The Invisible City

Public Transport through Neurodivergent Lenses

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“Disabled is not something a person *is*, but something a person *becomes*”

– Ingunn Moser,
On Becoming Disabled and Articulating Alternatives, 2005

Cover Image (Image 1): Public Transport through Neurodivergent Lenses
Source: Author and Leddie 2023

This drawing illustrates the multiple ways in which the brain navigates public transport, the complex and multifaceted nature of our journeys. Alura Leddie (2023) helped visually create these images alongside the author.

Full page (Image 16, p.70): This City Sees You - Hidden Disabilities campaign on a bus stop
Source: Author and Leddie 2023

Gadigal Country

When I begin my acknowledgements for this thesis, I have no greater appreciation than in recognising First Australians and their country - Gadigal land, where I wrote most of my thesis. Sara Kian-Judge, a Wabunja-Yuin autistic artist, "generates conversations and change around the recognition, self-determination, and intrinsic rights of marginalised people, places and species" (Kian-Judge 2023). Her work is guided by her Indigenous cultural education and her lived experience of sensory synesthesia and autism. The image and extract below are from 'Upside Down People: Bats and Autism', a piece from the more extensive collection *Future Fables: Lessons from Other Animals.*

I am an autistic upside-down person, and . . . I am a human Bat.
Sometimes I wonder if Bats think we are upside down,
Because when you're a Bat—upside down is the right way up!
It's all about perspective (Kian-Judge 2023)

I recognise that sovereignty was never ceded and that First Nations people are traversing the built environment on stolen lands that are not planned by, nor for, Aboriginal people. Australia's first architects, designers, planners and custodians were and are First Nations people.

Always was, always will be, Aboriginal land.

Acknowledgements

Without the following people who have inspired, supported and listened to me along this journey, this thesis would not be what it is.

Thank you to my supervisor, Dr Christine Steinmetz, for being incredibly patient and supportive during the formulation of my research and writing topic. Your breadth of knowledge continued to challenge my own bias and assumptions in planning, inspiring me to continue to push boundaries. You took my very first lecture, introducing me to planning, and it seems so fitting that we have come full circle in my final year.

Thank you to the interviewees who took the time and energy to reveal their knowledge and expertise in this space. I have learned so much by speaking with you all, and I am excited to follow your future work.

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To the 2023 UNSW City Planning cohort, our university experience has been tumultuous and uncertain, but I have thoroughly enjoyed the journey with you all.

Thank you to my family and friends. Alura Leddie, thank you for being a creative genius and bringing my ideas to life. Taylor - for providing the freshest of perspectives and always being so patient. My parents - Anne and Lee- have steadfastly supported me throughout my degree.

Finally, thank you to my sister – Adelaide, who is the reason this body of work exists. This thesis is dedicated to her and anyone who has ever felt different.

Abstract

In recent years, designing public transport to accommodate those with physical disabilities has gained momentum. Less so has been the consideration of invisible disabilities, the experiences of neurodivergent individuals navigating public space. This thesis interrogates the terminology 'accessibility' and 'inclusive' when planning public transport networks and examines how such saturated rhetoric translates to the built environment.

Through an analysis of academic literature, policy, and cross-disciplinary interviews, this thesis makes recommendations for governments and research, emphasising the social value of public services in its fundamental role in serving communities. Despite the importance of compliance-based thinking in planning public transport, this thesis argues the need for a cultural shift that moves beyond the rigidity and 'pedestrian' nature of minimum standards of requirement. Accordingly, it reveals the strength of embedding a diversity of lived experiences in planning instruments that are proactive and by-design, baked in, not bolted on, accentuating the Transport 'Customer' as more than a transactional member of the community.

The design of public transport must reflect the spectrum of disability, where transport journeys are about dignity; all users and their intersecting needs feeling a sense of autonomy over their right to participate in everyday life.

Foreword

Throughout my degree, I have often questioned who our built environments are planned for. My experiences of exclusion in navigating public places have forced me to confront its complex nature. What does 'public' mean if it does not serve the needs of all people within a community? The inequity in access to a city perplexed me.

I am not neurodivergent. This thesis is inspired not by my own journey but by the journeys of many non-normative minds and bodies navigating public life and logistically existing in a space. As I delved further into the planning instruments that guide such public places, time and time again, they proved to be 'decorated' by the language of access and inclusivity.

Alarmingly, there seemed to be a chasm in the translation of these words in addressing invisible disabilities, not only in public discourse but equally across the planning system and the built environment. When looking at public transport, I began to see the complexity in creating inclusive environments, not only in the bricks and mortar of public space but also in the belief systems imbued in society, contributing to the social stratification of disability.

Navigating these systems and networks alongside neurodivergent individuals, I have come to the disturbing realisation of the privilege that is held by those who fit into society's standards of 'normal' brain functioning. Not because it is superior but because the city ultimately serves such minds. I hope this thesis supports a reframing of the multiple ways the city is traversed, each personal difference part of a larger shared story and collective responsibility. I hope that the city and its public networks and places start to tell the story of disability better, in all its diversity: bodies and minds.

You need to learn what this feels like because this tension is what non-normals carry inside of them all of the time (...) I believe we could paint a better world if we learned how to see it from all perspectives. (Hannah Gadsby in Nanette 2018).

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List of Abbreviations

ADHD	Attention Deficit Hyperactivity Disorder
CoS	City of Sydney
DIAP	Disability Inclusion Action Plan
FT2061	Future Transport 2061
GS	Greater Sydney
LGA	Local Government Area
NSW	New South Wales
ROM	Regional and Outer Metropolitan
TfNSW	Transport for New South Wales
The Act	Disability Inclusion Act 2014
The Convention	United Nations Convention on the Rights of Persons with Disabilities 2006
The DDA	Disability Discrimination Act 1992
The Transport Standards	Disability Standards for Accessible Public Transport 2002

1 Introduction

1.1 Context Setting

Disability is a spatially and socially constructed phenomenon (Kitchen 2010), where disabled people are one of the most marginalised groups in society (Park and Chowdhury 2018). It can be split into two categories, visible and invisible disabilities, and defined as "any limitation, restriction or impairment which restricts everyday activities and has lasted (...) for at least six months" (ABS 2018, sec. 5, par. 1). In recent years, literature and scholarship have focused much on physical or visible disabilities and have considered factors which contribute to such 'disablist' urban environments that hinder one's everyday experiences (Kenna 2023).

In Australia, one in five people, or 18% of the population, have a disability (Australian Network on Disability 2021). Of this 18%, 90% of those people live with an invisible disability (University of Sydney 2021). Despite this high percentage, the everyday perspectives and experiences of neurodivergent individuals navigating public space are vastly unreported and remain a "complex, and often hidden, geography of inclusion and exclusion" (Kenna 2023, p.374).

Neurodiversity is the "infinite variation in neurocognitive functions within our species" (Walker 2014). Within this diversity exists neurodivergent individuals with minds that significantly diverge from societal standards of 'normal'. It includes (but is not limited to) diagnoses such as Autism, Attention Hyperactivity Deficit Disorder (ADHD), Obsessive Compulsive Disorder, Dyslexia, Dyspraxia and Generalised Social Anxiety Disorder.

Kenna (2023) describes the urgent need for built environment disciplines, as well as public discourse and academia, to recognise neurodivergence "as more than autism and more than sensory" (p.371). By broadening the definition and recognition of invisible disabilities, the diverse "embodied reality of neurodiversity in everyday urban life" can be realised (Kenna 2023, p.372).

The focus of this thesis is specifically on the experiences of public transport. Neurodivergent individuals have reported feelings of exclusion, distress and non-belonging about public space, where there has been a lack of consideration of the "multidimensional and layered encounters with public transport spaces" (Kenna 2023, p.374). Such challenges are crucial to address as inaccessible public transport can threaten an individual's right to participate in urban life.

By revealing the complex and multifaceted ways people navigate public transport, this thesis demonstrates the disproportionate focus planning instruments have on the needs of physically disabled people compared to those who are neurodivergent. It takes a cross-disciplinary approach to investigate various opportunities that respond to words such as accessibility and inclusive when accommodating invisible disabilities in public transport. This thesis aims to inform policy and urban design in state and local government contexts and research. At the core, it is a body of work that challenges what 'normal' means when traversing public space, moving beyond compliance-based thinking to consider the lived experience of navigating public transport from neurodivergent lenses.

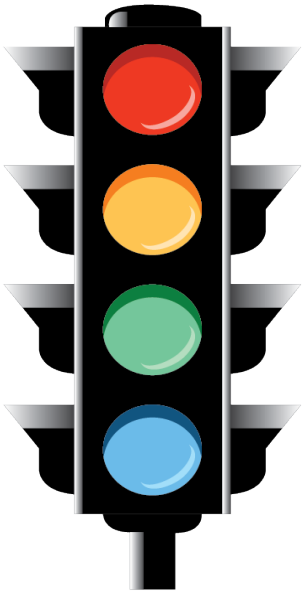


Image 1: Blue traffic light, an interpretation of the city experienced non-normatively

Source: Author and Leddie 2023

1.2 Research Question and Objectives

The overarching research question for this thesis is:

How can public transport be inclusive to neurodivergent individuals?

The following objectives establish the structure and methodology of this thesis:

1. Establish the barriers that exist in the public transport system for neurodivergent individuals?
2. Reveal the opportunities that exist to create more inclusive and accessible journeys for neurodivergent individuals?
3. Determine the implications for policy and urban design requirements to achieve better outcomes for public transport?

1.3 Key Terms

The following definitions establish the boundary of critical terms used throughout this thesis.

Neurodiversity is a term that refers to the diversity among human minds and neurocognitive functioning (Walker and Raymaker 2014). It is a non-medical term but a biological fact. This term includes both neurotypical and neurodivergent people.

Neurodivergent is a term created by Kassiane Asasumasu – a neurodivergent activist. It means having "a mind that functions in ways which diverge significantly from the dominant societal standards of "normal" (Walker and Raymaker 2014). **Neurodivergence** (the state of being neurodivergent) can be genetic or produced by a brain-altering experience. Examples of neurodivergence include but are not limited to Attention Hyperactivity Deficit Disorder (ADHD), Autism, Obsessive Compulsive Disorder, Dyslexia, and Social Anxiety. Both words are used interchangeably with **Invisible Disabilities**.

Neurotypical refers to having a brain that functions according to society's standards of 'normal' and is the cognitive functioning that neurodivergent individuals diverge from (Walker and Raymaker 2014). A comparison to sexuality can be made, where neurotypical to neurodivergent is what "straight bears to queer" (Walker and Raymaker 2014).

1.4 Limitations

The first limitation of this thesis is the timeframe and word limit as part of an undergraduate degree. The research methods chosen were designed considering these immutable factors. The second limitation is that this thesis did not undertake a research method that intentionally engaged with the neurodivergent community. This qualitative data set would have been invaluable in hearing the varied perspectives and experiences of neurodivergent individuals and their relationship to public transport. However, the ethical requirements, training, and space required to carefully and adequately share such experiences were inappropriate for an undergraduate research thesis.

A third limitation is that the policy reviewed is only in New South Wales (NSW). While this thesis compares international and domestic case studies in the literature review, the scope only focuses on NSW local and state policy rather than a broader national practice. Finally, multiple people and organisations were contacted about this thesis, including teams in local government, state government, organisations and the private sector. Unfortunately, due to capacity levels and constraints, many respectfully declined an interview, or there was no response.

1.5 Thesis Structure

Chapter 1 – Introduction provides an overview of the importance of the scope of this thesis, where there is a lack of consideration for neurodivergence and its relationship to public transport. It established the research question and objectives, key terms and limitations of this study.

Chapter 2 – Literature Review examines the relevant academic literature and policy concerning invisible disabilities, illustrating the historical marginalisation of disability, which has influenced planning mechanisms and the inaccessibility of the built environment today.

Chapter 3 – Research Design justifies a qualitative approach in addressing the research objective, with its primary methods of a policy review and cross-disciplinary interviews.

Chapter 4 – Policy Review reveals the current policy concerning invisible disabilities in NSW at a local and state government level. It analyses Transport for New South Wales (TfNSW) and the City of Sydney (CoS) thematically, revealing key barriers and opportunities for policy in relation to neurodivergence.

Chapter 5 – Critical Perspectives presents qualitative, thematically organised interviews of 14 individuals across state governments, research and peak bodies.

Chapter 6 – Discussion & Recommendations dialogues the critical findings of Chapters 4 and 5, illustrating a series of recommendations for government and research for better inclusion of neurodivergent individuals to public transport.

Chapter 7 – Conclusion summarises these findings, aligning them to the original research question and objectives. It concludes by outlining where intervention should be prioritised and identifying implications and recommendations for further research.

2 Literature Review

2.1 Introduction

The structure of this literature review explores several concepts to understand the relationship between the built environment, specifically public transport networks, and neurodivergence. It begins by contextualising disability in history, using Foucault's social theory on the dynamic relationship between knowledge and power to reveal the continual marginalisation of disabled people. The second section explores manifestations of such marginalisation in a contemporary context, influenced by neo-liberalism as a contributor to the individualisation of challenges faced by disabled people. Finally, the third section draws on the importance of dismantling planning terminology such as 'accessibility' and 'inclusive' when assessing the nature of the built environment and the physical, social and attitudinal factors that contribute to the meaningful embodiment of all types of people.

2.2 Contextualising Disability in History

Throughout history, disability and public space have had a complicated relationship. The *public* relates to or involves "people in general, rather than being limited to a particular group..." (Cambridge Dictionary 2023a). However, many neurodivergent individuals reveal that they have a problematic relationship with their surrounding environment (Kenna 2023). What does 'public' mean if not inclusive to all people and their gender, age, culture, sexuality, ethnicity, ability, neurocognitive functioning and intersections?

Suzanne Lacy (1995 p.20) questions the meaning of the term *public*, interrogating it as "a qualifying description of place, ownership, or access?". If this lens is applied to the public spaces and networks within the built environment, then there should be public places where the diversity of a community feels a sense of ownership and access to its services. This chapter begins to dialogue why this is not the case for everyone.

2.2.1 *Access to the city – a right or political act?*

Throughout history, those with a disability, both visible and invisible, have had to fight for their place in the city and its public spaces. During the 1800s, the stigmatisation and physical, social, and economic exclusion of disabled people meant they remained largely hidden and absent from public places (Anti-Defamation League Education 2017). They were considered 'unfit' in their ability to participate in or contribute to everyday life (Anti-Defamation League Education 2017). Such exclusion and segregation are not solely characteristic of the experiences of disabled people. Similar types of oppression can be traced back through history to other groups, including ethnically, culturally and linguistically diverse people, the lesbian, gay, bisexual, transgender, queer, intersex asexual community, women, indigenous populations and their intersections.

This marginalisation continued until American veterans of World War II began to advocate for the rights of people with a disability, as many of them were disabled from combat (Anti-Defamation League Education 2017). They discovered that when they returned home, the city was inaccessible due to the design of its streets. Today, where the kerb slopes down to enable wheelchairs to move from a road onto the footpath, there used to be a step (Eislund and Caballero 2022). Leveraging their position as citizens who had dedicated their lives to the safety of the United States (Anti-Defamation League Education 2017), prominent figures such as Michael Pachovas (Blackwell 2017) and Jack Fisher began pouring cement to create ramps, a gesture seen as political defiance (Eislund and Caballero 2022), see **Image 2.**

Image 2: Protesters lobbying for Equal Rights

Source: Photographer - Bettmann cited in Hendren 2020

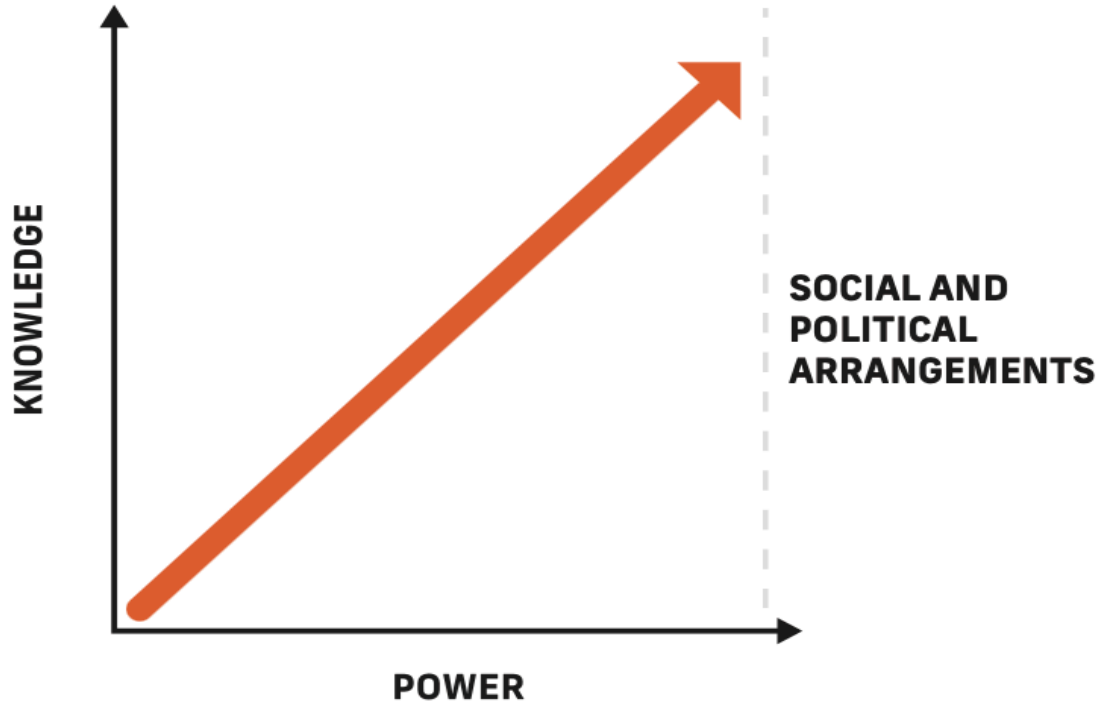
Soon after, the government passed the Architectural Barriers Act (1968), a law that required "federally funded facilities to remove obstacles to accessibility" (Eislund and Caballero 2022). This led to further reform by implementing the Americans with Disabilities Act (1990), which prohibited discrimination against disabled people and mandated curb cuts on all sidewalks in the United States (Eislund and Caballero 2022). The influence of such 'political defiance' can be witnessed internationally, including the Australian Standard 1428.1-2009 Design for Access and Mobility (Council of Standards Australia 2009).

As pivotal as curb cuts were in the broader sphere of the disability rights movement, cutting kerbs to make streets accessible should not be seen as a political act but rather the reclamation of a fundamental human right. According to the Inter-Parliamentary Union and United Nations (2016), *human rights* are "relationships between individuals and power structures, especially the state" (p. 19). In this regard, the implication that disabled people's right to the city is a political act echoes the Foucauldian theory of the body as a "thoroughly and inexorably politicised space" (Anders 2013).

2.2.2 *Power in public space*

Michel Foucault, a French philosopher and political activist, was a prominent thinker of the late 20th century. His work argued that while many societies no longer rely on punishment and torture through animalistic methods (such as public hangings), new forms of government in modern societies still strive for control, particularly over people's bodies and the sculpting of their everyday behaviours (Pollard 2019). One of the ways Foucault explains this concept is in his Power/Knowledge Theory, see **Figure 1**. This theory explains that certain groups of power can be advanced through scientific understandings of 'truth' or knowledge, usually at the expense of marginalising others through social and political arrangements (Pollard 2019).

Figure 1: Foucault's Power/Knowledge Theory



Source: Author and Leddie 2023

In the context of this thesis, the theory of Power/Knowledge produces disability as an abject identity (Anders 2013). The scientific 'truth' can be witnessed in the medical model of disability, which focuses on the traditional methods of pathologising or diagnosing someone through a biomedical lens (Disabled World 2022). By defining *disability* as a trait of an individual, the medical model has contributed to placing people on a scale of blame, scrutinising their maladaptation to predominantly ableist public spaces.

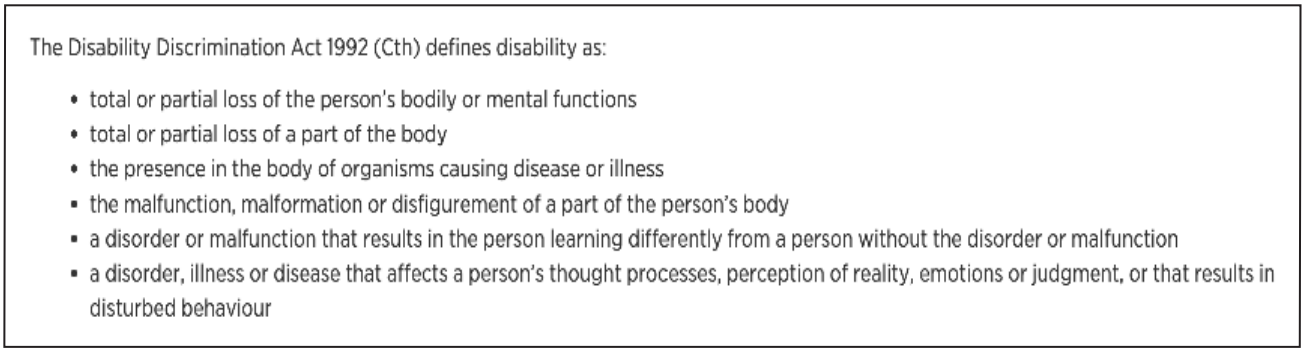
Furthermore, the traditional impulse of 'fixing' disabled people "is the hallmark of a modern, normalising society that has little tolerance or willingness to accommodate the differences of disabled people" (Anders 2013). Gaventa (2003) builds on this theory, emphasising that such "power" is then exercised through a "socialised and embodied phenomenon". Examples of this embodiment can be witnessed in the parallels between neurodivergence, sexuality and gender. Just as the "prevailing culture entrains and pushes people into the embodied performance of heteronormative gender roles, it also entrains and pushes us into the embodied performance of neurotypicality – the performance of what the dominant culture considers a "normal body-mind" (Walker and Raymaker 2021, p.7). This notion highlights the tendency of built environments to suppress one's authenticity and self-expression based on traditional notions of 'normality'.

This concept of power can seem "elusive and removed from agency or structure", with little scope for tangible action (Gaventa 2003). Peters and Besley (2007) build on Foucault's theory, demonstrating the inextricable link between knowledge/power and its manifestations in the politics of space, people and human bodies. They emphasise "that the politics of space is based upon how space is fundamental to the exercise of power", particularly between the State and the population (2007, p.73). In other words, the State plays a more significant role in constructing and interpreting space.

The politics of space in today's context have produced disability as "a private problem that should be fixed by adapting disabled bodies to a normalised society" (Gaventa 2003). This 'normalised' society can be witnessed in neurotypical behaviour seen as 'right' or 'normal', reinforced in the design and attitudes pervasive in public space. Despite neurodivergence being thought of as 'invisible', the experience of exclusion and non-belonging can be "distinct bodily responses" (Kenna 2023, p.378), manifesting as additional emotional labour, masking of behaviours and feelings of internalised stigma (Phillips 2022).

2.2.3 The blame game

Historically, disabilities have been observed as a characteristic of the individual (Disabled World 2022). In recent times, a more progressive alternate definition of *disability* has occurred through a social model, the ideology that it is a consequence of the environment. The differences between the two models can be witnessed across multiple disciplines and instruments. In Australia, the Disability Discrimination Act (DDA) 1992 (Cth) classifies disability as an individual's physical or mental trait, as seen in **Image 3.**


The Disability Discrimination Act 1992 (Cth) defines disability as:

- total or partial loss of the person's bodily or mental functions
- total or partial loss of a part of the body
- the presence in the body of organisms causing disease or illness
- the malfunction, malformation or disfigurement of a part of the person's body
- a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction
- a disorder, illness or disease that affects a person's thought processes, perception of reality, emotions or judgment, or that results in disturbed behaviour

Image 3: Extract from the DDA (1992)

Source: Western Sydney University 2023

In contrast to the DDA's definition of disability, the World Health Organisation (2023) describes disability as a result of the interactions between individuals with health or physical conditions and personal and environmental factors, such as inaccessible transportation. It should be noted that one definition of disability is not necessarily better than the other.

Both models play essential roles in validating the experiences of neurodivergent individuals, particularly diagnosis, which can provide "life-giving concepts...their absence can give clues to who might be excluded" (Phillips 2022). Ultimately, it should be up to the individual to define their disability if they label it as such. For example, someone who is neurodivergent may not label it as a disability due to the negative connotations associated with such classification and the misunderstanding of what encompasses the definition of disability.

However, the terminology used in the medical model and the DDA, such as *deficit* and *disorder,* can insinuate a comparison of neurodivergent individuals to those who are neurotypical. This comparison is not in the objectivity of the words used in the diagnosis, but the meaning and interpretation by society of those diagnoses as 'less than' and 'different'. For example, Attention Hyperactivity Deficit Disorder (ADHD) has both *deficit* and *disorder i*n the label, implying that there is a comparison of the individual who has ADHD to someone who has society's standards of 'normal' brain functioning as the 'right' amount of attention and hyperactivity. Similarly, the categorisation of an autistic individual as 'high or low functioning' (Walker & Raymaker 2021) is equally destructive, placing the person on a 'scale of blame' (see **Image 4**) of how well they function in society.

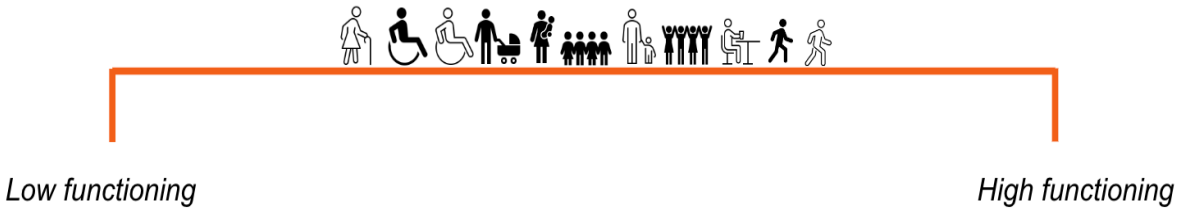


Image 4: Scale of blame on an individual as 'low' or 'high' functioning

Source: Author 2023

Nick Walker, an author, educator, and professor, suggests the paramount need to shift away from blaming the diagnosis to looking at the surrounding environmental factors that contribute to disabling situations. For example, there is a high rate of social anxiety among autistic individuals, often labelled as symptomatic of autism itself (Walker and Raymaker 2021). Walker argues the need to instead look at social anxiety as a product of the "extensive social trauma that neurotypical society inflicts upon autistics from early childhood onwards..." (2021 p.8). Therefore, the built environment needs to take more accountability for its current design of public spaces and networks, which cater for 'normal' brain functioning to the detriment of neurodivergent individuals.

The episode 'Low Functioning Society with Mattia Mauree' on the *Neuro Queering Podcast* (2023) reframes such blameful language, alternately classifying environments as 'high or low functioning'. Redirecting the discourse to focus on the "forces that produce disabling environments" (Anders 2013) allows a reflection on the design of public space and its networks, scrutinising its agility to meet the diversity of people and their needs.

Image 5: Scale of blame on environments as 'low' or 'high' functioning

Source: Author 2023

2.3 The Barriers in Urban Life

Until recently, built environments and their spaces have been "organised and written to perpetuate disablist practices" as they maintain and reinforce processes of exclusion (Kitchen 2010, p.346). Such disablism can be witnessed in a multitude of ways across urban life.

Kitchen (2010) reveals two key areas, the first relating to space as "social texts that convey to disabled people that they are out of place" (p.345). The second highlights the hegemonic relationships that contribute to the marginalisation of disability, maintained through the implicit and explicit way spaces are designed (2010, p.346).

Common elements of the built environment that tend to be implemented neurotypically include lighting, noise, temperature and texture, all of which can cause stress and overwhelm neurodivergent individuals (Chan 2018). These emotions are not the collective or homogenous experience of the neurodivergent community navigating public space. However, such stressful elements can reinforce the notion that disabled people "are out of place" (Kitchen 2010, p.351).

As Therese Kenna (2023) illustrates in *Neurodiversity in the City: Exploring the complex geographies of belonging and exclusion in urban space*, navigating everyday life for neurodivergent individuals is complex due to its "unpredictable and fluid nature', where urban places embody spatial binaries of inclusion and exclusion (or both)" (p.370). Kenna (2023) further alludes to some of these complexities of urban life, stating, "What if you cannot easily process the constant changes of urban life, like a bus running late, and thus changes to your daily schedule or usual rhythm? For people who are neurodiverse, it can be difficult to quickly adapt to changing urban environments, taking time to replan one's day, perhaps even abandoning the day altogether" (p.373). When access is denied to essential urban services such as public transport or when the "complexities cannot be reduced, altered or predicted, then urban spaces can become more exclusionary" (Kenna 2023, p.376). This exclusion can be experienced physically and socially, and is reinforced in the built environment where "the symbolic meanings of landscape indicate to us how to act" (Kitchen 2010, p.350).

2.3.1 *The individualisation of disability in Neoliberal contexts*

The medical model of disability and its pathology has contributed to the individualisation of neurodivergence in a neoliberal context. *Neoliberalism* is a political and economic philosophy favouring private enterprise over government intervention and regulation, valuing the efficient functioning of free market capitalism (Manning 2022). Critiques of the characteristics of this approach suggest that it worsens economic inequality and threatens the principles of democracy and an individual's right to self-determination (Manning 2022).

In the article *Neoliberalism – The Ideology at the Root of All Our Problems*, George Monbiot (2016) writes that the philosophy was born out of the "conscious attempt to reshape human life and shift the locus of power". Monbiot (2016) goes on to state that the impact of neoliberalism, particularly the privatisation of public services, has redefined "citizens as consumers". This privatisation is reflected in public transport as it is at a "turning point in its history", transitioning from its traditional functioning of moving masses of people to a more customer-centred service approach (UITP Advancing Public Transport, 2022).

Labelling public transport users as 'customers' has reinforced people as merely transactional members of society, depersonalising the community's diverse needs. In conjunction with the privatisation of public services, this economic 'veil' placed over public transport users has contributed to the government evading responsibility in addressing the individual and collective struggles of access.

2.3.2 *The social model of disability and its personas*

The social model of disability has also influenced the planning system. It is the notion that being disabled "is not something one is, but something one becomes" (Heylighen, Van der Linden and Van Steenwinkel 2017, p.38), where the perception of individuals and built environment professionals recognise the simultaneous relationship between disability and the environment.

At the core of the social model is the implication "that we may all end up in disabling situations, regardless of whether we have an impairment" (Heylighen, Van der Linden and Van Steenwinkel 2017, p.44).

The understanding that we may all be in disabling situations is essential in communicating the shared and collective responsibility of creating inclusive public space. However, it is crucial to distinguish between *disability* and disabling situations. In government, personas (see **Image 6**) are used as "fictional representations of a target audience, designed to help designers and marketers understand their customers better" (Stith 2023). They can help generate dialogue that looks at public space from multiple lived experiences. However, they can also be harmful in minimising and oversimplifying the complexity of people's experiences. Specifically, within disability, they tend to reinforce certain stereotypes and overlook the diversity and intersection of groups of people (Stith 2023).

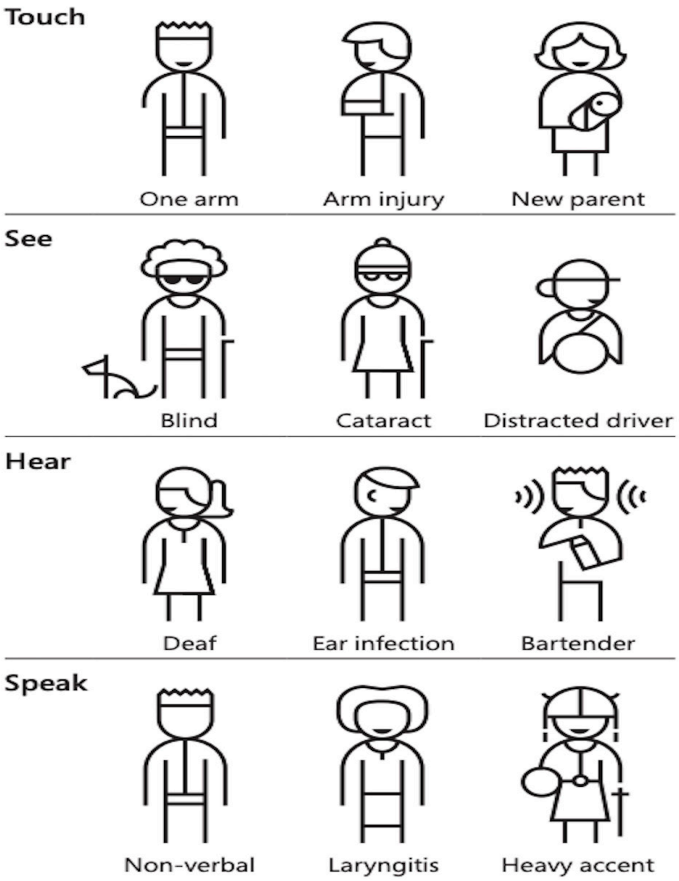


Image 6: Disabling situations illustrated by personas

Source: Shum, et al. 2016

As Foucault's theory suggests, specific power structures exist with the knowledge and categorisation of individuals, relegating groups of people to a "socially and politically marginalised identity" (Anders 2013). For example, **Image 6** demonstrates that an individual with one arm is in the same category of 'Touch' as a parent holding their child. While both individuals' physical abilities are restricted, other disabling factors are not considered. For example, the distinctively different social and attitudinal perspectives towards the two individuals, where the parent holding a baby is welcomed, even celebrated in public space, as opposed to the stigma and judgement the individual with one arm may feel from the public over their impairment.

The social model supports reframing disability as more than a person's responsibility. However, applying personas to the design of projects can be seen in one respect as a 'shortcut', removing the need to seek and engage with lived experience. In another respect, a persona can be interpreted as abled-bodied people placing their own experience of disabling situations on disability to 'walk a mile in their shoes'.

2.3.3 Accessibility – minimum standard of design

Arguably, *accessibility* and *inclusive* are the latest buzzwords, shallow rhetoric recurrent in strategic documents. According to Case Western Reserve University (2023), *accessibility* can be defined as all people, regardless of disability, being able to interact and use a service. Transport for New South Wales (TfNSW) strategy Future Transport 2061 outlines one of its main principles (see **Image 7**) of equity and inclusivity as "providing people with equal access regardless of age, ability, socio-economic or personal circumstances" (2022, p. 8). However, mechanisms which influence the built environment conceive accessibility as the application of minimum standards in building regulations, codes and policy, particularly for individuals with physical disabilities (Ormerod and Newtown 2005, cited in Black et al. 2022).

Despite minimum design standards being a fundamental part of the city's functioning and paramount to safety, many designers and architects feel that legislation concerning accessibility and government standardisation restricts their ability to explore creative design solutions (Ormerod and Newtown 2005, cited in Black et al. 2022).

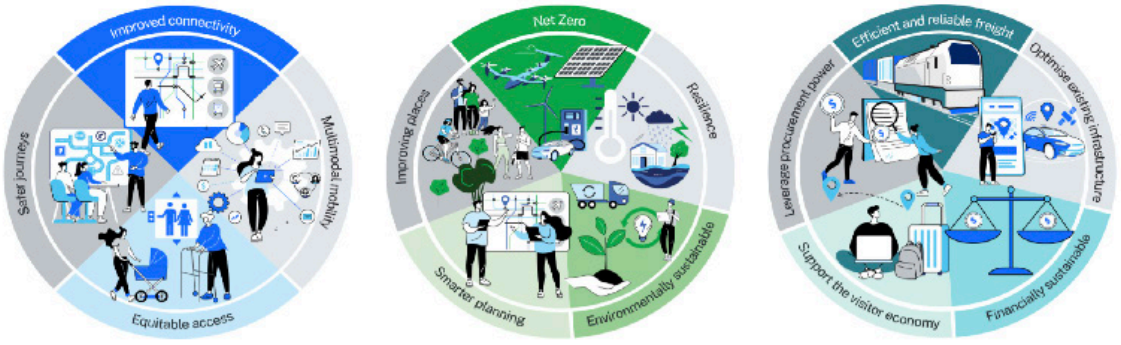


Image 7: TfNSW's main objectives

Source: Transport for NSW 2023a

This bromidic nature of accessibility in a neoliberal context has allowed decision-makers of the built environment to evade responsibility to design space that meets the diversity of needs of a community. An approach that supports the inclusion of all people is implementing universal design. *Universal design* is the composition of an environment to be accessed and used by everybody, most naturally and as independently as possible, regardless of ability (Centre for Excellence in Universal Design 2020). It has seven principles that concern democracy, equity, and social inclusion (Black et al. 2022). However, this principle-based approach has become politically stigmatised and is considered a 'utopian approach' in its "goal to design for everyone" (Heylighen, Van der Linden, Van Steenwinkel 2017, p.1). In the same way that the American veterans' right to access the city was seen as political defiance, universal design and its principles, which contribute to public spaces embodying fundamental human rights, inclusionary to a diversity of needs, has also become politicised.

2.4 The Politics of Inclusion

2.4.1 Universal design; a 'nice to have'

The politics of universal design can be seen in the standard arguments against it. Some of the arguments include that there is no business case for universal design, there will be increased costs associated with its principles, and the aesthetics of the built form will be sacrificed (Vanderheiden & Tobia 2000; Goodman, Dong, Langdon et al. 2006 cited Heylighen, Van der Linden and Van Steenwinkel 2017, p.6). Further, universal design will involve a more rigorous and complex design process, it will take a longer time to implement and is not an end-user need or priority (Vanderheiden & Tobia 2000; Goodman, Dong, Langdon et al. 2006 cited Heylighen, Van der Linden and Van Steenwinkel 2017, p.6).

Positively, society seems to have a more comprehensive understanding of the importance of accommodating physical disabilities. Designs such as ramps to accompany steps, elevators, accessible bathrooms, priority parking and wayfinding can be seen in most public places (Jackson 2023). Such accessibility is usually in conjunction with the universal and internationally recognised symbol of the person in a wheelchair, see **Image 8.**

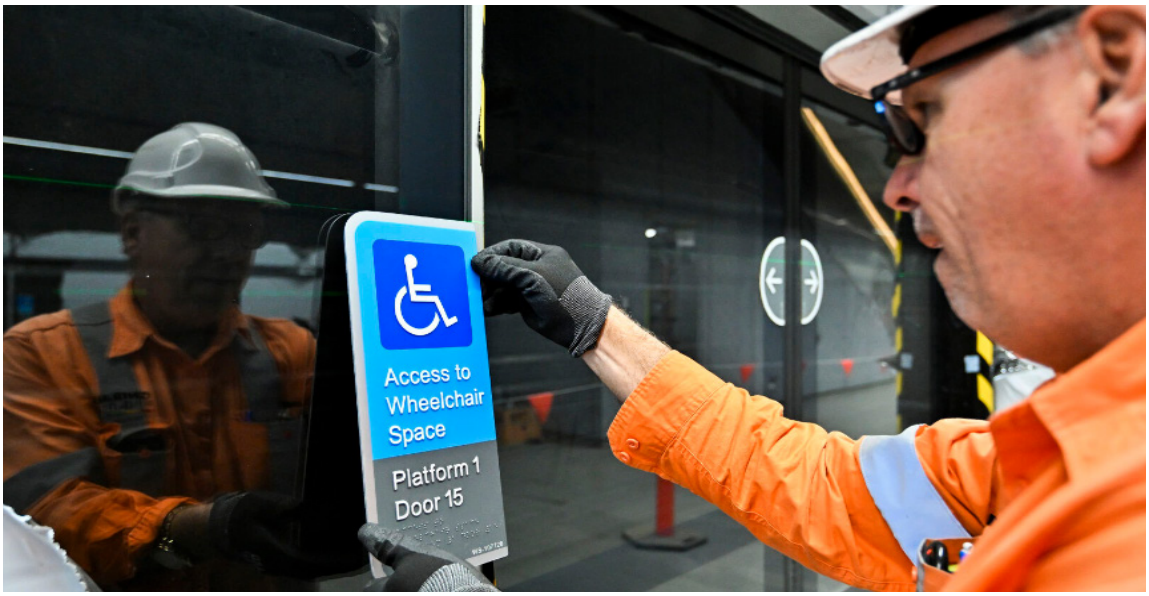


Image 8: International symbol of access fitted onto a metro carriage

Source: Sydney Metro 2023

In Australia, only 4.4% of people with a disability use a wheelchair (Australian Bureau of Statistics 2018). While the international symbol of access is vital in recognising wheelchair access, 90% of people living with a disability in Australia have an invisible disability (University of Sydney 2021). These statistics demonstrate that as a nation, Australia must expand its vocabulary of what it means to have a disability through the universal symbols of accessibility, evident in the built environment.

2.4.2 The Sunflower Program

A program that is working towards expanding the definition of disability and the symbols in the built environment that reflect it is The Hidden Disabilities Sunflower, see **Image 9**. The Hidden Disabilities Sunflower is an organisation that distributes sunflower lanyards to those with invisible disabilities to discreetly and respectfully raise awareness of the diversity of cognitive functioning (Hidden Disabilities Sunflower 2023). This program supports the public's perception and understanding of hidden disabilities.

TfNSW has recently joined the initiative, providing people with free lanyards and supporting neurodivergent people in navigating the rail network across NSW more confidently (TfNSW 2023b). There are an estimated 138,000 people with a hidden disability who use NSW's rail network every day (TfNSW 2023b). The sunflower lanyards are available at 20 stations on the intercity and regional train networks (TfNSW2023b). Furthermore, the state government agency has worked with Autism Spectrum Australia, developing and delivering training to approximately 90% of Sydney Trains and NSW Train Link customer service staff (TfNSW2023b).

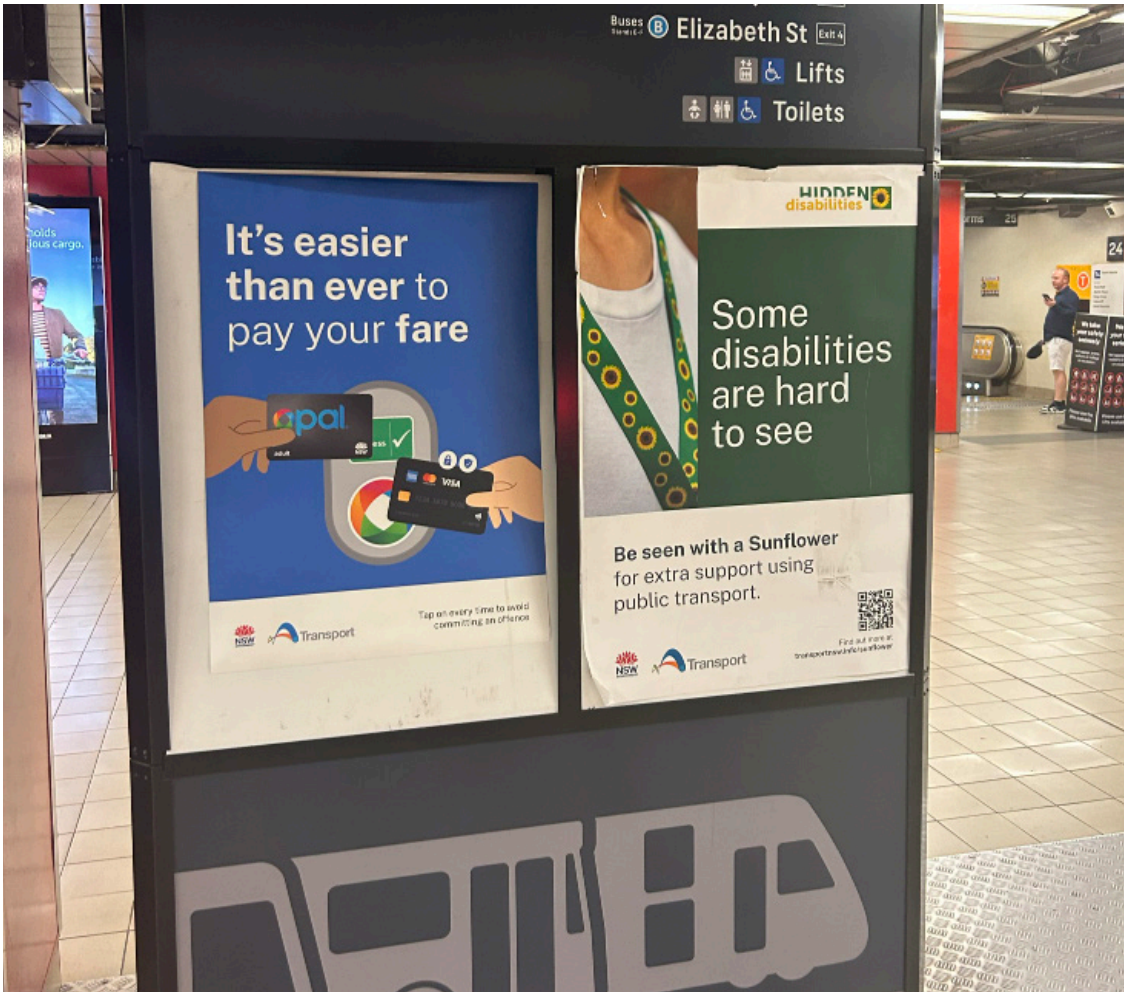


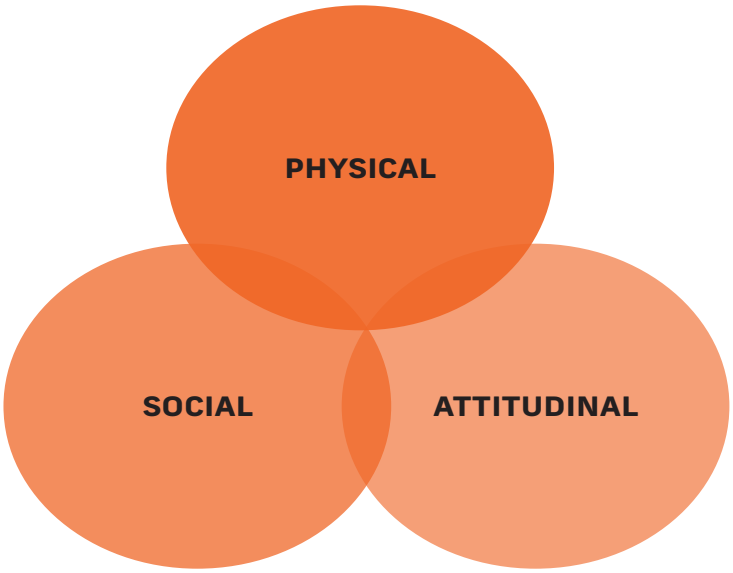
Image 9: Awareness campaign for the Sunflower Lanyard Program, Central Station

Source: Author 2023

2.4.3 Cross-disciplinary approach for cross-disciplinary outcomes

The planning of neurodivergent individuals in public space and its networks must be approached from multiple disciplines. This ensures that the approach is a cultural shift woven into the fabric of the mechanisms that influence the design of built environments. By doing so, this shift begins to avoid 'retrofitting' accessibility to complex, exclusionary spaces that embody inaccessibility in the physicality of the public domain, as well as the social and attitudinal perspectives that pertain to disability.

Figure 2: The visible and invisible elements of accessibility in public space



Source: Author and Leddie 2023

Similarly to the complexity of conceptualising invisible disabilities and those experiences of navigating public space, it is also fundamental to understand the imperceptible factors that contribute to the built environment becoming inaccessible and then be able to address them. As Monbiot (2016) states, "What greater power can there be than to operate namelessly?". In this context, the mechanisms operating namelessly within the built environment are the social and attitudinal perspectives imbued in society, see **Figure 2.** Such perspectives stem from historical notions that disabled people are "unproductive, unattractive, antisocial and tainted by disease/ ill-health" (Kitchen 2010, p.351).

The planning system has then reinforced these understandings in its mechanisms, such as policy, which has aimed to make disabled people "more normal rather than changing the system to accommodate disabled people" (Kitchen 2010, p.347). Thus, when the instruments that influence public space embody able-bodied conceptions of the world, consciously or subconsciously, consideration of disability and its diversity is lost. This lack of representation then propels more archaic understandings of disability, reinforcing this silent, perpetual cycle of maintaining the status quo.

By taking a cross-disciplinary approach to the inclusion of neurodivergent individuals, cross-disciplinary outcomes can be achieved. Design solutions for the inclusion of invisible disabilities do not occur in silos but across disciplines and elements of the built environment. The British Standards Institution has launched the first-of-its-kind national guidance for building designers and planners - PAS 6463, Design for the Mind – Neurodiversity and the Built Environment (British Standards Institution 2023). In the United Kingdom, one in seven people are neurodivergent (The Donaldson Trust 2023). The British Standards Institution acknowledges that neurodivergent people and their needs have not been recognised as much as physical disability (British Standards Institution 2023).

PAS 6463 was developed by industry professionals and people with lived experience and aims to assist built environment professionals in mitigating and eliminating the barriers existent in public spaces for neurodivergent individuals (Motion Spot 2023). The design guide recommends elements of the built environment contributing to sensory overload and exhaustion. These include spatial and functional planning, materials, air quality, temperature, environmental services, sound characteristics, patterns and visual noise, light, glare and reflections (Motion Spot 2023).

Furthermore, in Australia the Victorian government implemented a whole-of-government policy incorporating universal design principles in infrastructure and public transport. (Victorian Government 2022). Despite Victoria's statutory obligations and responsibilities under the Charter of Human Rights and Responsibilities Act 2006 and the Disability Act 2006, it recognises that "compliance with minimum accessibility requirements does not ensure equitable outcomes for all people" (Victorian Government 2022, p.6). The Victorian government implements universal design principles across procurement or functional briefs, design standards, co-design and user engagements and the lifecycle of a project (The Victorian Government 2022). It also addresses the standard arguments against universal design and cost, stating that it can "save project costs by reducing dependency on complex mechanical features" and retrofitting accessibility when standards progress (The Victorian Government 2022, p.5).

2.5 Summary

This chapter has contextualised the history of disability, using Foucauldian knowledge and theories to frame how power exists in public space, particularly in politicising the body through social and political arrangements. It has demonstrated how disability is defined as both something a person is and becomes, and how such models influence the built environment. By revealing the manifestations of each model in a neoliberal context, this chapter interrogated the frequent terminology of 'accessibility' and 'inclusive' used in the planning system, understanding the politics associated with each word and how they translate to the built environment.

Acknowledging that public spaces and their services are historically not designed by, nor for, the diversity and differences within the disability community is the first step in comprehending how we resolve existing spatial inaccessibility and exclusion today. The current relationships of power in public space will continue to ostracise neurodivergent individuals unless one begins to question what 'normal' means when navigating the built environment.

3 Research Design

3.1 Introduction

This thesis uses multiple research methods within a qualitative methodology. Qualitative research is the process of interrogating the "why" over the "what", studying human and social phenomena (University of Texas Arlington 2023). The methods applied in this research paper are a literature review, a policy review and interviews to engage in critical perspectives. It is important to note that the research findings from each method are at a point in time - a snapshot of where policy and disciplines are.

3.1.1 Research objectives and method alignment

Research objectives	Method
Establish the barriers that exist in the public transport system for neurodivergent individuals?	Literature review Policy review
Reveal the opportunities that exist to create more inclusive and accessible journeys for neurodivergent individuals?	Policy review Interviews
Determine the implications for policy and urban design requirements to achieve better outcomes for public transport?	Interviews

3.2 Literature Review

This thesis includes a literature review to contextualise the history of disability and its relationship to planning. It includes reviewing and analysing academic journals, articles and strategic documents to capture current understandings of neurodivergence in relation to public transport.

3.3 Policy Review

The first research method used for this thesis was a policy review. This method reviewed current legislation that guides state and local government policy. It then analysed the City of Sydney and Transport for NSW policy thematically to understand the government's current position on disability and the scope of responsibility in creating inclusive public transport. This section included a keyword audit of all NSW Local Government's Disability Inclusion Action Plans.

3.4 Critical Perspectives

I conducted 14 interviews to engage a wide range of professionals to understand their insights and expertise on neurodivergence concerning public transport. I specifically interviewed two researchers to understand the current state of neurodivergence in academia, one expert in universal design to reveal the importance of inclusion by design, one individual from the Victorian Government to provide a different state approach, one individual from the public sector, seven from Transport for NSW and two from Sydney Metro to understand the specific mechanisms of policy and urban design concerning public transport and the inclusion of neurodivergence.

3.5 Ethical Considerations

It is important to note that while writing this thesis, I worked at TfNSW and have done so since January 2021. I have not worked directly with any of the interviewees, eliminating any bias from working with colleagues. Although the topic of this thesis can be seen as sensitive, as it involves the discussion of neurodivergence, the research itself is considered low risk. This is because it did not directly engage with neurodivergent individuals based on their neurocognitive functioning, nor did it ask any direct questions. Across multiple interviews, some individuals revealed their personal experiences or those of a close person. As such, I have chosen to keep the interviewees anonymous.

4 Policy Review

4.1 Introduction

This chapter analyses neurodivergence in the context of NSW disability policy. It addresses research objective 1: *Establish the barriers that exist in the public transport system for neurodivergent individuals?* Research objective 2: *Reveal the opportunities that exist to create more inclusive and accessible journeys for neurodivergent individuals?* It begins by outlining the legislative frameworks that guide current disability policy and an audit of keywords across 122 councils' Disability Inclusion Action Plans (DIAPs) in NSW, see **Appendix A**.

The City of Sydney (CoS) is selected as an example of best practice in addressing neurodivergence, where a thematic analysis of its *DIAP 2022 - 2025* and *Submission on the 2022 Review of the Disability Standards for Accessible Public Transport 2002* was conducted. Transport for NSW's *DIAP 2018 - 2022* and *Future Transport 2061* were then analysed thematically. As such, it was determined that the legislative framework that guides policy in NSW is reinforcing 'business-as-usual practice', where the needs of neurodivergent individuals are not adequately being addressed in theory or practice in policy.

4.2 NSW Strategic Context

4.2.1 Disability Discrimination Act 1992

The main objectives of the DDA are to eliminate discrimination against an individual on the grounds of their disability and promote the rights of equality. Eliminating such discrimination was outlined across multiple areas, the most relevant to this thesis being Section 1.3(a)(i), *Access to Premise*. The definition of *premise* in Section 1.4 is a *structure, building, vehicle, vessel and place (enclosed or not)*. Section 2.23, discrimination against a disabled person, concerning *Access to Premise*, focused primarily on an individual allowing or refusing access of a disabled person onto a premise.

There was no consideration in Section 2.23 of whether the premise itself was accessible.

The DDA defines disability as a trait of an individual, and Section 1.4 states that behaviour under this definition is symptomatic of the disability itself. This highly limiting statement disregards the multitude of factors which influence the behaviour of those with a disability, particularly discrimination from others and environmental, social, and attitudinal barriers. It also reinforces disability and its manifestations as a personal problem by blaming the behaviour on an individual.

The DDA states in Section 2.2A *Disability Standards* are legislative instruments that may deal with reasonable adjustments for disabled people. A *reasonable adjustment* is an adjustment to be made by a person unless the adjustment causes unjustifiable hardship on the person. At a minimum, this definition needs to be clarified and more specific. At another level, it can be seen as reactive, again placing the responsibility on the individual to advocate for 'reasonable adjustments' of their environment, as opposed to such environments being inherently inclusive.

4.2.2 Disability Standards for Accessible Public Transport 2002

The Transport Standards (2002) were made under subsection 31 (1) of the DDA and are guided by the exact definition of disability. Its objectives are to remove discrimination from public services through public transport operators and providers. Across all aspects of the Transport Standards, there is a strong focus on clear guidelines for accommodating physical disabilities, specifically wheelchair access, regarding manoeuvring and circulation space, ramps, footpath width, and passing areas.

There is some consideration of other physical disabilities, including people who are blind and deaf. However, there is a complete absence of reference to invisible disabilities in the Transport Standards and its guidelines. While the needs of neurodivergent individuals may intersect with those of physically disabled people, there is no specific reference to this either.

For example, *lighting* was referenced in Part 20 and is considered one of the many elements of the built form that can contribute to discomfort for neurodivergent people (Kenna 2023). This section lacked any recognition of invisible disabilities, only mentioning in Section 20.3 *that internal lighting may be dimmed as required to avoid reflection interfering with an operator's vision*.

The Department of Infrastructure, Transport, Regional Development, Communication and the Arts, along with the Queensland Department of Transport and Main Roads, have developed a process to reform these Transport Standards. This process includes two stages, outlining 76 opportunities based on consultation with disabled communities, governments and the public transport industry. Broadly, under four guiding principles, the reform highlights the need to include lived-experience of disability in the design of the Transport Standards and reframe access to public transport as a service, not an exercise in compliance solutions.

4.2.3 United Nations Convention on the Rights of Persons with Disabilities 2006

The Convention aims to support the equal enjoyment of all human rights and freedoms by people with disabilities. Unlike the DDA and the Transport Standards, it defines disability as interactions between long-term impairments and various social barriers. The Convention also acknowledges that disability is a diverse and ever-evolving concept. Barriers were defined as physical, environmental, social, and attitudinal, hindering one's full participation in society on an equal basis.

The Convention outlines 50 articles, the most relevant to this thesis being Article 9: *Accessibility.* It begins by addressing how the responsibility for enabling the participation of disabled people in all aspects of life lies with State Parties. Article 4: *General Obligations* demonstrates the responsibility of state parties to promote the full realisation and freedoms of those with a disability.

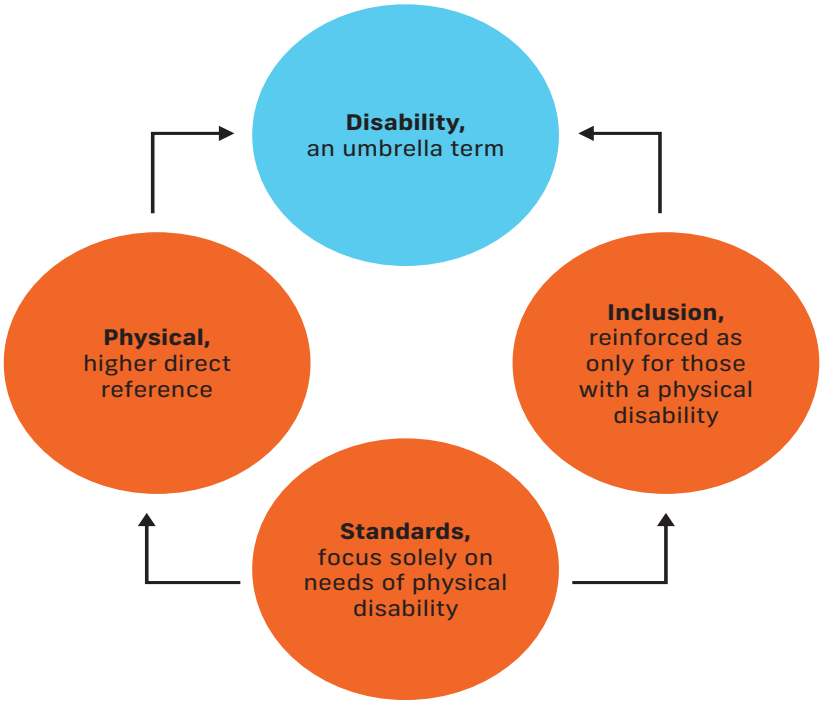
A specific reference to transportation is made in Article 9: *Accessibility*, where state parties must monitor the implementation of minimum standards and guidelines for the accessibility of services provided to the public.

4.2.4 Disability Inclusion Act 2014

The Act references both the Convention and acknowledges the social model of disability, stating that the interaction between long-term impairments and various barriers may hinder a person's full participation in the community. The Act aims to acknowledge the human rights of people with a disability as equal to other members of society, and the government is responsible for ensuring this. The most relevant to this thesis is in Part 2 Division 3, Disability Inclusion Action Plans (DIAP). The Act states that a public authority must prepare a DIAP outlining the measures it intends to put into practice to ensure people with a disability have full participation in the community and access to a full range of services.

Under the Act, all councils across NSW must create and implement a DIAP. Of the 128 councils across NSW, 122 council DIAPs were audited (six were inaccessible), where the following broad key findings were made. Despite the council's DIAPs defining *disability* as both physical and intellectual, there was a disproportionate focus across all DIAPs on specifically addressing physical disabilities compared to invisible disabilities. Words such as *accessibility* and *inclusive* were used many times across the DIAPs; however, they did not adequately translate to the inclusion of invisible disabilities. This was because most DIAPs did not specifically reference invisible disabilities outside the definition of disability. Similarly, the recommendations made across the DIAPs reflected a heavy focus on physical disabilities, where actions concerning accessibility echoed minimum standards of requirement that predominantly aimed for wheelchair access. These findings mirrored the outdated legislation and standards which guide current policy, reinforcing the perpetual cycle of inclusion of disabled people through minimum standards of access for physical disabilities, see **Figure 3**.

Figure 3: Cycle of reinforcement of disability



Source: Author and Leddie 2023

4.3 Disability Policy - Local Government

The CoS was selected as the council which referenced invisible disabilities the most across all DIAPs in NSW. The CoS's *DIAP 2022-2025* and *Submission on the 2022 Review of the Disability Standards for Accessible Public Transport 2002* were thematically analysed. The following key themes emerged.

4.3.1 Recognition of invisible disabilities and the barriers

The CoS acknowledges in its DIAP that *Neurodiversity* is a strength-based approach and a term that suggests that no two people have the same brain functioning. It states that "some people think differently because of how their brain works and that this diversity is good for society" (2021, p. 20). The CoS uses the social model of disability in both its DIAP and Review of Transport Standards about accessing mainstream services and infrastructure, recognising the local government's underlying role in the inclusion of disabled people (CoS 2021).

The CoS's DIAP also highlights the intersection of disability with other human heterogeneity, such as First Nations people who are 2.5 times more likely to experience disability than the rest of the population (Australian Bureau of Statistics 2019). CoS's DIAP also acknowledged barriers beyond physical and environmental, including misunderstandings and lack of awareness of less visible disabilities. Despite this acknowledgement and the listing of many different conditions, such as ADHD and Obsessive Compulsive Disorder, it only described Autism in more detail. As Kenna (2023) states, this is a recurrent diagnostic group for research, with a paramount need to also dialogue other neurodivergence.

In the Review of the Transport Standards, the CoS acknowledged that while the standards currently provide certainty to operators and providers of public transport, there still exists a "widespread nonfulfillment of requirements" (2023, p.13). Despite the Transport Standards being the basic level of accessibility, there is still extensive non-compliance with such minimum standards. The CoS suggests that more significant outcomes and accountability can be achieved by providing mandatory reporting and modernising the Transport Standards (CoS 2023).

4.3.2 Recommendations beyond accessibility

Many of the recommendations made in the CoS DIAP and the Review of Transport Standards fell into the remit of TfNSW as the primary influencer of NSW's public transport. The scope of influence by the CoS, specifically for public transport, is restricted to bus stops. The CoS revealed in the Review of the Transport Standards that although they implemented 330 new bus shelters during 2022-23, which were 100 per cent compliant with the Transport Standards, changes by TfNSW mean they may not be located where the bus will stop (CoS 2023). Other recommendations in the Review of the Transport Standards broadly included the need to provide more accessible facilities at stations, accelerate the implementation of lift and ramp access across stations, better monitor transport assets and involve lived experience in decision-making processes (CoS 2023).

The CoS states that an approach that follows universal design principles is critical when addressing the inclusion of those with a disability. The DIAP specifically addresses opportunities for invisible disabilities, with a strong focus on recommendations for implementing quiet spaces. The CoS addressed the need for such spaces to escape "sensory overload from noises, smells and light" (2021, p.39). It states that this could be helpful to individuals with autism, other neurodivergent people and people with mental health conditions, recommending that existing parks and built locations are places to implement them.

It is important that these places are safe so people with Autism feel comfortable to engage in "autistic behaviours". People often "mask" their autistic behaviours, which can be very exhausting; therefore, quiet spaces offer people the opportunity to rest (CoS 2021, p.39)

Direction 2.5: Liveable Communities was the only action to mention Neurodivergence, stating the need to "Improve access to information about City of Sydney facilities and open spaces to assist people with disability including people who are neurodivergent" (2021, p.51).

4.4 Disability Policy - State Government

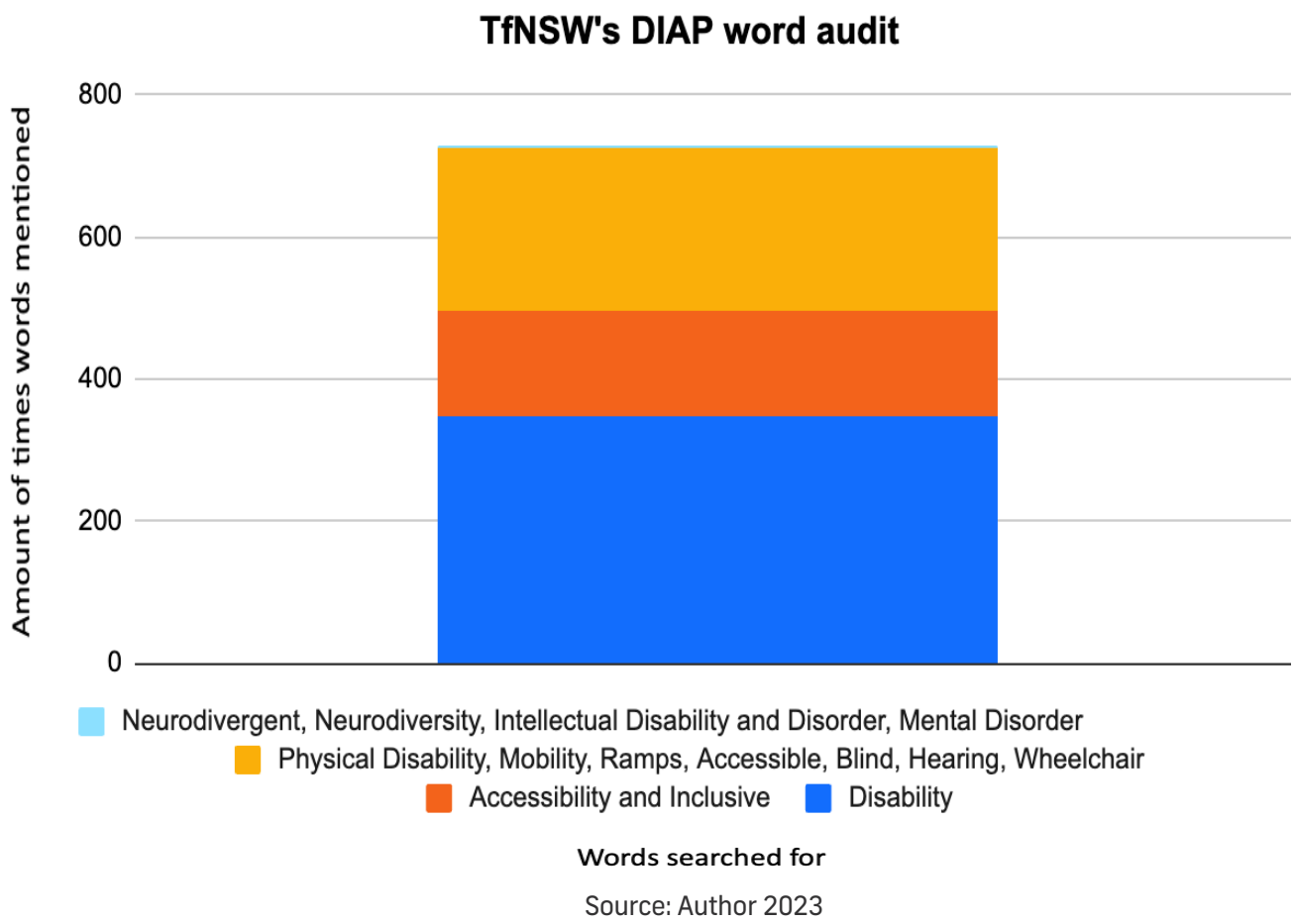
Under the Act (2014), all state government agencies are also required to create and implement a DIAP. TfNSW was selected as the state agency with the most influence across NSW public transport. A review of its high-level strategy *FT2061* and *DIAP 2018 - 2022* was thematically analysed, where the key themes emerged.

4.4.1 Absence of invisible disabilities

TfNSW's FT2061 sets out the key directions for the state agency, the most relevant to this thesis being *C3: Equitable, accessible and secure transport for all* (2022, p.12). The strategy states that "everyone in NSW should be able to access the transport system. We will work to remove barriers to access for our ageing population, parents with prams and people living with a disability" (TfNSW 2022, p.23).

The directions of FT2061 guide TfNSW's DIAP (2017) and aim to remove barriers from public transport to enable the participation of all people, particularly those who are disabled. While the policy demonstrates apparent success in improving accessibility across NSW's public transport networks, it has a disproportionate focus on the needs of physically disabled people compared to those with invisible disabilities. A keyword audit was conducted across TfNSW's DIAP, see **Figure 4**. It found that references to *disability* were used as a parasol without specifying which disability it was referring to. Further, when specifying *disability,* words associated with physical disabilities were mentioned disproportionately to words associated with invisible disabilities. Therefore, the terminology of *accessibility* and *inclusive* used in TfNSW's DIAP reinforced an accommodation of physical disabilities through the minimum standards of access.

Figure 4: TfNSW's DIAP word audit



Source: Author 2023

Concealing neurodivergence in policies such as TfNSW's DIAP adversely impacts the built environment. It not only reinforces attitudes that disability equates to only physical impairments but also emphasises the current approaches to accessibility as solely accommodating the needs of physical disabilities, minimising the legitimacy of including neurodivergence into the Transport Standards.

4.4.2 Invisible disabilities 'invisible' in actions

TfNSW's DIAP has 169 critical actions under the five themes: liveable communities, accessible systems and processes, accessible customer information, technology and research, inclusive customer service and feedback, and Inclusive employment. Across the 169 actions, *disability* was mentioned 67 times, *accessibility* was mentioned 39 times, *ramps* and *deafness* were each mentioned once, *lifts* were mentioned twice, *mobility* was mentioned six times, and *hearing* was mentioned three times. As previously outlined, disability and accessibility insinuate the minimum standards (see **Figure 3**) to accommodate physical disabilities. Despite the importance of emphasising the need to accommodate physical disabilities, there was no reference specifically to invisible disabilities or their needs in the 169 actions, except for action 10.2 (2017, p.45) from the previous *DIAP 2012 - 2017*.

Two of the actions state to "ensure that disability action plans are a requirement of contracts with transport services" (2017, p.28) and "increased compliance with Transport Standards for all contracted services" (2017, p.21). Both statements demonstrate that despite the Transport Standards being the minimum requirement, they are also not being wholly implemented across contracted services and operators. Similarly, universal design and its principles were stated to achieve accessibility for all disabilities (2017, p.16). Despite this reference, there was no mention or commitment to its implementation in the aforementioned 169-long action list. The closest terminology to universal design mentioned was *inclusive design*, which was stated four times in the action list. Each reference (2017) was about applying inclusive design principles when upgrading stations (p.23), building new bus stops, (p.24) new ferry wharves (p.25) and interchanges (p.25) to maximise accessibility and the customer experience.

While these four actions recognise inclusive design, TfNSW outsources its services to external contractors and operators where the state agency has stated that it is still aiming to "ensure that disability action plans are a requirement of contracts with transport service providers (2017, p.28). TfNSW recognises that there is a paramount need to "refresh business requirements for infrastructure projects to ensure that accessibility objectives, which prioritise customer experience as well as compliance with standards, are included in the project scope" (2017, p.28). The core objective of FT2061, 'Accessibility for all, no exceptions' (2017, p.4), is not translating to invisible disabilities. There is a 'chasm' in specifically addressing neurodivergence in policy, which would break down the parasol of disability (see **Image 10**) and respond to the diversity of disability needs in the built environment.

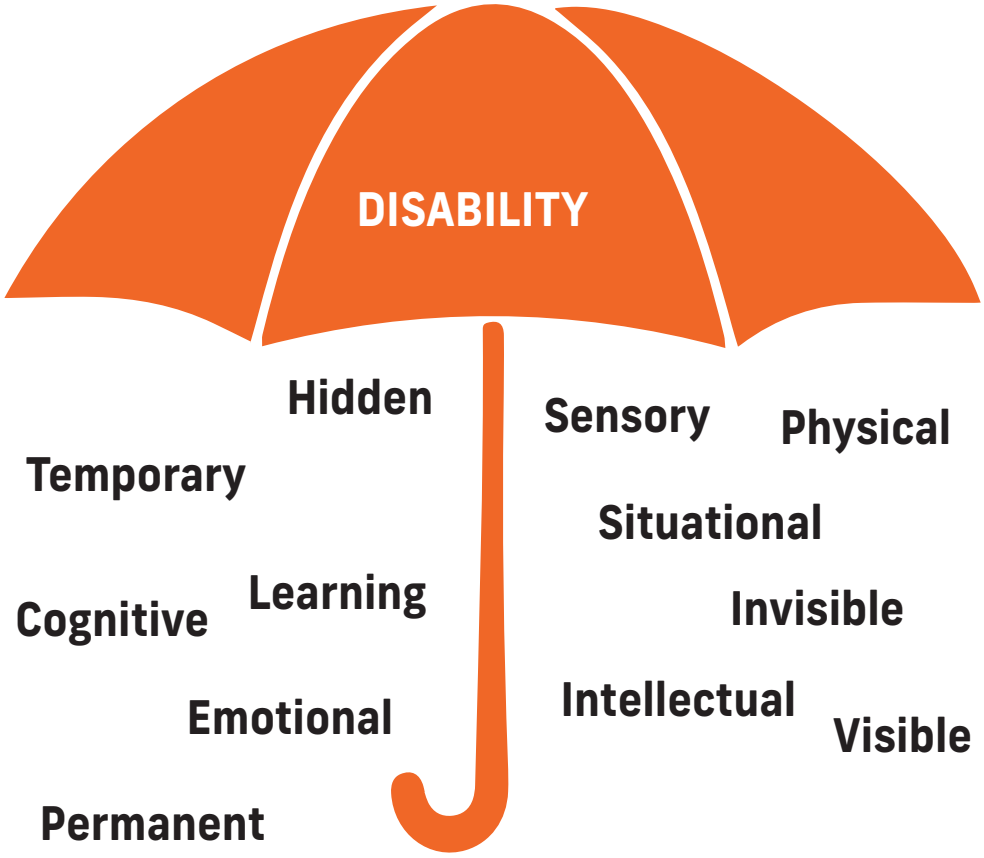


Image 10: Parasol of disability

Source: Author and Leddie 2023

4.5 Summary

As demonstrated, the current disability policy, guided by relevant legislation, does not meet the specific needs of neurodivergent individuals. While all mechanisms define *disability* as both a physical and cognitive impairment, there is a gap in how this broad definition translates to the complex spectrum that disability is in policy, strategy and Transport Standards. Furthermore, the vagueness of the word disability and the paucity in referencing neurodivergence has meant that policy continues to reinforce disability as a concept that concerns only those who are physically impaired, with the solution being accessibility through minimum standards of requirement.

While the CoS makes notable reference to invisible disabilities and recommends the reform of the Transport Standards, its remit of influence to public transport in NSW is considerably less than TfNSW. While universal design was mentioned across local and state government policy as a critical part of addressing inclusion, a commitment to implementing its principles in formal action needed to be more concrete. The limited formal recognition of invisible disabilities and the specific needs that contribute to accessibility from neurodivergent perspectives suggest a policy gap according to the scope of this thesis.

5 Critical Perspectives

5.1 Introduction

This chapter presents the key findings from fourteen (14) in-depth interviews. It addresses research objectives two and three (see p.35). These key findings are a point in time as the space of invisible disabilities continues to evolve. The first section *Compliance-based Thinking*, reveals the current state of thinking towards disability, where accessibility equates to minimum standards requirement and inclusive is an additional cost. The second section, *A Cultural Shift*, demonstrates the need to move away from from labelling people as 'Customers' in neoliberal contexts, where populations are split into the general public and outliers. This section addresses the barriers in public transport and the need to embed diverse lived experiences into planning instruments that influence the built environment. Finally, the third section, *Disability: A Shared Story; A Collective Responsibility*, highlights the importance of mandating universal design across all mechanisms that influence the built environment, taking a cross-disciplinary approach to achieve excellent place outcomes.

5.2 Compliance-based Thinking

5.2.1 Disability is more than just wheelchairs

Public transport is in an environment that favours compliance-based thinking. A common theme among most interviewees was the compliance mindset, which tends to 'tackle' the challenge of accessibility from minimum standards (1, 3, 4, 5, 6, 9, 11, 12, 13). Interviewee 12: An employee at TfNSW (2023) suggests the approach of "a one-size-fits-all, unless you have a wheelchair" is no longer appropriate in capturing the complexity of disability and the fundamental questions of public transport: "Do people feel comfortable? Do people feel like they can step into the space, not only feel comfortable but also can they take a bit of ownership?" (Interviewee 12, 2023).

In addition, the sentiment that people who are disabled are the minority and, therefore, an 'enclave' in society has influenced the notion of inclusivity in the design of public space. Common arguments against going beyond compliance are that it is not justified in the broader general public's needs, it is an extra cost and a 'nice to have'. Interviewee 1: An expert in Universal Design (2023) states that organisations continue to separate customer groups, categorising and labelling them as 'the vulnerable', which insinuates the idea that they make up a small percentage of the population. Conversely, "when you add your 18% of people with disability to 22% of people with long-term illness, you're talking 40% of the population almost (...) this isn't a small group, and I haven't even added in children there" (Interviewee 1, 2023).

By isolating users of public transport into separate silos, it communicates the diverse needs of people as isolated parts of the same puzzle, where the inclusion of disabilities in public space has become monetised as an 'extra cost' rather than meeting basic human needs.

Those with a disability are hearing, 'You mean I cost too much? You mean you can't afford me? (...) am I brought down to this, having to contest my position in life with your position in life? Because that's who I am fighting. Should I still be fighting?

(Interviewee 1, 2023)

Many interviews reflected a need for built environment professionals to step away from their understanding of disability and draw on lived experience to inform planning instruments (1, 2, 3, 4, 5, 6, 8, 11, 12). Interviewee 2: A Career and Assistant Researcher (2023) stated that public transport networks are "unintentionally being designed for people that resemble the people that are designing it".

Today, there is a distinct disparity in the way Australia recognises disability. Interviewee 13: A Service Design Lead (2023) talks about the pedestal that Australians put Paralympians on, bringing representation to disability through high-profile athletes, "Paralympians do amazing things (...), but not every single person with a disability is going to be a Paralympian. And I'm sure not every person with a disability wants to be a Paralympian." (Interviewee 13).

While this exposure is crucial to the community, there is a need to show disability, both physical and cognitive, at an everyday level, participating in public life to begin to normalise the diversity of the general public. Interviewee 1 (2023) questions how the charity model of disability;

International Day of People with Disability and Seniors Week continues to entrench those old ideas. (...)They are not about inclusion at all. They're about saying, hey, we've still got this separate group, and we need to do nice things for them. And have an event. Did an event change anybody's life?

The current perspectives of disability have informed the design of ableist public spaces, forcing humans to navigate in very 'performative' ways, echoing Walker and Raymaker's (2021) statements from Chapter 2. Interviewee 2 (2023) speaks about how such design has manifested in the social expectations that passengers on public transport should act *"civil and polite (...) sitting quietly"*, as historically, people with disabilities *"were hidden from public life"* and therefore, not normalised in their embodiment of what it means to be disabled.

"You get these really rigid and inflexible cultural expectations of how you're meant to perform, being a passenger when you're on public transport, and it doesn't really accommodate people, neurodivergent people".

(Interviewee 2, 2023)

5.2.2 *Accessibility - a minimum standard*

The term *accessibility* and its connection to the built environment currently translates as minimum design standards. It should be noted that such standards are essential in achieving the minimum safety and functioning of infrastructure. However, Interviewee 3: A Researcher at the University of New South Wales (2023), acknowledges the tension between accommodating accessibility in the primary functioning of the built environment, the necessary elements of fire safety, plumbing and elevators, and the consideration of human factors, noting that "the people are what makes the built environment function relevant".

The need to address the complexity of human functioning, the multiple ways, logistically, people exist in a space, in the prescriptive technicalities of planning and design instruments is crucial in neurodivergence translating to the built form. As Interviewee 1 (2023) states, "Apparently [public space] is meeting that [accessibility]. What about comfortability? (...) For people with autism, it is more about [being] comfortable. What would reduce your anxiety?". Often, *accessibility* is a term used as the 'gold' design standard. However, it does not meet the basic needs of many neurodivergent individuals: to feel comfortable, welcome and connected, dignified in their pursuit to travel on public transport, "They [those with a disability] much prefer to use a train because they do not seem to be interrupting someone's journey as much as they do when they get the bus" (Interviewee 1).

Public transport stations and the journeys can be inherently busy, loud and overwhelming. They can also be highly isolated, quiet and unsafe, particularly in regional and outer metropolitan areas where population size and uptake of public transport are much less. Therefore, accessibility needs to move beyond its traditional definitions and parameters to account for the range of people and their needs and consider the individual and unique contexts in which they operate.

5.2.3 *Inclusivity - an additional cost*

Cost was a recurring element mentioned across most interviews (1, 4, 5, 6, 7, 9, 10, 11, 12, 13) and was synonymous with arguments of inclusive design that moves beyond accessibility. Common themes that emerged were the stigma of additional time, effort and cost associated with notions of inclusivity.

> *People think designing for people with neurodiversity or disability is [an] additional effort and cost (...) by default, most of it [public places] has just been designed in a very neurotypical or abled mindset.*
>
> (Interviewee 5: A Government Agency employee, 2023).

Interviewee 3 says that it is as much of a 'duty of care' to include the needs of a diversity of people in public space than it is to ensure a structurally safe building, where access must be about equity.

> *I think that if designers are not thinking in a manner that is inclusive and accessible, [it is] harmful by inhibiting people's ability to access an opportunity to have a public life. And that harms people.*
>
> (Interviewee 3, 2023)

Currently, the burden of proof is on the individual to make public spaces inclusive, where a 'do it yourself' mentality is being communicated through the design of the built form. For example, many people wear noise-cancelling headphones in loud spaces instead of built environment professionals recommending better acoustics for the building. Interviewee 13 (2023) also addresses the narrative of inclusivity being an 'extra cost', stating that being inclusive by design "would be a lot cheaper (...) Maybe not up front, but long term".

Society is still playing catch-up (...) we're still dragging the chain. Any new builds of any type should be fully accessible, and you shouldn't need a DSAPT [Disability Standards Accessible Public Transport] or Discrimination Act to make people feel that way.
(Interviewee 13, 2023)

While there is a development of knowledge of invisible disabilities, there is crucial delay of consideration by the built environment. Interviewee 3 calls these key 'choke points':

Where it is difficult to end up with a building code if you do not have enough research to inform it. It is difficult to teach people how to design for something when you don't know what it is that you are trying to problem solve through design. It is difficult to get that research in the first place if it doesn't get funded (...) And especially in an environment where some of the degrees are already very lengthy in the first place, to then also do research degrees takes an incredibly long amount of time.
(2023)

5.3 A Cultural Shift

5.3.1 Neoliberalism

To change the current state, which emphasises compliance-based thinking and moves beyond accessibility and its minimum standards, an understanding of the neoliberal context in which disability and public transport are operating is vital. As mentioned in section 2.3.1 of Chapter 2, the people of NSW are labelled as 'the customer', which can be seen as characteristic of neoliberalism and its favouring of the economy. Interviewee 6: An employee at TfNSW (2023) states that the government is using a 'capitalist veil', labelling people as 'Customers' and relegating them to a "transacting member of the community". By doing so, Interviewee 6 (2023) states that public transport is "failing to see what our fundamental role is as public service".

Furthermore, many of TfNSW's services are outsourced to private operators, another by-product of neoliberalism. Interviewee 11: An employee of TfNSW (2023) states that there are challenges with agencies acknowledging responsibility in creating inclusive public transport and all its facets.

The fact that it [a footpath next to a bus stop] is not accessible isn't our issue - it's council's. The fact that we have a high-floor bus and therefore, need to stop everything and put you on a lift - that's the operator's issue. How do you get off at the end or how do you play the next part of your journey - that's on you. It's not built with inclusivity in mind.

(Interviewee 11, 2023)

Interviewees 11 and 10: both employees of TfNSW (2023) speak about the impact of outsourcing services, particularly in the difficulty in addressing complaints and maintaining consistency across public services. Interviewee 11 (2023) states that services in the regions are contract-developed with an added complexity to roll out training for Hidden Disabilities across services as it is not currently under the contractual arrangements.

5.3.2 General public and the outliers

Several interviewees mentioned the concept of 'the outlier' or 'the edge case users' (1, 2, 3, 14). This concept shifts the focus of services to start by meeting the needs of outliers, such as disabled people, to capture the general public inherently. Interviewee 2 (2023) states there is a need to reframe this approach "less so as a deficit, but as an opportunity to make these services more robust (...) accommodating to a variety of different users".

Sydney Metro's current standards as a minimum design for the average public inside the bell curve, see **Image 11** of the 5th - 95th percentile, which Interviewee 14: An employee at Sydney Metro (2023) proposed could be limiting the full range of diversity. There was also a similar sentiment towards the international design guidelines where a concession to amend minimum standards of requirement is difficult without comprehensive justifications (Interviewee 14, 2023). Sydney Metro has increased accessibility in many ways, including consistent lift access across all stations, no gaps between the platform and carriage, and the 'turn up and go' nature, which reduces trip planning.

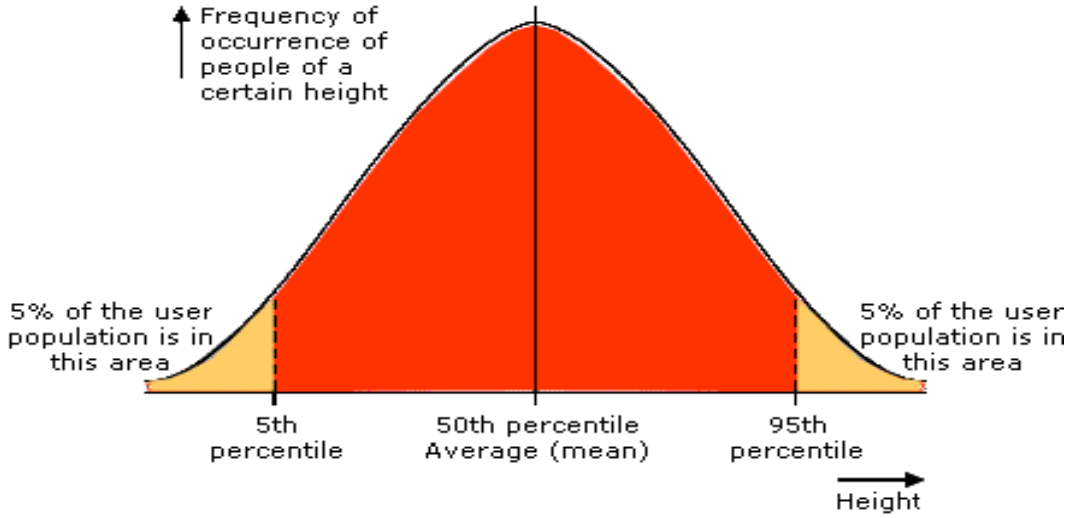


Image 11: Bell curve 5th - 95th percentile

Source: The Learning Zone

However, Interviewee 14 (2023) emphasised the need for it, as an organisation, to consider the occasional outliers from the bell curve when planning the network for the diversity of staff and customers who operate and use it as a transport service. Doing so will reinforce frequent public transport users and intentionally encourage non-users to become frequent, too. While it is essential to continue to seek the inclusion of outliers and edge case users, it is equally important to question why these users have become labelled, as Kitchen (2010) states, "the Other" in the first place, a position that implies "deviancy from the normal" (p.351).

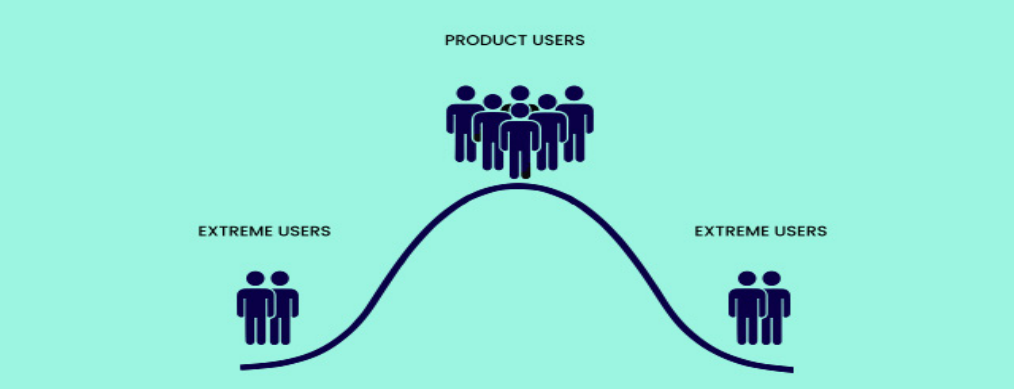


Image 12: Product users and extreme users

Source: Think360

"I think they feel that if we design for accessibility, we're only designing for a portion of the customer base, when in fact if you design for people with accessibility in mind, then you're designing for everyone because, at some point in time, everyone's going to have some sort of disability, whether they like it or not".

(Interviewee 13, 2023)

5.3.3 Embed lived experience

Across many interviews, the need to address the challenges of people navigating public transport through embedding a diversity of lived experience into planning and design instruments was a crucial element that emerged (1, 2, 3, 4, 5, 6, 8, 11, 12). "Nothing for us, without us" (Interviewee 11, 2023) is a slogan used in the disability community. It highlights the need to include a diversity of lived experience in guidelines, policy and regulations, rather than presupposing or retrofitting 'lived experience' in personas (see **Image 6**) or in theory to address design solutions, "A lot of money has been spent under the assumption that it's good for the community without actually checking what success looks like from a community perspective" (Interviewee 6, 2023).

It can be challenging to understand the needs of people outside their own experiences and then address them within the complexity of what accessibility means in the built environment.

I think that it [neurodivergence] can be quite difficult for designers to both conceptualise outside of their own lived experience or outside of a typical lived experience and also then to operationalise, to do something with (...) turning that understanding of the problem into a solution through design is quite difficult.

(Interviewee 3, 2023)

Furthermore, there is a need to break down the term disability as a parasol, where its diversification is lost within the constraints of how the term currently translates to an understanding of wheelchair access and autism (Kenna 2023). Interviewee 3 (2023) states that designers must move beyond the understanding of "one diagnostic group or one specific demographic kind of criteria, especially in a public realm where you are going to have all sorts of people (...)".

When seeking lived experiences from others, Interviewee 3 (2023) suggests that individuals need to be "having conversations [within the broader] conversation with each other" as the space continues to evolve, so that there is "room for it [design] to be indicative of a spectrum of experiences" as "the first time you have met a person with autism is the only time you met a person with autism because everyone is different" (Interviewee 11, 2023).

5.4 Disability: A Shared Story: A Collective Responsibility

5.4.1 Universal design mandated

A cultural shift that moves beyond the minimum standards associated with a disability allows for a co-design approach that values universal design principles. Interviewee 4: An employee at the Victorian Government (2023) states that minimum compliance is based on the limited standards of the Disability Discrimination Act 1992 (DDA), which does not cater "to the diverse nature that we are". Unlike NSW or any other state, Victoria has implemented a whole government policy and charter for universal design that all departments and authorities must follow. It's "the only state in Australia that's made that commitment on universal design. So that's embedded in any policy, and it's mandated." (Interviewee 4, 2023).

Universal design is a principle-based process, starting with the minimum design standards and then building on them using the seven principles. One of the seven principles speaks to equity of use, where "it's not a set of tick boxes or checks... universal design is principle-based, it's based on engaging and finding out what people need when you design" (Interviewee 4, 2023). This approach influences master planning and urban design, where the appointment of any tender needs to demonstrate the "principles of universal design, not the status quo of just quoting standards". Invisible disabilities have for too long been overlooked because "there's no reference to them in any of the standards" (Interviewee 4, 2023).

Another universal design principle is Connection with Country. Both interviewees, 4 and 6, spoke about the intersection between neurodivergence and elements of design that heal Country.

> *In traditional culture, neurodivergence is celebrated. Respect for our people who are wired differently from neurotypical people (...) That's the celebration of diversity and ensuring that the community life and social life reflect that diversity.*
>
> (Interviewee 6, 2023)

Interviewee 4 states that calming one's spirit or gathering oneself before entering a space and then, once entering, also feeling a sense of belonging, safety, and comfort is universal across multiple people and their human heterogeneity. Interviewee 6 suggests that the government must reflect the communities it is serving, where it "can't operate in a vacuum [because] communities don't operate in a vacuum" (2023).

5.4.2 Policy and urban design

Across most interviewees, the implications of policy and urban design were addressed (1, 3, 4, 5, 6, 9, 10, 12, 13). Many acknowledged the linkage between policy guiding planning and urban design and its complexity in meeting all user needs. Interviewee 9: An employee at Sydney Metro (2023) stated that often, principles and requirements might compete with one another, and trade-offs occur.

Interviewee 9 provided a hypothetical example of a trade-off that could occur when considering neurodivergence in the design of metro precincts. The example described that if urban designers were to implement quiet spaces for an individual to pull away from noisy crowds, it would often conflict with the grand design. Further, it would most likely be interpreted as an additional cost, as one would be "adding scope in one part of the plaza where you might normally just do a fairly traditional paving and some landscaping and some seating" (Interviewee 9, 2023).

Notwithstanding the blockers that can appear in accommodating the needs of neurodivergent individuals, Interviewee 9 also recognised that built environment professionals do not always need to monetise space, particularly when fundamental human rights of access are being discussed, as “we don’t always have to quantify it. We don’t always have to put a dollar figure on that” (Interviewee 9, 2023).

Another common theme that emerged was the need to incorporate evolved understandings of accessibility and inclusivity at all design stages. This means at the strategic vision and objectives stage, all the way to the guidelines, policy, tenders and business and system requirement standards. Language is paramount in these documents, but equally important is the implementation and translation of those words to the built form.

Interviewee 12: an employee at TfNSW (2023) and Interviewee 13 speak to the need for the current policy to evolve to better inform other areas that influence the built environment. Interviewee 13 (2023) states that there is a need for a “disability inclusion action plan that includes a focus on all disability types: physical, cognitive, sensory, like at that overarching sort of level, not just someone with autism or someone with cerebral palsy, I mean physical, intellectual, sensory, from that aspect of things” which will help support more progressive definitions of accessibility and inclusion on public transport.

Interviewee 1 (2023) also states that policy has a fundamental role in influencing places but that “policy, in terms of being enacted, has to be enacted with the people it involves”. It must also consider data with ‘a grain of salt,’ as data doesn’t consider all the people who avoid a space because they can’t use it.

5.4.3 *Barriers and opportunities*

Across all interviews, everyone spoke about the barriers and opportunities for public transport to be inclusive to neurodivergent individuals. Many interviewees (5, 6, 9, 12) expressed the need for governments to stop 'ticking boxes' regarding accessibility, where there is a clear difference in achieving compliance and making networks usable for all people.

Interviewee 11 expressed the importance of acknowledging the difference in addressing inclusivity from a Greater Sydney perspective versus a Regional and Outer Metropolitan perspective. He described many of the challenges with public transport stations and networks in regional and outer metropolitan areas, including the stigma associated with using public transport, limited frontline staff, less patronage, and infrequent service availability and funding.

If you need the ramp to get access to the train, you need to be able to signal and call for help. And sometimes it does mean in the regions that someone has to drive out to that station to assist someone with it, which many of our customers talk about not wanting to be seen as a burden or a bolt-on, but wanting to know that the services were designed with them in mind.
(Interviewee 11, 2023)

Quiet carriages, see **Image 13,** were mentioned as an example of trains aiming to become inclusive to different user needs by implementing carriages that discourage loud noise. Despite these carriages providing quiet spaces, Interviewee 11 questions the journey to get to the quiet carriage as "how do you get through a busy train station with lots of noise, lots of information to take in and uncertainty before you can even get into that quiet carriage and sort of work through it?" (2023)

Image 13: Quiet carriage Central Station

Source: Author 2023

There are also many positive experiences revealed. Interviewee 8 stated that the Sunflower Program had issued over 15,000 lanyards to public transport users, where 140,000 people with a hidden disability use the network daily, or 25 million people monthly. Furthermore, 80% of Sydney Trains staff have completed the Hidden Disabilities Training. The training has resulted in a significant increase in awareness of hidden disabilities.

"My team was doing this training and the **fire alarm went off**, *right? And it was a false alarm, someone was mucking around doing something that they shouldn't have been doing, and it was a false alarm. But that* **sudden noise** *made the trainer that was teaching us* **go into the corner, rocking backwards and forwards, becoming nonverbal for an hour and a half".**

(Interviewee 8, 2023)

"I've caught the train with my brother, buses, ferries, everything to be honest. I think it's a **great way of getting him out and about and engaging with the world.** *I think it's been pretty good for* **combating some of his social anxiety because he's around people"**.

(Interviewee 2, 2023)

"It was those sort of simple things where we were lining up to go through security [at Sydney Airport, see **Image 14***], and a* **staff member had the sunflower pin** *showing that they'd done training and noted that* **she had the wristband** *and escorted us* **through a different line of assistance** *required to glide us past what had been a* **noisy, busy, sort of angsty process for her, was made a lot calmer** *and allowed her to sort of* **avoid a lot of the traps** *and issues that we get there".*

(Interviewee 11, 2023)

"It was so good when there were **COVID restrictions,** *it was the best (...) I wish this was the norm. Because they had* **space limitations,** *(...) you could talk to people* **it was not loud and you could just hear people and the place was not crowded,** *no one standing right behind you".*

(Interviewee 5, 2023)

"A gentleman with an **acquired brain injury,** *which made him difficult to understand and* **slow speech, getting treated like a drunk and getting turfed off the platform** *for being a drunk. He was just* **trying to get home and unable to communicate** *that to anyone to understand".*

(Interviewee 11, 2023)

"Customer Area Managers for stations, called me and they were at a station (...) and **this woman had basically (...) melted into the platform, into the concourse area,** *this customer pretty much melted in and was non-verbal. The area manager rang me up to say to me,* **'I'm so glad I've done the training [Hidden Disability Training] and I recognised straight away what to do'.** *They approached the lady, they wrote things down,* **they used the writing to communicate, they gave her time and space for what she needed** *and then they got her on the train and the area manager* **travelled with her** *on the train to her destination".*

(Interviewee 8, 2023)

Interviewee 8 stated that prior to the training, the police and ambulance were called multiple times about invisible disabilities as staff thought they were impacted by drugs or alcohol, "whereas now there have been 'no complaints that have come through that have said we called the police, or we called an ambulance for this person because they were impacted by drugs or alcohol" (2023). Interviewee 8 shares that one of the ideal next steps would be to implement the sunflower symbol in disabled bathrooms and courtesy areas on public transport, as many people report feeling stigma using such spaces with hidden disabilities.

Image 14: Assistance lane includes Sunflower symbol at Sydney Airport

Source: Author 2023

5.5 Summary

This chapter demonstrates an urgent need to move away from compliance-based thinking which provides accessibility through exclusionary standards for neurodivergent individuals. It has highlighted the barriers to universal and inclusive design in government. It has demonstrated that a cultural shift is required to move away from the bell curve, reinforcing the general public and outliers as separate entities. It concludes that embedding lived experience in planning and designing instruments that follow a principle-based approach will support the inclusion of neurodivergent individuals.

What else will people have room for in their lives if all their time and energy and capacity to function as a human is just getting through the logistics of existing in a space? We can definitely do better.

(Interviewee 3 2023)

Image 15: Sunflower campaign at Sydney Airport

Source: Author 2023

6 Discussion & Recommendations

6.1 Introduction

This chapter synthesises the findings of Chapters 4 and 5 into a discussion under two themes, followed by recommendations for local and state government. It addresses the final research objective: *Determine the implications of policy and urban design to achieve better outcomes for public transport?* The first section, *The Parasol of Disability to the Diversity of People,* focuses on legislation and policy concerning invisible disabilities. The second section, *Accessibility: A Minimum Standard to Inclusivity; Universal Design,* focuses on the whole-of-government shift required for the inclusion of neurodivergent individuals in the mechanisms that inform public transport planning. The final section collates these findings into recommendations for built environment practitioners.

6. 2 The Parasol of Disability to the Diversity of People

As demonstrated in this thesis, disability is too broad a term, with its translation equating to a disproportionate focus on the accommodation of physical disabilities. It has been documented that neurodivergent individuals experience exclusion in the built environment (Kenna 2023). Such feelings of exclusion are being reinforced by the legislation that guides the planning instruments that influence the built environment. The DDA and Transport Standards both are heavily skewed towards accommodating physical disabilities despite defining disability as both mind and body.

This legislation then guides planning instruments such as DIAPs. The absence of addressing and accommodating the diversity of invisible disabilities in such legislation is reflected in the policy that pertains to it. Across NSW's DIAPS, there was a gap in recognising neurodivergence and practically accommodating their needs.

As a result, the absence of neurodivergence in policy manifests as the absence of inclusion in the design of the built environment, as it cannot be ignored the “centrality of public space to urban policy” where exclusion and non-belonging can, at times, feel most intense (Kenna 2023, p.37). To enable public transport to accommodate all people and their neurocognitive functioning, a proactive, principle-based approach to understanding, embedding and acting upon the lived experience of those with a disability is paramount in achieving inclusivity in the practice of public space.

6.3 Accessibility: A Minimum Standard to Inclusivity: Universal Design

To address the inclusion of neurodivergent individuals in public transport, a movement beyond minimum standards to a principle-based approach is critical. Planning instruments will continue reinforcing outdated notions of disability unless a solid commitment to universal design principles is delivered at every project stage. As demonstrated, using the term *inclusive* will continue to be a shallow buzzword with a stigma associated to the cost, time and effort to implement it. For the inclusion of neurodivergence in public transport, it must be a principle-based approach embedded into the fabric of a project. Furthermore, considering the differences in contexts of Greater Sydney transport networks, compared to Regional and Outer Metropolitan areas when approaching inclusive design is crucial.

6.4 Recommendations

- **Apply the Sunflower symbol** alongside the internationally recognised symbol of accessibility (the wheelchair) to recognise hidden disabilities. The following places should be prioritised:
    - Accessible toilets, public transport courtesy seating, public transport stations, and surrounding precincts.
    - A state-wide awareness campaign for hidden disabilities should support this.

- **Mandate hidden disability training** across state and local government employees and contracted operators.

- Create and implement a **whole-of-government approach to universal design** and its principles at every stage of projects, including project scope, design, tender and implementation, including transport standards.

- Proactively engage with people who have **lived experience of disabilities** to inform the mechanisms which influence public transport.

- **Policy, urban design, building codes and standards to be modernised** and specifically address the inclusion and accommodation of neurodivergent individuals, with tangible outcomes for the built environment such as:
    - **Testing of quiet spaces** on public transport, stations, and surrounding public spaces.
    - **Reassessing functional elements,** including lighting, acoustics, building materials.

- **Creation of an advisory committee** that monitors and **reviews public transport assets** and minimum standards.

- Research of neurodivergence **beyond autism** in academic literature


This city
sees you
Be seen with a Sunflower
for extra support using
public transport.
Transport
HIDDEN
disabilities

7 Conclusion

7.1 Introduction

This thesis has demonstrated the opportunities for public transport to become inclusive to neurodivergent individuals. Through a review of academic literature (Chapter 2), policy contexts (Chapter 4), and in-depth interviews (Chapter 5), this thesis has proposed recommendations (Chapter 6) for local and state government, as well as academia. In conclusion, the findings throughout this thesis address each research objective and illustrate the need for a cross-disciplinary approach when addressing the complexity of invisible disabilities and their inclusion in public transport. Comments on further areas for research and implications are provided, along with final remarks.

The following research question has framed this thesis:

How can public transport be inclusive to neurodivergent individuals?

Three objectives were formulated to respond to this question cohesively:

1. Establish the barriers that exist in the public transport system for neurodivergent individuals?

2. Reveal the opportunities that exist to create more inclusive and accessible journeys for neurodivergent individuals?

3. Determine the implications for policy and urban design requirements to achieve better outcomes for public transport?

7.2 Areas for further research

Regional and outer metropolitan areas

This thesis reviewed the CoS's disability policy, which is in a metropolitan context. While it included metropolitan and regional perspectives in the interviews, a stronger focus on the specific needs in regional and rural areas concerning the implementation of the recommendations is crucial.

Public space and segments of public transport

This thesis spoke specifically to public transport. An understanding of accessibility and inclusivity in other built environment contexts is recommended, as well as specific elements within transport journeys.

Neurodivergence

While this thesis uses *neurodivergence* as an overarching term, specifically looking at different diagnostic groups and their experiences is a crucial area for further research. This could coincide with other intersections of human heterogeneity, such as age, gender, sexuality, ethnicity etc.

7.3 Implications

This thesis has contributed to existing academic literature and discourse on neurodivergence concerning public transport. It has proposed opportunities for local and state government and research in the field. Despite Transport for NSW having the most influence over NSW's public transport networks, this thesis demonstrates the importance of a cross-disciplinary approach when addressing the complexity of invisible disabilities in public space. The implementation of all recommendations should, at every stage, consult with those who have lived experience of disabilities. The implications of this body of work extend beyond the parameters of public transport and the sole responsibility of one government agency, where the application of such recommendations is a collective responsibility across multiple contexts.

7.4 Final Remarks

This thesis explored how terminology such as *accessibility* and *inclusive* in policy and urban design translate to public transport from neurodivergent perspectives. It revealed that *accessibility* currently equates to a compliance-based mindset favouring minimum design standards. In contrast, *inclusive* is less concrete and highly decorated in strategic documents, yet its translation is absent from public space. Through a review of current disability policy at a state and local government level and 14 interviews across multiple disciplines, this thesis has demonstrated that despite the definition of *disability*, including physical and cognitive conditions, the consideration and accommodation of neurodivergence is invisible in public transport.

Public space still holds the remnants of oppression on disabled people who feel this detritus not only in the design of the buildings themselves but also in the spaces in between: the disabling conversations, social perceptions, attitudes and behaviour. Planning, like many other professions, has the opportunity to be seen as a form of storytelling. Not through the traditional avenues of a novelist but in the decision-making processes that influence the built environment. For far too long have the stories of disability in public space been an afterthought, or worse, concealed.

It is a privilege to experience the elements of public transport mundanely, the design of urban environments mirroring one's thoughts and behaviour. As acknowledged in this thesis, the built environment embodies inclusion and exclusion beyond just the physicality of the public domain. In many ways, the strongest feelings of acceptance can emerge from the meaning within a design, the spatial narratives that tell us whether we belong. The city is at an 'intersection', where historically inaccessible places meet renewed understandings of human complexity. Until the two fuse together, neurodivergence will remain

invisible in public life.

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Appendix A: Word Audit of local and state government DIAPS and policy

Policy Name	Council/ Author	Year	Word: Accessibility	Word: Inclusive	Word: Neurodiversity	Word: Neurodivergent	Word: Intellectual disability	Word: Mental disabilty	Word: Mental disorder
AlburyCity Disability Inclusion Action Plan 2022-2026	Ablury City	2022	16	20	0	0	0	0	0
Disability Inclusion Action Plan 2022 – 2026	Armidale Regional council	2022	11	13	0	0	0	0	0
Disability Inclusion Action Plan 2017-2022	Ballina Shire Council	2022	4	10	0	0	1	0	0
Balranald Shire Council Disability Inclusion Action Plan 2017 – 2019	Balranald Shire Council	2017	13	7	0	0	0	1	0
Disability Inclusion Action Plan 2022-2027	Bathurst Regional Council	2022	24	29	0	0	3	1	3
Disability Inclusion Action Plan 2022-2026	Bayside Council	2022	8	25	0	0	3	0	0
Disability Inclusion Action Plan 2021–2025	Bega Valley Shire Council	2021	0	17	0	0	4	1	0
DISABILITY INCLUSION ACTION PLAN 2022-2026	Bellingen Shire Council	2022	13	19	0	0	2	1	0
Disability, Active Ageing and inclusion Plan (DIAP) 2022 - 2026	Berrigan Shire Council	2022	10	11	0	0	0	2	0
Disability inclusion action plan 2021 - 2025	Blacktown City Council	2021	19	17	0	0	2	1	0
DIAP 2017 - 2021	Bland Shire Council	2017	21	10	0	0	2	0	1
Disability Inclusion Action Plan 2022-2026	Blayney Shire Council	2022	7	9	0	0	0	0	0
Disability Inclusion Action Plan 2017-2020	Bogan Shire Council	2017	5	4	0	0	0	1	0
DISABILITY INCLUSION ACTION PLAN 2022	Bourke Shire Council	2022	1	5	0	0	2	1	0
Disability Inclusion Action Plan 2017 – 2019	Brewarrina Shire Council	2017	8	5	0	0	1	1	0
DISABILITY INCLUSION ACTION PLAN 2022-2026	Broken Hill City Council	2022	12	25	0	0	1	1	0
Disability Inclusion Action Plan 2022–2026	Burwood Council	2022	26	30	0	0	2	0	0
Disability Inclusion Action Plan 2022 to 2026	Byron Shire Council	2022	34	10	0	0	0	0	0
Disability Inclusion action plan	Cabonne Council	2021	9	16	0	0	4	0	0
Disability Inclusion Action Plan	Carrathool Shire	2017	3	7	0	0	0	0	0
Disability Inclusion Action Plan 2021–2025	Central Coast Council	2021	25	50	0	0	3	0	0
DISABILITY INCLUSION ACTION PLAN	Central darling shire council	2022	5	5	0	0	0	0	0
DISABILITY INCLUSION ACTION PLAN 2021-25	Cessnock City Council	2021	12	27	0	0	1	0	2
Disability Inclusion Action Plan 2021-2025	City of Canada Bay	2021	14	52	0	0	2	2	0
DISABILITY INCLUSION ACTION PLAN 2022 - 2026	City of Ryde	2022	34	32	0	1	2	0	0
Disability Inclusion Action Plan 2022-2026	City of Newcastle	2022	22	52	0	0	0	0	0
Inclusion (Disability) Action Plan 2021–2025	City of Sydney	June 2021	21	89	4	3	8	1	0
Disability Inclusion Action Plan 2022/2023	Clarence Valley Council	2022	12	11	0	0	0	0	0
Disability Inclusion Action Plan	Cobar Shire Council	2018	8	4	0	0	1	1	0

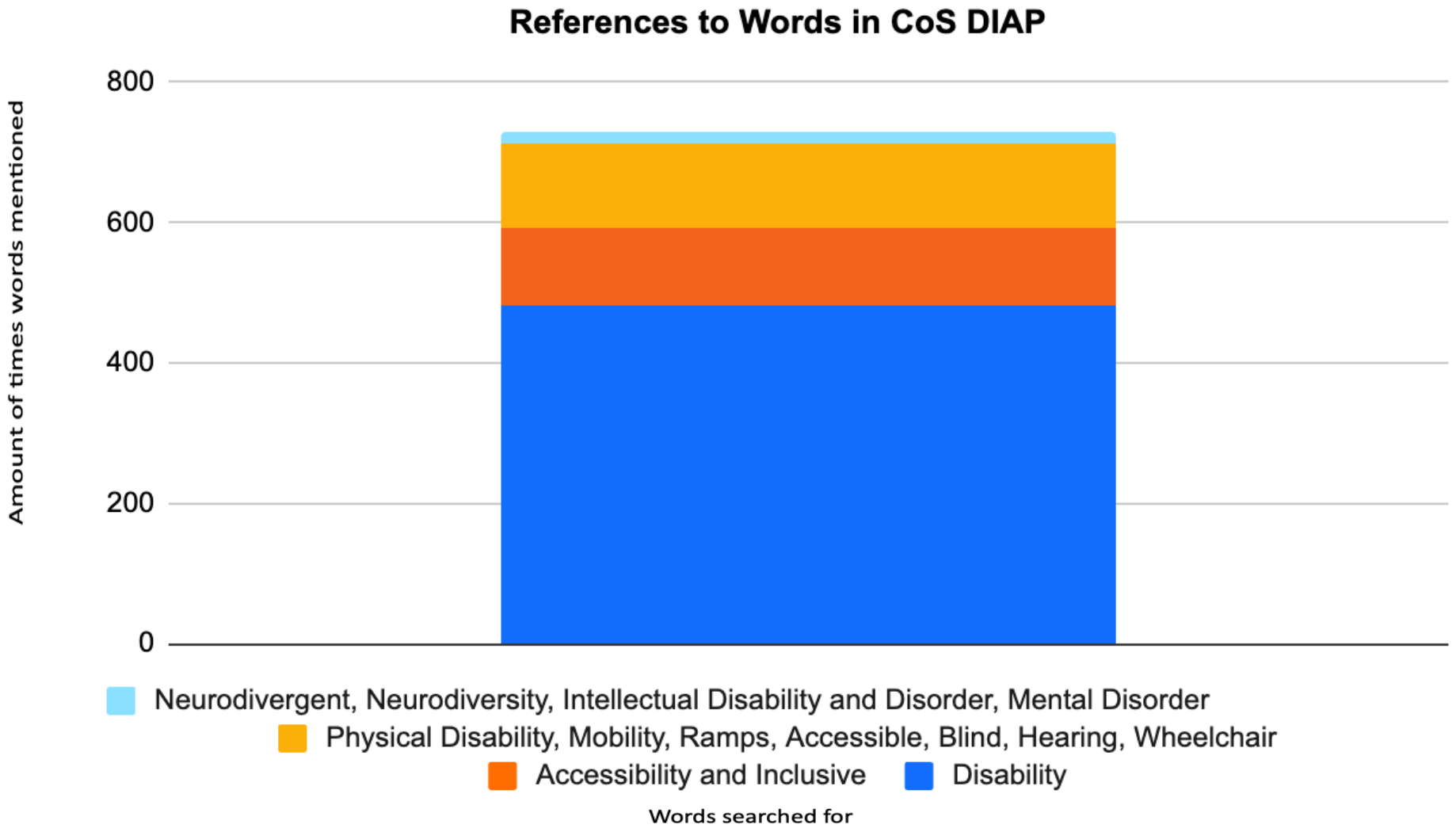
Policy Name	Council/ Author	Year	Word: Accessibility	Word: Inclusive	Word: Neurodiversity	Word: Neurodivergent	Word: Intellectual disability	Word: Mental disabilty	Word: Mental disorder
DISABILITY Action Plan | 2022 - 2026 INCLUSION	Coffs Harbour City Council	2022	12	49	0	0	2	0	0
Disability Inclusion Action Plan 2017 – 2019	Coonamble Shire Council	2017	12	6	0	0	1	1	0
Disability Inclusion Plan	Cootamundra Gundagai regional council	2017	4	3	0	0	1	1	0
Disability Inclusion Action Plan (DIAP)	Cowra Shire Council	2017	9	5	0	0	2	0	0
Cumberland Disability Inclusion Action Plan 2022 — 2026	Cumberland City Council	2022	16	9	0	0	2	4	0
DISABILITY INCLUSION ACTION PLAN 2017 - 2020	Dungog Shire Council	2017	3	6	0	0	1	1	0
2022 - 2025 DUBBO REGIONAL COUNCIL DISABILITY INCLUSION ACTION PLAN	Dubbo Regional Council	2022	6	7	0	0	1	1	0
DISABILITY INCLUSION ACTION PLAN 2017	Edward River Council	2017	3	7	0	0	0	0	0
Disability Inclusion Action Plan 2022	Eurobodalla Shire Council	2022	21	14	0	0	1	1	0
DISABILITY ACCESS & INCLUSION PLAN 2022-2026	Federation Council	2022	0	19	0	0	2	1	1
DISABILITY INCLUSION ACTION PLAN	Forbes Shire Council	2017	19	4	0	0	1	1	0
Disability Inclusion Action Plan 2017 – 2020	Gilgandra Shire Council	2017	4	6	0	0	3	1	0
Disability Inclusion Action Plan 2021-2026	Goulburn Mulwaree Council	2021	4	5	0	0	1	0	0
Disability Inclusion Action Plan 2021 - 2025	Greater Hume Council	2021	18	46	0	0	1	2	0
Disability Inclusion Action Plan 2021-2025	Griffith City Council	2021	6	12	0	0	1	0	0
DISABILITY INCLUSION ACTION PLAN 2017 - 2021	Gunnedah Shire Council	2017	21	15	0	0	1	1	0
GWYDIR SHIRE COUNCIL DISABILITY INCLUSION ACTION PLAN 2023/2025	Gwydir Shire Council	2023	10	12	0	0	2	1	0
Disability Inclusion Action Plan June 2017	Hilltops Council	2017	9	6	0	0	1	0	0
SOCIAL INCLUSION HORNSBY hornsby.nsw.gov.au (DISABILITY INCLUSION ACTION PLAN) 2021-2025	Hornsby Shire Council	2021	19	32	0	1	3	0	0
Hunter's Hill Council Disability Inclusion Action Plan 2022 – 2026	Hunter's Hill Council	2022	14	25	0	0	1	0	0
Inclusion Action Plan for People with a Disability 2017-2021	Inner West Council	2017	52	66	0	0	4	1	0
Inclusion (Disability) Action Plan	Inverell Shire Council	2017	5	12	0	0	0	0	0
INCLUSION ACTION PLAN 2022 - 2026	Junee Shire Council	2022	8	7	0	0	0	1	0
DISABILITY INCLUSION ACTION PLAN 2022 - 2025	Kempsey Shire Council	2022	18	23	0	0	3	1	0
Disability Inclusion Action Plan 2017-2021	Kiama Municipal Council	2017	15	2	0	0	0	0	0
Disability Inclusion Action Plan Final	Kyogle Shire Council	2017	5	13	0	0	1	0	0
Access and Disability Inclusion Pla 2020 - 2024	Ku-ring-gai Council	2020	18	27	0	0	1	0	0
DISABILITY INCLUSION ACTION PLAN 2022 -2025	Lachlan Shire Council	2022	3	5	0	0	1	1	1
DISABILITY INCLUSION ACTION PLAN 2021-2025	Lake Macquarie City	2021	4	15	0	0	1	1	1

Policy Name	Council/ Author	Year	Word: Accessibility	Word: Inclusive	Word: Neurodiversity	Word: Neurodivergent	Word: Intellectual disability	Word: Mental disabilty	Word: Mental disorder
Disability Inclusion Action Plan 2022 – 2026	Lane Cove Council	2022	22	21	0	0	0	0	0
Disability Inclusion Action Plan 2022 – 2025	Leeton Shire Council	2022	7	4	0	0	2	2	0
DISABILITY INCLUSION ACTION PLAN 2022-2026	Lismore City Council	2022	13	10	0	0	1	1	1
Annual Report Disability Inclusion Action Plan	Lithgow City Council	2021	6	8	0	0	0	0	0
Disability Inclusion Action Plan Summary document 2022-2025	Lockhart Council	2022	1	0	0	0	1	0	0
Disability Inclusion Action Plan 2017-2022	Maitland City Council	2017	25	51	0	0	2	1	0
MIDCOAST DISABILITY INCLUSIC ACTION PLAN 2022-2026	Midcoast Council	2022	6	5	0	0	0	1	0
Disability Inclusion Action Plan 2022–2026	Mid-western regional council	2022	13	21	0	0	1	0	0
Disability Inclusion Action Plan	Moree Plains Shire Council	2017	10	28	0	0	0	0	0
DISABILITY INCLUSION ACTION PLAN 2022-26	Mosman Council	2022	22	14	0	0	0	0	0
DISABILITY INCLUSION ACTION PLAN 2022-2026	Murray river Council	2022	11	12	0	0	2	0	0
DISABILITY INCLUSION ACTION PLAN 2017-2021	Murrumbidgee Council	2017	0	3	0	0	0	1	0
Disability Inclusion Strategies, Plans and Actions in Muswellbrook Shire 2017-2021	Muswellbrooke Shire Council	2017	3	6	0	0	0	0	0
DISABILITY INCLUSION ACTION PLAN 2022-2026	Nambucca Shire Council	2022	1	0	0	0	0	0	0
Disability Inclusion Action Plan	Narrabri Shire Council	2022	19	46	0	0	2	2	0
Our Disability Inclusion Action Plan 2022 - 2026	Narrandera Shire Council	2022	3	6	0	0	3	2	0
DISABILITY INCLUSION ACTION PLAN DRAFT 2022-2026	Narromine Shire Council	2022	7	27	0	0	1	1	0
North Sydney Council Disability Inclusion Action Plan 2022-2026	North Sydney Council	2022	32	20	0	0	2	0	0
DISABILITY INCLUSION ACTION PLAN Northern Beaches Council 2017 - 2021	Northern Beaches Council	2017	75	81	0	0	2	1	0
Disability Inclusion Action Plan 2017 – 2021	Oberon Council	2017	0	6	0	0	0	0	0
Disability Inclusion Action Plan 2022-2026	Orange City Council	2022	15	14	0	0	1	1	1
PARKES SHIRE DISABILITY INCLUSION ACTION PLAN	Parkes Shire Council	2022	10	9	0	0	3	2	0
Disability Inclusion Action Plan	Parramatta City Council	2022	16	52	0	0	1	0	0
Disability Inclusion Action Plan	Port Stephens Council	2014	10	25	0	0	1	2	0
Community Inclusion Plan 2022 - 2025	Port Macquarie Hastings Council	2022	7	12	0	0	0	0	0
Disability Inclusion Action Plan 2022–2026	Queanbeyan–Palerang Regional Council	2022	39	28	0	0	3	2	0
Disability Inclusion Action Plan 2022 - 2026	Randwick City Council	2022	28	19	0	0	2	1	1
Disability Inclusion Action Plan 2017-2021	Richmond Valley Council	2017	15	0	0	0	1	0	0
Disability Access and Inclusion Plan 2017-2021 An Inclusive City	Shellharbour City Council	2017	7	32	0	0	0	0	0
Disability Inclusion Action Plan 2022-2026	Shoalhaven City Council	2022	22	27	1	0	0	0	0

Policy Name	Council/ Author	Year	Word: Accessibility	Word: Inclusive	Word: Neurodiversity	Word: Neurodivergent	Word: Intellectual disability	Word: Mental disabilty	Word: Mental disorder
DISABILITY INCLUSION ACTION PLAN 2022 - 2026	Singleton Council	2022	13	6	0	0	1	0	0
DISABILITY INCLUSION ACTION PLAN 2022 - 2026	Snowy Valleys Council	2022	12	32	0	0	1	1	0
Disability Inclusion Action Plan 2017-21	Snowy Monaro Regional Council	2017	14	74	0	0	2	1	0
Disability Inclusion Action Plan 2020 - 2024	Strathfield council	2020	10	2	0	0	0	0	0
Extended Disability Inclusion Action Plan 2017-2021 (Ext. 2023)	Tamworth Regional Council	2017	10	22	0	0	1	1	0
Disability Inclusion Action Plan	Temora Shire Council	2018	5	5	0	0	0	0	0
Disability Inclusion Action Plan	Tenterfield Shire Council	2017	0	1	0	0	0	0	0
DISABILITY INCLUSION ACTION PLAN 2022 - 2026	The Hills Shire Council	2022	17	20	1	0	1	0	0
Access and Inclusion Plan 2018-2021	Tweed Shire Council	2018	2	11	0	0	0	0	0
Disability Inclusion Action Plan 2022-2026	Uralla Shire Council	2022	3	4	0	0	1	1	0
Disability Inclusion Action Plan 2022 - 2026	Upper Hunter Shire Council	2022	3	16	0	0	2	1	1
Disability Inclusion Action Plan 2017 – 2020	Upper Lachlan Shire Council	2017	5	3	0	0	3	1	0
DISABILITY INCLUSION ACTION PLAN	Walcha Council	2022	3	24	0	0	1	1	1
Walgett Shire Council disability inclusion action plan 2017 – 2021	Walgett Shire Council	2017	13	9	0	0	1	0	0
Warren Shire Council Disability Inclusion Action Plan 2017 / 2018 to 2022 / 2023	Warren Shire Council	2017	2	18	0	0	0	0	0
Waverley Disability Inclusion Action Plan 2022 – 26	Waverley Council	2022	15	50	0	0	0	0	0
Disability Inclusion Action Plan 2017 - 2021	Warrumbungle Shire Council	2017	3	7	0	0	1	1	0
Disability Inclusion Action Plan 2022 – 26	Wentworth Shire Council	2022	6	13	0	0	2	1	0
DISABILITY INCLUSION ACTION PLAN 2022-2026	Willoughby Council	2022	9	33	0	0	3	0	0
DISABILITY INCLUSION ACTION PLAN 2022-2026	Wingecarribee Shire Council	2022	18	18	0	0	1	0	0
Disability Inclusion Action Plan 2020 - 2025	Wollongong City Council	2020	2	19	0	0	0	0	0
DISABILITY INCLUSION ACTION PLAN	Woollahra Municipal Council	2022	21	15	0	2	1	1	0
YASS VALLEY DISABILITY INCLUSION ACTION PLAN 2017 - 2020	yass valley council	2017	14	7	0	0	5	1	0

Policy Name	Council/ Author	Year	Word: Accessibility	Word: Inclusive	Word: Neurodiversity	Word: Neurodivergent	Word: Intellectual disability	Word: Mental disabilty	Word: Mental disorder
Future Transport 2061	Transport for NSW	2022	8	5	0	0	0	0	0
Disability Inclusion Action Plan 2018–2022	Transport for NSW	2017	125	23	0	0	2	1	0

Appendix B: Word Audit CoS DIAP Diagram



Source: Author 2023

Appendix C: Interviews

Interviewees

Organisation	Number	Justification
Transport for NSW	7	• Policy & urban design perspectives • Organisational opportunites & barriers
Sydney Metro	2	• Urban design perspective, specifically station precincts
Service Design Lead	1	• Opportunites & barriers for better inclusion of invisible disabilities
Universal Design	1	• Universal design perspective and importance of implementation
Research	2	• Current status and understanding of neurodivergence in academia
Victorian Government	1	• Cross-state perspective and approach • Comparison to NSW

Broad Interview Questions

1. What is your (interviewee) role/ work involve?

2. What are the possible barriers for neurodivergent individuals in public space, particularly public transport?

3. What are the possible opportunities to better support the inclusion of neurodivergent individuals in public space, particularly public transport??

4. How does language such as ‘accessibility’ and ‘inclusive’ translate to the built environment?

5. What are the implications for policy and urban design?

Appendix D: Participant Consent Form

PLAN4004/5: **Planning thesis** Student: **Lucinda Miller** Course convenor: **Ryan van den Nouwelant**	UNSW SYDNEY
Student Project Participant Information Statement Study Title: **The Invisible City: Public Transport through Neurodivergent lenses**	

1. **What is the student project about, who is conducting it and who can take part?**
   You are invited to take part in this student project titled **The Invisible City: Public Transport through Neurodivergent lenses.** The project is being conducted by Lucinda Miller under the supervision of Christine Steinmetz as part of the Planning Thesis course. The aim of the student project is to understand the experiences of neurodivergence in relation to navigating public transport. To answer the aims, people who meet the following criteria are being asked to take part:
   Inclusion criteria
   - People over the age of 18.
   - People who have read this document and provide their consent to participate.
   - People with relevant professional expertise across state and local government, research and peak body.

2. **What will I be asked to do if I agree to participate and how information about me be used?**
   Participation in any student project is voluntary. If you do not want to take part, you do not have to.
   If you decide you want to take part in the research study, you will be asked to:

   - Complete an online, telephone or in-person interview that will take no longer than 30 minutes. Questions about neurodivergence and design of public space, specifically public transport and information from you will only be used or published in a manner that will not identify you. With your permission, interview discussions will be audio or video recorded. If you do not wish to be recorded, you can advise the student to take written notes of the interview discussions.

   Any information collected from you will only be used for this student project and published for academic, research or educational purposes and stored following the UNSW Privacy Management Plan for a minimum of 7 years after the project's completion.

   If you would like to receive a copy of the project results, you can email the course convenor. You withdraw your agreement to participate at any time by contacting the student, indicating that you wish to leave the interview or leaving questionnaires/survey responses incomplete.

   The questionnaire, survey, or interview responses linked to identifiable information such as your name, date of birth, address, a video, photograph, or image linked to will be withdrawn. Incomplete interviews, questionnaires or surveys will also be withdrawn.

   The student will not withdraw the questionnaire, survey, interview responses, or images not linked to your identity.

3. **Student Project Contact Details**

Student Name	Lucinda Miller
Email	lucinda.j.miller@student.unsw.edu.au
Course Convenor Name	Ryan Van den Nouwelant
Course Convenor Email	ryan.v@unsw.edu.au
Course Name	Planning Thesis: Research
Course Approval Number	PLAN4004

PLAN4004/5: **Planning thesis** Student: **Lucinda Miller** Course convenor: **Ryan van den Nouwelant**	
Student Project Participant Information Statement Study Title: **The Invisible City: Public Transport through Neurodivergent lenses**	

4. Complaints and Concerns

Complaints or concerns about student projects can be directed to the UNSW Human Research Manager by emailing humanethics@unsw.edu.au or phone (02) 9065 8549.

5. Consent Form

By completing one of the following options, I provide my consent to participate in this student project and agree to:

☐**Email consent:** Complete the consent form below and return the completed consent form by email to lucinda.j.miller@student.unsw.edu.au

Interview			
• Participate in this student project by completing an interview.	☐Yes	☐No	☐N/A
• Interview being audio or video recorded.	☐Yes	☐No	☐N/A
• Give consent to use my name, job title, and workplace.	☐Yes	☐No	☐N/A
I also provide my consent for the data collected from or about me to be			
• Published for academic, education and research purposes.	☐Yes	☐No	☐N/A
• Published, used or shared in a way that my: ☐Identity may be known or uncovered by the way that it is used. ☐Identity is unknown, and any information used will be anonymous.			
• I have read the participant information statement and understand the project's purpose, what I will be asked to do and how the information collected will be used.	☐Yes	☐No	☐N/A