Report on the housing design needs of Neurodivergent residents and residents with Learning Disabilities.

June 2025

The OT Service

Contents

About the OT Service

The OT Service brings together the expertise of four directors, all occupational therapists, with over 105 years of experience in the sector, nationally and internationally and a team of 100+ experienced occupational therapists in the field of mental health, housing, equipment provision, product specification and design. We pride ourselves on providing the highest quality of information and expertise to our clients.

Our individuality lies in the fact that although we work within the private and commercial sector, all our therapists maintain hands on experience with clients, our directors also keep a small caseload to maintain their clinical skills, an understanding of the marketplace and continue to maintain their own professional development.

We are proud to be in the position of having some of the country's leading therapists. Our network of occupational therapists provide ongoing assessment, treatment and reports in a wide range of clinical specialisms. This high level of experitise allows us to support organisations across large public sector organisations, commercial business, charities and individuals. We pride ourselves on providing the highest quality of information and expertise to our clients.

Executive Summary

In early 2023, the London Borough of Newham's consultation on its Draft Local Plan revealed that current housing often fails to meet the needs of Neurodivergent residents and those with Learning Disabilities. In response, Newham's planning team commissioned The OT Service to produce an evidence base on the housing design needs of these populations to inform the Local Plan preparation. This report is accompanied by a separate Design Guide that has consolidated the design recommendations and requirements identified by residents, professionals, and providers, supported by the academic literature. This guide serves as a practical tool for implementing the findings of this study in future housing designs.

During this project, The OT Service team has become acutely aware of and acknowledges Newham's significant planning challenges as one of London's most densely populated boroughs. Newham has England's highest homelessness rate, London's largest housing waiting list, and severe overcrowding issues. These pressing concerns compete for attention and resources alongside the needs of Neurodivergent residents and those with Learning Disabilities. While our recommendations are crucial for an inclusive housing landscape, we recognise that Newham's planning team must balance these requirements with other urgent priorities. The challenge lies in developing integrated solutions that address multiple needs simultaneously, maximising the impact of limited resources and space.

Methodology

The OT Service project team employed a comprehensive methodology for this project. This included a scoping review of academic and grey literature, online engagement meetings with Newham Council professionals from housing, social care, and education services, and attendance at Residents Advisory Group meetings. The team also conducted site visits to four diverse housing schemes in Newham and organised three workshops for residents and professionals, designed in conjunction with Newham's co-production team. Additionally, a desktop analysis of strategic reports, policies, and legislative documents and a detailed analysis of the design of six existing housing schemes in Newham was conducted.

Key Findings

Legislative and Policy Context:

A review of legislation highlighted key national policies such as the Building Regulations, Care Act 2014, and Equality Act 2010 while also considering local policies, including the Draft Newham Local Plan[1] and Newham's Housing Delivery Strategy. These policies underscore the importance of creating inclusive, sustainable communities with accessible and adaptable housing.

Evidence from the literature:

The evidence revealed that environmental design significantly impacts the functioning, well-being, and quality of life of Neurodivergent residents and those with Learning Disabilities. Key design needs were identified, including safety and security, choice and control, predictability and clarity, sensory balance, and durability and adaptability. The importance of acoustics, lighting, temperature control, and spatial layout were particularly highlighted.

Resident Experiences:

Engagement with Newham residents revealed several challenges living in current housing. These included issues with sensory stimuli, particularly noise and odours, as well as psychological and social issues, such as lack of private space and difficulties with social interaction. Physical barriers in current housing, such as inadequate space for care activities, were also identified.

Housing Provision Analysis:

An analysis of six housing schemes in Newham revealed that while they generally meet accessibility standards (M4(2) and M4(3)), they often fall short in addressing the specific needs of Neurodivergent residents and those with Learning Disabilities. While compliance with these standards addresses some issues related to physical access and layout, it does not fully account for needs related to safety, sensory comfort, and durability. Beneficial features

[1] https://www.newham.gov.uk/planning-development-conservation/newham-local-plan-refresh/6

identified include dual-aspect units, separate kitchen and living areas, and larger family-sized units. However, the study also highlighted areas of concern, such as balconies posing safety risks and a lack of secure outdoor spaces. The analysis emphasised the need for innovative design solutions that can be incorporated into general needs housing, such as integrated locking systems, dedicated retreat spaces, and enhanced storage solutions, underscoring the importance of considering these specific needs early in the design and planning stages.

The scale of need:

The study revealed a significant gap between current housing provision and the estimated need in Newham for adults with Learning Disabilities and those diagnosed with autism spectrum disorders. While figures from different data sets differ on the number of Neurodivergent residents and residents with Learning Disability, projections indicate considerable increases by 2040, particularly among older adults. While the study was focused on informing the design of homes to enable independent living, it was identified that the current provision of specialised housing falls significantly short, with only 176 people with Learning Disabilities as a Primary Support Need living in supported living accommodation as of 2021, far below the national average. This shortfall has led to high rates of out-of-borough placements[2] and many residents living in unsuitable accommodations, highlighting the urgent need for increased and improved housing options within the borough.

Conclusion

The study concluded that there is a significant gap between current housing provision and the needs of Neurodivergent residents and those with Learning Disabilities in Newham. It highlighted the need for innovative, flexible design approaches that can adapt to changing needs across the lifespan, emphasising that many design features beneficial to these residents could enhance living experiences for *all* residents. The outcomes of this study will primarily help to inform the design of general needs housing, to help enable independent living.

[2] It should be noted that not all out of borough placements are due to the lack of suitable available accommodation. A small percentage of reidents may choose to live out of borough due to preferences to remain near specialist schools or choosing to be near family who live out of borough.

Recommendations

To address the housing needs of Neurodivergent residents and those with Learning Disabilities in Newham, the project team recommends the following actions, which may require collaboration across multiple departments, particularly planning and adult social care:

- Incorporate the specific design requirements, which are laid out in the Design Guide that accompanies this report, for Neurodivergent residents and those with Learning Disabilities into the Local Plan, housing design guidelines and planning requirements, particularly for social housing schemes. This should include considerations for sensory-friendly design, safety features, and adaptable spaces.
- Continue strengthening partnerships between the planning department and key stakeholders such as the Integrated Health Care System, Public Health, and health and social care services to ensure that new housing developments are designed to meet the physical and support needs of Neurodivergent residents and those with Learning Disabilities. By working together, these partners can create a holistic approach to housing that considers accessibility, support services, and community integration.
- Have input from a housing occupational therapist to ensure new housing developments and major refurbishment schemes meet the physical, sensory, and behavioural needs of Neurodivergent residents and those with Learning Disabilities.
- Establish a consultation process involving Neurodivergent residents, those with Learning Disabilities and their families in designing and planning new housing developments.
- Provide housing officers, planners and developers with training on the specific housing needs of Neurodivergent residents and those with Learning Disabilities, to improve their understanding and implementation of appropriate design features.
- Increase the provision of specialist and supported housing options within the borough to reduce out-of-borough placements and better meet local needs. This could include a mix of purpose-built accommodations and adaptations to existing properties.
- Expand alternative housing models, such as the Shared Lives scheme, which can provide community-based living options within general needs housing; however, funding for adaptations to existing homes would need to be considered.

Implementing these recommendations will enable Newham to create a more inclusive housing landscape that better meets the diverse needs of its residents, promotes independence and well-being and supports community integration for Neurodivergent people and those with Learning Disabilities.

Report Structure

This report provides an overview of the housing design needs of Neurodivergent residents and residents with Learning Disabilities in Newham. It is structured to address the project aims outlined in section 2, which describes the project's context, scope, and tasks.

The main sections are organised as follows:

- **Section 1 - Terminology and use of language in this report:** Defines key terms and explains the approach to language used throughout the report, particularly regarding Neurodiversity and Learning Disabilities.
- **Section 2 - Project scope and context:** Outlines the project's objectives and background and explains why Newham Council's Planning Team commissioned this research.
- **Section 3 - Methodology used to achieve the project tasks:** This section details the approach used to gather and analyse data, including literature reviews, stakeholder engagement, and site visits.
- **Section 4 - The Legislative and Policy Context:** Summarises relevant national and local policies and legislation that inform housing design for Neurodivergent people and those with Learning Disabilities.
- Section 5 - Findings from the evidence base on designing homes for Neurodivergent residents and residents with Learning Disabilities: Presents key insights from academic and grey literature on designing homes for the target populations.
- **Section 6 - The evidence from residents and other stakeholders in Newham:** Reports on the results of workshops and engagement with Newham residents, professionals, and stakeholders.
- Section 7 Analysis of current housing provision in Newham compared to the specific needs of Neurodivergent residents and those with Learning Disabilities: Evaluates how existing housing stock in Newham meets the needs of Neurodivergent residents and those with Learning Disabilities.

- Section 8 - Understanding the scale of need for housing that meets the needs of Neurodivergent residents and residents with Learning Disabilities: Provides a narrative of the current and projected housing needs for these populations in Newham.
- **Section 9 - Conclusion and Recommendations:** Synthesises the findings and offers specific recommendations for improving housing design and provision in Newham.

Section 1: Terminology and use of language in this report

This section defines key terms and explains the approach to the language used in the report. It outlines the definitions of 'Learning Disability' and 'Neurodivergent' and discusses how the report addresses the distinct needs of these groups while acknowledging areas of overlap.

1.1: Definition of key terms: Learning Disability and Neurodivergent

This report adopts the following definitions for 'Learning Disability' and 'Neurodivergent':

Learning Disability, as defined by the Department of Health and Social Care[3] is:

> "a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence), with a reduced ability to cope independently (impaired social functioning), which started before adulthood."

Neurodivergent, as defined by Neurodiverse Connection[4], refers to individuals whose neurocognitive function differs from societal standards of 'Neurotypical'. Importantly, Neurodivergence represents a diverse spectrum of neurological variations and is not synonymous with any single condition.

Autism is one of those neurological variations and in Newham, austim is defined ‘as a lifelong cognitive difference that affects how we perceive, communicate and interact with others and the world around us’.

1.2: Use of language

Language plays a critical role in understanding and engaging with different population groups and how they are perceived. Traditionally, discussions have often failed to distinguish between people with Learning Disabilities and Neurodivergent people, owing to perceived similarities

[3] https://www.gov.uk/government/publications/learning-disability-applying-all-our-health/learning-disabilities-applying-all-our-health

[4] https://ndconnection.co.uk/resources/p/nd-affirming-language-guide?rq=language

in their needs. Whilst both groups may experience issues related to sensory overload, for instance, it is important to understand that many Neurodivergent people do not have a Learning Disability and vice versa. Therefore, when considering the planning and design needs of residents, it is crucial to differentiate between Neurodivergent residents and residents with Learning Disabilities. This distinction allows for more effectively addressing the specific needs of each group and ensures that policies are appropriately tailored.

In the findings section of the report, some issues reported by residents, stakeholders, and the literature were common to both groups. Similarly, design requirements identified by residents, stakeholders and the literature often overlapped or were identical. Care has been taken to differentiate between the specific issues faced by Neurodivergent residents and residents with Learning Disabilities. It is important to note that some people may have a Learning Disability and are also a Neurodivergent person. These people may face unique challenges that require a more integrated approach to their housing and support needs.

Throughout this document, we have endeavoured to use up-to-date and inclusive language, with terminology reflecting current best practices. We acknowledge that language evolves, and terms may change over time.

1.3 Glossary of terms

Absconding - to go away suddenly and secretly in order to escape from somewhere.

Behaviours of concern – behaviours that an individual may exhibit to communicate unmet needs which may place the individual or others at risk of harm. Behaviours may include destructive behaviours, self-injury, physical aggression, eating inedible objects, removing clothes, spitting, and running off.

Executive functioning – set of cognitive processes that support people to plan, focus and manage behaviour to achieve goals.

Gross motor behaviours – large sweeping movements, i.e. jumping, bouncing, hopping, skipping, climbing.

Hypersensitive –experiencing overstimulation of sensory stimuli.

Hyposensitive – little or no response to sensory stimuli.

Perceptual functioning- the ability to process and make sense of information received through the senses.

PICA – habitual eating or craving of items that are not food.

Proprioception – perception or awareness of the position and movement of the body in the context of the environment.

Vestibular – a sense of balance and spatial orientation relating to the coordination movement sense of balance and spatial orientation relating to the coordination of movement.

Section 2: Project scope and context

In early 2023, the London Borough of Newham conducted a consultation on its Draft Local Plan. Feedback received from residents indicated that homes currently being delivered in the borough often do not meet the housing design needs of Neurodivergent residents and residents with Learning Disabilities. In response to an initial consultation and feedback from residents, Newham's planning team commissioned a project to produce an evidence base for the housing design needs of Neurodivergent residents and residents with Learning Disabilities to inform the preparation of the Local Plan. In April 2024, Newham Council commissioned The Occupational Therapy Service to undertake the project, tasking them with the following objectives:

a) Identify and analyse the housing design needs of Neurodivergent residents and residents with Learning Disabilities, including families with Neurodivergent children or children with Learning Disabilities.
b) Identify and analyse the housing design requirements of Neurodivergent residents and residents with Learning Disabilities in Newham.
c) Explain how these housing design requirements differ from adaptations required for wheelchair-user dwellings (Building Regulation M4(3)).
d) Provide a summary of Newham's population demographics and current housing stock, assessing if they meet identified design needs.
e) Analyse the scale of need for these types of accommodation.
f) Outline potential physical and mental health benefits of designing homes to meet identified needs.
g) Consider how design adaptations can meet residents' needs over their lifetimes.

Section 3: Methodology taken to achieve the project tasks

This section outlines the approach taken to address the project tasks. It briefly explains the value of applying an occupational therapy perspective to the project. Following this, each project activity is described. These activities were selected to gather a wide range of data and perspectives, ensuring a thorough understanding of the housing design needs and requirements for Neurodivergent residents and those with Learning Disabilities. This approach provides a robust foundation for the findings and recommendations presented in this report.

3.1: Using an occupational therapy lens to understand the issues

Occupational therapy is based on the principle that health and well-being are intrinsically linked to engaging in meaningful, fulfilling everyday activities. When assessing factors affecting a person's health and well-being, occupational therapists analyse the interaction between the individual, their activities, and their physical, social, and sensory environment. This analysis also takes into account the needs of the person and those involved in providing care and support.

While occupational therapists traditionally work with people providing interventions, such as recommending equipment or environmental adaptations, their expertise also extends to policy development. The principles and methods of occupational therapy provide a valuable basis for developing evidence-based approaches to understand population-level issues and inform policymakers in creating effective health and well-being strategies.

The occupational therapy approach in this project has provided valuable insights into the specific challenges and design requirements of residents with Learning Disabilities and Neurodivergent residents. This will assist Newham's planning team develop policies to better accommodate and reflect the needs of these residents.

3.2: Project Activities

The project consisted of several key activities, which are described below. These activities were designed to address the project aims and tasks outlined in the scope.

Scoping review

A comprehensive scoping review of academic and grey literature was conducted as part of the project approach, following a structured methodology by Arksey and O'Malley (2005) to ensure the robustness of the process. This review addressed several project tasks, primarily to establish what was already known in the academic literature about the housing design needs of Neurodivergent people and those with Learning Disabilities. It also explored the potential physical and mental health benefits of the design of housing that can be flexible and adaptable to changing needs across the lifespan.

The project team also used the information gathered from the scoping review to contextualise the suggestions from residents obtained from a series of workshops (discussed later in this section) within the existing evidence base. This analysis helped identify where the residents' recommendations aligned with the published literature and highlighted areas where they offered new perspectives.

Four online engagement meetings with professionals from Newham's housing, social care, and education services

At the start of the project, four online meetings were held with professionals from various Newham Council services, including housing, social care, and education, who currently support Neurodivergent residents and those with Learning Disabilities. The discussions these meetings provoked offered valuable insights into the impact of current housing design on the health and well-being of residents and their families and highlighted how housing issues affect service delivery across different council departments.

These meetings also directed the project team to relevant information sources and national and local policies. This guidance was essential when considering the scale of need in Newham.

Attendance at Residents Advisory Group meetings

The project team attended two Resident Advisory Groups and a provider forum hosted by Newham Council. Each group focused on a different audience: Neurodivergent residents, residents with Learning Disabilities, and service providers delivering support to residents. The project team also attended a user-led group for older carers of residents with Learning Disabilities. The primary aim of attending these meetings was to promote the project and invite interested residents to attend the workshops planned for later in the project. As with the engagement meetings, these sessions offered helpful insights into the lived experience of residents and their families, their issues with housing and what was important to them.

Site visits to four housing schemes in Newham

One of the project tasks required an analysis of how the current housing stock in Newham meets the needs of residents with Learning Disability and Neurodivergent residents. To meet this task objective, the project team visited four housing schemes to evaluate Newham's current housing stock. The site visits included a mix of private and affordable homes, delivered by both private developers and the council, including a proportion built to Approved Document M Category 3: Wheelchair user dwellings (M4(3) standards). In keeping with the nature of the high-density housing provision in Newham in an urban context, most of these properties were apartments. The site visits provided critical insights into the current design of housing in Newham and in what ways they do and do not address the needs of Neurodivergent residents and those with disabilities.

Workshops for residents and professionals

To understand the design needs and requirements of Neurodivergent residents and those with Learning Disabilities in Newham, the project team organised three workshops. The workshops were designed in conjunction with the co-production team at Newham Council, and they took place at Canning Town Library. The project team offered one-to-one interviews for residents who could not attend the workshops or found the settings unsuitable.

The first workshop for residents involved participants with Learning Disabilities and residents' supporting family members, including parents of children with Learning Disabilities. The

second workshop involved Neurodivergent participants and residents who support family members, including parents of Neurodivergent children. A third workshop was designed for professionals and providers in Newham who provide services and support to Neurodivergent residents or those with Learning Disabilities.

Desktop analysis of key documents

The project team conducted a comprehensive desktop analysis of strategic reports, policies, and legislative documents. This analysis aimed to understand the national and local context and scale of need. The review covered housing, planning, and health and social care documents. Whilst not intended to provide recommendations on the exact number of units required, the purpose of the analysis was to provide commentary on how incorporating the design requirements of Neurodivergent residents and those with Learning Disabilities into general needs and specialist housing could address issues currently managed by other areas of the system in Newham, such as social care and health.

Analysis of the design of current housing in Newham

Alongside the analysis of local and national housing policy, a detailed analysis of the design of six existing housing schemes in Newham was undertaken. This included four of the sites visited and two additional sites. The outcome of this analysis is detailed in section 7. The purpose of this analysis was to compare housing design requirements for Neurodivergent residents and residents with Learning Disabilities to the existing mandatory requirements of the London Plan (that all new housing should comply with Approved Document M Volume 1: accessible and adaptable housing that stipulates that all new housing should include 90% to be built to M4(2) and 10% to M4(3)). Given the diverse range of housing typologies in Newham and changing policy requirements in recent years, the project team and the planning team discussed various approaches to address this task. It was agreed that a case study approach of recent housing schemes would provide a better picture of Newham's current and planned housing delivery.

The analysis sets out how, in the context of the London Plan, the Newham Local Plan, and the building regulations related to accessible and adaptable housing (ADM), as well as other current building regulations related to lighting, temperature control, acoustics, and

construction, contribute to meeting the needs of residents with Learning Disabilities and Neurodivergent residents. It identifies areas not met by these current provisions, informing the recommendations in the accompanying Design Guide produced as part of the project.

Section 4: The Legislative and Policy Context

This section outlines key national and local legislative and policy contexts relevant to planning and design for Neurodivergent people and those with Learning Disabilities. It provides an overview of important documents highlighting the connection between planning, public health, and health & social care. While many policies were established under the previous government, the overall commitment to planning policies addressing the diverse needs of Neurodivergent people and those with Learning Disabilities is unlikely to change. This section excludes documents related to the scale of need for housing design requirements, as these are covered in Section 8 of the report.

4.1: Legislative Context

Building Regulations and Accessibility Standards (updated 2015)

Part M of the Building Regulations is crucial to ensuring the delivery of accessible and adaptable housing. Policy D7 of the London Plan (2021) requires all new build housing to meet the voluntary categories M4(2) 'accessible and adaptable dwellings', and M4(3) 'wheelchair user dwellings'. Further to this, M4(3) is split into two parts, adaptable, M4(3)(2)(a), and accessible, M4(3)(2)(b), units; accessible units delivered under M4(3)(2)(b) are fully adapted to meet the needs of wheelchair users at the point of occupation. However, Part M falls short in stipulating requirements that can address sensory and cognitive impairments common to people with Learning Disabilities or Neurodivergent people. For Newham, compliance with these standards means ensuring that new housing developments cater to the needs of all residents, including disabled people. Features like step-free access, wider doorways, and accessible bathrooms are not merely add-ons but minimum requirements for M4(3)(2)(b) accessible and adaptable housing. Whilst Part M falls short in stipulating requirements that can address sensory and cognitive impairments common to people with Learning Disabilities or Neurodivergent people, it should address issues related to physical and mobility impairments.

Care Act 2014

The Care Act 2014 places a strong emphasis on the well-being of people requiring care and support, including those with Learning Disabilities and Neurodivergent people. It requires councils to consider the suitability of living accommodations as a fundamental aspect of care provision. This legislation guides Newham Council to look beyond mere bricks and mortar, envisioning housing as a cornerstone of well-being. Suitable housing, under the Care Act, means creating spaces that are safe, accessible and adaptable to changing needs across the lifespan, and contribute to connectivity and easier access to facilities in the local community. This approach ensures residents can live as independently as possible, with support integrated seamlessly into their living environments.

Health and Social Care Act (2012)

The Health and Social Care Act 2012 is crucial for planning teams addressing the needs of Neurodivergent residents and those with Learning Disabilities. It places public health responsibilities on local authorities to enhance population health and reduce inequalities. This Act mandates the integration of health considerations into local policy and planning, emphasising the creation of accessible and inclusive environments. For planning teams, this means designing housing and public spaces that accommodate diverse needs, such as sensory-friendly areas, accessible housing, and supportive community facilities.

Equality Act 2010

The Equality Act 2010 provides rights and protection from discrimination for all including disabled people. This legislation requires councils to eliminate discrimination and promote equality. For Neurodivergent people and those with Learning Disabilities, the Act mandates that councils like Newham ensure their planning policies have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations between different people when carrying out their activities. It reinforces the need to identify and remove barriers to access and create opportunities for people to live independently and participate fully in community life.

Autism Act 2009

The Autism Act 2009 mandates a national strategy to address the needs of adults with autism, focusing on housing and support services. Local authorities, including Newham Council, must provide housing that meets the sensory and practical needs of autistic people. The Act emphasises choice and independence, supporting models like independent living, shared ownership, and supported living. For the Newham planning team, this means considering housing options that cater to these needs, ensuring that planning policies do not inadvertently disadvantage autistic people. Effective implementation requires collaboration between housing providers, health services and local authorities, with staff training to meet the unique needs of autistic residents.

Housing Act (2004)

The Housing Act 2004 introduces the Housing Health and Safety Rating System (HHSRS) to assess potential risks in residential properties. This system ensures that homes do not pose health and safety hazards, which is crucial for vulnerable populations. For planning teams, this means designing housing that meets safety standards and addresses specific needs, such as ensuring adequate space, and accessibility features, reducing sensory overload, and minimising the risk of falls, which can be particularly problematic for Neurodivergent residents and residents with Learning Disabilities.

Children Act (1989)

This Act highlights the necessity of providing appropriate housing and care for children, especially those with special educational needs and disabilities (SEND). The Act mandates local authorities to ensure that children and young people live in environments that support their well-being and development, including residential placements if necessary. Collaboration with health, social care, and education services is crucial to provide integrated support, ensuring that housing solutions contribute to the stability and security of vulnerable children and young people.

4.2: National Policy Context and Other Relevant Reports

Brick by Brick: Resources to Support Mental Health Hospital-to-Home Discharge Planning (NHS England, October 2023)[5]

This document highlights that many Neurodivergent people and those with Learning Disabilities remain in mental health hospitals longer than necessary due to unsuitable housing. Prolonged admissions in environments that are not conducive to coping with sensory overload can also exacerbate pre-existing conditions and behaviours of concern. Inadequate housing can also lead to difficulties once an individual is discharged, leading to hospital readmission. This guidance recommends that local authorities and other agencies develop housing protocols, conduct strategic housing needs assessments, and create delivery plans in collaboration with the NHS and other stakeholders. For the planning team in Newham, this means working closely with health and social care colleagues to ensure that planning policies help to facilitate a range of suitable housing options in new housing developments in the borough that meet identified housing needs.

Building the Right Support for People with a Learning Disability and Autistic People Action Plan (Department of Health and Social Care 2022)[6]

This action plan highlights critical housing issues, noting that unsuitable housing delays discharge from inpatient settings and can lead to mental health hospital admissions for Neurodivergent people and those with Learning Disabilities. To address these issues, local authorities need to understand and share information about specialist housing needs and collaborate with health, social care, and housing services to facilitate timely discharges and prevent readmission. For the Newham planning team, this means understanding the factors contributing to creating suitable housing, working closely with health and social care services, and, more widely, the Council utilising available funding to enhance housing options for

[5] https://www.england.nhs.uk/publication/brick-by-brick/

[6] https://www.gov.uk/government/publications/building-the-right-support-for-people-with-a-learning-disability-and-autistic-people

Neurodivergent people and those with Learning Disabilities to enable independent living and reduce unnecessary inpatient admissions.

Autism Strategy 2021-2026

The latest UK government Autism Strategy for 2021-2026[7] highlights significant initiatives to improve housing for autistic people, including ensuring that 10% of homes built through the £11.5 billion Affordable Homes Programme are supported housing and enhancing the provision of home adaptations to meet sensory needs. Local authorities are urged to collaborate with housing providers and autism charities to develop environments that support independent living and reduce sensory overload. For the Newham planning team, this means working with social care colleagues to develop policies that aim to increase the number of new build properties that are flexible and adaptable to both the physical and sensory needs of Neurodivergent residents and residents with Learning Disabilities. This approach aligns with broader goals to enhance public understanding, improve social care, and ensure autistic people can live fulfilling lives within their communities.

National Planning Policy Framework (NPPF) (2023)

The framework[8] emphasises the importance of creating inclusive and sustainable communities that cater to the diverse needs of all residents. The NPPF highlights the need for local planning authorities to ensure that housing is accessible and adaptable, supporting independent living and community integration. For the Newham planning team, this means incorporating these principles into local development plans by prioritising the development of accessible housing, ensuring early collaboration with health and social care services, and drafting planning policy and decision-making. The NPPF's focus on sustainable development also implies that Newham should consider the long-term needs of Neurodivergent residents and residents with Learning Disabilities, ensuring that housing solutions are not only

[7] https://www.gov.uk/government/publications/national-strategy-for-autistic-children-young-people-and-adults-2021-to-2026

[8] https://www.gov.uk/government/publications/national-planning-policy-framework--2

compliant with accessibility standards but also foster a supportive and inclusive community environment.

National Disability Strategy (Department for Work and Pension 2021)

The strategy[9] emphasises the need for improved housing and increased accessibility for disabled people, including Neurodivergent residents or residents who have Learning Disabilities. It highlights investments like the £11.5 billion Affordable Homes Programme, with 10% of homes designated for supported housing. For the Newham planning team, this means considering accessible and supported housing in the local plans and collaborating with health, social care, and housing services to meet specialist needs.

The NHS Long Term Plan (2019)

The NHS Long Term Plan[10] aims to integrate health services with local government services, including housing, for a holistic approach to care. Recognising housing's role in preventing hospital admissions and enabling earlier discharges, the plan targets a 50% reduction in inpatient care for people with Learning Disabilities and autism by 2023/24. This aligns with The Autism Strategy's emphasis on community-based support. For the Newham planning team, this means prioritising housing that meets these needs. By promoting collaboration between the NHS, local government, and housing providers, the plan seeks to create an integrated support system for Neurodivergent people and those with Learning Disabilities.

NICE Guideline on "Learning Disabilities and Behaviour that Challenges: Service Design and Delivery" (2018)

The NICE guideline[11] emphasises person-centred approaches and provides housing options to support independence and community integration for people with Learning Disabilities. It highlights the need to offer housing that meets individual needs, enables adults to live close to family and community, and provides options for living alone with support or in small shared

[9] https://www.gov.uk/government/publications/national-disability-strategy

[10] https://www.england.nhs.uk/publication/the-nhs-long-term-plan/

[11] https://www.nice.org.uk/guidance/ng93

housing. For the Newham planning team, this means collaborating with health and social care services and strategically planning to meet the needs of Neurodivergent people and those with Learning Disabilities.

4.3: Local Policies and Strategic Reports

Newham Draft Submission Local Plan (2024)

The Draft Submission Local Plan[12] emphasises inclusive design to meet the needs of Neurodivergent residents and those with Learning Disabilities. It mandates that new developments referable to the Mayor of London[13] should design a proportion of social rent rooms to incorporate recommendations from this Housing Design Needs Study, ensuring accessibility and adaptability. Specialist and supported housing for vulnerable groups must be high-quality, well-connected, and provide necessary facilities. Communal spaces should be accessible and multifunctional, while education facilities must cater to students with Special Educational Needs and Disabilities (SEND).

50 Steps to a Healthier Newham (2024 – 2027)

This strategy[14] emphasises creating a healthy urban environment and designing accessible and safe homes, which is crucial for Neurodivergent residents and people with Learning Disabilities. The strategy outlines the need for healthy homes that meet safety standards, reduce sensory overload, and provide adequate space and accessibility features. This focus on housing is part of a broader effort to create an inclusive borough, improve mental health support, and promote social connections. By addressing these housing needs in the broader health and social care context, the strategy aims to enhance the well-being of Neurodivergent people and those with Learning Disabilities.

[12] https://www.newham.gov.uk/planning-development-conservation/newham-local-plan-refresh/6

[13] A referable application is defined as “an application for planning permission of potential strategic importance (PSI)” by the Mayor of London Order 2008.

[14] https://www.newham.gov.uk/50steps

Building a Fairer Newham (2023)

The "Building a Fairer Newham" document[15] outlines eight key priorities, including improving health outcomes, creating an inclusive economy, developing safer and cleaner neighbourhoods, and supporting young people. While not specifically addressing Neurodivergent residents or residents with Learning Disabilities, the overarching commitment to inclusivity and accessibility in neighbourhoods, services, and governance could potentially benefit all residents, including those with diverse needs.

Newham Learning Disability Action Plan- 2022- 2025

Although primarily focused on social care, Newham's Learning Disabilities Action Plan 2022-2025[16] highlights key planning and design considerations for supporting adults with Learning Disabilities. It emphasises the need for accessible housing options and calls for increasing in-borough accommodation, enhancing access to social housing, and developing community-focused day opportunities. It also stresses the importance of assistive technology and adaptable living environments. These priorities underscore the crucial role of urban design and planning in creating an inclusive environment that promotes independence, social integration, and overall well-being for residents with Learning Disabilities.

Homes For People: Newham's Housing Delivery Strategy (2021)

Newham's Housing Delivery Strategy 2021-2025[17] outlines a comprehensive approach to addressing the borough's housing challenges through urban planning and design. The strategy prioritises the construction of affordable homes, with a goal of 50% of social-rented homes on council-owned land. The strategy emphasises designing homes for diverse needs, including multigenerational families and people with disabilities, informed by the Strategic Housing Market Assessment. Overall, the document underscores the critical role of thoughtful

[15] https://www.newham.gov.uk/council/building-fairer-newham-corporate-plan

[16] https://www.newham.gov.uk/downloads/file/5134/newham-ld-action-plan-final

[17] https://www.newham.gov.uk/housing-homes-homelessness/housing-delivery-strategy

planning and design in creating sustainable, inclusive and high-quality housing that caters to Newham's residents' diverse needs.

The London Plan (2021)

The London Plan[18] is the overall strategic framework that provides guidance for the local borough development plans through several key policies. A key element of this that has relevance to addressing the needs of Neurodivergent residents and those with Learning Disabilities is the Planning for Good Growth policy that seeks to address health inequalities for all Londoners. As set out in Growing a Healthy City GG3 A, those involved in planning and development must: "ensure that the wider determinants of health are addressed in an integrated and co-ordinated way, taking a systematic approach to improving the mental and physical health of all Londoners and reducing health inequalities." In line with the NPPF (2023), it mandates local housing needs assessments to determine the appropriate types and tenures of housing required for these groups, ensuring policies and developments are tailored to their specific needs.

Newham Autism Strategy 2013 – 2016

The strategy[19] highlights the importance of creating autism-friendly environments throughout the borough. It emphasises the need for sensory-sensitive design in public spaces and accommodation, recognising that many autistic people experience hypersensitivity to certain sounds, lights or textures. The document calls for a review of housing support and advocates for increasing local specialist accommodation options to reduce out-of-borough placements. A new strategy is currently in development.

4.4: Section Summary and Key Consideration

This section outlines key national and local legislation and policies for planning and designing housing for Neurodivergent people and those with Learning Disabilities. It also covers relevant

[18] https://www.london.gov.uk/programmes-strategies/planning/london-plan/new-london-plan/london-plan-2021

[19] https://www.newham.gov.uk/downloads/file/1401/newham-autism-staregy-for-adults-2013-final

documents highlighting the connection between planning, public health and health and social care.

The review of the legislation and policy context nationally and in Newham has emphasised the importance of creating inclusive, sustainable communities that cater to diverse needs. It highlights the need for accessible and adaptable housing, integration of health considerations in planning, and promotion of independent living for Neurodivergent residents and those with Learning Disabilities. Moreover, this review underscores that it is often more cost-effective to build housing with the specific needs of these residents in mind from the outset rather than having to provide more costly retrofits to properties afterwards.

Section 5: Findings from the evidence base on designing homes for Neurodivergent residents and residents with Learning Disabilities

This section presents an overview of the evidence from the scoping review of the literature which focused on the influence of the built environment on Neurodivergent adults and children and adults and children with Learning Disabilities.

The insights from the literature are summarised in three sections:

- How the environment affects Neurodivergent residents and residents with Learning Disabilities.
- The design needs of Neurodivergent residents and residents with Learning Disabilities.
- The benefits of designing a home well for Neurodivergent residents and residents with Learning Disabilities.

5.1: How the environment affects Neurodivergent people and people with Learning Disabilities

A scoping review of academic and grey literature found that the design of the natural and built environment contributes to the way people with Learning Disabilities and who are Neurodivergent are able to function, which is influenced by their physical needs and how they experience the environment through neurological, sensory, and perceptual processing. The literature identified distinct differences between the two groups; however, in Neurodivergent people with a Learning Disability, there were overlaps in experience and behaviours.

Neurodivergent people were more likely to be affected by sensory stimulation from sound, odours, lighting, temperature and visual stimuli, as well as balance, motor functioning, and proprioception. The extent to which they are affected by the environment depends very much on individual and contextual factors, which include verbal and non-verbal communication skills, social interaction deficits, repetitive patterns of behaviour and whether they have a Learning Disability, which the literature suggests may be associated more with expressions of behaviours of concern.

Hypersensitivity to sensory stimuli can lead to sensory overload, triggering stress and anxiety. If experienced as severe or if the stimuli are continuous, this can lead to distress, self-harm and expressions of behaviours of concern. Behaviours may consist of screaming, self-injurious behaviour, throwing objects, and dysregulation, also known as 'meltdowns', which may place them and others at risk of harm. A sensory overload could trigger flight responses and the need to escape by withdrawing from the situation, hiding, or even running out of the building.

Some children and adults are hyposensitive, sometimes described as underresponsive. Their lack of sensory stimulation is characterised by delayed responses to sensory stimuli such as hot and cold, lack of awareness of the body in space, and the associated risk of injury. They may also have limited awareness of hunger, thirst, and toilet needs and be oblivious to temperature and overheating.

There is also the need for some to seek sensory experiences. This can be auditory (playing loud music, increasing the volume of the television), visual (seeking out bright light, staring at moving fans, spinning), gustatory (licking objects, placing items in the mouth, smelling objects, clothes, hair), vestibular and proprioception (moving around constantly, rocking back and forth, climbing, jumping, and bouncing on the floor or furniture, bumping into others, objects, or furniture).

Auditory stimuli

Acoustics were found to be the most influential sensory stimuli on the function and behaviours of Neurodivergent children, adults, and people who also had a Learning Disability. Loud noises and repetitive sounds transferring into the built environment from external sources such as the road and neighbouring properties are amongst the sounds that trigger challenging or escape behaviours.

Inside the home environment, the noise from a television, or softer sounds such as the humming of a dishwasher, running or gurgling water, the sound of windows being opened and closed can prove intolerable for adults and children who are hypersensitive. At school, echo in a large classroom space can be so unbearable for a hypersensitive child that they place their hands over their ears or must leave the room.

Visual stimuli

Lighting was a key sensory source associated with discomfort, stress and function. Managing the natural light intensity and glare from sunlight is important to prevent overstimulation; however, natural light also plays a key role in promoting alertness. Artificial lighting can be problematic for Neurodivergent children and adults if there is glare or flickering, including light reflections and shadows on shiny surfaces.

Surfaces with strongly contrasting patterns and textures and changes of textures, particularly on floors, impose processing issues due to visual and depth perception. Surface clutter was associated with distress and expressions of behaviour of concern due to intolerance of mess and disorder.

Spatial layout is important for orientation and predictability, particularly for order and routine for Neurodiveregent children and adults. Unpredictable and unclear spatial organisation can be perceived as confusing and trigger sensory imbalance.

Olfactory

Odours, especially those related to food preparation, can be overwhelming and contribute to sensory overload for people who are hypersensitive. Ventilation and airflow can reduce the sensory impact of odours as well as supporting temperature management.

Thermal sense

In the spatial environment, ventilation is a factor that has the potential to trigger behaviours of concern. This is an issue for people with profound Learning Disabilities who may not be aware of thermal discomfort until they are overwhelmed by heat. This triggers behaviours that can be inappropriate and unsafe.

The design of the environment has a profound impact on people's experiences and whether their experience is positive or negative. Constant sensory overload can lead to chronic stress and anxiety, difficulty regulating emotions and coping with environmental triggers, and an associated increased risk of developing mental health problems/conditions. Understanding the housing design needs of Neurodivergent adults and children and those who have Learning

Disabilities has the potential to influence their safety, quality of life, health and well-being and that of their families.

5.2: The design needs of Neurodivergent residents and residents with Learning Disabilities

From the literature, quality of life and safety were overarching design needs for both groups. People want to feel safe and secure in their homes.

Safety and Security

Good design should include features that promote physical safety and security. A summary of the key points that emerged from the literature is grouped into four main themes (Table 1):

1. Personal safety and security risks.

2. Self-injury and injury to others

3. Lacking a sense of danger.

4. Behaviours.

Table 1 Summary of key safety and security risks

Safety and security risks	**Reducing safety risks: evidence-based design recommendations**
Personal safety and security *(Neurodivergent people and people with a Learning Disability)* Reducing the risk of criminal behaviour in communal areas e.g. entrance lobbies, corridors.	Access management. Automatic lighting. Signage; clearly marked entrances, exits and routes. Sightlines. Surveillance: peephole in front door, windows. Defensible space; front gardens, courtyards, gates. Building maintenance.

Self-injury and injury to others *(Neurodivergent people, people with a Learning Disability, or a Neurodivergent person with a Learning Disability).* Physical issues: seizures related to epilepsy, balance, and gait problems. Space for personal care and support.	Flooring materials and furniture that reduce the extent of injury (e.g. softer flooring, rounded corners). Durable, robust bathroom fittings, and consideration of fixing points to reduce risk of injury. Stairs, bannister rails/rails. Anti-scald showers, slip-resistant flooring. Adequate space for care and support to be provided in bathrooms.
Lacking a sense of danger. *(People with a Learning Disability or a Neurodivergent person with a Learning Disability).*	Kitchen and bathroom safety, restrict access for children and adults with reduced or no insight into risks in the environment, alarms fitted to doors, half walls, glass panelling to maintain visibility by parent/carer. Locks on windows and external doors. Remove or reduce climbable fittings and objects. Adequate storage that is lockable to prevent access to dangerous objects and products. Avoid sharp edges and corners.
Behaviours *(People with a Learning Disability or a Neurodivergent person with a Learning Disability)* Elopement. Sensory seeking. Destruction.	Secure external doors and windows with integrated locks to prevent elopement. Half walls or glazing in doors between kitchens and living areas to provide visual surveillance between parents/carers and children. Heating sources to reduce risk of burns, e.g. low heat radiators, under floor heating. Durable and tamperproof materials included; shatterproof glazing, fencing to provide secure garden/outdoor space. Wide spaces and high ceilings for jumping and bouncing. Sensors to control water usage.

Vestibular, repetitive. Obsessive/fascination. Dysregulation.	Secure outdoor spaces for exercise, access to nature, and to regulate behaviours.

Quality of life design needs

Four key design themes were important to promote quality of life and feeling sheltered at home both emotionally and physically:

1. Choice and control.
2. Predictability and clarity.
3. Sensory balance.
4. Durability.

Choice and control

Home for people with Learning Disabilities was interrelated with their care needs and defined by three types: the family home, supported living/group home or a residential facility. This group tended to need varying levels of care support throughout their lives, whereas Neurodivergent residents were mainly independent unless they had more complex needs.

In shared accommodation and buildings such as apartment blocks that have communal spaces such as corridors and entrance lobbies, there is little or no control over meeting others, which is especially difficult for Neurodivergent residents. Design features that enable surveillance of the space immediately outside the person's home can help to provide control over social interaction.

Equally, social interaction within the home environment with members of the family can trigger sensory challenges that children and adults who are hypersensitive are unable to tolerate. Having a designated quiet or escape space, either inside or an outdoor secure space that offers respite (a room, alcove or shaded seated area), adapted with personalised features that are proprioceptive, visual, and vestibular; provides a place of calm with minimal stimulation. These spaces can also benefit children and adults who are hypo-sensitive.

For adults with a Learning Disability, choice of accommodation and typology are especially important to help them progress to living independently from their families. Specialist housing, general needs housing or shared housing, should be close to their support networks to prevent the need to relocate if their health deteriorates. For both groups, the location of housing with access to community and support networks, transport links, continuity of schools and variety of community resources are fundamentally important for social connectedness, supporting everyday activity central to mitigating feelings of vulnerability and loneliness, especially for people who live alone.

Smart technology can support safety, security, health, and well-being. Surveillance cameras, personal alarms, and monitoring systems are designed to support independent living, although the affordability of these types of systems may not be financially feasible for some. Affordable features should be energy efficient and sustainable, reducing building service and utility costs.

Familiar surroundings in the area where the home is located and having personal space within the home setting provide stability and comfort. Using an inclusive design approach, 'Aging in Place' is a design strategy that aims to meet people's needs as they change over time, consequently residents can continue living in a familiar place. Strategies focusing on universal design that promote independence and reduce risk and flexibility for change included space for access, prevention of functional barriers, structures suitable for adaptations (e.g. ramps, stairlifts, rail support) and assistive technology that can be modified as needs change or residents age. Design that considers the potential change of needs through the life span and is readily adjustable to enable people to continue living in a safe, familiar space as they progress through adulthood is an important stabilising factor.

Predictability and clarity

Unfamiliarity, unpredictability, and disorder in the environment is particularly challenging for autistic people. Stability and sensory balance are inextricably linked to the spatial layout of the built environment to promote their executive and perceptual functioning. Organising space so that it is recognisable according to its functionality (washing, sleeping, eating, relaxing, hobbies) provides order and clarity, which is important for function and well-being.

Open plan layouts, which typically integrate kitchens with living areas, combine multiple functionalities, blurring of use and behaviours. Separating these spaces provides functional clarity and mitigates confusion for both groups. Arranging space in such a way that allows users to function in an independent and natural way, and for Neurodivergent residents, separating space provides some control over social interaction and regulation of boundaries. For shared social spaces such as a living room, predictability and routine are enhanced by designating areas with colour, texture, and lighting, allowing the space to be used by multiple users in different ways.

In larger public internal spaces such as schools, cafes, and libraries, one-way circulation that facilitates navigation and defines functionality is beneficial for both groups and particularly valuable for sensory control. Using colour and lighting to provide visual cues is useful to support orientation and boundaries, for example, delineating steps and signalling where access and exits are located.

Bathrooms should have adequate space for the provision of care and support for safety reasons and to promote independence for wheelchair users. If possible, the toilet should be, separate from the bath or shower to prevent confusion. Having a separate toilet and adequate toilet facilities to promote dignity and privacy were important factors for people with continence problems and gastric disorders, both of which are common amongst people in both groups with more complex needs.

Sensory balance

Predictability is inextricably linked to sensory balance, which is influenced by the layout and design of space. Organising spatial layouts into high and low stimuli and integrating features that reduce stress and conflict are ways of reducing sensory overload, which Neurodivergent people are more susceptible to.

Noise significantly impacts the sensory balance of Neurodivergent people and those who also have a Learning Disability. Soundproofing strategies include quality acoustics that prevent or, as a minimum, reduce noise transferring from outside in and from room to room within the home environment. Personal space and designated quiet and escape spaces are important physical and psychological aspects that can help manage social interaction and sensory

adjustment. Acoustic quality is an important feature of an escape space and it should ideally have adjustable features, including sensory lighting, temperature and sensory-enhancing textures.

Separating the kitchen and enclosing it from other spaces is important for managing high sensitivity to noise and odours. Silent ducted extractor fans, adjustable lighting, natural light, and built-in storage are features that can help reduce sensory sensitivity. Adequate storage in other spaces within the home is important to provide order and prevent distraction from visual clutter.

In bathrooms, silent ducted fans independently controlled by the light are recommended to reduce noise. Ventilation systems, ideally combined with acoustical insulation, are important for indoor air quality, managing odours, and preventing damp and mould. Evidence suggests damp is linked to behaviour of concern among children with Learning Disabilities.

Lighting from both natural and artificial sources should be designed to provide control over intensity. Design recommendations include dimmer switches, warm colours as opposed to cool, windows fitted with integral tamperproof blinds fitted between double glazing panels, and careful consideration of under-cabinet lighting, which can be problematic for occupants who are wheelchair users.

Thermal comfort, which was difficult for children and adults with Learning Disabilities to regulate as they tended not to recognise the physiological signs of discomfort, can be controlled by installing thermostats in each space, including bedrooms, to provide independent management of temperature to meet individual needs.

Visually, colour has potential therapeutic sensory benefits, particularly for autistic children. Neutral and pastel colour palettes are calming and soothing, and views of nature from inside the home are recognised to provide important health benefits. Access to secure, safe natural environments is associated with reducing anxiety and stress, dysregulation, and enhancing sleep quality.

Durability and adaptability

Jumping, bouncing, and climbing are repetitive behaviours that are mostly exhibited by children and adults with more complex Learning Disabilities and who may also be a Neurodivergent person. These gross motor behaviours require wide spaces, high ceilings and robust construction of the physical environment to minimise injury and prevent damage to the environment and associated costs. Ceilings, walls, and floors should be constructed using hard-wearing materials that are designed to withstand excessive gross motor activity and expressions of behaviour of concern, such as punching walls.

A careful selection of tamperproof fixtures and fittings includes shatterproof glazing, door frames, shower fittings, taps, washbasins, toilet seats, toilet cisterns, plasterwork, skirting boards, and kitchen units. It is also important that fixtures, fittings, and textiles are easy to maintain and keep clean, benefiting the family home and independent living.

Structures should also be designed to facilitate adaptations (e.g., ceiling track hoists, ramps, rails) to meet mobility and health needs throughout the life course. Design that is adaptable and flexible to support the ageing needs of both groups has the potential to provide a long-term home that promotes independence, functional capability and benefits for their health and well-being.

5.3: The benefits of designing homes better for Neurodivergent residents and residents with Learning Disabilities

The relationship between architecture, independence and acceptance influences mental and physical health. The literature suggests that if design is inclusive of diverse needs and socially sustainable, it has the potential to enhance the health and well-being of more people. Key design strategies to support diversity and inclusivity were:

- Implementation of sensory design strategies that reduce environmental stressors, which are often associated with fight or flight responses that can trigger harmful maladaptive behaviours.
- Organising space in a sensory and functional way promotes understanding of space for users, which can aid independence and in performing every day activities.

- Adjustable, adaptable spaces in shared social spaces can prevent conflict and escalation of sensory triggers. It offers choices for social interaction on people's own terms and opportunities to adapt space to engage in meaningful activities, which can develop confidence, motivation, and mood.
- Designated personal spaces for respite, which should provide privacy for any family member.
- Adequate bedroom space to reduce the impacts on siblings of sharing a bedroom with a child who has a sleep disorder or night care support.
- Visual monitoring and line of sight to reduce anxiety for parents.
- Bathrooms proportionate to the number of occupants fitted with a bath and accessible shower facilities suitable for care support and wheelchair users.
- Storage solutions to minimise clutter and disorder.
- Access to outdoor green space is recognised to enhance both physical and mental health and well-being, including indoor space that incorporates views of trees and green space, which can improve mood.

Good design that incorporates the physical and emotional needs of children and adults with sensory sensitivities and sensory stimulation needs can improve the quality of life for everyone, including parents and siblings. Emotional stress, exhaustion and depression were common amongst parents who were managing a child or adult with constant and socially isolating behaviour of concern. Reducing sensory overload and behaviours seeks to mitigate psychological stress and social challenges for adults living independently and families.

For independent people living alone, location close to links (transport, shops, leisure) is vital for employment, connecting to the community, maintaining support networks, and maintaining relationships with important others. Location is integral to reducing loneliness and feelings of isolation, which are associated with depression among Neurodivergent people.

Parents of children with Learning Disabilities and more complex needs were anxious about their child's future and whether there would be placements in suitable specialist housing and supported housing typologies within their locality. It was also important for adults with Learning Disabilities to be able to influence the design of a shared home so that it was homely and not institutional or clinical.

Familiarity with the location was considered pivotal for maintaining social connectedness, which has the potential to improve health outcomes through opportunities for purposeful activity and developing meaningful connections and relationships. For some, progression to living independently in a shared home or on their own may not be possible due to the complexity of their needs. The role of flexible, adaptable design can potentially negate the need to rehouse and support the ageing parent to continue to provide shelter for their adult child as both the parent's and child's needs change.

5.4: Section Summary and Key Considerations

This section has presented findings from a scoping review of academic and grey literature on the influence of the built environment on Neurodivergent people and those with Learning Disabilities. The review has highlighted how environmental factors, particularly sensory stimuli, significantly impact these populations' functioning, safety, and quality of life. Key design needs identified included safety and security, choice and control, predictability and clarity, sensory balance, and durability and adaptability.

The scoping review highlighted several planning and design strategies to improve housing for these groups. These included implementing sensory-friendly designs to reduce environmental stressors, organising spaces functionally to promote independence, creating adaptable shared spaces, providing personal respite areas, ensuring adequate bedroom space, incorporating visual monitoring features, designing accessible bathrooms, and offering sufficient storage solutions. Additionally, the review has emphasised the importance of location and community links in supporting social connectedness and overall well-being. Future planning and housing designs could prioritise these elements to create more inclusive, supportive living environments that can adapt to changing needs across the lifespan.

Section 6: The evidence from Newham residents, professionals and providers

This section presents the findings from the workshops and 1 to 1 interviews conducted in Newham that draw upon the insights and experiences of Neurodivergent residents, residents with Learning Disabilities, their families, professionals, and providers. The findings from the workshops and interviews are summarised in two sections:

- What are the housing design issues of Neurodivergent residents and residents with Learning Disabilities, including families with Neurodivergent children or children with Learning Disabilities in Newham?
- What are the housing design requirements of Neurodivergent residents and residents with Learning Disabilities, including families with Neurodivergent children or children with Learning Disabilities in Newham?

6.1: What are the housing design issues of Neurodivergent residents and residents with Learning Disabilities, including families with Neurodivergent children or children with Learning Disabilities in Newham?

The residents who participated in the workshops were adults who lived independently in their own homes, parents of adult children with complex needs, parents of younger children and teenagers, support workers and caregivers. Residents lived in a range of housing typologies (house, flats, duplex, supported/shared housing) of mixed tenures, including owner-occupied or rented properties (council, housing association) and sheltered/supported accommodation, and mix of newer and older build housing.

Amongst the professionals taking part were architects, occupational therapists, providers, commissioners (children's services, adult social and health, Learning Disabilities, Autism, housing), strategic leads (children's services, adult social care and health), service leads (MASH Vulnerable Adults Learning Disabilities, Autism, Mental Health & Vulnerable Adults).

There were distinct differences reported for the housing issues Neurodivergent residents and residents with Learning Disabilities experience, and there were also similarities, which are summarised in point 4 of the following section.

The three key themes that emerged from the workshops were:

1. Sensory effects and behaviour.
2. Psychological and social challenges.
3. Physical challenges.

Sensory effects and behaviour

Sensory stimuli experienced within the built environment of the 'home' were factors that significantly influenced the quality of life of residents and their families. Residents, parents, providers, and professionals reported a broad range of stimuli related to sensory seeking, hyposensitivity, and hypersensitivity experiences and behaviours at home (Table 2). Hypersensitivity was more commonly experienced by autistic people who also had a Learning Disability.

Table 2 Sensory stimuli

Sensory stimuli: Auditory	**Contextual factors**	**Effect as described by resident, parent or professional**
Traffic noise.	The property is located close to a busy road.	Sleep disturbance, unable to open windows for ventilation because traffic noise is a trigger.
Neighbours talking, using their bathrooms, footsteps, opening and closing doors, dogs barking.	Paper-thin walls between neighbouring properties, people moving around in the building (especially in flats).	Triggers behaviours, sleep disturbance everyone in the family.
Extractor fans (bathrooms and	Constant low-level hum when unable to switch off independently from the light.	Triggers behaviours: children will not use the

kitchens), ventilation systems.		toilet at night as the extractor fan upsets them.
Water.	Running water from taps, gurgling of water emptying from sink/bath, showers.	Triggers behaviour, banging shower hose against tiles causing damage, banging head against wall.
Alarms.	Smoke alarm, fridge alarm.	Triggers behaviour, escape.
Echo.	High ceilings.	Triggers behaviour, anxiety, escape.
Sensory stimuli: Olfactory	**Contextual factors**	**Effect**
Cooking odours.	Smells both at home and from neighbours as construction methods can impact on permeation of odours between properties.	Triggers behaviour to the point of 'meltdown'.
Sensory stimuli: Visual	**Contextual factors**	**Effect**
Lighting.	Intensity of natural light, and artificial lighting, reflective glare from shiny surfaces.	Distress, anxiety, and discomfort, triggers damage to property e.g. pull curtains down.
Clutter.	Intolerance to disorder and mess.	Triggers anxiety, behaviours including throwing items away.
Patterns, textures, colour.	Visual perception issues with patterns and, bright colours, and texture changes can impact proprioception due to sensory feedback.	Increased risk of falls, trigger anxiety, and behaviour of concern include; picking surfaces, damaging flooring (pulling it apart).
Sensory stimuli: Thermal	**Contextual factors**	**Effect**
Heat.	Overheating, feeling hot. Unable to open windows due	Irritability and anxiety trigger behaviours,

	to safety risks (absconding/climbing).	including removing all clothing in the garden.
Sensory seeking	**Contextual factors**	**Effect**
Jumping and bouncing.	Gross motor repetitive activity that stimulates the vestibular system.	Noise disturbance to neighbouring properties with impact on relationships with neighbours.
Fascination with water.	Stimulation from running water.	Flooding with associated damage to property and maintenance costs.
Loud music, loud TV.	Sensory stimulation from loud music for regulation.	Noise disturbance for other residents/family members. and neighbouring properties.
PICA (a tendency to eat non-edible items).	Deriving stimulation from eating items that have different textures.	Risk to health and wellbeing.
Heat.	Stimulation from heat sources, including hob and radiators.	Risk of injury.

Responses to overstimulation, particularly amongst children who are non-verbal, triggered unsafe behaviours, including elopement from home, self-injury (banging head against a wall, punching walls, cutting self with scissors, damaging the skin with a pen), harming others (hitting other family members, throwing objects) which could place the child, adult, or others at risk of harm.

Acoustics

Noise from various sources was a particular sensory stimulus that affected sleep quality and had a knock-on effect on function. Noise also triggered behaviours of concern, which were exacerbated in busy, overcrowded spaces in the family home. Sharing space impacted everyone's need for respite and privacy, which affected concentration and work due to background noise and visual distractions. Too much sensory stimulation could trigger

aggression and physical harm towards family members. It was not uncommon for parents to be hit by their children when they were triggered.

Ventilation and layout

Sounds and cooking smells were especially problematic in open-plan layouts, which were characteristic of newly built flats and duplex properties. Cooking odours drifting into living spaces were absorbed by soft furnishings and lingered, which created an uncomfortable experience. For others, the smell of cooking was intolerable and led to meltdowns. Scissor design properties had issues relating to noise and odour management for some families, as their neighbour's kitchen was located directly underneath the bedrooms.

Opening windows and balcony doors to ventilate their homes was not an option for most parents due to safety risks, and others reported they did not have a separate window in the kitchen or bathroom, which presented issues for managing damp and mould. Ventilation in apartments during warm weather, particularly if the property was south-facing, was a common problem reported by parents and professionals, which led to unmanageable thermal discomfort for children and adults with a Learning Disability.

Not enough windows and access to natural light affected visual perception, sensory discomfort, and function. According to professionals, lighting was a common problem, with artificial lighting tending to overstimulate due to intensity, brightness and glare which triggered destructive behaviours. Equally, if natural light was too intense, which could be related to the size and position of a window, a response behaviour was pulling the curtains or blinds down from the window. For residents living independently, natural light was vital for maintaining circadian rhythms and promoting natural waking, which was an important factor for routine and function.

Professionals and independent residents cited routine, predictability, and order as key ingredients for sensory balance. Storage was an important factor for maintaining order and necessary for managing safety risks within the home environment. Clutter was reported to be a significant source of visual discomfort that inflicted stress and triggered expressions of behaviour of concern.

Safety and security

Safety risks were associated with sensory-seeking behaviours, which included vestibular and proprioception. Both parents and professionals reported heat sensory risks in the kitchen (touching the stove) and gross motor activities, such as jumping and bouncing, leading to damage and destruction. Power sockets presented safety risks if not flush with the wall, which encouraged a fascination with picking the wall around the socket to the extent of exposing electrical wires. Radiators, heated towel rails and storage heaters were a risk for children who are hypo-sensitive, with examples shared of their child resting against a radiator, which had led to skin injury due to their delayed response to heat. Parents have since fitted radiator protectors to manage these safety risks.

Lacking a sense of danger was a common problem reported by parents and professionals. Escaping from home, which was not specifically connected to sensory stimulus, was a constant safety risk for parents.

The kitchen and bathroom were areas that demanded supervision due to safety risks, with the kitchen being described as dangerous. Items that were high risk included knives, sharp objects, medication, cleaning products, toiletries, and other chemicals placed in locked cupboards or high shelves. Fridges were also locked if their child had food behaviours.

The sensory experience associated with the design of the home environment was a constant source of stress for residents and parents. For some residents, the effect could be so severe that they were admitted to the hospital under the Mental Health Act.

Psychological and social challenges

As outlined above, noise was a common problem that contributed significantly to the stress levels of residents who lived alone, which they tried to mitigate by laying in their bedrooms, phoning their parents, and watching television to prevent a 'meltdown'.

Access to outside space

Outdoor space was cited as a means of escape, a space for regulation, engaging in physical activities and promoting fitness that had positive benefits for their mental health but for residents living in flats or duplex properties, where garden space was shared with their

community, social interaction was difficult for them. Parents reported that shared gardens were inappropriate for their children without supervision due to safety risks.

Whilst there were significant benefits of being outdoors for both adults and children, parents of austistic children with Learning Disabilities and or more complex needs found public outdoor spaces could be stressful as their children had no sense of danger and their behaviours could be embarrassing.

Parking

Parking was an issue for managing their child's safety for some parents as bays that were close to their home were mainly for people with a blue badge, which parents assumed their child was not eligible for as they were not classified as having a physical disability. The lack of parking close by also impacted formal care support, which caused anxiety for residents if carers were late because they were searching for parking. Entryways were a source of risk for managing their child's transitions in and out of the home, particularly if their property had immediate access to the street, was close to a busy road, or was near a stairwell.

Indoor space and layout

Within the family home, a common issue that was a source of stress and tension was having to share one toilet, especially for children who suffered from bowel urgency, bowel control problems and constipation.

Inadequate space in family homes also resulted in family members making compromises. Not having enough bedrooms was challenging for families, especially if siblings had to share with a child who had sleep problems, which parents worried would impact the health and well-being of their other children. Parents with children with gross motor (jumping, bouncing, climbing) or repetitive and self-stimulating behaviours (rocking, banging, stimming) were anxious about the noise this created for neighbouring properties, especially if they lived in a flat.

Rehousing

Meeting residents' housing needs was challenging if this required rehousing and was a concern for professionals, as waiting lists were lengthy due to the lack of suitable housing

stock for both resident groups. This could mean that residents were moved to temporary or emergency accommodation, which was a problem for those with sensory sensitivities and a risk to their well-being if it was a shared property. Parents were also worried about how their adult children would progress to independent living if the borough had limited supported housing options. The lack of supported living placements for some older parents who were not able to continue to meet their child's care needs, resulted in their child being placed in residential care.

Residents who lived alone were most anxious about feeling safe in their homes and were particularly concerned about being burgled. Professionals also reported that the area and criminality were concerns for residents who lived alone.

Residents were concerned that adapted properties tended to focus more on wheelchair accessibility and physical functional needs. If they were waiting for adaptations to their home, the process could take a long time which affected the whole family. Maintenance issues were a source of frustration and had implications for safety, health, and well-being. These included leaking toilets, water heating delays and damaged fences in private garden spaces, which caused stress as these were either recurring problems or longstanding problems that had not been resolved.

Physical challenges

Personal care

Parent carers who had their own health and mobility problems reported that managing their adult child's safety and behaviour of concerns was increasingly difficult. Space constraints in bathrooms were a common problem reported by residents, which made care support activities more difficult and having the shower over the bath was an issue for care provision that some parents reported. It was also a safety risk for residents who had epilepsy and were at risk of a seizure in the bath if there was no separate accessible shower.

Neurodivergent residents described small bathrooms as claustrophobic and professionals were concerned about the potential space constraints imposed on maintaining personal hygiene, which increased the risk of skin integrity issues and infections.

Not having enough bedroom space for families was a problem with siblings of mixed sexes and ages sharing in some family homes and if there was formal overnight care support, there was not enough space for the carer.

Food preparation

In kitchens, space constraints challenged socialisation and independence, impacting functional skills retention and development. A resident who lived alone, had to receive funded care support for assistance with meals as the kitchen was not wheelchair accessible. Many reported that they did not have enough space to prepare food together as a family, which was also important for developing their child's life skills and the social experience of mealtimes where families come together was not possible in some homes as there was not enough space in their kitchen for a dining table.

Internal circulation

Some residents felt there were too many steps and stairs in the housing stock, which increased the risk of falls, especially if they had problems with balance, joint flexibility and gait. There were also views expressed about the suitability of housing families with children who have behaviours of concern in upper-floor flats, as using lifts was anxiety-inducing for them and stairs could be dangerous, especially if children had no sense of danger. Residents also reported that lifts often broke down and if there was only one lift; this could mean that they were unable to go out or they were unable to reach their property safely if they were out at the time of the lift breakdown. This was especially problematic if residents were wheelchair users and families with children in prams and pushchairs. In high-rise properties, wheelchairs and prams absorbed space in the home as there was not always adequate storage on landings and lobby areas.

The layout of internal space and features within residents' homes impacted their independence and skills development if it limited opportunities for independent movement and function, which could contribute to dependence on parents and caregivers. For example, opening a window in a newly built property required parental support for an adult resident because the tilted design made it too difficult to operate independently.

Similarities and differences between the residents and professional and provider groups

There were similarities and differences in the findings between the three workshops. These similarities and differences are summarised below.

Similarities

- Impact on independence, stress, anxiety, and mental health.
- Safety and security at home; protection from criminal threats and safety risks within the home.
- Noise transmission, lighting, and temperature were key sensory issues.
- Sleep disturbance due to environmental factors (noise, light, temperature) which impacted function.
- Concerns about physical safety, including risks of falls, injuries, and accidents due to poor design.
- Concerns about physical safety in outdoor spaces in communal parks/gardens and if properties are close to streets and roads.
- Lack of dedicated parking for safer management of family member(s) with no sense of danger in outdoors spaces.
- Poor ventilation and potential mould exposure on respiratory health was consistently mentioned.
- Potential impact on opportunities for developing independence and life skills, social opportunities, and relationships.

Differences

<u>Neurodivergent residents:</u>

- Impacts of sensory stimulus on executive, cognitive function, self-expression and identity.
- Space, spatial density, and layout impacted choice and control over social interaction and privacy.
- Managing social contact when stepping outside their homes.
- Private, quiet spaces were important for sensory regulation.

- Concern about the quality of materials and maintenance problems.
- Mental health benefits of outdoor space.

Neurodivergent residents with a Learning Disabilities:

- Impact of space on teaching and life skills development were impacted.
- Effect of design on their daily life and function.
- Impact on safety and caregiving support.
- Sensory stimulus; impact on safety and function.
- Safety of outdoor space.
- Lack of specialist housing options for progression to independent living.

Professionals and providers:

- Issues relating to housing waiting lists and allocation policies.
- Maintenance and materials in the context of policy and design.
- Housing development communal design options and possibilities, design of community space.
- Caregiver stress and family dynamics.
- Long-term health outcomes and health implications.
- Impacts on community integration.

6.2: What are the housing design requirements of Neurodivergent residents and residents with Learning Disabilities, including families with Neurodivergent children or children with Learning Disabilities in Newham?

This section presents the design requirements that were highlighted as important from the workshops held with Neurodivergent residents, residents with Learning Disabilities, their families, professionals, and providers. These requirements are presented with a typical home layout as a framework. This layout includes the entryway, hallway and stairs, kitchen, living room, bathroom, bedrooms, and outdoor space. The discussion highlights how residents'

design requirements have impacted their housing situations. It also specifies the different needs that emerged between the two resident groups.

Space, including maximising flexible use of space

- Space in relation to the number of bedrooms, emerged as a significant barrier for housing families due to the lack of larger properties in Newham. This could mean that families were rehoused in a private rented property or temporary accommodation that may be outside the borough, and they could be moved from these accommodations multiple times whilst they wait to rehouse.
- To better meet the housing needs of residents in Newham, professionals articulated the desire for innovation and creativity in the design of space and layout to facilitate flexibility of use, not only in regard to bedrooms but also living rooms, kitchens, and other spaces in the home such as hallways, that are adaptable to meet the varying and changing needs of both resident populations and their families. Concepts of creative, adaptable design that use space in different ways are presented in the features below.

Entrance and Hall: private and communal access

- Security was a concern for both resident groups and in apartment blocks, this extended to lobbies, corridors, and storage spaces. Building access management tools to facilitate surveillance included CCTV, intercom video, and video doorbells. Separate entrances in multi-unit buildings offer options for control over social interaction and promote the safety of children who are prone to escaping their parents. Alternative access areas could also be designed with step-back areas or transition spaces to offer residents options for storage of prams, mobility scooters, wheelchairs, and bicycles.
- Due to the risks associated with children and adults with behaviours of concern running out onto busy roads, or wandering off and getting lost it was suggested that principle private entrances have coded entry, digital locks or locks that are out of reach to ensure security.
- For front access in all housing typologies there is a desire to have coded entry, digital locks, and/or high-positioned locks to promote security.

- Sufficient space that can incorporate integrated storage in private entrance halls for shoes, coats, and mobility equipment can reduce trip hazards and obstructions at the principal private entrance and make it easier to create a coherent and organised space that is not overwhelming.

Communal access and approach: Hallways, stairs, and lifts

- Safety and wheelchair accessibility were key design needs raised by professionals and residents with Learning Disabilities and their caregivers.
- The width of corridors, landings and linking spaces need to be wheelchair accessible, with turning circles to promote safety and independence. This would benefit residents using wheeled walkers, Zimmer frames, and other mobility equipment.
- In apartment blocks, there was a strong need for there to be two lifts and more options for ground-floor dwellings for residents who cannot use lifts due to anxiety, claustrophobia, and fear of being in close proximity to others.
- Stairs need to be fitted with secure mop stick design handrails to support safer mobility on the stairs and safety gates at both the top and bottom to support safer management of children.
- Hallways, stairs, and landings need to have motion-activated lighting for nighttime wayfinding and safety.
- Ground floor single-level housing needs to be a priority consideration wherever possible for residents who are wheelchair dependent, have mobility needs or families with children with behaviour of concern and complex needs. Upper-floor properties are often not suitable for these residents due to lift access associated with anxiety, claustrophobia and fear of being in close proximity to other people.

Habitable rooms

Living rooms

- Space was a fundamentally important factor for movement, sensory and safety in homes with multiple occupants (group homes, family homes, and residential homes).

- Space needs to be proportionate to occupancy and layout designed to allow flexible and creative use of the space for different needs, including active play, sensory equipment, and relaxation.
- It is desirable that the living room be separate from the kitchen and dining areas to prevent the transmission of noise and odours. If not structurally separate, sliding doors provide the option of separating both spaces.

Acoustics

- Soundproofing to prevent noise transmission from other rooms and external sources (neighbouring properties, traffic noise).

Lighting

- Lighting: artificial lighting needs to be customisable to suit varying needs (e.g., work, writing, reading, social interaction, watching TV). Smart technology may be a way of meeting a variety of sensory and activity needs.
- The size and position of windows were important for Neurodivergent residents to provide outdoor views and natural light, with integrated options (blinds, dynamic glass) to control intensity.
- Durable, easy-to-clean floors, walls, and furniture to reduce the risk of injury and damage and support ease of maintenance.

Kitchen

Safety and sensory concerns were the main design needs in kitchens.

- Kitchens need to be separate from living areas or provide flexible options (e.g., sliding doors) for separating the space from other rooms to prevent odours and noise transmission to other spaces in the home.
- Layouts in homes with multiple occupants need to be functional to create opportunities for shared activities, teaching and skills development (meal preparation) and individual tasks to be carried out simultaneously.
- For safety risk management of adults and children with no sense of danger, the kitchen should have the option to lock or have visibility features for monitoring and supervision in

adjacent rooms (e.g., half-height doors and serving hatches). Lockable cupboards and drawers, integrated bins, automatic shut-off hobs, taps, controls and power sockets positioned at higher levels were safety measures that would promote safety.

- Extractor fans were important for ventilation and odour control to promote sensory comfort.
- Avoid galley-style kitchens; consider adequate space to enable ease of movement.
- Lighting that is easy to control and rapid activation options.

Sanitary Facilities (toilets, shower rooms and bathroom)

Safety, efficacy, order and cultural considerations, which included foot-washing practices and keeping unclean and clean areas separate, were key design needs in bathrooms.

- Safety features included anti-slip flooring, water temperature control systems (e.g., anti-scald showers and taps), and lockable storage for toiletries and cleaning products. The design of storage that is coherent and organised was also important for Neurodivergent residents to minimise confusion and reduce stress.
- Risks of flood damage associated with water fascination and sensory-seeking behaviours could be reduced with timer-controlled showers and taps, sensor taps and waterproof flooring.
- Windows and silent ducted extractor fans were important features for providing ventilation and preventing damp and mould, which was considered a health risk.
- Cultural needs required the toilet to be separate from the bathroom or a partition between the toilet and bathing facilities to separate an unclean area from a clean area. Some residents told us about the Wudu prayer ritual practice that requires foot washing five times a day. This impacts the need for residents to have access to a wash basin. There are dual-purpose Wudu basins that incorporate two-tier foot and hand wash basins. These are both for ease and convenience but make it easier for those with limited mobility and balance to sit and reach their feet more easily.
- Residences with multiple occupants and a family member with frequent toilet needs require a minimum of two toilets to provide convenient access for all occupants and prevent conflict, stress, anxiety and behaviours that challenge. Assessing the need for an additional toilet was a common rehousing requirement.

- Options for both bath and shower facilities should be provided in housing with multiple occupants with diverse needs.
- Noise and lighting were the main sensory concerns and soundproofing, silent ducted extractor fans, and warm adjustable lighting were concepts for reducing both aspects of sensory stress.
- Bathrooms should be linked to bedrooms (e.g., ensuite) in shared housing and family homes with a family member with complex needs, Learning Disabilities or autistic people with Learning Disabilties to prevent night disturbance to others.
- Fixtures and fittings should be robust, durable, and easy to maintain.

Bedroom(s)

- Concerns related to safety, sensory, and overcrowding impacted both resident groups. Key design requirements were larger bedroom space, individual bedrooms for residents with complex needs, options for creating bedroom space in alternative rooms or the flexibility to create interconnected rooms to enable constant supervision.
- Safety management measures were windows fitted with safety locks and limiters, barriers and locks to balconies, rounded corners, and safety edges, preventing footholds and structures for climbing with integrated storage solutions.
- Noise, lighting and temperature sensory managing strategies included soundproofing and insulation to minimise sound transmission (inside/out and outside/in), customisable lighting options (dimmable, warm tone), and control of the intensity of natural light using high-quality blinds were important for Neurodivergent residents. Black-out blinds were considered important for children with Learning Disabilities and effective systems for controlling room temperature to prevent behaviour escalation.
- The need to create dedicated spaces that can be adapted as regulation, quiet, or sensory rooms.
- According to professionals, tamperproof, robust fixtures and fittings were an important design factor. These included lights and power points flush to the wall to prevent fascination, obsessive behaviours, and the risk of self-injury and property damage.

Outdoor space

- Outdoor space with access to nature was important for sensory regulation, physical activity (walking, running, jumping, bouncing), and mental health for both resident groups. The safety and security of outdoor space were key design needs and issues in rehousing.
- Safety was enhanced if the space was private and secure, and outdoor spaces linked to apartments and residential estates should be controlled to promote security and safety.
- Outdoor gardens should be designed with sensory-friendly planting and sensory features, and play areas should have built-in play equipment (e.g., ground-level trampolines and swings).
- Some residents accepted that flatted accommodation was inevitable in a high-density population, and they suggested that balconies in apartments could be secure using high railings or netting.
- There was a desire that the outdoor space be designed to enable supervision of outdoor play from inside the home.

Parking

- Parking bays dedicated to families and caregivers with family members who have behaviour of concern are necessary to manage their safety outdoors and for residents with mobility needs. Parking close to home was a key issue associated with rehousing for both resident populations.

Community links

- Housing needs to be located near shops, transport, and leisure facilities to support health and well-being, maintain employment, provide social opportunity and connection, and promote choice and control.

Specialist housing

- Sufficient supported living options (such as group homes, cluster-design housing, and specialist housing) for adults with Learning Disabilities and Neurodivergent people living

with Learning Disabilities are essential to provide opportunities for independence, promote health and well-being, and support long-term planning. Ensuring access to specialist housing within the borough can help prevent the need for residential care placements, particularly in cases where ageing caregivers experience difficulties.

Whole home considerations

- Sensory comfort was a fundamental requirement for improving the home environment. Professionals and residents considered that sensory needs could be significantly enhanced by considering:

    - Passive house standards for environmental control.
    - Passive cooling systems.
    - Smart environmental control technology.
    - High-quality insulation and high-performance soundproofing in walls and floors, acoustic glazing.
    - Underfloor heating, centrally controlled heating systems.
    - Avoid offering residents from both groups south-facing properties and properties close to busy roads.
    - Design flexible layouts that can be adapted over time.
    - Use durable materials throughout the home that can withstand heavy use.
    - Use materials that are easy to maintain and keep clean.

These design requirements offer an opportunity to create housing that allows residents to function more independently and naturally.

6.3: Section Summary and Key Considerations

This section has presented insights from workshops and interviews with Neurodivergent residents, those with Learning Disabilities, their families and professionals in Newham. The findings highlighted three key themes: sensory effects and behaviour, psychological and social challenges, and physical challenges. Residents reported significant issues with sensory stimuli in their homes, particularly related to acoustics, ventilation, lighting and spatial layout. These

factors often triggered stress, anxiety and behaviours of concern, echoing the findings from the scoping review about the profound impact of environmental design on residents' functioning and well-being.

Safety and security emerged as critical concerns within the home and communal areas. This aligns closely with the scoping review's emphasis on safety as a fundamental design need. Residents and professionals stressed the importance of adaptable spaces, proper ventilation, soundproofing and lighting control. The need for outdoor spaces and community links was also emphasised, reflecting the literature's recognition of these elements in promoting mental health and social connectedness.

There was a significant overlap between the workshop findings and the scoping review regarding design requirements. Both highlighted the need for flexible spaces, sensory-friendly designs, and features that promote independence and safety. However, the workshops offered valuable insights into the daily challenges faced by Neurodivergent residents, people with Learning Disabilities, and their families when living in homes not designed to accommodate their specific needs. The workshops also emphasised issues not prominent in the literature review, such as parking concerns and the impact of housing design on family dynamics and caregiver stress. These findings underscore the importance of combining evidence from the literature with local, lived experiences to inform housing design policies.

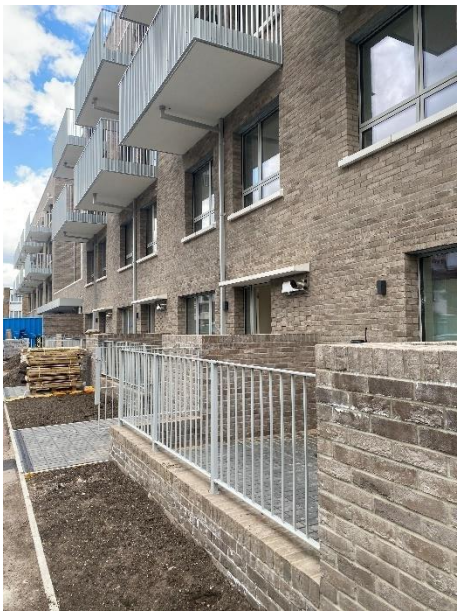
Section 7 Analysis of current housing provision in Newham compared to the specific needs of Neurodivergent residents and those with Learning Disabilities

This section sets out the findings from an analysis of the design of six existing housing schemes in Newham, selected by Newham Planning Policy Officers as a representative picture of Newham's current and planned housing delivery.

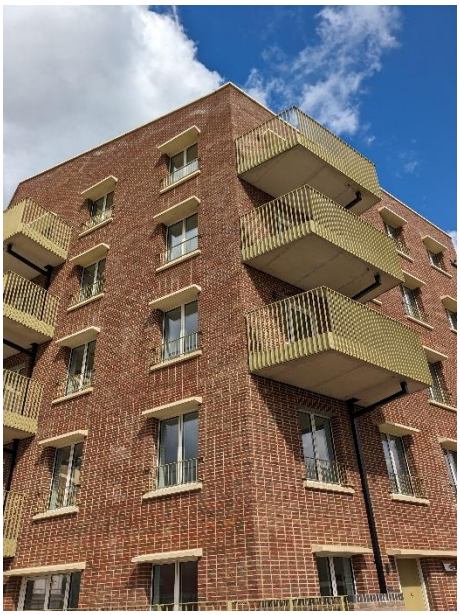
Gallions Place 16/02797/REM

Brunel Street Works 16/03428/FUL

Sutton Road 20/02033/LA3



Leather Gardens 20/01654/LA3



Deanston Wharf 16/00527/FUL

Former Boleyn Ground 14/02893/FUL

In addition to observations made on the site visits to four of the schemes (Gallions Place, Brunel Works, Sutton Place and Leather Gardens), a desktop analysis of all the planning applications for these schemes draws on information from the Design and Access Statements and the Decision Notices, to understand both the design intentions and the specific planning conditions and to what extent they can address the issues identified from the consultation.

Key themes emerging from the scoping review of academic and grey literature in Section 5, and supported by feedback from residents and professionals in Section 6, have identified that housing design should attend to the following key themes:

- Location and connectivity.
- Safety and Security.
- Flexibility of Space and Layout.
- Durability.
- Sensory Processing.

It is not within the scope of this analysis to conduct a detailed appraisal of all the plans submitted, and it is not possible to confirm whether these plans were built to these designs or complied with all the conditions at full completion. However, a review of the Design and Access Statements, and decision documents provides an understanding of the original intentions of the design and what conditions were placed on the planning approvals.

In relation to these themes, the analysis compares housing design requirements for Neurodivergent residents and those with Learning Disabilities in three parts:

1. **Accessible and Adaptable Housing Design:** To what extent Approved Document M Volume 1: accessible and adaptable housing Category 2 and Category 3 (90% M4(2) and 10% to M4(3)), that applies to space and physical access can contribute to meeting the needs of these groups.

2. **Beneficial design features addressed by regulatory and best practice guidance:**

   To what extent existing building regulations and design standards contribute to addressing some of the project's key findings, including sensory processing and overload related to lighting, thermal comfort, and acoustics, that can contribute to meeting the needs of these groups.

3. **Design features specific to certain needs:**

   Areas not met by current provisions or where current design impacts safety and security.

7.1: The provision of Accessible and Adaptable Housing

Regulatory frameworks related to accessible and adaptable housing design

The original planning applications and their associated conditions for these sites vary according to when the original consent was given. The original applications for these schemes were made between 2012 and 2020. During that time, the building regulations related to accessible and inclusive housing design have changed. In terms of accessible and adaptable housing provisions, applications approved prior to 2016 were subject to meeting the requirements of the Greater London Authority Wheelchair Housing Design in accordance with the Wheelchair Housing Design Guide (2nd Edition) (2006) and Lifetime Homes Standards.

For some of these large-scale schemes, which usually take several years to complete and use a phased approach to delivery, the conditions on the planning applications will apply to earlier versions of the building regulations. Although some parts of Gallions Place, for instance, have only recently been completed, the original conditions will still apply.

In terms of physical access and space requirements and depending on when the original application was approved, all of these schemes were conditioned to provide accessible and adaptable housing. 10% of wheelchair-accessible dwellings had to meet either Wheelchair Housing Standards or M4(3) wheelchair-accessible dwellings, and 90% had to meet Lifetimes Homes Standards or M4(2).

Table 3: Accessible and Adaptable Housing provision in Newham

Provision of accessible and adaptable housing in six housing schemes in Newham			
Scheme	**Planning reference**	**Number of dwellings**	**Accessible & Adaptable Housing Standards**
Gallions Place	16/02797/REM	**837 dwellings**	Lifetime Homes Standards Wheelchair Housing Standards
Brunel Works	16/03428/FUL	**975 dwellings**	M4(2) 90% M4(3) 10%
Sutton Road	20/02033/LA3	**29 dwellings**	M4(2) 90% M4(3) 10%
Leather Gardens	20/01654/LA3	**21 dwellings**	M4(2) 90% M4(3) 10%
Deanston Wharf	16/00527/FUL	**769 dwellings**	M4(2) (detail of provision is unclear) M4(3)
Former Boleyn Ground	14/02893/FUL	15 buildings – 3-13 storeys **838 dwellings**	Lifetime Homes Standards Wheelchair Housing Standards

As a minimum requirement, compliance with M4(2) is generally understood to be a beneficial standard to maximise flexibility and adaptability to the changing needs of people and families across the lifespan. Homes built to M4(3) (2)(b) wheelchair accessible at final completion, should meet the needs of most wheelchair users. However, as set out in the forthcoming Inclusive Housing Design Guide (RIBA, 2024), which is informed by post-occupancy evaluations of residents with a wide range of needs, the space will not be sufficient for all wheelchair users, and there is a case to be made for exceeding the minimum requirements.

Equally, while compliance with M4(2) and M4(3) will address some issues experienced by Neurodivergent residents and those with Learning Disabilities in relation to physical access,

space and layout, and the size and number of sanitary facilities, there are a number of design features relating to safety and security, sensory comfort, and durability that are not covered by M4(2) or M4(3).

It is encouraging to note that the revised Newham Local Plan proposes to add an additional requirement for social rent M4(3) dwellings to be built to M4(3)(2)(b) wheelchair accessible standard at full completion. Housing occupational therapists in several local authorities (Greenwich, Waltham Forest, Tower Hamlets, Wandsworth and Richmond) contribute to reviewing planning applications at an early stage to ensure housing is fit for purpose to meet demand. While Occupational Therapists currently undertake similar reviews in Newham for M4(3) units, the additional design considerations that are being requested under this report and associated design guide will require additional resource from Occupational Therapists to review these schemes during the application process. It is worth considering increasing the capacity of existing experienced staff, including housing occupational therapists, who will have experience from the allocations process in how the design of housing works in practice.

7.2: Beneficial design features addressed by existing regulatory and best practice guidance

The analysis has been limited to visiting a few apartments and reviewing the Design and Access Statements that set out the accessible design intentions.

As identified and detailed above, there are a number of key design features that will benefit Neurodivergent residents and those with Learning Disabilities. A summary of these features and to what extent these have been met in these schemes is given below.

- Accessible parking for those unable to use public transport.
- Private entrances opening onto enclosed courtyards.
- Secure private outside space.
- Integrated and secondary locking systems.
- Separating kitchen/dining from lounge areas.

- Retreat spaces.
- Thermal comfort.
- Durability.

This list of design features is not exclusive. Depending on the individual and whether they live alone or with a family, some of these features will be more important for some than others. Many Neurodivergent people and those with a Learning Disability will not require wheelchair-accessible accommodation. However, the features related to sensory comfort will also be beneficial to people living with dementia who also have issues with sensory processing. Some of these requirements can be met by compliance with Building Regulations as set out below, as well as the London Plan (2021) Policy D6 Housing Quality and Standards. The aspects that are relevant to the needs of these groups from the Housing Design Standards LPG (2023) are listed below.

Building Regulations

As mandatory requirements, some of the existing and most recently implemented building regulations will address some of the issues identified. These include:

- Fire Safety – Approved Document B 2024.
- Resistance to sound – Approved Document E 2015.
- Ventilation -Approved Document F 2022.
- Protection from falling, collision and impact -Approved Document K 2013.
- Overheating: Approved Document O 2022.
- Security in dwellings: Approved Document Q 2015.
- Conservation of fuel and power Volumes 1 and 2: Approved Document L 2023.
- Access to and use of buildings – Approved Document M:2016.

Local and good practice guidance

Whilst not mandatory, the Housing Design Standards LPG 2023[20] lists requirements that should address some of the issues raised in the workshops.

- Noise C5.
- Choice and flexibility C3.1.
- Aspect orientation and sunlight C4.
- Thermal Comfort C6.
- Access to public realm and social space A4 and A5.

These existing regulations and guidelines present opportunities to influence the housing design to meet these residents' various needs. The accompanying Design Guide provides more detailed guidance on how these apply to specific areas of the home.

7.3: Optional design features specific to certain needs

There are some areas specific to the needs of Neurodiverse people and people with Learning Disabilities that would be beneficial but are not mandatory.

Private entrance opening onto courtyards

Schemes where the principle private entrance opens onto a courtyard accessed via a communal entrance from the roadside are beneficial. These afford greater safety and reduce the risk of children running out into oncoming traffic.

Parking

The challenge in Newham, a densely populated area, is striking a balance between meeting requirements to reduce pollution from traffic whilst providing for disabled people who are

[20] https://www.london.gov.uk/sites/default/files/2023-06/Housing%20design%20standards%20LPG.pdf

unable to use public transport. All schemes will be required to meet the requirements set out in Newham's Draft Submission Local Plan Policy T3, which states:

> "All new development will be car free, apart from limited provision in line with the following requirements:
>
> a. Residential car parking (outside of blue badge spaces) will not be supported".

Policy T6.1 of the London Plan (2021) requires a minimum for three per cent of dwellings to have at least one designated disabled persons parking bay per dwelling is available from the outset. The Parking and Design and Management Plan should then demonstrate how an additional seven per cent of dwellings could be provided with one designated disabled persons parking space per dwelling in future upon request as soon as existing provision is insufficient.

In addition to wheelchair users, there are a number of Neurodivergent residents and those with Learning Disability who will be unable to use public transport due to behaviours of concern. This includes circumstances where a person:

- Is at significant risk to themselves or others when near vehicles, in traffic or in car parks.
- Struggles severely to plan or follow a journey.
- Finds it difficult or impossible to control their actions and lacks awareness of the impact they could have on others.
- Regularly has intense and overwhelming responses to situations, causing temporary loss of behavioural control.

Policies on the provision of disabled parking bays should take account of these residents who have hidden disabilities in line with current guidance on eligibility for blue badges (https://www.gov.uk/government/publications/blue-badge-can-i-get-one/can-i-get-a-blue-badge (accessed 17-08-24). Therefore, the design guidance accompanying this report sets out requirements for the provision of on-site blue badge parking in addition to the minimum requirments for onsite blue badge parking set out in Newham's Draft Submission Local Plan

Policy T3 and Policy T6.1 of the London Plan (2021). These additional blue badge spaces will be necessary to meet the needs of residents who struggle to use public transport.

Secure outside space

All these schemes meet the minimum requirements for the provision of private outside space as set out in the London Plan and previous design standards. For Neurodivergent residents who have adaptive behaviours such as restlessness and pacing to cope with overstimulation, an outside space can be essential to enable them to regulate. Equally, accommodation above the first floor presents a significant risk for those who are able and determined to climb, with a limited sense of danger. These residents are likely to need additional parental supervision, limiting use of the balcony for outdoor recreation and ventilation. Although all balconies will comply with the minimum requirements set out in the building regulations Approved Document K: Protection from falling, collision and impact, this will be insufficient to deter this behaviour.

A safe and secure outside space can be very effective as a means to regulate behaviours for some Neurodivergent people and children. However, a key issue for children with behaviours of concern who are unaware of risks is to prevent the risk of absconding. Whilst all the schemes will be obliged to comply with the minimum requirements for guarding set out in Part K: Protection from falling, collision and impact, this will not deter those who are able to and determined to climb, with a limited sense of danger. Where the only provision of outside space is a balcony, which is kept locked for safety reasons this also impacts on providing natural ventilation.

Space to retreat

Many Neurodivergent people, some of whom also have a Learning Disability, benefit from being able to retreat into a separate, secluded space that serves as a means to regulate when overwhelmed. It was unclear from the review of existing schemes whether certain areas of proposed units could be used as spaces for retreat. The design of new homes needs to account for how these spaces could be incorporated into existing layouts. It is possible that units designed to M4(3) could allow for sufficient extra space to be used as or repurposed into areas of retreat. For this reason, the additional space provided in M4(3) dwellings may have equal

benefits for these residents in terms of providing potential for adapting and accommodating flexible layouts.

Storage

Of the schemes reviewed, the majority provided the minimum requirement of storage space on the application drawings. Some Neurodivergent people will benefit from storage systems that can reduce visual clutter and provide easy access to everyday items. This can significantly reduce stress from sensory overload. Whilst National Space standards and Part M guidance set out minimum requirements for storage, its appearance and location is not stipulated. Design that accounts for how these systems could be incorporated into the space and layout could have significant benefits. The provision of lockable storage should also be considered a priority to reduce the risk of access to toxic or poisonous substances such as cleaning fluids and medicines. Lockable enclosures for utilities such as boilers can also reduce the tendency for tampering.

Safety and Security

A noteworthy issue raised by residents was the risk of children with behaviours of concern who are often determined to get outside, running out onto adjacent busy streets. Serious accidents have been reported. Retrofitting of integrated locking systems interferes with the integrity of the door in terms of fire safety, so it is not permitted. For this reason, it is important to consider secure locking systems are incorporated into the design at the outset.

7.4: Section Summary and Key Considerations

This section examined several housing schemes in Newham, primarily focusing on their compliance with Part M of the Building Regulations (accessible and adaptable housing). It then assessed how well these schemes meet the design needs of Neurodivergent residents and those with Learning Disabilities, as identified in earlier parts of the report. The analysis compared the existing housing provision against both the regulatory requirements and the specific design features that could benefit these groups based on insights from literature and resident feedback.

While most schemes met the minimum requirements for accessible and adaptable housing, the study found that these standards alone do not fully address the specific needs of Neurodivergent residents and those with Learning Disabilities. The analysis identified additional beneficial design features related to location and connectivity, safety and security, space and layout, sensory processing, and durability. It also highlighted areas where current design practices may conflict with the needs of these residents, such as safety concerns with balconies and the lack of dedicated retreat spaces. The section concluded by suggesting ways to better identify and meet the housing needs of these residents, including involving housing occupational therapists in the planning process.

Section 8: Understanding the scale of need for housing that meets the needs of Neurodivergent residents and residents with Learning Disabilities.

This section outlines the scale of housing needs for Neurodivergent residents and those with Learning Disabilities in Newham. It provides an overview of current and projected requirements by drawing from key local documents, including the Strategic Housing Needs Assessment and Market Position Reports and insights from resident and professional engagement. While precise figures are not always available, this narrative presents an informed perspective on the scale and nature of housing needs. This overview aims to guide strategic planning and resource allocation for future housing initiatives, supporting the development of responsive and inclusive strategies that effectively address the diverse needs of this population.

8.1: Current Population and Projected Growth

The Newham Strategic Housing Market Assessment (SHMA) 2022 and the Learning Disability Needs Assessment, conducted on behalf of the North East London Integrated Care Board, provide comprehensive insights into Newham's Neurodivergent population. As of 2020, the SHMA estimates 6,591 adults with Learning Disabilities and 2,884 adults with diagnosed autism spectrum disorders in Newham. Projections indicate significant increases by 2040: a 13% rise to 7,454 for those with Learning Disabilities and a 15% increase to 3,330 for those with autism spectrum disorders.

While official diagnoses suggest that approximately 0.46% of Newham's population has a Learning Disability, PANSI estimates indicate a potentially higher adult prevalence of 2.14%-2.27%. Notably, Newham reports the highest rates of mild (178.43 per 1,000 population), moderate (170.09 per 1,000 population), and severe (145.08 per 1,000 population) Learning Disabilities compared to neighboring boroughs (City, Hackney and Tower Hamlets).

It's worth noting that data from various local sources, including GP records, school census, autism diagnostic services, and social care databases (see Table 4), suggest lower figures for

both adults and children with autism. However, for consistency in projection and planning, this report will continue to use the SHMA figures.

Table 4: Other data sources

Source	Measure	Adults	Children
EMIS (GP Data base).	Number of autistic residents registered with a Newham GP.	561.	2664
School Census.	The number of residents with Special Educational Needs support or an Education, Health, and Care Plan where autism is the primary need.	N/A.	1850
Autism Diagnostic Service.	Number of residents given a diagnosis of autism.	120	664
AzeusCare (Social Care database).	Number of residents/children in receipt of Social Care. A snapshot taken in March 2024	206	236

The SHMA highlights a significant disparity in growth rates between age groups. For those with autistic spectrum disorders, the projected increase for ages 18-64 is 8%, while for ages 65 and older, it's 92%. Similarly, for those with Learning Disabilities, the increase for ages 18-64 is 6%, compared to 89% for those 65 and older. This substantial increase in the older population underscores the need for both specialised and general needs housing that can accommodate the needs of Neurodivergent residents and residents with Learning Disabilities, as well as addressing age-related requirements.

8.2: Current Housing Provision

The housing landscape for Neurodivergent residents and those with Learning Disabilities in Newham is complex and reveals significant gaps between needs and provision. According to the Newham SHMA only 176 people with Learning Disabilities were living in supported living

accommodation, representing just 1.9% of the total population with Learning Disabilities or autism in Newham. This figure is substantially lower than the national average of 16%, indicating a significant shortfall in provision.

Highlighted in the 50 Steps to a Healthier Newham 2024-2027 document, Newham faces significant housing challenges that disproportionately affect vulnerable populations, including Neurodivergent residents and those with Learning Disabilities. The document reports that over 10,000 children and young people aged 25 and under live in temporary accommodation in the borough. Overcrowding is identified as a significant issue, particularly in multi-generational households, which can profoundly impact quality of life. From engagement with residents, professionals, and providers, it was heard that overcrowding can often result in sensory overload for Neurodivergent people and potentially lead to behaviours of concern for residents with Learning Disabilities.

The "50 Steps" document also emphasises that fuel poverty is another pressing concern, with Newham having the second-highest rate in London and the 21st-highest nationally. Nearly a fifth of households - over 19,000 - struggle to afford adequate heating and lighting without falling into poverty. While the document does not provide specific data on how these issues affect Neurodivergent residents and those with Learning Disabilities, it suggests that these populations are likely disproportionately impacted given their often complex health and support needs. This is particularly relevant in light of feedback from some residents who spoke about the importance of being able to regulate body temperature.

The current provision of specialised housing in Newham, as detailed in the Market Position Statement—Care Homes Younger Adults, includes 96 beds across 16 younger adult care homes. This comprises 1 Acquired Brain Injury facility, 2 Mental Health facilities, and 13 Learning Disability facilities. However, when compared to the estimated population of 6,591 adults with Learning Disabilities and 2,884 autistic residents, this provision falls significantly short.

The high rate of out-of-borough placements further evidences the shortage of local options. As of April 2023, 150 residents aged 18-64 have been placed in Care Homes (117) or Nursing Homes (33), with 64% of these placements outside Newham. Similarly, of the 530 residents

receiving supported living services, 122 are placed out of the borough. This disconnects residents from their local communities and support networks and strains both people and the local authority in terms of management and oversight.

The Market Position Statement - Independent Living Support document notes that 774 people with Learning Disabilities and 300 autistic residents receive independent living services. These services, distinct from supported housing and engagement activities with residents, providers, and professionals, revealed that many of these residents live in general needs housing but may require adaptations to accommodate their needs.

To address these gaps and bring Newham up to the national average of 16% of people with Learning Disabilities living in supported accommodation, approximately 1,500 supported living places would be required. This represents a substantial increase from the current provision and highlights the scale of the challenge facing the borough. Furthermore, there is the opportunity to repatriate around 96 people currently placed in out-of-borough care homes if suitable in-borough options were available.

Alternative models of care, such as the Shared Lives scheme, offer promise but are currently limited in scale. With 52 long-term arrangements, this programme provides a more integrated community-based living option. However, the current number of arrangements is small compared to the overall need, indicating significant room for expansion. While Shared Lives can be an excellent model, one significant barrier to its wider adoption is that the accommodation is typically the Shared Lives Carers' existing homes, which are often difficult to adapt due to space constraints and other limitations. More shared care schemes could be implemented if a higher proportion of general needs social housing were provided with the design requirements highlighted in the design guide being developed as part of this project.

The SHMA reports that 83.5% of those with Learning Disabilities in Newham live in their own home or with family, higher than the national average of 77.5%. While this could suggest a strong family support network, engagement activities with residents, professionals and providers indicated that it more likely reflects a lack of suitable alternative housing options.

8.3: Challenges in Meeting Housing Needs

The Market Position Statement - Care Homes Younger Adults provides valuable insight into the specific challenges Newham faces in meeting housing needs. It highlights several requirements that are particularly difficult to accommodate, including facilities for people with Profound and Multiple Learning Disabilities (PMLD), support for ADHD, accommodation for those with behaviours of concern, and dual diagnosis (Mental Health and Learning Disability) support. Additionally, there's a need for facilities for epilepsy management, personality disorder support, wheelchair-accessible housing, and accommodation suitable for deaf and hard-of-hearing residents.

These specific needs underscore the complexity of providing suitable housing for this diverse population and the need for a range of specialised accommodation options. The same document also notes that Newham's in-borough placement rate for Care Homes is lower than the London average, partly due to the borough's high rental and capital costs. This economic factor contributes significantly to the need for out-of-borough placements, creating additional challenges for residents and their families.

8.4: Section Summary and Key Considerations

This section has provided a narrative around the scale of housing needs for Neurodivergent residents and those with Learning Disabilities in Newham, drawing from key local documents and insights from resident and professional engagement. It provided an overview of current population estimates and projected growth, revealing a significant and increasing demand for suitable housing. It has highlighted the gap between current housing provision and actual needs. It detailed the limited availability of supported living accommodation and specialised housing, leading to high out-of-borough placement rates. The overview also underlined broader housing challenges in Newham, such as overcrowding and fuel poverty, disproportionately affecting vulnerable populations, such as Neurodivergent residents and those with Learning Disabilities.

Newham faces significant challenges in meeting the diverse housing needs of its Neurodivergent residents and those with Learning Disabilities. While specialist housing

remains crucial for people with complex requirements, many residents with less complex needs can thrive in thoughtfully designed general needs housing. By implementing simple, cost-effective design strategies at the planning stage—such as flexible layouts, improved soundproofing, and intuitive features—in a proportion of general needs housing, Newham can expand its capacity to provide comfortable, independent living environments for a wider range of residents. This proactive approach avoids the need for costly adaptations to retrofit solutions later.

Section 9: Conclusion and Recommendations

9.1: Conclusion

This project aimed to identify and analyse the housing design needs and requirements of Neurodivergent residents and residents with Learning Disabilities in Newham, to inform the delivery of the Draft Local Plan. Through a comprehensive methodology including a scoping review of the literature, workshops with residents, professionals and providers, site visits, and analysis of current housing stock and policies, several key conclusions have emerged.

The project has highlighted that environmental design plays a pivotal role in the functioning, well-being, and quality of life of Neurodivergent residents and those with Learning Disabilities. Sensory elements such as acoustics, lighting, temperature, and spatial layout can significantly influence residents' comfort, behaviour, and independence. Even seemingly minor design elements, like the type of lighting or the kitchen layout, can have profound implications for residents' ability to live comfortably and independently.

There are distinct differences in the housing needs of Neurodivergent residents compared to those with Learning Disabilities, though some requirements overlap, especially for Neurodivergent residents with a Learning Disability. Neurodivergent residents tend to be more affected by sensory stimuli, often requiring environments that can be easily adjusted to manage sensory input. Those with Learning Disabilities, on the other hand, often require design features that enhance safety and support daily functioning. However, both groups benefit from designs that promote predictability, clarity, and control over their environment.

Current housing stock and design standards in Newham are evolving to better meet the diverse needs of its residents. While wheelchair accessibility standards (M4(3)) address many physical needs, there is growing recognition of the importance of also considering sensory, cognitive, and behavioural requirements. Recent developments have made significant strides in accessibility. Compliance with current building regulations, including those related to acoustics, ventilation, and thermal comfort, is addressing many of the issues identified. However, there is still potential to enhance features that would make properties more suitable for Neurodivergent residents and those with Learning Disabilities. Newham faces the complex

challenge of balancing these specialised design needs with other pressing housing priorities in a densely populated urban environment. This challenge presents opportunities for innovative solutions that could benefit all residents.

As part of this project, a design guide is being developed that will address design adaptations in general needs housing. However, this project has also identified a significant gap between the current provision of specialised and supported housing and the estimated need in Newham. This has resulted in high rates of out-of-borough placements and many residents living in unsuitable accommodations. The Strategic Housing Market Assessment and information from professionals and providers in Newham indicate that this gap will likely widen without significant intervention, given the projected population growth.

The projected growth in Neurodivergent residents and residents with Learning Disabilities, particularly among older adults, underscores the urgent need for future housing solutions that can adapt to changing needs across the lifespan. This demographic shift presents both a challenge and an opportunity for Newham to innovate in its housing provision, potentially becoming a leader in inclusive housing design.

This project has highlighted the need for innovative, flexible design approaches in housing provision, emphasising the value of choice and variation, particularly in social housing. Incorporating sensory-friendly features, safety considerations, and adaptability could significantly improve housing suitability for Neurodivergent residents and those with Learning Disabilities while benefiting the wider community. Ensuring a greater range of housing designs, especially in social housing, can more effectively meet diverse needs and preferences, potentially increasing resident satisfaction and well-being. The findings suggest that many of the design features that benefit these residents, such as improved acoustics, flexible lighting, and adaptable spaces, can enhance the living experience for all residents.

9.2: Recommendations:

In making these recommendations, it is important to acknowledge Newham's significant planning challenges. Newham contends with complex urban planning issues as one of London's most densely populated boroughs. The borough has the highest overall level of

homelessness in England, with 48 in every 1,000 households living in temporary accommodation. Furthermore, Newham's housing waiting list is the largest in London and has grown by 60% in the last five years. The borough also faces high levels of overcrowding, with 25% of households affected, according to the 2011 census. These pressing issues compete for attention and resources alongside the needs of Neurodivergent residents and those with Learning Disabilities. While the recommendations in this report are crucial for creating an inclusive housing landscape, it is recognised that Newham's planning team must balance these requirements with other urgent housing priorities. The challenge lies in developing integrated solutions that can address multiple needs simultaneously, maximising the impact of limited resources and space.

- Incorporate the specific design requirements, which are laid out in the Design Guide that accompanies this report, for Neurodivergent residents and those with Learning Disabilities into the Local Plan and housing design guidelines and planning requirements, particularly for social housing schemes. This should include considerations for sensory-friendly design, safety features, and adaptable spaces.
- Continue strengthening partnerships between the planning department and key stakeholders such as the Integrated Health Care System, Public Health, and health and social care services to ensure that new housing developments are designed to meet the physical and support needs of Neurodivergent residents and those with Learning Disabilities. By working together, these partners can create a holistic approach to housing that considers accessibility, support services, and community integration.
- Have input from a housing OT to ensure new housing developments and major refurbishment programmes meet the physical, sensory, and behavioural needs of Neurodivergent residents and those with Learning Disabilities.
- Establish a consultation process involving Neurodivergent residents, those with Learning Disabilities, and their families in designing and planning new housing developments.
- Provide training for housing officers, planners, and developers on the specific housing needs of Neurodivergent residents and those with Learning Disabilities to improve understanding and implementation of appropriate design features.

- Increase the provision of specialist and supported housing options within the borough to reduce out-of-borough placements and better meet local needs. This could include a mix of purpose-built accommodations and adaptations to existing properties.
- Expand alternative housing models, such as the Shared Lives scheme, which can provide community-based living options within general needs housing; however, funding for adaptations to existing homes would need to be considered.

By implementing these recommendations, Newham's Planning Team can work towards creating a more inclusive housing landscape that better meets the diverse needs of its residents, promotes independence and well-being, and supports community integration for Neurodivergent people and those with Learning Disabilities.

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