should seek to optimise opportunities for tree planting and greenery to significantly improve natural habitat of a site, with more natural landscapes, and less hard landscaping. The benefits of this are numerous but include:

- Landscape enjoyment
- Improved impact on health and well-being
- Improved air quality
- Seasonal shading
- Reducing the heat island effect.
- Better rainwater management especially at peak storm flow
- Improved biodiversity opportunities
- Natural response to security

Case study

BARRINGTON ROAD, RAMSEY COURT, HARINGEY

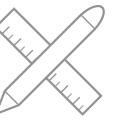
Barrington Road is a very contextual response, echoing the local Edwardian character, including similar brick colour, façade proportions and pitched roofs.

The site benefits from new landscaping for the proposed buildings, but also for the existing residential building that is to remain. The integrated response will bring opportunities for the existing community to integrate via site-wide communal gardens.

This brings new natural life and opportunity for residents to enjoy green space; whether it be through exercise or relaxing with other members of the community. The site aims to promote a healthier way of life and ultimately improve people's well-being.

The site provides a cohesive strategy to deal with challenges of climate change, such as flooding and drought resistant planting – this is an important aspect considering the current rate of change, if schemes are to be enjoyed long term.





4.3 The Site

Biodiversity net gain:

All projects should aim to provide a significant biodiversity net gain.

Projects should carry out an ecological survey to identify at an early-stage local wildlife and habitat assets landscape proposals should conserve, complement and improve opportunities nature and biodiversity.

This may take many forms, some examples of which include:

- Green roofs to encourage insects and butterfly's
- Bat roosting areas and feeding, including trees, bat boxes and tiles
- Insect hotels
- Bee bricks and bird nesting boxes
- Hedgerows and natural grass areas promoting insects, birds
- Provision for hedgehog and fox movement

Resilience and designing for a changing climate, overheating and flood risk:

Landscape design needs to respond to a changing climate. Landscape and plant specification needs to be appropriate for a changing climate and warmer temperatures and tree canopy should be increased to provide shade.

The landscape design should integrate sustainable urban drainage in order to help mitigate the risk of surface water flooding from increasingly frequent storm events.

4.3.5 Health, well-being and safety

Resident Health, fitness and well-being:

Eastlight Homes recognise the important role landscape plays in safeguarding residents' health, fitness and well-being. Access to nature, encouraging walking and cycling, car sharing, leisure facilities, communal gardens, allotments encourage people to try and lead healthier life styles.

Play and recreation:

Play and recreation forms an important part of a scheme and should be considered as part of the wider community offering where ever possible. Careful consideration should consider the demographic of the new and existing residents.

Play provision should aim to complement existing infrastructure and provide facilities not already available locally and where there is a clear local need. By making them available for use by the wider community it can help embed a scheme into the locality and surroundings.

Play areas should be age specific and consider possible antisocial behaviour in their design and siting.

Safety and security:

Safety and security should be a primary consideration in all aspects of the design, and particular in landscape. Landscape proposals should seek to limit risk to all residents, but particularly pedestrians, children and the vulnerable. The landscape design should seek to discourage antisocial behaviour where ever possible.

4.3.6 Community and Inclusivity

Involving the community in the design and planning and future operation and maintenance of communal facilities will instil an ongoing sense of ownership and responsibility for these spaces.

Communal landscape led activities can have considerable community wide benefits in bringing people together, being sociable, giving people a sense of purpose and fostering a sense of ownership.

Eastlight Homes aspire to create rich, varied inclusive communities. Designs should be tenure blind. Designs standards and approach should be consistent across all types to avoid creating neighbourhoods.

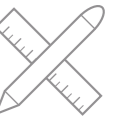
Multi-generational living under a single roof with childcare and care of the elderly are becoming significant social issues that modern dwellings need to make provision for. The cultural and social background of the local community should be taken into account.

4.3.7 Operation and maintenance:

Maintenance requirements should be as simple and cost effective as possible to limit service charges. Community stewardship and ownership should be explored and encouraged by involving residents in the design process.

Natural biodiverse landscapes may need additional ongoing monitoring. Care needs to be taken during the design development stage to ensure that these issues are included in forward management plans and budgets.

4.0 Core Design Principles



4.4 The Wider Community Setting - summary page

The Resident

1. Create a sense of community pride
2. Create a sense of ownership
3. Express cultural identity

The Environment

4. Connect into local energy networks
5. Create social sustainability
6. Promote healthy, happy communities and environments
7. Tap into existing leisure facilities and networks
8. Provide local recycling facilities and encourage reuse
9. Consider allotments and other means of community food production
10. Facilitate local resource sharing
11. Travel & transport, create walkable neighbourhoods encourage cycling and car Sharing
12. Tap into local public transport networks

The Client

13. A community gateway organisation.
14. Engage, listen, consider co-design, respond to local community needs
15. Promote interactive human focussed communities
16. Respond to local community needs

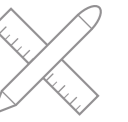
The Wider Community

17. Empower the community
18. The development as social enabler
19. Work in partnership - forge connections with the local wider community
20. Deliver Social Value, outreach community activities, projects, education and training – building community capacity e.g. allotments, exercise classes
21. Strengthen local infrastructure, connect to existing social networks, physical infrastructure and resources. Develop close to amenities (health, play, leisure, education, transport, shops etc.).
22. Add enhancing social infrastructure e.g. community spaces & activities
23. Respond to place, context, character and identity
24. Scale, mass, materials and detailing to respond to context.
25. Prioritise place making
26. Provide townscape and the public realm improvements: trees landscape, public realm improvements, play areas and biodiversity



Illustrative Analysis of Social Infrastructure

4.0 Core Design Principles



4.4 The Wider Community Setting

This section considers good design in the context of the wider community setting. Much of what can be contributed to wider community is through engagement and consultation, identifying and responding to community needs and where possible enhancing social infrastructure.

4.4.1 Eastlight Homes - a community gateway organisation

Eastlight Homes prides itself as being a local community focussed housing association above all else. Their schemes promote human interaction and people focussed communities. Places and neighbourhoods that are loved and contribute to the wider community are more likely to be successful in the long term.

Eastlight Homes and their project partners should take the time to talk to residents and the wider community, to consult, listen and respond. Involving the community in the design process, responding to community needs and gaining the community's support for development adds value that goes beyond the design of the building and landscape.

4.4.2 Community engagement

Project teams should identify all local stake holders and instigate an open discussion with the community from the outset which should continue through each stage of project.

Working in partnership with local communities and community organisations, project teams should seek to identify gaps and needs in existing facilities and services and explore how proposed developments can help address them. Opportunities to contribute positively to the local community and forge connections should be identified.

Community Engagement can take various forms, some examples of which include:

- Community engagement drop in exhibitions
- Public presentations and feedback
- Resident forums and discussion groups
- Community co-design and learning workshops
- Resident working groups during construction
- Resident involvement in estate management

Listening and then responding to the concerns, thoughts and needs of the local community is an important aspect of earning the support and respect of the community. It can help develop a sense of ownership which is an important part of a development's success.

Proposals should seek to link into existing local community infrastructure, social networks, physical infrastructure and resources where available, especially when in close proximity to existing amenities.

Through collaboration, mentoring, education, and supporting local charities, schemes can further demonstrate high levels of social responsibility.

Expression of cultural identity:

The development and design should not only seek to express the community values of Eastlight Homes, but also respect the cultural identity of the wider community.

This will help embed the development in a local community and foster a sense of ownership and uniqueness specific to that place.

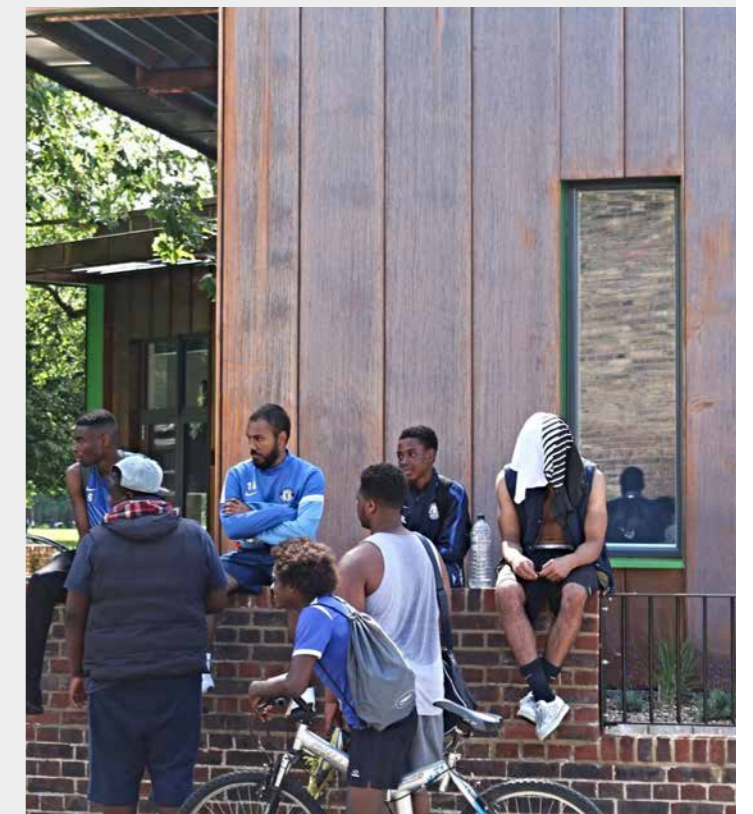
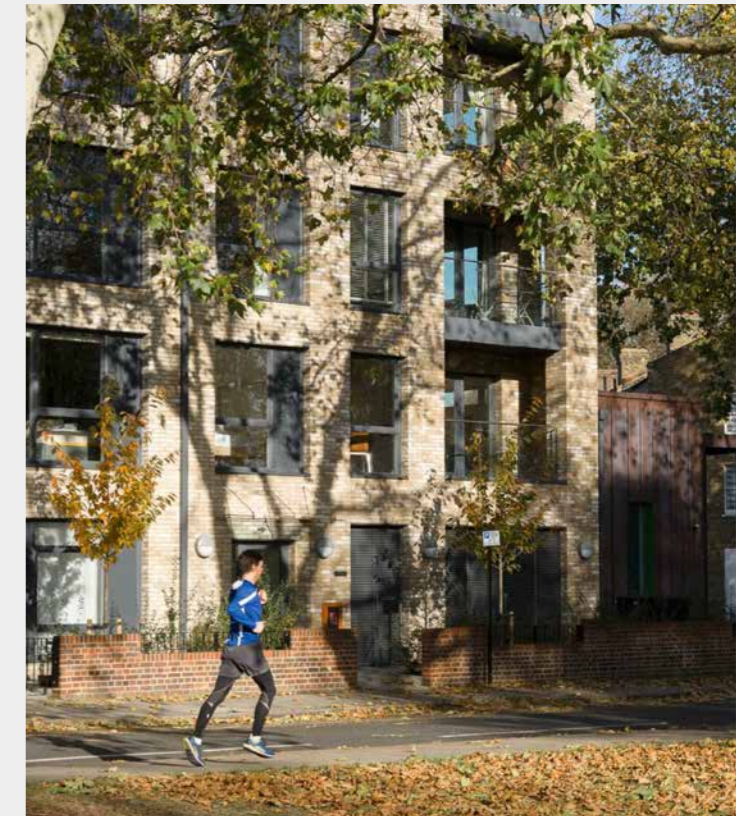
Case study

GASCOYNE ROAD, LB OF HACKNEY KC+A

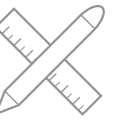
Engagement with the local community and stakeholders involved initial fact finding meetings with the residents association, a series of drop in events to present emerging proposals and receive feedback. Leaflets & newsletters kept people informed throughout the project.

The process provided opportunity for its users to reflect on the role of the community hall, its history and future. This prompted the client to fund the youth club group to make a film about their centre as a different way of engaging young people. They also supported the creation of a grow your own community garden as another way of strengthening social capital with the community & encouraging involvement with the proposals.

The brief developed for the community centre included a large hall with plenty of storage for equipment, a kitchen and outdoor space and a meeting room. It also became apparent that the community centre was best placed on the corner of the estate where it could serve a wider community and could be used without disturbing residents. A temporary prefabricated building was provided for community use during construction.



4.0 Core Design Principles



4.4 The Wider Community Setting

4.4.3 The development as social enabler

A thriving, diverse, educated and prosperous society is also a sustainable one.

Facilities provided as part of the scheme, can promote interactive, human focussed activities and contribute significantly to both existing and new communities. Such social infrastructure could include:

- Parks, play areas and outdoor gyms.
- Community centres for family celebrations or tea mornings, youth centres.
- Allotments and community gardens and other means of community food production.
- Pedestrian and cycle routes for walking, running, cycling or other sports.
- Community information, notice boards, newsletters, emails and websites.
- Local resource sharing.
- Recycling and re-use facilities.

Social sustainability:

Proposals should seek to optimise social value and may include outreach activities, projects, education and training for skills, all aiming to build community capacity. It may also take the form of employing local skills, trades and companies for design, construction, maintenance.

Education:

This may take several forms:

- Residents on operation of building systems, building construction and maintenance.
- Residents in respect of their own of sustainability, health and well-being.
- Residents learning new skills and participating in new activities.
- Access for local schools and higher education establishments for vocational work.
- Up-skilling of local skills and trades in collaboration with contractors and the wider consultant team.

Mentoring:

Some examples of the wider community opportunities include:

- Connections to local networks to mentor people on training schemes including those in higher education.
- Mentoring existing local organisations and business's and helping them grow.

Supporting local charities and other social schemes:

This can happen on several different levels of involvement. Some examples of this include:

- Providing facilities for use by existing or new local organisations.
- Facilitating local events.
- Supporting and getting involved with local organisations as part of Eastlight homes and the consultant teams' corporate responsibility.

'People should feel like it is their home and their estate'

This design guide has been prepared for:

Eastlight Community Homes

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