

Updating the Building Code: Changing requirements for accessibility to commercial buildings: Sanitary facilities

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WSP NZ Limited

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UPDATING THE BUILDING CODE: CHANGING REQUIREMENTS FOR
ACCESSIBILITY TO COMMERCIAL BUILDINGS: SANITARY FACILITIES

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Abbreviations

AUS - Australia

BRANZ - Building Research Association of New Zealand

CPTED - Crime Prevention Through Environmental Design

ECE – Early Childhood Centre

EU – European Union

FA – Football Association

IBC - International Building Code

ISO - International Organization for Standardization

MBIE – Ministry of Business, Innovation and Employment, Hīkina Whakatutuki

NZ – New Zealand

NZBC- New Zealand Building Code

NZS – New Zealand Standards

SFSG - Sanitary Facilities Stakeholder Group

UK – United Kingdom

USA – United States of America

WC- Water Closet

Executive summary

This report, commissioned by BRANZ and conducted by WSP Research, investigates the current state and future needs of sanitary facilities in commercial and public buildings in Aotearoa New Zealand. The study aims to provide an evidence base to inform potential updates to standards and G1/AS1 (2011) Acceptable Solutions and Verification Methods used to demonstrate compliance with the performance criteria of the Building Code, to better meet the diverse and evolving needs of the population.

Existing sanitary facilities often fail to meet the needs of various user groups, including people with disabilities, parents with young children, and gender-diverse individuals. The lack of adequate facilities impacts their ability to participate fully in public life.

There is a significant lack of understanding and provision for cultural needs, particularly for Māori and Pacific peoples. This includes the need for facilities that respect cultural practices and provide appropriate amenities.

The research identified a strong demand for more inclusive and accessible facilities. This includes gender-neutral toilets, facilities with baby changing stations, and accessible toilets that cater to a range of disabilities. Many accessible toilets do not meet the minimum standards, with issues such as insufficient space, poor layout, and lack of necessary features like grab rails and hoists. This makes it difficult for people with disabilities to use these facilities comfortably and safely.

Safety, cleanliness, and privacy are critical factors influencing user satisfaction and comfort. Many users reported feeling unsafe or uncomfortable in current facilities, highlighting the need for improvements in these areas.

Women and people with disabilities often experience longer wait times due to inadequate provision of facilities. This disparity can discourage these groups from using public spaces and participating in activities.

There is a need for facilities that respect cultural practices where appropriate, such as providing bidets or hoses for washing and ensuring separate facilities for different genders in certain cultural contexts. This is particularly important for Māori and Pacific peoples, who have specific cultural requirements that are not currently being met.

RECOMMENDATIONS:

The following recommendations are made:

For new facilities, to provide equitable sanitary facility access for New Zealanders:

1. Provide sanitary facilities that offer a choice for all, including gender separated facilities and gender-neutral facilities, those with accessibility needs, and those with children.
2. Provide a higher number/proportion of facilities for disabled people, and facilities for women and other genders to overcome disparities in wait times (and update Tables 1 –4 of the Acceptable Solution G1/AS1 (2011) to reflect this).
3. Provide design solutions that encourage flexibility of toilet labels in specific facilities to accommodate changing needs depending on their use, while still maintaining acceptable number of facilities overall. (e.g. sporting facilities which cater for different genders at different times).

4. Expand provisions for accessibility design to include “ambulant”, “accessible” and “fully adult accessible change facilities”.
5. Develop Acceptable Solutions to the building code for combined accessible and parents/carers’ rooms to be designed with all users in mind¹ (i.e. changing table is not an afterthought as this impacts both carers and those with accessibility needs).

For consideration with respect to updating specific sections of the Acceptable Solution G1/AS1 (2011) and other standards as appropriate (e.g. NZ 4121).

6. Updates are recommended to specify for all new facilities within public and commercial buildings to:
 - Include sanitary disposal equipment in all separate facilities provided in each cubicle.
 - Include a space for belongings (e.g. shelf) within cubicles.
 - Include requirement for baby change facilities in all facilities.
 - Provide basins within cubicles.
7. For all new accessible sanitary facilities:
 - Include provision for placing belongings (e.g. hook, shelf at appropriate height and location) including medical equipment, considering the ability to maintain hygiene of any shelf.
 - Include both medical waste and sanitary bins.
8. Extend requirements of Acceptable Solution G1/AS1 (2011) paragraph 4.2.1 to all buildings (i.e. provide accessible facilities at all locations of sanitary facilities in public and commercial buildings).

For designers and specifiers:

9. Provide facilities in locations with good passive surveillance and appropriate lighting to improve perceived safety.
10. Adopt a user centred design process to identify specific facility-based use cases and needs, including cultural needs and future needs.
11. Build an evidence base of what good looks like and the economic and social advantages of good sanitary facilities. To support this:
 - a. Develop a central repository of case studies to support this approach to design, including case studies on new facility development and retrofitting.
 - b. Develop citizen science approaches to rating and reviewing bathrooms and identifying minor issues.
 - c. Identify gold standard existing bathrooms, with details on specific features for designers to apply as best practice.

¹ Note that ideally separate accessible and parents/carers rooms should be provided.

12. Provide simplified and improved best practice tools to support and ease design process, including design documentation on the code, requirements and why they are important. Tools should address retrofitting existing facilities and designing new ones.

Further research is recommended to:

1. Determine the acceptable minimum size stall for accessible sanitary facilities (with and without baby change facilities) and facilities for women.
2. Identify specific cultural needs and perspectives through in-depth qualitative research to support design guidelines and standards.
3. Identify and overcome the inequality of wait times for disabled people and develop specifications for the features and changes required for disabled people and those with an access need.
4. Consider the whole of life cost of any design changes including how to optimise facility design with consideration of efficient construction practices, materials, maintenance and cleaning.

1 Introduction

Sanitary facilities are essential for ensuring a clean, safe, and fit for purpose-built environment. They are vital for public well-being, yet in Aotearoa New Zealand, their current alignment with the diverse and changing needs of the population remains unknown. This research determines societal needs and expectations relating to the 'adequate and convenient' provision of sanitary facilities within public and commercial buildings and inform potential revisions to Standards and Acceptable Solutions for complying with the Building Code.

A historical study to better understand the needs of sanitary fixtures to inform guidance and policies for these facilities was conducted in 1993 by WSP (then Ministry of Works). The study examined many aspects of facilities including wait times and user preferences. Thirty years later, society has continued to evolve, expectations for facilities within our buildings have changed, and there is a need to update this area of research.

The MBIE Building System Performance team identified and confirmed the need for the current research, and it builds on a recent literature review conducted by BRANZ in 2023 that highlighted this need.

The research undertaken by BRANZ (2023) has shown that the changing needs for sanitary facilities for New Zealand's population are not well understood, meaning that there is no way of determining if population needs are being met. The current research tackles this gap and delivers recommendations to support the needs of all New Zealanders and ultimately lead to improved solutions to more fully meet the evolving needs of a diverse population.

1.1 Scope

This research targets sanitary facilities within commercial and public buildings in Aotearoa, New Zealand.

Table 1 indicates the types of buildings that were included within the scope of this research, and the buildings that were determined out of scope, however the general findings and recommendations may be applicable to these facilities.

Table 1 Examples of buildings in and out of scope of this research

| Commercial and Public buildings in scope | Buildings out of scope |
|--|--|
| <ul style="list-style-type: none">• Short term use buildings with sanitary facilities used during certain peak time periods (e.g. theatres, stadiums, churches, cinemas, train stations, bus transit areas, public transport hubs, airports)• Medium to long term use buildings with sanitary facilities used during certain peak periods (e.g. schools, universities, other educational facilities)• Short term use buildings with facilities used at any time (e.g. swimming pools, gym, shopping malls, retail, supermarkets, museums, art galleries, libraries, zoo, gas stations, cafés, restaurants, bars, nightclubs)• Medium to long term use buildings with facilities used at any times (e.g. office buildings, hospitals, retirement homes, marae, clubrooms, community halls, early childcare centres,) | <ul style="list-style-type: none">• Stand-alone public facilities not contained within buildings (e.g. parks, playgrounds, campgrounds)• Facilities within private residential buildings• Facilities with requirements for the lifting and care of people within specialist facilities (e.g. hospitals)• Other facilities excluded by the Building Code Performance G1 3.4 (Building Regulations, 1992) (such as back country huts)• Associated facilities such as showers, changing rooms, feeding rooms. |

2 Research objectives

The objectives of this research are to:

1. Identify what has been researched and implemented with respect to sanitary facility provision in other jurisdictions and evaluate its applicability to Aotearoa, New Zealand.
2. Understand the user needs and preferences for sanitary facilities for different groups (e.g. people with young children/babies, differing abilities, cultural considerations, gender diverse individuals) in Aotearoa, New Zealand.
3. Work with end-users and their advocates to identify barriers to meeting user needs.
4. Provide recommendations and priorities for implementation, focussing on recommendations that that may inform updates to Standards and Acceptable Solutions for the Building Code.

3 Literature Review

Access to sanitation is a basic human right (United Nations General Assembly, 2010). In Aotearoa, New Zealand these requirements are mandated in law under Schedule 1 of the Building Code. Clause G1 (Building Regulations 1992) – Personal Hygiene states that:

“G1.3.1 Sanitary fixtures shall be provided in sufficient number and be appropriate for the people who are intended to use them.

G1.3.3 Facilities for personal hygiene shall be provided in convenient locations.

G1.3.4 Personal hygiene ... and facilities provided to people with disabilities shall be accessible”.

Standards to support the Building Code provide design information and advice on the numbers, location, type and quality including features and fittings for public toilets in any location, including for people with disabilities (Department of Building and Housing, 1992, NZS 4241-19991).

A study was completed by the Ministry of Works in 1993 (Stewart, 1993), identifying the needs of sanitary facilities to inform guidance and policies. The study examined many aspects of facilities including wait times and user preferences.

A BRANZ report for MBIE provided an initial literature review focused on a global scan of how internationally sanitation facilities can ensure they meet diverse requirements and user preferences, identifying policy and knowledge gaps. The focus of the report was on requirements for non-binary people and people living with disabilities, as well as how the number of bathrooms required are determined and usage of sanitary facilities including emerging preferences (BRANZ, 2023). The BRANZ report found that while New Zealand’s legislative approach to allocating sanitary facilities according to building use is in line with other countries, it was not clear “how well user needs and preferences are currently being met” in various settings. The report highlighted the need to engage with various community groups to understand the perception to “provide safe, functional and inclusive spaces for all users”. The work highlighted the following areas:

- Inclusive and accessible facilities, with International Building code (IBC) changes in 2024 to include adult changing stations in a series of specified locations (Code E142-2)
- IBC amendments for gender-neutral signage on all single-user bathrooms to communicate they are open to all genders and non-binary individuals
- USA will adopt IBC amendments in 2024, including requirements for adult change stations, and gender-neutral signage requirements
- NZ follows a similar ratio approach for determining number of toilets as other jurisdictions
- NZ approach is in line globally (UK, USA, AUS)

As the first step in this research, this literature review considers the social, cultural and physical needs of people in relation to sanitary facilities. The literature review applies Webber’s (2018) public toilet principles, from Australia, which were designed to guide policy, planning, design and maintenance of public toilets in public spaces as a framework. Physical needs encompass the physical environment, social needs consider people’s perceptions and experience, and cultural needs consider unique needs for diverse populations.

3.1 Aotearoa New Zealand research

In Aotearoa, New Zealand existing research on building users 'needs' is sparse.

Historically the research focus has been on hygiene and health, with public facilities being surveyed in 2013 and again in 2020 on provision of soap and water. In 2013 from a survey of 150 toilets in the lower North Island 39% had no soap and 4% had no water. In 2020 data from 400 toilets in Aotearoa, New Zealand identified that 2.5% had no water for hand washing and 14.8% had no soap (Wilson & Thompson, 2021).

Following the research conducted by Wilson and Thompson, The New Zealand Herald (Backhouse, 2013) conducted an online poll which identified that public concerns were common. Of nearly 12,000 respondents who were asked "are our public loos really that bad", over a third (39%) voted for "Yes, I'd rather hold on than use 'em". This compared to 39% voting for "they ain't pretty – but they get the job done" and 22% for "nah – there are plenty of countries with worse ones".

Wellington City Council (2023) have identified that there is a need for guidance on the number of facilities required in buildings and public spaces and a need to update policy guidelines for new buildings. The council has recently undertaken a survey with the public on sanitary facilities to refresh their Community Facilities Plan and policy around inclusive use of public sanitation facilities. The survey included 992 responses, finding that facilities typically exclude gender diverse needs, there are a lack of baby changing and parent facilities, and a lack of low sensory spaces. The plan, Te Awe Māpara, (Wellington City Council, 2023) also determined some geographic gaps in provision. There is limited but emerging cultural perspectives, especially for Māori (see).

3.2 Social needs

Webber state that "design alone cannot address the needs of all toilet users and needs to be supported with a conversation about social norms, inclusion, use, safety and acceptance"(Webber, 2019, p. 20).

Webber's (2019) principles relevant to social needs, include public life of a city, public health and hygiene, safety and privacy, inclusion and attractiveness. The provision of sanitary facilities has been found to boost economic development and tourism (WaterAid, 2018; Webber, 2019).

Webber (2018) explored toilet users experiences, finding a diverse range of needs, that are often not addressed, such as parents with children, transgender individuals, people with disabilities and people with health conditions. This study found that if public toilets do not meet people's needs then "people's mobility, participation in employment, access to education, and inclusion in social and community activities" are impacted (Webber, 2019, p. 16).

Burton and Mitchel (2006) developed the 'streets for life' concept, based on built environment design and emotional wellbeing and quality of life. 'Streets for life' considered the use of neighbourhoods and public spaces, including sanitary facilities. 'Streets for life' considers inclusive environments, and also focuses on older people with dementia, identifying that they often cease to visit public locations due to a lack of toilets and toilets that are difficult to access. Afacan and Gurel (2015) state the design of sanitary facilities influences how people use land and participate in life.

3.2.1 PUBLIC HEALTH AND HYGIENE

There is emerging research on toilet culture and designs to promote hygiene and multicultural needs, such as the use of bidets, toilet design and washing features (Othman & Buys, 2016). Afacan and Gurel (2015) found in Turkey public bathrooms lacked sanitary equipment rendering them unusable in relation to hygiene. Cleanliness was considered a higher priority during COVID-19 (Abney et al., 2021).

Sanitary facilities are predominantly used to maintain and promote public health. There is limited research on differing health conditions that may require people to need to use a bathroom outside of their home. Emerging research highlights the need to provide a sanitary surface for people who have a stoma, or other health conditions (Convatec, n.d.). Pregnant people and older adults are likely to need more frequent access to a bathroom as the bowel and bladder generally become weaker with age, which with an ageing population in Aotearoa, New Zealand, is going to become more important (E. Burton & Mitchell, 2006). Sanitation facilities should also be designed to meet the needs of people who menstruate. This includes privacy, disposal, access to soap and water, storage, access to menstrual products, and mirrors in both male and female facilities (Pascoe, 2015; WaterAid, 2018; Webber, 2019). Recently in Aotearoa, New Zealand, Crohn's and Colitis New Zealand have developed the "I can't wait" case to assist members who may need urgent access to toilets.

3.2.2 SAFETY

The perception of safety has been identified as critical for a positive user experience. Moreira et al., (2021b) found when exploring people's perceptions to public toilets, that safety was based on experiences regarding quality of the facilities, maintenance, conservation, attractiveness and operation. Women in particular expressed feeling unsafe. Jen and Jones (2018) also found perception of safety is essential for most users, especially marginalised populations.

A lack of perceived safety is a barrier to using sanitary facilities. In the UK, the Royal Society for public health looked at public provision of sanitary facilities finding that provision had decreased, and people did not want to use available facilities due to cleanliness, and concerns of safety, drug use, and cost (Barton & Grant, 2006). Hartigen et al (2020) identify the fear of being a target for assault is a barrier to feeling safe using a public toilet. Stonewall found that 48% of transgender people are not comfortable using public toilets because they fear violence (Ramster, Greed, & Bichard, 2018). Wekerle's (1995) early research on Safer Cities linked women's perceptions of safety in public spaces with a lack of informal surveillance and the potential for entrapment. Safer Cities provides guidelines that can be used by planners, architects, developers and all those involved with designing and building public sanitary facilities to plan and design for safety.

In relation to safety, there has been some interest in the type of lighting used in sanitary facilities, with questions around natural lighting, ambient lighting, and low sensory lighting, to address visibility, comfort, safety, and for some, accessibility. Hartigen et al (2020) also identified poor lighting as influencing perceptions of safety for women, and that well-lit access routes, security cameras and emergency call buttons can reduce safety concerns. Crabtree et al (2013) investigated the perceived effects of blue lights, which have been installed in some public bathrooms to deter intravenous drug use. The study found people perceived the blue light installation made injecting more dangerous.

There are temporal and location influences on safety. For some users, the location of a sanitary facilities may not be considered safe, e.g. for transgender in a hostile location, young people at nighttime, a lack of privacy, or

locations that may serve alcohol which may be considered inappropriate for some with religious and cultural reasons (Jen & Jones, 2018).

For disabled people a lack of access to the facility, or even the building itself may be unwelcoming. Jen and Jones (2018) found some accessible toilets are repurposed as storage rooms, or do not contain usable facilities (e.g. hoists/changing bench) resulting in the accessible toilet being inaccessible and unsafe for some users.

3.2.3 INCLUSION

Afacan and Gurel (2015) state the needs of women, children, disabled people and older adults are often overlooked in relation to public sanitary facilities. Moreira et al., (2021b) identified vulnerable users of sanitary facilities as women, transgender people, homeless people, elderly people and people with disabilities. To date minimal research has been conducted on the needs of older adults, homeless people, with limited research on disabilities, women, families and transgender people.

Inclusive design is important to support people's health and hygiene as well as participation in wider activities, especially in urban areas. A Lack of inclusion of sanitary facilities continues to be a barrier to use (Webber, 2019). Webber (2018) identified the link between open hours, accessibility and availability of public toilets. For many, sanitary facilities in a public space are often only available during business hours, meaning many public toilets are not accessible after hours, or preferred facilities which are perceived as safer (well lit, high traffic areas, indoors) are not available. (Moreira et al., 2021b). This has a negative impact on people outside of their home after business hours. Providing out of business hours facilities may support better public health, community wellbeing and enhance public safety by reducing the need to seek out unsafe alternatives.

Traditionally sanitary facilities have been gendered (Cooper et al., 2021; Doan, 2010). Gender neutral toilets are becoming more prominent. Recently, in the UK and in Aotearoa, New Zealand , gender-neutral toilets have been raised by governments (Department for Levelling Up, Housing & Communities, 2024; Moore & Highfield, 2023) A UK study (Greed, 2019) focused on the implications of revisions to the Gender Recognition Act for women-only spaces, they reported that the relabelling of facilities rather than redesigning or increasing existing provision highlighted the lack of facilities available to women. For example, relabelling as "Gender-neutral with cubicles" and "Gender neutral with urinals" increased the number of men using the "with cubicles" facilities, while women were less likely to use the "with urinals" facilities (Greed, 2019). This was also noted in Aotearoa, New Zealand when AUT re-appropriated disabled bathrooms with all-gender signage, as opposed to creating additional facilities, increasing the number of users for what were previously accessible only bathrooms (YOUR EX, 2017). These reports highlight the importance of considering all users from the outset in design and the difficulties of relabelling existing facilities.

Webber (2019) found a range of facilities is required to meet a diverse range of needs. This includes-gender facilities to promote inclusivity, use and safety as well as single-gender toilets to ensure safety and prevent embarrassment and period shaming. Webber (2019) identified the need of gendered facilities or not, will depend on the people likely to use the wider facility.

Further research on the safety, needs and experiences of transgender and other genders in public restrooms have been conducted finding sanitary facilities are typically gendered spaces that are not inclusive (Bender-Baird, 2016). Browne (2004) examines genderism with women's narratives or abuse, violence and the negotiation of policing sexed spaces. Jen and Jones (2018) found that

there is a lack of research and knowledge about violence, 'policing' and harassment in binary gendered toilets. Their three-year UK study found that greater all-gender provision is needed. The study found that there is no 'one size' fits all approach. Jen and Jones (2018) found that many accessible toilets are often inaccessible. All-gender toilet provision is needed, to benefit parents with children of a different gender, carers, some disabled people, and some transgender and non-binary people.

Caregivers' needs have been considered in relation to parents, caregivers of children and adults. Identified needs are baby changing facilities, family rooms including a larger space, and feeding provision (Webber, 2019).

3.2.3.1 WAIT TIMES

There are longer wait times for female toilets. This is due to the unequal number of toilets provided (urinals take up less footprint space), and due to the increased amount of time taken for women to use sanitary facilities compared to men, which includes practicalities of removing clothing and toilet pan flush time compared to urinals (Ghent University, 2017; Stewart, 1995).

The time taken to use facilities indicates women taking approximately 50% longer with times being dependent on whether urinals are available in male toilets (see Table 2). Historical data indicates that women appear to take almost twice as long to use a toilet pan to urinate as men to use a urinal, however males toilet pan use is longer than females (Stewart, 1993, 1995). There is limited research on wait times for accessible toilets, although it is recognised that the use times are generally longer (Gwynne et al., 2019).

Table 2 Historical wait time studies (mean time to use, seconds)

| Occupancy | New Zealand (Stewart, 1995) | | UK (Davidson & Courtney, 1976) | Canada (Henning, 1977) | Canada (Henning, 1975) | USA (Baillie et al., 2009) | USA (Rawles, 1988) | USA (Gwynne et al., 2019) |
|-------------------|--------------------------------|------------|-----------------------------------|---------------------------|---------------------------|-------------------------------|-----------------------|------------------------------|
| | Office | University | Office | Plaza | Theatre | College | Various | Airport |
| Male toilet pan | 210 | 145 | 267 | 182 | 155 | 118 | 84-113 | 136 |
| Male urinal | 20 | 31 | 39 | 35 | 41 | | | |
| Female toilet pan | 95 | 90 | 80 | 92 | 75 | 179 | 153-181 | 166 |

Women are also less likely to use non-gendered facilities that contain urinals. Non-gendered bathrooms have been found to decrease women's wait times but increase men's. There are changing trends on providing more sanitary facilities and addressing 'sanitary sexism' or 'potty parity' (Kassam, 2024).

3.3 Cultural needs

To meet cultural needs, community input is needed in the design, location and identified needs of the community (McCreary et al., 2015; Webber, 2019). In Aotearoa, New Zealand there is minimal research on the needs, expectations and experiences of Māori and Pacific peoples.

There is a small pocket of research on women, menstruation and pregnancy within different cultural environments globally. In India, Reddy et al (2019) identified the needs of women in relation to sanitation facilities finding women require exclusive facilities, security and cleanliness of facilities, facilities located at transport locations and accessibility of facilities in busy commercial areas.

In Aotearoa, New Zealand, there has been an emerging interest in wāhine (women's) experiences when menstruating. Culturally, women need their own facilities when menstruating. Within te ao Māori, waiwhero (menstruating people) is seen as tapu. There are some traditional practices and concepts relevant to public sanitation.

While there is very limited published research on other cultural needs in Aotearoa, New Zealand, information of other needs can be gathered for the wider population from other multicultural countries. Research conducted with Muslim families living in Australia identified that water is used for perianal cleansing, and that where available this is the preferred and applied method, therefore toilet design and location should provide for this. The research also recognised that while squat toilets were used in other countries the families in this study did not report any concerns with adapting to using sitting toilets (Othman & Buys, 2016). In Aotearoa, New Zealand, the University of Auckland converted toilets into squat toilets in some locations in response to the perceived needs of some of the student population (University of Auckland, n.d.).

Globally research has identified specific cultural needs, especially for women and Muslim's. The approaches used may be relevant to apply in relation to Māori and Pacific communities and other minority groups across Aotearoa, New Zealand.

3.4 Physical needs

The physical environment includes wayfinding, accessibility, maintenance and sustainability, for sanitary facilities.

Anthony and Dufresne (2007) state there are four broad issues with sanitary facilities, unequal number and size, inadequate sanitary conditions, difficult to locate women's facilities, or a lack of women's facilities.

3.4.1 WAYFINDING

Being able to find an appropriate facility is essential. Sanitary facilities need to be more widely signposted and include information on the intended user and facilities available (Jen & Jones, 2018). Research has begun to examine sanitary facility needs for people with a range of health conditions. White (2023) focused on people living with Irritable Bowel Syndrome in the UK finding the availability, comfort and knowledge of where to find a suitable toilet as essential. The types of signage used is important to users to promote acceptance and a welcoming space. Jen & Jones (2018) found that the emphasis on a range of disabilities that aren't visible was welcomed by many users. Signage is especially important when taking an inclusive approach to those who are visually impaired or have a learning difficulty (S. Bell et al., 2022).

Digital wayfinding supports physical design. There is online information on the location of a range of toilets (Continence New Zealand, 2024), accessible toilets (Carers New Zealand, n.d.), and globally safe restroom access for transgender, intersex and gender nonconforming individuals (REFUGE Restrooms, n.d.).

3.4.2 ACCESSIBLE SPACES

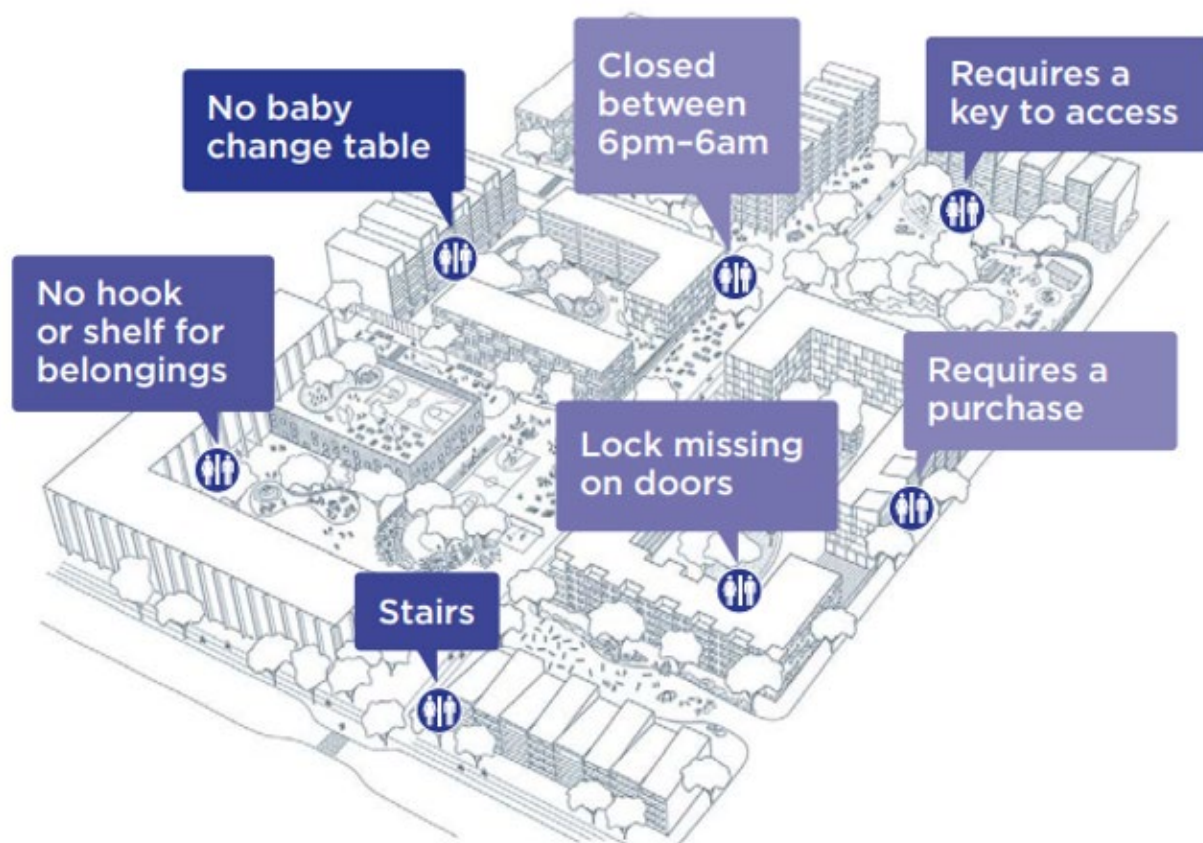
There are specifications in NZS 4121:1999, ISO 19026:2015 for minimum sizes of accessible facilities. Jen & Jones (2018) in a UK study, found many accessible sanitary facilities to be inaccessible to those who may need them. An accessible toilet space needs to be large enough for a wheelchair user or someone who needs assistance. Jen & Jones (2018) found that many accessible toilets did not have access, e.g. narrow hallways, too narrow doors. Sinks and toilets were often positioned poorly for optimal use, there were a lack of grab rails, a lack of space and poor positioning of other items, such as roll dispensers, hand dryers etc (Jen & Jones, 2018). These findings may also have relevance within Aotearoa, New Zealand. Afacan and Gurel (2015) identified in Turkey a lack of accessible routes to public toilets was a significant physical barrier. Kitchin and Law (2001) focused on the provision of accessible public toilets in Ireland, finding due to weak planning legislation, provision is lacking.

Research has begun to consider needs for a range of disabilities, including 'invisible' disabilities, identifying a broad range of needs (Bell et al., 2019). Typically, an accessible toilet is non-gendered, despite able-bodied toilets often being gendered. Often the accessible toilet when provided also serves to be used for families with baby changing units and enough space to include a pushchair. Regulations in the UK, Canada, Indonesia are changing to include fully accessible adult change toilets such as changing places² (Department of Housing, Local Government and Heritage, 2022, 2024; Parlour Collective, 2024). In the recent 2024 Olympics, France has expanded thinking of accessible spaces, including toilets (Lee, 2017). In part due to the 2024 Olympics, Paris is installing new toilet facilities, which feature hands free technology, self-cleaning features, less water consumption, low carbon manufacturing process and a universal access design. The new designs have identified key features as "These include level access, hands-free buttons positioned at optimal height, large mirrors, accessible coat-hooks, a washbasin, a detergent dispenser and hand dryer, and adaptive lighting" (JCDecaux, 2024).

Often accessible toilets are in places that may not provide access in the evening or require a key to access. Webber (2018) identifies a variety of barriers to access across a city, in Australia, see Figure 1.

² Changing Places is a consortium found in the UK, AUS and NZ that provides fully accessible bathroom facilities in public places. Changing places are designed for multiple or complex disabilities and contain an accessible toilet with a hoist, adult size changing table and space for a caregiver.

Figure 1. Barriers to access for public toilets (Webber, 2018, pg. 2)



3.4.3 MAINTENANCE AND SUSTAINABILITY

There is emerging consideration of the sustainability of buildings, and sanitary facilities. Consideration is needed for the waste and sewage management, reflecting climate change, natural disasters and future planning of buildings. Webber (2019) suggests in Australia but applicable worldwide, toilet maintenance should “be responsive to the location, local conditions and operational structure” (2019, p. 34) and existing infrastructure should be assessed for robustness. There has been limited research on the cost of providing and closing public toilets (Development Trusts Association Scotland, 2021).

3.5 Specific locations

There are a range of locations that require determining number of users, needs and preferences. Research on UK provision of toilets identified stadiums, entertainment venues, retail, schools, hospitals, assisted living, and recreational facilities as locations that may have different or specific needs in relation to sanitary facilities (Bichard et al., 2006; Greed, 2019).

3.5.1 REGIONAL SPACES, AOTEAROA, NEW ZEALAND

Due to differing needs, populations and geographical contexts, across Aotearoa, sanitary facilities are maintained and developed by specific building owners or with responsibility at a regional or local council level. Across Aotearoa, New Zealand, regional and district councils have differing levels of involvement with public toilets. Typically there is greater provision in urban areas (Greed,

2003; Marks et al., 2020; Moreira et al., 2021a). All regional councils list and maintain public toilets (see Appendix C: Building code standards and regulations).

Some authorities have developed business cases and policies around public toilets, and some have specific public toilet plans. For example, Waikato Regional Council have identified the cost to provide, maintain and service public toilets is considerable and have outlined future provision and considerations in a public toilet strategy (Waikato Regional Council, 2020). Wellington City Council have reviewed provision of public toilets and included this within Te Awa Māpara / community facilities plan (Wellington City Council, 2023). Auckland council have produced guidance on best practice design tools for sanitary facilities alongside Universal Design Forum (Auckland Council, 2015).

3.5.2 EDUCATIONAL SPACES

A study in primary schools sanitary facilities in Auckland was conducted in 2008 (Upadhyay et al., 2008) finding 84% of schools complied with the minimum of toilets provided in the Clause G1 Compliance Document (Department of Building and Housing, 2011) providing a healthy environment. The study concluded schools need to adopt toilet policies to ensure consistency in healthy toilet provision.

Globally, a study in Scotland considered the needs of specific users and locations for sanitary facilities in schools (S. Burton, 2013). The study identified that typically research on sanitary facilities focuses on hygiene, general health and minimum provisions. Barriers have been identified to children using facilities at school, these are agency to use bathrooms, bullying, cleanliness, soap availability and pleasantness/attractiveness of facilities (S. Burton, 2013; Lundblad et al., 2010; Renner, 2013). Furthermore, there is a lack of research on the experiences and provision for children with additional support needs.

There is limited literature available on high school and university sanitary facilities and the needs of different students. Some studies have been conducted on universities and transgender students that include sanitary facilities, finding facilities to not be inclusive (Beemyn, 2005; Francis et al., 2022).

3.5.3 RECREATIONAL AND SPORTING FACILITIES

Understanding of accessible and suitable sanitary facilities in differing sporting environments have been considered. Internationally there have been studies focused on advances in bathroom materials, such as flooring in high traffic areas for instance within stadiums. There has been some optimisation of plumbing and water usage and water wastage (Fleming, 2019). Swimming pools require good design to meet changing and hygiene guidance, this includes the signage, and location of sanitary facilities, the needs of users and water efficiency (Pimentel-Rodrigues & Silva-Afonso, 2022).

In the UK, the FA reviewed sporting facilities in relation to the disability discrimination act, finding many clubs and stadiums were inaccessible, and provided recommendations for improvement. In particular, designated accessible toilets that able-bodied could not access is recommended (Wood, 2003).

In Aotearoa, New Zealand, Sport New Zealand have created guide design principles. Guidance is focused on female experiences, privacy, accessibility and gender-neutral principles (New Zealand Rugby, 2022; Sport New Zealand, n.d.).

3.5.4 TRANSPORT NETWORKS

Moving to and from public spaces may include the use of public transport. For many people, the lack of sanitary facilities available or that are inadequate when using public transport may be a barrier (Jen & Jones, 2018; Webber, 2019). A qualitative study of individuals experiencing gastrointestinal issues identified that for transport in particular, boats and trains emerge as preferred modes over buses, trams and subways due to the presence of onboard toilets (Nielsen, 2024). When sanitary facilities are provided on public transport, such as trains, these are often inaccessible for many disabled people, or people with mobility issues (Research Institute for Disabled Consumers, n.d.; Swift et al., 2021). Provisions in stations and interchanges are often not provided, or are inconsistent, which limits access to passengers waiting for trains (Greed, 2003). In the UK, Network Rail have issued guidance of public toilets in managed stations, which could be used to develop similar national guidance and best practice in Aotearoa, New Zealand (Webber, 2019; Wilson, 2020). In Aotearoa New Zealand design considerations recommend providing toilets as close as possible to departure and arrival points, suitable for passengers with luggage (Ministry (of Business, Innovation and Employment, 2024), and Auckland Transport (n.d.) specify that toilets must be provided at all station types, where applicable within the paid concourse areas

3.5.5 ENTERTAINMENT VENUES, SHOPPING MALLS, AND TRANSIENT SPACES

Stadiums, theatres and entertainment venues may face unique challenges around cleaning and maintenance due to high traffic (Ibrahim et al., 2024). Some entertainment venues are designing sanitary facilities with flexibility, for example changeable signage to designate different gender ratios (Fleming, 2019; Jung & Abdelaziz Mahmoud, 2023).

3.5.6 OCCUPATIONAL, WORKPLACES

In Aotearoa, New Zealand, Worksafe Mahi Haumaru Aotearoa have issued guidance on workplace management including health and safety regulations that require sanitation facilities (WorkSafe New Zealand, 2018). Some studies have found that there are positive impacts on health, satisfaction and productivity from appropriate building characteristics such as sanitary facilities in the workplace (Rutter et al., 2023; Voordt & Jensen, 2021).

3.6 Specifications and the building code

Provision of sanitary facilities are legislated as a human right. In Aotearoa, New Zealand, the Building Code and specifically clause G1 (Building Regulations 1992) regulate the provision of sanitary facilities. All buildings since 1992³ must meet the following requirements. Clause G1 (Department of Building and Housing, 2011) specifies:

- An adequate provision of toilets, showers and basins are provided to safeguard from illness and provide facilities for personal hygiene.
- Facilities must ensure privacy
- Sanitary fixtures must be accessible to people with disabilities

³ The first version of G1 Personal hygiene was in 1992. The most recent version of the Acceptable Solutions for complying with Clause G1 were published in 2011 (Department of Building and Housing) and is the 6th amendment.

- The number and location of sanitary facilities are determined by the buildings use and occupancy
- Specifications on plumbing and drainage

Acceptable Solutions of G1/AS1 (2011) provide guidance on minimum requirements of the number of facilities determined by use and occupancy. G1/AS1 (Department of Building and Housing, 2011) occupancy guidelines are weighted for different building uses and locations. Currently, most occupancy guidelines provide one accessible facility per 300 patrons with disabilities.

Based on the Acceptable Solutions, facilities for males must contain WC pans and basins. Unisex facilities should contain a WC pan, basin, sanitary disposal and be self-contained. Sanitary disposal equipment should be provided in unisex facilities in each cubicle, and within the facility of a female facility that does not impede access to people with disabilities.

The design guide for access and usability/NZS 4121:2001 suggest in retail or leisure complexes, the provision of family toilets will meet the needs of adults supervising children.

Within NZ, design guidelines (Ministry of Business, Innovation & Employment, 2024) state that:

- Parents and carers of either sex should be able to use baby changing facilities.
- Baby change facilities and feeding rooms should be separate for hygiene reasons.
- Baby change facilities in single sex accommodation should be in addition to unisex facilities.
- If for space reasons the baby changing facility needs to be located in an accessible toilet, the footprint of the toilet needs to be bigger to allow for the installation of a drop-down table and the location of large bins. Without this extra space, the toilet will be compromised for use by wheelchair users.
- If the only baby changing table is located in the only accessible toilet in a building, it is likely to impact on the use of that space as a toilet.
- All fixtures and fittings should contrast with their immediate background to be more easily located.

Both G1/AS1 (Department of Building and Housing, 2011) and NZS 4121:2001 may be used and provide minimum spacings. AS 1428.1 2009 Design for access and mobility can be used as an alternative to G1 and NZS 4121:2001 as Acceptable Solutions. NZS 4121:2001 contains minimum standards including size and details.

Clause G1.3.4 requires that personal hygiene facilities for people with disabilities are accessible. NZS 4121:2001 states that all accessible toilet facilities should be provided on an accessible route on the main entry level to all buildings.

Design guidelines (AS1428.1:2009, NZS 4121:2001) provide good practice recommendations.

- Larger sized cubicles be provided.
- At least one single sex toilet should contain grab rails.
- Unisex toilets should be located near single sex facilities.
- Accessible toilets as unisex and provided in single sex areas provides greater choice. Design guidelines also provide recommendations on toilet roll dispensers, mirrors, washbasins, lights, hand dryers and paper towel dispensers. They also recommend a shelf

for users and a coat hook. NZS 4121:2001 states a clothes hanging device should be fitted in accessible bathrooms that contain showers.

The Ministry of Education has published design guidelines that include the provision of and ratio of sanitary facilities for new ECE services (Ministry of Education, 2024). Design guidance on new or upgraded sanitary facilities for schools is also provided, including accessible design.

To give perspective on New Zealand's specifications, a simple comparison table is provided in Table that details minimum requirements globally. The requirements included have been identified from the literature review. Further comparison details on international legalisation can be found in the 2023 BRANZ report (BRANZ, 2023).

Table 3. Comparison of minimum requirements for sanitary facilities

| Category | NZ | Aus ⁴ | UK ⁵ | Canada ⁶ | Other |
|----------------------------|--|---|--|--|---|
| Number of toilets | Toilet calculator based on building occupancy ⁷ | Determined by occupancy, building type, floor space, and gender | Determined by occupancy and building type Employers 1 toilet per 1-5 employers minimum | Determined by occupancy and building type Employers 1 toilet for 9 employees Public buildings – minimum 1/50 males and 1/30 females ratios | |
| Gender inequalities | Recommendations on single sex and gender-neutral facilities | Equal number of male/female provisions unless building is predominately used by either sex Sex separated facilities in public buildings Workplaces 1 – 20 male, and 1-15 female employee ratios | Sex separated bathrooms in public spaces ⁸ Shopping centres 1 toilet per 500 males/1 per 200 females | NA | USA – biological sex separated bathrooms, limited access to transgender people ⁹ |
| Accessibility | Accessible toilets provided on main entry level, minimum 1 all-gender accessible | Accessible toilets to be provided in all commercial and public buildings | Reasonable adjustments to public and commercial buildings to provide | Accessible toilets to be provided in all commercial and public buildings | USA – public and commercial buildings must provide accessible toilets ¹¹ |

⁴ [Part F4 Sanitary and other facilities | NCC](#)

⁵ <https://www.hse.gov.uk/simple-health-safety/workplace-facilities/health-safety.htm>,

⁶ [Canada Occupational Health and Safety Regulations](#)

⁷ [Toilet calculator | Building Performance](#), G1/AS1 2011

⁸ <https://www.gov.uk/government/news/new-building-requirements-for-separate-male-and-female-toilets>

⁹ <https://harvardlawreview.org/print/vol-133/constitutional-privacy-and-the-fight-over-access-to-sex-segregated-spaces/>

¹¹ <https://www.access-board.gov/ada/guides/chapter-6-toilet-rooms/>

| | | | | | |
|--------------------------|--|--|--|---|--|
| | toilet up to 300 occupants. All-gender toilet to be provided when groups of two or more locations ¹⁰ | Unisex facility or male and female accessible facility Buildings with occupancy greater than 3500 must include accessible adult changing facilities | access to accessible toilets | | 'Ally's' law legislation to allow employee toilets to be accessed by the public with medical conditions ¹² EU – accessible standards for accessible toilets ¹³ International building code requires adult changing stations in specified locations ¹⁴ |
| Parent facilities | If located in accessible toilet, footprint should be bigger as more space is required Facilities should include two heights of equipment (e.g. change table, hand washing) ¹⁵ Fixtures and fittings should contrast | Baby change facilities must be accessible to all users, including those with disabilities | 1 baby change per 10,000 people using an area ¹⁶ . Baby change facilities should be in own area, or in both male and female facilities | Guidance that baby change facilities must be accessible to all users, including those with disabilities | USA regulates baby change facilities are required in all federal buildings, in both the male and female facilities ¹⁷ |
| Wait times | Ratios determined by occupancy and building type | Queuing modelling – F4P1 ¹⁸ | Ratios determined by occupancy | Ratios determined by occupancy | USA – amendments to ratios to reduce wait time for female bathrooms ¹⁹ |
| Features | Sanitary bins are required in unisex and accessible facilities, and within the female facility | Sanitary bins are required in all unisex and female facilities | Sanitary bins must be included in female bathrooms ²⁰ | In workplaces, employees must provide menstruation products, and all toilet rooms should contain a sanitary bin | |

¹⁰ [Standards New Zealand](#)

¹² [Americans with Disabilities Act of 1990, As Amended | ADA.gov](#)

¹³ https://accessible-eu-centre.ec.europa.eu/document/download/3e39cbc8-224d-4279-b8e3-6793030c4090_en?filename=ACCESSIBLE%20EU%20REPORT%2005%20-%20Acc%20Built%20Env_20230725_acc.pdf

¹⁴ <https://www.cdpassess.com/live/proposal/6786/html/cah/>

¹⁵ [Baby change and feeding rooms | Building Performance](#)

¹⁶ [Public Baby Changing Facilities: Are Yours Good Enough?](#)

¹⁷ <https://www.congress.gov/bill/114th-congress/house-bill/5147>

¹⁸ [Part F4 Sanitary and other facilities | NCC](#)

¹⁹ [Potty Parity - American Restroom Association \(ARA\)](#)

²⁰ [Sanitary Waste Disposal Legal Requirements in the UK for Workplaces](#)

3.6.1 SANITARY FACILITIES LITERATURE REVIEW: TECHNICAL DOCUMENTS

The below table surmises the specifications identified during this review relevant to Aotearoa, New Zealand. Wider specifications were identified in Appendix C: Building code standards and regulations. The review was conducted in May 2024.

Table 4. Building Code Regulations

| Organisation | Document | Content Summary | Comments |
|---|--|---|---------------------------------|
| United Nations Resolution 64/292 (2010) | The human right to water and sanitation (United Nations Digital Library) | Sanitation access to, and use of, excreta and wastewater facilities and services are a human right. | See section 3 Literature Review |
| New Zealand Building Code -First Schedule- Building Code Regulations 1992 | Clause G1 (2011) Personal Hygiene G1 Personal hygiene (Building Performance) | Providing sufficient sanitary fixtures (toilets, showers and basins) for sanitation. This clause confirms facilities for personal hygiene are provided to safeguard from illness caused by infection or contamination. Its requirements protect against loss of amenity and allow people with disabilities to carry out normal activities. It sets requirements about privacy and the numbers and location of sanitary fixtures. Discharge to a plumbing and drainage system is required by Clause G13 (2023) Foul Water for water-borne disposal, and to a healthy safe disposal system when non-water-borne disposal is used. | See section 3 Literature Review |
| Compliance Document for New Zealand Building Code Clause G1 (2011) | G1 (2011) Personal Hygiene Acceptable Solutions and Verification Methods or Compliance Document for New Zealand Building Code Clause G1 Personal Hygiene – Second Edition Toilet calculator (Building Performance) NZS 4121 2001 Design for Access and Mobility – Buildings and associated facilities | A person who complies with a Compliance Document will be treated as having complied with the provisions of the Building Code to which the Compliance Document relates. However, a Compliance Document is only one method of complying with the Building Code. There may be alternative ways to comply. The toilet calculator is designed to be used in conjunction with Acceptable Solution G1/AS1:2021 | See section 3 Literature Review |

3.7 Summary of literature review

The literature review has identified relevant evidence on sanitary facilities globally and in Aotearoa, New Zealand. The literature review sought to address two research questions:

- What are the needs and preferences for sanitary facilities for New Zealanders?
- To what extent do these needs and preferences vary among different groups such as people with young children/babies, differing abilities, cultural considerations, gender diverse individuals?

Literature and evidence supporting sanitary facilities in Aotearoa, New Zealand is lacking and largely out of date. There is limited literature on the needs and implementation of sanitary facility provision in Aotearoa, New Zealand, and globally. Standards provide recent changes to meet differing needs at a minimum. Codes and standards have reflected physical needs.

The literature has identified that there are many groups (and a large proportion of the population) who have needs that are not addressed – parents with children, transgender, disabled people and those with health conditions, older people. When needs are not met, they impact people's mobility, participation in employment, access to education, and inclusion in social and community activities.

In Aotearoa, New Zealand, it is important to focus on cultural needs, especially Māori and Pacific peoples. There have been some context specific findings globally (e.g. women, Muslims) that have some relevance, which may be considered for Aotearoa, New Zealand, however there are different regulatory systems that underpin them. Whilst there are standards and legislation for public sanitation facilities, more work is needed to understand current and future user expectations and preferences. There is not a 'one size' fits all approach but rather, different people need a choice of different bathrooms.

Access to sanitary facilities supports inclusion and enabling people to be away from their homes. People's needs and expectations of sanitary facilities have been identified as they need to be comfortable, hygienic, safe, conveniently located, maintained, private, accessible and easy to find. Signage and wayfinding need to indicate the availability and functionality of sanitary facilities and represent all users. Available evidence also suggests sanitary facilities need to be attractive, contain waste disposal and contain facilities for various medical conditions.

Across different groups of people, there are unique needs and preferences for families, children, people who menstruate, disabled people, trans and non-binary people, older adults, pregnant people, differing health conditions and cultural considerations. Needs and preferences also differ depending on the function of the building where facilities are located.

Many accessible bathrooms are not fully accessible, greater provision and understanding of accessible needs should be prioritised. Family needs should be considered. Some locations and buildings have unique factors, that need to be further understood to provide for those who may use that location.

More gender-neutral single-user toilet stalls are becoming more desirable in shared public spaces, with some research focused on transgender and gendered issues relevant to sanitary facilities. Further research on the perception of safety is needed to create safer spaces.

There are clear areas of focus that have been identified from the literature. These are:

- Identifying people's needs and expectations in relation to sanitary facilities.

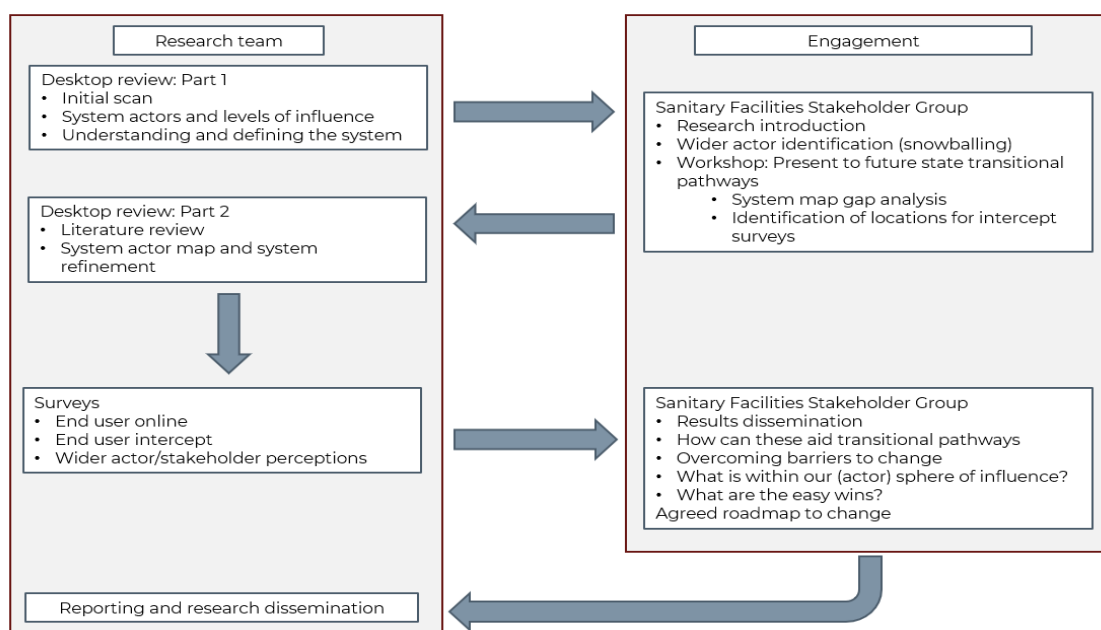
- Identify the range of facilities, and bathroom types preferred by differing population groups (families, children, people who menstruate, disabled people, trans and non-binary people, older adults, pregnant people, differing health conditions and cultural considerations).
- Identify cultural considerations that are not thought of currently in sanitary provision.
- Identify preferences around wayfinding and signage.
- Identify potential changes to the Acceptable Solutions and Verification methods of the NZ Building Code to enable sanitary facilities to better meet people's needs.
- Review people's needs in specific locations where sanitary facilities may need to meet additional needs (e.g. short- and long-term use, locations with higher expected specific population levels).
- Understand people's perception of safety in relation to sanitary facilities.

4 Methodology

4.1.1 APPROACH – AN OVERVIEW

This research applied a mixed methods approach with a strong focus on stakeholder engagement through the Sanitary Facilities Stakeholder Group (SFSG). An overview of the method is provided in Figure 2. A desktop review alongside SFSG engagement guided the initial approach to meet the research objectives. The main components of the methodology were surveys (national, intercept and stakeholder), and SFSG workshops.

Figure 2: Method overview



4.1.2 SURVEYS

Three surveys were developed and distributed:

- A **national online survey** was developed to capture a broad range of preferences and experiences to baseline societal needs.
- An **intercept survey** to identify positive and negative aspects of existing designs and where needs are not being met across 6 locations.
- A **stakeholder survey** was completed to capture stakeholder perceptions of met, as well as unmet, user needs.

4.1.3 SANITARY FACILITIES STAKEHOLDER GROUP

The Sanitary Facilities Stakeholder Group (SFSG) was created to guide and contribute towards this work. SFSG members were diverse and included representatives from central government agencies, local councils, universal design advocacy groups, and specifiers. Two workshops were conducted with the SFSG.

The SFSG provided recommendations on the survey design and intercept locations during the first workshop, as well outlining the current state of sanitary facilities across Aotearoa, New Zealand and existing barriers.

During the second workshop, a sample of the SFSC was invited to participate. The purposeful sample was determined through the systems map created identifying organisations most able to influence change within the system. During the second workshop attendees contributed to the development of transitional pathways for the present to desired future state. Preliminary results and insights from data collection were shared during the workshop. Attendees identified what is within their sphere of influence, barriers to success and what it would take to overcome these. This included discussion on how the Building Code contributes (or not) to barriers, and code-oriented transitional pathways. Attendees developed early recommendations through the identification and prioritisation of desired change to ensure sanitary facilities meet all New Zealanders needs.

Graphic recording of each workshop occurred and is shown in Appendix A: Workshop 1 and Appendix B: Workshop 2 .

4.1.4 ETHICS

For this research ethical approval was sought and granted from Aotearoa Research Ethics Committee on 3rd July 2024.

4.1.5 SURVEY ANALYSIS

Descriptive analysis of the survey results was conducted to summarise and interpret the key findings and insights in the data. This included summary statistics across all responses as well as analysis by subgroup (e.g. age, gender, disability), and general thematic analysis of open-ended responses. The full results are presented in Section 5.

5 Results

5.1 National survey

5.1.1 NATIONAL ONLINE SURVEY OVERVIEW

The national online survey was open from Monday, July 8, 2024, until Monday, August 19, 2024 (a total of six weeks). Distribution was done through various channels including mailing lists provided by project stakeholders and social media posts.

A total of 2,922 people responded to the survey (either partially or fully completing it). Data from 11 respondents were removed as they were under the age of 16, leaving a total of 2,911 eligible responses for analysis.

Table 5 below provides a summary of the demographic information from survey respondents, including age group, gender, ethnicity, location, and any considerations that impact the respondent's use of public bathrooms. The counts for each category exclude those who skipped the question or indicated they preferred not to say. For the questions on ethnicity and considerations impacting the use of public bathrooms, respondents could select multiple answers.

Respondents to the survey were self-selecting, so the sample demographics do not align with the Aotearoa, New Zealand population as a whole. Respondents skew female, and young adults (16–25), Māori, and Pasifika are underrepresented. It is likely that interest in the survey was at least in part motivated by prior experiences with public bathrooms, as people with unmet needs may have been more willing to respond.

Table 5. Summary of survey respondents

| | |
|-------------------------------|-------------|
| Total eligible respondents | 2,911 |
| <i>Age group</i> | |
| Young adult (16–25) | 105 (5%) |
| Adult (26–64) | 1,841 (81%) |
| Senior (65+) | 331 (15%) |
| <i>Gender</i> | |
| Male | 653 (29%) |
| Female | 1,543 (68%) |
| Other gender | 68 (3%) |
| <i>Ethnicity</i> | |
| New Zealand European | 1,866 (80%) |
| Māori | 225 (10%) |
| Pasifika | 40 (2%) |
| All other ethnicities | 295 (13%) |
| <i>Region</i> | |
| Auckland, Tāmaki Makaurau | 607 (26%) |
| Bay of Plenty, Te Moana-a-Toi | 142 (6%) |
| Canterbury, Waitaha | 316 (14%) |

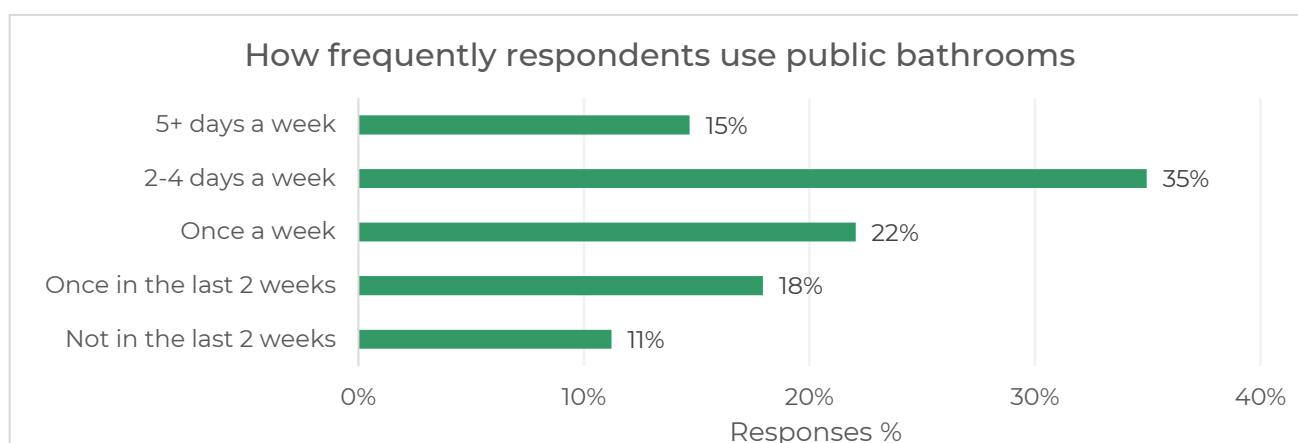
| | |
|--|-----------|
| Gisborne, Te Tai Rāwhiti | 14 (0.6%) |
| Hawke's Bay, Te Matau-a-Māui | 55 (2%) |
| Manawatū-Whanganui | 119 (5%) |
| Marlborough, Te Taihū-o-te-waka | 13 (0.6%) |
| Nelson, Whakatū | 37 (2%) |
| Northland, Te Tai Tokerau | 83 (4%) |
| Otago, Ōtākou | 108 (5%) |
| Southland, Murihiku | 34 (1%) |
| Taranaki | 62 (3%) |
| Tasman, Te Tai-o-Aorere | 24 (1%) |
| Waikato | 152 (7%) |
| Wellington, Te Whanganui-a-Tara | 523 (23%) |
| West Coast, Te Tai Poutini | 7 (0.3%) |
| <i>Considerations impacting use of public bathrooms</i> | |
| Disability or access need | 480 (17%) |
| Medical/health condition | 536 (19%) |
| Regularly support child(ren) | 656 (23%) |
| Regularly support someone with a disability or access need | 344 (12%) |
| Cultural or religious considerations | 49* (2%) |

* Excludes responses not related to cultural or religious considerations. See Section 5.1.6 for more information.

5.1.2 GENERAL EXPERIENCE WITH PUBLIC BATHROOMS

When respondents were asked how frequently they use public bathrooms (Figure 3), the majority (72%) said they use them at least once a week, with many using them multiple times a week, and 90% using them at least once in the last two weeks. This shows that public bathrooms are in high demand, highlighting the importance of understanding how they align with needs of the population.

Figure 3. How frequently respondents use public bathrooms (n=2,822)

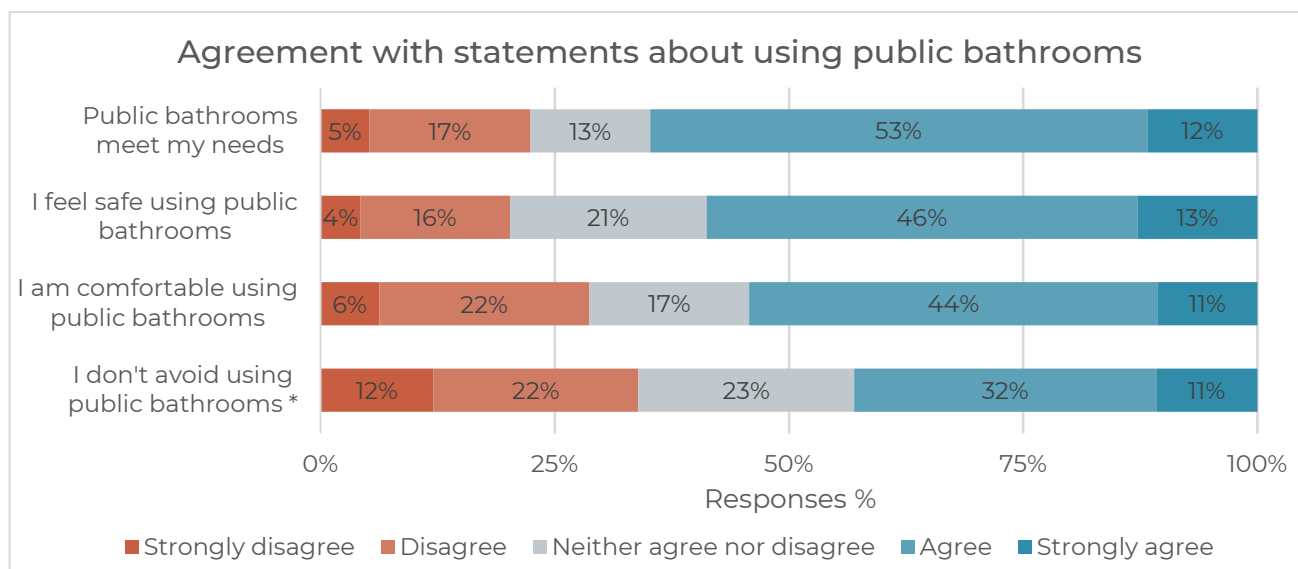


When asked about their general experiences using public bathrooms (Figure 4), two-thirds of respondents felt that public bathrooms typically met their needs, while one in five did not. This increased for those that had a disability or access need (1 in 2), another gender (1 in 3), medical requirements (1 in 3), cultural requirements (3 in 10), supported a child (1 in 4) or females (1 in 4).

There was also a sizable group of respondents who did not feel safe (20%) and comfortable (28%) using public bathrooms, and one out of three people avoid using them.

While for the majority public bathrooms appear to be satisfactory, the fact that many people have different experiences shows an opportunity for improvements to ensure they meet the needs of all users. One in three people avoid using public bathrooms (34%).

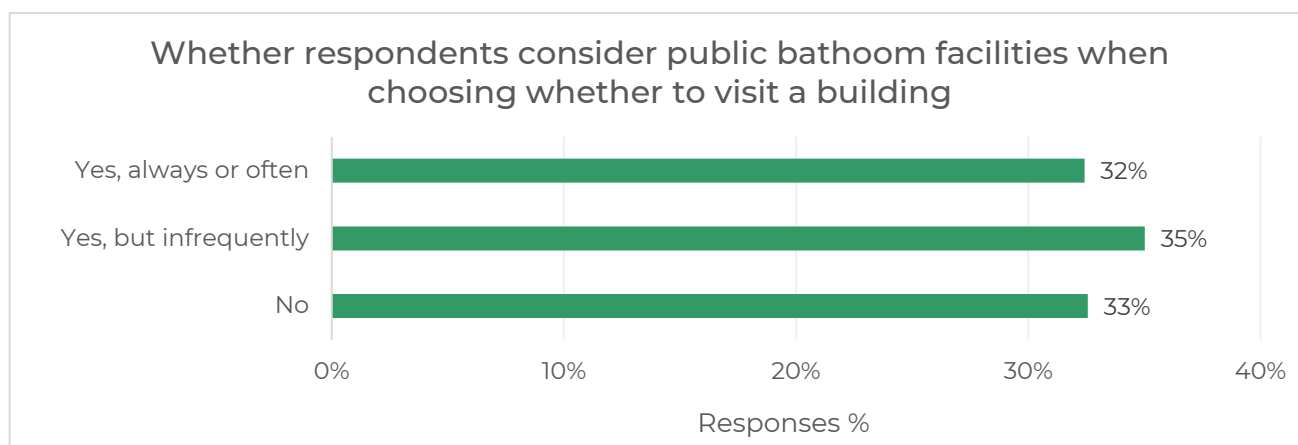
Figure 4. Agreement with statements about using public bathrooms (n=2,868)



* Reversed wording to align with other statements

Over two thirds (67%) of respondents consider the available public bathroom facilities when choosing whether to visit a particular building (Figure). The results were evenly split: almost a third always or often do, a third sometimes do, and a third do not.

Figure 5. Whether respondents consider public bathroom facilities when choosing whether to visit a building (n=2,739)



5.1.3 EXPERIENCE WITH A SPECIFIC PUBLIC BATHROOM

To further investigate people's experiences using public bathrooms, they were asked to recall a recent visit to a specific public bathroom. Figure 6 shows the type of building the bathroom was located in. Most were in short-term use buildings (shopping malls, cafés, restaurants, etc.) with just 10% located in medium to long-term use buildings such as workplaces, schools, and education facilities.

Figure 6. Type of building public bathroom is in (n=2,549)

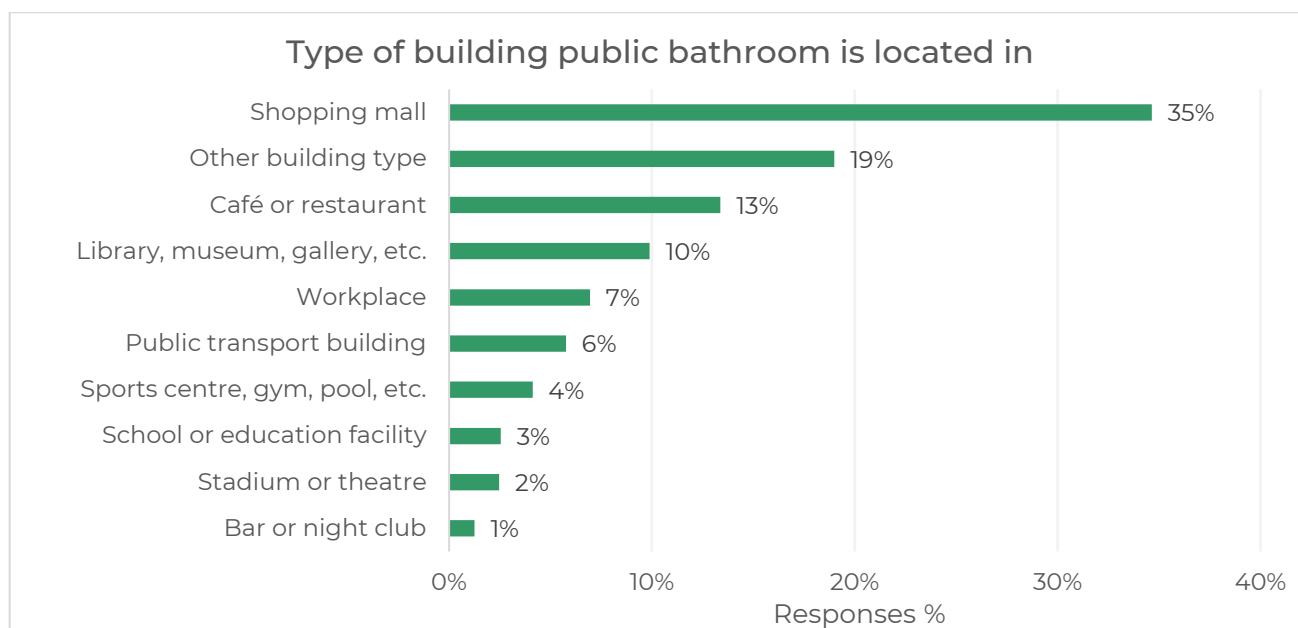
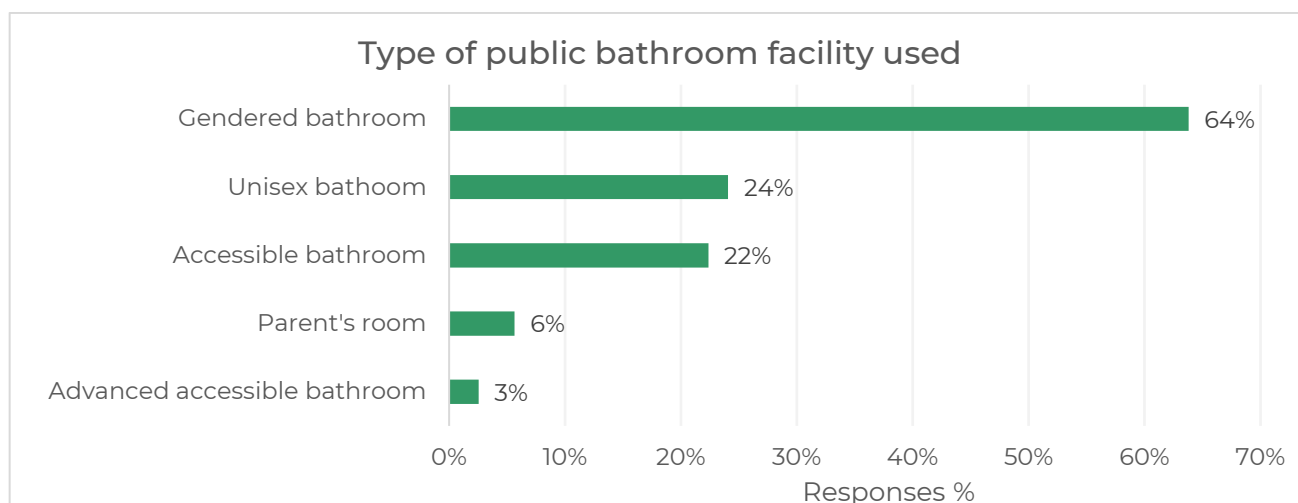


Figure shows the type of public bathroom facility used. While the majority (two-thirds) used a gendered bathroom, about a quarter used a unisex bathroom, and a quarter used an accessible bathroom (the total adds up to more than 100% as respondents were able to select multiple bathroom types that they used).

Figure 7. Type of public bathroom facility used (n=2,589)



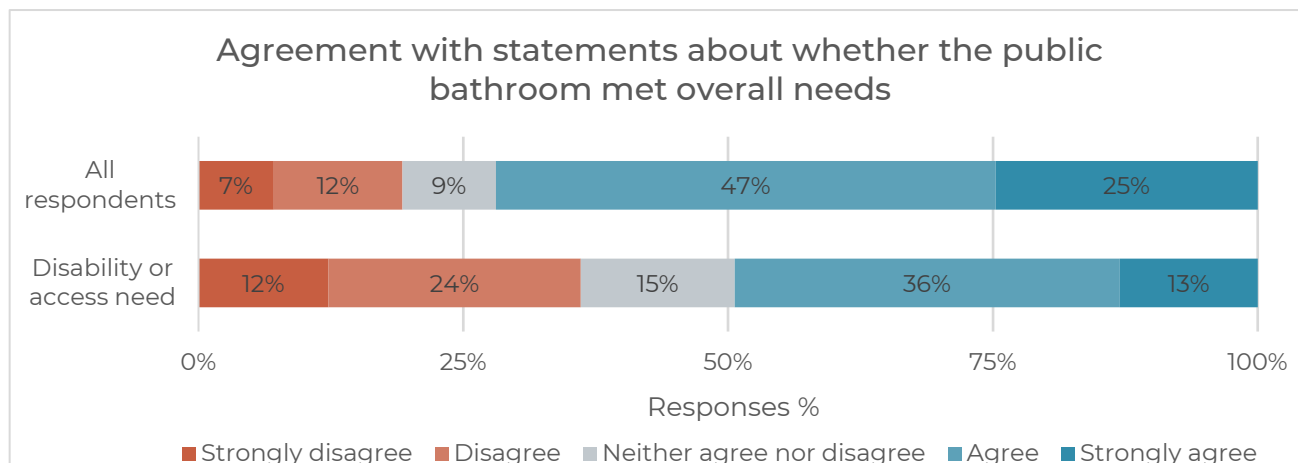
PUBLIC BATHROOM NEEDS

Three out of four people stated that the public bathroom met their overall needs (Figure 8) while one-in-five disagreed. Compared to the same question asked about public bathrooms in general, more people agreed that the specific public bathroom they used met their needs (+7 percentage points) while slightly fewer disagreed (-3 percentage points).

Part of the reason for this discrepancy may be because the specific public bathroom reported on was chosen by the respondent, the majority of whom indicated that they consider the available public bathroom facilities when choosing whether to visit a building (Figure 5).

For those with a disability or access need, less than half agreed that the public bathroom they used met their overall needs, while over a third disagreed (Figure 8). This highlights the greater challenges faced by these individuals in accessing public bathrooms that are adequately equipped.

Figure 8. Agreement with statements about whether the public bathroom met overall needs (n=2,585)

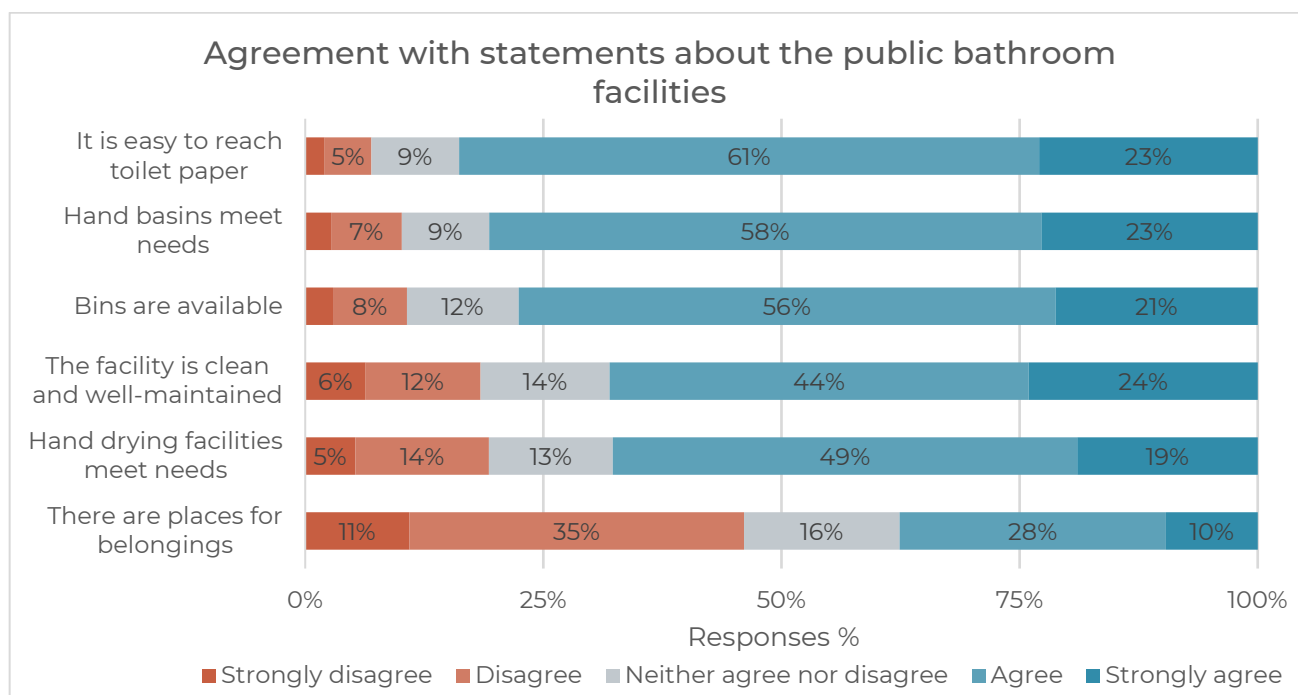


FACILITY FEATURES AND MAINTENANCE

Figure 9 shows the responses to a range of questions related to the facility features and maintenance of the specific public bathroom reported on. While most people indicated that the facilities meet basic requirements, nearly half reported that there was a lack of space for belongings.

One in five respondents identified issues with cleanliness and hand drying facilities. This suggests that some of the improvements suggested for public bathrooms are an ongoing maintenance of the facilities, such as cleaning and restocking supplies rather than building requirements

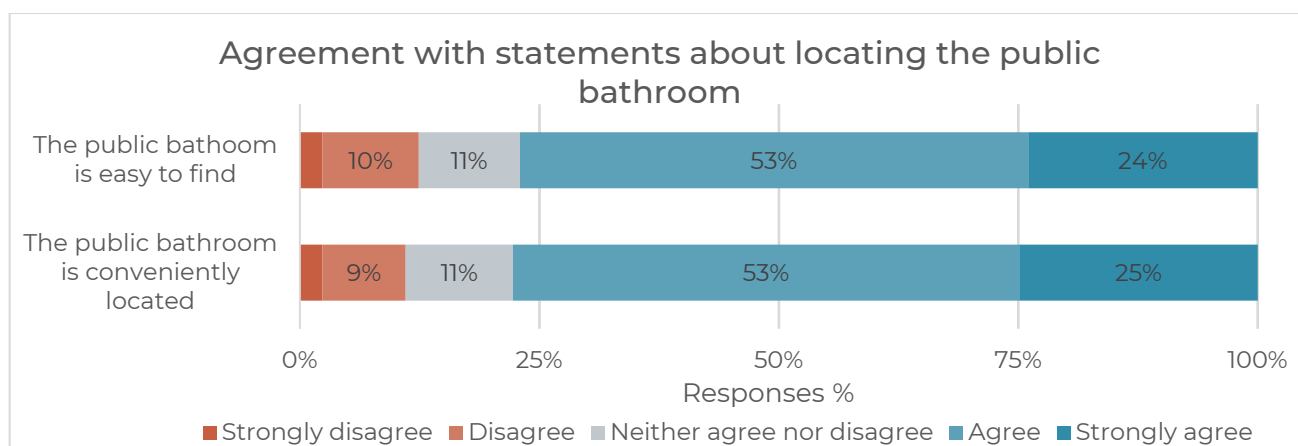
Figure 9. Agreement with statements about using public bathroom facilities (n=2,581)



WAYFINDING

Figure 10 shows the level of agreement with questions about locating the public bathroom. While most agreed that it was easy to find and conveniently located, just over one-in-ten people disagreed.

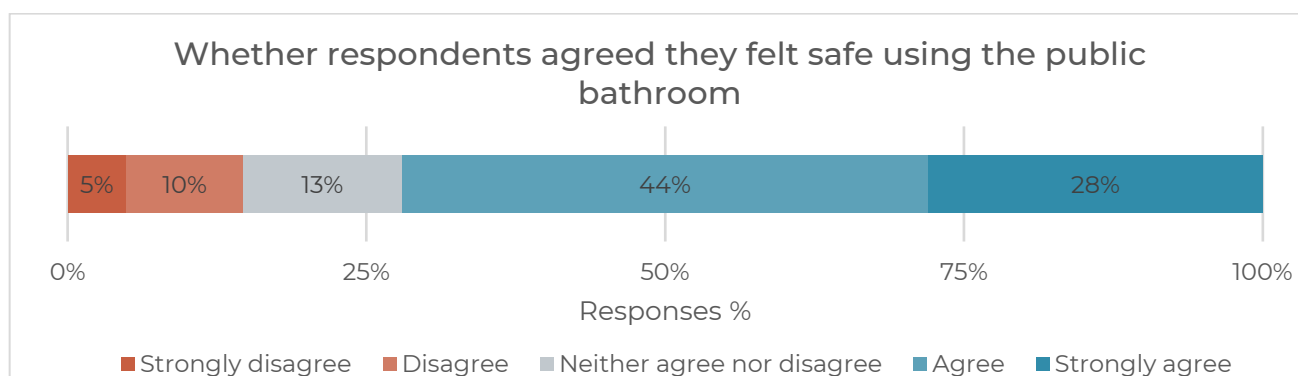
Figure 10. Agreement with statements about locating the public bathroom (n=2,579)



SAFETY

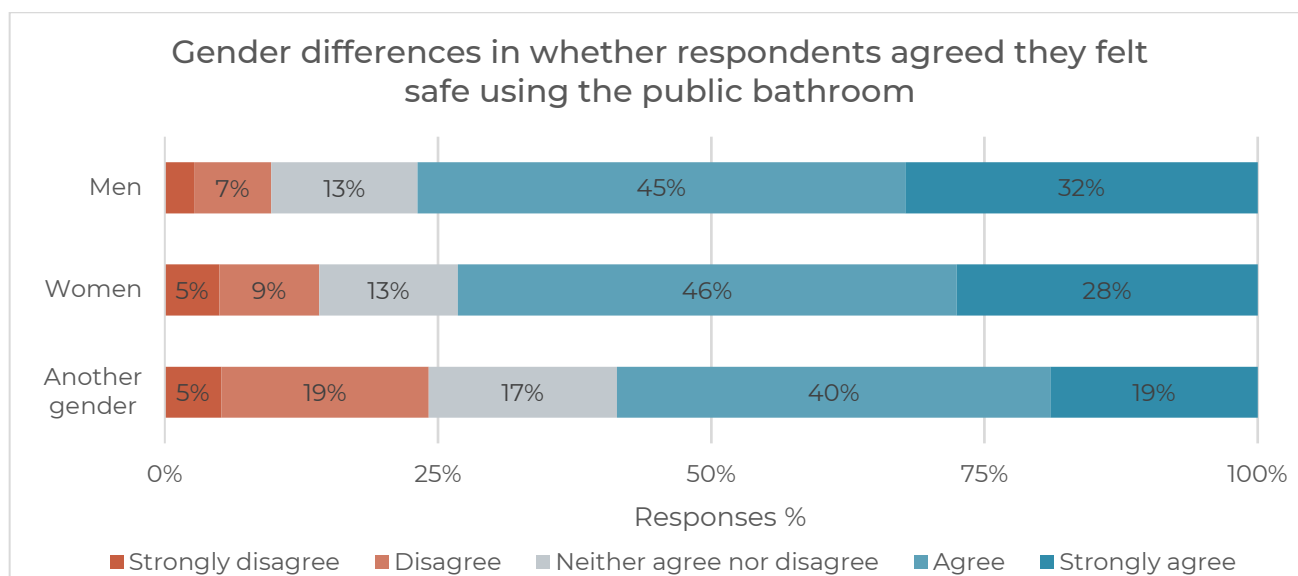
Figure 11 shows the responses to a question asking whether the respondent agreed that they felt safe using the public bathroom. While the majority (three-quarters) agreed, one in six disagreed.

Figure 11. Whether respondents agreed they felt safe using the public bathroom (n=2,577)



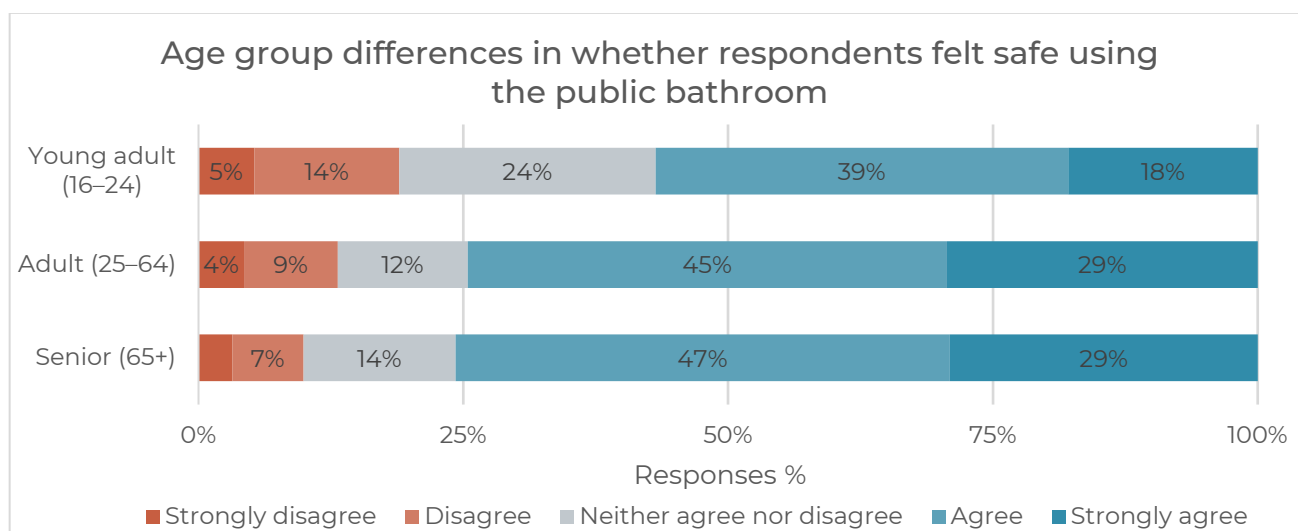
When looking at the differences by gender, women generally reported feeling less safe using the public bathroom than men. An even larger difference can be seen when looking at the responses of those who indicated that they have another gender identity — a quarter of this group disagreed that they felt safe using public bathrooms. This suggests that there is an unmet need for more neutral facilities.

Figure 12. Gender differences in whether respondents felt safe using the public bathroom (n=2,164)



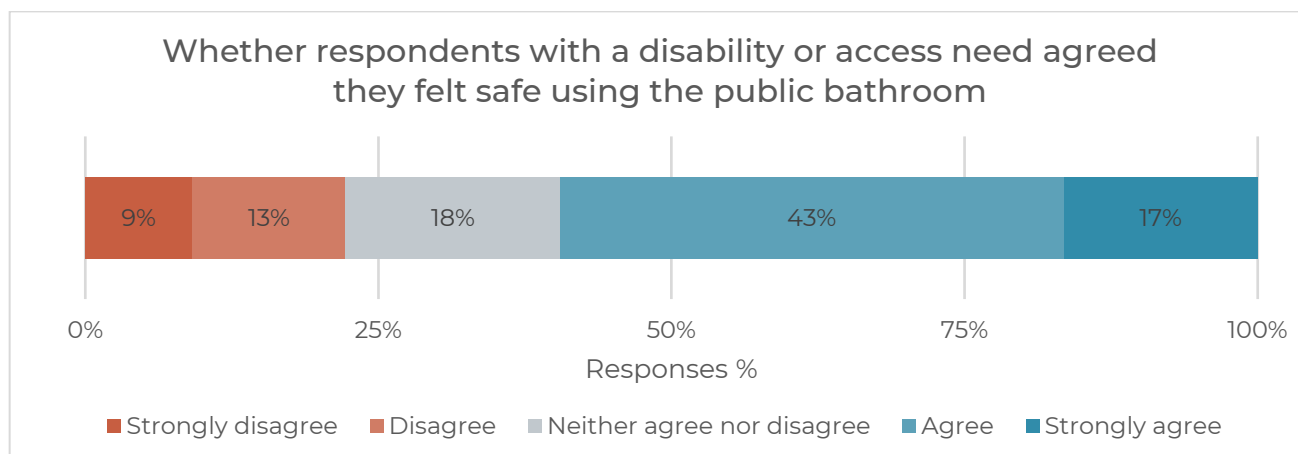
There is also a difference in feelings of safety by age group, shown in Figure 13. Almost one-in-five young adults (aged 16–24) did not feel safe using the public bathroom, compared to one-in-eight adults, and one-in-ten seniors. Only just over half of young adults agreed they felt safe.

Figure 13. Age group differences in whether respondents felt safe using the public bathroom (n=2,147)



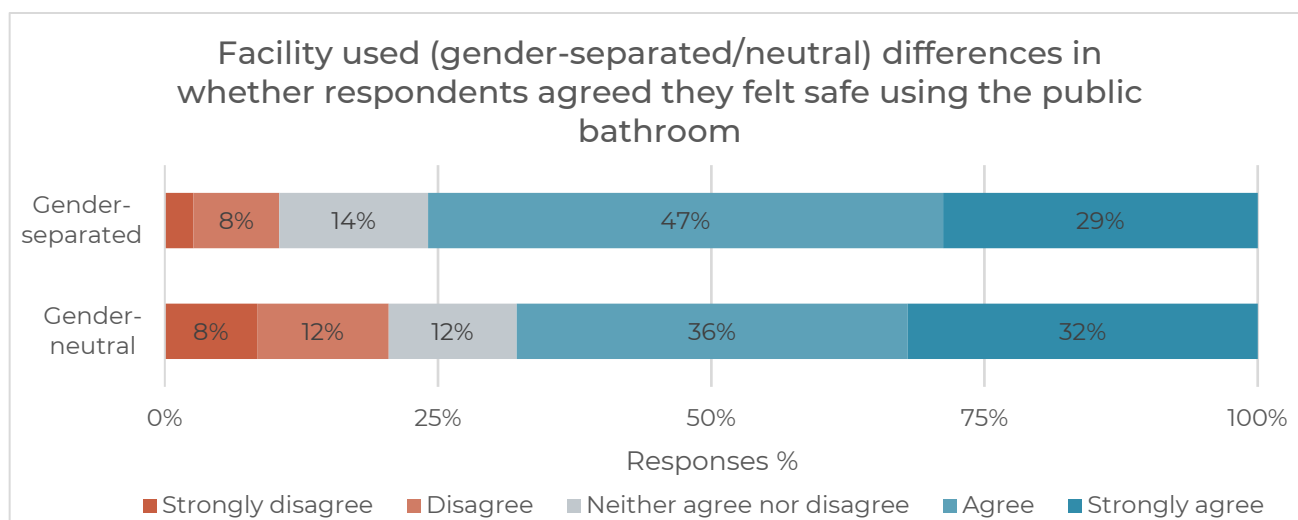
Those who have a disability or access need also were more likely to disagree that they felt safe using the public bathroom, with just under a quarter responding as such (Figure 14). As previously shown in Figure 8, this group are also more likely to disagree that public bathrooms meet their needs. Ensuring that suitable accessible bathrooms are available that meet the needs of these users could have a potential impact on their feelings of safety, which can include both personal safety (from other users) as well as physical safety (slips, trips, falls, and other accidents).

Figure 14. Whether respondents with an access need agreed they felt safe using the public bathroom (n=400)



The public bathroom facility type, either gender-separated or gender-neutral, also had some impact on how safe respondents felt (Figure 15). Almost twice as many did not feel safe using gender-neutral bathrooms compared to gender-separated bathrooms. This highlights the importance of maintaining gender-separated spaces where gender-neutral spaces are also made available.

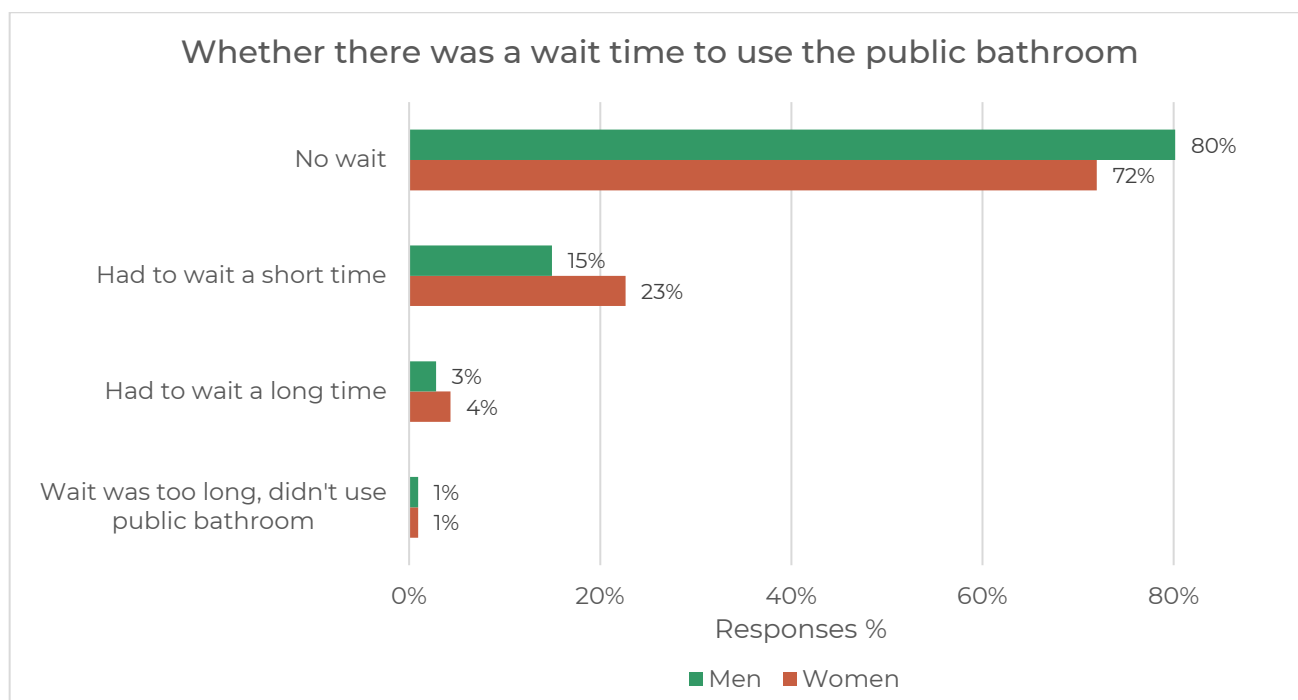
Figure 15. Facility used differences in whether respondents felt safe using the public bathroom (n=2,247)



WAIT TIME

Respondents were asked whether there was any wait to use the public bathroom. Figure 16 shows the responses broken down by the respondent's gender. While most of both men and women did not have to wait, 3 out of 10 women reported having to wait compared to 2 out of 10 men. This suggests that public bathrooms could provide more women's facilities to help minimise wait times.

Figure 16. Whether there was a wait time to use the public bathroom (n=2,594)



OTHER ISSUES

Respondents were given the opportunity to make comments about the public bathroom they used. Most comments expanded on the topics described above or identified specific maintenance or cleanliness issues at the location they described. However, a couple of other themes were noted:

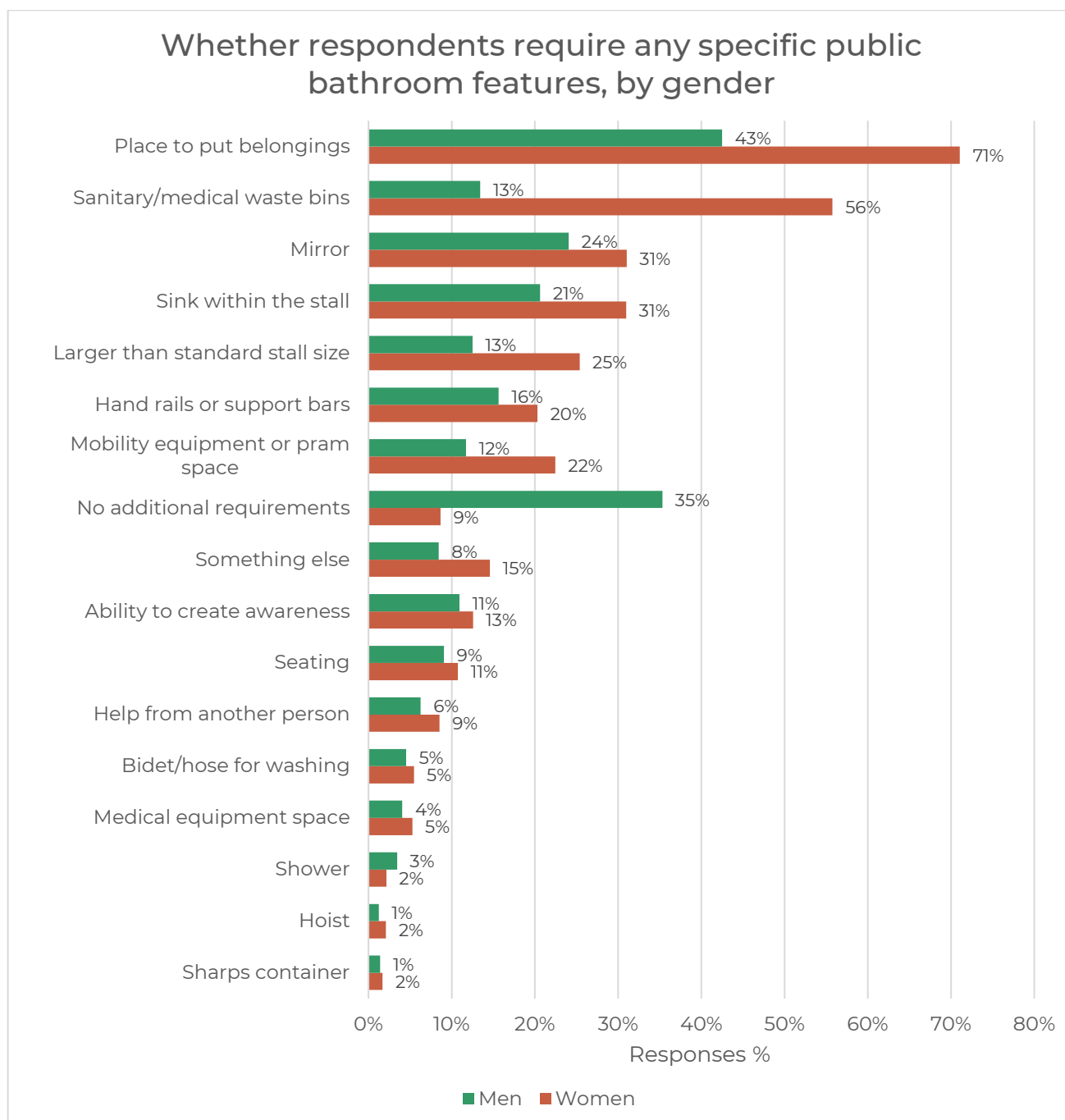
- A common complaint was about the locks on the stall doors. Many commenters described how they found the lock broken or difficult to operate, meaning they either had to use a different stall (if available) or risk using the toilet without locking the door.
- For people with sensory issues, such as those with autism, using a public bathroom may not be a straightforward experience. Loud noises from hand dryers, bright lights, and busy patterns can often be overstimulating.

5.1.4 PUBLIC BATHROOM FEATURES

Respondents were asked whether they require any additional features when using public bathrooms to meet their needs. Figure 17 shows these responses in order of the total percentage who said they require each feature, broken down by gender (men and women).

Overall, having a place to put belongings was identified by both men and women as the most important additional feature to meet their needs. This is particularly true for women, with almost three quarters saying that a place to put belongings was a requirement for them. For most features women were more likely than men to say they needed them. The differences are most notable for sanitary/medical waste bins (women are 4 times as likely as men to indicate this feature as important), a larger than standard stall size (2 times as likely), and additional space for equipment such as a pram (2 times as likely).

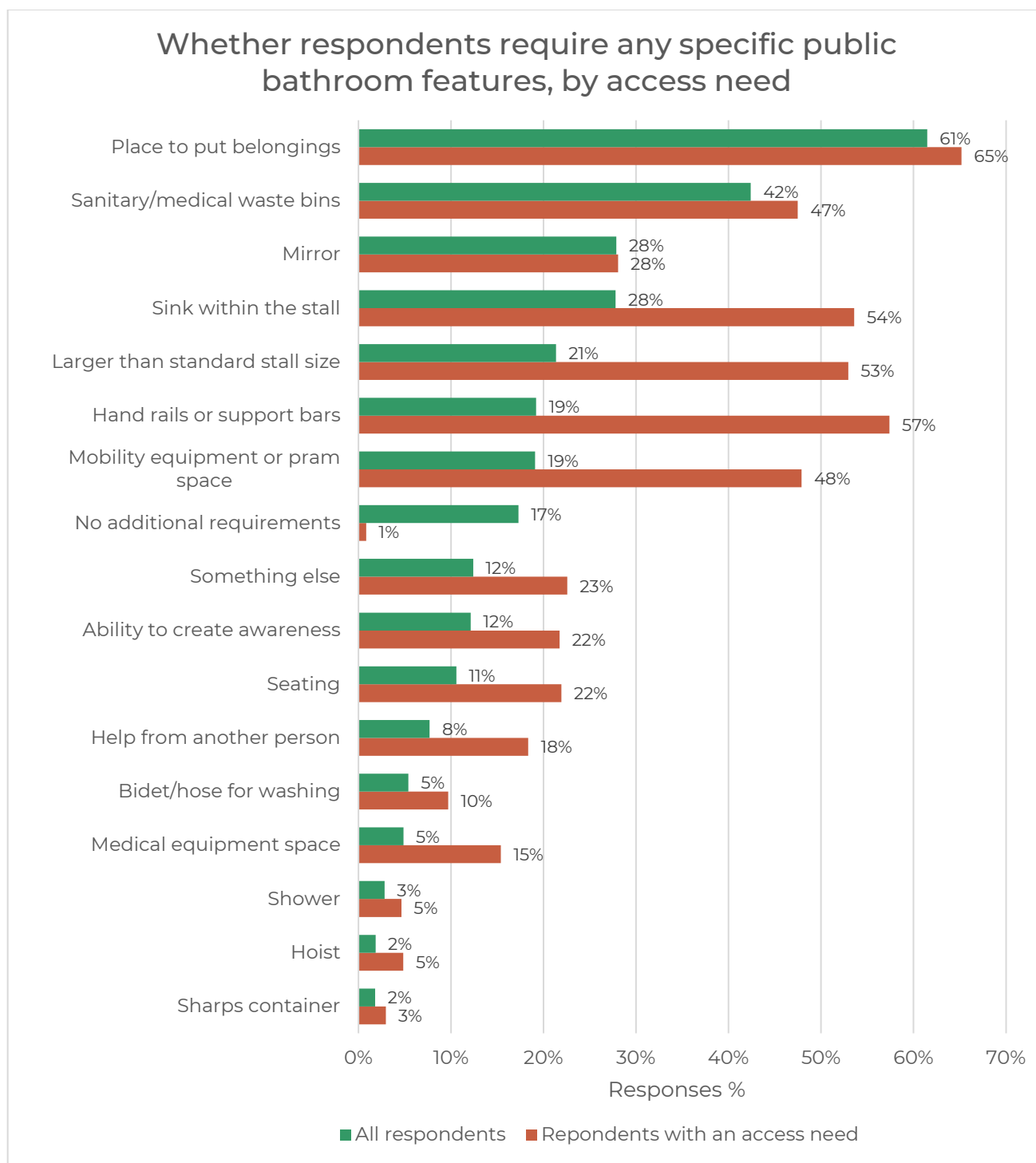
Figure 17. Whether respondents require any specific public bathroom features, by gender (n=2,177)



Those with a disability or access need also have specific requirements (Figure 18). They are 2 times as likely to indicate that they require a sink within the stall, a bidet/hose for washing, seating, help from another person, and the ability to create awareness; 2.5 times as likely to need a larger than

standard stall size, space for mobility and medical equipment, and a hoist; and 3× as likely to need handrails or support bars.

Figure 18. Whether respondents require any specific public bathroom features, by access need (n=474)



5.1.5 FACILITY PREFERENCES

Respondents were asked two questions about the type of facility they would prefer — gender-separated or gender-neutral — when given two hypothetical public bathroom configurations: one with toilets in individual rooms *with a shared basin*, and one with toilets in individual rooms *with their own basins*. The results are shown in Figure 19 and Figure 20 respectively. While there is a

clear preference for gender-separated facilities where public bathrooms have a shared basin, this preference is less strong for public bathrooms where toilets have their own basin. This suggests that for gender-neutral facilities, toilet cubicles with their own basin is the preferred solution.

When considering bathrooms with toilets with their own basin 9 out of 10 people identifying as another gender preferred gender-neutral bathrooms, compared to 1 in 4 men and 1 in 4 women. A higher proportion of women preferred gender separated (46%) compared to men (38%).

Figure 19. Facility preference for public bathrooms with toilets in individual rooms with a shared basin (n=2,357)

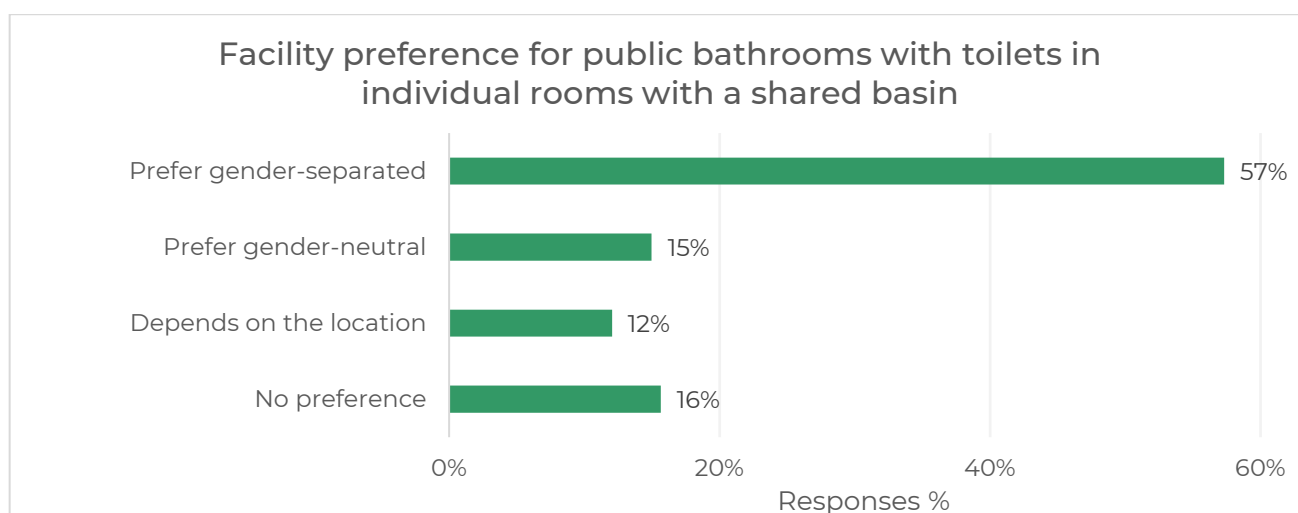
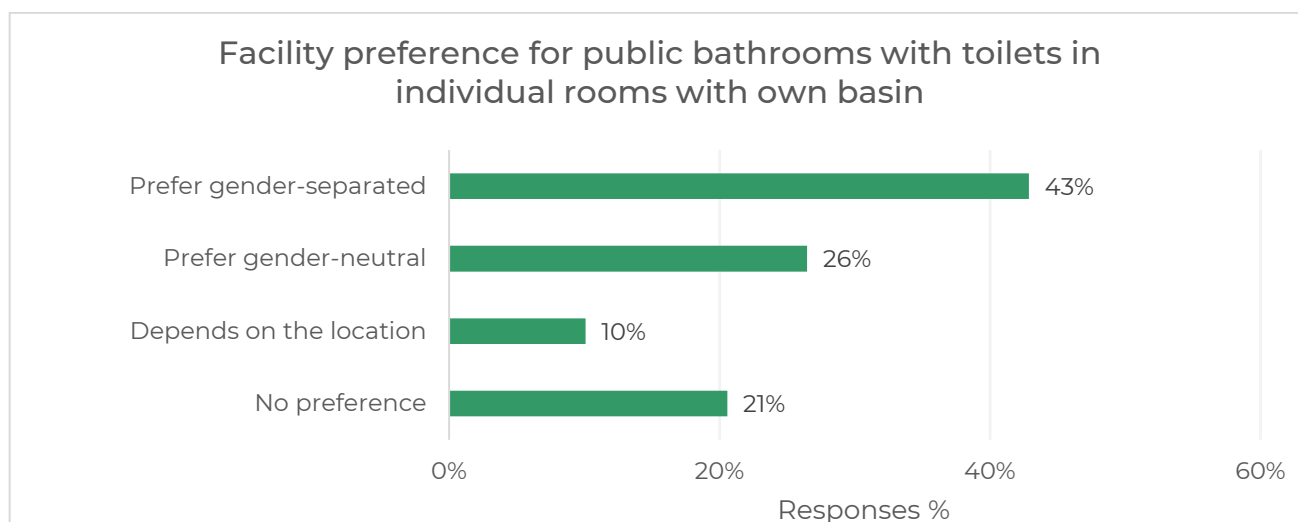


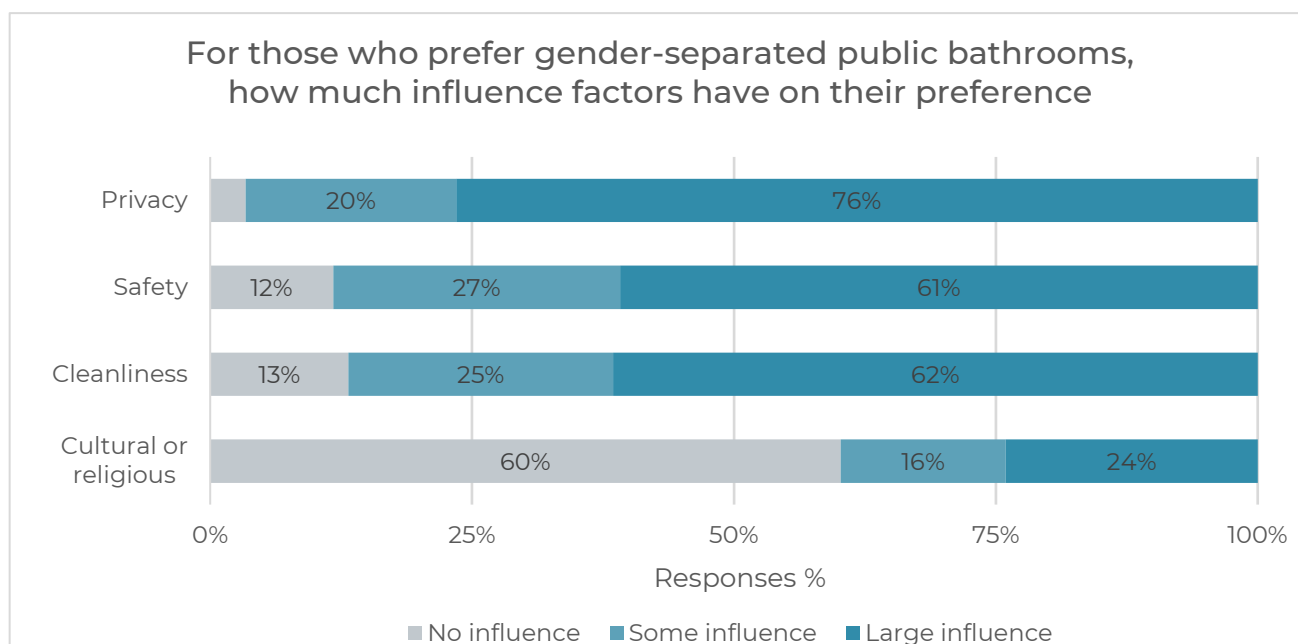
Figure 20. Facility preference for public bathrooms with toilets in individual rooms with their own basin (n=2,368)



Those who prefer gender-separated bathrooms were asked how much influence a range of factors had on their preference (Figure 21). Almost all respondents indicated that privacy had an

influence, with most indicating that it had a large influence. Safety and cleanliness were also notable influencing factors.

Figure 21. For those who prefer gender-separated public bathrooms, how much influence factors have on their preference (n=2,336)



Respondents to this question were also able to comment on why they prefer gender-separated public bathrooms. The following common themes were identified:

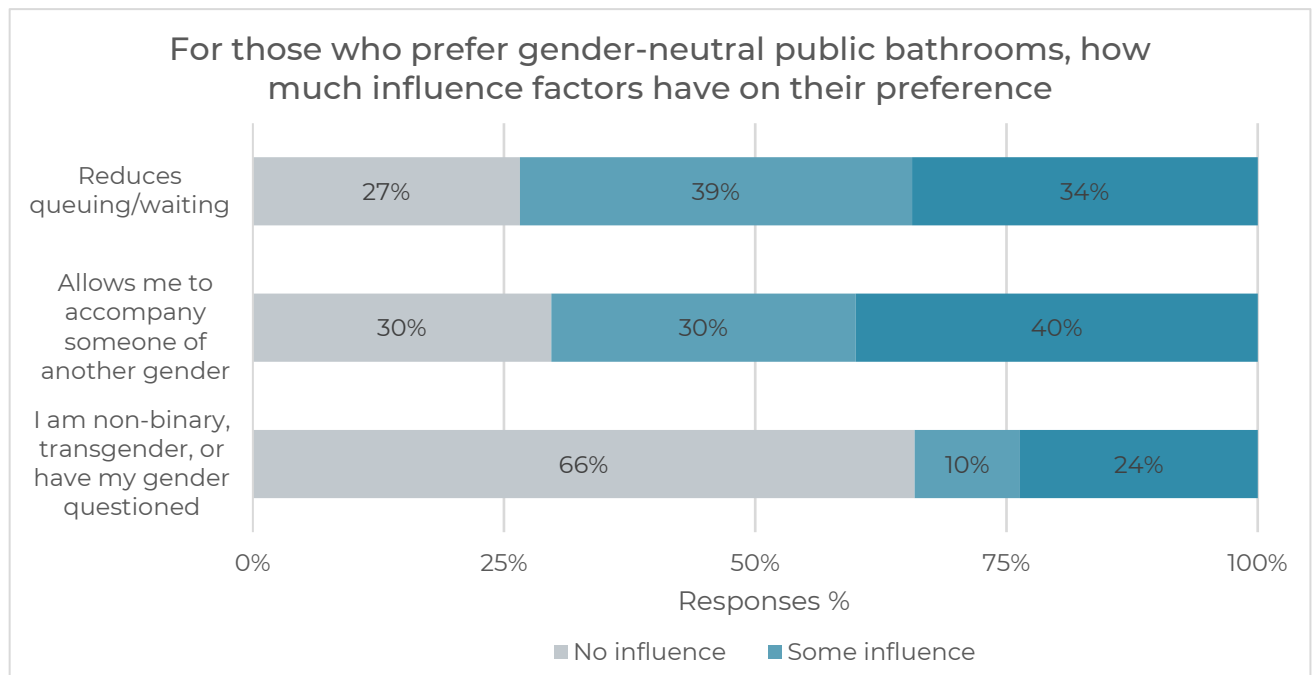
- Many commenters outlined their view that public bathrooms should be “separated by biological sex rather than gender”. They were primarily focused on women’s bathrooms, expressing concern that allowing transgender women to use these spaces could raise privacy and safety issues. Their preference is to have women’s bathrooms be available only for those who are “biologically female at birth.” Some of these commenters also indicated that they would like to see a gender-neutral option available for those who need it alongside separated bathrooms.
- Some commenters discussed how women’s bathrooms are often a place of refuge, from difficult situations, unsafe encounters, etc. commenters stated they can provide a safe space to do things such as use sanitary products, adjust clothing, or apply makeup. Several commentators suggested they can also be a place of comradery between women.

“As a woman you often exit the bathroom and then adjust clothing or do makeup, not comfortable in a shared space to do this.”

Those who prefer gender-neutral bathrooms were asked a similar question with a different range of factors (Figure 22). The results were less clear than for the gender-separated bathroom preference, but most of this group indicated that they preferred gender-neutral bathrooms due to having less queuing/waiting, and because they allow them to accompany someone of another gender to the bathroom. This is a particularly important factor for those who regularly support a child/children when using the bathroom, with over 90% of respondents who support a

child/children and prefer gender-neutral bathrooms saying that this factor had an influence on their preference.

Figure 22. For those who prefer gender-neutral public bathrooms, how much influence factors have on their preference (n=971)



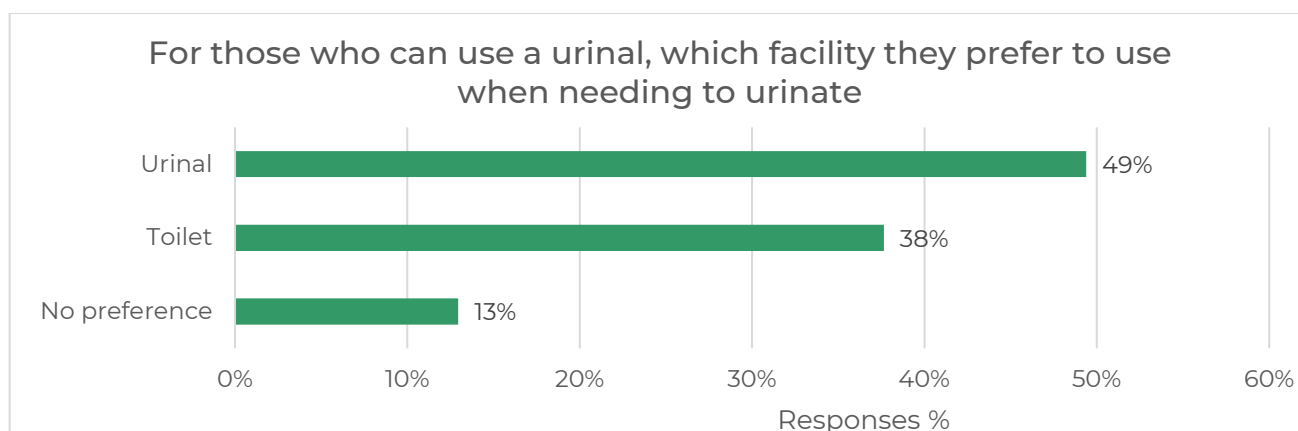
Commenters to this question expanded on their reasons for their preference for gender-neutral bathrooms:

- People who identified as non-binary or transgender or have their gender questioned by others discussed how the availability of gender-neutral bathrooms makes it easier and safer to use the bathroom, as using a gendered bathroom can lead to objections or harassment from other members of the public.
- Other commenters described how though they themselves are not non-binary or transgender and do not have their gender questioned, they prefer gender-neutral bathrooms out of support for others.

"I am not non-binary or transgender, but I am aware of the benefits to that community of gender-neutral bathrooms for their safety and dignity, which is why I would prefer gender neutral bathrooms as a rule."

Those who can use a urinal were asked what their preference is when they just need to urinate, either a urinal or a toilet (Figure 23). Just under half (49%) indicated that they prefer to use a urinal, 38% prefer a toilet, and a further 13% have no preference.

Figure 23. For those who can use a urinal, which facility they prefer to use when needing to urinate (n=656)



While urinals are preferred overall, this preference is particularly strong in the adult age group (aged 25–64). For seniors (65+), the preference is evenly split between toilets (43%) and urinals (42%), while young adults (16–24) generally prefer using a toilet (59%), compared to just under a third preferring to use a urinal. People in the young adult population are also more likely to report being gender diverse or transgender and prefer gender-neutral facilities (being twice as likely to prefer gender-neutral facilities as those aged over 25). These findings highlight an opportunity to reconsider space allocation in public bathrooms to meet the needs of both an aging and increasingly diverse population of different requirements and preferences.

5.1.6 CULTURAL AND RELIGIOUS CONSIDERATIONS

107 respondents left a comment answering the open-ended question about cultural or religious considerations. Of these, 77 comments were determined to be relating to the issue of whether public bathrooms should be separated by sex or gender, without a link to a cultural or religious context. To avoid repeating this feedback, these comments have been discussed in Section 5.1.5.

For the purposes of this analysis, these comments were removed, leaving 30 comments discussing specific cultural or religious considerations the respondents had when using public bathrooms. The following themes were identified in the comments:

- Having food preparation and dining areas near public bathrooms was discussed as being culturally inappropriate by many. Several commenters also mentioned wanting to have places to store kai/food outside bathrooms.
- It is important for some to have suitable places to store culturally significant items of clothing, such as head scarves, when using the toilet, as these items are not appropriate to store on the floor or toilet cistern. Others described more general needs for storage space for belongings to allow them to remain clean.
- For some religions it is necessary to have a bidet/hose to wash. A respondent also said they appreciate having a suitable facility to wash their feet before prayer.

“Being Māori, the stall needs to consider appropriate waste division and spaces to place food outside of the bathroom if possible.”

- Cleanliness/hygiene concerns were described by several commenters. This included ensuring suitable waste facilities were provided in public bathrooms.
- Privacy concerns were discussed by many commenters. In particular, some outlined their cultural or religious context which required public bathrooms to be separated by biological sex rather than gender.

5.2 Intercept Survey

Intercept surveys were conducted at six locations as shown in Table 6. 206 participants were surveyed.

Table 6 Intercept survey locations by building occupation time and availability

| AVAILABILITY | SHORT TERM VISIT | MEDIUM TO LONG TERM USE |
|---|--|---|
| Available to use at any time during visit | Huia Swimming pool, Wellington (10%) Te Papa, Wellington (Museum) (17%) | Majestic office building, Wellington (20%) |
| Available during certain periods (e.g. break times) | Britomart, Auckland (9%) | Wellington High School (28%) Victoria University, Wellington (33%) |

An overview of the intercept findings is shown in Figure 24. A breakdown of findings from each intercept site is shown in Appendix D: Intercept location summaries..

Respondents were most satisfied with the museum across all categories, with the school respondents the least satisfied across all categories. There was variation across locations as shown in Table 7.

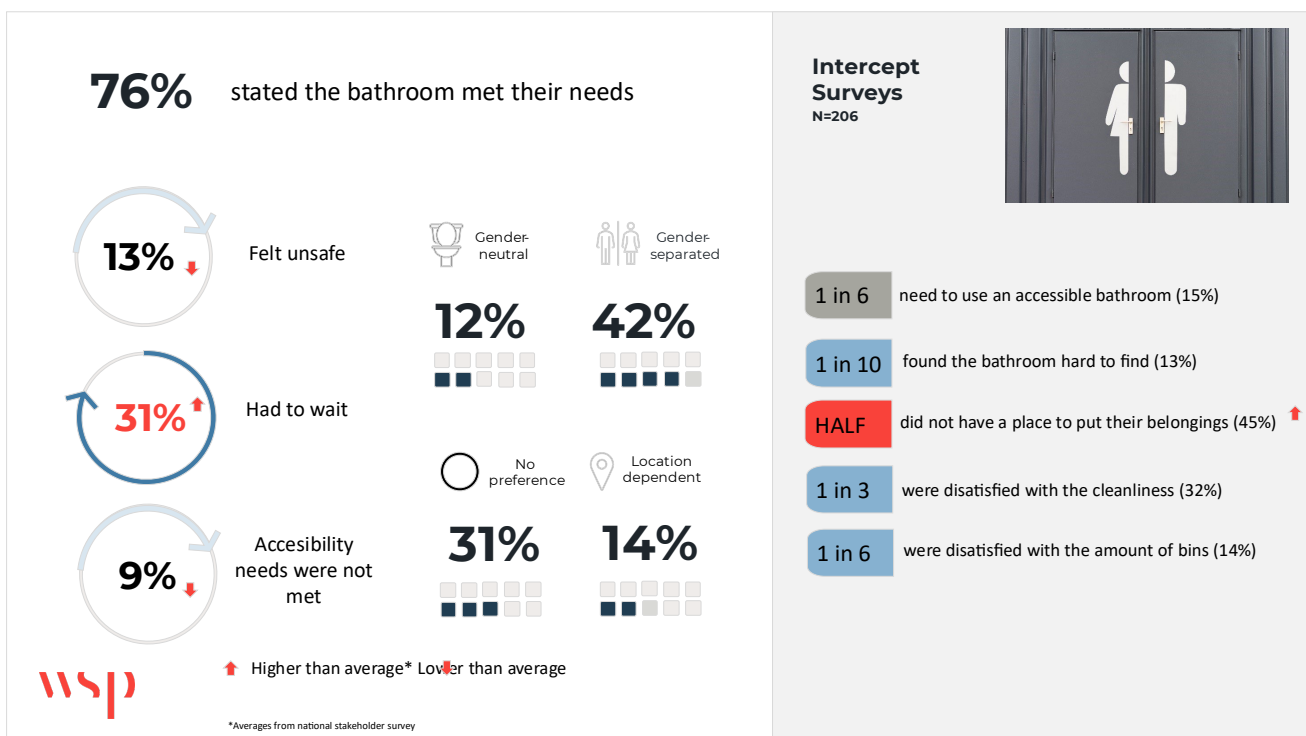


Figure 24 Overview of intercept survey findings.

Table 7. Breakdown of intercept survey findings

| Location | Pool | Train station | Office | Museum | University | School |
|-------------------------------|------|---------------|--------|----------------|------------|--------|
| Met needs | 75% | 84% | 88% | 86% | 72% | 60% |
| Had to wait | 45% | 0% | 39% | 12% | 38% | 36% |
| Accessibility needs not met | 5% | 5% | 7% | 6% | 6% | 16% |
| Felt unsafe | 5% | 11% | 5% | 3% | 13% | 28% |
| Hard to find | 15% | 16% | 12% | 3% | 13% | 21% |
| Dissatisfied with cleanliness | 25% | 16% | 15% | 9% | 30% | 64% |
| Gender-neutral | | | | ✓ | ✓ | ✓ |
| Gendered | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Accessible | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Electric hand dryer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Baby change | ✓ | ✓ | | Other location | | |

5.2.1 MEETING NEEDS

Overall, most respondents to the intercept survey found that the bathrooms they used met their needs, one in six found that their needs were not met. Across intercept sites, the school had a larger proportion of respondents whose needs were not met. Nine percent of accessibility needs were reported as not being met overall, whilst lower than the national survey, the intercept sample did not have a high representation of people with accessibility and access needs. The highest proportion of access needs not met was at the school.

One in 6 people felt unsafe, in line with the national survey. Locations with a higher proportion of responses that felt unsafe were school (1 in 3), university and train station.

5.2.2 WAIT TIMES

For the intercept surveys, nearly one-third of respondents reported waiting, which was higher than the national survey (1 in 5), but likely more accurate given intercept survey respondents were not subject to recall bias. There was a variation across intercept sites, with higher wait times at the swimming pool, office, university and school. There was no wait time at the train station.

5.2.3 CLEANLINESS

The majority of respondents were dissatisfied with cleanliness, especially at school, university and the swimming pool. Respondents at the museum reported the highest satisfaction with cleanliness.

5.2.4 FEATURES

Similar to the national survey, respondents identified they did not have a place to hang belongings (45%), far exceeding dissatisfaction with any other feature.

5.2.5 PREFERENCES

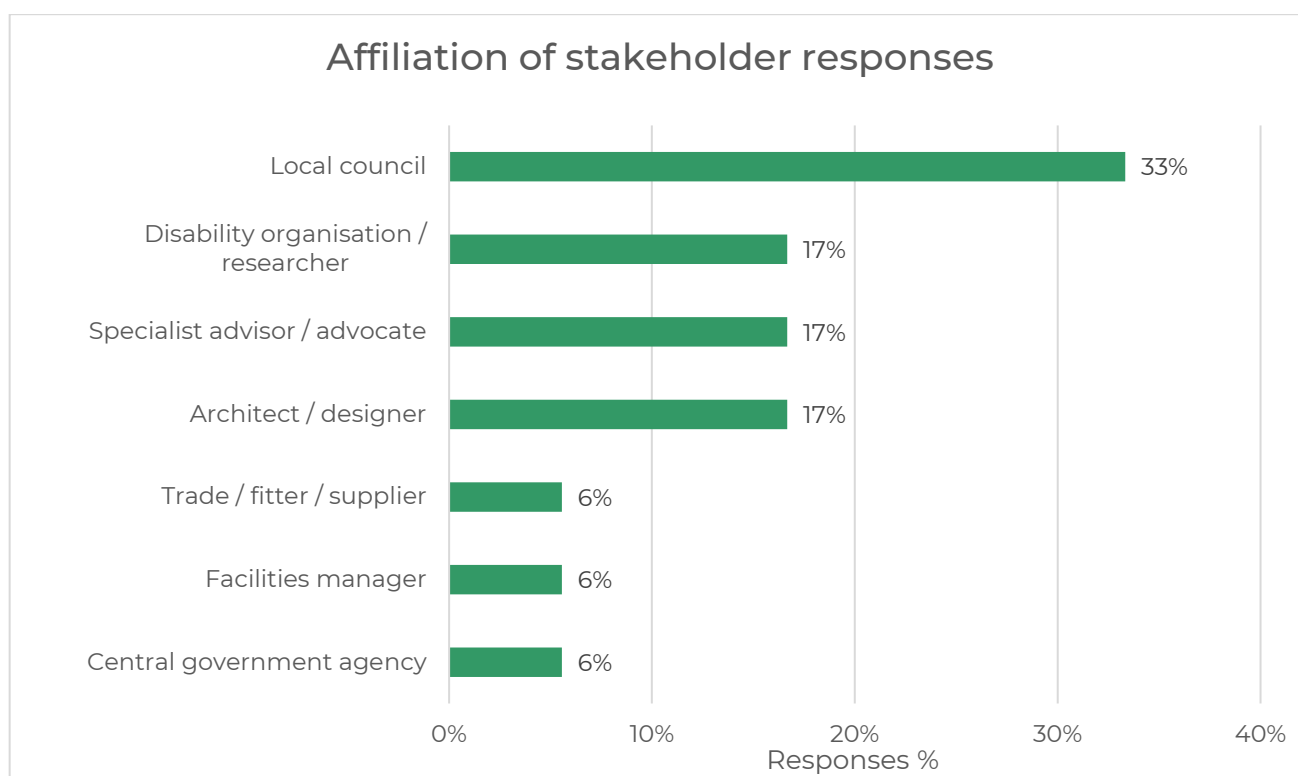
Four out of ten people preferred gender separated facilities, a third did not have a preference and a small amount preferred gender-neutral options (1 in 10). There was a higher desire for gender neutral facilities at school.

5.3 Stakeholder engagement

5.3.1 OVERVIEW

Stakeholder engagement consisted of two workshops with SFSG members and a stakeholder survey with a wider number of stakeholders. Twenty-four stakeholders responded to the stakeholder survey (See Figure 25 for sectors represented). Fifty percent of respondents have been involved with the regulation, design, implementation, management or maintenance of public bathrooms for other 10 years. There was an even split of male/female respondents to the survey.

Figure 25: Affiliation of stakeholder respondents



The stakeholder survey asked respondents their perspective on if public bathrooms meet user's needs. One in 10 stated public bathrooms met user's needs, three quarters of respondents stated needs were only 'somewhat' met and one in 10 stated 'very little' needs were met. Respondents suggested that there were enough public toilets overall and they met (low) public expectations of cleanliness but identified there were a lack of options- especially gender neutral/accessible options.

5.3.2 NEEDS

Stakeholders identified that often public bathrooms were too small. Stakeholders also identified a lack of baby change stations,

poor maintenance of bathroom features and poor provision of accessible bathrooms that often do not meet minimum standards. Twenty-five percent of respondents said essential facilities (such as toilet paper, hand washing and drying) were not being provided.

Four out of ten stakeholders felt accessibility needs were not being met. In relation to accessible bathrooms, stakeholders identified issues of space, contrast for visual impairment, lighting, auditory information and signage.

Stakeholders felt diversity of needs were also not being met. Building design documents were identified as lacking provision for children and older people. Current bathroom specifications lack provision for health conditions, such as bladder/bowel conditions that may need cleaning facilities within a stall or ostomies. Other specific issues identified by stakeholders were maintenance of locking mechanisms, weight of door, height of urinals, disposal units available (e.g. male incontinence), sinks or water sprays within a cubicle.

Two-thirds of stakeholders felt wait times were reasonable, and half felt locations were convenient. One in 5 felt facilities provided met the expected cleanliness. Only a third of respondents thought bathrooms were safe for all users.

5.3.3 BARRIERS

When specifically asked to identify barriers to meeting public need, 52% identified cost as the largest barrier, followed by lack of understanding of user needs (31%) and a lack of understanding of specified regulation (10%). Building space was identified as a significant, but a secondary barrier. During the first workshop, SFSG members identified similar barriers alongside the political landscape and a lack of knowledge.

When asked to identify what changes were needed to overcome the above barriers, two thirds of stakeholders were unsure if current provision met cultural needs. Stakeholders identified knowledge and understanding of user needs, value of provision of 'good' public bathrooms, best practice reflected in minimum standards/regulations and updated design practice.

"The Building Code minimums are insufficient for a NZ population. They do not adequately address: size of New Zealanders (height and weight), access needs (1 in 5 with access needs), the rainbow community (there is a lack of unisex toilets), caregivers with children (minimal provision of good change tables, child height toilets and sinks), lack of Adult Change Facilities for people with higher levels of disability."

5.3.4 MINIMUM COMPLIANCE SETTINGS

During the first workshop, SFSG members identified that current regulation provides the bare minimum.

As part of the wider stakeholder survey, stakeholders were asked to identify what regulation changes they would like to see made, they responded with changes to increase space dimensions, improve diversity of options (unisex, all gender, parent rooms, baby change facilities), regulate need for accessible toilets in all locations, mandating universal design standards, and accessibility requirements made compulsory.

During the second workshop, regulation changes were discussed, changes were identified and prioritised developing early recommendations from data insights which formed the basis of the recommendations made in section 7.

6 Discussion

This research sought to benchmark New Zealanders expectations and needs for sanitary facilities. The research focused on specific location needs and preferences for different groups of people and provides evidence that could be used to update standards and Acceptable Solutions to demonstrate compliance with G1 of the Building Code.

The literature review identified that more research is needed to understand user expectations and preferences. This research supports that providing understanding specific to Aotearoa, New Zealand. Sanitary facilities should be comfortable, hygienic, safe, accessible and cater to diverse needs, including families, children, menstruating individuals, disabled people, trans and non-binary people, older adults, pregnant individuals and those with specific health conditions. The trend toward gender-neutral, single user stalls, highlighted the need for further understanding on safety perceptions, privacy, cultural needs, inequalities and inclusive public spaces. The literature review identified the importance of providing a choice of sanitary facilities to best meet all peoples' needs.

The national survey illustrated the current state of sanitary facilities across Aotearoa, New Zealand, highlighting the importance of public toilets. As outlined in the literature review, access to sanitation is a basic human right. It also enables people to participate in wider society outside of their homes. The national survey determined that across Aotearoa, New Zealand, three in four people use a public facility at least once a week demonstrating that public bathrooms are in high demand and underscoring the need to understand how they align with needs of the population.

It is important to people that provided facilities meet their needs, with two thirds of people sometimes considering what toilet facilities are available, and a third 'always' considering this when deciding to go somewhere. Typically, people with a medical need, accessible need, cultural need, those supporting children, and women are more likely to consider what public facilities are available prior to visiting a particular building.

Not only do adequate public sanitary facilities meet peoples social, physical and cultural needs, but good provision is likely to ensure people are more likely to visit public and commercial buildings. Inadequate provision may be restricting engagement in society for the one in three people who avoid using public bathrooms. While this research did not investigate reasons for avoidance, it has uncovered that there are concerns regarding safety (1 in 6) and cleanliness (1 in 5). For example, if someone is unsure whether an adequate bathroom will be available at a venue, they may avoid activities such as attending sports events, shopping, or joining friends and families in recreational activities.

6.1.1 MEETING NEEDS

Through a multi-methods approach this research has identified that public bathrooms do not meet the needs of many New Zealanders. From the national survey, one in five people said public bathrooms do not meet their needs.

There are inequalities in those whose needs are met. People who are supporting a child/ren, fully or partially dependent people, those with cultural needs, or a disability or access need, and many women and those of another gender are not having their needs met. For those with a disability or access need, less than half stated that their needs met.

*"Public toilets for the most part meet basic needs but not the variety of needs of the entire population" —
Vivianne Naylor, CCS
Disability Action*

This supported the literature review which found that there are diverse needs that are not understood or catered for in the provision of sanitary facilities.

Stakeholders identified a key challenge to meeting people's needs, was a lack of understanding across diverse needs. Stakeholders identified greater awareness, and evidence is needed of what is required, alongside insights on whose needs are not currently being met, which has been provided by this research and reflected in the recommendations. The national survey identified that locations such as cafes and restaurants often met people's needs the least, whilst shopping malls, libraries, museum and galleries were more likely to meet people needs. This reflects on the nature of the organisations, smaller entities such as cafes and restaurants have limited space for facilities.

6.1.2 WAIT TIMES

This research has identified wait times with clear inequalities. Current Acceptable Solution G1/AS1 (2011) determine the minimum number of sanitary facilities as determined by occupancy levels and locations, based on historical research (Ministry of Works, 1993).

Waiting for a bathroom is dependent on the location. Locations where facilities have short-term visits or restricted time use may need greater provision. There are inequalities in wait times between different groups of people. One in three people from the national survey needed to wait to use a bathroom. This increased to nearly half of disabled people and those with an access need having to wait. Accessibility facilities that also serve as baby change facilities further compounds wait times and limits the availability of accessible bathrooms. Women were also more likely to have longer wait times compared to men. Inequalities of wait times are compounded in short term, restricted access locations that have longer wait times. These findings identify an immediate need to overcome these inequalities.

During the second workshop, stakeholders discussed that whilst across Aotearoa, New Zealand they perceive there are an adequate number of physical toilets built, many are not accessible (e.g. council office accessible bathrooms are only available to staff, or some bathrooms may require a specific key/access code) or do not meet the variety of needs of people who use them.

The literature identified that wait times for women are often reduced through gender neutral facilities, however the literature also found women are less likely to use gender neutral facilities. Gender-neutral facilities that were relabelled from a gendered facility did not alleviate the issue, particularly when facilities included urinals. This was supported by the national survey where nearly half of women preferred gender separated bathrooms. For existing facilities an immediate solution of relabelling men's (individual with basin) facilities to gender neutral would support overcoming wait time inequality for women but does not resolve the concerns. This solution does not address the wait times for disabled people and those with access needs.

Stakeholders also identified that for some specific locations, the occupancy may vary, therefore the need to have guidance or flexible options (e.g. fluid gendered/neutral options with changeable signage) would be beneficial in minimising wait times for specific events. However, this needs to be planned from the design stage to overcome the concerns from women on using relabelled facilities.

For new facilities, a change in toilet provision from design stage is required which could be achieved through updating the toilet calculator weighting to increase provision for female and accessible bathrooms. The literature review identified that research has consistently reported women take approximately 50%

longer to use facilities than men, which was supported by the greater number of women reporting wait times in this research therefore it is recommended that this difference is considered in any updates to the Acceptable Solutions G1/AS1. Further research is required to determine the increase required for accessible facilities.

6.1.3 SOCIAL NEEDS

The literature review identified social, cultural and physical needs to understand people's requirements and preferences. Considering social needs, it was important to understand privacy, safety, health, hygiene and inclusion.

The national survey found that a third of people avoid going to public bathrooms and a third of people identified that they were uncomfortable using public bathrooms. Furthermore, one in six people stated they felt unsafe. Those who felt unsafe were more likely to be aged under 24, have a disability or access need, have a cultural need, or select 'other' as their gender. There is further evidence that younger people, including school age, feel unsafe (1 in 3 respondents to the intercept survey).

Emerging literature has highlighted the importance of lighting, spacing and wider factors such as maintenance and condition of facilities impact on people's perception of safety. Given that bathrooms are only one aspect of what can be a complex design it is important that designers and architects have resources available to understand what good looks like and can advocate for this on the behalf of those who will be using a facility.

A third of people were dissatisfied with cleanliness. Stakeholders stated that public expectations of cleanliness were low, based on their experience, but also acknowledged the importance of cleanliness. The literature identified that not only is cleanliness an important aspect of public hygiene, but it also impacts on people's perceptions of safety when choosing to use a public facility and a lack of cleanliness is a barrier to use for some.

Stakeholders identified that there is often a lack of options - especially the provision of facilities that meet gender neutral/accessible needs. When asked on preference, many respondents preferred gender-separated facilities, with some preference for gender neutral facilities. A third of people didn't have a preference, or their preference was determined by location. People were more likely to have a 'no preference' or 'gender-neutral' preference when visiting limited time use facilities such as museums and educational settings. There was a higher desire for gender neutral facilities at the school surveyed, supporting the requirement for change to reflect the needs of the future generations.

Respondents also identified the need for parent rooms and baby change facilities. An issue that was highlighted was the common practice of combining baby change/parent room features with accessible toilets, with users having conflicting needs.

The findings show that to meet people's needs, it is important to have choice, and that there is not a 'one size fits all' design. During the second workshop, stakeholders identified that it is important that designs of facilities consider belonging and inclusivity.

6.1.4 CULTURAL NEEDS

The national survey identified respondents with cultural needs. Cultural needs that were unmet included:

- Providing food storage areas outside of the bathroom.
- A need to place culturally significant items outside of the bathroom (e.g. an item of clothing).
- Having a bidet/hose to wash.
- Suitable hand and feet washing features.
- Privacy needs in providing sex separated facilities.

“Being Māori, the stall needs to consider appropriate waste division and spaces to place food outside of the bathroom if possible.”

The literature identified emerging cultural needs such as waiwhero (menstruating people) is seen as tapu (precious) and requires appropriate separate facilities. To support this, sanitary bins and sinks are needed in all cubicles, in gender-neutral, accessible and men’s bathrooms (see 6.1.5).

The survey demonstrated further cultural needs in the storage of items that people often carry but are not appropriate to take into a bathroom. While there are requirements on separation of food preparation areas from bathrooms, there are no provisions in standards for locations for food storage while using a public bathroom.

There were also cultural needs identified in the features provided such as bidets/hoses. The Acceptable Solutions G1/AS1 (Department of Building and Housing, 2011) include bidets, but these are not a requirement and supporting drawings do not include positioning of bidets.

Lastly the cultural needs identified support the recommendation for multiple types of facilities to provide choice and accommodate all those using them.

6.1.5 PHYSICAL NEEDS

The research data highlighted the need for somewhere to place belongings, with two in three people identifying this as an issue. Other features that respondents identified they require to meet their needs were; sanitary/waste bin, sink within a stall, a mirror, larger size cubicle, baby change tables. For people with a disability or access need, handrails for support, space for equipment, seating and the ability to raise awareness were also self-identified as a requirement.

Whilst design guidelines provide best practice recommendations including mirrors, hooks, shelves, wash basins, larger cubicle size, parent rooms and separate baby change facilities, these are not minimum requirements.

Baby change facilities are specified within guidelines (MBIE, 2024) so as not to impact accessible needs in accessible spaces, however requirements of baby change locations and spacing are not provided within the Acceptable Solution G1/AS1 (Department of Building and Housing, 2011). Mirrors, and storage needs are recommended within design guidelines but again are not required as a minimum standard to demonstrate compliance.

Stakeholders highlighted the need to raise minimum standards through regulation to begin to meet users’ needs, as they had observed change typically occurs if regulated, otherwise the minimum is applied which may not adequately meet needs.

Currently the Acceptable Solution G1/AS1 (Department of Building and Housing, 2011) include sanitary bins, although it is inconsistent in that women’s bathrooms do not currently require a bin per stall and there is no provision for bins in men’s bathrooms. There are recommendations on providing a sink, but not within stalls.

Acceptable Solution G1/AS1 1.2.2 (Department of Building and Housing, 2011, p.14) states that:

“The location of sanitary towel disposal equipment shall not impede access for people with disabilities and shall be located:

- a) Where separate female facilities are provided: within the facility to serve one or more toilet cubicles, or
- b) Where unisex facilities are provided: in each toilet cubicle”

Updates are recommended to the Acceptable Solution G1/AS1 to reflect the changing societal need, providing sanitary disposal in all cubicles in all facilities (including male facilities).

There are minimum requirements for facilities sizing. Stakeholders and the national survey suggested this needs reviewing and updating to increase the size particularly for women and those who use accessible facilities, however the extent to which the current provisions need to increase was not determined. Sizing may be particularly relevant with future population trends.

6.1.6 SPECIFIC ISSUES

Data insights revealed the top issues that are preventing people’s needs being met by public sanitary facilities. These included:

- Lack of space to put belongings
- Accessibility needs
- Inequality of wait times (see 6.1.2)
- Parent rooms
- Safety
- Choice

These were discussed with stakeholders to consider how they might be addressed and identify actions for improvements as part of the implementation pathway.

6.1.6.1 LACK OF SPACE TO PUT BELONGINGS

As discussed, people identified the need generally to have somewhere to store belongings, as well as a place to store culturally significant items. Currently there is no requirement within the building code regarding storage. Potential solutions that could be retrofitted were discussed with stakeholders and could include retrofitting a fold down shelf (with consideration for durability and cleaning) and additional lower height hooks. Design guidelines on best practice recommend a coat hook and shelf as essential items to ensure people have a place to put belongings or for medical needs. This research also identifies the preference by many users for storage of food and culturally significant items outside of the sanitary facility.

6.1.6.2 ACCESSIBILITY NEEDS

Accessible needs not being met were identified as a consistent issue. One in three people surveyed with a disability or access need stated their needs were not met. In addition, one in four people with accessibility needs did not feel safe using public facilities. Accessible needs are diverse and extensive, there is a lack of understanding on diverse needs as well as regulation and guidelines to meet these needs.

Public spaces such as public bathrooms should be accessible to all, additional provision of accessible spaces should cater for the wider range of needs, for example including ambulant, accessible and fully adult accessible change facilities.

Where there are conflicting needs, consideration of differing facilities should be provided. Where facilities seek to meet numerous needs, often they end up meeting few. For example, utilising accessible bathroom spaces with baby change facilities which impacts both disabled people who experience longer wait times (due to the time required for baby changes) and restricted space from poor baby change table positioning, those who require change facilities (e.g. no provision for nappy bins) and disabled carers (e.g. through inappropriate height change tables).

Stakeholders identified that often there is a desire to ensure facilities meet user needs, but there is a lack of guidance on specific locations and diversity to highlight diverse needs and available design solutions.

This research did not investigate detailed requirements to meet accessibility needs, however it did identify the areas that require focus. Specifically future research may focus on how accessibility needs could be more fully met for a range of users (including people who are fully dependent and require hoists for assistance, as well as needs such as blind/low vision, continence needs, and older persons), and further detailed definition of requirements for hooks and shelves, medical and sanitary bins and minimum size of accessible facilities.

6.1.6.3 PARENT ROOMS

Baby change tables require additional space. Design considerations are provided for designing baby change facilities in existing accessible toilets and providing additional space in new facilities (MBIE, 2024). Baby changing tables should be provided for those with disabilities, and within male and female facilities. Whilst separate changing facilities within parent rooms are ideal, it was identified in the survey data that when this occurs, the parent rooms are often located further away from the other bathrooms. Parent rooms do not always contain an adult toilet or a toilet for older children, therefore limiting their use. Further, when baby change tables are provided in accessible facilities or within male/female facilities there is often not enough space to include a pushchair, or other children. Parents using baby change facilities may take a long time which often impacts on others who may need to use an accessible facility.

6.1.6.4 SAFETY

For several groups of users, public bathrooms are considered unsafe. This research has identified the complexities of perceived safety and challenges in overcoming feeling unsafe as differing groups have different needs. For example, women identified safety as a reason for preferring gender separated bathrooms while people who identified as non-binary or transgender or have their gender questioned by others identified safety as a reason for preferring gender-neutral bathrooms. Inclusion through offering a choice of facilities is essential to provide comfort and perceived safety of users. Perceived safety can also be influenced by the maintenance, cleanliness and how welcoming facilities are. Practical design solutions that consider users experiences and optimise safety through layout, positioning and lighting can impact users perceived safety.

Crime Prevention Through Environmental Design (CPTED) provides a framework for considering the design of safer public toilets. Factors such as location lighting, maintenance, visibility are considered. Organisations such as the Ministry of Education provide detailed guidance on the design of educational facilities to meet student privacy needs while reducing behaviours such as bullying.

6.1.6.5 CHOICE

As highlighted in the discussion, to meet people's social, cultural and physical needs, choice is essential. This research has benchmarked people's needs across New Zealand. Needs are diverse, with a greater amount of choice required to meet all people's needs.

6.1.7 MOVING TOWARDS CHANGE

The second stakeholder workshop provided data insights to stakeholders, and a guided discussion led to the development of initial recommendations of change and prioritisation. Stakeholders considered the barriers identified and recognised that whilst cost is a significant barrier, change towards regulation and developing understanding are pragmatic areas to focus upon. Stakeholders prioritised the recommendations based on the research outcomes.

7 Recommendations

The following recommendations are made:

For new facilities, to provide equitable sanitary facility access for New Zealanders:

1. Provide sanitary facilities that offer a choice for all, including gender separated facilities and gender-neutral facilities, those with accessibility needs, and those with children.
2. Provide a higher number/proportion of facilities for disabled people, and facilities for women and other genders to overcome disparities in wait times (and update Tables 1 –4 of the Acceptable Solution G1/AS1 to reflect this).
3. Provide design solutions that encourage flexibility of toilet labels in specific facilities to accommodate changing needs depending on their use, while still maintaining acceptable number of facilities overall. (e.g. sporting facilities which cater for different genders at different times).
4. Expand provisions for accessibility design to include “ambulant”, “accessible” and “fully adult accessible change facilities”.
5. Develop Acceptable Solutions to the building code for combined accessible and parents/carers’ rooms to be designed with all users in mind²¹ (i.e. changing table is not an afterthought as this impacts both carers and those with accessibility needs).

For consideration with respect to updating specific sections of the Acceptable Solution G1/AS1 and other standards as appropriate (e.g. NZ 4121).

6. Updates are recommended to specify for all new facilities within public and commercial buildings to:
 - Include sanitary disposal equipment in all separate facilities provided in each cubicle.
 - Include a space for belongings (e.g. shelf) within cubicles.
 - Include requirement for baby change facilities in all facilities.
 - Provide basins within cubicles.
7. For all new accessible sanitary facilities:
 - Include provision for placing belongings (e.g. hook, shelf at appropriate height and location) including medical equipment, considering the ability to maintain hygiene of any shelf.
 - Include both medical waste and sanitary bins.
8. Extend requirements of Acceptable Solution G1/AS1 paragraph 4.2.1 to all buildings (i.e. provide accessible facilities at all locations of sanitary facilities in public and commercial buildings).

For designers and specifiers:

²¹ Note that ideally separate accessible and parents/carers rooms should be provided.

9. Provide facilities in locations with good passive surveillance and appropriate lighting to improve perceived safety.
10. Adopt a user centred design process to identify specific facility-based use cases and needs, including cultural needs and future needs.
11. Build an evidence base of what good looks like and the economic and social advantages of good sanitary facilities. To support this:
 - d. Develop a central repository of case studies to support this approach to design, including case studies on new facility development and retrofitting.
 - e. Develop citizen science approaches to rating and reviewing bathrooms and identifying minor issues.
 - f. Identify gold standard existing bathrooms, with details on specific features for designers to apply as best practice.
12. Provide simplified and improved best practice tools to support and ease design process, including design documentation on the code, requirements and why they are important. Tools should address retrofitting existing facilities and designing new ones.

Further research is recommended to:

1. Determine the acceptable minimum size stall for accessible sanitary facilities (with and without baby change facilities) and facilities for women.
2. Identify specific cultural needs and perspectives through in-depth qualitative research to support design guidelines and standards.
3. Identify and overcome the inequality of wait times for disabled people and develop specifications for the features and changes required for disabled people and those with an access need.
4. Consider the whole of life cost of any design changes including how to optimise facility design with consideration of efficient construction practices, materials, maintenance and cleaning.

8 Implementation pathway

Recommendations were reviewed and prioritised by the stakeholder group based on perceived importance, impact and ease of implementing change.

The **highest priority actions** target updates to standards and Acceptable Solution G1/AS1.

1. Review Acceptable Solution G1/AS1, the toilet calculator and relevant standards to provide:
 - A greater proportion of accessible facilities, and facilities for women and other genders
 - A requirement for a space for belongings
 - A requirement for baby change facilities
 - Sanitary disposal equipment in all facilities
2. Extend requirements of Acceptable Solution G1/AS1 paragraph 4.2.1 to all buildings (i.e. provide accessible facilities at all locations of sanitary facilities in public and commercial buildings).

In the **medium-term** provision of information should be targeted at designers and specifiers to:

3. Provide simplified and improved best practice tools to support the design process, including design documentation on the code, requirements and why they are important. Tools should address retrofitting existing facilities and designing new ones.
4. Develop a central repository of good implementation case studies (showing economic and social benefit)
5. Adopt a user centred design process to identify specific facility-based use cases and needs, including cultural needs and future needs.
6. Provide facilities in locations with good passive surveillance and appropriate lighting to improve perceived safety.

Longer term actions identified were to:

5. Develop Acceptable Solutions to the building code for combined accessible and parents/carers' rooms to be designed with all users in mind (i.e. changing table is not an afterthought as this impacts both carers and those with accessibility needs).
6. Expand design for accessibility to include "ambulant", "accessible" and "fully accessible".
7. Conduct further research to review the acceptable minimum size for facilities.
8. Develop design solutions for flexible toilet labels (to accommodate differing uses of facilities).
9. Include both waste and sanitary bins in accessible facilities and design guidance.

9 Limitations

This report ('Report') has been prepared by WSP New Zealand Limited ('WSP') exclusively for BRANZ Inc. ('Client') in relation to sanitary facilities literature review ('Purpose') and in accordance with the Contract for Research with the client dated March 5, 2024 ('Agreement'). The findings in this Report are based on and are subject to the assumptions specified in the Report and Full Proposal date October 31, 2023. WSP accepts no liability whatsoever for any use or reliance on this Report, in whole or in part, for any purpose other than the Purpose or for any use or reliance on this Report by any third party.

Appendix A: Workshop 1 slides



Karakia

Tākina
Te mauri kei ahau
He mauri tū
He mauri ora
Tāwharautia
Tihei *mauri ora*

*Evoke
The essence of life within
An earthly, spirited core
A radiant, sustaining bloom
May it ensure eternal core
For this is the essence of life*



wsp

Workshop overview

- Research context
- Introductions
- Why now – current state and future landscape
- What does change look like? - breakout groups
- Identify wider system actors - discussion
- Identify intercept survey locations –discussion
- Next steps



Research context

Updating the Building Code: Changing requirements for Sanitary facilities: Commercial buildings

Adapting Aotearoa New Zealand's built environment to better meet the needs and wants of our diverse population





Headline News

NZ First tries to introduce controversial bathroom bill

By News Reporters | Fri, May 10



Home / New Zealand / Politics

Public toilets and changing rooms going unisex bringing greater comfort to gender fluid comfort stops



By [David Fisher](#)

2 May, 2023 05:00 AM © 4 mins to read

Save | Share

Opera House caught short with toilets for women

Zoe George

June 08, 2021, - 05:00am



Wellington's Opera House also needs strengthening, at a reported cost of about \$40 million.



Home News Radio Podcasts & Series Topics Te Ao Māori Pacific IndoNZ 中文

SPORT / HEALTH

Basin's lack of facilities for women, disabled "unacceptable"

From [Fair Play](#), 9:03 am on 23 November 2018

Share this [Twitter](#) [Facebook](#) [Email](#) [Reddit](#) [LinkedIn](#)



ist New Zealand World Sport Life Politics Opinion Te Ao Māori Re: News Entertainment

NZ 'not even close' to being accessible enough for disabled

By Rebecca Bull, Former Breakfast Producer | August 13, 2021



NZ NEWS / QUIZZES / SPORT / WORLD / LISTEN

Auckland students win campaign for gender-neutral toilets at their school

Frederick Williams



NZ NEWS / QUIZZES / SPORT / WORLD / LISTEN

Let women pee! The case for more ladies and unisex loos

Sarah Lang

June 09, 2023, - 05:00am

Share

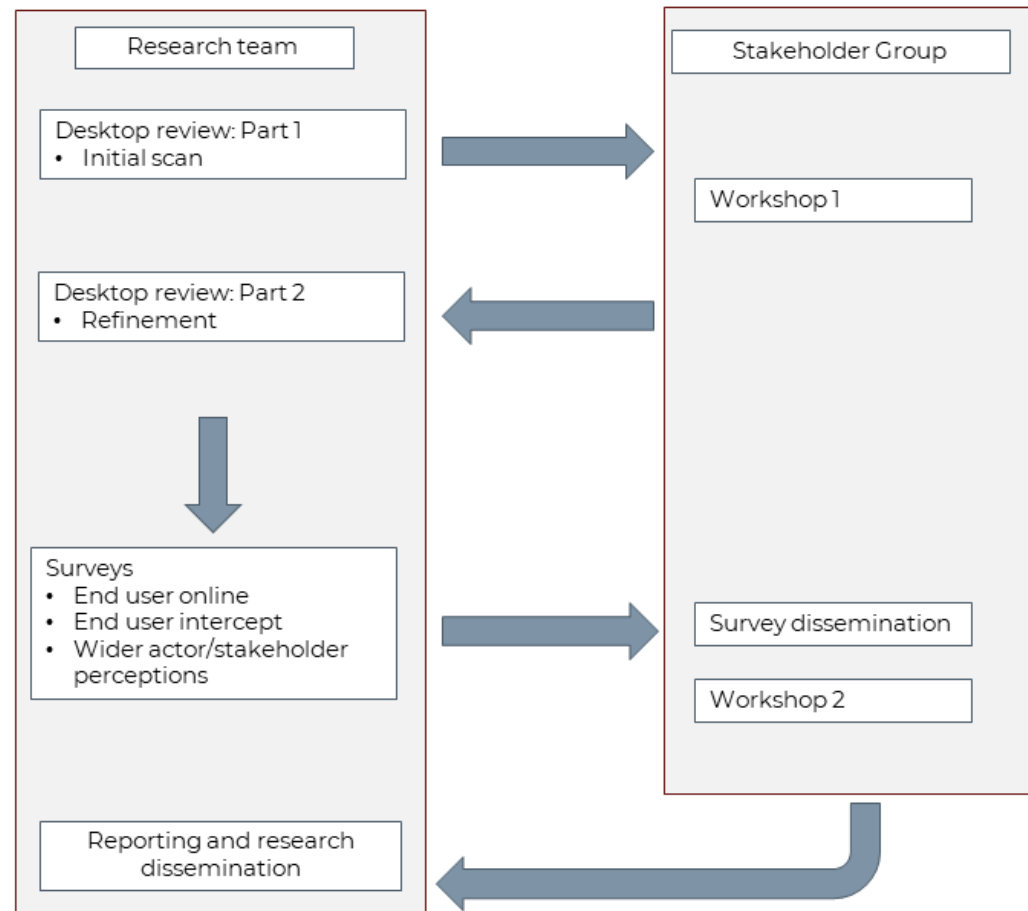
Research context

Objectives:

1. Identify what has been researched and implemented with respect to sanitary facility provision in other jurisdictions and evaluate its applicability to Aotearoa New Zealand.
2. Understand the particular user needs and preferences for sanitary facilities for different groups (e.g. people with young children/babies, differing abilities, cultural considerations, gender diverse individuals) in Aotearoa/New Zealand.
3. **Working with end-users and their advocates to identify barriers to meeting user needs, and potential pathways to overcome these.**
4. Provide a report that outlines findings and recommendations with a particular focus on recommendations that can be applied in an update of clause G1 of the Building Code.



Research method



Introductions

- Who are you, what part of your role is related to sanitary facilities?
- What would you like to gain from this workshop?



Current state

New Zealand Building Regulations

Building Regulations 1992 First Schedule Clause G1 Personal Hygiene

OBJECTIVE

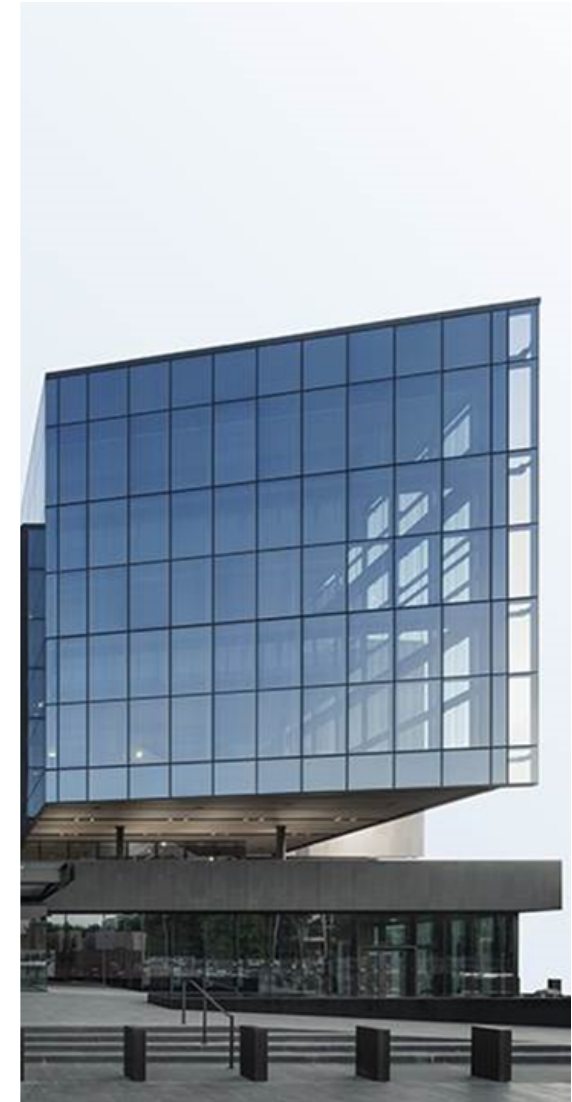
Safeguard people from illness caused by infection or contamination

Safeguard people from loss of amenity arising from absence of appropriate personal hygiene facilities

Ensure people with disabilities are able to carry out normal activities and processes within buildings for different building typologies.

The Building Code clauses include objectives, functional requirements and performance criteria. These are mandatory provisions that all new building work must comply with.

Acceptable solutions and verification methods are deemed to comply with Building Code clause G1. Acceptable solutions or alternative solutions may be used to demonstrate compliance with the Building Code



Current state

Overview of standards

PERFORMANCE

G1.3.1 Sanitary fixtures shall be provided in sufficient number and be appropriate and be appropriate for the people who are intended to use them

Calculation for toilet pans, basins and urinals

Building use
Is the occupancy known?
Total occupancy calculated

Assembly hall
Yes
800

Option 1 - Unisex toilet facilities

| | | |
|-----------------------|----|---|
| Unisex | 16 | ♂ |
| Accessible facilities | 2 | ♂ |

Option 2 - Single sex toilet facilities only

| | | |
|-----------------------|---|---|
| Female | | |
| Toilet pans | 8 | ♂ |
| Basins | 4 | ♂ |
| Accessible facilities | 1 | ♂ |
| Male | | |
| Toilet pans | 7 | ♂ |
| Basins | 5 | ♂ |
| Accessible facilities | 1 | ♂ |

Option 3 - Single sex toilet facilities with urinals for males

| | | |
|-----------------------|---|---|
| Female | | |
| Toilet pans | 8 | ♂ |
| Basins | 4 | ♂ |
| Accessible facilities | 1 | ♂ |
| Male | | |
| Toilet pans | 3 | ♂ |
| Urinals | 5 | ♂ |
| Basins | 5 | ♂ |
| Accessible facilities | 1 | ♂ |

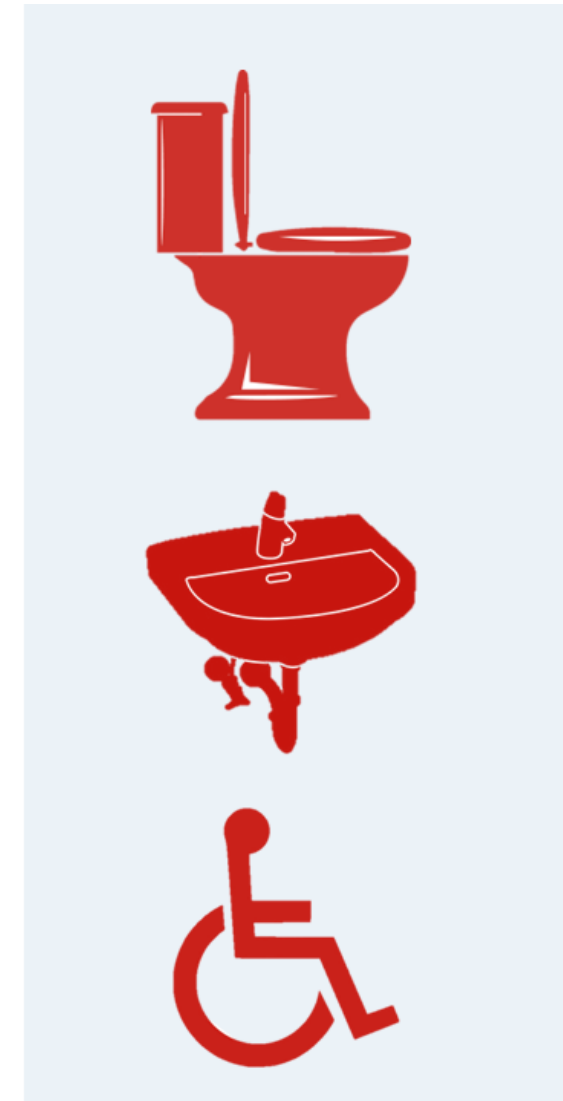
Option 4 - Single sex toilet facilities only, plus accessible unisex

| | | |
|-----------------------|---|---|
| Female | | |
| Toilet pans | 8 | ♂ |
| Basins | 4 | ♂ |
| Male | | |
| Toilet pans | 7 | ♂ |
| Basins | 5 | ♂ |
| Unisex | | |
| Accessible facilities | 2 | ♂ |

Option 5 - Single sex toilet facilities with urinals for males, plus accessible unisex

| | | |
|-----------------------|---|---|
| Female | | |
| Toilet pans | 8 | ♂ |
| Basins | 4 | ♂ |
| Male | | |
| Toilet pans | 3 | ♂ |
| Urinals | 5 | ♂ |
| Basins | 5 | ♂ |
| Unisex | | |
| Accessible facilities | 2 | ♂ |

Example of an acceptable solution for G1.3.1



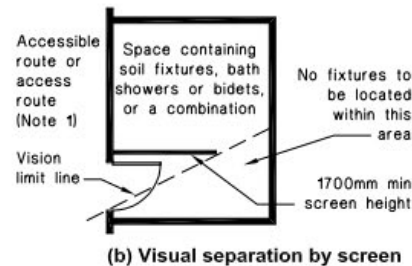
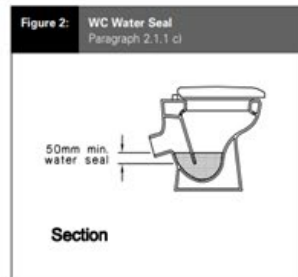
Current state

New Zealand Building Regulations

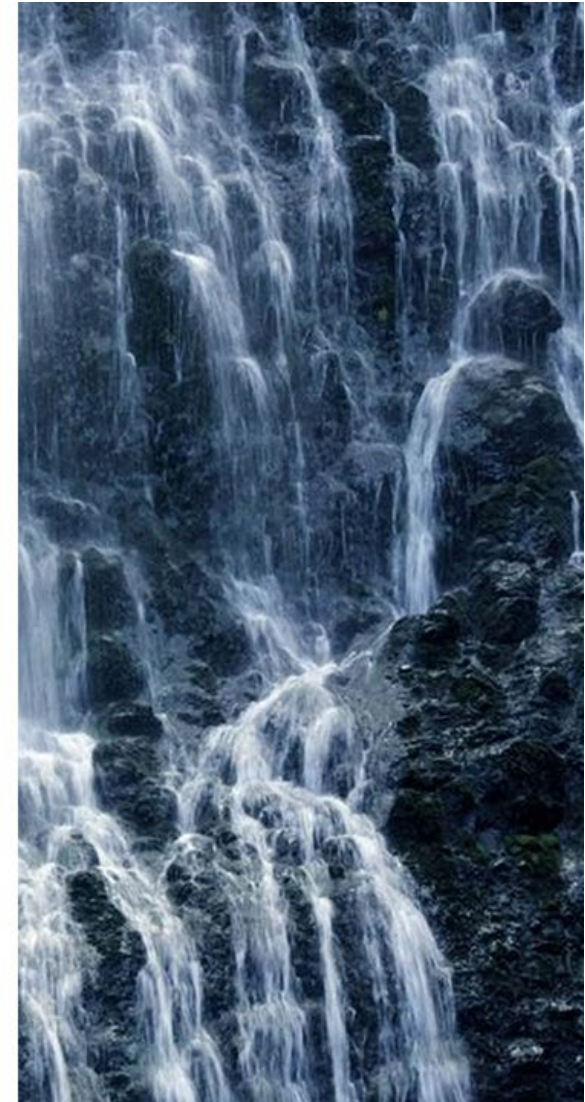
PERFORMANCE

G1.3.2 Sanitary Facilities shall be located constructed and installed to facilitate sanitation

- Avoid risk of food contamination
- Avoid harbouring dirt or germs
- Provide appropriate privacy
- Avoid affecting occupants of adjacent spaces from the presence of unpleasant odours, accumulation of offensive matter, or other source of annoyance
- Allow effective cleaning
- Discharge to a plumbing and drainage system as required by Clause G13 "Foul Water" when water borne disposal is used
- Provide a healthy safe disposal system when non-water –borne disposal is used.



Example of an acceptable solution for G1.3.2



Current State

Other Building Standards and Design Guides

Building Standards

NZS 4241:1999 Public Toilets

NZS 4121:2001 Design for access and mobility: Buildings and associated facilities

Design Guides – examples

MBIE Design for Access and Usability – Building Performance

Ministry of Education Toilet and Changing Space Design for Schools. Design : standards, Guidance and Reference Designs V3.0 March 2024

Provide accessible, gender-neutral toilets Inclusive Education (tki.org.nz)

Accident Compensation Commision Moving and Handling People Guidelines
Section 9 Facility Design and Upgrading

Auckland Council Universal Design Tool Toilets Showers and Family Rooms
Changing Places Changing Places General Information Guide April 2023



Societal changes – Overview of literature

- 1 Occupancy rates and building function
- 2 All – gender/ gender neutral provision
- 3 Physical, social and cultural needs

There is not a 'one size' fits all approach but rather, different people need a choice of different bathrooms.



PUBLIC TOILET DESIGN PRINCIPLES

Each toilet will be different responding to the local context and needs. Rather than list each of the items to be included in a toilet I have provided some design principles to consider when it comes to public toilets in response to user and operator requirements:*

- **SAFETY & PRIVACY** – All users want to feel safe, and have both audible and visual privacy, when using a toilet as it is private and vulnerable human function
- **ACCESSIBILITY** – Design must meet the specific user needs including minimal standards for physical accessibility. This also includes circulation spaces, handles and height of fixtures and features
- **INCLUSION** – Design to meet the needs of all populations, including minority groups. This includes a preference to single stall physical designs, signage that reflects all bodies and the review and enforcement of anti-discrimination policies
- **LOCATION & AVAILABILITY** – Toilets need to be easily locatable and provided in the appropriate number to respond to the number of users. This includes how far people need to travel to access them
- **ATTRACTIVENESS** – Aesthetics are important to make people feel comfortable. The design of the toilets should be a continuation of the place it is located in
- **EASE OF MAINTENANCE & HYGIENE** – Materials used in the construction need to allow for easy cleaning, resistance to vandalism and durable while still being functional and welcoming
- **SUSTAINABLE** – Design and maintenance needs to consider the use of resources such as water and electricity
- **COMMUNICATION** – Toilets need to be easy to find via signage or apps, include relevant information about operating hours and maintenance requests as well to be able to determine if a stall is available or occupied from a distance

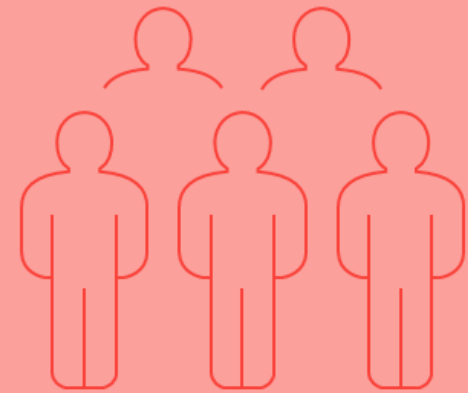
Webber, K., & Fellow, C. (2018). *Exploring Accessibility and Inclusion in Public Toilets*.

What does change look like?

Break out groups – (8 minutes)

What is your view on the current system – building codes and implementation for sanitary facilities?

In your experience are you seeing any changes in approaches?



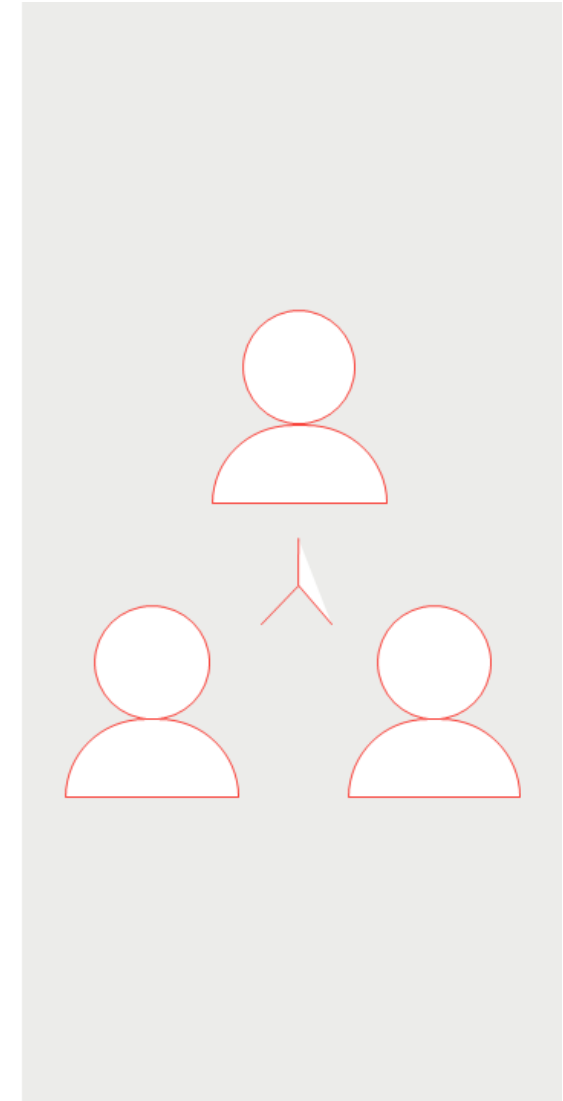
What does change look like?

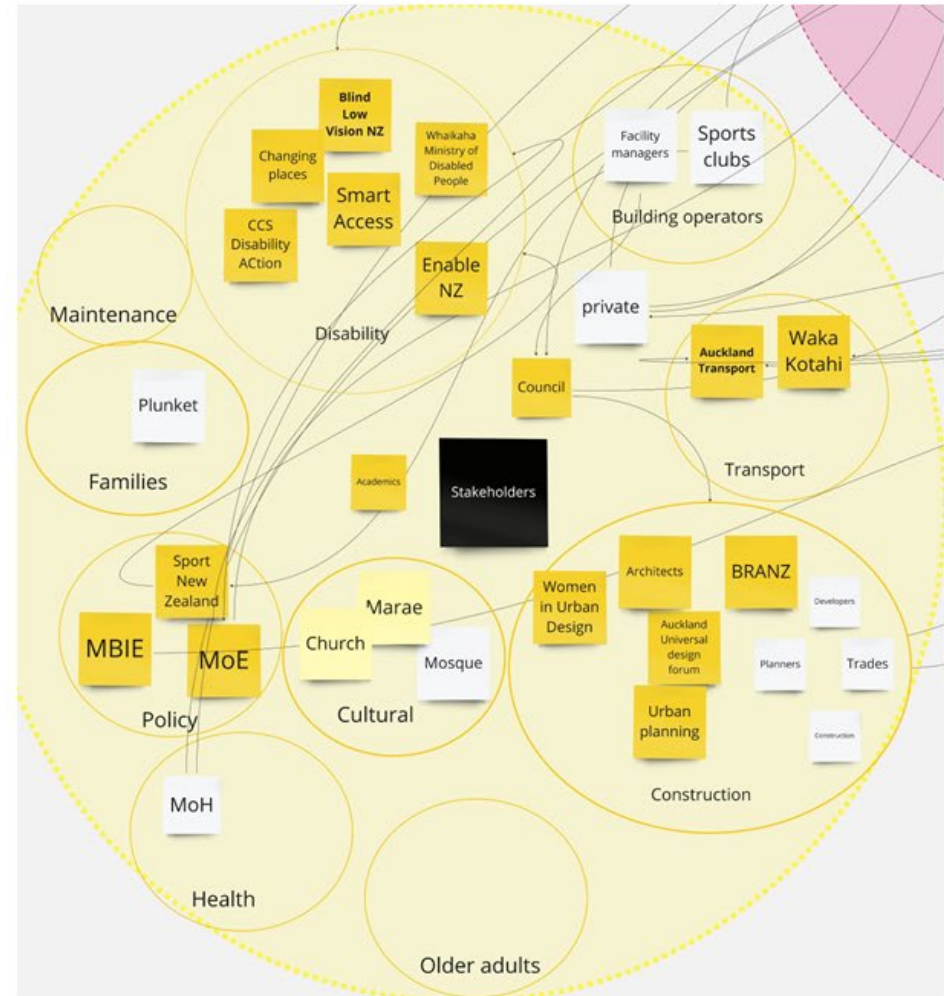
Break out groups – (8 minutes)

Where do you see opportunities to change from the current state of toilets in public buildings?





Do you see any barriers to introducing change?

Any concerns in moving to a new state?



[illegible]

Intercept survey locations

| | Short Term | Medium to long term use |
|----------------------------------|---|---|
| Available to use at any time |  e.g. Swimming pools, shopping malls |  e.g. Office buildings, camping facilities, hospitals |
| Available during certain periods |  e.g. Theatres, stadiums, churches |  e.g. Schools, universities |

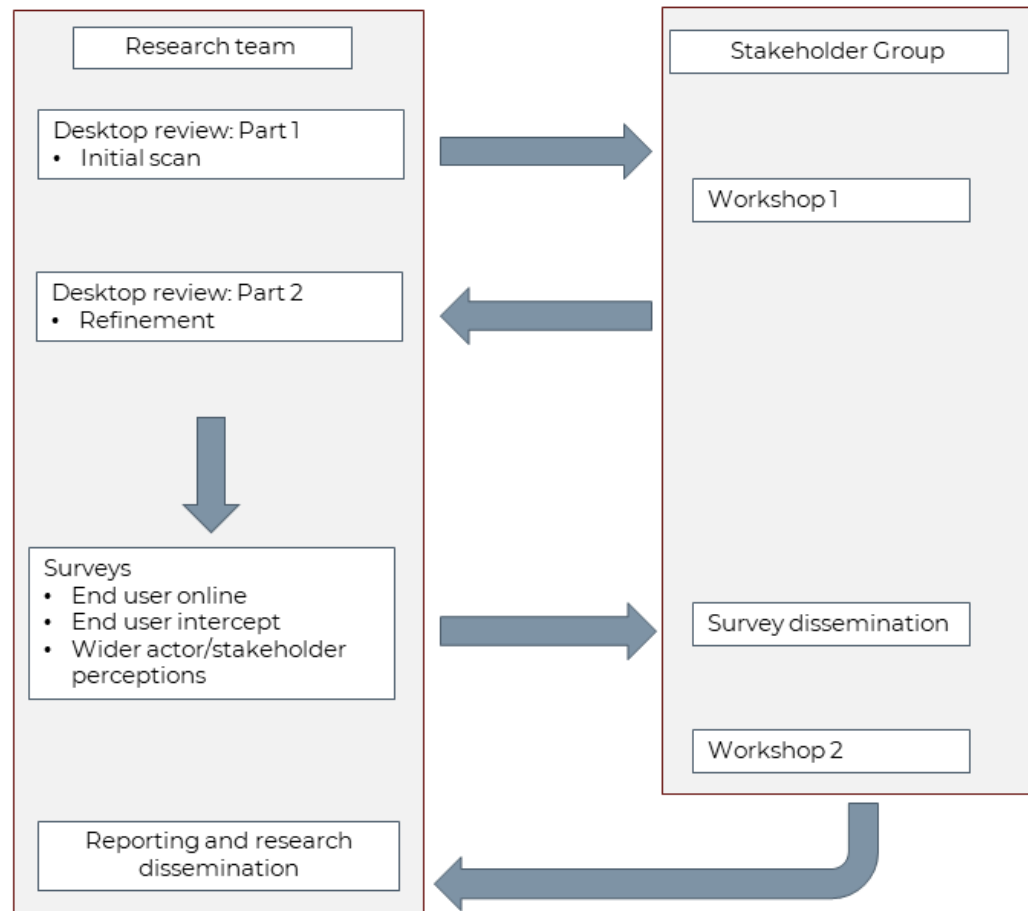
Intercept survey locations

Discussion: Where should these be?

| | Short Term | Medium to long term use |
|----------------------------------|------------|-------------------------|
| Available to use at any time | | |
| Available during certain periods | | |



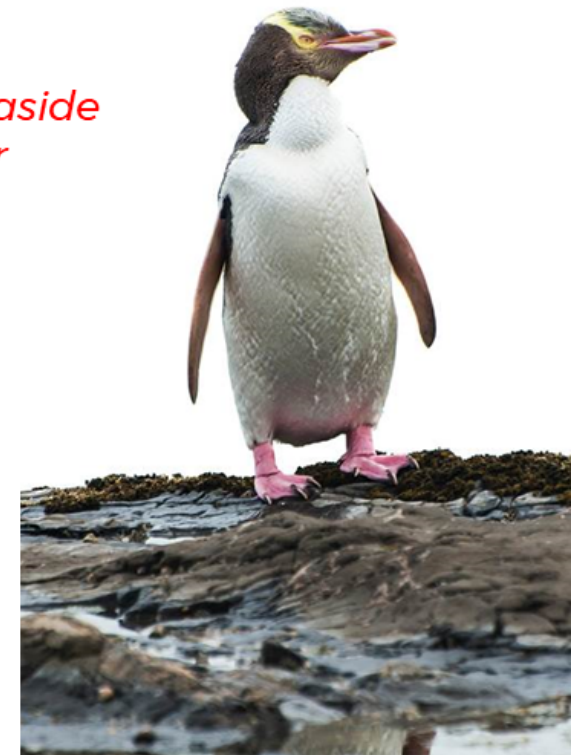
What's next



Karakia

Kia whakairia te tapu
Kia wātea ai te ara
Kia turuki whakataha ai
Kia turuki whakataha ai
Haumi e. Hui e. Tāiki e!

*Restrictions are moved aside
So the pathways is clear
To return to everyday
activities*



wsp



Thank you



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Figure 26. Visual storytelling of Sanitary Facilities Workshop 1



Appendix B: Workshop 2 slides



Karakia

Tākina
Te mauri kei ahau
He mauri tū
He mauri ora
Tāwharautia
Tihei mauri ora

*Evoke
The essence of life within
An earthly, spirited core
A radiant, sustaining bloom
May it ensure eternal core
For this is the essence of life*



Research context

Updating the Building Code: Changing requirements for Sanitary facilities: Commercial buildings

Adapting Aotearoa New Zealand's built environment to better meet the needs and wants of our diverse population



Workshop overview

- Review of background and research objectives
- Findings
- Barriers
- Discussion
- Actionable measures
- Transition pathway



Findings of the current state

- 2 in 3 people consider where they are going based on the available bathrooms
- 3 in 4 people use a public bathroom at least once a week
- 1 in 5 people stated their needs were not met
 - Half of needs were not met by those who identified as disabled or with an access need
- 1 in 5 people felt unsafe



Findings - Wait times

- 1 in 3 needed to wait to use the bathroom
- There is a longer wait time in places where people visit for a short time and restricted periods (e.g. theatre/train station)
- Inequality of wait times
 - Longer wait for disabled people or those with an access need
 - Longer wait for women and those who selected 'other gender'



Findings

- 1 in 3 people were dissatisfied with cleanliness

Features

- Place for belongings
- Sanitary/waste bins
- Sink within stall
- Mirror
- Larger size
- Baby change table

Cultural needs

- Food storage outside bathroom
- A place to put culturally significant items (e.g. clothing)
- Cleanliness (hand or feet washing, bidet/hose)
- Privacy – cultural and religious context requiring sex separated bathrooms



Issues

1. Lack of space to put belongings
2. Accessibility needs
3. Inequality of wait times
4. Parent rooms
5. Safety
6. Choice



Feedback – 10 minutes



Future State

1 in 5 of people's
needs were not met



Public bathrooms meet
all NZers needs

1. Lack of space to put belongings
2. Accessibility needs
3. Inequality of wait times
4. Parent rooms
5. Safety
6. Choice



Barriers

- Cost
- Lack of understanding needs
- Regulations – a minimum that doesn't meet all needs

“The Building Code minimums are insufficient for a NZ population. They do not adequately address: size of NZers (height and weight), access needs (1 in 5 with access needs), the rainbow community (there is a lack of unisex toilets), caregivers with children (minimal provision of good change tables, child height toilets and sinks), lack of Adult Change Facilities for people with higher levels of disability.”

Respondent from Auckland Council



Future State – Discussion 1

Discussion 1: How to overcome lack of understanding of user needs?
Any specific recommendations

1 in 5 of people's
needs were not met



Public bathrooms meet
all NZers needs



Future State – Discussion 2

Discussion 2: What changes are required to minimum regulations and acceptable solutions? Any specific recommendations

1 in 5 of people's
needs were not met



Public bathrooms meet
all NZers needs



Recommendations

To provide equitable sanitary facility access for New Zealanders:

1. In all facilities, provide sanitary facilities that offer a **choice** for all including gender separated facilities and gender-neutral facilities for all, those with accessibility needs and those with children.
2. Review the acceptable solutions to the building code and toilet calculator to provide a **higher number/proportion of accessible facilities, and facilities for women and other genders** to overcome disparities in wait times.
 - Review and update the toilet calculator and Table 1 of acceptable solutions to reflect this. Both are weighted towards a greater provision for male facilities for some locations (e.g. staff facilities, factories, tearooms) while others are not.
3. **Remove** recommendations on number of occupants for provision of facilities for disabled people and provide accessible facilities at all locations of sanitary facilities.
4. Develop acceptable solutions to the building code for accessible and parents/carers' rooms to be designed with **all users in mind** (i.e. changing table is not an afterthought as this impacts both parents and those with accessibility needs).



Recommendations

To improve perceived safety:

5. Providing safe access to facilities, providing facilities with multiple access points and considering ordering in corridors with multiple facilities to avoid those who feel unsafe accessing facilities at the end of a location (e.g. from main floor location accessible, female, gender neutral, male)
6. Providing facilities in locations with good passive surveillance and appropriate lighting



Recommendations

For consideration with respect to updating specific sections of the acceptable solutions to the building code G1/AS1. Updates are recommended to specify for all facilities:

7. Sanitary disposal equipment in separate female facilities provided in each cubicle (change from within the facility)
8. Inclusion of a space for belongings (e.g. shelf).



Recommendations

For designers and specifiers:

13. Adopt a user centred design process to identify specific facility-based use cases and needs, including cultural needs and future building use.
14. Develop a central repository of case studies could to support this approach to design.



Recommendations

In designing solutions for accessible sanitary facilities:

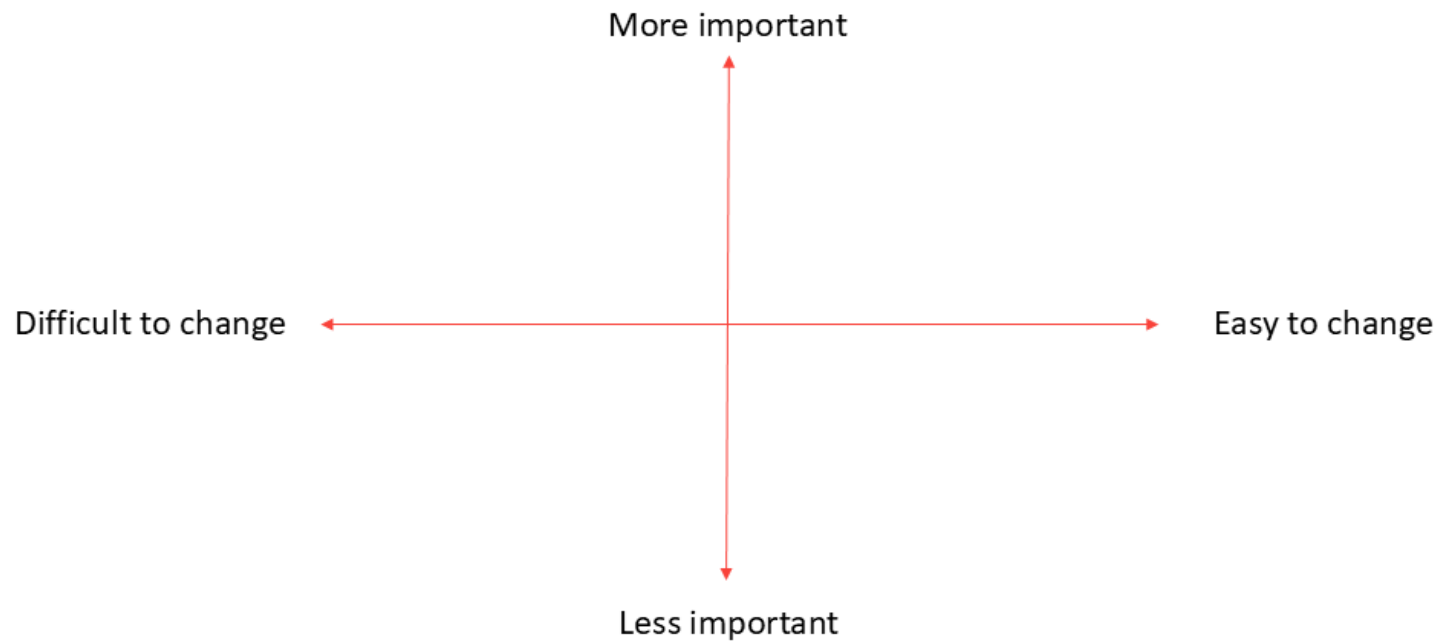
9. Provide an increase in minimum stall size for accessible sanitary facilities (further research required to determine minimum size)
10. Include provision for placing belongings (hook, shelf at appropriate height and location) including medical equipment
11. Provide appropriate handrails / support bars
12. Include both waste and sanitary bins.



Priorities and actions

How would we prioritise these recommendations?

- More important to less important?
- Easier or more difficult to implement?



Next steps

- Digest information
- Finalise report including recommendations
- Submission and review by peer reviewer (December)
- Final submission to BRANZ (January 2025)
- Report publication



Karakia

Pou Hihiri
Pou Rarama
Pou o te Whakaaro
Pou o te Tangata
Pou o te Aroha
Te Pou e here nei i ā tātou
Mauri ora ki ā tātou
Haumi ē!
Hui ē!
Tāiki ē!!!

*May clarity be yours
May understanding be your
Through reflection
Through personal endeavour
Through respect
The virtues which binds us as one
May we be filled with wellbeing
For one another
Bind us together!*



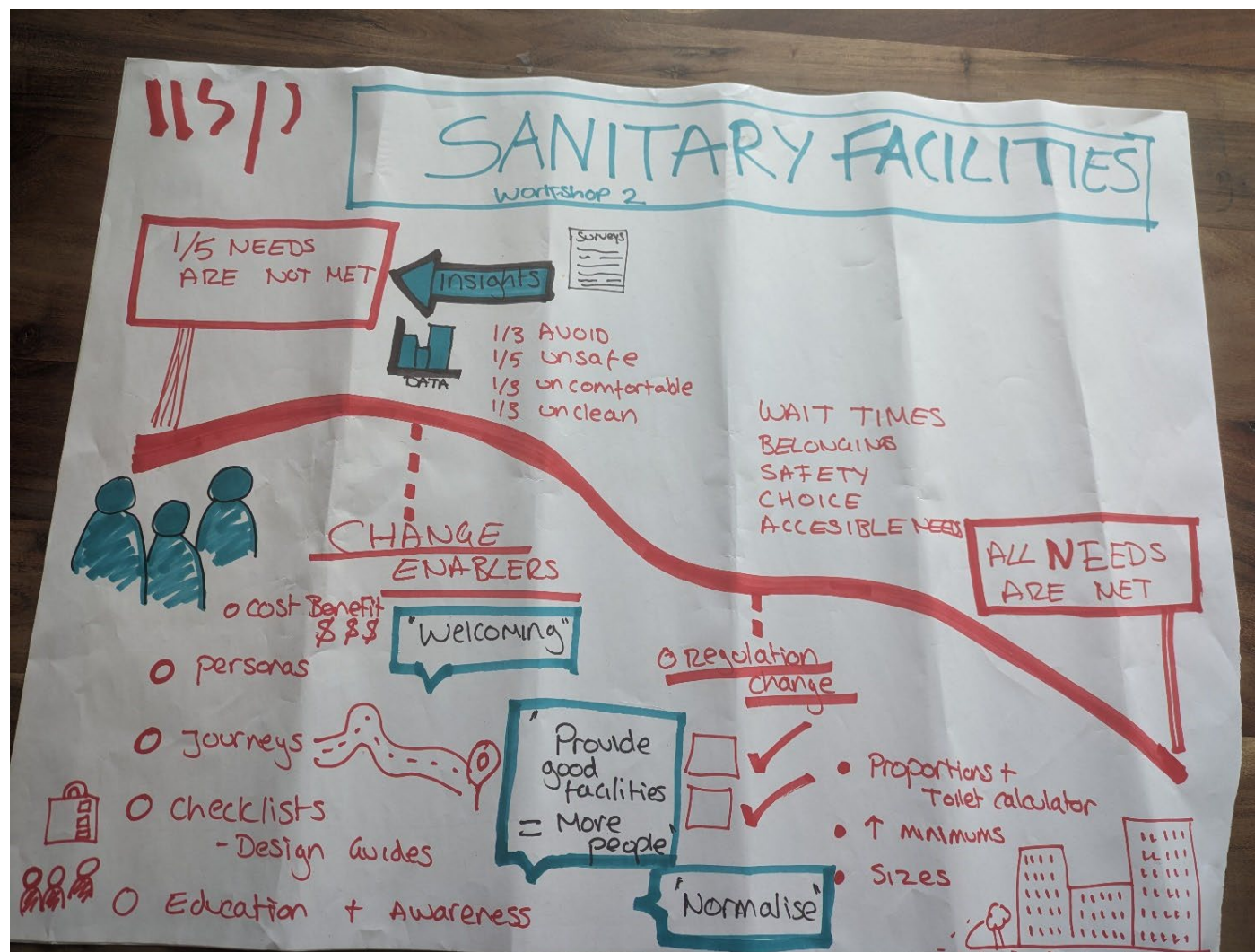


Thank you



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Figure 27. Visual storytelling of Sanitary Facilities Workshop 2



Appendix C: Building code standards and regulations

| Organisation | Document | Content Summary | Comments |
|------------------------------|---|---|---------------------------------|
| Standards New Zealand | NZS 4241:1999 Public Toilet NZS 4241:1999 :: Standards New Zealand | Provides design information and advice on the numbers, location, type and quality including features and fittings for public toilets in any location. Guidance on cleaning and sanitation is also provided. Toilet facilities composed of all-gender, single, fully enclosed, self-contained units are proposed. Traditional separate gender facilities are also covered. | See section 3 Literature Review |
| Standards New Zealand | NZS 4121:2001 Design for access and mobility: Buildings and associated facilities NZS 4121:2001 :: Standards New Zealand | This standard provides well-integrated and workable solutions for designing buildings and facilities that can be accessed and used by people with disabilities. It provides a way of complying with the New Zealand Building Code performance criteria for providing access and facilities for persons with disabilities. | See section 3 Literature Review |
| MBIE | Toilet calculator Building Performance | MBIE Calculator for toilet pans, basins and urinals based on NZ Building code | See section 3 Literature Review |
| Standards New Zealand | AS/NZS 3500.2:2021 Plumbing and drainage, Part 2: Sanitary plumbing and drainage AS/NZS 3500.2:2021 :: Standards New Zealand | Standard specifies requirements for the design and installation of sanitary plumbing and drainage from fixtures to a sewer, common effluent system or an on-site wastewater management system, as appropriate. | See section 3 Literature Review |
| Standards New Zealand | AS/NZS 3982:1996 Urinals AS/NZS 3982:1996 :: Standards New Zealand | Specifies materials, manufacture and methods of test for urinals. | |
| Standards New Zealand | Accessible design Flushing button/Call button accessibility ISO 19026:2015 :: Standards New Zealand | Accessible design — Shape and colour of a flushing button and a call button, and their arrangement with a paper dispenser | |

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| | | installed on the wall in public restroom | |
| ISO 19026:2015 | BS 6465-4:2010 Sanitary installations, Code of practice for the provision of public toilets BS 6465-4:2010 :: Standards New Zealand | Sanitary installations, Code of practice for the provision of public toilets | See section 3.42 Literature Review |
| NZS 1158 | Lighting for Roads and Public Spaces, Category C. | All 24 hour toilets shall have adequate interior and exterior lighting. The interior of public toilets shall be adequately lit. Natural light shall be preferred, wherever possible | |
| British Standards | BS 8300-2:2018 Design of an accessible and inclusive built environment, Buildings. Code of practice BS 8300-2:2018 :: Standards New Zealand | Sanitary installations, Code of practice for the provision of public toilets | |
| British Standards | BS EN 17210:2021 Accessibility and usability of the built environment. Functional requirements104 BS EN 17210:2021 :: Standards New Zealand | Design of an accessible and inclusive built environment, Buildings. Code of practice | |
| British Standards | BS EN 80:2001 Wall-hung urinals. BS EN 80:2001 :: Standards New Zealand | Accessibility and usability of the built environment. Functional requirements | |
| British Standards | BS 4880-1:1973 Specification for urinals, Stainless steel slab urinals BS 4880-1:1973 :: Standards New Zealand | Wall-hung urinals. Connecting dimensions | |
| British Standards | BS EN 14688:2015+A1:2018 Sanitary appliances. Wash basins. Functional requirements and test methods BS EN 14688:2015+A1:2018 :: Standards New Zealand | Specification for urinals, Stainless steel slab urinals | |
| British Standards | BS EN 14528:2015+A1:2018 Bidets. Functional requirements and test methods BS EN14528:2015+A1:2018 :: Standards New Zealand | Sanitary appliances. Wash basins. Functional requirements and test methods | |
| British Standards | BS 4880-1:1973 Specification for urinals, Stainless steel slab urinals | Bidets. Functional requirements and test methods | |
| British Standards | AS 1428,1-2009 Design for access and mobility -Part 1: General Requirements for Access -New building work (amend 2017) | Specification for urinals, Stainless steel slab urinals | |
| Standards Australia | NCC 2019 Volume 1 Section F Health and Amenity Part F2 Sanitary and other Facilities (DtS) Part F2 Sanitary and other facilities (DtS) NCC (abcb.gov.au) | Sets out minimum design requirements for new building work, as required by the Building Code of Australia (BCA), to enable access for | |

| | | | |
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| | | people with disabilities. It covers aspects of access to and within a building. | |
| National Construction Code Australia | | Numbers toilets, handbasins and accessible and adult changing facilities | Public consultation open for all gender bathrooms as a deemed to satisfy solution |
| Government of Canada National Research Council Canada National Building Code 2023 Alberta edition | Water Closets National Building Code - 2023 Alberta Edition, Volume 1 Proposed change Proposed Change 1750 (National Research Council Canada) | NBC20 Div.B 3.7.2.2. (first printing) Subject: Other — Use and Egress Pg 291 Section 3.7.2.2 Water closets Numbers/gender of wc Pg 297-9 Barrier free washrooms Title: Clarification on Gendered Washrooms Description: This proposed change to explanatory Note A-3.7.2.2.(1) clarifies the NBC requirement for a minimum number of water closets in buildings and how the NBC addresses gender-neutral washrooms. | |
| Government Indonesia | ASEAN Public Toilet Standard ASEAN Public Toilet Standard | ASEAN Public Toilet Standard that can be implemented by ASEAN Member States to ensure the quality, comfort, safety and proper waste management of public toilets in general at touristic destinations within the ASEAN Region. The development of the ASEAN Public Toilet Standard is in line with the ASEAN Tourism Strategic Plan (ATSP) 2011-2015. With reference to the previous toilet standard the resulting standard will still focus on four main criteria which are Design & Environmental Management System, Amenities & Facilities, Cleanliness and Safety. | Asean public toilet standard |

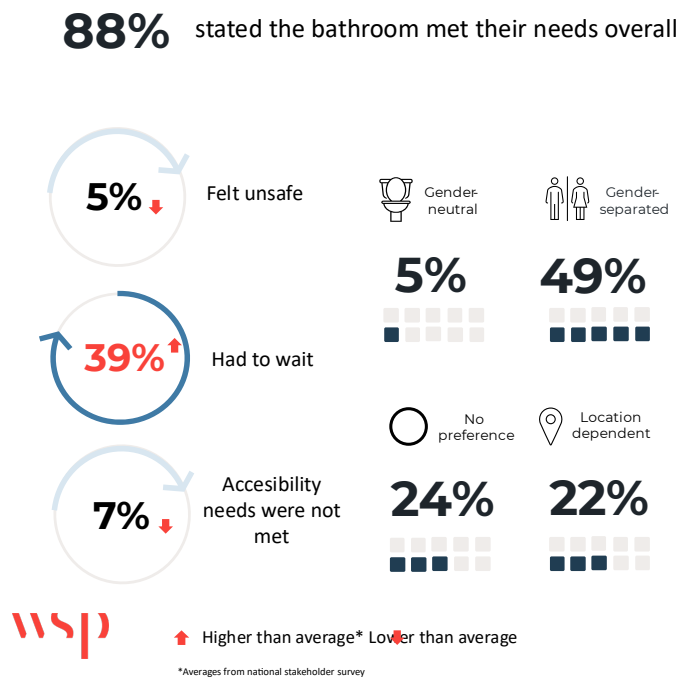
| | | | |
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| <p>The Building Regulations 2010 (England)</p> <p>UK Parliament</p> | <p>Building Regulations: Public Toilet Provision Minister for Local Govt, faith and communities</p> <p>Building Regulations: Public Toilet Provision (UK Parliament)</p> <p>Toilet provision in buildings other than dwellings: a technical consultation paper (GOV.UK)</p> | <p>TL: reasonable provision must be made for specific types of toilet accommodation in buildings other than dwelling</p> <p>Parliament policy and technical review Separate toilets for men and women, unisex wc provision, privacy V In October 2020, government published a technical call for evidence: Toilet provision for men and women. This followed concerns that increasing numbers of publicly accessible toilets were being converted into 'gender neutral' facilities, causing problems for women and older people in particular.</p> | <p>UK Building regulations</p> |
| <p>National Construction Code Australia</p> | | <p>Numbers toilets, handbasins and accessible and adult changing facilities</p> | <p>Public consultation open for all gender bathrooms as a deemed to satisfy solution</p> |
| <p>Government of Canada National Research Council Canada</p> <p>National Building Code 2023 Alberta edition</p> | <p>Water Closets National Building Code - 2023 Alberta Edition, Volume 1</p> <p>Proposed change</p> <p>Proposed Change 1750 (National Research Council Canada)</p> | <p>NBC20 Div.B 3.7.2.2. (first printing)</p> <p>Subject:</p> <p>Other — Use and Egress</p> <p>Pg 291 Section 3.7.2.2 Water closets</p> <p>Numbers/gender of wc</p> <p>Pg 297-9 Barrier free washrooms</p> <p>Title: Clarification on Gendered Washrooms</p> <p>Description: This proposed change to explanatory Note A-3.7.2.2.(1) clarifies the NBC requirement for a minimum number of water closets in buildings and how the NBC addresses gender-neutral washrooms.</p> | |
| <p>Government Indonesia</p> | <p>ASEAN Public Toilet Standard</p> <p>ASEAN Public Toilet Standard</p> | <p>ASEAN Public Toilet Standard that can be implemented by ASEAN Member States to ensure the quality, comfort, safety and</p> | <p>Asean public toilet standard</p> |

| | | | |
|--|---|---|---------------------------------------|
| | | proper waste management of public toilets in general at touristic destinations within the ASEAN Region. The development of the ASEAN Public Toilet Standard is in line with the ASEAN Tourism Strategic Plan (ATSP) 2011-2015. With reference to the previous toilet standard the resulting standard will still focus on four main criteria which are Design & Environmental Management System, Amenities & Facilities, Cleanliness and Safety. | |
| The Building Regulations 2010 (England) UK Parliament | Building Regulations: Public Toilet Provision Minister for Local Govt, faith and communities Building Regulations: Public Toilet Provision (UK Parliament) Toilet provision in buildings other than dwellings: a technical consultation paper (GOV.UK) | TI: reasonable provision must be made for specific types of toilet accommodation in buildings other than dwelling Parliament policy and technical review Separate toilets for men and women, unisex wc provision, privacy V In October 2020, government published a technical call for evidence: Toilet provision for men and women . This followed concerns that increasing numbers of publicly accessible toilets were being converted into 'gender neutral' facilities, causing problems for women and older people in particular. | UK Building regulations |
| National Construction Code Australia | | | |
| ACC (Accident Compensation Corporation) | Moving and Handling People Guidelines Section 9 Facility Design and Upgrading acc6075-moving-guide-facility.pdf | Design of bathrooms for health and residential care design, (pg 267-9) Including notes for bariatric wcs | See section 3.5.6 – Literature Review |
| Ara Poutama Aotearoa Department for Corrections | F.02.Res.01 Hygiene standards F.02.Res.01 Hygiene standards Department of Corrections | Hygiene standards for corrections | See section 3.5.6 – Literature Review |
| Enable NZ | Level access shower toilet vanity information sheet RAMP: (enable.co.nz) | Design guidance for accessible facilities in housing by organization that carries out home | See section 3.5.6 – Literature Review |

| | | | |
|---|---|--|-----------------------|
| | | alterations on behalf of Ministry of health and ACC | |
| Other guidance and pertinent research | | | |
| Teesside University Shani Burke, John Somers, Philippa Carr, Mirko Demasi | Toilet talk: (Trans) Gendered negotiation of public spaces. Toilet talk: (Trans) Gendered negotiation of public spaces. — Teesside University's Research Portal | Public toilet provision in the UK fails to meet the needs of cis women while trans communities are absent from current building regulations. This research explores how individuals negotiate differing positions on toilet provision and accessibility. | See Literature Review |
| University of Queensland Katherine Weber 2018 | We Need to Talk About Public Toilets (uq.edu.au) | We Need to Talk about Public Toilets Policy agendas for inclusive suburbs and cities | See Literature Review |
| Regional spaces, NZ | | | |
| Northland Regional Council | | No specific plans/policies around public toilets | |
| Auckland Council | Universal Design Tool Toilets Showers and Family Rooms Accessible toilets: Details for best practise design – Universal design tool Toilet Checklist - Auckland Design Manual | Best practice design tools for toilets, showers and family rooms | |
| Waikato District council | https://wdcsitefinity.blob.core.windows.net/sitefinity-storage/docs/default-source/your-council/plans-policies-and-bylaws/strategies/waikato-district-public-toilet-strategy.pdf?sfvrsn=2 | | |
| Hauraki District Council | Toilets (Public) - Hauraki District Council (hauraki-dc.govt.nz) | Management of toilet facilities in LTP | |
| Bay of Plenty Regional council | | No specific plans/policies around public toilets | |
| Rotorua Lakes Council | 5_6-Public-Toilet-Policy.pdf (rotorualakescouncil.nz) | Policy for the development, maintenance and placement of public toilets | |
| Tauranga City | Memorial Park - Tauranga City Council | Active Reserves Master Plan includes toilet provision | |
| Gisborne District Council | | No specific plans/policies around public toilets | |
| Hawkes Bay Regional Council | | No specific plans/policies around public toilets | |

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| Taranaki Regional council | | No specific plans/policies around public toilets | |
| Whanganui District Council | accessibility-and-modernisation-upgrades-to-public-toilets.pdf (whanganui.govt.nz) | Public Toilets Business case | |
| Wellington regional council | | No specific plans/policies around public toilets | |
| Wellington city Council | Te Awe Māpara - Community Facilities Plan - Plans, policies and bylaws - Wellington City Council | | |
| West coast regional council | | No specific plans/policies around public toilets | |
| Canterbury Regional council | | No specific plans/policies around public toilets | |
| Christchurch City Council | Public Toilets Policy : Christchurch City Council (ccc.govt.nz) | the provision of high quality, accessible public toilets | |
| Otago Regional Council | | No specific plans/policies around public toilets | |
| Queenstown Lakes District Council | 3-public-toilet-facilities-improvement-report.pdf (qldc.govt.nz) | Toilet facilities improvement plan | |
| Waitaki District Council | Microsoft Word - Plan for Toilets and Dump Stations 2018-2028.docx (waitaki.govt.nz) | Council's provision of public toilet | |
| Southland Regional Council | | Management of toilet facilities in LTP | |
| Invercargill City Council | 2020-Public-Toilets-Activity-Management-Plan.pdf (icc.govt.nz) | Public Toilets Activity Management Plan - access to clean, safe and accessible toilets | |
| Nelson City Council | | No specific plans/policies around public toilets | |
| Marlborough District Council | Toilet Facilities for Events - Marlborough District Council | Toilet Facilities for events | |
| Tasman District Council | | No specific plans/policies around public toilets | |

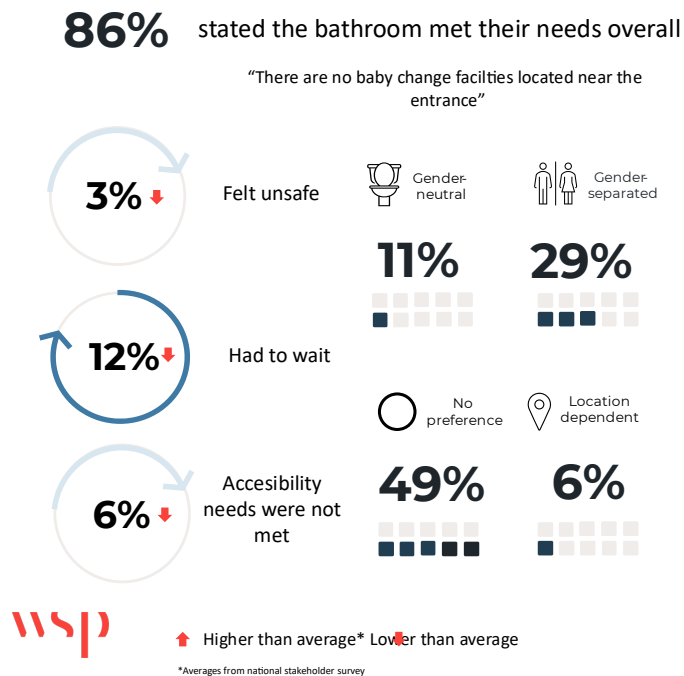
Appendix D: Intercept location summaries



Office building n=41



- 1 in 6** need to use an accessible bathroom (15%)
- 1 in 10** found the bathroom hard to find (12%)
- 1 in 10** did not think the bathroom was conveniently located (10%)
- 1 in 6** were dissatisfied with the cleanliness of bathrooms (15%)
- 2 in 3** did not have a place to put their belongings (63%) ↑
- 1 in 14** found the sinks did not meet their needs (7%)
- 1 in 10** found the hand dryers did not meet their needs (10%)
- 1 in 6** were dissatisfied with the amount of bins (17%) ↑

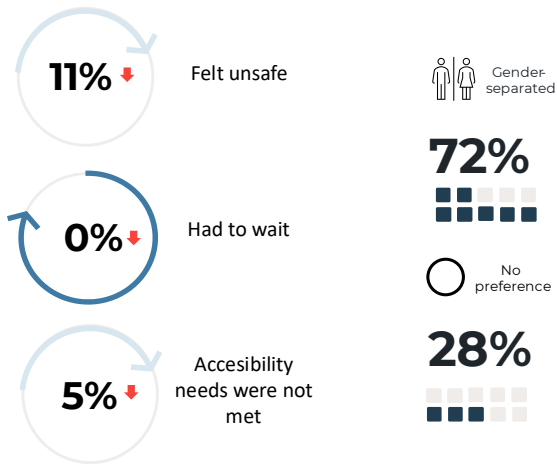


Museum N=35



- 1 in 5** need to use an accessible bathroom (20%)
- 1 in 20** found the bathroom hard to find (3%)
- 1 in 20** did not think the bathroom was conveniently located (3%)
- 1 in 10** were dissatisfied with the cleanliness of bathrooms (9%)
- 1 in 6** did not have a place to put their belongings (17%)
- 1 in 20** found the sinks did not meet their needs (6%)
- 1 in 6** found the hand dryers did not meet their needs (17%)
- 1 in 20** were dissatisfied with the amount of bins (6%)

84% stated the bathroom met their needs overall



↑ Higher than average* Lower than average

*Averages from national stakeholder survey

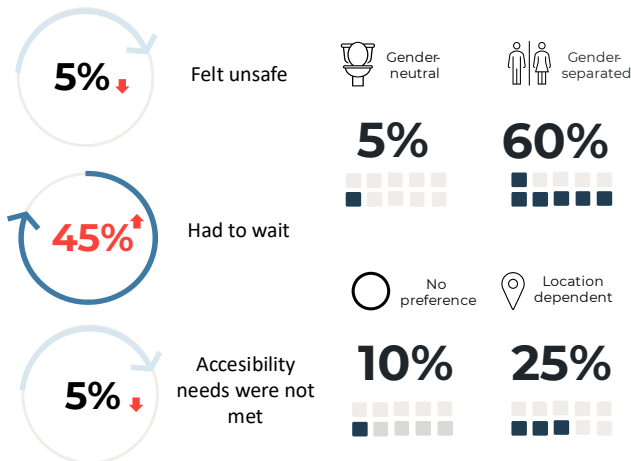
Train station

N=19



- 1 in 6 need to use an accessible bathroom (17%)
- 1 in 6 found the bathroom hard to find (16%) ↑
- 1 in 6 did not think the bathroom was conveniently located (16%) ↑
- 1 in 6 were dissatisfied with the cleanliness of bathrooms (16%)
- 2 in 5 did not have a place to put their belongings (42%)
- 1 in 14 found the sinks did not meet their needs (7%)
- 1 in 10 found the hand dryers did not meet their needs (10%)
- 1 in 6 were dissatisfied with the amount of bins (17%) ↑

75% stated the bathroom met their needs overall



↑ Higher than average* Lower than average

*Averages from national stakeholder survey

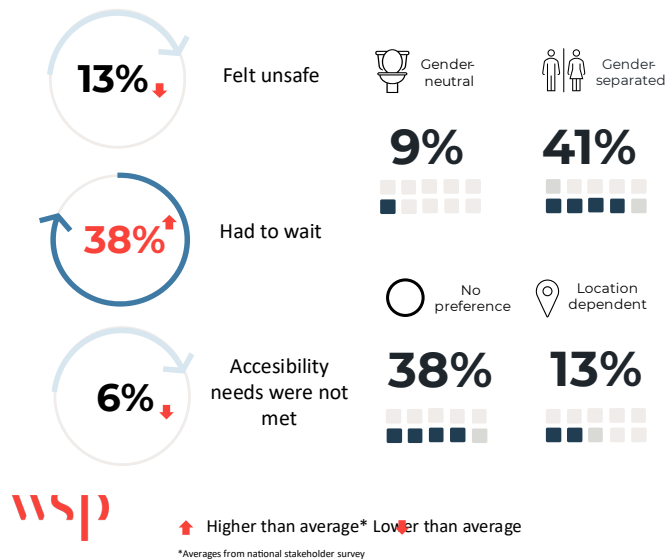
Swimming Pool

N=20



- 1 in 3 need to use an accessible bathroom (37%)
- 1 in 6 found the bathroom hard to find (15%) ↑
- 1 in 5 did not think the bathroom was conveniently located (20%) ↑
- 1 in 4 were dissatisfied with the cleanliness of bathrooms (25%) ↑
- 1 in 5 did not have a place to put their belongings (20%)
- 1 in 20 found the sinks did not meet their needs (5%)
- 1 in 5 found the hand dryers did not meet their needs (20%) ↑
- 1 in 10 were dissatisfied with the amount of bins (10%)

72% stated the bathroom met their needs overall



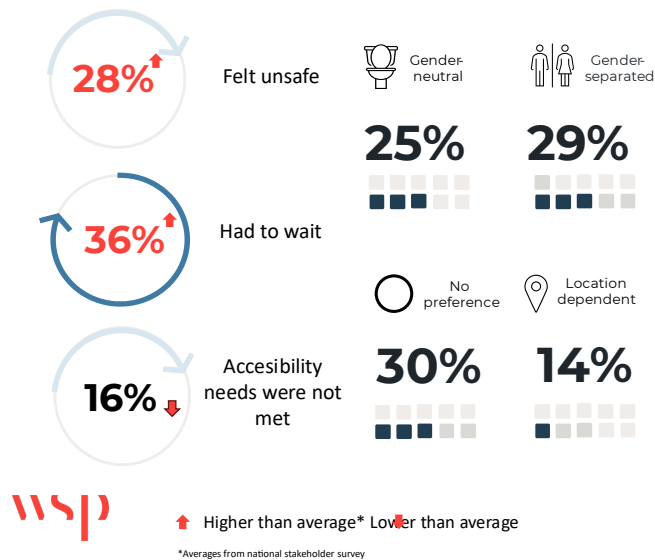
University

N=33



- 1 in 6** need to use an accessible bathroom (16%)
- 1 in 20** found the bathroom hard to find (6%)
- 1 in 5** did not think the bathroom was conveniently located (18%) ↑
- 1 in 3** were dissatisfied with the cleanliness of bathrooms (30%) ↑
- Half** did not have a place to put their belongings (49%) ↑
- 1 in 5** found the sinks did not meet their needs (24%)
- 1 in 10** found the hand dryers did not meet their needs (9%)
- 1 in 10** were dissatisfied with the amount of bins (9%)

60% stated the bathroom met their needs overall



High School

N=58

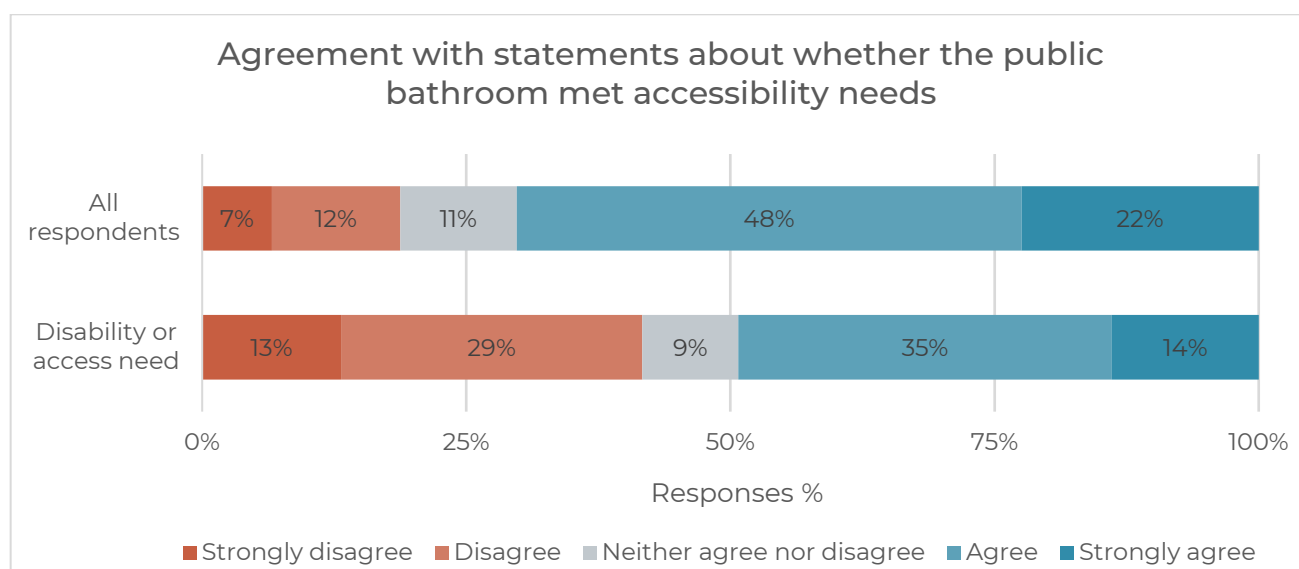


- 1 in 20** need to use an accessible bathroom (4%)
- 1 in 5** found the bathroom hard to find (21%) ↑
- 1 in 4** did not think the bathroom was conveniently located (26%) ↑
- 2 in 3** were dissatisfied with the cleanliness of bathrooms (64%) ↑
- 2 in 3** did not have a place to put their belongings (60%) ↑
- 1 in 6** found the sinks did not meet their needs (14%)
- 2 in 5** found the hand dryers did not meet their needs (40%) ↑
- 1 in 5** were dissatisfied with the amount of bins (22%) ↑

Appendix E: Additional survey data

The greater challenges faced by those with disabilities or access needs when using public bathrooms is reinforced by the question asking whether the public bathroom they used met their accessibility needs (see **Figure 28.**). Compared to the question on overall needs, disagreement from respondents with a disability or access need was six percentage points higher.

Figure 28. Agreement with statements about whether public bathroom met accessibility needs



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