

Public toilets as essential infrastructure: Design and Maintenance from the perspective of wheelchair users

Public bathrooms are essential infrastructure — but many wheelchair users avoid them due to poor design and maintenance. This study explores the lived experience of manual and powered wheelchair users in accessing and using public toilets in Australia. Through embodied interviews and on-site assessments, the research highlights key issues in current standards and offers practical recommendations for improving design, maintenance, and inclusion.

Why the study:

- Public bathrooms are highly regulated but often poorly designed for real-world use.
- Wheelchair users experience diverse challenges, from hygiene risks to unsafe transfers.
- Poor maintenance adds further barriers, reducing access and participation in public life.
- This research centres lived experience to inform more inclusive policies and standards.

What we did:

- Interviewed wheelchair users after real-time, on-site simulations in public bathrooms.
- Analysed design elements like toilet layout, doors, grab rails, and hygiene facilities.
- Partnered with disability advocacy groups for recruitment and co-design.

What we found:

- Even “compliant” toilets can be unsafe, unhygienic, or unworkable for many users.
- Wheelchair users are diverse—there is no one-size-fits-all design solution.
- Planning and avoidance are common; some avoid going out due to inaccessible toilets.
- Poor maintenance and cleaning make many toilets unusable.

What this means:

- Wheelchair users have diverse design requirements based on disability type, support needs and the mobility aids that they use
- Maintenance matters: a clean toilet is as vital as a well-designed one.
- Lived experience must inform future standards, design, and urban policy.
- Inclusive public toilets support autonomy, health, and community participation.
- Our study has shown that the current state of public toilets deters social participation

