

Accessible Playgrounds Report

Improving Playground Accessibility for Children with Vision Impairment

About the Project

The City of Cockburn is committed to ensuring that all children, including those with vision impairments, can enjoy our playgrounds. To work towards this goal the City partnered with Connecting Community for Kids and a university project team working on the discovering project “developing accessible playgrounds for children with vision impairment” to recruit local parents to conduct a comprehensive review of several City playgrounds.

Through surveys and lived experiences of parents and carers, we identified key barriers and areas for improvement. For example, as one parent noted about Manning Park, “This playground offered a clearly defined space... A small, flat metal stage stood out in the grass and helped my child to orientate.”

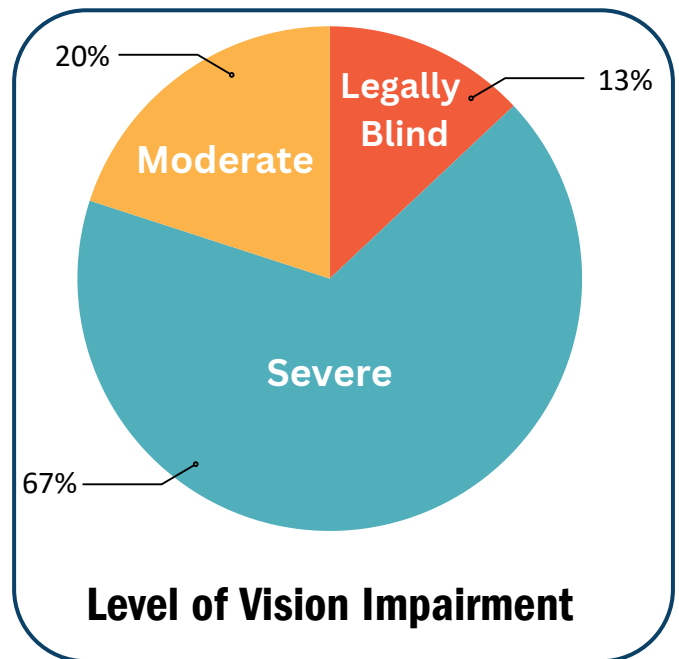
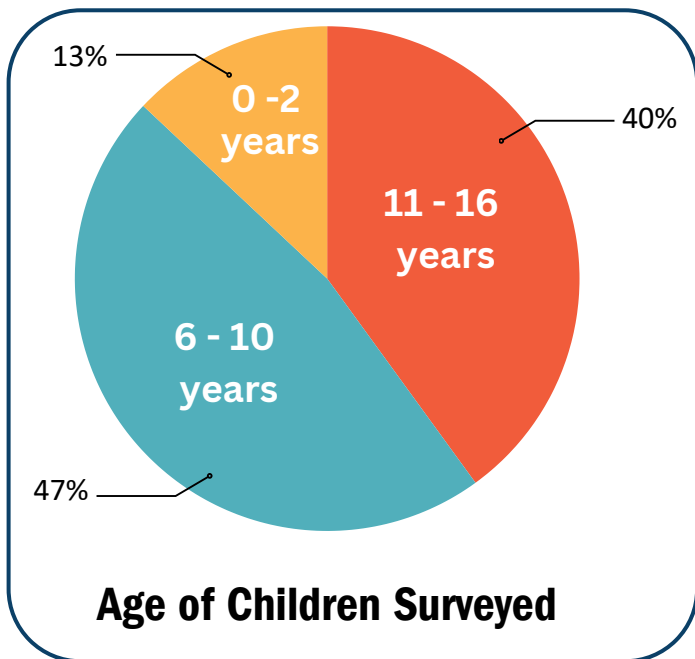
The insights gained from this project will inform future playground designs and improvements, ensuring that they are inclusive and accessible for all.

When playgrounds are designed to be inclusive, it means everyone, no matter their ability, age, cultural and social background, can play together side-by-side.

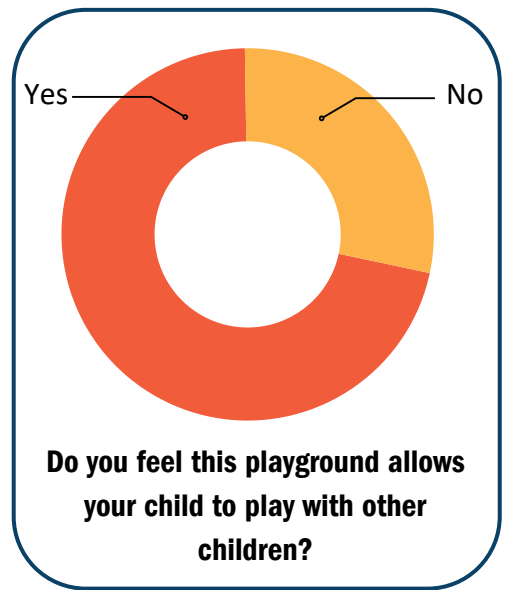
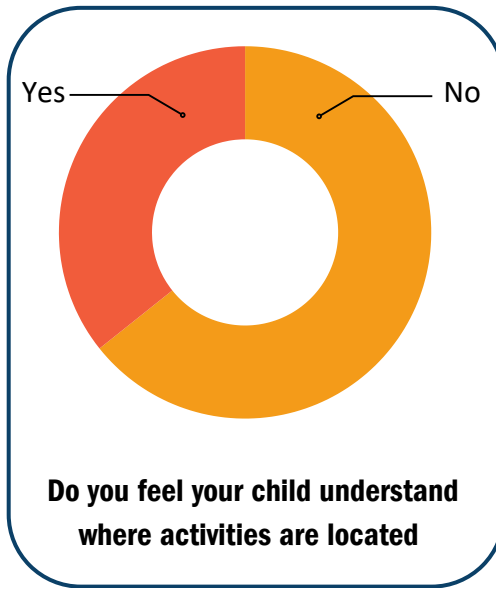
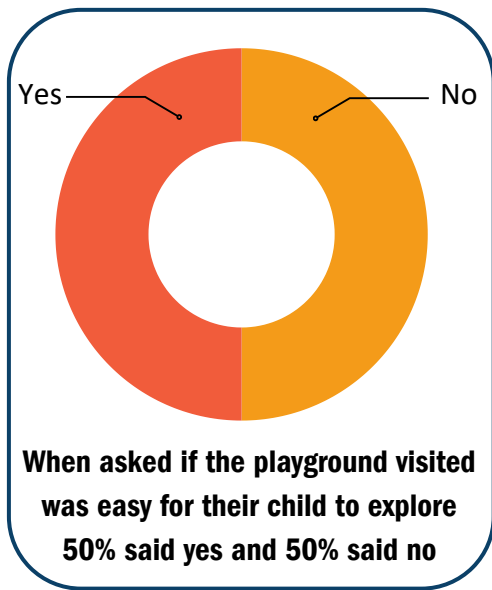
Inclusive play enables everyone to connect with their surroundings, with other people and with themselves.

Key Statistics

15 A total of 15 Playgrounds in the City of Cockburn were surveyed.



Findings from the Survey



Accessibility and safety features parents positively commented on

- The slide has a gate for safety
- Textured surfaces at the edges of zones that warn of hazards such as swings or drops down
- Sloped ground to reduce heights under climbing equipment
- Use of bright colours to make the equipment easily visible
- Large platforms
- Soft floors under equipment
- Playgrounds with parking or near public transport
- Located close to other facilities (ovals, toilets, gazebos, picnic tables, exercise equipment).



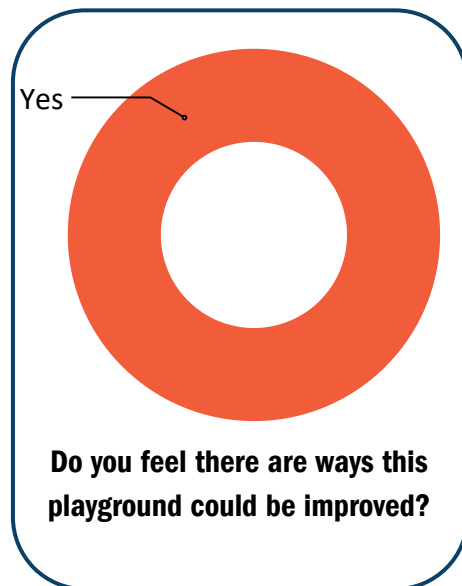
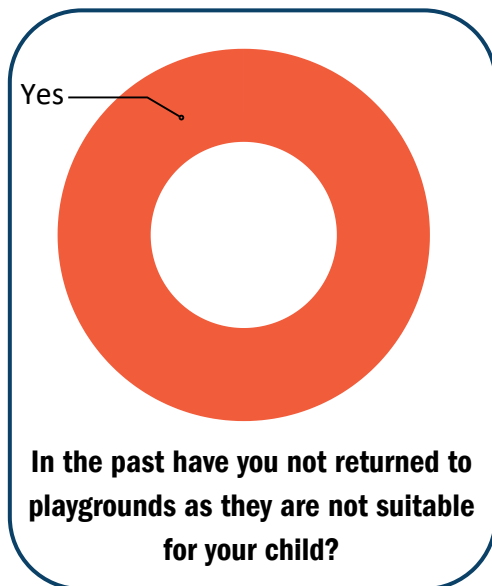
Fences and soft floors

What features parents enjoyed in the Playgrounds

- Playgrounds that targeted multiple levels of skill
- Ramps that went with climbing equipment so all kids could access the same area
- Accessible play equipment such as accessible flying fox
- Playgrounds that included sensory elements like musical instruments and sand play
- Water play
- Bright colours helps a child with vision impairment to navigate
- Change in surfaces to mark end of path, or the edge
- Trees that you can climb easily
- Play equipment that is not too high off the ground
- Shaded areas
- Well maintained large grassed areas to play on
- Changing places toilet
- Natural bushland incorporated.


Ramps and bright colours





What are the main areas of safety concerns

- Platforms need to be bigger
- Step gaps too big, a toddler would fall through
- Too many un-marked drops and uneven surfaces
- Tree roots are a tripping hazard
- There are no high visibility strips on poles
- Not enough rails to hold onto on equipment
- No safety fence around deep pond
- More plastic instead of metal which can get too hot
- No ACROD parking
- No toilets
- No signs.

 **Tree roots and uneven surfaces are a tripping hazard**



What could be improved on, and what would parents like to see more of

- Swings with higher backs for children with lower muscle tone
- Ensure toilets are open when they say they will be
- More shade needed
- More signage
- A spider web type climbing area
- Less drop-offs and more tactile edges
- We can't visit playgrounds without toilets, shade and grass areas
- More sensory play - trampolines, mud kitchens and tunnel slides, sandpits and water play
- Playgrounds that support pretend play (e.g a house or shop, cars or boats, fire station/truck)
- Supported swings and flying foxes
- More play equipment that doesn't require climbing.


 Playspaces are key community assets, designed to bring everyone together in a fun, welcoming and safe environment


Other Feedback



There are so many options for play equipment which can be enjoyed by all ages and abilities now. Accessible flying foxes are amazing as then younger able-bodied children can also use them, sand tables can be accessed by all rather than floor level sandpits. Water play is great for children who are sensory seekers. Musical pipes are amazing for children who utilise their hearing more than vision. Bright colours are fun for all, but also help with inclusivity for people with vision impairment.



More fenced playgrounds would be good, particularly as many families who have a child with a vision impairment have multiple other children. When the child with a vision impairment needs significantly more supervision, it reduces the parents ability to supervise other siblings. It also provides a safeguard.

Have swings away from the general playground with edge/markings or surface change to help prevent vision impaired children accidentally walking in the way of moving swings.



This playground truly shows that playgrounds are just popped into suburbs not thinking or doing research how to include children with disability. It's really sad to see.



Shaded spaces are always a priority, as my son gets fatigued quickly and likes to rest during play outside.



This is one of the most accessible playgrounds we have visited for children with disabilities to intermingle with able-bodied children.

We loved the location of this park, great to walk around and see the ducks in the pond and play in the park.



With my son's vision issues, lack of colour contrast and unexpected drop off steps that can't easily be seen are some of our biggest issues/cases of accidental falls and concerns when first visiting a new playground which could easily be designed differently at minimal cost and no negative impact to anyone else using the playground.

Case Study - Lakefront Avenue Beeliar

Various Steep Drop-Offs

I actually found aspects of the area and layout quite stressful and probably wouldn't choose to go here again.

There were safety issues, various drop offs, exposed tree roots where sand is missing that are difficult to see while other areas are spilling over with too much sand. The pond is close to the playground with poor visibility for supervision between areas.



There were ACROD bays and a clear path to follow which was good. There were regular toilets and accessible toilets with signs saying that they were open from 7am to 7pm however the toilets were closed/locked when we were there on a Sunday afternoon. I have the double issue of a child who is legally blind and a sibling with a severe intellectual disability who is still in nappies so for our family, larger accessible toilets that can fit multiple people (ideally also a disability stroller) and a bin for soiled nappies is ideal. There's always a level of frustration when the toilets are closed.

There were a couple of park benches and picnic tables with and without a small overhead shelter. There was a BBQ and some exercise equipment stations. I find BBQ's are often located at big busy playgrounds where it's really hard to concentrate on cooking sausages while also concentrating on supervising children. It would be great to have more BBQ's in quieter parks or directly outside a fenced playground area to be able to BBQ with the children safely playing contained inside a smaller fenced off area, with the hot BBQ fenced off from, but directly adjacent to, the play area.

There were various safety hazards, drops offs and uneven surfaces that couldn't be easily seen by my son which made me feel slightly nervous about accessing this playground. The nature of the playground layout and general environment meant that I felt the need to keep encouraging both children to stay closer together and closer to me which limited my son's freedom to some extent.

My son also dislikes random dogs coming up to him. Due to his very limited vision, he cannot see a dog until it is almost on top of him so he can find it a bit frightening to find a dog suddenly very close by as he cannot see it approaching from a distance. There were easily up to a dozen or so off leash dogs at a time at the adjacent park area while we were there and again, I felt the need to keep him close in case I would need to warn him of an approaching dog.

There were some really good ladder steps in the main play area. Instead of the regular tubular metal ladder there were metal rungs more like a step ladder with two handrails. This was perfect for my daughter with Down Syndrome who has low muscle tone, limited arm and hand strength and some difficulty with movement and coordination of movements.

We also found the bright colours helpful and both my children were able to use the equipment.



Two handrails and bright equipment

 **Deep pond with no fence near playground**

Unfortunately, there is big hill between the playground and the pond, so from the playground you can't see if a child has run to the water.

There were large sharp rocks visible under the water increasing the hazard.

There was a separate marked off area of sand surrounded by limestone around the swings.

The limestone edging was more of a hazard than a help in this playground. In some parts the limestone edging was quite high, with a drop off on the other side.

The swings had edging on 3 sides but not the 4th side which is the side that leads to the playground, and this is the side where a child might most likely be walking or running from other play equipment and accidentally collide with a moving swing.



 **High drop and close to unfenced pond**

My son enjoyed the exercise equipment stations which were part of the playground area. Particularly exploring their functions and working out what they do and enjoying a sense of success when he mastered each activity. He also liked the flying fox and climbing around the large 3 level limestone stairs/seating in the grassed amphitheater type area a little way away.

Although the colour contrast was poor in the amphitheater and the stairs with no edge making might otherwise be a hazard, they weren't for him as they were clearly separate from the grassed area and when on the steps it was a very predictable regular drop off between each step.

There was a bench seat for parents/carers to watch their children in the playground but it was very poorly positioned in that it was at the point where the limestone wall was the highest. This makes it difficult to get to a child in the playground quickly.

Additionally, when in the playground looking down at the bench, there was sand on both sides and my son with a vision impairment couldn't recognise how big the drop off was and could very easily step/fall off the edge. Having the bench between the playground and the pond would have been better.



 **High drop to bench**

Case Study - Windmill Reserve Bibra Lake

We had the most wonderful afternoon in this playground, I'd seriously love to live in a house opposite this park. It had such a variety of play opportunities in such a beautiful, quiet, calm, peaceful shaded location. The children were happy and enjoyed the playground.

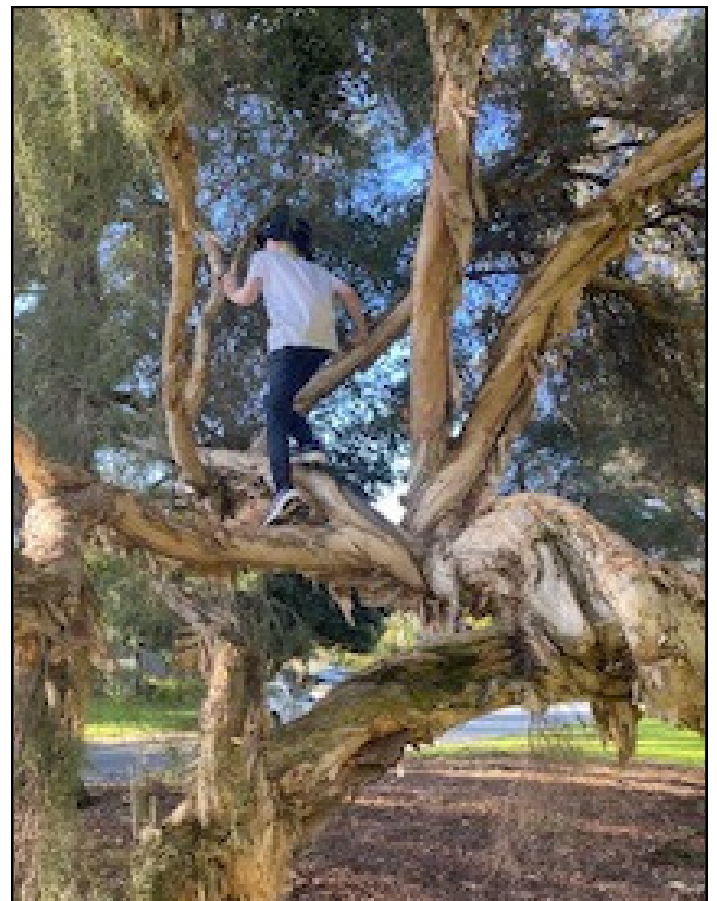
It was quiet, easy to see/supervise my child/ren at a distance and not lose them in a crowd. Very relaxed, calm, green, natural environment that included conventional brightly coloured (easy to see for my vision impaired son) play equipment combined with natural elements. No significant safety hazards.

This playground offered a clearly defined space (grassed area) surrounded by quiet roads. My son easily understood to stay within the park area as he is able to see the grey road in contrast to the green grass of the park. There was a separate nature play type area with wood chips and a clearly defined sandy area surrounded by low limestone blocks with conventional play equipment. There was also a small flat metal stage of sorts which stood out in the grass and was useful for him to help orientate himself. He needed some assistance navigating the nature play area as he found this difficult to see and the surfaces were uneven compared to the more brightly coloured conventional metal and plastic playground area. Some of the nature play area was a bit hazardous with different shaped limestone rocks that were difficult for my son to see.

There was a really fabulous climbing tree with very large solid gently angled branches. Probably one of the best we've come across in a very long time as my son was able to safely climb this tree which he absolutely loved doing.

There was a well-covered picnic table on a clearly defined grey concrete pad next to the conventional playground, good as he could find the limestone wall around the end of the playground and then follow that from any point to find a park bench and from there the picnic table area.

My son has a rare genetic condition that affects his skin as well as his vision and he is very light/sun/UV sensitive. This park was perfect in that there was so much naturally occurring shade throughout most areas of the park, making it much easier and safer for my son to navigate the park and equipment and providing much needed UV protection and reduced light levels throughout much of the park instead of a small patch of play equipment under a shade sail.



 Amazing tree to climb

There was so much about this playground that was safe including the location of the bench seating and separate picnic tables which were clearly marked out on their own grey paving and had a roof for shade and plenty of green trees also for shade.



Brightly coloured playground equipment that is a lot safer for my son than "natural" browns and beiges. Monkey bars at a reasonable height.

My son enjoyed the tree that he could climb the most. It was away from the main play area and really was absolutely the best tree. That was great for extending him as he was able to navigate it successfully and safely with verbal guidance and direction. His second favourite was a sort of small square stage made up of metal bench seat type planks. He really liked standing, jumping and stepping on it because of the noise it made. He said he thought every park should have one of these!

He tried all the other areas of the playground as well and used all of the equipment including swing, slide climbing and monkey bars. There was good colour contrast with the yellow slide and with the red and turquoise play equipment. The grey panels to step on aren't the best and there isn't as much colour contrast between the platforms and the sand underneath and the edges can be difficult to see from side on. He liked balancing along the low limestone wall around the sand area. It was flat, even and stable and only raised a small and reasonably consistent height from ground level.

There was easy parking and access. We have an ACROD pass but this was easier than an ACROD bay in a busy carpark as the children could exit the car directly from the roadside kerb to the park with no other paths or traffic to navigate. Loved that the solid patio cover shelter over the picnic table extended out to the sides. So often there is no cover or the cover is only as small as the table which is completely useless when it rains because, as with shade sails, the rain blows in from the sides and the shelter doesn't provide enough shelter for people sitting here.

The lack of rope structures were a positive for us. While the idea seems good to provide climbing challenges and my son likes to climb, my son has little depth perception and solid surfaces that don't move are much easier for him to navigate. My daughter with an intellectual disability poor strength and coordination also dislikes the feel of the ropes and generally refuses to climb them then gets upset and frustrated e.g. if there's a rope structure leading to a slide, she wants to go on the slide but can't climb up to it.

Much better if there is a combination e.g. 3 different ways to get up to the slides, climbing frames with platforms and ramps and ropes so everyone can get up to the same slides or other features in their own way. This is also helpful for parents including my husband with a disability. Accessibility so often isn't just about the children, it's about parents/carers/family members too.

Information on playgrounds from Research Papers

Why Play is Important for children with Visual Impairment

- Play is vital to child development. Playgrounds can provide an environment for children to explore risk taking, navigate challenges, make social connections, and develop important gross and fine motor skills
- Children need access to different levels of risk to support their cognitive and physical development. However, for children with vision impairment, parents, and the child themselves, may have hesitation to engage in play and take risks without accessible information on layout, clear indicators of barriers, drop off areas, and change in flooring (grass, rubber, cement)
- Children with disability often have delays in development areas not directly linked to their disability due to lack of opportunity. For example, children with vision impairment may not experience as many opportunities for social and emotional development as the playground may not provide them with elements to help the orientate to support them to play with their peers.

The successful delivery of inclusive playspaces requires enthusiasm and commitment, but it also requires careful thought about location, resources, policies and community needs.

What Children, Parents and Carers Want

- Tactile, auditory, visual and physical accessibility
- Children with vision impairment rely on their other senses for orientation when playing. A variety of surfaces is essential to children with vision impairment. Prominent objects can also help with orientation
- Parents/carers are choosing the playgrounds to take their children to. If they do not feel confident about their child being able to engage, the child will experience fewer opportunities. Photos and information on playgrounds can help build confidence of parents as they can plan ahead.

Features of Inclusive Playgrounds

Opportunities for sensory play such as musical corners, sand and water play, tactile sensory paths/gardens.

Opportunities for risky play - elements that allow children to test their limits and problem solve. Climbing, jumping, balance elements for different age groups and abilities

Equipment and design that is integrated with the natural environment

Whole journey access, Acrod parking, pathways to the playground, and accessible toilets are an essential component

Accessible fixed equipment, such as those in the shape of a house, car, animal, creates role-playing opportunities where children of different skills can take on different roles

Landform Design - how the land is structured to support spontaneous development of physical skills

Accessible resources - for example continuous pathways that link play equipment

Pathway for developing an inclusive playground

1

Strategic Planning stage

Co-design with families of children with disability, offer creche to help families participate. Ask parents to provide feedback on existing playgrounds and changes they would like to see.

2

Designing

Read current literature on inclusive playgrounds.
Review existing playgrounds - what works and what doesn't.
Speak to families, occupational therapists, physiotherapist, service providers, teachers/education assistants about common barriers.
Create a steering group.

3

Construction and installation

Build your inclusive playground.
Include your steering group in site visits.

4

Opening

Link in with peak bodies engaged with disability to help highlight accessibility features.

5

Champion and Evaluation

Champion your playground and conduct continuous reviews and measurement of success.

Next Steps



Co-design with parents and children with different experiences, including disability, is a process that can be used to enhance the design of the playground to ensure it meets a variety of needs. If using co-design a variety of stakeholders should be included; people with disability, parents or carers of children with disability, teachers, support workers, disability service providers, physiotherapist, occupational therapists.



The City is committed ensuring that people with disability have the same opportunities as other people to access the buildings and other facilities of the City of Cockburn. In our Disability Access and Inclusion Plan 2023-2028 we will expand the accessible facilities in the City of Cockburn including accessible playgrounds, changing facilities and storage facilities for mobility devices.