

Placemaking NSW

The Rocks | Tallawoladah Women's Safety Strategy

March 2024



Acknowledgement of Country

As Tallowalodah (The Rocks), Barangaroo and Tumbalong (Darling Harbour) precincts' custodians, Placemaking NSW recognises that it stands on Aboriginal land, the area we know as Sydney. We acknowledge the Gadigal People of the Eora Nation and their Elders as the Traditional Custodians of this area.

We advise this resource may contain images, or names of deceased persons in photographs or historical content.

It should be noted that the precinct names selected and applied for this document are known as *The Sydney Language*, named so for the purposes of Placemaking NSW's Reconciliation Action Plan. We acknowledge that there are numerous Aboriginal language place names, including Gadigal, Wangal, Cammeraygal and Dharawal, connected with these precincts.

The Rocks | Tallawoladah Women's Safety Strategy

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More information

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Figure 1: Co-design participants walking south along Nurses Walk





Figure 2: The Rocks, looking north along George Street

The Rocks | Tallawoladah Women's Safety Strategy provides an actionable framework to improve the enjoyment and engagement of women, girls and gender diverse people by enhancing their sense of belonging and improving perceptions of safety and access to public spaces in the precinct.

Placemaking NSW has the privilege of caring for and managing special Harbour Precincts including The Rocks. This Strategy focuses on and addresses perceptions of safety for women and girls in The Rocks, and as a matter of course, will make the precinct feel safer for everyone.

The Safer Cities program, an initiative of Transport for NSW, is investing \$30 million over two years to help improve perception safety in our cities and towns, particularly for women, girls and gender diverse people, as they move through and visit public spaces, including parks, transport hub precincts, streets and laneways. Transport for NSW is working collaboratively with delivery partners within the NSW Government and with 10 local Councils across NSW to trial interventions that will deliver the objectives of the program. The Rocks has been selected as a precinct to analyse and implement changes to achieve the objectives of the Safer Cities program.

Many women, girls, and gender diverse people, herein referred to as 'women and girls', do not feel safe in public spaces across Sydney. The Safer Cities program seeks to address this issue by facilitating research and trialling interventions in key locations.

This Strategy:

- sets out the background to the Safer Cities program;
- establishes a unique project vision and objectives for The Rocks precinct;
- summarises the collaborative approach to engaging with women and girls to understand the precinct's challenges; and,
- provides detailed site assessments and actionable recommendations to achieve the project objectives.

The Rocks is a distinctive and diverse precinct in the heart of Sydney, celebrated for its Aboriginal and environmental heritage, its intricate pattern of streets and laneways, and known for its lively

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night-time scene. Historically, the precinct has attracted more men than women due to its pub and bar offering. Placemaking NSW's strategic focus on outdoor dining and improving the streetscape atmosphere has resulted in a demographic shift with more women and girls now visiting the precinct.

The overarching vision for this project is for The Rocks to evolve as a place where *all* people feel safe and confident to explore at all times of the day and night. By focusing on women and girls, we make the place feel safer for everyone.

Understanding the perspectives, needs and aspirations of women and girls and increasing their participation in the evolution of The Rocks is critical to achieving this vision.

This Strategy is the result of a technical and data analysis, research and a co-design process of *walk*shops and workshops with women and girls, precinct stakeholders and a Project Working Group. This has all been combined with detailed assessments to create Action Plans for 10 sites in the Rocks precinct.

The technical analysis and co-design process found that:

- The heritage character of The Rocks both contributes to *and* detracts from perceptions of safety at certain locations within the precinct.
- Spaces need to have a clear and visible sense of purpose to feel safe.
- There are more positive perceptions of safety during the day than night.
- Things that contribute most greatly to perceptions of safety, and are therefore important to prioritise protect and enhance, include clear wayfinding and predictability, consistent lighting, activation and the precinct's unique heritage character.
- Poor accessibility and excessive noise significantly decreases perceptions of safety.
- Insights need to be time and place specific to be most useful in prioritising safety upgrades.
- It is important to continue involving women and girls in the evolution of the precinct through co-design and engagement.



Figure 3: Co-design process and technical assessments

Key insights from the analysis, co-design process and technical assessments have been synthesised to identify a range of actions that contribute to improving real safety, perceived safety, and the ability of women and girls to move freely when alone in The Rocks. Some actions are strategic in nature and involve, for example, the preparation of master plans for specific sites where there are a variety of safety issues to be addressed. Other actions are more quickly and easily implemented, such as upgrading lighting or signage to a specific street.

This Strategy functions as a guiding document for all future development, upgrades and activities that occur within The Rocks. All public and private sector parties undertaking projects in The Rocks will be encouraged to deliver the actions identified in this Strategy to ensure they contribute to

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increasing women and girls' feeling of safety and access to public spaces. An implementation plan is being prepared by Placemaking NSW to prioritise the delivery of actions that it has the remit for.

Women, girls and other stakeholders will continue to be involved and kept up to date as projects are implemented, further fostering their meaningful participation in urban development and governance.

This Strategy represents a robust body of research, insights and actions that will help all those involved in the precinct's urban governance make informed decisions to make The Rocks a safer place for all.



Figure 4: Walking down to Circular Quay West



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Figure 5: Nurses Walk



Figure 6: Dawes Point Park (Tarra) South

The Rocks | Tallawoladah (The Rocks) is a distinctive and diverse precinct in the heart of Sydney, exemplified by its physical form as well as its dynamic community. It features a vibrant tourist profile, retail and cultural offerings, dining, recreation spaces and a lively night-time scene centred around food and beverage premises.

The precinct is steeped in a heritage context that is celebrated through architecture, tours, interpretation, and museum displays. The character of The Rocks is not a nostalgic pastiche, but rather a living and changing Australian place that bears unique marks of history and topography, including its Aboriginal and environmental heritage.

There is an opportunity to identify and implement a series of actions to make The Rocks precinct more appealing and accessible to women and girls of all ages, abilities, identities and socio-cultural backgrounds to elevate it as an exemplar of inclusive placemaking.

Historically, The Rocks has attracted more men than women to its pubs and bars. The introduction of outdoor dining and the strategic decision to increase the focus on improving streetscapes and increasing arts and culture in the precinct has resulted in a change in demographic with tenants reporting more and younger women attending venues in the area. This shift has prompted a renewed focus on preventing anti-social behaviour and providing a place that is safe for all people.

A statistical analysis of the past 3 years from the NSW Police (Sydney City Police Area Command)¹ looking at the reported incidents including assault, spiking of food and drink, and sexual offenses. The majority of incidents occurred in and around licensed premises with the majority of victims being male (71% of victims). However, there were reported incidents of drink spiking and women reporting sexual harassment in and around public transport hubs. This highlights the need to

¹ Intelligence Briefing, Sydney City Intelligence Unit, Sydney City Police Area Command, by Sergeant Roland Higgerson, 2023

Introduction

continue to work with licenced venues that have their own security with the focus on increasing broader precinct safety that will benefit both men and women.

A survey conducted in 2022 by Plan International Australia of approximately 500 women across Australia revealed that one in five Australian women aged 18-24 feel less safe being alone at night in public spaces now than before the COVID-19 pandemic.

An improvement to the safety, mobility and experience of the precinct for women and girls will support the NSW Government priority of bringing life and vibrancy back to Sydney and boosting our night time economy. It will also support the successful positioning of the precinct in anticipation of future demographic changes with the return of tourism and the increase of residents living in adjacent areas.



Figure 7: Walkshop with women and girls



Figure 8: Workshop with women and girls

Placemaking NSW, in collaboration with Arup, have prepared The Rocks | Tallawoladah Women's Safety Strategy (this Strategy) as part of the Safer Cities program. This Strategy has been built on a technical analysis and co-design process that places women and girls at its core and aims to:

- 1. Improve safety outcomes, perceptions of safety, and the ability of women and girls to move freely in The Rocks.
- 2. Empower a diverse range of women and girls to influence urban development and governance by providing them with professional knowledge, tools, and experience.
- 3. Revitalise The Rocks as an inviting and engaging destination for women and girls and make it a location that women and girls feel confident to explore.
- 4. Implement actions that improve safety outcomes in a meaningful and enduring manner that celebrates the heritage character and unique built environment of the precinct.

To achieve this, Placemaking NSW and Arup have undertaken a robust co-design process with women and girls and precinct stakeholders including daytime and night-time *walk*shops and workshops in The Rocks. This has been complemented by detailed technical assessments of 10 sites in The Rocks which considers safety performance from a lighting, Crime Prevention Through Environmental Design (CPTED), place and soundscape perspective.



Figure 9: Outdoor dining on George Street, The Rocks

The outcomes of the co-design process and technical assessments have been synthesised to identify a range of actions that contribute to the sense of safety and the ability of women and girls to move freely when alone in The Rocks.

Delivering the actions identified in this Strategy will inherently make The Rocks a safer place for all people.



Figure 10: Nurses Walk, near Sargent's Arch



Background and Context

3.1 Safer Cities program

The Safer Cities program is a \$30 million initiative led by Transport for NSW to improve perception of safety in our cities and towns, particularly for women and girls. The program, running from 2022 to 2024, has been established to research, develop, pilot and refine innovative and evidence-driven strategies aimed at improving perception of safety for women and girls across NSW.

At the heart of this process is engagement with women and girls to understand experiences and perceptions of safety across key sites such as transport nodes, public spaces including parks, streets and laneways.

The challenge that this program is seeking to address is the high proportion of women who do not feel safe walking alone at night within the area they live: 40% compared to 17% of men.²

As part of the Safer Cities program, Transport for NSW conducted a <u>survey</u> seeking community input to better understand the concerns and experiences that affect the community's sense of safety in and around public spaces across NSW. The survey found that:



Figure 11: Safer Cities program survey findings, Transport for NSW

² Everyday Sexism, The Australia Institute, 2015

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Background and Context



Figure 12: "Saltwater Country" artwork by Graham Toomey and GAS in Kendall Lane



Figure 13: Playfair Street



Reporting from Plan International also reveals that this issue is of particular concern in Sydney:

Figure 14: Perceptions of safety and impacts to mobility, Plan International

Plan International has also found that 19% of women feel more unsafe in public areas following the COVID-19 pandemic. Safe and reliable walkability is a key component of access to education, employment, goods, services and community spaces more generally. Ensuring this walkability for women is a critical aspect of equitable access to these opportunities.

The Rocks has been selected as a key precinct to trial interventions that will deliver the objectives of the Safer Cities program.

3.2 The Rocks | Tallawoladah



Figure 15: Suez Canal

Figure 16: Argyle Cut underpass on Argyle Street

Located on the southern shore of Sydney Harbour, and known as Tallawoladah and Tarra in local Aboriginal language, The Rocks is a place of exceptional cultural significance to the people of Sydney, New South Wales and Australia.

Extending from Grosvenor Street to the south through to Dawes Point to the north, The Rocks precinct is bound to the west by the Cahill Expressway / Western Distributor and Circular Quay to the east. It is the place of early contact between the First Fleet and the Gadi people and it is the site of the earliest structures of the colony and the community. Within its buildings and its landscape are untold stories of generations of people.

It is a place that is inherently connected to the past, and it is this connection to people, stories, culture, and histories that makes it special.

Women and girls have always lived in this area and their unique contributions are recognised today. Many historic photos show children playing in the streets and laneways of The Rocks, reflecting the daily lives of families. The stories of The Rocks reveal the perseverance, resilience and enterprise displayed by women and represent the area's continually evolving role as a place for women and girls.



Figure 17: The Rocks | Tallawoladah precinct in Sydney, New South Wales, Nearmap imagery © 2023.



Figure 18: Families in The Rocks, 1901, Bertie Collection, PMNSW Archives



Figure 19: Harrington Lane, 1901, Bertie Collection, PMNSW Archives The Rocks | Tallawoladah Women's Safety Strategy

Background and Context

The heritage and archaeological significance of The Rocks has made it a unique place of discovery attracting millions of visitors every year and its character and stories are key reasons people and businesses are drawn to the precinct.

The Rocks is located between the significant sites of the Sydney Opera House and the Sydney Harbour Bridge. It is visually characterised by a shop-lined high street with an intricate pattern of corner shops and local pubs, by the pattern and scale of waterfront warehouse buildings, and by fine-grain smaller spaces. The high levels of heritage importance and naturally steep topography present significant accessibility challenges to visitors wishing to explore the precinct.

The Rocks is subject to Conservation Management Plans (CMPs) that support the ongoing protection and maintenance of heritage items across the precinct. These will need to be considered as part of any future works to improve perception of safety for women and girls.



Figure 20: George Street c1897-8, Mitchell Library, State Library of NSW



Figure 21: George Street c1897-8, Mitchell Library, State Library of NSW

Background and Context

Today, The Rocks is characterised by several unique qualities including:

- Framed vistas of the Sydney Harbour Bridge and World Heritage listed Sydney Opera House
- Topography of north / south sandstone escarpments
- A collection of heritage buildings mostly constructed between the 1830s and 1880s, reflecting Georgian and Victorian architectural styles
- Intimate walkways and courtyards
- Historic streetscapes, scenic parks and promenades with views of Sydney Harbour
- Outdoor dining and a vibrant night-time economy
- Curious places to shop and explore
- Cultural events, markets and festivals.

The atmosphere of The Rocks varies greatly from day to night, weekday to weekend and in different areas. This can have a varying impact on the feeling of safety for women, girls and gender-diverse people.

The Rocks is a vibrant destination for days and nights out. The area has historically attracted more men than women, however with a recent focus on outdoor dining, arts and cultural programming more and younger women have begun to visit The Rocks.

People who identify as women now account for 51% of visitors to The Rocks. The precinct's vibrant atmosphere, attractions and cultural activities are the key drivers attracting women and girls to the area³.

As visitor demographics continue to evolve, it is vital that proactive steps are taken to ensure The Rocks is a safe and inclusive place for all locals and visitors. This Strategy considers the diversity of experiences across The Rocks.

The Rocks Safety Data

The Sydney City Police Area Command provided a statistical analysis of serious violent offences in The Rocks and Millers point for FY 2020/2021, 2021/2022 and 2022/2023. The analysis looked at the incidents of assault, wounding, spiking of food / drink, and sexual offence.

The majority of incidents (88% of all incidents) were actual bodily harm by offenders unknown to the victim (60%). The data also showed that the majority of all victims were male (71%). Licensed premises were the most frequent location for incidents (42%) followed by public spaces (32%). The majority of victims of bodily harm (62%) and drink/food spiking (34%) were Female. There were 2 recorded incidences of sexual assault that were recorded as transit related, that is, in and around public transport hubs.

Weekends in the warmer months, at night, were the most common time for incidents to occur.

Though this Strategy focuses on improving the safety of women and girls, initiatives undertaken to improve the safety in the Rocks aim to benefit *all* people.

³ PMNSW Brand and Precinct Research Report, Ernst & Young, 2023

3.3 Key Lessons Shaping Women's Safety

In addition to the Safer Cities program, there are substantial and growing bodies of work related to women and girls' experiences of safety in other precincts, cities, and countries.

These were analysed with at the beginning of the project through a literature review, with their principles and takeaways forming an initial contextual understanding of the relationship women and girls' have with public spaces. Resources were selected for appropriateness and relevance according to similarity with The Rocks precinct and the Australian context.

There were several key Australian resources that were examined as part of the initial literature review, with priority given to Sydney-based resources. These included:

- Committee for Sydney, Monash University and XYX Lab: Safety after dark: Creating a city for women living and working in Sydney, 2019
- Plan International: Free to Be: Sydney City, 2018
- Plan International: Unsafe in the City: The Everyday Experiences of Girls and Young Women, 2018
- The Conversation: More lighting alone does not create safer cities. Look at what research with young women tells us, 2019.

While this project relates to women and girls experiencing an Australian context, research and inputs from other parts of the world also play a vital role in highlighting key challenges that women and girls face globally. For this purpose, some important international resources were:

- Arup Cities Alive: Designing cities that work for women, 2022
- Bloomberg: Teen Girls Need Better Public Spaces to Hang Out, 2021
- Journal of Transport and Land Use: Gendered walkability: Building a daytime walkability index for women, 2019
- Journal of Urban Affairs: Gender, Urban Space, and the Right to Everyday Life, 2017
- Leading Cities: Walk with Women: Gendered Perceptions of Safety in Urban Spaces, 2021
- Plan International: Not Really Safe for Us Girls, 2020
- UN-Habitat: Her City, 2021
- UN-Habitat: Women's Safety Audits: What Works and Where?, 2019.

Background and Context

The outcome of this literature review was a set of initial insights about how women and girls express their experience of public spaces. These can be summarised in five main points:

1. Safety is a prerequisite for walkability

Fear of violence – and in particular fear of sexual assault – is a key driver for actions taken by women and girls and whether/how they move through spaces.

2. Women and girls take a risk-based approach to mapping their journeys through public spaces Actively or passively, this risk-based framework underpins route selection, and any number of individual and cumulative variables can influence these perceptions of risk.

3. Safe activation is vital

Women and girls view the consistent presence of other people that can be relied on in the event of an incident as the single most important aspect related to their willingness to utilise a space. Varied demographics of people performing a range of activities are also ideal for increasing perceptions of safety.

4. Cultural attitudes are also of key concern for women and girls

While the implementation of design changes is of critical importance, it should be noted that such improvements do not directly impact on cultural attitudes surrounding women and girls in society. Women and girls consistently expressed the desire to improve these cultural attitudes, as they directly relate to the ways in which women and girls are treated.

5. Sites need to cater to a range of needs and intersectional identities

Women and girls value the ability of precincts and sites to meet their needs across various user identities, for example, as commuters, sightseers, shoppers, mothers or caretakers, workers, pet owners, active people, or elderly people.



The overarching vision for this project is for The Rocks to evolve as a place where women and girls feel safe and confident to explore at all times of the day and night.

To enable this vision, this Strategy identifies two primary objectives:



2 To increase women and girls' safety and access to public spaces ability to move freely when alone in the city engagement with how the spaces around them are designed and managed.⁴

These objectives were identified with stakeholders at the Project Definition Workshop and are associated with a series of short-term, medium-term, and long-term outcomes:

Short-term

- Women and girls feel safe when walking and spending time in The Rocks
- Women and girls feel The Rocks is a welcoming and inclusive destination
- Women and girls feel like they have been heard, contributed and have ownership
- A reduction in incident reports and reports of antisocial behaviour has been achieved
- A sense of inclusivity has been achieved through designed elements and operational changes.

Medium-term

- Women and girls enjoy and return to The Rocks as a place of respite, learning and exploration that goes beyond a single event
- The insights and learnings from studying The Rocks are used to inform other programs throughout NSW aimed at making walking trips safer for women and girls
- An environment that fosters the enjoyment and engagement of women and girls exists in the precinct
- Improvements have been made to safety and visibility across the precinct, including lighting and smart technology.

Long-term

- Women and girls feel a sense of belonging and connection to The Rocks
- The safety and access of women and girls to public spaces has increased
- The active and meaningful participation of women and girls in urban development and governance has increased
- The ability of women and girls to move freely and alone in the city has increased.

⁴ <u>Safer Cities program</u>, Transport for NSW

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Approach

5.1 A Collaborative Effort

Creating safer places and cities for women and girls requires a collaborative effort underpinned by a detailed assessment of the site characteristics.

The Rocks is a celebrated heritage precinct with a unique character that continues to evolve as visitor demographics and place experiences change. Enhancing safety and mobility for women and girls in The Rocks requires more than simply meeting minimum design standards.

Understanding the perspectives, needs and aspirations of women and girls and increasing their participation in the evolution of The Rocks is critical to enhancing safety and mobility outcomes. It is also vital that those with a role in designing and maintaining the precinct understand its technical performance to guide future decision making.

This Strategy is the result of deep engagement with women and girls, precinct stakeholders and a Project Working Group, combined with detailed technical assessments. This evidence base provides the foundation from which the project vision, objectives and actions are derived and was gathered through:

- A comprehensive co-design approach with women and girls as well as precinct stakeholders
- **Multidisciplinary technical assessments** undertaken by urban design and place, and technical specialists for lighting, Crime Prevention Through Environmental Design (CPTED), place and soundscape.



Figure 23: Overview of approach to developing the Strategy

5.2 A Strategy for Women by Women



Figure 24: Co-design walkshop with women and girls

Figure 25: Co-design workshop with women and girls

Co-design is the approach of actively involving stakeholders in the design process. A successful co-design process is one that brings together a diverse group of stakeholders in an inclusive environment that fosters engagement to maximise outcomes.

For this project, co-design involved women, girls and gender diverse people, precinct stakeholders and a Project Working Group as equal collaborators to develop design and operational initiatives to improve safety in The Rocks.

Co-design principles

The following principles guided the co-design process:

- All voices are equal and listened to
 All co-design activities were thoughtfully developed to ensure diverse voices were heard
 and understood.
- All knowledge is valued There is no hierarchy of knowledge such as 'technical' versus 'non-technical' knowledge.
- Knowledge is built upon through the process The sharing of knowledge builds the capacity of stakeholders to participate actively in future decision-making.
- A safe and trusting space Eliciting tacit knowledge and building buy-in requires a safe and trusting space.
- Boundaries of decision-making are clear The parameters, boundaries and non-negotiables that guide decision-making are clear from the outset.
- Plain language is used over technical language Information and knowledge are shared simply without reliance on industry jargon or technical terms.

Approach

Stakeholder selection

For co-design to be effective, it is important to identify and engage with an appropriate set of co-design stakeholders. A high level understanding of stakeholder organisations was developed during the inception phase through a mapping exercise to identify and categorise those stakeholders with an interest in and influence over the safety of women and girls in The Rocks and, through this mapping, identify strategies for their ongoing participation in the project.

There are three sets of stakeholders identified for this project:

Stakeholder group	Representatives	
Women, girls and gender diverse people Women, girls and gender diverse people who have direct experience walking through The Rocks during the daytime and night-time.	A cohort of women, girls, non-binary and transgender people of diverse age, mobility, and cultural and linguistic backgrounds.	
Precinct stakeholders The representatives of organisations who have an interest in and influence over the safety of women and girls in The Rocks.	Representatives from commercial tenants, government tenants, property industry and emergency services located in The Rocks.	
Project Working Group (PWG) Those with a legislative responsibility for the ongoing care and management of The Rocks.	Representatives from across Placemaking NSW including asset management, safety and security, heritage, design and place.	

Table 1: Stakeholder groups

These three stakeholder groups were identified as those with the highest level of interest and influence over safety outcomes for women and girls in The Rocks.

Identifying stakeholder groups early in the project ensured that a targeted yet diverse group of people were involved to successfully co-design the Strategy.

Co-design process

The women and girls, precinct stakeholders and PWG worked collaboratively to understand the key safety challenges women and girls experience in The Rocks and identify initiatives to create a safer and more welcoming precinct.

A number of *walkshops* and workshops were undertaken to identify attitudes and perceptions of safety, share knowledge between the stakeholder groups, and gather an evidence base to inform a series of actions to improve safety and mobility in The Rocks. This included:

- 1. A project definition workshop
- 2. A series of interactive site walks (walkshops) undertaken during the day and night
- 3. A workshop using audio-visual technology to virtually revisit the same sites during a later time of night (ExperienceLab), share findings from the *walkshops* and identify actions to improve safety outcomes.
- 4. A workshop to share the draft insights and actions with the women and girls who participated in the earlier stages of the co-design process.

Further detail on the co-design process is provided in Appendix A: Co-design Process.

5.3 Site Selection

In order to analyse the precinct during the daytime and night-time, *walk*shops and technical assessments were conducted at 10 sites across The Rocks.

These sites were selected as representative of the many different types of places and conditions that exist in the precinct such as main streets, laneways, courtyards and parks. Some of the sites are small and intimate, while some of the sites are open and expansive. The intent behind assessing a diverse range of sites was to broadly understand the many experiences and perceptions of safety across the precinct.

The sites selected for assessment were:

- 1. George Street North
- 2. Globe Street and Nurses Walk
- 3. Cumberland Place and Steps
- 4. Argyle Street
- 5. Jack Mundey Place
- 6. Cadman's Cottage and Bligh and Barney Reserve
- 7. Unwin's Courtyard
- 8. Foundation Park
- 9. Dawes Point Park (Tarra) South
- 10. Dawes Point Park (Tarra) East.

The location of these sites is shown in Figure 26.



Figure 26: Location of 10 sites in The Rocks assessed for the Strategy, Nearmap imagery © 2023, Nearmap.

5.4 Technical Assessments

Technical assessments were undertaken to complement the learnings obtained through the co-design process. These assessments extend beyond the physical considerations of The Rocks to interrogate the technical performance of each site.

The technical assessments considered four key elements:

- 1. Lighting
- 2. Crime Prevention Through Environmental Design (CPTED)
- 3. Place
- 4. Soundscape

The lighting, CPTED and place assessments come together to form a Night-time Vulnerability Assessment (NVA) using lighting, criminology, risk and resilience, urban design, architecture, advanced digital data collection and an analysis of existing site conditions. This methodology identifies urban spaces where people are predicted to feel least safe and establishes a baseline to test the lived experience of women and girls against. Refer to *Appendix B: Night-time Vulnerability Assessment* for further details about this assessment.

The soundscape assessment documents the existing soundscape typologies in The Rocks to understand what types of sounds contribute positively or negatively to feelings of safety. Three types of sounds were assessed:

- Anthropogenic sounds generated by people, such as conversation, foot traffic, patrons or music
- Biophilic sounds generated by nature, such as birdsong, wind through leaves or waves
- Industry sounds generated by different modes of transport or mechanical plant.

The soundscape assessment helps to understand the sounds present at each site and how these sounds influenced women and girls' perceptions of the place. Refer to *Appendix C: Soundscape Assessment* for further details about this assessment.

Approach

The technical assessments were conducted by Arup's multidisciplinary team to understand individual site performance and to develop a set of 18 place characteristics that the women and girls and precinct stakeholders would use to guide their assessment of each site.

These place characteristics, illustrated in Figure 27, play an important role in perceptions of safety. They set out the elements of a place that can be altered and refined to lead to improved safety.

For example, very bright and high contrast lighting can negatively contribute to perceptions of safety while warm colour temperatures and consistent lighting can positively contribute to perceptions of safety. The gentle sound of people chattering, live music and birdsong can have a positive impact, while the loud sound of revving engines, overhead trains and construction can have a negative impact.



Figure 27: Place characteristics contributing to perceptions of safety



Methodology

Methodology

The methodology comprises four steps outlined below. The Project Definition stage is followed by the collection of the evidence base through the Co-design Process then Technical Assessments. The final Synthesis stage analyses the findings and identifies actions to improve safety perceptions and outcomes.



Site Assessments, Insights and Actions

'There is a fine line between the intrigue of you don't know where you're going in the Rocks and just being totally lost. Right now, it feels too much like you're just getting lost all the time.'

Right now, it feels too much like you're just getting lost all the time."

Participant in co-design walkshop, 2022

The actions recommended in this Strategy are the result of detailed technical assessments of each site and the insights derived from the co-design process with women and girls and stakeholders.

This chapter provides the detail for each of the 10 sites studied for this Strategy including:

- A **place description** to provide an overview of the key aspects of the built form and surrounding context
- A **safety insights** summary and annotated plan to highlight the key insights uncovered during both the technical assessments and the co-design process
- An **actions table** which sets out a concise list of strategic and project recommendations to be delivered by all those with a role in the urban governance of The Rocks.

The Strategy's actions have been divided into two types to aid comprehension and effectively communicate the role of each task in improving safety for women and girls:

Action type	Action role
Strategic action	Actions of significant scale and complexity, often requiring collaboration with a range of stakeholders or government agencies to deliver.
	Examples of strategic actions include master plans for specific sites where there are a variety of safety issues to be addressed or influencing existing processes such as leasing strategies to enable short-term leases to increase activation.
Project action	Actions that are considered straightforward and relatively simple to implement.
	Examples of project actions include upgrading lighting or signage to a specific street or providing additional heritage interpretation to tell the history of a place.

Figure 28: Types of actions in the Strategy

The actions have been further categorised to allow for easy identification of the different types of projects that may be suitable for specific funding programs in the future.

The 12 action categories are:

- Activation
- Collaboration
- Delivery
- Governance
- Heritage
- Lighting

- Maintenance
- Movement
- Plans
- Public Art
- Public Domain
- Wayfinding
7.1 Site 1: George Street North



Figure 29: George Street during the daytime



Figure 30: George Street during the night-time

Place Description

George Street North is located north of the Cahill Expressway in the area between First Fleet Park and Globe Street. This area is a key gateway to The Rocks. It has a wide pedestrian path on the eastern edge with trees, shade and views of Circular Quay. The western edge has a mix of shopfronts, vehicular entries and laneways.

George Street is Sydney's main and most historic street. Running approximately north-south, George Street was a well-worn path used by Aboriginal people to access Sydney Harbour to fish, meet and gather food. More recently, it has formed the traditional high street of The Rocks, featuring small street front shops with historic residences or offices on the upper levels.

George Street North is an important threshold for The Rocks with 50% of visitors accessing The Rocks via the First Fleet Park stairs on the eastern edge of George Street. The view northwards down George Street towards the Harbour Bridge is a key view that showcases the character of The Rocks and contributes to the heritage significance of the streetscape.

In response to COVID-19, the western side of George Street North has been temporarily transformed by repurposing the north-bound traffic lane into an outdoor dining area. A single lane of southbound traffic remains on the eastern side of the street and a temporary vehicle turn-around-area has been established to redirect north-bound traffic. This area is often congested with taxis and other cars turning and tourist buses laying over. In late 2022 the NSW Government announced that the outdoor dining arrangement will be made permanent.

The Cahill Expressway forms a visual barrier between Circular Quay, George Street and The Rocks. The Circular Quay Renewal project will change the future form and function of this area of George Street significantly with improved access from the Circular Quay promenade and upgrade of First Fleet Park.

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Cumberland Place and Steps

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Site Plan



George Street at night



People sitting along the eastern edge of George Street

Figure 31: Safety insights for George Street North



Looking north down George Street with outdoor dining on both sides of the street

Safety Insights for George Street North

Generally, women and girls found George Street North to be quite a safe location. It has clear lines of sight and a positive ambience buoyed by pedestrian activity and live music. Women and girls identified that additional presence of police/rangers would contribute positively to their sense of safety. Intrusive traffic and transport noise, unpredictable traffic movements and inadequate lighting were highlighted as detracting from feelings of safety in the area.

'The live music gives a nice ambience, it makes the street feel pleasant.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day George Street North:

- Features clear lines of sight down George Street and good view of the sky, which makes the street feel open, however, short distance sightlines are sometimes limited by visual clutter
- Obstructed sight lines around the Sergeants Arch pedestrian crossing, especially from the west, makes the crossing feel unsafe
- The space felt generally safe with a great ambience. Soft live music in the background contributed to this welcoming atmosphere
- Lots of activity and sound along George Street is comforting
- An unpredictable traffic flow with mixed vehicle types along George Street and vehicles turning around, as well as vehicle and train noise from the Cahill expressway is intrusive
- The character of the street feels divided one side is inviting (western edge) and the other side is not
- Has confusing wayfinding and is difficult to navigate due to the convergence of so many people, paths and visual clutter on George Street
- Pleasant sounds associated with pedestrians and low levels of traffic noise while very noticeable sounds from nearby rail and light rail

At night, George Street North features:

- Poor ambient lighting, especially along the western side (adjacent to the MCA and First Fleet Park)
- Activity on the western side is also limited as these businesses (MCA, retail and café) are not open at night, which is in stark contrast to the eastern side, especially at the Fortune of War which is very busy in the evenings
- Limited lighting of building façades is a lost opportunity to showcase the distinct heritage character of the street
- Dim pedestrian street lighting
- Live music, patron-related sounds
- Occasional sounds of boisterous activity
- More audible traffic sounds associated with increased vehicular congestion

Other:

• Women and girls noted that the presence of police and/or rangers contributes more positively to their perceptions of safety than the presence of CCTV

Actions for George Street North

No.	Category	Description		
Stra	Strategic Actions			
1.1	Lighting	Incorporate temperature standards, sustainability and façade lighting requirements in future updates to lighting strategies, policies and tenant fit-out guidelines including:		
		Use of consistent warm coloured lighting temperature		
		• Optimisation of sustainable lighting quantities and sources e.g. LED and automation		
1.2	Collaboration	• Continue to collaborate with TfNSW on the Circular Quay Renewal project to improve the southern threshold to The Rocks and experience of the precinct. Ensure integration of the Circular Quay Renewal and the George Street North Streetscape upgrade projects to optimise place outcomes		
Proje	ect Actions			
1.3	Delivery	As part of the George Street North streetscape upgrades:		
		Prioritise safe access for pedestrians so that movement is intuitive and inclusive		
		 Improve pedestrian safety along George Street specifically safe and clearly defined pedestrian crossing points between Globe Street and First Fleet Park 		
		 Retain low vehicular speeds and integrate traffic calming measures to contribute to improved feelings of safety through reduced traffic sounds 		
		 Integrate traffic calming and hostile vehicle mitigation strategies to minimise the impact of vehicles on pedestrian safety while also minimising visual clutter and responding to the unique civic and heritage character of the street 		
		 Design outdoor dining areas to enhance safety, respect the civic and pedestrian environment, with clear circulation paths 		
		Incorporate lighting upgrades as described above		
		 Improve ambience through well-maintained and well-designed public spaces that includes seating, planting and lighting 		
		• Integrate a threshold design at George St and Cahill Overpass that creates a distinct sense of arrival and addresses pedestrian amenity and transportation sounds associated with vehicular traffic, light rail and heavy rail at George Street and overhead		
1.4	Lighting	Upgrade lighting on George Street highlighting existing architecture particularly the heritage façades seeking opportunities to:		
		 Light the second level of façades to draw the view line up and provide greater ambience and enjoyment of the special character of the streetscape 		
		 Encourage shopfront lighting to remain on after hours (at a dimmed level) to improve definition of the pedestrian paths, having regard for tenant engagement and energy use (environmental sustainability) 		
		 Reduce contrast between under awning-lighting and dark façades 		
1.5	Wayfinding	Develop and implement a clear wayfinding strategy including:		
		Signposting streets and lanes		
		 Consideration of navigation both during the day and night 		
		• Signage (or other) on George Street, highlighting it as a gateway to The Rocks		
		 Develop and implement an interpretive strategy that creates opportunities for people to experience and learn about the area 		

Table 2: Actions for George Street North

7.2 Site 2: Globe Street and Nurses Walk



Figure 32: Globe Street during the daytime



Figure 33: Nurses Walk during the night-time

Place Description

Globe Street is a pedestrian-only street, running east-west between George Street and Harrington Street. Globe Street traverses a significant level difference between these two streets with a very steep ramp to the east and stairs on the west. Globe Street is connected northwards to Nurses Walk, a thin, long and meandering pedestrian lane running along the middle of the block, behind stores fronting George and Harrington Streets.

The eastern opening of Globe Street to George Street is dominated by a vehicular basement entrance with small pedestrian paths on either side. The George Street edge is flanked by two heritage listed buildings: The Russell Hotel and Shop, and 155 George Street which houses T Galleria, a Duty Free Store. There is limited public seating, greening and active frontages and the space is dominated by dark asphalt pavement.

The Jack Mundey Mural, located on the eastern wall of the stairs, is well loved and is visible from George Street. Any proposals for this area should assume the protection of this artwork.

Nurses Walk is a pedestrian laneway that runs parallel between Harrington Street and George Street. Nurses Walk begins at Globe Street in the south and extends to Suez Canal in the north, with two pedestrian access points through small arcades from George Street.

The character of the laneway varies significantly, with some areas dominated by expanses of inactive brick building façades and other areas featuring vibrant outdoor dining, public seating, artworks and interpretation, soft landscaping and catenary lighting. Nurses Walk contains a mix of heritage and modern buildings built to the pedestrian path edge. A number of cafes and restaurants operate in the laneway, resulting in pleasant activation during the day. In the evening there are occasionally small live music performances.

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Cafe seating along Nurses Walk



View east down Sargents Arch which connects Nurses Walk to George Street

Figure 34: Safety insights for Globe Street and Nurses Walk



View north down Nurses Walk, showing limited activation and public domain lighting

Safety Insights for Globe Street and Nurses Walk

Globe Street was not considered an inviting or safe space by participants however some elements in the space were seen positively such as the Jack Mundey Mural and the views across First Fleet Park. A lack of accessibility and visibility as well as a sense of seclusion create a decreased perception of safety in the space particularly at night. It was primarily viewed as an inactive thoroughfare and an uninviting space to spend time.

Note: Globe Street was assessed as part of the co-design process whilst both Globe Street and Nurses Walk were assessed technically. The insights from both these processes are addressed in the project actions.

'Little bit dark even during daytime. It is a contrast with George Street. I would be scared to go here at night-time.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Globe Street:

- Is difficult to access for many people due to the natural topography in the area resulting in areas of uneven ground and a steep slope
- Is poorly activated and lacks clear purpose
- Feels like a thoroughfare or shortcut through The Rocks and not a space to linger or dwell
- Has limited passive surveillance and activated frontages along Globe Street which contributes to a perceived lack of safety, especially at night
- Includes no clear sight lines through the space, from George Street up to Harrington Street due to the steep topography and need for stairs
- Features an attractive artwork (Jack Mundey Mural) with good views to First Fleet Park and its associated trees, these elements contribute to making the space more inviting
- In combination with Nurses Walk, there is limited wayfinding that makes it hard to navigate
- Is generally well-maintained however there is some graffiti and vandalism

At night-time, Globe Street:

- Feels unsafe, especially since there are no clear sight lines through the entirety of the space
- Enables views into an inactive Nurses Walk, contributing to poor feelings of safety
- Background music that can be heard from adjacent food and beverage outlets makes the place feel more pleasant

The technical assessment for Nurses Walk further identified that:

- There is good activation and passive surveillance with the presence of cafes and restaurants with outdoor seating located in the lane
- There is surveillance in the form of a CCTV camera mid-way along the lane
- The lane is well lit and its end can be clearly seen at night-time, however lighting is inconsistent and there are areas of high contrast which create unwelcoming dark patches
- There are some blind corners, narrow path widths and uneven ground surfaces
- There is generally poor accessibility, uneven ramps and poor signage to the public amenities
- Sounds of live music and patrons travel from George Street to Nurses Walk at night

Actions for Globe Street and Nurses Walk

No.	Category	Description	
Proje	Project Actions		
2.1	Delivery	Implement the Nurses Walk and Globe Street Public Domain Upgrades to create an enjoyable space to dwell including:	
		 Greening to Globe Street that improves amenity and is supported by improved public seating opportunities 	
		 Improved accessibility to upper levels creating more gentle ramps, reducing unevenness of ground surfaces, removing trip or access hazards and improving access to a green dwell space 	
		 Considering opportunities to introduce interpretive signage to highlight interesting features and elements in the space such as the Jack Mundey mural 	
		• Consistent lighting to Globe Street and Nurses Walk to highlight the connections of these spaces and the heritage facades and artworks, improve visual legibility and address colour temperature and contrast	
2.2	Wayfinding	As part of the development of the final The Rocks Wayfinding Strategy, develop and implement clear wayfinding signage that supports safe movement between Harrington Street, George Street and Nurses Walk, including:	
		 Signage specifically for wheelchair users, parents/carers with prams, cyclists and tourists with suitcases 	
		 Improved visibility and legibility of bathroom signage 	
2.3	Public Art	Preserve and maintain the Jack Mundey mural	
2.4	Activation	Improve the quality of experience and encourage people to dwell by:	
		 Increasing opportunities for more passive surveillance from adjacent ground floor tenancies and shopfronts as part of strategic leasing approach to ensure activity across the day and night 	
		 Providing additional public seating in locations that have good lines of sight, passive surveillance and lighting at night 	
2.5	Maintenance	 Continue to proactively manage and respond to incidents of graffiti and vandalism, as needed 	
		 Improve maintenance of the artworks along Globe Street and Nurses Walk 	

Table 3: Actions for Globe Street and Nurses Walk

7.3 Site 3: Cumberland Place and Steps



Figure 35: Country, Jacob Nash, 2021

Place Description

Cumberland Place and Steps is a pedestrian pathway connecting Gloucester and Harrington Streets. It features a series of flights of steps and landings of varying widths, steepness and materials. A landing at the midway point of the steps opens to the pedestrian laneway, Cambridge Street. The public domain and buildings at the southern end of this street have recently been revitalised with mixed use buildings of up to 9 storeys and an upgraded public domain. Cumberland Place is a key link to western areas of The Rocks and connects visitor destinations such as The Big Dig Archaeology Education Centre, the Sydney Harbour YHA and The Australian Hotel.

The surrounding context varies greatly with a diverse range of adaptively reused buildings including the Rendezvous Hotel to the east and heritage buildings and terraces to the west. Cumberland Place and Steps contribute to the setting of buildings of State Heritage Significance along Gloucester Street: Susannah Place terraces and Baker's Terrace. Susannah Place is a rare example of a simple working class 1840s terrace in The Rocks and wider area. The building retains significant fabric and physical evidence of its continuous occupation since 1844 and serves as a key place for learning and school visits within The Rocks. Susannah Place is of high social value and features archaeological resources that show how people lived and how The Rocks has changed in general.

The Harrington Collection redevelopment (85 Harrington Street) was completed in 2021 and has included the Jacob Nash artwork 'Country,' a seating element that interprets the underlying landform, reminding people that despite the altering of the landscape, they are always on Country. It uses 'found oyster shells and reclaimed demolition material...geological landforms and substrata that remain uncovered and hidden beneath the surface, Nash sought to expose this and indicate the deep time that exists in Country...Country is not defined by what we see on the surface, but by the many stories and lives that have and will always exist there.'⁵

Cumberland Place is of State Heritage Significance for historical and scientific reasons. It is of historical significance as one of the oldest known pedestrian streets in The Rocks, and probably Australia, being continuously in use since at least 1808. There is a high likelihood of encountering archaeological relics on the site, and these relics may be of State level significance.

⁵ <u>Country</u>, UAP, 2021

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Site Plan





View up Cumberland Place Steps towards Susannah Place and Gloucester Street

View up the southern stairs



Signage on the corner of Cumberland Place and Gloucester Street



Rear frontage of Susannah Place, fronting Cumberland Place

Figure 36: Safety insights for Cumberland Place and Steps The Rocks | Tallawoladah Women's Safety Strategy

Safety Insights for Cumberland Place and Steps

Cumberland Place has the potential to be a pleasant place due to its openness and attractive heritage character. However, issues with accessibility, lighting, low activity, and lack of public seating and intuitive wayfinding means that this space is not perceived to be safe or inviting, especially at night.

'The character is a combination of older style heritage architecture with new modern. I appreciate it.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Cumberland Place and Steps:

- Is pleasant and open with clear visibility to the sky
- Has a strong heritage character which is attractive and inviting, however the adjoining quiet and empty retail is unsettling as there is no activation
- Is poorly supported by wayfinding especially around the stairs
- Has limited public seating

At night, Cumberland Place:

- Is unevenly lit which contributes to feelings of poor safety when traversing the stairs and sends a message that you should not dwell here
- New development to the south of the steps has added additional lighting into the surrounds, making Cumberland Place and Steps feel darker by contrast
- Opportunity to highlight the significant heritage façade of Susannah Place as key element in the space



Figure 37: Upper level Cumberland Steps in the daytime The Rocks | Tallawoladah Women's Safety Strategy

Figure 38: Lower level of the Cumberland Steps at night-time

Actions for Cumberland Place and Steps

No.	Category	Description	
Stra	Strategic Actions		
3.1	Plans	Develop a Cumberland Place and Steps Master Plan, including:	
		 Considering access improvements to the stairs in keeping with the heritage significance and character of the area/item, trip hazards and improvements in physical safety 	
		• Exploring opportunities for activation including potential enhancement to support gathering for school groups at Susannah Place	
		 Considering opportunities to introduce interpretive signage to highlight interesting features and elements in the space 	
		 Embed CPTED principles to reduce crime risks including increased passive surveillance of public spaces 	
		 Consideration of planned redevelopment of the "Clocktower" building at 35-75 Harrington Street 	
Proje	ect Actions		
3.2	Lighting	Design and implement a lighting repair and improvement program, that addresses:	
		Colour temperature – seeking reduced colour variance	
		Faulty and broken light replacement	
		 Considered lighting on historic buildings to highlight heritage character and improve perceptions of safety at night including: 	
		Façade illumination at Susannah Place	
		Consistent terrace façade lighting	
		 Improved integration between new and old developments in this location 	
		 Additional task (focussed) lighting on the stairs 	
3.3	Wayfinding	 Improve signage visibility from adjoining streets to increase safety and mobility for all users including signage with directions to other accessible routes and lifts and public amenities 	
3.4	Public Domain	• Design and implement a stair and path repair and improvement plan to address trip hazards and falls and improve the ability to use and navigate the steps	

Table 3: Actions for Cumberland Place and Steps

7.4 Site 4: Argyle Street



Figure 39: Argyle Street during the daytime



Figure 40: Argyle Street during the night-time

Place Description

Argyle Street was assessed between Jack Mundey Place in the east and the Argyle Cut in the west. This area of Argyle Street is predominantly used for circulation providing access west through to Millers Point, south through Cambridge Street and to upper areas of The Rocks through the Argyle Stairs. It features a vehicular road with pedestrian footpaths on either side. Argyle Street and George Street (Site 1) are the two main and oldest streets in The Rocks. The western portion of this site is owned by the City of Sydney. Therefore, any upgrade projects will be developed collaboratively to result in a cohesive character along the streetscape.

Views from Argyle Street are striking. The view of Circular Quay to the east is foregrounded by Jack Mundey Place with trees flanking both sides of the street. Views west extend through the Argyle Cut to the tree lined streets of Millers Point.

The Clocktower building is in the eastern section of the study area, containing retail and commercial premises and is planned to undergo significant redevelopment in the future. Due to inactive internal spaces and significant level change across the site, there is minimal passive surveillance and engagement along the street edges of the building along Harrington and Argyle Streets. The corner remains an important civic element in the streetscape and is the main entry to the Clocktower building.

The Argyle Stores, a building of State Heritage significance, is located opposite The Clocktower. The Argyle Stores include substantial remains of the earliest surviving commercial buildings in Sydney, dating from c1826. These buildings have fairly solid, inactive façades, with few large windows to the street. The Argyles Stores are a night-life destination in The Rocks, attracting high visitation in the evening and on the weekend. Argyle Street is used for venue patron queuing and vehicle pick-up and drop-off during these peak times.

To the west of the assessed site is the Argyle Cut, a unique deep rock cutting connecting Millers Point and The Rocks. It was begun in 1843 and completed in 1859 and is an impressive engineering feat of historical, technological and scientific State Significance. It is covered by two bridges, the Cumberland Street Bridge (built c1911) and the Bradfield Highway (built c. 1930).

Connected to the site are the Argyle Stairs which connect up to Cumberland Street. Whilst the stairs are beautiful and of Heritage significance, they are steep, narrow and only fit two people across their width. There is limited visibility up these stairs at night.

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Site Plan









Argyle Stairs can be seen from above from Cumberland Street in the daytime



At night, poor wayfinding and inconsistent colour temperature through this space lead to discomfort

Figure 41: Safety insights for Argyle Street

Safety Insights for Argyle Street

The overall experience of Argyle Street is positive, especially during the day, however a lack of clear, well-lit signage and general lighting makes it a less inviting space at night. High vehicle traffic and a lack of safe opportunities to cross Argyle Street detract from feelings of safety.

'It is difficult to navigate without having been here before or knowing which way to go. The stairs are a little bit confusing, not knowing how to get from one level to the other.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Argyle Street:

- Feels welcoming and safe due to the amount of activity, people and background noise
- Has a unique and beautiful character that is inviting and draws people westward up the hill from Jack Mundey Place, largely attributed to the impressive structure of the Argyle Cut, the softening of the sandstone in this area with opportunistic planting and tree-lined views to Millers Point
- Is a key vehicular access point into The Rocks that experiences traffic and noise challenges, making the space feel less safe
- The corner of Harrington Street and Argyle Street was observed as being intermittently used as an illegal U-turn point making traffic movement unpredictable
- Lacks safe crossing points with the nearest crossing point leading east at corner of Harrington Street and Argyle Street and no crossing across Argyle Street heading north
- Is dominated by traffic and mechanical plant sounds which noticeably reverberate under the Argyle Cut
- Has little passive surveillance of the street from Clocktower, due to the façades on the bottom two levels of The Clocktower being setback from the street boundary
- Has few large windows to the street and limited passive surveillance along the edge of Argyle Stores

At night, Argyle Street:

- Is difficult to navigate as signage is difficult to read/understand due to poor lighting and lack of colour contrast
- Traffic issues and sounds are exacerbated by multiple pick-ups and drop offs near the Argyle Stores and the busyness of the Argyle Stores at night
- Is lit, however distribution could be improved also noting that some lighting was not functioning and required repairs
- Has existing general lighting under the Argyle Cut but is too low and subtle to contribute to feelings of safety
- Has poor surveillance and blind spots on and around Argyle Stairs
- Is affected by music from The Glenmore Hotel above and boisterous behaviour from people outside venues along Argyle Street

Actions for Argyle Street

Na	Catagon	Description	
No.	Category	Description	
Stra	Strategic Actions		
4.1	Activation	Improve the activation of the space by:	
		 Considering opportunities to showcase the Argyle Cut and the surrounding area (in collaboration with the City of Sydney) 	
		 Considering acoustic elements that positively contribute to feelings of safety and enhancing the activation of the space, such as sound installations 	
		 Advocating for active and vibrant street frontages and uses especially on Cambridge Street as part of the Clocktower project redevelopment 	
		 Enabling flexible short and medium term leases to activate and diversify the offering along Cambridge Street 	
		• Considering opportunities to introduce interpretive signage to highlight interesting features and elements in the space	
4.2	Movement	• Undertake a traffic review that addresses vehicular, cycling, pedestrian and point- to-point transport movement in this area, highlighting conflict areas and potential solutions. This may include additional or relocated pedestrian crossings or widened footpaths	
Proje	ect Actions		
4.3	Lighting	Design and implement a lighting repair and improvement program including:	
		 Improved lighting under the bridge that highlights the features of the Argyle Cut and adjoining heritage elements 	
		Additional lighting for connections to surrounding walkways and stairs	
		Accent, wayfinding and task lighting	
		Faulty and broken light replacement	
4.4	Wayfinding	• Improve signage visibility and legibility to increase safety and mobility for all users including signage with directions to other destinations. Special consideration should be given to the use of this wayfinding in a crowded setting	

Table 4: Actions for Argyle Street

7.5 Site 5: Jack Mundey Place



Figure 42: Jack Mundey Place during the daytime



Figure 43: Jack Mundey Place during the night-time

Place Description

Jack Mundey Place is a heavily used shared street between Argyle Street and George Street. It serves many functions including servicing the businesses fronting the street, a place for markets and events, outdoor dining, public breakout space and as a gateway into The Rocks from the east and west. There is real pressure on this space to serve these functions concurrently and safely.

Jack Mundey Place is flanked by 2-3 storey buildings of heritage significance including the Orient Hotel, ASN Hotel Building (former), Visa Offices (now Guylian Café), Gannon House & Shop, the British Seamen's Hotel (former – now Endeavour Brewing) and Penrhyn House (now The Rocks Centre). Detailed building façades and multiple small windows at ground level provide visually rich and interesting human-scaled edges to the space. These are foregrounded by a mix of outdoor dining areas, with the centre of the place retained through most of the day for pedestrian use. Jack Mundey Place frames views eastwards towards Circular Quay and westwards towards the Argyle Cut.

The atmosphere of this area changes significantly over the course of the day and the week. In the early morning, alongside permanent outdoor seating for restaurants, pedestrian movement is carefully managed to enable movement of servicing vehicles. While managed, safe movement routes and clear travel paths through this space remain unclear during these times. Through most of the day, the place is busy and pedestrianised. At night, especially on the weekends, the atmosphere is rowdier, anchored by visitors to the Argyle, Munich Brauhaus, the Orient Hotel and other local pubs.

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Site Plan







Signage and fencing at the eastern end of Jack Mundey Place detracts from the character of the place



Seating and planting along Jack Mundey Place

Figure 44: Safety insights for Jack Mundey Place



In the daytime, views east towards are clear, and draw people through Jack Mundey Place

Safety Insights for Jack Mundey Place

Jack Mundey Place is generally perceived as a welcoming and safe space during the day supported by activity, background sound, human-scaled building features and clear views through and out of the space. At night, the intense levels of activity and sound can make the space feel overwhelming and decrease feelings of safety.

'Seeing police in front of the club (The Argyle) makes me feel unsafe. When I see police, even if nothing is happening, it makes me think they must be needed.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Jack Mundey Place:

- Is active, with lots of people around including security guards/police and music, which create a great atmosphere
- Is welcoming and open with unobstructed views to the sky and eastwards through the harbour
- Is layered with pleasant public domain planting and significant existing trees to the west of the space
- Has signage that is out of date, contributing to confusion in navigating the space
- Lacks public seating with extensive continuous licenced outdoor dining areas supporting cafes and pubs
- Slopes down eastward due to natural topography, making accessibility more difficult
- Is used for servicing in the morning so pedestrian areas are significantly reduced during certain hours

At night, Jack Mundey Place:

- Has elements that contribute positively to the character and atmosphere of Jack Mundey Place in the day, like the heritage buildings, view of the sky and to the harbour, which are less visible at night
- The experience of noise and music from venues can become overwhelming
- Has an energetic and upbeat atmosphere however it was perceived as more welcoming to different demographics such as younger men engaging in drinking, due to the loud music sounds and crowds
- Is generally well-lit but inconsistent with darker pockets contributing to decreased feelings of safety

Actions for Jack Mundey Place

No.	Category	Description	
Stra	Strategic Actions		
5.1	Public Domain	• Undertake a precinct wide assessment of public seating and other street furniture such as bins, etc.	
Proje	Project Actions		
5.2	Delivery	 Finalise The Rocks Access and Inclusion Strategy and prioritise projects for implementation that improve conditions and safety along Jack Mundey Place 	
5.3	Delivery	• Ensure the George Street North Streetscape Upgrade project considers the role and function of Jack Mundey Place as supporting the holistic vision for George Street North and The Rocks more broadly	
5.4	Activation	Develop a Place Activation Plan that:	
		 Addresses the immense pressure on Jack Mundey Place to serve operational, movement and civic roles 	
		 Includes an audit of current spaces, uses and constraints 	
		 Is informed by engagement with stakeholders to understand opportunities and expectations 	
		 Focuses on creating a welcoming atmosphere for diverse users across the day and night, on weekdays and weekends 	
5.5	Lighting	Develop a Lighting Strategy that addresses:	
		Ambient and accent lighting	
		Lighting of heritage façades	

Table 5: Actions for Jack Mundey Place

7.6 Site 6: Cadman's Cottage and Bligh and Barney Reserve



Figure 45: Bligh and Barney Reserve



Figure 46: Cadman's Cottage at night-time

Place Description

Cadman's Cottage and Bligh and Barney Reserve front the roadway of Circular Quay West between the Overseas Passenger Terminal and George Street. The site is located on the eastern edge of George Street, however the cottage and reserve are hidden from view due to the significant level change at this location. The site is accessible from George St or from Circular Quay West via a stair on the northern edge of Cadman's Cottage. The publicly accessible Cadman's Cottage forecourt and Bligh and Barney Reserve support passive uses and are frequently used as stopping places for tours. These spaces are also important in enabling views across to George Street and adjacent heritage buildings from the public domain.

Circular Quay West, on the eastern side of the assessed site is a cul-de-sac that forms a key servicing and pedestrian access route for the Overseas Passenger Terminal. Consequently, the type and intensity of traffic on this street varies greatly and is significantly managed on days where cruise ships are docked. This can create many hazards in navigating the area.

Cadman's Cottage is a two-storey Georgian sandstone building, with a surrounding garden. Built in 1816, it is the third oldest building in Sydney and is the only building or place on the Harbour able to illustrate the original shoreline of Sydney Cove. Cadman's Cottage is of natural cultural significant due to its age, scale, architectural style and close association with the early development of Sydney. The forecourt is generously sized and features little planting and no public seating.

Bligh and Barney Reserve is a lightly sloping park with grass and a well planted western end. It features good views to Circular Quay and the Sydney Opera House when cruise ships are not docked at the Overseas Passenger Terminal. While well used as a lunch spot during weekdays the space has no formal use or seating.

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Site Plan



Seating along the MCA Forecourt



The front section of the reserve has direct views to and from-Circular Quay and the CBD



Looking, north-west across Bligh and Barney Reserve with Cadman's Cottage behind. The reserve is well-shaded and provides respite from the rest of the city

Figure 47: Safety insights for Cadman's Cottage and Bligh and Barney Reserve, Nearmap imagery © 2023.

Safety Insights for Cadman's Cottage and Bligh and Barney Reserve

Cadman's Cottage and Bligh and Barney Reserve are enjoyable spaces that are viewed as safe and attractive due to their planting, openness, views in and out of the site, level of activity and ambient noise level. Increasing opportunities to dwell (including additional public seating and reasons to stay) will improve the capacity of this space to perform as a safe and welcoming space, especially at night.

'There are more people around at night time than during the day time. There is more music, the sound is inviting and it makes me want to go to some of the venues, especially the Overseas Passenger Terminal.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Cadman's Cottage and Bligh and Barney Reserve:

- Is a pleasant space with a clear view of the sky, attractive planting, and a comfortable level of ambient noise, a quiet and calm space, with audible sounds from nature such as birdsong, cicadas and wind through the trees
- Has good daylight and some areas of shade
- Has good views into and out, to Circular Quay and George Street, this view of activity and people from within the space contributes to positive feelings of safety
- Features few people using the space, this in combination with no structured seating, discourages people to dwell outside of sunny lunchtimes
- Moving past the Overseas Passenger Terminal on cruise ship docking days can feel unsafe and confusing with multiple paths of movement and large vehicles along Circular Quay West
- Pedestrian crossing points at George Street and Circular Quay West are not intuitive or well defined

At night, Cadman's Cottage and Bligh and Barney Reserve:

- Is lit unevenly, contributing to poor navigation and negative impacts on feelings of safety
- Includes poorly lit signage which is hard to see
- Feels unsafe on the southern stairs adjacent to Cadman's Cottage due to limited light and uneven stairs
- Has some loud, low frequency dance music from nearby venues

No.	Category	Description	
Stra	Strategic Actions		
6.1	Movement	 Collaborate with the Port Authority to improve the pedestrian experience and safety around the Overseas Passenger Terminal including improvement of pedestrian crossing points along Circular Quay West. 	
Project Actions			
6.2	Plans	Develop a Master Plan for the Cadman's Cottage forecourt and Bligh and Barney Reserve that involves community and stakeholder engagement, including the Aboriginal community, that addresses:	
		 Provision of public seating to encourage people to dwell and use the space 	
		 Access and movement to, around and from the place 	
		 Consideration of signage to aid navigation and highlight the interesting features of these spaces 	
		 The interface to adjoining streets, especially the level change and access to George Street 	
		 Lighting (highlighting heritage features and addressing uneven lighting) 	
		 Proposed uses for Cadman's Cottage and its forecourt 	

Table 6: Actions for Cadman's Cottage and Bligh and Barney Reserve



Figure 48: Co-design daytime activity at Cadman's Cottage and Bligh and Barney Reserve

7.7 Site 7: Unwin's Courtyard







Figure 50: Unwin's Courtyard during the night-time

Place Description

Located off Kendall Lane, Unwin's Courtyard is a series of connected courtyards located behind Unwin's Stores, fronting George Street. Unwin's Stores is a row of sandstone commercial buildings with residential above, and with the courtyard, is part of several State Heritage listed items with historical, cultural, social, scientific, archaeological, and aesthetic significance.

The courtyard is an irregularly shaped network of small and varied outdoor spaces, connected by steps and separated by sandstone portals. The courtyard can be accessed through part of Unwin's Stores and directly off Kendall Lane, though most of the courtyard is not visible from the street.

The courtyard is texturally rich with a mix of sandstone and brickwork. The courtyard is also well shaded by the canopy of several mature trees. These visual features make the spaces inviting in the daytime. For those with any physical or sensory mobility impairment, access to and through the courtyard is difficult. The paving of Kendall Lane is uneven and highly textured and there are several stepped areas and sets of stairs within and between the courtyards.

Anchored by the Orient Hotel and Observer Hotel establishments at the north and south ends, the courtyards also support several small bars. The Rocks Discovery Museum flanks much of the western edge of the courtyard space and is used regularly for school groups and tours. Male and female amenities are located adjacent to the courtyards, however, these are not accessible given the topography and limitations of not being able to make significant changes to the heritage built form.

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Site Plan



Narrow doorways and lack of through-views make the space feel unsafe



The blue flood light highlights the character of heritage facades but is too harsh for this fine-grain small space



Fences, walls, level changes and a mix of public and leased spaces makes the space unclear and unwelcoming

Figure 51: Safety insights for Unwin's Courtyard, Nearmap imagery © 2023.

Safety Insights for Unwin's Courtyard

Unwin's Courtyard has the potential to be a welcoming and safe space for women and girls to relax and rest. However due to the inherent nature of the space, some areas will remain predominantly for day time use, rather than night time. Poor accessibility, a lack of wayfinding signage, poor sightlines and harsh lighting contribute to poor feelings of safety at night.

'Feels like you're under a microscope as though people are looking at you (because of the flood lighting).'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Unwin's Courtyard:

- Is cool, peaceful and welcoming however the purpose and permission to use the space is unclear for visitors
- Is not very accessible with multiple levels, which are inherent to the topography of the space and responding heritage built form of the courtyard
- Has limited wayfinding signage to get to or through the courtyard which contributes to difficulty in navigation
- Has poor sight lines from the surrounding public domain
- Has poor sight lines across the courtyard from within, obstructed by storage clutter and further accentuated by built form such as walls between spaces, this makes it difficult to navigate and contributes to poor feelings of safety
- Has an existing artwork on Kendall Lane, *Saltwater Country*, 2021 by Goldberg Aberline Studio in collaboration with Graham Toomey, which is a temporary installation that is considered to positively contribute to the character and experience of the area

At night, Unwin's Courtyard:

- Is unevenly lit, with areas which were harshly spot lit in the main entry courtyard and shadowed areas created by large trees and walls, which makes the space unwelcoming
- Is difficult to find with no signage visible on entry to Kendall Lane
- Feels like a dead-end space
- Had live music sounds filtering to the courtyard from an adjoining hotel which helped create a positive and joyful ambience
- Opportunities for lit artwork features to Kendall Lane and within the courtyard spaces was identified as a potential improvement which could also support wayfinding

Actions for Unwin's Courtyard

No.	Category	Description	
Proje	Project Actions		
7.1	Delivery	• Implement the Unwin's Courtyard Upgrade including improved lighting and additional planting to soften and green the courtyard to create a more welcoming public space.	
7.2	Wayfinding	Improve wayfinding to the courtyard by:	
		 Including it as a destination on surrounding wayfinding in the public domain 	
		 Consider wayfinding role of temporary or future permanent artworks including lighting to Kendall Lane 	
		• Upgrade lighting of adjacent spaces including the Observer Hotel that connects to the courtyard at the northern end	

Table 7: Actions for Unwin's Courtyard



Figure 52: Co-design night-time activity in Unwin's Courtyard

7.8 Site 8: Foundation Park



Figure 53: Foundation Park during the daytime



Figure 54: Foundation Park during the night-time

Place Description

Foundation Park is located down the slope, off Gloucester Walk. Not a traditional 'park', it comprises a set of small, interconnected spaces at different levels formed by the ruins of 19th Century terrace houses and interpretive installations. The park is of State Significant heritage value, with the ruins evoking the once widespread nature of terrace housing in inner city Sydney, emphasised by the very small size of the park and the individual ruins. The space features heritage interpretation of the ruins with the 'Ghost Houses' public sculpture by Peter D. Cole. This includes oversized domestic furniture located in the remnants of the terrace rooms and a skeleton expression of the now lost terrace along Gloucester Walk.

The cliff face on the park's eastern edge, which from 1788 until 1816 marked the limit of the ground of the colonial hospital building in 1788 on the cove littoral, continues to provide a physical expression of the place name and the earliest period of colonisation.

The park retains important potential to reveal archaeological material related to building and living on such topographically challenging sites, and materials relating to the earliest period of British colonisation when the cliff face formed the edge of the ground around the first hospital building in 1788. The park is an exemplar of the late 20th century revival of a Picturesque aesthetic in landscape design which expressed the tension between beauty with ruin and degradation.

The park is difficult to find, being hidden behind buildings, on a pedestrian laneway in the centre of a long block, at a lower level to Gloucester Walk from which the park is predominantly entered. It can also be entered from the rear courtyards of the Playfair Terraces but this link is not visible from the main walkway of Playfair Street. While its hidden nature inspires a feeling of discovery during the day, at night, the lack of passive surveillance and activity can reduce feelings of safety. Foundation Park is also predominantly inaccessible due to the severe topography of the rockface and access is via stairs over multiple levels.

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Complex paths and level changes at Foundation Park



Intricate spaces and intepretative artwork at Foundation Park provide interest, especially in the day time



Lower levels of Foundation Park have limited activation and glarey lighting at night

Figure 55: Safety insights for Foundation Park, Nearmap imagery © 2023.



Figure 56: Foundation Park (from the rear of Playfair Terrace), 1901, Bertie Collection, PMNSW Archives



Figure 57: Foundation Park during the daytime



Figure 58: Foundation Park during the daytime

Safety Insights for Foundation Park

Foundation Park was viewed as a secluded but safe space during the day. More activation of the space through the inclusion of signage on the history of the site and better wayfinding signage would increase the attractiveness of the space and encourage people to dwell. At night, the area was viewed as unsafe, primarily due to its lack of consistent lighting and secluded and hidden nature.

'This is a hidden treasure!'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Foundation Park:

- Is quiet with blind spots and narrow paths, but still feels safe due to generally open views into the space from adjacent buildings and Gloucester Walk
- Features significant level changes, and as a result is inherently inaccessible and difficult to navigate
- Is difficult to find with limited directional signage in the surrounding public domain many participants were discovering the park for the first time
- Is poorly maintained and has limited signage for nearby amenities or facilities (e.g. elevator at Cleland Bond)
- Existing heritage interpretation is valued however more information on the history and stories of the space would be appreciated

At night, the site:

- Feels unsafe as it is harshly and unevenly lit with no stair, tree or signage lighting and the feeling of hidden spaces
- Is very quiet due to the distance from the main entertainment venues

Actions for Foundation Park

No.	Category	Description	
Stra	Strategic Actions		
8.1	Heritage	Promote Foundation Park as a 'living museum'.	
Proje	ect Actions		
8.2	Wayfinding	 Improve wayfinding to and through the park by: Ensuring any signage is legible both day and night Including it as a destination in wayfinding signage in the public domain Improving signage for lift access enabling greater visibility and legibility 	
8.3	Heritage	• Provide additional heritage interpretation to tell the history and stories of the place.	
8.4	Lighting	 Undertake a lighting audit and plan that considers: Better illumination and enhancement of the heritage features, 'hidden historic treasures' and trees Consistent lighting around steps and paths to improve access and mobility Improvement of ambient lighting conditions and removal of harsh lighting Connection and integration of lighting approaches to proposed illumination of the rockface as part of proposed Argyle Terrace Courtyard Upgrades to create visual connections across spaces of The Rocks 	
8.5	Movement	• Explore potential improvements to facilitate improved access while also protecting the ruins and archaeological potential	

Table 8: Actions for Foundation Park

7.9 Site 9: Dawes Point Park (Tarra) South



Figure 59: During the daytime

Figure 60: During the night-time

Place Description

This part of Dawes Point Park (Tarra) is located under the Harbour Bridge adjoining the northern most end of George Street. It is a predominantly grassed space with impressive views to the Sydney Opera House and Sydney Harbour.

Tarra is the local Aboriginal language word for the site also known as Dawes Point. As part of the Harbour Walk, Yananurala a major public art project in partnership with City of Sydney is planned for the park, that will highlight the site where young Aboriginal woman Patyegarang is said to have shared some local Aboriginal words and language with William Dawes. As part of Yananurala, in partnership with City of Sydney, PMNSW will develop an artwork in Tarra, interpreting this important cultural moment.

The Park is of State Heritage significance for its archaeological remains and relics, including cannons, a guard house, officer's quarters and underground storerooms at the former Dawes Point Battery. It is also an important part of the setting of the nationally significant Sydney Harbour Bridge, approaches and viaducts. Closeness to the bridge above and pylons within the park contribute to the unique character of the park. This does however bring a lot of noise to the space.

The southern end of the park is above most of The Rocks, sloping downwards to the north-east to meet Hickson Road. The park's southern edge along George Street is the only at-grade, wheelchair accessible entry to the park. By virtue of its size and topography, views into the park from The Rocks are limited. The south-eastern edge of the park is completely inaccessible from Hickson Road and forms harsh vertical wall to the street. Lack of accessibility from the east makes it feel more a part of Millers Point rather than The Rocks.

The park does not feature active uses and is generally quiet during the day and at night. At night, this limited use can contribute to feelings of poor safety. On weekends, The Rocks Markets transforms the northern end of George Street to a highly active and busy destination.

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Site Plan



View to Dawes Point Reserve from the south-west



Dawes Point Reserve has shaded and sunny spaces to take in the view of Sydney Opera House and Sydney Harbour



Hardstand areas are well lit but make other spaces in the reserve feel dark by contrast

Figure 61: Safety insights for Dawes Point Park (Tarra) South, Nearmap imagery © 2023.
Safety Insights for Dawes Point Park (Tarra) South

The site is not perceived as welcoming due to the loudness of train and vehicular sounds, lack of public seating and while generally well maintained, the quality of the landscape is negatively impacted by event use. To make this space feel more safe, better lighting, seating and planting, and more wayfinding signage should be introduced. This is particularly important as this space is currently used primarily as a thoroughfare.

'There are lovely buildings nearby, but nowhere to admire them from and no reason to be waiting here to have them as your backdrop.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during Dawes Point Park (Tarra) South:

- Features amazing views across the harbour and over to the Sydney Opera House
- Feels like a thoroughfare with no clear purpose with no reason to dwell
- Has a lack of wayfinding signage with directions and timing to walk to adjacent areas.
- Is poorly maintained with turf and planting in poor condition, especially following event activations
- Has minimal public seating
- Is overwhelmed by the sound of loud trains and traffic from Sydney Harbour Bridge above
- Is visibly patrolled by rangers, contributing positively to feelings of safety

At night, the site:

- Has very even, cool, white lighting however glare from downlights make the space less inviting contribute to reduced feelings of safety
- Lacks clear sightlines making it a less inviting space for women and girls to move through or use at night
- Has constant knocking and rumble sounds from cars and trains travelling over the bridge, which negatively contribute to feelings of safety

Actions for Dawes Point Park (Tarra) South

March 2024

No.	Category	Description	
Proj	Project Actions		
9.1	Plans	Prepare a Cultural Landscape Report and Public Domain Master Plan for Dawes Point Park that addresses:	
		• Cultural Importance of the space and conservation and management principles to guide use, activation and management	
		 The use and purpose of Dawes Point Park including potential opportunities to enhance its park role for locals and visitors 	
		 The relationship of the park with The Rocks and Rocks Markets 	
		Greening, planting and tree canopy to improve amenity	
		 Consideration of opportunities to introduce interpretive signage to highlight interesting features and elements in the space 	
		 Consideration of transportation sounds associated with the Harbour Bridge and potential acoustic mitigation strategies if additional activities are planned 	
		 Public amenity such as seating, bins, wayfinding and other elements that would improve the amenity for visitors to the space 	
9.2	Lighting	Undertake a lighting audit and plan, that addresses:	
		Uneven lighting layout and harsh lighting	
		 Additional lighting along footpaths to support movement 	
		Lighting for signage	
		• Feature lighting to trees and pylons to improve night-time use and ambience	
9.3	Wayfinding	 Introduce wayfinding signage that provides direction to, from and through Dawes Point that is lit at night and includes directions to other landmarks 	

Table 9: Actions for Dawes Point Park (Tarra) South



Figure 62: Night-time walkshop at Dawes Point Park (Tarra) South

7.10 Site 10: Dawes Point Park (Tarra) East





Figure 63: During the daytime

Figure 64: During the night-time

Place Description

This area of Dawes Point Park (Tarra) is to the eastern edge of the park adjoining Hickson Road.

The study area slopes down towards the east, obscuring views westwards across the park. Like Dawes Point Park South, the site features uninterrupted views to the Sydney Opera House and Sydney Harbour and is also affected by sound from traffic and trains on the Sydney Harbour Bridge. Visibility to the area from the southern edge on Hickson Road is obscured by a significant level change.

The space is well visited in the daytime however at night it is quiet and there is minimal activity as it is located away from key late night destinations in The Rocks and Walsh Bay.

The study area is grassed, with public some benches and is well-shaded by mature fig trees.

Site Assessments, Insights and Actions

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Site Plan



View south west, shows a significant level change from street level to the centre of the reserve



At night, paths are well lit



Views to the Sydney Harbour Bridge and Luna Park make this space special

Figure 65: Safety insights for Dawes Point Park (Tarra) East, Nearmap imagery © 2023.

Safety Insights for Dawes Point Park (Tarra) East

Dawes Point Park East at Hickson Road is an attractive park with limited accessibility, low visibility and inadequate lighting that negatively impacts feelings of personal safety, especially at night. Better lighting would reduce shadowed and dark areas. An increase in amenity in the space including public seating, public toilet amenities, informational and directional signage would also increase the usability of the space.

'I don't feel scared, but at the same time, it is also not a very inviting place.'

Participant in co-design walkshop, 2022

The co-design process and technical assessments found that during the day Dawes Point Park (Tarra) East:

- Is well maintained and pleasant however loud noise from trains and traffic crossing the Harbour Bridge above make the space less inviting
- Has a lack of public seating
- Has no visible signage for public toilets on George Street, just south of Dawes Point Park, which serves park users
- Consists of steep topography and is not accessible for those who are less mobile or use a wheelchair

At night, the site:

- Is unevenly lit with existing lighting located behind trees, creating areas of shadow
- Lacks passive surveillance and a clear use
- Is notable for its views to Sydney Harbour in the day and at night
- Has audible transportation sounds from the Harbour Bridge



Figure 66: Co-design daytime activity at Dawes Point Park (Tarra) East

No.	Category	Description	
Strat	Strategic Actions		
10.1	Collaboration	• Support the delivery of the Yananurala partnership with City of Sydney including the proposed major art project for Tarra / Dawes Point.	
Proje	ect Actions		
10.2	Plans	Prepare a Cultural Landscape Report and Public Domain Master Plan for Dawes Point Park that addresses:	
		 Cultural importance of the space and conservation and management principles that guide use, activation and management 	
		 Improved lighting, including lighting to pathways, trees and benches, noting tree canopy blocks other light sources 	
		 New public seating in areas with direct sunlight, noting existing seating is co- located with trees, shaded and protected from wind 	
		 Consideration of transportation sounds associated with the Harbour Bridge and potential acoustic mitigation strategies if additional activities are planned 	
		Opportunities for additional public toilet amenities	
		Opportunities for increased park use through activation in surrounding areas	
		• Public amenity such as seating, bins, wayfinding and other elements that would improve the amenity for visitors to the space	
10.3	Wayfinding	 Introduce wayfinding signage that provides direction to, from and through Dawes Point that is lit at night and includes directions to other landmarks 	

Table 10: Actions for Dawes Point Park (Tarra) East



Figure 67: Dawes Point Park (Tarra) East during the night-time



Actions

8.1 Overview of Actions

This Strategy contains a comprehensive range of actions that are informed by the evidence base gathered from the site assessments and safety insights. Delivering these actions will contribute to The Rocks becoming a safer and more welcoming precinct for women, girls and gender diverse people.

This Strategy contains two types of actions:

- 1. Precinct Wide Actions are actions that are applicable across the entire precinct.
- 2. Site Specific Actions⁶ are actions that are specific to a particular site. Site Specific Actions are separated into either:
 - Strategic Actions actions of significant scale and complexity, often requiring collaboration with a range of stakeholders or government agencies to deliver, such as a masterplan for a site where there are a variety of safety issues to be addressed; or,
 - Project Actions actions that are considered straightforward and relatively simple to implement, such as upgrades or improvements to specific elements such as lighting, wayfinding, activation, or maintenance.

The actions have been categorised under the following themes to make it easy for users of this Strategy to identify which actions are most meaningful for their work:

- Activation
- Collaboration
- Delivery
- Governance
- Heritage
- Lighting
- Maintenance
- Movement
- Plans
- Public Art
- Public Domain
- Wayfinding

The actions are intended to guide decision makers and stakeholders with an interest in and influence over the safety of women and girls in The Rocks when determining investment and funding prioritisation.

'I have a much greater appreciation of the range of disciplines and key elements that need to work together to make great spaces and places.'

Participant in co-design walkshop, 2022

⁶ The Site Specific Actions contained in this chapter, *Chapter 8 Actions*, replicate those contained under *Chapter 7 Site Assessments, Insights and Actions*.

8.2 Precinct Wide Actions

The assessment of the 10 individual sites revealed several consistent findings that are applicable precinct wide.

The actions contained in the following table set out these broader, strategic recommendations which are to be implemented concurrently with the site specific actions to deliver improved safety for women and girls in The Rocks. They also include alignment with Placemaking NSW's strategic documents, policies and plans, conservation management plans and legislative obligations.

No.	Category	Description	Rationale
P1	Governance	Involve women, girls, gender diverse people, Culturally and Linguistically Diverse (CALD) and First Nations representatives in the development of all future strategies for The Rocks.	Ongoing engagement with diverse groups is required to ensure The Rocks is a place for everyone.
P2	Governance	Seek opportunities to procure good and services from Aboriginal and Torres Strait Islander Businesses, consistent with Banga budyari mudjin (Make Good Relations), the Placemaking NSW Reconciliation Action Plan (RAP).	The Women's Safety Strategy should be consistent with PMNSW policies and plans.
P3	Governance	 Establish a safety and mobility working group that: Involves women, girls and gender diverse people CALD and First Nations people Leverages relationships with precinct stakeholders Oversees implementation of actions Reports outcomes achieved through actions. 	Ongoing engagement, management and review is required to ensure the Women's Safety Strategy is delivered.
P4	Governance	Review night-time policies to provide better safety outcomes for women and girls. This should include consideration of management strategies for noise, live music, intoxicated patrons, movement in and out of the precinct and areas of refuge.	Anti-social behaviour at night was highlighted as contributing to poor feelings of safety at Jack Mundey Place and Argyle Street.
P5	Heritage	All interventions are to respond to and celebrate The Rocks' unique heritage character.	The Women's Safety Strategy must be consistent with PMNSW policies, the NSW <i>Heritage Act 1977</i> and conservation management plans. The heritage fabric of The Rocks was highlighted as contributing to positive feelings of safety, especially through the day. Its retention, maintenance and celebration provide key opportunities to support safety in a place-specific way.

Actions

No.	Category	Description	Rationale
P6	Plans	 Develop a precinct-wide interpretation strategy to establish an approach to highlighting the interesting features and stories of unique spaces. 	The character of The Rocks varies significantly and the co-design process revealed that the lack of clear purpose in some spaces detracts from feelings of safety. Introducing meaningful interpretative elements will help to define each space's purpose and enhance its sense of welcome.
P7	Lighting	 Update the existing The Rocks Lighting Strategy, addressing: Concerns highlighted in this Women's Safety Strategy Safety and mobility issues Ambient lighting of main streets and parks Ambient and task lighting of local streets and lanes as well as brightness, glare and colour temperature Sensitive responses to the precinct's valued heritage character including lighting for heritage buildings and streetscapes Low impact construction and installation methods (e.g. fixings and fittings). 	Poor and uneven lighting across The Rocks contributed to feelings of poor safety and contributed to spaces being uninviting at night. A coordinated response is required to create a consistently safe environment, tailored to the unique settings of The Rocks.
P8	Wayfinding	 Update The Rocks precinct-wide Wayfinding Strategy to address: Concerns highlighted in this Women's Safety Strategy First time visitors and CALD communities Navigation to bathrooms and other amenities across day and night An integrated lighting approach, consistent with the updated The Rocks Lighting Strategy. 	Inconsistent, limited and wayfinding signage with poor visibility have been highlighted as contributing to poor feelings of safety. Better wayfinding is key supporting navigation and enable greater predictability when moving through The Rocks, especially at night.
P9	Wayfinding	Investigate opportunities to integrate with digital map providers (e.g. Google, Apple) and/or develop a digital interface (website or app) that includes universally accessible routes around the precinct, including drop off/pick up points, public amenities and ranger/police locations.	The Rocks features a landscape of varied topography and a fine grain network of streets, laneways. These characteristics can undermine ease of navigation and contribute to feelings of poor safety. Increased access to maps and information about the precinct enables greater confidence and predictability when moving around.

Actions

No.	Category	Description	Rationale
P10	Movement	Finalise The Rocks Access and Inclusion Strategy and prioritise projects for implementation.	The Rocks features a landscape of varied topography and a fine grain network of streets, laneways. Some which are difficult to traverse for those with diverse mobility needs.
			The Rocks Access and Inclusion Strategy will support the delivery of physical and digital wayfinding, improving ease of navigation.
P11	Activation	Implement The Rocks Arts and Culture Strategy with inclusion of night-time opportunities.	Uneven lighting and limited activation especially of laneways and parks at night contributed to poor feelings of safety. The Rocks Arts and Culture Strategy highlights opportunities to deliver art and activation, creating more inviting spaces, especially at night.

Table 11: Precinct wide actions to deliver improved safety for women and girls in The Rocks

8.3 Site Specific Actions

The following table summarises site specific actions for each of the 10 individual sites, as identified in the Chapter 7. These actions are applicable at either a strategic level or a project level and apply across a broad range of categories including lighting, wayfinding, heritage, art, activation, movement, planning, delivery, maintenance, collaboration and in general.

No.	Category	Description	
Site	Site 1 – George Street North – Strategic Actions		
1.1	Lighting	Incorporate temperature standards, sustainability and façade lighting requirements in future updates to lighting strategies, policies and tenant fit-out guidelines including:	
		 Use of consistent warm coloured lighting temperature 	
		Optimisation of sustainable lighting quantities and sources e.g. LED and automation	
1.2	Collaboration	• Continue to collaborate with TfNSW on the Circular Quay Renewal project to improve the southern threshold to The Rocks and experience of the precinct. Ensure integration of the Circular Quay Renewal and the George Street North Streetscape upgrade projects to optimise place outcomes.	
Site	I – George Stree	et North – Project Actions	
1.3	Delivery	As part of the George Street North streetscape upgrades:	
		• Prioritise safe access for pedestrians so that movement is intuitive and inclusive	
		 Improve pedestrian safety along George Street specifically safe and clearly defined pedestrian crossing points between Globe Street and First Fleet Park 	
		 Retain low vehicular speeds and integrate traffic calming measures to contribute to improved feelings of safety through reduced traffic sounds 	
		 Integrate traffic calming and hostile vehicle mitigation strategies to minimise the impact of vehicles on pedestrian safety while also minimising visual clutter and responding to the unique civic and heritage character of the street 	
		 Design outdoor dining areas to enhance safety, respect the civic and pedestrian environment, with clear circulation paths 	
		 Incorporate lighting upgrades as described above 	
		 Improve ambience through well-maintained and well-designed public spaces that includes seating, planting and lighting 	
		• Integrate a threshold design at George St and Cahill Overpass that creates a distinct sense of arrival and addresses pedestrian amenity and transportation sounds associated with vehicular traffic, light rail and heavy rail at George Street and overhead.	
1.4	Lighting	Upgrade lighting on George Street highlighting existing architecture particularly the heritage façades seeking opportunities to:	
		 Light the second level of façades to draw the view line up and provide greater ambience and enjoyment of the special character of the streetscape 	
		• Encourage shopfront lighting to remain on after hours (at a dimmed level) to improve definition of the pedestrian paths, having regard for tenant engagement and energy use (environmental sustainability)	
		 Reduce contrast between under awning-lighting and dark façades. 	

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No.	Category	Description	
1.5	Wayfinding	Develop and implement a clear wayfinding strategy including:	
		Signposting streets and lanes	
		 Consideration of navigation both during the day and night 	
		• Signage (or other) on George Street, highlighting it as a gateway to The Rocks	
		• Develop and implement an interpretive strategy that creates opportunities for people to experience and learn about the area.	
Site	Site 2 – Globe Street and Nurses Walk – Project Actions		
2.1	Delivery	Implement the Nurses Walk and Globe Street Public Domain Upgrades to create an enjoyable space to dwell including:	
		 Greening to Globe Street that improves amenity and is supported by improved public seating opportunities 	
		• Improved accessibility to upper levels creating more gentle ramps, reducing unevenness of ground surfaces, removing trip or access hazards and improving access to a green dwell space	
		• Considering opportunities to introduce interpretive signage to highlight interesting features and elements in the space such as the Jack Mundey mural.	
		• Consistent lighting to Globe Street and Nurses Walk to highlight the connections of these spaces and the heritage facades and artworks, improve visual legibility and address colour temperature and contrast.	
2.2	Wayfinding	As part of the development of the final The Rocks Wayfinding Strategy, develop and implement clear wayfinding signage that supports safe movement between Harrington Street, George Street and Nurses Walk, including:	
		 Signage specifically for wheelchair users, parents/carers with prams, cyclists and tourists with suitcases 	
		 Improved visibility and legibility of bathroom signage. 	
2.3	Public Art	Preserve and maintain the Jack Mundey mural.	
2.4	Activation	Improve the quality of experience and encourage people to dwell by:	
		 Increasing opportunities for more passive surveillance from adjacent ground floor tenancies and shopfronts as part of strategic leasing approach to ensure activity across the day and night 	
		 Providing additional public seating in locations that have good lines of sight, passive surveillance and lighting at night. 	
2.5	Maintenance	 Continue to proactively manage and respond to incidents of graffiti and vandalism, as needed. 	
		Improve maintenance of the artworks along Globe Street and Nurses Walk.	
Site	3 – Cumberland	Place and Steps – Strategic Actions	
3.1	Plans	Develop a Cumberland Place and Steps Master Plan, including:	
		 Considering access improvements to the stairs in keeping with the heritage significance and character of the area/item, trip hazards and improvements in physical safety 	
		• Exploring opportunities for activation including potential enhancement to support gathering for school groups at Susannah Place	

No.	Category	Description
		• Considering opportunities to introduce interpretive signage to highlight interesting features and elements in the space
		 Embed CPTED principles to reduce crime risks including increased passive surveillance of public spaces
		 Consideration of planned redevelopment of the "Clocktower" building at 35-75 Harrington Street.
Site	3 – Cumberland	Place and Steps – Project Actions
3.2	Lighting	Design and implement a lighting repair and improvement program, that addresses:
		Colour temperature – seeking reduced colour variance
		Faulty and broken light replacement
		 Considered lighting on historic buildings to highlight heritage character and improve perceptions of safety at night including:
		Façade illumination at Susannah Place
		Consistent terrace façade lighting
		Improved integration between new and old developments in this location
		Additional task (focussed) lighting on the stairs.
3.3	Wayfinding	 Improve signage visibility from adjoining streets to increase safety and mobility for all users including signage with directions to other accessible routes and lifts and public amenities.
3.4	Public Domain	• Design and implement a stair and path repair and improvement plan to address trip hazards and falls and improve the ability to use and navigate the steps.
Site 4	4 – Argyle Stree	et – Strategic Actions
4.1	Activation	Improve the activation of the space by:
		• Considering opportunities to showcase the Argyle Cut and the surrounding area (in collaboration with the City of Sydney)
		• Considering acoustic elements that positively contribute to feelings of safety and enhancing the activation of the space, such as sound installations
		 Advocating for active and vibrant street frontages and uses especially on Cambridge Street as part of the Clocktower project redevelopment
		 Enabling flexible short and medium term leases to activate and diversify the offering along Cambridge Street
		 Considering opportunities to introduce interpretive signage to highlight interesting features and elements in the space.
4.2	Movement	• Undertake a traffic review that addresses vehicular, cycling, pedestrian and point- to-point transport movement in this area, highlighting conflict areas and potential solutions. This may include additional or relocated pedestrian crossings or widened footpaths.
Site 4	4 – Argyle Stree	et – Project Actions
4.3	Lighting	Design and implement a lighting repair and improvement program including:
		 Improved lighting under the bridge that highlights the features of the Argyle Cut and adjoining heritage elements

No.	Category	Description	
		Additional lighting for connections to surrounding walkways and stairs	
		 Accent, wayfinding and task lighting 	
		Faulty and broken light replacement.	
4.4	Wayfinding	• Improve signage visibility and legibility to increase safety and mobility for all users including signage with directions to other destinations. Special consideration should be given to the use of this wayfinding in a crowded setting.	
Site	5 – Jack Mundey	v Place – Strategic Actions	
5.1	Public Domain	• Undertake a precinct wide assessment of public seating and other street furniture such as bins, etc.	
Site	5 – Jack Mundey	/ Place – Project Actions	
5.2	Delivery	• Finalise The Rocks Access and Inclusion Strategy and prioritise projects for implementation that improve conditions and safety along Jack Mundey Place.	
5.3	Delivery	• Ensure the George Street North Streetscape Upgrade project considers the role and function of Jack Mundey Place as supporting the holistic vision for George Street North and The Rocks more broadly.	
5.4	Activation	Develop a Place Activation Plan that:	
		 Addresses the immense pressure on Jack Mundey Place to serve operational, movement and civic roles 	
		 Includes an audit of current spaces, uses and constraints 	
		 Is informed by engagement with stakeholders to understand opportunities and expectations 	
		 Focuses on creating a welcoming atmosphere for diverse users across the day and night, on weekdays and weekends. 	
5.5	Lighting	Develop a Lighting Strategy that addresses:	
		Ambient and accent lighting	
		Lighting of heritage façades.	
Site	Site 6 – Cadman's Cottage and Bligh and Barney Reserve – Strategic Actions		
6.1	Movement	 Collaborate with the Port Authority to improve the pedestrian experience and safety around the Overseas Passenger Terminal including improvement of pedestrian crossing points along Circular Quay West. 	
Site	Site 6 – Cadman's Cottage and Bligh and Barney Reserve – Project Actions		
6.2	Plans	Develop a Master Plan for the Cadman's Cottage forecourt and Bligh and Barney Reserve that involves community and stakeholder engagement, including the Aboriginal community, that addresses:	
		 Provision of public seating to encourage people to dwell and use the space 	
		 Access and movement to, around and from the place 	
		 Consideration of signage to aid navigation and highlight the interesting features of these spaces 	
		 The interface to adjoining streets, especially the level change and access to George Street 	

No.	Category	Description	
		Lighting (highlighting heritage features and addressing uneven lighting)	
		 Proposed uses for Cadman's Cottage and its forecourt. 	
Site	Site 7 – Unwin's Courtyard – Project Actions		
7.1	Delivery	• Implement the Unwin's Courtyard Upgrade including improved lighting and additional planting to soften and green the courtyard to create a more welcoming public space.	
7.2	Wayfinding	Improve wayfinding to the courtyard by:	
		 Including it as a destination on surrounding wayfinding in the public domain 	
		 Consider wayfinding role of temporary or future permanent artworks including lighting to Kendall Lane 	
		• Upgrade lighting of adjacent spaces including the Observer Hotel that connects to the courtyard at the northern end.	
Site 8	8 – Foundation F	Park – Strategic Actions	
8.1	Heritage	• Promote Foundation Park as a 'living museum'.	
Site 8	8 – Foundation F	Park – Project Actions	
8.2	Wayfinding	Improve wayfinding to and through the park by:	
		 Ensuring any signage is legible both day and night 	
		 Including it as a destination in wayfinding signage in the public domain 	
		 Improving signage for lift access enabling greater visibility and legibility. 	
8.3	Heritage	 Provide additional heritage interpretation to tell the history and stories of the place. 	
8.4	Lighting	Undertake a lighting audit and plan that considers:	
		 Better illumination and enhancement of the heritage features, 'hidden historic treasures' and trees 	
		Consistent lighting around steps and paths to improve access and mobility	
		 Improvement of ambient lighting conditions and removal of harsh lighting 	
		• Connection and integration of lighting approaches to proposed illumination of the rockface as part of proposed Argyle Terrace Courtyard Upgrades to create visual connections across spaces of The Rocks.	
8.5	Movement	• Explore potential improvements to facilitate improved access while also protecting the ruins and archaeological potential.	
Site 9	Site 9 – Dawes Point Park (Tarra) South – Project Actions		
9.1	Plans	Prepare a Cultural Landscape Report and Public Domain Master Plan for Dawes Point Park that addresses:	
		• Cultural Importance of the space and conservation and management principles to guide use, activation and management	
		 The use and purpose of Dawes Point Park including potential opportunities to enhance its park role for locals and visitors 	
		 The relationship of the park with The Rocks and Rocks Markets 	

No.	Category	Description	
		Greening, planting and tree canopy to improve amenity	
		 Consideration of opportunities to introduce interpretive signage to highlight interesting features and elements in the space 	
		 Consideration of transportation sounds associated with the Harbour Bridge and potential acoustic mitigation strategies if additional activities are planned 	
		 Public amenity such as seating, bins, wayfinding and other elements that would improve the amenity for visitors to the space. 	
9.2	Lighting	Undertake a lighting audit and plan, that addresses:	
		Uneven lighting layout and harsh lighting	
		 Additional lighting along footpaths to support movement 	
		Lighting for signage	
		• Feature lighting to trees and pylons to improve night-time use and ambience.	
9.3	Wayfinding	 Introduce wayfinding signage that provides direction to, from and through Dawes Point that is lit at night and includes directions to other landmarks. 	
Site	10 – Dawes Point	t Park (Tarra) East – Strategic Actions	
10.1	Collaboration	 Support the delivery of the Yananurala partnership with City of Sydney including the proposed major art project for Tarra / Dawes Point. 	
Site	10 – Dawes Point	t Park (Tarra) East – Project Actions	
10.2	Plans	Prepare a Cultural Landscape Report and Public Domain Master Plan for Dawes Point Park that addresses:	
		 Cultural importance of the space and conservation and management principles that guide use, activation and management 	
		 Improved lighting, including lighting to pathways, trees and benches, noting tree canopy blocks other light sources 	
		 New public seating in areas with direct sunlight, noting existing seating is co- located with trees, shaded and protected from wind 	
		 Consideration of transportation sounds associated with the Harbour Bridge and potential acoustic mitigation strategies if additional activities are planned 	
		Opportunities for additional public toilet amenities	
		Opportunities for increased park use through activation in surrounding areas	
		 Public amenity such as seating, bins, wayfinding and other elements that would improve the amenity for visitors to the space. 	
10.3	Wayfinding	 Introduce wayfinding signage that provides direction to, from and through Dawes Point that is lit at night and includes directions to other landmarks. 	

Table 12: Site specific actions to deliver improved safety for women and girls in The Rocks



Figure 68: Co-design group walking through Dawes Point Park (Tarra) East



Conclusion and Next Steps

'We feel privileged to give our opinion to improve the safety of women.'

Participant in co-design walkshop, 2022



Figure 69: Walkshop participants

The Rocks | Tallawoladah Women's Safety Strategy provides a clear and actionable approach to improving the safety and enjoyment of *all* people, particularly, women, girls and gender diverse people.

Placemaking NSW is committed to the implementation of this Strategy so that The Rocks continues to evolve as a place that women and girls choose to visit during all times of the day and night, as a safe destination where they feel confident exploring and lingering. All initiatives will benefit the majority of the population – a safer place for women, is a safer place for men.

Achieving our vision for The Rocks takes a collective effort.

This Strategy functions as a guiding document for all future development, upgrades and activities that occur within the precinct. All public and private sector parties undertaking projects in The Rocks will be encouraged to deliver the actions identified in this Strategy to ensure they contribute to increasing women and girls' safety and access to public spaces.

An implementation plan is being prepared by Placemaking NSW to prioritise the delivery of actions against program and other priority projects. In many cases findings from this Strategy are being implemented through other live projects.

Building upon the success of this co-design process, women and girls will continue to be involved and kept up to date during the implementation phase to further foster their meaningful participation in urban development and governance.

This Strategy represents a robust body of research, insights and actions that will help all those involved in the precinct's urban governance make informed decisions to improve women and girls' safety in The Rocks.

Appendices

Appendices



Figure 70: Cambridge Street

The Women's Safety Strategy is supported by three appendices which provide details about key activities and outcomes to inform this document:

- Appendix A: Co-design Process
- Appendix B: Night-time Vulnerability Assessment
- Appendix C: Soundscape Assessment

These appendices form the evidence base from which the vision, objectives and actions contained within the Women's Safety Strategy have been developed.

Appendix A: Co-design Process provides details about the stakeholder mapping, stakeholder engagement and co-design process undertaken with women and girls, precinct stakeholders and the PWG.

Appendix B: Night-time Vulnerability Assessment integrates the outcomes of the lighting, CPTED and place assessments and should be read in parallel with Appendix C: Soundscape Assessment for a multidisciplinary understanding of the 10 sites assessed across The Rocks precinct.

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Placemaking NSW

The Rocks | Tallawoladah Women's Safety Strategy

Appendix A: Co-design Process

Final | July 2023



This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 289487-00

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~

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1. Introduction



Figure 1: Co-design walkshop with women and girls Figure 2: Co-design workshop with women and girls

1.1 Co-design overview

The Rocks Tallawoladah Women's Safety Strategy (Women's Safety Strategy) sets out to make walking trips safer for women and girls, to create an environment that fosters the enjoyment and engagement of women and girls and to identify actions focused on improving safety outcomes in the precinct.

The objective was to co-design a Women's Safety Strategy that contributes to women and girls' safety when walking in The Rocks by increasing women and girls' safety and access to, and engagement with public spaces, their active and meaningful participation in urban development and governance and their ability to move freely when alone in the city.

Creating safer places and cities for women and girls requires a collaborative effort underpinned by a detailed assessment of the site characteristics. The Rocks is a celebrated heritage precinct with a unique character that continues to evolve as visitor demographics and place experiences change. Enhancing safety and mobility for women and girls in The Rocks requires more than simply meeting minimum design standards.

Understanding the perspectives, needs and aspirations of women and girls and increasing their participation in the evolution of The Rocks is critical to enhancing safety and mobility outcomes. It is also vital that those with a role in designing and maintaining the precinct understand its technical performance to guide future decision making.

This strategy is the result of deep engagement with women and girls, precinct stakeholders and a project working group, combined with detailed technical assessments. This evidence base provides the foundation from which the project vision, objectives and actions are derived gathered through:

- A comprehensive co-design approach with women and girls, precinct stakeholders and a Project Working Group
- Multidisciplinary technical assessments undertaken by technical specialists for lighting, Crime Prevention Through Environmental Design (CPTED), place and soundscape.

1.2 Co-design approach

Co-design is the approach of actively involving stakeholders in the design process. A successful co-design process is one which brings together a diverse group of stakeholders in an inclusive environment that fosters engagement to maximise outcomes.

For this project, co-design has involved women and girls, precinct stakeholders and a Project Working Group as equal collaborators to develop design and operational initiatives to improve safety in The Rocks.

The following principles guided the co-design process:

- All voices are equal and listened to
- All co-design activities were thoughtfully developed to ensure diverse voices were heard and understood.
- All knowledge is valued
 There is no hierarchy of knowledge such as 'technical' versus 'non-technical' knowledge.
- Knowledge is built upon through the process
 The sharing of knowledge builds the capacity of stakeholders to participate actively in future decision-making.
- A safe and trusting space
 Eliciting tacit knowledge and building buy-in requires a safe and trusting space.
- Boundaries of decision-making are clear The parameters, boundaries and non-negotiables that guide decision-making are clear from the outset.
- Plain language is used over technical language
 Information and knowledge are shared simply without reliance on industry jargon or technical terms.

1.3 Co-design objectives

Identification and pursuit of a concrete set of objectives and outcomes is also crucial for effective co-design. Responding to the objectives of this project and the broader Safer Cities Program, the main objectives of stakeholder engagement for the Women's Safety Strategy are:

- 1. To co-design a Women's Safety Strategy that contributes to women and girls' safety when walking in The Rocks
- 2. To achieve the following objectives of the NSW Government's Safer Cities Program and The Rocks Women's Safety Strategy
 - Increased women and girls' safety and access to, and engagement with public spaces
 - Increased women and girls' active and meaningful participation in urban development and governance
 - Increased women and girls' ability to move freely when alone in the city.

These objectives are associated with a series of short-term, medium-term, and long-term outcomes:

Short-term

- Women and girls feel safe when walking in The Rocks
- Women and girls feel they can come and spend time and dwell when before they did not
- Women and girls feel like they have been heard, contributed, and have ownership
- A reduction in incident reports and reports of antisocial behaviour has been achieved
- A sense of inclusivity has been achieved through designed elements and operational changes
- Women and girls identify design and operational (non-physical) interventions and actions that positively impact their daytime and night-time safety in.

Medium-term

- Women and girls enjoy The Rocks as it offers a place of respite, learning, and exploration that goes beyond an event
- Evidence has been / can be gathered to inform investment in making walking trips safer for women and girls in urban centres throughout NSW
- A place-based approach to improving perceptions of safety has been trialled for women and girls when walking to, through and within public spaces – including lessons learnt
- An environment that fosters the enjoyment and engagement of women and girls exists in the precinct
- Improvements have been made to safety and visibility across the precinct, including lighting and smart technology.

Long-term

- Women and girls feel a sense of belonging and connection to The Rocks
- The safety and access of women and girls to public spaces has increased
- The active and meaningful participation of women and girls in urban development and governance has increased (engagement and co-design)
- The ability of women and girls to move freely and lone in the city has increased (confidence and public life).

Additionally, it should be noted that assessment frameworks should be put in place to determine the degree to which these objectives are met. Pre- and post-surveying is utilised to achieve this within the project, but it is recommended that PMNSW puts an assessment framework in place to measure long-term impacts.



Figure 3: Unwin's Courtyard

Figure 4: Co-design walkshop at Unwin's Courtyard

1.4 Co-design activities

This report details the methods undertaken and insights arising from the co-design process to inform the development of the Women's Safety Strategy including:

- Stakeholder mapping
- Project definition workshop (with Project Working Group)
- Daytime and night-time walkshops (with women and girls, precinct stakeholders and Project Working Group)
- ExperienceLab and validation workshops (with women and girls, precinct stakeholders and Project Working Group)
- Pre-walkshop and post-walkshop survey (with women and girls)
- Synthesis of safety insights (from co-design process and multidisciplinary technical assessments)
- Final co-design workshop (with women and girls).

2. Stakeholder Mapping

2.1 Stakeholder selection

For co-design to be effective, it is important to identify and engage with an appropriate set of co-design stakeholders. A high-level understanding of stakeholder organisations was developed during the inception phase through a mapping exercise to identify and categorise those stakeholders with an interest in and influence over the safety of women and girls in The Rocks and, through this mapping, identify strategies for their ongoing participation in the project.

There are three sets of stakeholders identified for this project:

Stakeholder group	Representatives
Women and girls	A cohort of 12 women, girls, non-binary and transgender
Women and girls who have direct experience walking through	people of diverse age, mobility, and cultural and linguistic
The Rocks during the daytime and night-time	backgrounds
Precinct stakeholders	A cohort of six representatives from Create NSW, Sydney City
The representatives of organisations who have an interest in	Policy Area Command, Bridge Climb, Cox Architecture and
and influence over the safety of women and girls in The Rocks	Nashcap
Project Working Group (PWG) Those with a legislative responsibility for the ongoing care and management of The Rocks	A cohort of 12 representatives from various teams within PMNSW – such as Design and Place, Partnerships, Activation and Customer Experience (PACE), Property and Leading, Security and Risk and Assets – as well as TfNSW and CBRE

Table 1: Stakeholder groups

These three stakeholder groups were identified as those with the highest level of interest and influence over safety outcomes for women and girls in The Rocks. Identifying stakeholder groups early in the project ensured that a targeted yet diverse group of people were involved to successfully co-design the strategy.

2.2 Stakeholder categorisation

Possible stakeholders were categorised as per *Figure 1*, which shows three types of stakeholders:

- 1. Direct stakeholders (blue)
- 2. Indirect stakeholders (yellow)
- 3. Mixed stakeholders (green) who are direct as individuals but belong to an indirect organisation.

Stakeholders with a high level of influence and high level of interest are key players with whom the project team needs to engage closely. Stakeholders with a high level of influence and low level of interest are those who need to be kept satisfied by the project team by meeting their needs. Stakeholders with a low level of influence and high level of interest are those who need to be kept informed by the project team and those with a low level of influence and low level of interest are those who need to be kept informed by the project team and those with a low level of influence and low level of interest are those who require minimal effort from the project team.



Figure 5: Stakeholders plotted by interest and influence

Stakeholders were contacted through two main avenues: the women and girls co-design group were contacted through a partner research agency, Farron Research, while the precinct stakeholder group and PWG representatives were contacted by PMNSW. PMNSW was involved in setting parameters for target participant groups, including:

- 1. Women and girls as a cohort of 12 women, girls and gender diverse people including a mix of at least:
 - 4 x girls aged between 15-17
 - 4 x women aged 18+
 - 1 x non-binary or transgender person aged between 15-17
 - 1 x non-binary or transgender person aged 18+
 - 6 x people from culturally and linguistically diverse backgrounds
 - 2 x people with a mobility disability.
- 2. **Precinct stakeholders** as a range of stakeholders, prioritising women, girls, non-binary and transgender people where possible, including a mix of:
 - 2-4 people from hotels, bars, restaurants and Night Time Industries Association
 - 2-4 people from commercial or retail tenants or business owners
 - 2-3 people from event partners, Investment NSW or 24-hour Economy Commissioner
 - 2-3 people from ambulance, police, fire or emergency services
 - 2-3 people from City of Sydney or Department of Premier and Cabinet
 - 1-2 people from Plan International Youth Advisory Council.

3. Problem Definition Workshop

3.1 Workshop purpose

A problem definition workshop was held with representatives from the Project Working Group on Wednesday 21 September 2022. The purpose of the workshop was to establish a shared understanding for the problem, identify measures of success, explore opportunities for the project, confirm the 10 locations for assessment and map key stakeholders for the project.

Measures of success that were identified include:

- Understanding what the baseline is
- Increasing patronage across ages and demographics
- Receiving positive feedback from tenants and visitors
- Ensuring conservation of historical and cultural character with appropriate interpretation.

Opportunities for the project that were explored include:

- Improved and adaptive lighting
- Reduced 'creepy vibes' feelings
- Better navigation
- Predictable pathways.

3.2 Workshop outcomes

Workshop outcomes are summarised on the following pages. These outcomes informed the structure and content for the daytime and night-time walkshops as well as the ExperienceLab and validation workshop.



Figure 6: Problem definition workshop report (slide 1)

Workshop purpose

A Problem Definition workshop was held with Placemaking NSW stakeholders on Wed 21/09/2022 12:00 PM - 1:30 PM at Arup.

The purpose of this workshop was to set a shared understanding for the problem, measures of success and opportunities.

Workshop objectives

- · Problem definition
- Success
- · Opportunities
- · Site selection



Convening question

How might we

- develop an actionable strategy for the safety of women and girls in the Rocks / Tallawoladah
- and identify a prioritised set of design and operational / non-physical interventions and actions interventions
 create messaging [about safety]

In a way that

- is co-designed with women and girls
 is collaboratively developed with stakeholders
 is based on evidence from studies
- is aligned to other activities
- limits adverse impacts
- · respects qualities of the precinct and is sympathetic to heritage

So that

- The perceived and actual safety and access of women and girls to public
- The percent and access and open space)
 The active and meaningful participation of women and girls in urban development and governance has increased (engagement and co-design)
 The autonomous mobility of women and girls in this part of the city has become and under the life back of the city has become and under the life back.
- increased (confidence and public life), and [We] get rid of creepy vibes.





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Problem definition

What are the problems to be solved to improve the safety of women and girls, at night and during the day in the Rocks? • 1 in 5 Women feel unsafe



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Figure 8: Problem definition workshop report (slides 5-7)

4. Daytime and Night-time Walkshops

4.1 Walkshop purpose

The purpose of the walkshops was to understand and document the lived experience of representatives from the three stakeholder groups when walking through The Rocks during the daytime and night-time. Participants were invited to record and narrate their real and perceived experiences of safety using a series of place characteristics outlined in *4.3 Place characteristics*. These results were reviewed and assessed against the outcomes of the technical assessments outlined in Appendix B: Night-time Vulnerability Assessment and Appendix C: Soundscape Assessment to understand the similarities and differences between stakeholder perceptions of safety and technical assessments of safety.

4.2 Walking routes

The problem definition workshop identified 10 sites to be assessed as part of the Women's Safety Strategy:

- 1. George Street North
- 2. Globe Street
- 3. Cumberland Place and Steps
- 4. Argyle Street
- 5. Jack Mundey Place
- 6. Cadman's Cottage and Bligh and Barney Reserve
- 7. Unwin's Courtyard
- 8. Foundation Park
- 9. Dawes Point Park (Tar-ra) South
- 10. Dawes Point Park (Tar-ra) East

The walkshop participants were split into two walking groups to allow participants sufficient time to walk to and experience a number of sites within the timeframe allocated for the walkshops, as below:

Walking Route 1	Walking Route 2
Site 1: George Street North	Site 1: George Street North
Site 2: Globe Street	Site 6: Cadman's Cottage and Bligh and Barney Reserve
Site 3: Cumberland Place and Steps	Site 9: Dawes Point Park (Tar-ra) South
Site 4: Argyle Street	Site 10: Dawes Point Park (Tar-ra) East
Site 5: Jack Mundey Place	Site 4: Argyle Street
Site 7: Unwin's Courtyard	Site 8: Foundation Park

Table 2: Walking routes

These walking routes allowed all participants to experience Site 1: George Street North and Site 4: Argyle Street as a common point of reference for future workshop discussions. Participants with limited ability to walk long distances were selected for Walking Route 1 due to its shorter distance, however this route involved more steps. These walking routes are mapped in *Figure 5: Walking routes*

Participants undertook the first component of the walkshop during the daytime, in late afternoon, walking to and experiencing each of the sites for their respective walking group. A short dinner break was held at the conclusion of this daytime walkshop with all participants, before breaking into their respective walking again to walk the same route as earlier, but at night-time once the sun had set.

This allowed for participants to experience and record their perceptions of safety for the same times during both the daytime and night-time.



Figure 9: Overview of the 10 sites assessed during the daytime and night-time walkshops
4.3 Place characteristics

At the commencement of the walkshops, participants were given a safety briefing, an overview of the place characteristics which contribute to feelings of safety and mobility, and a booklet containing:

- A 'cheat sheet' for each of the place characteristics
- A 'work sheet' for each site visited during the walkshop to record observations during both the daytime and night-time.

The place characteristics are critical elements considered as part of the multidisciplinary lighting, CPTED, place and soundscape technical assessments. The purpose of explaining these characteristics to the walkshop participants, prior to them undertaking the walks, was to equip them with new knowledge, skills and language to be able to describe their feelings of safety.

The participants were informed that the technical assessments had been completed, but that through the codesign methodology it was important that their perceptions and experiences were captured. Ultimately, it is the users of spaces that are important, so they, as the user of The Rocks have one of the most important insights into safety.

The place characteristics are summarised below.





Security 101 - What you need to know

People, Behaviour and Activity

Whether a space is occupied and how it is being used can affect how we experience it.

Is the space being used by many people, few people or no people? Is the space being used by different people (families, elderly, young people) in different ways (eating at restaurants, walking along footpaths, drinking at pubs)?

Seeing and Being Seen

Having the right amount of visual connection with other people helps us feel safe and confident when we move through space. If there is too little connection, we feel unseen and potentially in danger, but too much connection can make us feel exposed.

- Can you see other people around and in front of you? Can they see you?
- Are there supporting sight lines to the space you're in for example from restaurants, second storey windows, or CCTV?
- How do you feel in spaces do you feel like you can see and be seen the 'right' amount, or do you feel unseen/exposed?



Care

- Spaces that are not cared for can affect our experience of them: for example, if they have rubbish, graffiti, or overgrown plants.
- Is the space cared for? Can you notice rubbish, graffiti, or overgrown plants?
- How do you feel when you're in a space that is very well cared for, or very poorly cared for?

Movement, Obstacles and the Ground

Some spaces are much harder to move through than others. You might find yourself stopping or swerving to avoid other people on a path because it is too narrow. Places with steep slopes and stairs, or very uneven ground can also be harder to move through.

- How easy is it to move through the space?
- What impact does this have on how you feel about the space? Does it make you more or less likely to choose the space?

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Place 101 – What you need to know

Character Character i how we ex

Character is about the form and feel of a space that contributes to how we experience a place. Character is influenced by the physical appearance and immediate surroundings of the place.

- How high are the buildings?
- What are the physical elements within and create the space?
 Does the highlighting historical and heritage features affect
 - Does the highlighting historical and heritage features affect how the space is experienced?

Setting

Setting is about the arrangement of physical elements within the space that determines the type of place, whether a street or thoroughfare, park or square.

Sound 101 – What you need to know

Loudness

How loud is the source?

Type of Sound

and trains)?

Is the sound you hear from music? Is the sound you hear from nature?

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- Are there clearly defined paths, walkways or stairs?
- Are there clearly defined entry and exit points?
 - Are there doors or windows facing the space, shape, size and can you see through/into?

The source of sound can be loud or of a high or low pitch. The source of a

In source of source of source of a signal grabbing our attention by starting and finishing quickly (such as a car honk), or be in the background, constant and always there (such as traffic).

What pitch is the source? (Is it very high pitched or low pitched?)

Sound comes from the transportation (traffic, construction, ferries and trains),

people (conversations and laughter), music (from bars and cafes), and nature (birds, flowing water and waves).

· Is the sound you hear from transportation (traffic, construction, ferries

Is the sound you hear from people (conversations and laughter)? Can you hear the conversations? What kind of conversations are they (convivial or confrontational)? Do they sound intoxicated?

How much do you notice the source? Is the source a signal, starting and finishing quickly? Is the source constant and always there?

Are there clear views to adjacent spaces or is the space enclosed (like a courtyard)?



Amenity

Amenity refers to the usefulness of a place. Amenity is provided by places to sit and rest in the shade or in the sun, the availability of water, signage, places to dispose of waste and recycling, toilets, and the existence of trees and planting. Amenity contributes to how well a space or place is used.

- Is the space a street, square or park?
- Do sufficient amenities exist? Are they conveniently located?
- Is there shelter and shade?
- Is there identifiable, and clearly legible wayfinding signage?

Atmosphere

Atmosphere contributes to how we feel about a place. Atmosphere can be pleasant or unpleasant. Lighting, sound, sense of security, built form, setting and amenity are all features of places that contribute to atmosphere.

- Do you find the atmosphere welcoming and inviting?
- Is it a space you would meet people?
- Is it a space you would spend time?
- Is it a space you would visit again?

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Appropriateness

Sound can be appropriate to a place, contributing to or taking away from the character of a place.

- Is the sound appropriate to the space?
- · Is the sound what you expected?
- Are there sounds present that contribute to the character of the place (sound of waves/water, conversation, music)?

Character

Character of sound can be dull, vibrant, chaotic or pleasant.

- Is the sound dull?
- Is the sound vibrant?
- Is the sound chaotic?
- Is the sound pleasant?
- Figure 11: Place characteristics 'cheat sheet' for CPTED, Place and Sound

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4.4 Walkshop results

During the walkshops, participants were asked to pause, observe, listen and reflect on how the place characteristics contributed to their feelings of safety. They were asked to refer to their 'cheat sheets' and 'work sheets' for each site and to circle the three characteristics that contributed most strongly (in either a positive or negative sense) to their feelings of safety and annotate any additional comments describing why those characteristics impacted them. During the walkshops, verbal commentary was also recorded by Arup.



Figure 12: Place characteristics 'work sheet' for Site 1: George Street North

Following the daytime and night-time walkshops with the women and girls, precinct stakeholders and PWG, the place characteristics results, annotations and verbal commentary were collated and summarised.

4.4.1 Women and girls

Graphs of collated results from the women and girls are presented on the following pages. The key insights and outcomes from these results were presented at the Validation Workshop and are detailed in *5. ExperienceLab and Validation Workshop*.







Figure 14: Women and girls place characteristics for Site 2: Globe Street







Figure 16: Women and girls place characteristics for Site 4: Argyle Street







Figure 18: Women and girls place characteristics for Site 6: Cadman's Cottage and Bligh and Barney Reserve







Figure 20: Women and girls place characteristics for Site 8: Foundation Park







Figure 22: Women and girls place characteristics for Site 10: Dawes Point Park (Tar-ra) East

4.4.2 Precinct stakeholders (including PWG)

Graphs of collated results from the precinct stakeholders (including PWG representatives) walkshop are presented on the following pages. The key insights and outcomes from these results were presented at the Validation Workshop and are detailed in *5. ExperienceLab and Validation Workshops*.



Figure 23: Precinct stakeholders (including PWG) place characteristics for Site 1: George Street North



Figure 24: Precinct stakeholders (including PWG) place characteristics for Site 2: Globe Street







Figure 26: Precinct stakeholders (including PWG) place characteristics for Site 4: Argyle Street



Figure 27: Precinct stakeholders (including PWG) place characteristics for Site 5: Jack Mundey Place



Figure 28: Precinct stakeholders (including PWG) place characteristics for Site 6: Cadman's Cottage and Bligh and Barney Reserve



Figure 29: Precinct stakeholders (including PWG) place characteristics for Site 7: Unwin's Courtyard



Figure 30: Precinct stakeholders (including PWG) place characteristics for Site 8: Foundation Park



Figure 31: Precinct stakeholders (including PWG) place characteristics for Site 9: Dawes Point Park (Tar-ra) South



Figure 32: Precinct stakeholders (including PWG) place characteristics for Site 10: Dawes Point Park (Tar-ra) East

5. ExperienceLab and Validation Workshop

5.1 ExperienceLab activity

Following the daytime and night-time walkshops, the women and girls, precinct stakeholders and PWG were invited to participate in two further activities called the ExperienceLab and Validation Workshop.

The ExperienceLab was held at Arup's custom audio-visual space, called the ExperienceLab, where participants 'virtually' revisited the same sites they walked through during the daytime and night-time walkshops. Participants were played an audio-visual recording in 360-degree surround sound and visual, but at a later time of night than previously experienced, to emphasise how The Rocks transitions into late evening.

These recordings were taken between 10pm and 2am to provide participants with a third appreciation of sites they knew from the initial daytime and night-time walkshops, prompting them to recall their initial experience and think about the ways in which their perceptions of safety may change with differing contexts, such as time of day.

Participants undertook the same activity as during the daytime and night-time walkshops, referring to their 'cheat sheets' and 'work sheets' for each site and circling the three characteristics that contributed most strongly (in either a positive or negative sense) to their feelings of safety and annotate any additional comments describing why those characteristics impacted them. Once again, verbal commentary was recorded by Arup.



Figure 33: Co-design walkshop with women and girls

Figure 34: Co-design workshop with women and girls

5.2 Validation workshop activity

Immediately following the ExperienceLab, participants assembled in Arup's workshop studio to undertake the validation workshop. The purpose of this workshop was to share key insights from the technical assessments and the outcomes of the daytime and night-time walkshops with participants.

These insights and outcomes framed the opportunity for participants to co-create a range of guiding principles to support improved safety and mobility outcomes in The Rocks as well as a range of possible initiatives that PMNSW could consider implementing.

The materials presented at the validation workshop are provided below.

5.2.1 Validation workshop materials





Recap and reflection

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What are your reflections on the outcomes of the assessments? What were your 'key takeaways'?

Share 'key takeaways'. Write up on whiteboard (5 mins)

Guiding principles and initiatives

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The objective of the Women's Safety Strategy is to contribute to the following:

- · Outcomes specific to The Rocks / Tallawoladah:
- Women and girls feel a sense of belonging and connection to The Rocks / Tallawoladah · Outcomes generally:
- The safety and access of women and girls to public spaces has increased The active and meaningful participation of women and girls in urban development and governance has increased
- The autonomous mobility of women and girls in the city has increased

Guiding principles and initiatives

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The Women's Safety Strategy will also include 'initiatives' to improve safety and mobility in The Rocks / Tallawoladah.

An initiative is a physical or non-physical intervention to improve safety and mobility. An initiative might relate to a specific place or to a typology (or type of place). An initiative might address differences between your assessment and our assessment of each place.

Guiding principles and initiatives

Let's take 'breakfast' as an example ...

Guiding principles

Initiatives

- Counter principles
 Initiative
 Plan to cat breakfast every sky
 Aveid easing breakfast 'on the run'
 Set the table for breakfast each
 evening before going to bed The health and wellbeing of people is improved by eating breakfast Chouse healthy breakfast options that are low in sugar and fat weekly shopping list

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Recap and reflection

There is alignment between your perceptions and attitudes and the outcomes of our technical assessments for some places and some typologies

There are differences between your perceptions and attitudes and the outcomes of our technical assessments for some places and some typologies

We need to keep both in mind as we develop the guiding principles underpinning the Women's Safety Strategy, and identify initiatives to improve safety and mobility in The Rocks / Tallawoladah and elsewhere

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The Women's Safety Strategy will include a set of 'guiding principles'.

Guiding principles and initiatives

A 'guiding principle' is 'an idea that influences you' ... (or others) ... 'when making a decision or considering a matter '*.

The 'guiding principles' we are co-designing today will set the standard for the design of initiatives to improve safety and mobility of women, girls and those of diverse genders, and underpin decision-making about the prioritization of investment to improve safety and mobility.

Guiding principles and initiatives

Let's take "breakfast" as an example

Let's start with the outcome: The health and wellbeing of people is improved by eating breakfast. Standards for breakfast that could be used to guide decision-making about initiatives that might contribute to the outcome of improved health and wellbeing might include:

- · Plan to eat breakfast every day
- Avoid eating breakfast 'on the run'
- · Choose healthy breakfast options that are low in sugar and fat
- Initiatives that are guided by these standards might include:
- Shop regularly so that breakfast choices are always available
- Set the table for breakfast each evening before going to bed
- · Include low sugar cereals and low fat milk as a 'standing items' on the weekly shopping list

Developing guiding principles and initiatives

Let's look at Place 1, George Street.

Let's go back to the outcomes of our assessments of Place 1. (Next slide ...)





Developing guiding principles for each place

Place 1	- George	Street
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Guiding principles	Initiatives	Outcomes
Your Gaiding Principle No. 1	Initiative No. 1	Women and girls feel a sense of belonging and connection to The Rocks / Tailawoladah
Your Guiding Principle No. 2	Initiative No. 2	The safety and access of women and girls to public spaces has increased
Your Guiding Principle No. 3	Initiative No. 3	The active and meaningful participation of women and girls in urban development and governance has increased
Your Guiding Principle No. 4	Initiative No. 4	The autonomous mobility of women and girls in the city has increased

ARUP Developing guiding principles for each place

Taking 'breakfast' as an example

Starting with the outcome: The health and wellbeing of people is improved by eating breakfast. Standards for breakfast that could be used to guide decision-making about initiatives that might contribute to the outcome of improved health and wellbeing might include:

- · Plan to eat breakfast every day
- · Avoid eating breakfast 'on the run'
- · Choose healthy breakfast options that are low in sugar and fat
- Initiatives that are guided by these standards might include · Shop regularly so that breakfast choices are always available
- Set the table for breakfast each evening before going to bed
- Include low sugar cereals and low fat milk as a 'standing items' on the weekly shopping list

Developing guiding principles for each place

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In your Working Groups:

Who would like to share 'your one thing'?

Let's hear from everyone ...

Categorise your ideas. Consider combining similar ideas into a single guiding principle.

You have approximately five minutes per place.

Developing key initiatives for each place

Now, we're going to identify initiatives to improve safety and mobility at each place so safety and mobility meets each of our standards...

Remember... an initiative is a physical or non-physical intervention to improve safety and mobility. An initiative might relate to a specific place or to a typology (or type of place). An initiative might address differences between your assessment and our assessment of each place. each place.

Think about it quietly for a minute. Using a Post It Note, write down initiatives to improve safety and mobility in line with the standard. Refer to the outcomes of our assessments. Use the terminology on the 101 'cheat sheets'. Reflect on your ExperienceLab experience. (10 mins)



Developing guiding principles for each place Public 1

"George Street is the main north-south street and Angyle Street, is the main cast-west street. Part of Angyle Street, howeven George and Harrington Streets, is a pedestrian plaza and shareway know as Jack Mundey Place."

Local streets and lanes

'The Rocks Square, Cadmans Cottage Square, and Well Courtyard.'

Squares and courtyards

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Parks 'Foundation Park, Dawes Point Park, Hickson Road Reserve, Bligh and Barney Park, West Terrace (in front of the Museum of Contemporary Art) and First Fleet Park.'

Atherden Street, Mill Lane, Hickson Road, Harrington Street, Glouster Street and Essex Street. Pedestrian streets, laneways and stairways include Globe Street, Nurses Walk, Suez Canal,

Constead Steps, Cambridge Street, Playfair Street, Kendall Lane, Gloucester Walk, Angyle Steps and Greenway Lane."

ARUP Developing guiding principles for each place

Let's look at our first place.

Let's go back to the outcomes of our assessments for this place.

If there was one thing that should be done to set the standard for safety and mobility at this place and help make decisions about initiatives to improve safety and mobility. what would it be?

Think about it quietly for a minute. Using a Post It Note, write down 'your one thing' that should be done to set the standard. Refer to the outcomes of our as essments Use the terminology on the 101 'cheat sheets'. Reflect on your ExperienceLab experience. (Next slide)

Sharing key guiding principles

Who would like to share your guiding principles? Let's hear from each group ... (5 mins; 2.5 mins each Working Group)

Sharing key initiatives

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ARUP

Who would like to share your key initiatives? Let's hear from each group... (5 mins; 2.5 mins each Working Group)



5.3 Outcomes

Outcomes from the validation workshop have been synthesised as follows for the stakeholder groups:

	Women and girls	Precinct stakeholders and PWG
Guiding principles	 Activation Place Character 	 Character Seating Ambient lighting
Potential initiatives	 Atmosphere Ambient lighting User experience 	 Ambient lighting People behaviour and activity Task lighting

Figure 35: Validation workshop outcomes

Detailed responses from each of the workshop groups are provided in the figures below and these responses informed the final actions identified in the Women's Safety Strategy.



Figure 36: Guiding principles identified by women and girls (activation, place and character ranked highest)



Figure 37: Potential initiatives identified by women and girls (atmosphere, ambient lighting and user experience ranked highest)



Figure 38: Guiding principles identified by precinct stakeholders and PWG (character, setting and ambient lighting ranked highest)



Figure 39: Potential initiatives identified by precinct stakeholders and PWG (ambient lighting, people behaviour activity, and task lighting ranked highest)

Pre-walkshop and Post-workshop Survey 6.

A survey of the women and girls was conducted prior to the daytime and night-time walkshops and at the conclusion of the ExperienceLab and validation workshop to evaluate the extent to which the co-design process achieved a number of the short-term outcomes. The survey questions were developed in collaboration with PMNSW and responses to the questions are highlighted below.

Question: Do you feel safe and secure in The Rocks precinct?

Before



Figure 40: Feelings of safety and security in The Rocks before (left) and after (right) the co-design process

Participant perceptions of safety in The Rocks / Tallawoladah have improved slightly overall. The proportion of participants who said they felt 'very safe' doubled, and the number of participants who answered 'safe' also increased. These numbers seem to have moved from 'neutral', rather than 'unsafe'; the number of respondents who said that they felt 'unsafe' remained the same.

Question: How aware are you of features of public spaces that contribute to your safety and security?

Before



After



Figure 41: Awareness of features contributing to feelings of safety and security in The Rocks before (left) and after (right) the co-design process

There was a significant increase in participant awareness between the surveys. In the first survey, 'very unaware' and 'unaware' responses accounted for almost half of the responses - however, in the second survey there was only one 'unaware' response and no 'very unaware' responses. Additionally, one 'very aware' response was recorded in the second survey, where there were none in the first survey. This reflects that the project was very effective at increasing the awareness of participants to the features of public spaces that contribute to their safety and security.

Question: How do you feel about getting to/leaving The Rocks on your own?





After



Figure 42: Feelings of safety getting to / leaving The Rocks before (left) and after (right) the co-design process

There has been a significant increase in participants feeling 'very safe' to get to and leave the precinct. There was also a minor shift in those reporting feeling 'unsafe' to 'neutral'. While there was a reduction in the number of participants reporting feeling 'safe', it appears that these individuals have transferred into 'very safe'. This indicates that engagement with the precinct and better understanding of its positive aspects, drawbacks, and layouts increases feelings of safety.

Question: Are you confident walking in The Rocks?



After



Figure 43: Feelings of confidence walking in The Rocks before (left) and after (right) the co-design process

There was a significant increase in confidence when walking in The Rocks precinct after the project, compared to at its start. Both the before and after surveys recorded 'confident' or 'very confident' results at around 80%. However, the concluding survey noted that the number of 'very confident' responses had roughly doubled. Additionally, the remaining (approx.) 20% changed from 'unconfident' to 'neutral' following the project, and consequently no participants noted feeling 'unconfident' or 'very unconfident'.

Question: Are you likely to visit The Rocks in the future during the night?

Before

After



Figure 44: Likelihood of visiting The Rocks / Tallawoladah in the future at night - before (left) and after (right)

The number of participants who stated they 'agree' or 'strongly agree' with visiting The Rocks in the future at night increased from roughly 55% to roughly 70% and remained equally proportioned. The number of 'neutral' responses remained static, however the number of 'disagree' responses decreased. While most of the 'disagree' responses transferred to a more positive response, one transferred to a more negative response of 'strongly disagree', which was not present in the survey at project outset. This shows that while the project made most participants more amenable to the precinct, one participant fostered a more negative view of the area following the project.

7. Synthesis of Safety Insights



Figure 45: Dawes Point Park (Tar-ra) South

Figure 46: Night-time walkshop

7.1 Co-design process and technical assessments

The following pages provide a summary of key insights from the co-design process and technical assessments undertaken for each of the 10 sites. This includes the following information:

- Place Characteristics

- Describing the top-rated place characteristics as noted by women and girls, precinct stakeholders and PWG representatives during the daytime and night-time walkshops

- Night-time Vulnerability Assessment

- Providing the quantitative metric derived through Arup's technical assessment of each site using the lighting, CPTED and place methodology outlined in Appendix B: Night-time Vulnerability Assessment
- Rationalising all results to provide a comparable score for each assessment as a percentage and with the 'better' outcome scoring the 'higher' score (noting that in the case of the Lighting score, this is the inverse of the way Arup typically scores a Night-time Vulnerability Assessment, where the higher score equates to a higher degree of vulnerability)

- Soundscape Assessment

- Highlighting which type of sound dominates during the daytime and night-time.

These quantitative outcomes are followed by safety insights synthesised from an analysis of the data collected during the project, including individual insights recorded by walkshop and workshop participants, to provide an indication of what this means for each site in terms of improving safety and mobility outcomes.

This analysis underpins the series of actions identified in the Women's Safety Strategy at both a precinct wide and site-specific scale.

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Music sound	Transportation sound
Night-time	Ambient lighting	Ambient lighting
Late night	Transportation sound	Atmosphere
Night-time Vulnerability Assessment		
Lighting score	41 / 100	(Higher score = higher lighting quality)
CPTED score	60 / 100	(Higher score = higher security)
Place score	68 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Industry sounds dominate	
Night-time	Anthropogenic and industry sounds dominate	

Figure 47: Co-design process and technical assessments for Site 1: George Street North

Insight	Analysis	What does this mean for this site?
LIGHTING & SOUND	Lighting characteristics (such as "ambient lighting") and sound characteristics (such as "music sound" and "transportation sound") were key contributors to feelings of safety for both the women and girls and the stakeholders at site. We anticipated lighting characteristics being a key contributor as this is consistent with previous studies into perceptions of safety for women and girls (e.g. YourGround by XYX Lab and CrowdSpot), however we were unsure whether sound would be a key contributor. In the case of lighting, "ambient lighting" had a POSITIVE impact with comments such as "beautiful, purposeful lights in the trees", "I feel safe I can clearly see my surroundings" and "second floor lighting helps". In the case of sound, "music sound" had a POSITIVE impact on the site (e.g. "good vibe with music", "fun" and "lively") while "transportation sound" and other industrial sounds had a NEGATIVE impact on the site (e.g. "loud, harsh intermittent construction", "once in a while, there's a drilling sound").	It means that both lighting and sound should be considered for future upgrades and investment at George Street to improve real and perceived safety for women and girls not just lighting in isolation. It also means the POSITIVE impacts, such as "bright but not blinding" and "up lit facades", should be amplified while NEGATIVE impacts, such as "lighting completely random" and "one side of the street has good atmosphere, but not the other", should be addressed through future upgrades and investment. For sound, continuing a live music program at the site will contribute to POSITIVE feelings of safety. Transportation sounds and industrial sounds are a necessary part of urban life, however reducing their impact through measures such as reduced vehicle speeds and traffic calming, will mitigate NEGATIVE feelings of safety.
SAFE vs. UNSAFE	Amongst the women and girls, the site is rated by some as "most safe", "safest place because of lots of people" and "groups of loud men drinking, least safe here". This is also where women and girls had differing feelings about CCTV cameras a younger woman said they made her question whether this area was safe, while an older women noted "I feel better that I can see the camera".	It means we need to consider a range of perspectives and voices when designing for safety because there are divergent views amongst users of the space their views add an important layer on top of the compliance requirements for things like lighting and sound.

Figure 48: Safety insights for Site 1: George Street North

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Ambient lighting, brightness and glare, character	Movement, obstacles and ground
Night-time	Music sound	Task lighting
Late night	People, behaviour and activity	People, behaviour and activity
Night-time Vulnerability Assessment		
Lighting score	42 / 100	(Higher score = higher lighting quality)
CPTED score	64 / 100	(Higher score = higher security)
Place score	75 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Industry sounds dominate	
Night-time	Anthropogenic sounds dominate	

Figure 49: Co-design process and technical assessments for Site 2: Globe Street

Insight	Analysis	What does this mean for this site?
TYPOLOGIES vs. SITES	While Nurses Walk and Globe Street are both classified as "local streets and lanes", they each have distinct characteristics and functions (Nurses Walk = strolling, meandering and slow movement vs. Globe Street = thoroughfare and direct movement).	It means that while we have classified sites according to the urban typologies identified in the Public Domain Strategy, each site is unique and its character should be celebrated, rather than trying to apply a "one size fits all" approach to all sites of the same typology.
LANES CAN FEEL SAFE	Where there are characteristics that could contribute NEGATIVE feelings of safety (e.g. narrow lane with limited passive surveillance), they are mitigated by characteristics that have POSITIVE impact on feelings of safety (e.g. good natural light during the day, being able to see the end of the lane, people activating the lane by sitting in cafes and strolling through).	various elements of a site and that even if the physical characteristics of a site might tend towards it being an unsafe space, there is always potential to improve feelings of safety by amplifying or mitigating these
DAYTIME vs. NIGHT-TIME	This character of this site was described by the women and girls as "secluded, like a private space" during the day and "I wouldn't come at night". However, when they returned at night, their perceptions of safety included "streetlamps make it easier to see there is a thoroughfare" and "the blue coloured lights draw you into the space and it feels more inviting than during the day".	It means that night-time lighting, art installations and outdoor cafe/restaurant seating contribute POSITIVE feelings of safety, despite a space being narrow and with limited passive surveillance.

Figure 50: Safety insights for Site 2: Globe Street

7.4 Site 3: Cumberland Place and Steps

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Seeing and being seen	Character
Night-time	Task lighting	Ambient lighting, character, setting
Late night	Ambient lighting, colour temperature	Brightness and glare
Night-time Vulnerability Assessment		
Lighting score	33 / 100	(Higher score = higher lighting quality)
CPTED score	48 / 100	(Higher score = higher security)
Place score	49 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Industry sounds dominate	
Night-time	Industry sounds dominate	

Figure 51: Co-design process and technical assessments for Site 3: Cumberland Place and Steps

Insight	Analysis	What does this mean for this site?
VISIBILITY & ACCESSIBILITY	"Seeing and being seen" was the top contributor of NEGATIVE feelings of safety for women and girls, with participants noting "there are lots of blind spots and it is hard to see the stairs".	This means there is a need to enhance lighting, signage and access to increase safety and mobility for all users of Cumberland Place more so than at the other local streets and lanes.
	The lack of lighting on the stairs, inconsistent lighting at night-time and poor visibility of signage were recurring issues highlighted by both the women and girls and the stakeholders as contributing to NEGATIVE feelings of safety.	
	There were also multiple accessibility issues identified by both the women and girls and the stakeholders which contributed to NEGATIVE perceptions of mobility including "trip hazards", "uneven stairs" and "no accessibility at all".	
POSITIVE & NEGATIVE CHARACTER	The heritage character of this site was seen as POSITIVE, especially during the daytime, however at night-time this was reversed and became NEGATIVE, with some stakeholders noting a need for "more lighting on historic buildings" and some women and girls describing the site as "dark, ominous and abandoned".	This means that the heritage character is a positive asset for this site, but it needs to be sensitively/creatively interpreted at night-time to improve perceptions of safety.
SOUND NOT A KEY ISSUE	By comparison with some of the other sites that were assessed, sound was not identified as a key characteristic, in either a POSITIVE or NEGATIVE way, at Cumberland Place.	This means that there are other characteristics requiring more urgent attention, such as lighting, signage and access, at Cumberland Place.

Figure 52: Safety insights for Site 3: Cumberland Place and Steps

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Character	Character
Night-time	Ambient lighting	Accent and wayfinding, task lighting
Late night	Transportation sound	Transportation sound
Night-time Vulnerability Assessment		
Lighting score	24 / 100	(Higher score = higher lighting quality)
CPTED score	48 / 100	(Higher score = higher security)
Place score	52 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Industry sounds dominate	
Night-time	Anthropogenic sounds dominate	

Figure 53: Co-design process and technical assessments for Site 4: Argyle Street

Insight	Analysis	What does this mean for this site?
MOST CONSISTENT RATING	Argyle Street had the most consistent rating of characteristics between the women and girls and the stakeholders across the 10 sites. "Character" had a POSITIVE impact on feelings of safety during the daytime with participants noting the site as "beautiful yet overgrown", "calm", "sense of invitation" and "beautiful iconic corner". Lighting characteristics such as "ambient lighting",	It means there was a broad consensus about the space performing well during the day, as a result of its unique character, but that improvements are needed at night- time and late night to improve safety and mobility through enhanced lighting and more space for pedestrians.
	"accent and wayfinding lighting" and "task lighting" had NEGATIVE impact upon feelings of safety during the night-time with participants noting "signs cannot be read", "way too dark", "lighting under bridge needs improvement" and "broken lights". "Transportation sound" had a NEGATIVE impact	
	upon feelings of safety during the late night with "lots of taxis and traffic noise" noted. During the night-time and late night, there were	
	multiple references to a lot of pedestrians walking through Argyle Cut on the very narrow footpaths which at times felt "too crowded to walk on".	
WORST LIGHTING VULNERABILITY	Argyle Street performed the worst of the 10 sites in terms of lighting vulnerability. This impacts not only perceptions of safety but also the lack of ability to navigate through the precinct due to wayfinding signage not being lit. This contributes to NEGATIVE feelings of safety as it is not clear how to get to landmarks such as the Glenmore Hotel and Cumberland Place.	Improving lighting in Argyle Street is a priority based on perceptions of safety from both the women and girls and the stakeholders, as well as its night-time vulnerability assessment.

Figure 54: Safety insights for Site 4: Argyle Street

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Music sound	Movement, obstacles and ground
Night-time	Sound of people	Ambient lighting
Late night	Ambient lighting, music sound, setting	Music sound
Night-time Vulnerability Assessment		
Lighting score	56 / 100	(Higher score = higher lighting quality)
CPTED score	80 / 100	(Higher score = higher security)
Place score	52 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Anthropogenic sounds dominate	
Night-time	Anthropogenic sounds dominate	

Figure 55: Co-design process and technical assessments for Site 5: Jack Mundey Place

Insight	Analysis	What does this mean for this site?
HIGH PERFORMING SPACE	Jack Mundey Place scored the lowest night-time vulnerability assessment, i.e. from a lighting assessment it performed the best of all the 10 sites. It also performed the best in terms of CPTED. The results of the technical assessment were complemented by the POSITIVE feelings of safety amongst the women and girls who described the space as "inviting", "bustling", "nice atmosphere and chatter", "nice music and food smells" and "beautiful heritage building" during the daytime. Similarly, the stakeholders had POSITIVE feelings of safety about "people, behaviour and activity" when describing it as a "lively and activated by people socialising and communicating" in the day. These sentiments continued into the evening when both the women and girls and stakeholders highlighted "sound of people", "music sound" and "ambient lighting" as POSITIVE.	It means that Jack Mundey Square is already performing well in terms of safety and mobility across both the women and girls, stakeholders and technical assessments, however it is worth noting that this was not unanimous across all participants. One woman noted that at night, she "felt uneasy" and another noted "a few loud, rowdy people make the place feel less welcoming". This is a reminder that there will often be a diversity of perspectives and feelings about the way we plan and design our public spaces.
RANGERS vs. POLICE	Participants from both the women and girls and stakeholder groups made notes about the presence of rangers and police in this space. One woman indicated that "police and rangers make it feel less relaxed, NEGATIVE" while one stakeholder simply stated "rangers visible". At other points of the night-time walks, younger participants stated that rangers make them feel safe while police don't, and older participants stated that police make them feel safe.	It means that this is another poignant example of how hearing from a diverse group of women, girls and stakeholders can capture differences in feelings and perceptions of safety about the same issue. From a policy, operations, maintenance and safety perspective, we need to be considering a range of approaches to address multiple concerns.
SOUND CONTRIBUTES TO SAFETY	Jack Mundey Place is the site where sound characteristics ranked highest and most frequently of all the 10 sites. This corresponds with its POSITIVE performance across the co-design and technical assessments.	It means that Jack Mundey Place should continue to be a place where live music, chatter, socialising and communicating contribute to a POSITIVE atmosphere, known for its activation and vibrancy.

Figure 56: Safety insights for Site 5: Jack Mundey Place

7.7 Site 6: Cadman's Cottage and Bligh and Barney Reserve

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Character	Seeing and being seen
Night-time	Music sound	Accent and wayfinding
Late night	Music sound	People, behaviour and activity, loudness
Night-time Vulnerability Assessment		
Lighting score	30 / 100	(Higher score = higher lighting quality)
CPTED score	76 / 100	(Higher score = higher security)
Place score	78 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Anthropogenic, industry and biophilic sounds are equal	
Night-time	Anthropogenic sounds dominate	

Figure 57: Co-design process and technical assessments for Site 6: Cadman's Cottage and Bligh and Barney Reserve

Insight	Analysis	What does this mean for this site?
HIGHEST PLACE SCORE	Cadman's Cottage received the highest Great Public Spaces Evaluation score of all the 10 sites that were assessed. This was largely due to it being easy to access and had a significant number of people using it, despite there not being formal seating available. One woman remarked that it has "nice history, nice shading from trees, but no seating". One stakeholder described it as an "oasis".	Bligh and Barney Reserve is performing well as one of very few public open spaces in the heart of The Rocks
SOUND IS PROMINENT	"Music sound" was the key contributor to POSITIVE feelings of safety for women and girls at night-time and for stakeholders both at night-time and late night. One woman remarked on being able to hear "three types of live music" with sound flowing in from George Street venues, the MCA and the Overseas Passenger Terminal.	While Cadman's Cottage doesn't have its own live music program or events, it benefits from being in close proximity to other locations that do. Introducing any additional music sound to Cadman's Cottage would need to be considered in this context.
LIGHTING IS PERCEIVED INCONSISTENTLY	The stakeholders identified "accent and wayfinding lighting" as a key contributor to POSITIVE feelings of safety at night. During the late night, stakeholders noted that there was "appropriate lighting for evening" and the "low street lighting was quite a nice scale". By comparison, the women and girls had diverse views during the night-time including "not properly lit", "good lighting" and "extremely well lit, feels safe". From a technical assessment perspective, Cadman's Cottage scored a high level of night-time vulnerability, i.e. the second worst level of vulnerability across the 10 sites.	This means that lighting and its contribution to feelings of safety is HIGHLY SUBJECTIVE in this space. Future lighting upgrades will need to consider a range of user perspectives through the planning and design process.

Figure 58: Safety insights for Site 6: Cadman's Cottage and Bligh and Barney Reserve

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Ambient lighting, colour temperature, amenity	Character
Night-time	Ambient lighting	Music sound
Late night	Music sound	Music sound
Night-time Vulnerability Assessment		
Lighting score	42 / 100	(Higher score = higher lighting quality)
CPTED score	40 / 100	(Higher score = higher security)
Place score	38 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Anthropogenic sounds dominate	
Night-time	Anthropogenic sounds dominate	

Figure 59: Co-design process and technical assessments for Site 7 Unwin's Courtyard

Insight	Analysis	What does this mean for this site?
LOWEST CPTED & PLACE SCORE	Unwin's Courtyard had the lowest CPTED score and Great Public Spaces Evaluation score. During the daytime, its "ambient lighting" and "character" were key contributors to POSITIVE feelings of safety for women and girls who stated "the fairy lights are welcoming" (despite it being daytime!) and the space is "organic, earthy, natural", "peaceful" and "welcoming". In contrast, stakeholders perceived the "character", "setting" and "atmosphere" as having a NEGATIVE impact on feelings of safety during the daytime due to "it could potentially be a hiding place with sexual assaults", "no visibility around corners" and "no wayfinding to support decision making".	
LIGHTING IS VERY BRIGHT	While the fairy lights on the trees are described by one woman as "nice", others describe aspects of the lighting as "a little too bright" and "glary". The stakeholders note that there is "lighting on steroids", "way too much glare" and "no warm light". While the technical assessment indicates a medium level of night-time vulnerability, the perceptions of both women and girls and the stakeholders indicates that the current lighting at Unwin's Courtyard has a NEGATIVE impact on feelings of safety.	It means that the lighting for Unwin's Courtyard needs to reflect the character, scale and function of the space - - it is framed by heritage buildings, it is a small and intimate space, and it is primarily as a thoroughfare rather than a place to dwell.
NEARBY SOUND IS BENEFICIAL	Like Cadman's Cottage, "music sound" features prominently as having a POSITIVE impact. While some parts of the courtyard are quieter, the closer one gets to The Orient Hotel, the more audible the sounds from the venue become. One stakeholder noted that during the late night, a "joyful pub singalong makes the space feel more active, even though not many people are using it". One woman noting during the night-time that "a loud fan sound is destroying the ambience".	This means that for the most part, Unwin's Courtyard benefits from nearby music sounds as a POSITIVE contributor to feelings of safety, but other characteristics (such as wayfinding and lighting) still need improvement.

Figure 60: Safety insights for Site 7 Unwin's Courtyard

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Character	Loudness, character
Night-time	Movement, obstacles and ground	Task lighting, seeing and being seen, loudness
Late night	Character	Character
Night-time Vulnerability Assessment		
Lighting score	31 / 100	(Higher score = higher lighting quality)
CPTED score	44 / 100	(Higher score = higher security)
Place score	58 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Industry sounds dominate	
Night-time	Anthropogenic sounds dominate	

Figure 61: Co-design process and technical assessments for Site 8: Foundation Park

Insight	Analysis	What does this mean for this site?
HERITAGE CHARACTER IS PROMINENT	"Character" was rated as the top characteristic contributing to POSITIVE feelings of safety for both the women and girls and stakeholders, during the daytime.	This means that while the heritage character is a POSITIVE characteristic for this place, it requires improved wayfinding signage to increase feelings of safety.
	While women and girls described Foundation Park as "well maintained", "historic and beautiful", "lovely rooftop spot" and "very relaxing", participants rated it as both "the most safe" and "the least safe" of the 10 sites.	
	Where there were NEGATIVE perceptions of safety during the daytime, it was primarily around not knowing the park existed, not knowing exactly where in The Rocks Tallawoladah they were and not being able to see signage indicating how to get to another destination.	
LIGHTING IS LACKING	While the technical assessment resulted in a medium level of night-time vulnerability for lighting, the women and girls expressed repeated NEGATIVE concerns about lighting during the night-time and late night including "needs better lit signage", "very bright and blinding", "way too dark" and there were multiple requests for fairy lights in the trees.	This means there is a need to review and upgrade the lighting at Foundation Park to better illuminate it and enhance its heritage character at night and, if there is a desire to provide access into and mobility through it during the night-time, to improve safety outcomes by illuminating the steps, paths and wayfinding signage.
	The stakeholders also echoed these NEGATIVE sentiments stating "task lighting needs to be improved", "terrible lighting" and "very ugly, doesn't enhance the character".	

Figure 62: Safety insights for Site 8: Foundation Park

7.10 Site 9: Dawes Point Park (Tar-ra) South

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Transportation sound, setting	Setting
Night-time	Transportation sound	Atmosphere
Late night	Transportation sound	Ambient lighting
Night-time Vulnerability Assessment		
Lighting score	31 / 100	(Higher score = higher lighting quality)
CPTED score	72 / 100	(Higher score = higher security)
Place score	63 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Industry sounds dominate	
Night-time	Industry sounds dominate	

Figure 63: Co-design process and technical assessments for Site 9: Dawes Point Park (Tar-ra) South

Insight	Analysis	What does this mean for this site?
SOUND IS PROMINENT	"Transportation sound" rated highly as a key contributor for NEGATIVE impact on perceptions of safety at all times of the day for the women and girls, but not at any time for stakeholders. During the daytime, the women and girls noted "loud sounds from traffic", "too loud", "quite loud under the bridge" and "very noisy". At night-time and late night, there were less sound-related comments as they focused more towards lighting. By comparison, only one stakeholder referenced "the sound of trains" without giving an indication of whether this had a positive or negative impact on their perception of safety. Both the women and girls and the stakeholders recognised that this site had a spectacular setting, looking out across to the Sydney Opera House, which was not being maximised.	This means that we need to acknowledge that this site is an inherently noisy place, and that any future upgrades or investment should be mindful of this characteristic. While the transportation sounds featured prominently in the NEGATIVE perceptions of safety for women and girls, this should not preclude a reinterpretation or redesign of this space.
ATMOSPHERE & LIGHTING	At night-time, "atmosphere" rated highly as a key contributor having a POSITIVE impact for stakeholders. The illuminated view of the Sydney Opera House was noted with a "love" emoji. While the women and girls still rated "transportation sound" highly as having a NEGATIVE impact at night-time, many comments focused on lighting characteristics including "adequate lighting for use as a thoroughfare", "feels like security lighting" and "needs more lighting to feel safe". One stakeholder remarked that the "lighting was quite good from underneath". There was a general perception that this wasn't a place that felt safe to stay in and linger in for a period of time during the daytime or night-time because "it feels like a pathway", it is "not inviting" and is "disorienting without signage at night".	This means there is an opportunity to capitalise on the setting and create a positive atmosphere at Dawes Point, under Sydney Harbour Bridge, but there would need to be careful consideration of daytime and night-time programming of the space to ensure the space adequately addresses safety concerns that can be influenced, such as lighting and wayfinding.

Figure 64: Safety insights for Site 9: Dawes Point Park (Tar-ra) South

7.11 Site 10: Dawes Point Park (Tar-ra) East

Place Characteristics		
	Women and girls	Precinct stakeholders (including PWG)
Daytime	Setting	Seeing and being seen
Night-time	Seeing and being seen, transportation sound	Ambient lighting
Late night	Transportation sound	Ambient lighting, setting
Night-time Vulnerability Assessment		
Lighting score	49 / 100	(Higher score = higher lighting quality)
CPTED score	68 / 100	(Higher score = higher security)
Place score	65 / 100	(Higher score = higher amenity)
Soundscape Assessment		
Daytime	Anthropogenic, industry and biophilic sounds are equal	
Night-time	Industry sounds dominate	

Figure 65: Co-design process and technical assessments for Site 9: Dawes Point Park (Tar-ra) East

Insight	Analysis	What does this mean for this site?
SETTING & AMENITY	Both the women and girls and stakeholders noted that Dawes Point Reserve is a "beautiful setting", "pleasant" and "calming" during the daytime. However, its lack of ability to see and be seen, lack of signage and lack of amenities (toilet facilities) contribute to NEGATIVE feelings of safety for the women and girls, while the high level of winds and transportation sounds contribute to NEGATIVE feelings of safety for the stakeholders.	This means that despite its setting as a public open space overlooking Sydney Harbour, Dawes Point Reserve is not perceived as a place to go to and to stay in during the daytime. As one of few public open spaces in The Rocks Tallawoladah with a grassy hill, this is a missed opportunity for public recreation for residents, workers and visitors to the area.
LIGHTING IS LACKING	While the technical assessment for Dawes Point Reserve indicated a medium level of night-time vulnerability, various lighting characteristics and "seeing and being seen" were key contributors to NEGATIVE feelings of safety during the night-time and late night for both the women and girls and the stakeholders.	This means that there is a need to enhance lighting, particularly along the pathway, to improve safety and mobility for all users of this space during the night-time and late night.
	The women and girls noted "really bad lighting", "not fully lit", "too dark" and "even worse at night, not safe at all". This was consistent with the stakeholders who noted "it's really dark and quiet, I wouldn't come", "not enough lighting", "path lighting not adequate", "no wayfinding" and "I would not come here".	

Figure 66: Safety insights for Site 9: Dawes Point Park (Tar-ra) East

8. Final Co-design Workshop



Figure 67: Participants at the final co-design workshop

8.1 Workshop overview

The concluding step in the co-design process was presenting key insights and outcomes from the Women's Safety Strategy back to the women and girls, prior to its finalisation. This was delivered in the form of an online workshop with representatives from the women and girls co-design group, PMNSW and Arup attending.

The purpose of the workshop was to:

- Close the loop of engagement by sharing safety insights identified through the walkshops, workshops and technical assessments
- Show the women and girls how their feedback has informed the actions in the Women's Safety Strategy by providing a snapshot of actions identified for two sites
- Demonstrate that PMNSW continues to value the feedback of the women and girls by seeking views on their experience of the co-design process.

To achieve this purpose, the workshop covered three areas:

- 1. A project update for the women and girls, explaining what work had occurred since the validation workshop in November of 2022 which included:
 - An explanation of where the project is in its timeline (at the end of the 'drafting' stage near to finalisation)
 - An overview of key insights, outcomes, and actions from their perceptions of safety and the technical assessments
- 2. A workshop activity on two sites in the precinct, George Street North and Argyle Street, which included:
 - A reintroduction to two of the sites, including what was understood from the women and girls, stakeholder participants, and technical assessments
 - How those understandings when considered when designing actions
 - A series of Menti polls that allowed the participants to provide feedback on the actions
- 3. A final reflections section to provide commentary on the co-design process.
8.2 Workshop results

Workshop participants completed nine questions which are summarised below.

George Street North

Question 1: Once implemented, how would these actions make you feel when walking in George Street North, during the day?

Examining responses to Question 1, we see a response that is positive overall, but somewhat mixed. Of the 12 responses, 7 indicated feeling *very safe and included* (58%) following the implementation of the proposed measures for George Street North, when walking during the day. However, of the remaining 5 participants, 3 felt only *somewhat safe or included* (25%), and 2 felt that they were *not safe or included at all* (16%).



Figure 68: Responses to Question 1

Question 2: Once implemented, how would these actions make you feel when walking in George Street North, after dark?

The co-design participants responded more positively to the implementation of actions in George Street North after dark. Of the 12 responses, 7 felt *very safe and included* (58%), while the remaining 5 felt *somewhat safe or included* (42%). No participants felt unsafe or excluded, or that the actions had no impact.



Figure 69: Responses to Question 2

Question 3: Is there anything important to you that is missing from the actions for George Street North?

Regarding qualitative responses to the changes for George Street North, many participants felt that nothing was missing from the actions. However, some participants did raise the following points:

- Wayfinding needs to be more frequent, and clearly visible at night.
- Live music is an important feature to create an inviting atmosphere.
- Additional lighting is desired (note that some participants disagreed, stating that lighting was 'very well defined).

Argyle Street

Question 4: Once implemented, how would these actions make you feel when walking in Argyle Street, during the day?

Examining responses to Question 4, we see a very strong positive response. Of the 11 responses, 9 indicated that they felt *very safe and included* (81%) when walking in Argyle Street during the day, following the actions. One response was recorded for feeling *somewhat safe or included*, and one more response indicated that they felt no change (9% each).



Figure 70: Responses to Question 4

Question 5: Once implemented, how would these actions make you feel when walking in Argyle Street, after dark?

Examining responses to Question 5, we see a very positive response to the actions proposed for Argyle Street during the day. Of the 11 responses, 8 indicated feeling *very safe and included* (73%), while 3 indicated feeling *somewhat safe and included* (27%). No participants reported feeling *not safe or included at all*, or that the actions had no impact.



Figure 71: Responses to Question 5

Question 6: Is there anything important to you that is missing from the actions?

Regarding responses to the changes for Argyle Street, many participants felt that nothing was missing from the actions. However, some participants did raise the following points:

- Mitigations should be installed to address the presence of blind spots in the area
- Additional street art should be provided in the precinct
- Larger-sized lighting should be used to address dark areas.

Final Reflection

Question 7: What are the key things you have learned through your involvement in this co-design process?

Question 7 elicited valuable insights from the co-design participants. These can be summarised under several key points:

- 1. The importance of functional lighting and wayfinding or movement in/through the precinct
 - a. The importance of lighting for mood on top of this functional lighting
 - b. The importance of surveillance and the presence of others to improve feelings of safety
- 2. Sound and signage are important elements to attract and retain visitors in the precinct
- 3. There needs to be a collaboration between different disciplines to come to the best solution
- 4. The issue of women feeling unsafe when out at night is far more widespread and serious than was initially thought
- 5. The co-design process is more impactful and useful than initially appreciated

6. Intentional functionality of spaces is important, and if you become aware of it, you can notice when it is lacking.

The participants provided a strong and diverse set of responses to this question. Their responses indicated that the experience of the co-design process had meaningfully impacted their appreciation/understanding of both The Rocks, and night-time safety more generally.

Question 8: Have you continued to think about what makes a place feel safe, or unsafe, since the last time we met with you? Please explain why.

Similarly to Question 7, Question 8 echoed the impact of the co-design process on the women and girls who participated. Every response indicated that the participants have a greater awareness and understanding of their feelings of safety, with knowledge of the technical characteristics of the co-design process. Most responses indicated an ongoing consideration of these things in the participants' personal lives. Some key responses to the question include:

- 'Absolutely. I now turn my mind to the things which make a place feel safe / unsafe. Understanding this, my behaviour changed in that I enter spaces that are objectively safe which I avoided before.'
- 'Yes, thinking about the relative safety of places for me and for others who are more concerned at night.'
- 'It had made me more in tune with observing the lighting of an area.'
- 'Yes, it has made me reflect on why or why not I may enter an area and I feel like I am examining areas now for these things.'
- 'Yes, as I still think about the lighting and safety at night... my daughter now goes out to the city at night quite often. So very relevant to me!'
- 'I am generally more concerned with practical aspects (wayfinding, bubblers etc) and mood lighting is a bonus.'

Question 9: Is there anything that you would recommend we do differently next time around?

Lastly, Question 9 allowed the participants to provide feedback on the nature of the process itself. Many of the participants didn't express any items for improvement and/or expressed gratitude at the opportunity to take part and excitement with the results. However, there were also several important comments to note which have been summarised below:

- Questionnaires ought to be split into 'what contributed positively' and 'what contributed negatively', rather than an overarching 'what contributed'
- This workshop should be held in person, rather than online
- The first session should begin indoors, with a clear briefing session for participants
- Smaller groups should have been considered to allow for 'quieter' people to participate more actively
- Being able to see, evaluate, and select design options that have been developed by Arup would have been very useful and engaging for the second workshop.

'We feel privileged to give our opinion to improve the safety of women.'



Placemaking NSW

The Rocks | Tallawoladah Women's Safety Strategy

Appendix B: Night-time Vulnerability Assessment

Final | July 2023



This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1. Introduction

Arup has been engaged by Placemaking NSW to undertake a Night-time Vulnerability Assessment (NVA) as a part of The Rocks | Tallawoladah (The Rocks) Women's Safety Strategy. An NVA is a metric-based assessment of the experience of vulnerability for given sites, measured across three disciplines: lighting, Crime Prevention Through Environmental Design (CPTED), and place.

The primary objective of this assessment is to quantifiably determine the degree to which environmental conditions affect the vulnerability of a place to antisocial or criminal activity. In addition to this objective, the NVA has three other practical goals:

- Inform design team understanding of the site going into co-design.
- Contextualise the findings and outcomes of co-design processes.
- Provide technical underpinnings that allow decision-making stakeholders for The Rocks to enact design changes with due consideration of measured risk realities.

This document covers discipline-based assessments across three sections: lighting (section 2), CPTED (section 3), and place (section 4). These data sets were collected and analysed collaboratively, as is the nature of the NVA process – all disciplines were integrated into the same assessment team, timelines, and deliverable. However, for the sake of clarity of information and to break down the contributing factors of each discipline more appropriately, they have been separated for the reader in this report. For a more integrated summary of information, please refer to the main report.

2. Methodology

2.1 General

The methodological underpinnings of the NVA primarily stemmed from the Safety in Cities research conducted by Arup University in collaboration with XYX Lab at Monash University. The Safety in Cities research project was an extension of the Free to Be Campaign, conducted by XYX Lab and PLAN International in six cities globally, which crowdsourced experiences of safety in cities during both the day and night.

Six hundred geolocated responses from the Free to Be pilot campaign in Melbourne were used to inform the Safety in Cities findings of the role of lighting on experiences and perceptions of comfort and safety during hours of darkness. This data was then used to establish a baseline to quantify the role that lighting plays in the night-time experience. This baseline has been used to inform and develop the framework presented in this report, as well as to influence the design strategies presented as solutions to identified lighting vulnerabilities.

Following from the initial Safety in Cities research, the NVA was developed as a collaboration that goes beyond lighting-only considerations to incorporate CPTED and place as well.

The foundation for CPTED is based on 'first-generation' principles of Natural Surveillance, Access Control, Territorial Reinforcement and Space Management. However, these principles focus exclusively on the built environment, so inclusion of 'second-generation' principles is also appropriate: Social Cohesion, Community Connectivity, Community Culture, and Threshold Capacity.

The current standard espousing these principles is ISO:22341:2021, however even this ostensibly up-to-date standard doesn't properly capture the cross-over considerations that CPTED shares with other elements of progressive space design. Therefore, Arup has developed a CPTED methodology based on five key pillars that mediates first and second-generation principles with current best-practice:

- 1. Activation and Invitingness;
- 2. Safety and Crime Risks;
- 3. Surveillance;
- 4. Accessibility and Infrastructure; and
- 5. Maintenance and Space Management.

Place considerations are also a critical component of the NVA. Effective place design involves the thoughtful planning of spaces to incorporate best practice urban design principles and mediate the competing needs of other disciplines and elements. Place can therefore be seen as the glue that holds the space together and allows all of its constituent components to achieve cohesion and functionality. For this project, place analysis has primarily been conducted through the NSW Government Department of Planning and Environment's Great Public Spaces Evaluation Tool for Public Space and Public Life (herein GPSE Tool). We have utilised the criteria within this tool as the primary guiding set for the project's technical and theoretical context, relative to place.

Ultimately, the NVA methodology combines the technical assessments of lighting, CPTED, and place to perform multidisciplinary analysis within a single team. This establishes a unified context and set of technical concerns, and in particular highlights overlapping points of interest across disciplines.

Survey locations

Figure 1 shows the 10 places being assessed as part of the NVA. While The Rocks precinct does extend east to Circular Quay and south into the CBD, the sites were selected here to reflect the specific typologies of The Rocks as it is known in terms of being a culturally iconic location. For more information on what typologies refer to, how they were selected, and which typologies are utilised in our assessments, please see the main report.



Figure 1: The Rocks site assessment locations

3. Lighting Assessment

3.1 Introduction

The ultimate purpose of the lighting design process is to inform an evidence-based lighting strategy that provides a welcoming, enjoyable and lasting night-time experience of The Rocks precinct. The lighting component of the NVA uses onsite measurements to identify lighting characteristics that have the potential to influence the likelihood and consequence of antisocial and criminal behaviours. This report provides a detailed explanation of the rationale and assessment framework for this assessment, before presenting findings. The findings are displayed for two sets of assessments:

- Part A: Physical Site Characteristic Assessment
- Part B: Technical Lighting Assessment

The final outcome of this process is intended to provide a consistent, evidence-based decision-making rationale on priority areas for discussion to be addressed in stakeholder workshops and guide design considerations when strategising The Rocks lighting design.

3.2 Methodology

As stated in Section 1, the lighting element of the NVA is underpinned by the Safety in Cities research done in collaboration with XYX Lab at Monash University. This section covers the assessment locations, as well as the specific lighting assessment methodology utilised in that research, broken down into Parts A and B as mentioned above in Section 3.1.

3.2.1 Part A: Physical Characteristics Assessment Methodology

The physical characteristic assessment was performed at each site to assess the contribution of physical characteristics within a person's field of view to the perception of safety. The assessment conducted a division of a person's field of view into four planes – 'Top', 'Ground', 'Left', and 'Right' – against the categories detailed below in sections A.2.2.2.1-A.2.2.2.5.

This approach was developed based on Prospect-Refuge Theory by Jay Appleton (1975), which is most commonly used in criminology, landscape architecture, and urban design to model how humans assess and move through spaces in response to their perceptions of safety. The ultimate formula used in this assessment follows a weighting to balance the contribution of characteristic elements. The formula takes into account the importance and contribution of each plane of view and the physical characteristics.

The planes in the field of view were ranked from most to least important:

- Left Field/Right Field
- Ground Plane
- Top Plane

The physical characteristics were ranked from most to least important:

- Visual Transparency and Reflectance
- Scale
- Physical Transparency and Specularity

Based on these rankings, the following weighting values were applied:

Weighting Value			
Plane of View		Physical Characteristic	
Left	1.44	Scale	0.836
Right	1.44	Physical Transparency	0.416
Ground	0.72	Visual Transparency	1.666
Тор	0.40	Specularity	0.416
		Reflectance	1.666

Each site was assessed in person, and final scores were calculated during a desktop study with the 360-degree imagery collected onsite (note section 4 of the main report *Methodology*). The final rating was calculated using a weighing formula that provides a final score out of 100. The weighting formula adds together the weighted values of each characteristic for each plane of view. Refer to section 4 for a detailed description of the weighting formula and scoring tables.

3.2.1.1 Surface Reflectance

Surface reflectance refers to the brightness and hue of surfaces within the site being assessed, regardless of additional lighting. For example, is a fence painted white or black?

The light reflectance of a surface greatly influences the way in which light reflects and therefore the brightness that is perceived by site users. Under the same level of artificial lighting, a reflective surface such as a wall that is light in colour will appear brighter and make the space feel larger than that of a darker wall.

Therefore, a site with highly low levels surface reflectance will score at the top end of the rating matrix, whilst a site with high levels of surface reflectance will score at the bottom end.

Surface reflectance was assessed as per Table 1.

Rating	Surface Reflectance Assessment	
1	Surfaces are white or extremely bright in colour.	
2	Surfaces are bright colours such as light grey, light pinks or yellows.	
3	Surfaces are neutrally toned in natural colours such as mid grey, beige and browns.	
4	Surfaces are coloured in dark greyscale tones.	
5	Surfaces are black or extremely dark in colour.	

Table 1: Surface Reflectance rating criteria

3.2.1.2 Specularity

Specularity refers to the visual appearance of reflections. The higher the level of specularity the greater the level of mirror-like reflection. For example, a polished surface could have a high level of specularity in comparison with a matte surface.

The distribution of illumination can be significantly distorted by specular reflections in surfaces, causing intense reflections of light, glare and/or short-term blindness. This effect can be disorientating and reduces one's ability to see and assess their immediate surroundings. Matte surfaces aid in providing more uniformly distributed illumination and was identified as creating a greater perception of safety in the findings from the research collaboration between XYX Lab, Monash University and Arup.

Therefore, a site with highly specular surfaces will score at the top end of the rating matrix, whilst a site with matte surfaces will score at the bottom end.

Specularity was assessed as per Table 2.

Table 2: Specularity rating criteria

Rating	Specularity Assessment	
1	Surfaces are completely matte.	
2	Surfaces do not have a matte finish but provide limited capability for specular reflections.	
3	Surfaces are shiny and create some specular reflections.	
4	Surfaces are shiny and create numerous specular reflections.	
5	Surfaces are mirror-like in finish.	

3.2.1.3 Visual Transparency

Visual transparency refers to the ability to see through the object plane. For example, the object plane will be very transparent if it is made of glass, allowing unencumbered sightlines into the immediate space or beyond, in comparison to a solid wall.

Visual transparency is an integral component as it relates to natural surveillance, an important aspect found to affect perceptions of safety in spaces from the research collaboration between XYX Lab, Monash University and Arup.

Visual transparency allows for light to glow from within widows and behind walls, indicating that there is a human presence in the area and creates a sense of 'not being alone', alongside a sense of care and community within the area. This intangible sense of 'not being alone'/ passive surveillance works in collaboration with brightness (luminance levels).

Therefore, a site with surfaces that allow direct sight lines, or ability to see into the immediate adjacent spaces will score at the bottom end of the rating matrix, whilst a site that blocks this will score at the top end.

Visual Transparency was assessed as per Table 3.

Rating	Visual Transparency Assessment	
1	Surfaces are extremely transparent (e.g. a window).	
2	Surfaces are quite transparent and provide a mostly clear view of anything on the opposite side of the surfaces.	
3	Surfaces are somewhat transparent, allowing an unclear view of anything on the opposite side of the surfaces.	
4	Surfaces are somewhat transparent but curtains or another form of visual blockage have been put in place.	
5	Surfaces are not transparent at all (e.g. a solid wall).	

Table 3: Visual Transparency rating criteria

3.2.1.4 Physical Transparency

Physical transparency refers to the openness of a site and the number of street furniture or objects in view. This refers to two aspects of perception that affects the experience of urban night-time environments:

the ease at which you can pass through the site without being diverted by existing physical elements

the ease at which others/perpetrators can hide behind physical elements in the path ahead

For example, a site with a great number of trees and furniture is far more difficult to assess the presence of others behind objects, and to pass through without fear, than full view of a site without any furniture, vegetation or physical elements.

The results from the XYX Lab, Monash University and Arup collaboration research demonstrated that the perceived level of safety reduced when a site had a greater number of physical measures that prevented ease of movement and ability to assess the presence of others.

Therefore, in this category, a site that provides a highly open space with a limited number of physical obstacles will score at the lowest end of the metric, whilst a space that greatly restricts freedom of movement will score at the top end of the metric.

Physical Transparency was assessed as per Table 4.

Rating	Physical Transparency Assessment	
1	The site is completely open with no objects obstructing site users.	
2	The site has minimal obstructive objects or objects have been designed around the perimeter of the site and not in the immediate foreground.	
3	The site has a number of obstructive objects both around the perimeter and in the immediate foreground.	
4	The site has many obstructive physical elements that impact capacity to move freely throughout the area.	
5	It is impossible to move freely throughout the site due to the number of physical elements obstructing site utilisation.	

Table 4: Physical Transparency rating criteria

3.2.1.5 Scale

Scale considers the human scale of the site elements in the immediate foreground. Objects that are in a clear line of sight increase perceived safety, accessibility and sense of openness as opposed to objects that are too high above the visual line of sight which can make a person feel a lack of familiarity, small and overwhelmed in the environment.

The research findings demonstrated that the overall perception of safety, in instances where urban lighting was implemented, the size of architectural elements and street furniture was critical in allowing direct sightlines that enable a familiar, human scale of engagement. The lit environment in these case studies provided functional, as well as considered layered lighting with focal points to enable intuitive wayfinding.

Therefore, in this category, a site that provides focal points at eye level, with street furniture and architectural elements at eye level scale will score at the bottom of the metric, whilst a space that is provides an unusually small or large scale, providing no immediate familiarity of the urban streetscape will score at the bottom end of the metric.

Scale was assessed as per Table 5.

Table 5: Scale ratings criteria

Rating	Scale Assessment	
1	All objects in the immediate foreground are at eye level / a clear line of sight.	
2	Most objects in the immediate foreground are at eye level and within a clear line of sight.	
3	Some objects in the immediate foreground are at eye level, but a proportion of are above or below eye height.	
4	Almost no objects in the immediate foreground are at eye level. Most objects are above or below eye height.	
5	All objects are above or below eye height. There are no objects in the immediate foreground at eye level.	

3.2.1.6 Baseline Profile

Note that the baseline profile developed during the Safety in Cities research has been utilised to compare to the results of this assessment. This profile can be seen in Figure 2 below.



Figure 2: Baseline lighting profile

3.2.2 Part B: Technical Lighting Assessment Methodology

The technical lighting assessment was performed at each site to capture the site's light qualities using various measurement techniques, discussed below. Figure 3 shows these eight elements in a visual manner, while sections 3.2.2.1-3.2.2.6 explain the detail of each.



Figure 3: Key technical lighting elements

3.2.2.1 Colour Temperature and Colour Rendering

Correlated Colour Temperature (CCT) and Colour Rendering (CRI) were measured at each site using a spectrometer and mobile device. This device simultaneously captures CRI and CCT. The spectrometer was placed on the ground plane at 3-4 points within the site measurement grid. Positioning of the measurement device accounted for avoiding shadowing by surrounding buildings, people and objects. Values are presented as moment of measurement and cannot account for variability due to lighting controls i.e. dynamic RGBW lighting systems. The spectrometer captured the correlated colour temperature at each point as well as a GPS location measurement.

3.2.2.2 Vertical and Horizontal Illuminance

Horizontal and Vertical Illuminance were measured at each site using an illuminance meter. A total of six measurements were collected on the 2 by 3 grid at approximately 1m spacings. It was ensured that there was no person or temporary obstruction interfering with received light from direct light sources. These illuminance measurements were exported and averaged to calculate the average values for each site in the direction of travel towards public transport.

3.2.2.3 Uniformity

Uniformity U_0 was calculated using the horizontal illuminance values and the formula of uniformity. Where H_{min} is the minimum measured horizontal illuminance and H_{avg} is the average horizontal illuminance.

$$U_0 = \frac{H_{min}}{H_{avg}}$$

3.2.2.4 Ambient Luminance

The Ambient Luminance of each site is post processed with a Unix based light calculation Software, Radiance, based on 360° High Dynamic Range photography taken onsite. The 360° image is taken at the centre of the 2 by 3 grid as aforementioned with an Insta360 Camera. To ensure accurate calibration of the post processing process, five points in the field of view are also measured with a luminance meter on site. A 'false colour' image is created as part of this process and used to communicate levels of perceived brightness at each site.

3.2.2.5 Facial Luminance

Facial Luminance was calculated with a facial reflectance of 22%. Using the formula below where R is the facial reflectance value and I is the average vertical measurement at each site.

$$L = \frac{R}{\pi}I$$

3.2.2.6 Contrast Ratio

The contrast ratio is the difference in luminance values between the immediate foreground and background. This value was calculated using the facial and ambient luminance values.

$$C_r = \frac{L_{facial}}{L_{ambient}}$$

Measurements were performed within an approximately 2m by 3m grid at each site. Points of measurement being spaced approximately 1 meter apart. The use of this grid size accounts for variation in ground plane width and ensures rigorous consistency of the measurement grid throughout each site. This grid was selected on the ground plane within the path of travel towards the public transport.

3.3 Key Results

Similarly to section A.2.2, key results are broken down here for both Part A and Part B of the assessment.

3.3.1 Part A Key Results

The physical characteristics assessment rating in Table 6 is used to identify the level of vulnerability according to the final assessment results (available in section 3.4).

Low levels of vulnerability indicates that the area performs well. The lighting is uniform with layers of lighting, the physical built forms are easily identifiable, and you can navigate, these positive attributes contribute to creating a safe and inviting place and low vulnerability score.

Medium level of vulnerability indicates that the area the lighting levels, uniformity and colour rendering as ok.

High levels of vulnerability indicates that the performs poorly, has high levels of contrast and specularity, and the surface reflectance materials are high. Visual transparency and sightlines are poor. These negative attributes contribute to the create an unsafe and high vulnerability score.

Table 6: Rating score out of 100

Low	Medium	High
0-47	48-66	67-100



Figure 4: Part A key results

The key results from Part A determined that Cumberland Place, Argyle Street, and Dawes Point (under the Sydney Harbour Bridge) performed the worst, while Jack Mundey Place and Dawes Point Reserve performed the best.

3.3.2 Part B Key Results

The technical characteristics assessment rating in Table 7 is used to identify whether the combined final assessment results have deemed the site as a priority or non-priority site. Figure 5 summarises the technical characteristics site assessment according to the rating in Table 7.

Table 7: Technical lighting vulnerability rating

Not a priority Site

Priority Site

For lighting interventions to improve perception of safety to reduce vulnerability

For lighting interventions to improve perception of safety to reduce vulnerability



Figure 5: Part B key results

The key results from Part A determined that Cumberland Place, Argyle Street, and Dawes Point (under the Sydney Harbour Bridge) performed the worst, while Jack Mundey Place and Dawes Point Reserve performed the best.

3.4 Site Assessment

This section provides full site assessment results for both Parts A and B.

3.4.1 Part A Site Assessment Results

The results from Part A assessment have indicated that in general, due to the heritage of The Rocks, the area consists of a lot of dark, rich materials, and narrow pathways/alley ways. This contributes to blind spots and difficulty of wayfinding. Jack Mundey Place was the only site within scope that provided an acceptable level of vulnerability – this was due to its openness, the presence of lighter materials, and sandstone finishes.

It is recommended that urban design consideration be given to Globe Street, Cumberland Place and Bligh and Barney Reserve to provide more soft and hard human scale landscape elements throughout, to increase perceptions of safety.

In general, there is limited visual transparency, in particular, a number of blind spots at Cumberland Place, Unwin's Courtyard and Argyle Stairs. This is often due to limited wayfinding. It isn't obvious that there are stairs at Globe Street (Jack Mundey mural) west bound heading up to Harrington Street.

The lack of façade lighting – particularly on George Street – impacts the visual transparency of the sites. Most of the lighting along here is at awning height; if there was lighting to the second level of the façade the viewers eyeline would be drawn up, providing greater visual transparency.

There are a few instances where a tenant's window displays or shop lighting are turned off after business hours – this negatively impacts the visual transparency of the space and perceptions of safety. It is recommended that shopfronts/tenants leave lights on and dimmed to a low level after hours.

The assessment has also found that key pedestrian passageways do not provide a perception of safety due to the exaggerated scale of surrounding architecture, which reduces the number of focal points at eye height. There is also a lack of clear sightlines due to objects in the streetscape, and a low number of direct routes to escape from.

Table 8 provides the full site assessment results for Part A: physical characteristics. Please note that the colouring of the boxes corresponds with the rating score identified in Table 6. Also note that where there is an absence of architectural finishes such as sky, a default rating of 1 has been applied across all categories.

Site	Vis	ual Tra	anspare	ency	Phys	ical T	ranspa	rency	Su	rface F	Reflecta	ince		Spec	ularity			Sc	ale		Score
Site	Т	G	L	R	Т	G	L	R	Т	G	L	R	Т	G	L	R	Т	G	L	R	50010
1	4	2	3	3.5	1	2	4.5	4	2	4	3	3	1	3	4	1	3	3	2	2	
George Street North	Dark	materia	als - lov	e Build v reflect cale ob	ance.	d bridg	ge limit	ing visu	ıal tran	sparen	cy. Lacl	c of ligh	nt at the	e left d	oes not	provid	e a goo	od visib	ility on	paths.	59
	3	3	2	4	3	3	3.5	4.5	3	2	2.5	3	1	2	3	4	4	3	3	2	
2 Globe Street	huma	n scale	objects	3.			-	·			stairs on reduce	-		-	•	transpa	arency	but giv	e a sens	se of	58
3 Cumberland Place and Steps	few h	uman s	cale ob	4 stairs re jects. and gla				-	•	5 the right	3 ht.	3.5	1	1	4	3	3	3	2	3	67
4 Argyle Street	Physic All th	cal tran e mater	isparen rials are	cy is lin e dark w	nited du vith low	ue to en v reflec	nclosed stance	area or	ı left aı	nd righ	4 from ev t of the le objec	underpa		2	1	1	4.5	4.5	4.5	4.5	76
5 Jack Mundey Place	Layoı Mostl	ut of fe y matte	nces an e surfac	3 brick wa d plante ces with e objec	ers on t small a	he floo amoun	or reduc t of glaz	es phys zing.	ical tra		2 ge visua ncy.	2 l transp	1 arency	2	2	2.5	2	1	1	1	44

Table 8: Physical characteristics vulnerability site score

Site	Vis	ual Tr	anspare	ency	Phys	sical T	ranspa	rency	Su	rface R	eflecta	ance		Spec	ularity	,		Se	cale		Score
Site	Т	G	L	R	Т	G	L	R	Т	G	L	R	Т	G	L	R	Т	G	L	R	50010
6	1	4	4	4	1	4	4	4	1	4	4	4	1	1	3	3	1	3	3	4	
Cadman's Cottage and Bligh and Barney Reserve			Abundang in th						0	-	•		ight.								70
_	3	3	4	4	2	4	4	4	1	2	2	2	1	2	2	2	2	1	2	2	
7 Unwin's Courtyard	Furni Mater	ture on rial of t	Brick wa the floo the grou man sca	or affec ind is m	ting phore sp	nysical ecular t	transpa han oth	rency of	n the lo	eft.											53
	3	5	2	4.5	3	5	5	5	2	4	4	4	1	1	3	2	2	1	1	1	
8			Lack o			_				-	both d	lirectio	ns and	l no tra	anspare	ent ma	terials	•			
Foundation Park	Furniture and stairs produce less physical transparent areas.														64						
	Scoring low on surface reflectance due to dark materials. No human scale objects.																				
9	4	4	2	4	4	3	4	4	4	3	3	4	2	1	2	3	5	4	5	3	
Dawes Point Park (Tar-ra) South			The brid scale o	-	r the ar	ea redu	ices the	visual	transpa	arency.											69
10	1	3	2	3	1	2	2	3	1	3.5	3	2.5	1	1	2	2.5	1	2	3	4	
Dawes Point Park (Tar-ra) East			Trees lir scale o		visual t	ranspai	rency of	n the rig	ght side	2.											51

3.4.2 Part B Site Assessment Results

The results from the Part B assessment indicate that overall, The Rocks has aggregated levels of Colour Temperature (CCT), and Colour Rendering (CRI) that match optimal characteristics of low vulnerability. While the Contrast Ratio aggregate matches characteristics of low vulnerability there are consistent imbalances between illuminance and luminance at several sites. The aggregated levels of illuminance and luminance show an overly lit environment. The high uniformity suggests that these lit environments are evenly lit, which can mean a safer perception by site users.

The assessment indicates that the sites with highest levels of vulnerability occur along Cumberland Place and Steps, Argyle Street (including Argyle Stairs), Foundation Park, Dawes Point Park (Tar-ra) South.

This assessment has determined that these sites do not provide a balanced and layered lighting approach, resulting in poor vertical illuminance and by extension low facial luminance, ambient luminance and contrast ratios. These parameters contribute to issues of glare and a lack of perceived brightness, which tends to lead to an overall reduction of a person's capacity to see and assess the scene in front of them – increasing one's sense of vulnerability. Figure 6 breaks The Rocks precinct down by level of vulnerability.



Figure 6: The Rocks precinct physical characteristics

Table 9 and Table 10 provide the full site assessment results for Part B: technical lighting. Please note that the colouring of the boxes corresponds with the rating score identified in Table 7.

Table 9: Part B site assessment results

Site	Vertical Illuminance	Horizontal Illuminance	Average Luminance	Facial Luminance	Uniformity	CCT	CRI	Contrast Ratio	
1	4.88	2.65	1.83	0.34	0.75	5636	74	0.19	
Rationale: Lov a safe perception	w levels of average lon of space.	luminance and illu	minance on the ve	rtical plane, sugge	sting that there is no	ot enough illumin	ation in this fiel	d of view to enable	
2	13.83	22.33	0.53	0.97	0.63	3656	93	1.83	
	high levels of cont he direction and brig				g that there is an im	balance to the wa	ay this field of v	iew is lit. This is	
3	1.85	1.75	0.12	0.13	0.57	4236	93	1.08	
Rationale: Lov	w levels of average	iuminance and mu							
	w levels of average 1	0.71	0.42	0.01	0.42	2829	85	0.03	
space. 4 Rationale: Low space. The low		0.71 luminance and illu	0.42 minance, suggestin	0.01 ng that there is not	0.42 enough illuminatio	2829 n in this field of v	85 view to enable a	0.03 safe perception of	
space. 4 Rationale: Low space. The low	0.15 v levels of average l	0.71 luminance and illu	0.42 minance, suggestin	0.01 ng that there is not	0.42 enough illuminatio	2829 n in this field of v	85 view to enable a	0.03 safe perception of	
space. 4 Rationale: Low space. The low not being lit. 5	0.15 v levels of average l contrast suggests th	0.71 luminance and illu here is an imbalanc 16.08	0.42 minance, suggestin the between areas be 0.57	0.01 ng that there is not eing lit with a ligh 1.02	0.42 enough illuminatio t source and those the 0.75	2829 n in this field of v hat are not, this is 5178	85 view to enable a most likely due	0.03 safe perception of to the underpass	
space. 4 Rationale: Low space. The low not being lit. 5 Rationale: The	0.15 v levels of average l contrast suggests th 14.58	0.71 luminance and illumere is an imbalance 16.08 gh here. This is like	0.42 minance, suggestin the between areas be 0.57 ely due to the brigh	0.01 ng that there is not eing lit with a ligh 1.02 ht light source in th	0.42 enough illuminatio t source and those the 0.75	2829 n in this field of v hat are not, this is 5178	85 view to enable a most likely due	0.03 safe perception of to the underpass	
space. 4 Rationale: Low space. The low not being lit. 5 Rationale: The	0.15 v levels of average l contrast suggests th 14.58 e contrast ratio is hig	0.71 luminance and illumere is an imbalance 16.08 gh here. This is like	0.42 minance, suggestin the between areas be 0.57 ely due to the brigh	0.01 ng that there is not eing lit with a ligh 1.02 ht light source in th	0.42 enough illuminatio t source and those the 0.75	2829 n in this field of v hat are not, this is 5178	85 view to enable a most likely due	0.03 safe perception of to the underpass	
space. 4 Rationale: Low space. The low not being lit. 5 Rationale: The surrounding an 6 Rationale: Fits	0.15 v levels of average l contrast suggests th 14.58 e contrast ratio is hig bient level of brigh	0.71 Iuminance and illut here is an imbalance 16.08 gh here. This is like tness from the stre 8.17 e almost perfectly of	0.42 minance, suggestin the between areas be 0.57 ely due to the bright thet scape. Potential 1.38 except for uniform	0.01 ng that there is not eing lit with a ligh 1.02 ht light source in th glare issues. 0.97 ity. The high uniformed and the second	0.42 enough illuminatio t source and those th 0.75 ne field of view aga 0.61	2829 n in this field of what are not, this is 5178 inst the 2952	85 view to enable a most likely due 83 93	0.03 safe perception of to the underpass 1.79 0.70	

Site	Vertical Illuminance	Horizontal Illuminance	Average Luminance	Facial Luminance	Uniformity	CCT	CRI	Contrast Ratio				
	ationale: Fits the baseline profile almost perfectly. The high facial/horizontal luminance is likely due to the bright light source in the field of view creating sibility glare. Low levels of illumination to stairs.											
8	1.68	0.25	0.14	0.12	0.40	2901	90	0.84				
Rationale: Fits t environment.	ationale: Fits the baseline profile almost perfectly except for uniformity. The high uniformity is likely due to the light source optic creating a flat lit invironment.											
9	7.07	12.62	0.22	0.50	0.69	4346	65	2.25				
	Actionale: The contrast ratio is high here. This is likely due to the bright light source in the field of view against the arrounding ambient level of brightness from the street scape. Potential glare issues.											
10	3.1	6.4	0.11	0.22	0.47	3091	83	1.97				
	contrast ratio is hig bient level of bright			e	e field of view ag	ainst the						

Table 10: Part B 'falsecolour' luminance imagery and radar plots

The diagrams displayed for the technical lighting assessment show the overall lighting profile for each of the locations identified for lighting interventions. The diagrams visually display the values or 'profile' of the existing technical lighting conditions collected on site (darkblue). This is overlayed with the baseline profile that is expected to provide the highest perception of safety from lighting (cyan) The baseline profile has been informed from Arup's research findings which combined qualitative and quantitative data to ascertain the technical lighting requirements of a safe perception for women and girls.

The call -out profiles demonstrate key spaces as it pertains to the baseline 'safe profile'.













3.4.3 Site Assessment Summary

The above findings offer an identification of specific physical and lighting characteristics that will be prioritised and considered in the design intent of The Rocks. The following sites have been identified as key locations for design intervention:

- Cumberland Place and Steps
- Argyle Street
- Cadman's Cottage and Bligh and Barney Reserve
- Foundation Park
- Dawes Point Park (Tar-ra) South

The Night-time Vulnerability Plan provide an overall view of areas that should be prioritised for site specific interventions.



Low Vulnerability	Moderate Vulnerability	High Vulnerability
0-47	48-66	67-100

4. CPTED Assessment

4.1 Introduction

This report presents site assessment and analysis related to CPTED concerns in The Rocks precinct, as a component of the Night-time Vulnerability Assessment. This report has been prepared in collaboration with partner lighting, place, and acoustic assessment reports, together forming the technical basis for contextual understandings of the precinct. The following sections provide a summary of assessment methodology and scoring parameters for each of the 10 sites assessed, as well as details on scoring and commentary for each site. Results are presented to reflect both relative and standalone performance for sites, across the five assessed results categories.

The purpose of assessing The Rocks from a CPTED perspective was to develop a detailed technical CPTED understanding of the precinct, which could then be distilled into a concise contextual summary of each site that could more capably speak to the experiences and interpretations of women and girls. Consequently, while this report provides detailed technical assessment and scoring for sites, the most pertinent aspects of this report relative to the overall project are comments which can more efficiently interface with the experiences and interpretations of women and girls.

4.2 Methodology

The assessment of these sites was conducted over three site visits, all of which occurred during the day. Assessment dates, time of day, and weather conditions are recorded above their respective sites in Section 4.4. While night-time security assessments were not conducted, context for night-time conditions was developed through a combination of the conditions observed in daytime assessments, the conditions observed while on night-time co-design walks, and night-time information collected from lighting and acoustics teams, which was reviewed by the CPTED team.

4.2.1 General Methodology

The security assessment of The Rocks precinct is predicated upon principles of Crime Prevention Through Environmental Design (CPTED). Traditionally, CPTED as a discipline examines the ways in which the built environment can be manipulated in order to alter the actions and perceptions of site users, with the end goal of crime reduction.

The most up-to-date guiding standard document for this approach is *ISO22341:2021 Security and resilience* — *Protective security* — *Guidelines for crime prevention through environmental design*. This standard covers traditional 'first-generation' CPTED approaches focusing on the built environment as described above. However, it also includes 'second-generation' CPTED approaches, which focus on the social character, community environment, and atmosphere of sites as critical factors that reinforce safety and reduce the risk of crime.

The methodology employed in this assessment incorporates both first-generation and second-generation CPTED approaches, as well as 'good practice' urban design principles which provide support and mediation to these factors and ensure they're not examined in a vacuum. Such good practice principles include availability of amenity, accessibility of the environment, high level of service, attractive spaces that invite use, and the presence of landmarks and nature.

4.2.2 Security Analysis and Scoring Methodology

As explored in Section 4.2.1, the general methodological approach of this security assessments aims to provide a holistic view of CPTED approaches that encompass three key aspects:

- 1) Traditional 'first-generation' CPTED, which focuses on utilising aspects of the built environment to influence behaviour and reduce crime
- 2) Modern 'second-generation' CPTED, which asserts the importance of social, community, and more 'human' aspects of a space, and

3) General 'good practice' urban design principles, which provide a contextual backdrop and mediating support for 1) and 2).

Each of these three categories contains several built environment components and/or intangible considerations which should be assessed as part of a robust site analysis. In order to include an appropriate balance of all considerations, a scoring matrix was developed according to five categories, as per Figure 7.



Figure 7: Methodological Approach Assessment Categories

- 1. Activation and Invitingness:
 - a. The degree of activation observed during the period of assessment, which can include direct use from pedestrians or other site users, as well as the presence of people/voices nearby, cars and cyclists passing by, etc.
 - b. Various factors related to how inviting the space is, such as presence of graffiti/vandalism/rubbish presence, green spaces, attractive features, and sense of scale
- 2. Safety and Crime Risks:
 - a. The degree of risk for pedestrians from vehicles that are also using the space
 - b. Risk, and perception of risk, of malicious criminal activity and the likelihood of this resulting in harm for site users
 - c. Presence of police and/or security, and their actual/perceived ability to assist in the resolution of incidents
 - d. General crime risks in the environment: exacerbating factors which may facilitate crime.
- 3. Surveillance
 - a. How useful lighting is within the area, including comments on its strength, placement, evenness, reliability, level of glare, contrast, etc.
 - b. The level of sight line obstruction and whether the environment is visually open or closed
 - c. The presence of CCTV, including aspects such as monitoring status if known
- 4. Accessibility and Infrastructure
 - a. The general level of services in the area
 - b. Accessibility for users with impaired mobility
 - c. The presence of infrastructure which is required to fulfil the site's specific purpose

- d. The presence of appropriate wayfinding and signage infrastructure
- 5. Maintenance and Space Management
 - a. The level of care taken for the space, as reflected in the presence/lack of rubbish/graffiti/vandalism, and the level of care for greenery etc.
 - b. The types of materials chosen and how resilient these are to vandalism, graffiti, and general wear-and-tear
 - c. Territoriality in the space, and delineation between different space uses and owners: for example between public and private land

There are five scores that zones can receive for each assessment category, ranging from 1-5. This tallies to a total score between 5 and 25 for a zone. Category and zone scores, as well as their corresponding rating of performance, can both be seen below in Table 11:

Rating	Unacceptable	Unsatisfactory	Moderate	Satisfactory	Optimal
Category Score	1	2	3	4	5
Site Score	≤10	11-14	15-18	19-22	22-25

Table 11: Category and zone scores with corresponding ratings

Note that each category has multiple factors which are aggregated by the assessor to provide the overall score in line with a series of justification statements, based on NVA site assessment. In this way, a zone may score a 2/5 for surveillance, despite being extremely open visually (which corresponds with a score of 5/5) if its lighting and CCTV coverage score a 1/5.

Please note that the scoring system is intended to provide clarity related to overall site CPTED condition, highlight zone performance relative to other zones, and identify key problem areas – not fit perfectly into a mould in every instance. Some components of a zone will also be more or less impactful depending on the type of space, so assessor discretion is applied as necessary/appropriate.

4.3 Key Results

4.3.1 Site Scoring Summary

A visual summary of site score results can be seen in Figure 8, while a tabulated breakdown can be found in **Error! Reference source not found**.. Of the assessed sites, Jack Mundey Place (Site 5) and Bligh and Barney Reserve (Site 6) were scored the most favourably, receiving 'satisfactory' scores. George Street North (Site 1), Globe Street (Site 2), Dawes Point Park (Tar-ra) South (Site 9) and Dawes Point Park (Tar-ra) East (Site 10) all received 'moderate' scores. Sites that scores poorly included Cumberland Place and Steps (Site 3), Argyle Street (Site 4), and Foundation Park (Site 8). The worst recorded score was for Unwin's Courtyard (Site 7), which was the only 'unacceptable' score that was recorded.

Figure 8: Site Scoring Summary - Map of Results


Table 12: Site Scoring Breakdown by Category

					Category		
		Total Site Scores	Activation and Invitingness	Safety and Crime Risks	Surveillance	Accessibility and Infrastructure	Maintenance and Space Management
	Site 1 – George St North	15/25	3	2	3	3	4
	Site 2 – Globe Street	16/25	4	3	3	3	3
	Site 3 – Cumberland Place and Steps	12/25	3	3	2	1	3
	Site 4 – Argyle Street	12/25	3	2	2	2	3
	Site 5 – Jack Mundey Place	20/25	5	4	4	3	4
Site	Site 6 – Cadman's Cottage and Bligh and Barney Reserve	19/25	4	4	4	3	4
	Site 7 – Unwin's Courtyard	10/25	2	2	2	2	2
	Site 8 – Foundation Park	11/25	2	2	2	2	3
	Site 9 – Dawes Point Park (Tar-ra) South	18/25	3	4	4	3	4
	Site 10 – Dawes Point Park (Tar-ra) East	17/25	4	4	3	2	4
			Activation and Invitingness	Safety and Crime Risks	Surveillance	Accessibility and Infrastructure	Maintenance and Space Management
	Total Categor	ry Scores	33/50	30/50	29/50	24/50	34/50

In addition to providing a breakdown of site scores, the table above also tallies scores by category across all sites. Categories had a mostly even and middling spread of scores, with a noticeable outlier being Accessibility and Infrastructure which scored a 24/50, as well as the only '1/5' score for an individual site.

The following section provides security scoring and assessment notes for each of the 10 sites.

4.4 Site Assessment

This section provides the detailed results and corresponding justifications for the CPTED assessment of The Rocks.

4.4.1 Site 1: George Street North

Site 1: George S	St North Assessed on Wednesday 12/10/2022 from 1:00-1:30pm Weather Overcast	Score/5
	• There is constant activation of the space at this time.	
	• Cars and trucks are actively moving in the space.	
	• Ongoing construction can be seen and heard.	
	• The space is not very inviting, and is treated more as a space to move through than linger in.	
Activation	• The space possesses a dark and industrial feel with little cleanliness or colour.	
and	• A vertical green wall is present underneath the railway line.	3
Invitingnoss	• Trains pass overhead regularly, and trams also move past at ground level.	
	• Lots of hotels nearby leading to transient site users and many passengers being dropped off by taxis / ride share services.	
	• Pedestrians, including families with children, are coming and going through open garages, including at below-ground level.	
	• There is a length of boarded-up shop front with no indication as to what it is.	
	• There is a significant 'corporate-lunch' style profile.	
	• The Circular Quay side of the location (east) does feature greenery.	
	• Cars, trucks, and delivery vehicles are actively moving through the space at all times which presents a safety risk.	
	• Pedestrian paths are close to the road, and pedestrians regularly cross the road (both at pedestrian crossings and not).	
	• Multiple open construction sites were observed.	
	• The location is a loading zone from 6am-7pm.	
Safety and	• Path sizes range from wide (east side) to moderate (west side).	2
Crime Risks	• There is little protection for pedestrians from vehicular impact here, especially given the presence of large vehicles.	
	• No malicious risks to persons were observed, however the space is generally conducive to crime / antisocial activity.	
	• No police or security were noted in the space during the time of assessment.	
	• Families were seen coming out of open, below-ground garages at Globe Street into the roadway.	
	• CCTV surveillance signs were present, however CCTV seemed to be broadly limited to the commercial awnings.	

	0	The extension of vehicle barriers into the street protects restaurant/café users from harm.	
	0	Cameras were noted as present along pedestrian walkways past the commercial sections of the site, however some other areas on the eastern side of the roadway seemed to have unreliable surveillance; note that some installations could simply have been missed. Additionally, they may be largely private.	
	0	The space is very open with good sight lines, with the exception of the area underneath the Cahill Expressway, which does feature reduced visibility.	
Surveillance	0	Lots of natural light was present in the space, with the exception of the area underneath the Cahill Expressway.	3
Survemance	0	Second storey buildings and windows were present, however the degree of surveillance provided from these is limited.	5
	0	Varying light colour temperature leads to inconsistency.	
	0	The area underneath the Cahill Expressway is generally darker, especially at night.	
	0	Some shop frontages, such as Louis Vuitton (at time of assessment), can be seen into and out of with ease.	
	0	Surveillance is typically possible between the eastern side of the site at Circular Quay – however, it was obstructed by a temporary installation at the time of assessment.	
	0	Level of accessibility was acceptable given the location; crossings were made available and visible from most of the site, and ramps were available at crossings.	3
Accessibility and	0	General wheeled access is acceptable, and wheelchair users can navigate with minimal difficulty – though some minor inconvenience to find the best crossing locations. The nearest crossings are underneath the Cahill Expressway or further down	
Infrastructure	0	George St – one of these can be seen from every part of the zone.	
	0	Street name signs were difficult to find.	
	0	Signs for bathrooms were present, but difficult to find and follow.	
	0	Rubbish bins were available on both sides of the street.	
	0	Vegetation was well-kept, even on the vertical green wall.	
Maintenance	0	No vandalism and graffiti were noted, even under the Cahill Expressway.	
and Space Management	0	Litter was rare; some general build-up of dirt was noted.	4
management	0	Different materials were utilised to demarcate different spaces.	
	0	General material condition is acceptable given the context of heritage.	
Total Score			15/25

4.4.2 Site 2: Globe Street

Site 2: Globe St	reet Assessed on Wednesday 12/10/2022 from 1:30-2:00pm Weather Overcast	Score/5
	• The location was somewhat quiet compared with George St, however some families with children were noted.	
	• Endota Spa is located within the space, however it did not appear to attract much business during the assessment window.	
	 Dining is a constant activity along Nurse's Walk. 	
	 Placemaking NSW and The Russell Hotel are adjacencies in the space. 	
Activation	 During the site assessment, an assessor almost ran into another site users near the corner of The Russel Hotel entrance (the corner of Globe St and Nurse's Walk). 	
and	• The Russell Hotel Entry was closed for renovations.	4
Invitingness	• The site has a general level of dirt and build-up.	
	• Moss and leaves are around metal grates.	
	• Sound in the space is fans and construction, as well as general chatter from restaurant/café diners.	
	• The space is generally child friendly, however materials are quite tough.	
	• Some greenery is present in the space; at night this is lit up and more inviting.	
	• Aesthetic lighting of trees and shopfronts encourages activation and invitingness; outcomes are optimal here in some cases.	
	• The area is restrictive by nature and has some glaring lights.	
	• Blind corners exist throughout the space, including at the boundary of the site and near its public bathroom.	
	• There is safety risk present related to vehicles.	
	• There are sections of the space support malicious actors waiting/loitering.	
	• Path width is acceptable given the profile of the site as an alley.	
Safety and	• A bench is located outside the publicly accessible bathroom, allowing 'excusable' loitering in the vulnerable space.	3
Crime Risks	• The presence of grates alerts users to grade differences.	5
	• There are locations in the space with uneven ground.	
	 No security or police were noted in the space during the assessment window; there were no establishments here that would necessarily require this, though. 	
	 Endota Spa staff were explaining the lower door entry code locking mechanism and codes loudly in front of the assessors and other passers-by. 	
	• Placemaking NSW's End of Trip entryway is poorly upkept, hidden from surveillance, and not covered by CCTV.	

	There was a lack of coherent lighting colour/temperature.	
	Blue catenary lighting was present.	
	The area is acceptably accessible from a wheeled perspective, however some grades are quite steep. Additionally, stairways between the site and Harrington St necessitate long roundabout journeys for wheelchair users and potentially wheeled site users.	
	Harassment and other antisocial behaviours may be exacerbated at night due to the difference in lighting levels/contrast between the main path and some darker seating areas.	
	Lighting in the space is glary in parts, particularly the ramp connecting Nurse's Walk with Globe St.	
	Varying lighting colours/temperatures negatively impact visibility and surveillance.	
a	Aesthetic lighting in some trees and shops increases activation and surveillance in the space, which is self-compounding; this contrasts with shops that don't keep their lights on, which have poor surveillance outcomes.	
Surveillance	Motion lighting is utilised at one fire safety door in the space.	3
	Contextually, given that the site is an alley, the level of surveillance is reasonable.	
	Some visibility to/from George St and Harrington St is achieved through restaurants, walkways, and stairways.	
	CCTV is visible in some locations and covers the main alley well; however, the blind corners, alcoves, EoT entry toilet entry, and fire escapes located behind these placements are seemingly not covered at all.	
	Wheeled accessibility between this zone and Harrington Street is poor; connectivity with George Street is acceptable.	
Accessibility and	There are lots of ramps and slopes present, which facilitates wheeled movement, although individuals in wheelchairs may have difficulty traveling in/through the site; ramps are somewhat uneven.	3
Infrastructure	There is a bathroom in the space, however it is poorly signed and can be easily missed; signage for the bathroom (and other information) is in the same colour and design scheme as advertisement signage nearby for the shops in the alley.	
	Multiple route choices are present in the space.	
	Maintenance and upkeep is generally acceptable, however not clean.	
Maintenance	Territoriality and space management are moderate; there is some spill of ownership into the pathway as a result of cafés and restaurant seating, and a lack of a border to this.	
and Space Management	Stairways and doorways often share space and create ambiguous zones without clear ownership.	3
Management	Vandalism and graffiti were noted to be minimal in the space; some exposed electronics were noted in the space that could be tampered with / damaged.	
	No rubbish was noted; small amounts of leaves and moss had built up.	
Total Score		16/25

4.4.3 Site 3: Cumberland Place and Steps

Site 3: Cumber	d Place and Steps Assessed on Wednesday 12/10/2022 from 2:05-2:30pm Weather Overcast	Score/5
	• The location is comparatively quiet, with fans and cars dominating the subdued acoustic profile.	
	 People were using the route occasionally, though not consistently. 	
	 Sense of scale is not designed to suit pedestrians; landmarking/orientation are poor. 	
Activation	• General activation was minimal; aside from occasional site users, there was little/no other activity.	3
and Invitingness	 There was some greenery in the location, though primarily through the adjacent modern courtyard as opposed to the Cumberland steps themselves. 	3
	• A worker in high-visibility clothing was noted taking readings in the adjacent alley.	
	 Low child-friendliness overall. 	
	• There was a mix of Australian users and foreign tourists; many Australians were also tourists.	
	• There are many sections of the site with uneven ground and steep stairs.	
	• No malicious risks to persons were noted, but the environment is moderately conducive to such risks, particularly at night.	
	 Path width is generally acceptable, even optimal; however the reduction in width at the stairs connecting directly to Harrington Street narrows the path width to be unsatisfactory. 	
Safety and Crime Risks	• Cars are present on Harrington St and Gloucester St; there is little to prevent pedestrian impact.	3
	• The narrow width of the road and on-street car parking heightens impact risk for pedestrians in the space; less manoeuvrability and awareness for drivers.	
	• No security or police were noted in the space; this space typology would typically not expect to see such a presence, however in this case due to the low level of surveillance and activation it may be considered as more expected.	
	• As the stairs reach Harrington Street, there is something of a blind spot to loitering/oncoming pedestrians.	
	• There is a blind spot at the bottom of the stairs at Harrington Street, as mentioned.	
	• The area is surrounded by second-storey (or higher) buildings, however does not 'feel' seen; windows are tinted or closed, and adjacent windows to the east of the site lead to a common hallway rather than individual residences.	
Surveillance	• Lighting is glary with varied colour temperatures – four are noted for this area alone – there is also poor lighting uniformity.	2
	• Poor facial lighting is noted in the space.	
	• The area is open, and visible from some other spaces in sites around – with the exception of Gloucester Walk.	
	o Similarly, sight lines are moderate/acceptable with the exception of Gloucester Walk towards Argyle St, which is restricted.	

	Some cameras are noted within the space, however they seem to cover the renovated area to the south of the stairs rather than the stairs themselves.	
	The area features poor wheeled accessibility generally; those in wheelchairs will be completely unable to traverse the space.	
	There is a general contrast is accessibility and infrastructure (as well as other features like invitingness and surveillance) between the north are (including the steps themselves) and the renovated southern area.	
	The toilet in the southern area, presumably intended to service the space, is locked at 2pm on a weekday; it is also very poorly signed and would likely be overlooked by site users.	
Accessibility and Infrastructure	Lift accessibility between Gloucester St and Harrington St is available through the adjacent southern site, however due to a complete lack of signage and advertisement, site users would never know that it is available.	1
inn astructure	The uneven ground, steep stairs, and sloping make the area generally inaccessible; heeled accessibility is also low which contradicts with the path being a traversal route for Friday/Saturday night time party culture use.	
	Wayfinding is available in the area, however it fails categorically to assist site users – the bathroom and lift mentioned above are not even noted, and users are directed along a completely different route which is far less convenient and accessible.	
	Signage is also located in the centre of the space in a wheeled/wheelchair inaccessible zone, rather than the top and bottom of the space which is available to all.	
	Steps are rough and uneven, although this is mostly due to heritage status.	
Maintenance	Heritage status leads to an overall level of wear and tear which cannot be amended.	
and Space	The stairs and pathway are wide and have sufficient demarcation of purpose; however at the bottom of the stairway at	3
Management	Harrington Street this does become restricted.	
	No vandalism or graffiti were noted.	
	No rubbish was observed.	
Total Score		12/25

4.4.4 Site 4: Argyle Street

Site 4: Argyle S	Assessed on Wednesday 12/10/2022 from 2:35-2:55 Weather Overcast/Light Rain	Score/5
	Primary school-aged children were noted on a heritage excursion in the space.	
	As the location progresses towards Jack Mundey Place, the northern side of the road is all bars.	
	Retail and commercial premises were present along the southern side of the road.	
	Parking is available in the location and was full for the duration of the assessment.	
Activation	Lots of trees were present, and the walls were covered in wild ferns and moss.	
and Invitingness	The area features low-moderate child friendliness; the path is flat and mostly even, however its proximity to the road, the necessity of using the Argyle Stairs to reach Cumberland Street, the narrowness of the pathway, and the presence of bars reduce this.	3
	Generally acceptable level of invitingness during the day, however at night many of the 'passable' aspects of the site are worsened.	
	A large working group from the Institution of Surveyors NSW passed through during the assessment window.	
	Many groups of people were using the area as a route to/from points of interest within and outside of the precinct.	
	No crossing is available in this location, with the nearest being at Jack Mundey Place.	
	Risk of vehicular injury is heightened through the combination of parked vehicles on both sides of the road, a narrow pathway, lack of a pedestrian crossing, proximity of the path to the road, and the difficulty to see vehicles in the road.	
Safety and	The Wilson car park on the south side of the street has a blind corner which makes it difficult for pedestrians and drivers to see each other, heightening risk of vehicular injury.	2
Crime Risks	The busyness and confined nature of the stairs presents safety and criminal (assault, theft, harassment) concerns.	2
	The overall path width is far too narrow for the amount of expected business in the location.	
	The Argyle Stairs are similarly too narrow to appropriately service the site's users when busy.	
	Business-specific security (bouncers) will be present at night for bars.	
	Lighting is poor within the viaduct/tunnel area; separate observations at night also reveal that site users navigate the pathway using their phone lights.	
Surveillance	There is a large degree of contrast between the underpass and non-underpass areas.	2
	Poor surveillance is noted on the Argyle Stairs; blind corners at the top and bottom of the stairs.	
	The path features several obstructions including trees and signposts.	

	• No observation is possible from the bridge overhead.	
	• The viaduct/underpass area is very dark at night.	
	• Multiple groups were encountered who were lost and trying to find the Bridge Climb.	
Accessibility	• The walkway was generally even except for some area which had become upturned by tree root growth.	_
and Infrastructure	• The Argyle Stairs have no accessible alternative in the vicinity; there is no guide to find any alternatives.	2
iiii asti uttui e	• Signage exists but is generally poor and it is difficult to navigate by. Finding nearby amenities is difficult.	
	• There is no room along the path for seating or other waiting areas.	
	• No vandalism or graffiti was noted.	
	• It is unclear who owns the space and how it is managed; especially as the site moves towards Jack Mundey Place.	
Maintenance	• No overgrowth noted, but some general fern growth exists on the walls of the viaduct.	2
and Space Management	• Bins were available in the area.	3
goment	• An individual with a suitcase deliberated as to their options, however they did not consult the signage for an alternate route; they then climbed the Argyle Steps reluctantly.	
	• The overall condition is somewhat rundown due to its heritage status.	
Total Score		12/25

4.4.5 Site 5: Jack Mundey Place

Site 5: Jack Mu	ndey Place Assessed on Monday 10/10/2022 from 2:10-2:35pm Weather Overcast	Score/5
	• The strip is very activated with constant movement through/in the space via passers-by and restaurant/café goers.	
	• Very inviting space with a variety of ages, demographics, activities; 'positive' sounds heard.	
	 Music was heard through speakers. 	
Activation	• Constant pedestrian traffic, with vehicles also regularly passing along Argyle St.	
and Invitingness	 Overcast / light drizzle but still parents with children, elderly, strong activation; potential for a more vibrant, 'buzzing' profile on 'regular' sunny days without becoming unpleasantly boisterous. 	5
8	• Greenery present in pots along the strip, as well as trees.	
	• The area is a food and beverage strip, however it is not just pubs – there are cafes and alfresco dining also.	
	• Lights strung between poles and up/between trees reflect a vibrant night-time atmosphere.	
	• Largely child-friendly with wide areas, no cars etc.; materials are hard however (concrete), and there is a gradient to the site.	
	• Planters are present to prevent cars impacting pedestrians from Argyle St (at least ostensibly, effectiveness is uncertain).	
	• There is a wide path to accommodate larger crowds, families with children, cyclists, dogs etc.	
	• Extra room for women who may prefer to have a wider distance from food and beverage venue; there is also a barrier separating these seating locations from the walkway in most cases (potted plants).	
	• No malicious person-based risks seen in the space.	
Safety and	• Rangers seen; restaurant owners and others in the space also fall into capable guardian category.	
Crime Risks	• There were some devices and/or exposed cables seen at reachable height on some poles, but not expected to be a large issue.	4
	• Facades are climbable in many places, however this is also not expected to exacerbate crime to a significant degree.	
	 Interacted with the site's only female full-time ranger at the time of site visit; the ranger indicated she was the only full-time ranger she'd seen in ~10 years of work, and that while there were some "higher-up" administrative workers who were women, female rangers "didn't seem to last". 	
	 Rangers are present and patrolling The Rocks and Circular Quay 24/7; one ranger was providing directions / managing pedestrians, another was seen patrolling; one police officer was also seen nearby. 	
Surveillance	• The space features even lighting even during a glary day, including into the tunnel-like locations of the routes to Nurse's Walk and into The Rocks Centre.	4
	• The strip is very open visually with a large degree of passive surveillance.	

	0	CCTV coverage from CCTV dedicated to the site was not seen to reach some areas of the strip for more than Recognition of individuals – Identification may be more difficult: this means events may be observed, but determining <i>who</i> exactly is involved may be less likely.	
	0	There were some privately owned CCTV locations, however these may offer inconsistent coverage.	
	0	There was some police presence noted, with an officer seen; three rangers were also seen.	
	0	Bathrooms were noted nearby but were difficult to find or undesirable to approach; the bathroom located in Unwin's Courtyard was difficult to find and unappealing.	
	and • Bathrooms may be usable in food and beverage e	Bathrooms may be usable in food and beverage establishments, however this only caters to some site users.	3
Infrastructure	0	Accessibility was acceptable along the strip, however entering restaurants may be an issue for wheeled access, and wheelchairs in particular are unlikely to be able to access restaurants at all without assistance.	5
	0	Wayfinding, signage, and land orientation are acceptable; however bathrooms remain an issue as mentioned prior.	
Maintenance and Space	0	The site is well-kept relative to graffiti, vandalism, and rubbish – however due to the heritage nature of the site many materials and building are old/run-down; some graffiti/vandalism was noted off the main strip towards Unwin's Courtyard.	4
Management	0	Delineation between spaces is acceptable due to the presence of potted plants which separate the private business eating spaces from the walkway.	
Total Score			20/25

4.4.6 Site 6: Cadman's Cottage and Bligh and Barney Reserve

Site 6: Cadman Overcast with s	's Cottage and Bligh and Barney Reserve Assessed on Friday 06/01/2023 from 10:55am to 11:25am Weather howers	Score/:
Activation	 Despite the overcast/rainy conditions, there were many users – particularly from the docked cruise ship. Predominant noise was from rain, chatting, and cars driving past. Music bass was audible from the Overseas 	
and Invitingness	 Passenger Terminal. Businesses in the surrounding area were open and active. 	4
	 No shelter spaces or intentional seating are present to provide inviting aspects. Seating on the steps here is in a thoroughfare which disinvites use. 	
	 Blind corners are present along pedestrian pathways leading towards the passenger terminal from George Street, and from the northern footpath along Circular Quay West, towards George Street. 	
	• The pathway is somewhat narrow depending on the level of use – particularly at the stairs to George Street, where it may be difficult to escape an incident or unwanted encounter.	
Safety and	• The path is mostly even, but slopes somewhat towards the Circular Quay West roadway.	
Crime Risks	• The stairs to/from George Street are very uneven.	4
	• The space is close to the Circular Quay West roadway; no barriers are present, but the site is parallel to the road which reduces the chance of vehicular impact apart from the footpath.	
	 No malicious person-based risks were noted. 	
	 There is constant security from the Overseas Passenger Terminal. Staff know to call police and work with police to provide evidence testimony and footage (information provided by a member of OPT during assessment window. 	
	• Lighting is uneven and contrasted.	
	• Corners present an issue for reliable surveillance as users travel along pathways.	
	 Hiding spaces are present under the stairs connecting to George Street, and behind bushes at the corner of Cadman's Cottage Square nearest to the Overseas Passenger Terminal. 	
Surveillance	• The area features reliable surveillance to/from other spaces, despite problem areas. The space is very open.	4
	 Lots of CCTV is present from overseas passenger terminal, but limited CCTV exists in the alley leading to George Street. 	
	• Sight lines are interrupted by the gardens and trees at the front of the square, and at the side of the cottage along the adjoining alley.	

	0	No facilities are present, such as bathrooms.	
Accessibility	0	The area features acceptable pathway choice; there are lots of directions you can go in the event of an incident, or just when traversing the space.	
and	• The space has good mobility-impaired accessibility, apart from the stairway connecting to George Street.		3
Infrastructure	0	Signage and way finding is present, but in line with broader precinct signage issues it is of limited use.	
	0	Ability to orient within the space is excellent – the presence of multiple landmarks and the water enables this.	
	0	Trains, roadways, and ferries can all be seen from the space – good ability to find public transport.	
	0	The heritage condition of the site is good overall, however the signs detailing the cottage's history are worn away.	
Maintenance and Space	0	The area underneath the stairs in the site's adjoining alley did have broken glass and overgrowth when assessed.	4
Management	0	Water running through uneven surfaces of the front cottage area.	
8	0	Space management allows ample room for movement and delineation of ownership. Material choices reinforce this.	
Total Score			19/25

4.4.7 Site 7: Unwin's Courtyard

Site 7: Unwin's	ourtyard Assessed on Monday 10/10/2022 from 2:35-2:55pm Weather Overcast	Score/5
	Mixed activation profiles; appears to be a night-time location which is disused during the day.	
	 The location was quiet as to be 'eerily' so; despite its proximity to shops and well-activated streets, such as Jack Mundey, there was little if any noise heard outside of occasional industrial sounds. 	
	• The rear alley areas were hardly activated at all with a few users in the seating area off Kendall Lane, one cleaner, and one site through-user the only people seen – and this was only at one end-section of the space.	
	The lower-floor seating locations were not activated at all, with nobody seen there throughout the assessment period.	
	• The question 'am I allowed/supposed to be here?' could reasonably be asked when in the space.	
Activation and	Construction and ventilation noises were the primary soundscape.	2
Invitingness	The discovery museum backs onto the space, however the activation/invitingness provided from this location is minimal.	2
	A build-up of fallen leaves, moss, and old materials was observed.	
	Disused barstools, empty glasses left out (potentially for days) were frequent; rusted locks and wires were observed.	
	Low child-friendliness due to lack of infrastructure, incompatible materials, presence of steep stairs, etc.	
	 Sense of Scale in the space is not ideal; high walls and second/third storey structures – as well as the presence of steep below-ground seating areas – present an environment which is not comfortably scaled for use. 	
	• Little incentive to use the space when compared to other nearby spaces – for dining/drinking or as a through-link.	
	The location has numerous blind corners as site users travel between sections.	
	 Poor visibility between sections and even within sections. 	
Safety and	 No immediate threats seen but site users in side seating area may present an issue under different/certain circumstances. 	2
Crime Risks	• Spaces are cramped forcing closer interaction of site users, which may exacerbate person-based risks.	2
	• It was noted by a worker familiar with the space (during a previous site visit) that the lopsided tree in this location is progressively falling and could potentially collapse.	
	No security or police were seen in/from the space.	
Surveillance	 No surveillance possible from the busier streets such as Kendall Ln or George St; site users could reasonably be expected to not even know these locations were nearby, despite the proximity. 	2

	• Low activation compounds with low visibility.	
	 CCTV coverage was not seen within the space, with the exception of partial coverage provided by CCTV within The Rocks Discovery Museum, but this is unreliable. 	
	• There is also no perception of 'feeling seen'; despite the presence of houses/windows etc., these were all silent and still, and almost all were closed throughout the assessment.	
	• The Rocks Discovery Museum did have staff present, however there was no perception that these staff were paying attention to the rear space at all, and they were positioned to face away from the rear area.	
	• The commercial profile of small art museums or retail premises (etc.) reflects people mainly keeping to themselves.	
	• Blind corners prevent surveillance between sections; even as one enters a section, their surrounds are largely unseen.	
	• The female bathroom does not feature wheelchair-accessible stalls; the male bathroom is upstairs with no lift/ramp.	
Accessibility and	• There was no changing table present, or separate wheelchair accessible bathroom.	
	• Wheelchairs and other wheeled access can be managed at a stretch but is not included within the design considerations.	2
Infrastructure	• General level of service is moderate on the main pathway, however the male bathroom area and below-ground seating both require the use of steep stairs which may be dangerous, particularly at night or in the rain; older users or those with mobility concerns may also have difficulty with these.	
	• Warning and establishment identification signage is present, however directional signage and wayfinding are not.	
	• The area is a large ambiguous space; there are also hallways between the location and George St which pass through houses – these are very ambiguous, and despite receiving some use, the question exists: 'am I allowed/supposed to be here?'.	
Maintenance and Space	• Unsatisfactory territoriality between spaces; anyone using the hallway between George St and Unwin's Courtyard can access the internal doors of adjacent buildings – some of which open into shops or private spaces.	2
Management	• There are numerous competing user groups within the local space, and this results in stunted territoriality that seems to only cover business internal areas and nothing of external areas in the courtyard (or George St to Unwin's Courtyard passage).	
	• It is not obvious that this is a public space that can/should be used – has 'back of house' atmosphere.	
Total Score		10/25

4.4.8 Site 8: Foundation Park

Site 8: Foundat	ion Park Assessed on Wednesday from 1:10-1:30pm Weather Clear/Sunny	Score/5						
	• The site was generally quiet but punctuated by construction and machinery noise.							
	• People in the space were talking on phones, smoking, and having lunch.							
	• The Cleland Bond Store directly adjacent seemed to be the source of much of the activation here.							
	• The immigration building above did not provide much activation or sense of activation.							
Activation	• Is it not obvious where paths in the space lead.							
and	• The area has a 'back-of-house' feel, not intended for public access.	2						
Invitingness	• The site is memorable, but remembering where it is located may be difficult; less incentive to try to 're-find' it.							
	• General profile is a concrete and brick jungle with one tree.							
	• Very unfriendly and dangerous for children.							
	• A woman was observed taking shelter and eating lunch in the space.							
	• There are some benches and chairs present, however these have a heritage feel which may disincline some users to sit here.							
	• Some blind spots exist, related to the stairs through the site, the dark heritage room, and the sandstone cut-outs.							
	• There are plenty of locations that can be used for hiding if crouched down.							
Safety and	• There are multiple large and small grade differences, and some of these lack any warning or protection/railing.							
Crime Risks	• Narrow paths, particularly along stairs, force contact; comment from one first time female user indicated that she would wait for others to go by, and not use the path at the same time as others.	2						
	• No roads present, so no vehicular risk.							
	• The site is quite insular and not exposed to other areas, increasing the risk of criminal/antisocial activity going unnoticed.							
	• The dark heritage room here has very poor surveillance and did not appear to be lit.							
	• The area is generally moderate/acceptable during daylight hours but may become worse at night.							
Surveillance	 Surveillance at sunset will be shadowy and uncertain; after dark, it is likely that there will be walls of darkness, high contrast, and glare from powerful lighting. 	2						
	• There is not much surveillance available from adjacent sites.							
	• The space and many of its subcomponents feel restricted and unseen.							
	• Blind corners / hiding locations exist at ground floor in the sandstone cut-outs.							

	0	No restrooms or other general facilities were present.	
Accessibility	0	The number of pathways is acceptable given the context of the site as a through link.	
and Infrastructure	0	Impaired mobility accessibility is non-existent at the site; despite the fact that there is a lift next door in the Cleland Bond Store, this did not appear to be advertised at all.	2
	0	Signage, orientation, and access to transport routes were all poor; the Sydney Harbour Bridge did provide an orienting factor, though.	
	0	No vandalism or graffiti were noted in the zone.	
Maintenance	0	Moss, dirt, and leaves had accumulated in the space.	
and Space	0	No rubbish was noted.	3
Management	0	Materials condition was reflected in the zone's heritage profile.	
	0	Space management and territoriality were insufficient; it was unclear that the space is public, and what it is used for.	
Total Score			11/25

Site 9: Dawes P	t Park (Tar-ra) South Assessed on Wednesday 19/10/2022 from 1:35-1:55 Weather Clear/Sunny	Score/5						
	Cars and trains overhead dominated the overall sound profile.							
	Birds and chatter from site users were also heard; dogs being walked in the space.							
	The area had a lot of tourists attention and was generally inviting; on a 'good' day the site is acceptably inviting; it is a landmark space that can be expected to regularly see attention during the day.							
.	• However, the presence of the bridge someone detracts from the invitingness and overall experience/atmosphere.							
Activation and Invitingness	The area is a green space with views and open area, however it is quite loud and still 'roofed' by the bridge's presence; the area feels enclosed.	3						
in vielinghess	Cannons at the north end of the park are POIs for site users.							
	Some areas of grass were healthy, others were more withered.							
	Trees were present and the harbour can be seen.							
	Good child friendliness and shelter from the sun/rain; however, rain may blow into the space if windy.							
	There is a sharp drop at Lower Fort Street which may present a safety risk.							
	No blind corners were noted; the bridge pylons may present hiding opportunities; however they are some distance from the pathway.							
	• There is a wide pathway and large grassed area which allows distance from potential risks and escape routes.							
Safety and Crime Risks	No grade changes were present – the ground was flat and even with the exception of a small curb separating the path from the grassed areas.	4						
	The risk of being impacted by cars from Lower Fort Street is low; bollards and other landscaping measures restrict vehicle access, particularly at speed.							
	No malicious risks to personal safety were noted, however these could exist within the space – particularly around pylons.							
	Several workers on site were wearing high-vis; can be perceived as capable guardians for construction in the area.							
	No blind corners present, except for pylons (as noted).							
	Surveillance is optimal during the day, but at night this may be changed, and the pylons may present an issue at this time.							
Surveillance	The space is open but enclosed by the Sydney Harbour Bridge.	4						
	Other spaces can see into this space, and other spaces can be seen from here – however, these are mostly at a medium/long distance, reducing the effectiveness of surveillance.							

4.4.9 Site 9: Dawes Point Park (Tar-ra) South

	Buildings along Lower Fort Street may provide surveillance, however many parts of the space do not 'feel seen'.	
	There is CCTV noted, mainly from the top of pylons and through the Sydney Harbour Bridge structure; the effectiveness of these for covering the zone is questionable given their distance.	
	No infrastructure is present in the space beyond the pathway itself.	
	Lighting is all from overhead lights which are attached to the Sydney Harbour Bridge.	
	The nearby bathrooms are not advertised at all along the route.	
	No signage is present in the space.	
Accessibility and	Route choice and escape route presence is acceptable.	3
Infrastructure	Accessibility for wheeled and mobility impaired uses is acceptable, near optimal.	5
	The presence of adjacent traffic/roads assist for finding a ride share and potentially public transport.	
	There are places to park here.	
	Orientation in the space is straightforward.	
	Rubbish bins are present.	
	Condition is pristine aside from some dirt build-up, presumably being blown from the grassy areas into the pathway.	
Maintenance and Space	Materials are heritage, but most of the location is either pavement, sandstone, or grassed areas.	4
Management	No furniture present.	
	Territoriality and demarcation of space is not an issue, the location is obviously public and open to all.	
Total Score		18/25

Site 10: Dawes	Point Park (Tar-ra) East Assessed on 19/10/2022 from 2:00-2:25 Weather Clear/Sunny	Score/5
	• The area is lively with a constant presence of users sitting, walking, running, etc.	
	• The bridge is also loud in this location; trains and cars can be heard near-constantly.	
	• The presence of sun and shade makes the space an inviting location to move through and stay in.	
	• No businesses are present in the space; just a normal park location.	
Activation	• Abundant greenery and next to the water.	
and Invitingness	• Some grass was patchy.	4
Invitingness	• Dirt and grime build-up was noted on benches, light posts, trees etc.	
	 Lots of landmarks are visible here, making it an attractive tourist spot. 	
	 Child friendliness and relaxation in the space are acceptable/optimal; children of all ages could be expected to enjoy playing in the space, as well as exploring the nearby archaeological site and gun emplacements. 	
	• The area is open to rain, however – so is somewhat weather dependent; it may also be less inviting during colder months.	
	• Blind corners are minimal, however it is possible to hide behind trees; additionally, as one climbs the path towards the Sydney	
	• Harbour Bridge, they become somewhat more difficult to visually follow from the base of the path.	
	• There are slopes/ditches down to the south side of the path which may present criminal/antisocial risks.	
	• Path width is moderate/acceptable, however could be wider; accidents may occur with bicycles here, if ridden.	
	• Tree roots are breaking the pavement somewhat, creating trip/fall hazards.	
	• No sudden grade differences were observed.	
Safety and Crime Risks	• Grates in the path may be safety hazards.	4
CITILE RISKS	 No risk of being impacted by vehicles. 	
	 No malicious risks were identified, however there are sections of the site which could promote criminal/antisocial loitering, especially after dark – these include the trees, the southern sloped ditch area, and a corner of space at the south-west corner of the site at the top of the pathway. 	
	 Police were seen on horses, and travelled through the space from Hickson Road to Dawes Point Park under the Sydney Harbour 	
	• Bridge; despite police presence, they may only rarely be in the area.	
	• A police boat was also seen patrolling the harbour.	

4.4.10 Site 10: Dawes Point Park (Tar-ra) East

	• Surveillance was acceptable/optimal during the day but may this rely heavily on activation; may drastically fall at night.	
	• The location feels more open to surveillance than Zone 9, despite having a tree canopy overhead.	
	• The southern ditch area has reduced levels of surveillance compared to the main path.	
Surveillance	• The path is open with good sight lines; approaching the waterfront (moving east) especially presents an open area towards Hickson Road Reserve.	3
	• Some surveillance is noted from the rooftop pool area of the Park Hyatt Hotel.	
	• People walking along the bridge can potentially see the area in the day – this isn't too reliable, however.	
	• No CCTV was noted in the park.	
	• Bins were noted at the top of the zone, nearer to the Sydney Harbour Bridge, and across the road at Hickson Road Reserve.	
	• No bathrooms / change rooms were noted.	
Accessibility and	• Multiple paths were present, and grassed areas allow movement in any direction from the main path which enhances choice.	2
Infrastructure	• Wheeled accessibility is somewhat difficult at the bottom (eastern side) of the zone; no wheelchair accessibility is present.	2
	• There is a ramp to access the grassed area at the top of the path.	
	• No signage is present to direct; the Sydney Harbour Bridge and the water do provide good orientation points though.	
Maintenance	• Vandalism (carving names etc.) was extensive on every tree along the path, however this is not very noticeable and is more likely than typical graffiti/vandalism to be noted as a neutral/positive factor.	
and Space	• Otherwise, the area was as clean as could possibly be expected for a public green area.	4
Management	• The presence of the canopy overhead may block light sources from outside the site.	
	• The ditch and overgrown grass in the space may catch light after dark, creating pockets of darkness.	
Total Score		17/25

5. Place Assessment

5.1 Introduction

This report presents site assessment and analysis related to place concerns in The Rocks precinct, as a component of the Night-time Vulnerability Assessment. This report has been prepared in collaboration with partner lighting, CPTED, and acoustic assessment reports, together forming the technical basis for contextual understandings of the precinct. The following section presents the methodological approach, quantified results, and commentary on each of the chosen sites.

A place assessment seeks to ascertain both the objective and subjective experience of a site. In NSW, the Department of Planning and Environment (DPE) provides a set of guidelines and evaluations tools to assist in the design and assessment of existing public spaces. This assessment uses the GPSE to form a baseline assessment of 10 locations in The Rocks precinct. This baseline assessment forms a place-based technical context for the experiential analysis conducted in co-design sessions detailed in the main report.

5.2 Methodology

As stated above, this assessment utilises the DPE's GPSE Tool to conduct site assessments. These assessments were undertaken at 10 public spaces across The Rocks precinct.

These places were selected based on their location, typology, prominence, and usage – as well as the degree to which they were identified areas of interest or concern – and matched those analysed by the other disciplines.

The baseline analysis considers the entirety of the experience and safety of each place, in order to integrate with the co-design workshops.

The baseline site visit was undertaken on the 22^{nd} of November (11am-3pm). Indicators ascertained through the toolkit include:

- Public use, including people passing through or staying, and their age and gender
- Facilities present within the site both natural and built
- A subjective evaluation of the place comprising four categories:
 - Accessibility of the Place
 - o Ability to Interact with the Place
 - Ability to Stay in the Place
 - Ability to Connect with the Place

The completion of these three sections quantifies the use, experience, and servicing of each place on a scale of 1-5 (strongly disagree - strongly agree). Each place was visited for 20 minutes to determine its quality as a place to pass through and stay. Additionally, whilst rating the places, a tally of people using them was taken to gain a degree of understanding around the experience of the general public and activation of each place. At the end of each visit some notes surrounding evaluated items (facilities, natural character, accessibility, shelter etc.) were taken surrounding the experience of the place.



Figure 9: Sites assessed using the GPSE Tool

5.3 Key Results

The results from the site visit reveal that the majority of the existing public spaces in the precinct perform at a low-moderate level. A number of factors contribute to these results, such as a lack of public facilities like seating, signage, accessibility, and shelter. Limited site accessibility was also a common issue. Additionally, where there had been investment towards increasing accessibility, these facilities were not well signed to allow for identification by users.

Of the places assessed, the most successful included:

- Site 2: Globe Street
- Site 5: Jack Mundey Place
- Site 6: Cadman's Cottage and Bligh and Barney Reserve

The worst-performing sites included:

- Site 3: Cumberland Place and Steps
- Site 4: Argyle Street
- Site 7: Unwin's Courtyard

Sites that performed moderately included:

- Site 1: George Street North
- Site 8: Foundation Park
- Site 9: Dawes Point Park (Tar-ra) South
- Site 10: Dawes Point Park (Tar-ra) East

The most important factors that separated successful places from unsuccessful places were accessibility, presence or lack of facilities, and wayfinding/signage. Moderately performing places were often lacking one of these elements, which made them either difficult to access/locate or reduced their invitingness for prolonged usage.

 Table 13: Key results from place assessment

		Category		
	Am I able to get there?	Am I able to play and participate?	Am I able to stay?	Am I able to connect?
Site 1: George St North	4	3.2	3.222	3.333
Site 2: Globe Street	4	3.5	4	3.375
Site 3: Cumberland Place and Steps	2.25	1.75	3.333	2.5
Site 4: Argyle Street	2	2.4	2.888	3.125
Site 5: Jack Mundey Place	4.6	3.8	3.333	3.777
Site 6: Bligh and Barney Reserve	4.75	3.6	3.333	3.888
Site 7: Unwin's Courtyard	2.25	2.25	3	2.25
Site 8: Foundation Park	2	3	3.222	3.5
Site 9: Dawes Point Park (Tar-ra) S	3.6	3.2	2.666	3.125
Site 10: Dawes Point Park (Tar-ra) E	3.25	3	3.333	3.5

5.4 Site Assessment

The following pages are filled out GPSE Tool sheets that reflect the raw data collected from the site visit relating to the quality of the open spaces assessed.



How to use the Tool

Steps

This tool can assist in evaluating what is working well and what could be improved in your public space. The tool draws on research and globally renowned methodologies by <u>Gehl</u> and <u>Project</u> for <u>Public Spaces</u> amongst others.

Results from your completed evaluations will add to your evidence base of what is working well and future improvements for the public space. This can be used to help inform place planning, project scoping and briefs, grant applications or document changes in a public space over time as a before and after survey. Note: The evaluation results are for the use of the project team and are not collected by the NSW Government.

Refer to the <u>Great Public Spaces</u> <u>Guide</u> and the <u>NSW Public Spaces</u> <u>Charter</u> to further build your understanding of what contributes to great public spaces.

- Read all pages of the tool to understand the steps. On this page draw a site sketch. On page 2 record the number of people using the space. On page 3 and 4 record your evaluation.
- 2 Familiarise yourself with the site. Observe, move around and experience the environment.
- 3 Take photos of your observations e.g. activities, built and natural features.
- 4 Fill out the tool on multiple occasions e.g. different times of the day and night, week, year and in different weather conditions.
- 5 Complete the evaluation from your personal observations. It is not intended to be used to survey other people.
- 6 Analyse the results of your completed evaluations and summarise into a report. The results can inform interventions to improve the public space quality or assess the success of an intervention.

Public Space

The quality of a public space is just as important as access to public space, as quality makes people feel safe, welcome and included. Guality is not only reflected in a public space's physical form—how it's designed, maintained and integrated with its environment but also through the activities it supports and the meaning it holds.

Public spaces include:

Open spaces

Both active and passive including parks, gardens, playgrounds, public beaches, riverbanks and waterfronts, outdoor playing fields and courts, and publicly accessible bushland.

Public facilities

Public libraries, museums, galleries, civic/community centres, showgrounds and indoor public sports facilities.

Streets

Streets, avenues, and boulevards, squares and plazas, pavements, passages and lanes, and bicycle paths.

General

Your name

Project name and stage

Council area

Location Weather

Date

Time

What type of space is this?

Open space Public facility Street Describe the space

Snapshot of people

Tally the number of people ++++ = 5 people

Use this table to count how many people are using the space for five minutes. Record users' approximate age. If you feel comfortable include their gender, alternatively just count all people together under the Everyone column. Count the number of people either moving through the site or staying. You can use the site sketch on page 1 to help define the area you are counting people in, as a smaller zone can be helpful for a busy space. Do not double count people.

Multiply the total amounts by twelve to get an hourly average of users.

Moving

For example a person walking, in a wheelchair, on a bicycle

	Men			Women			OR	Everyor		
Age	Tally	Total	Hourly	Tally	Total	Hourly		Tally	Total	Hourly
0-5										
6-11										
12-17										
18-24										
25-34										
35-44										
45-54										
55-64										
65+										

Staying

For example a person sitting, standing or laying

	Men			Women			OR Everyone			
Age	Tally	Total	Hourly	Tally	Total	Hourly		Tally	Total	Hourly
0-5										
6-11										
12-17										
18-24										
25-34										
35-44										
45-54										
55-64										
65+										

What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

What can you hear?

Rate if the sound is positive (P) or negative (N) in your experience. N/A if not applicable.

Birds/wildlife Trees/foliage People talking/socialising Music/creative performance Construction Traffic Industrial noise (fan/pumps) Wind Other:

Questions & observations

How would you describe the overall quality of this public space?

High Medium Low What makes this public space special or unique? What does the community value about the space?

Ideas to improve the place Short to medium-term & low-cost

Long-term & permanent

Who could help deliver these ideas? (businesses/community groups/schools)

Other observations or ideas, e.g. note any recent improvements

Please fill out your evaluation below N/A Can't answer/not applicable 1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

Divide the total score by the number of answered questions in each of the four themes. The average score for each theme provides an overview of its performance compared to the other themes.

Am I able to get there?	Score	Am I able to stay?	Score	Am I able to connect?	Score
People find it easy and pleasant to get to the public space, through a network of paths, streets, public transport and signage		People can sit in the shade or in the sun		People with a diversity of ages, genders, cultural or ethnic backgrounds are using the public space	
People can easily access the public space through multiple entrances		There are a range of comfortable places to sit, stay or relax and amenities are provided		There is an interesting atmosphere and activities	
People of all ages and abilities can easily and comfortably move around the space		There are enough trees, grass and plants to make		e.g. people watching, arts and cultural activations	
People walking are protected from all vehicles including cyclists		the public space shaded and comfortable		You can meet people and socialise, and it is a positive place	
People riding bikes are protected from other vehicles		The public space feels safe during the day		There are shops, cafes, community services or economic activity	
Average score Total score ÷ number of answered questions		The public space feels safe at night The public space is lit at		close by People are able to connect with each other	
Am I able to play and participate?	Score	night and has clear sight lines and good visibility		in both a commercial and non-commercial settings	
There are a range of things to do in the public space including exercise, recreation, games,		The public space is clean and well-maintained		There are local stories of significance (First Peoples, historic, cultural) told and celebrated in the public	
play and/or learning opportunities		The surrounding buildings scale are		space	
The public space encourages positive social interactions or individual experiences e.g. talking, casual or planned		not too dominating, allowing people to feel comfortable in the public space		There are public artworks, heritage or monuments that reflect the unique local character	
People of all ages and abilities can use the space and have the facilities they need to stay e.g. end of trip facilities or		It is well designed, visually attractive with scenic qualities		There is evidence of volunteerism, community stewardship and/or the space is well-loved and	
drinking water There is a choice of		There are features that		well attended for its function	
places or features to safely sit, play, thrive and relax		shelter you from wind, sun, and rain		There are cultural, performance or musical activations	
There are social or cultural activities appropriate to the space e.g. programmed activities or events		You are protected from noise, dust, unpleasant smells, or pollution in the public space		The public space feels welcoming with a sense of belonging and you feel encouraged to return	
Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions	

Version 2 Page 4 of 4

General

Your name

Project name and stage

Council area

Location Weather

Date

Time

What type of space is this?

Open space Public facility Street Describe the space

Snapshot of people

Tally the number of people ++++ = 5 people

Use this table to count how many people are using the space for five minutes. Record users' approximate age. If you feel comfortable include their gender, alternatively just count all people together under the Everyone column. Count the number of people either moving through the site or staying. You can use the site sketch on page 1 to help define the area you are counting people in, as a smaller zone can be helpful for a busy space. Do not double count people.

Multiply the total amounts by twelve to get an hourly average of users.

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For example a person walking, in a wheelchair, on a bicycle

	Men			Women			OR	Everyone		
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45-54										
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65+										

Staying

For example a person sitting, standing or laying

	Men			Women			Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly	Tally	Total	Hourly
0-5									
6-11									
12-17									
18-24									
25-34									
35-44									
45-54									
55-64									
65+									

What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

What can you hear?

Rate if the sound is positive (P) or negative (N) in your experience. N/A if not applicable.

Birds/wildlife Trees/foliage People talking/socialising Music/creative performance Construction Traffic Industrial noise (fan/pumps) Wind Other:

Questions & observations

How would you describe the overall quality of this public space?

High Medium Low What makes this public space special or unique? What does the community value about the space?

Ideas to improve the place Short to medium-term & low-cost

Long-term & permanent

Who could help deliver these ideas? (businesses/community groups/schools)

Other observations or ideas, e.g. note any recent improvements

Please fill out your evaluation below N/A Can't answer/not applicable 1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

Divide the total score by the number of answered questions in each of the four themes. The average score for each theme provides an overview of its performance compared to the other themes.

Am I able to get there?	Score	Am I able to stay?	Score	Am I able to connect?	Score
People find it easy and pleasant to get to the public space, through a network of paths, streets, public transport and signage		People can sit in the shade or in the sun		People with a diversity of ages, genders, cultural or ethnic backgrounds are using the public space	
People can easily access the public space through multiple entrances		There are a range of comfortable places to sit, stay or relax and amenities are provided		There is an interesting atmosphere and activities	
People of all ages and abilities can easily and comfortably move around the space		There are enough trees, grass and plants to make		e.g. people watching, arts and cultural activations	
People walking are protected from all vehicles including cyclists		the public space shaded and comfortable		You can meet people and socialise, and it is a positive place	
People riding bikes are protected from other vehicles		The public space feels safe during the day		There are shops, cafes, community services or economic activity	
Average score Total score ÷ number of answered questions		The public space feels safe at night The public space is lit at		close by People are able to connect with each other	
Am I able to play and participate?	Score	night and has clear sight lines and good visibility		in both a commercial and non-commercial settings	
There are a range of things to do in the public space including exercise, recreation, games,		The public space is clean and well-maintained		There are local stories of significance (First Peoples, historic, cultural) told and celebrated in the public	
play and/or learning opportunities		The surrounding buildings scale are		space	
The public space encourages positive social interactions or individual experiences e.g. talking, casual or planned		not too dominating, allowing people to feel comfortable in the public space		There are public artworks, heritage or monuments that reflect the unique local character	
People of all ages and abilities can use the space and have the facilities they need to stay e.g. end of trip facilities or		It is well designed, visually attractive with scenic qualities		There is evidence of volunteerism, community stewardship and/or the space is well-loved and	
drinking water There is a choice of		There are features that		well attended for its function	
places or features to safely sit, play, thrive and relax		shelter you from wind, sun, and rain		There are cultural, performance or musical activations	
There are social or cultural activities appropriate to the space e.g. programmed activities or events		You are protected from noise, dust, unpleasant smells, or pollution in the public space		The public space feels welcoming with a sense of belonging and you feel encouraged to return	
Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions	

Version 2 Page 4 of 4

General

Your name

Project name and stage

Council area

Location Weather

Date

Time

What type of space is this?

Open space Public facility Street Describe the space

Snapshot of people

Tally the number of people ++++ = 5 people

Use this table to count how many people are using the space for five minutes. Record users' approximate age. If you feel comfortable include their gender, alternatively just count all people together under the Everyone column. Count the number of people either moving through the site or staying. You can use the site sketch on page 1 to help define the area you are counting people in, as a smaller zone can be helpful for a busy space. Do not double count people.

Multiply the total amounts by twelve to get an hourly average of users.

Moving

For example a person walking, in a wheelchair, on a bicycle

	Men			Women			OR	Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly		Tally	Total	Hourly
0-5					•					
6-11										
12-17										
18-24										
25-34										
35-44										
45-54										
55-64										
65+										

Staying

For example a person sitting, standing or laying

	Men			Women			Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly	Tally	Total	Hourly
0-5									
6-11									
12-17									
18-24									
25-34									
35-44									
45-54									
55-64									
65+									

What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

What can you hear?

Rate if the sound is positive (P) or negative (N) in your experience. N/A if not applicable.

Birds/wildlife Trees/foliage People talking/socialising Music/creative performance Construction Traffic Industrial noise (fan/pumps) Wind Other:

Questions & observations

How would you describe the overall quality of this public space?

High Medium Low What makes this public space special or unique? What does the community value about the space?

Ideas to improve the place Short to medium-term & low-cost

Long-term & permanent

Who could help deliver these ideas? (businesses/community groups/schools)

Other observations or ideas, e.g. note any recent improvements

Please fill out your evaluation below N/A Can't answer/not applicable 1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

Divide the total score by the number of answered questions in each of the four themes. The average score for each theme provides an overview of its performance compared to the other themes.

Am I able to get there?	Score	Am I able to stay?	Score	Am I able to connect?	Score
People find it easy and pleasant to get to the public space, through a network of paths, streets, public transport and signage		People can sit in the shade or in the sun		People with a diversity of ages, genders, cultural or ethnic backgrounds are using the public space	
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People of all ages and abilities can easily and comfortably move around the space		There are enough trees, grass and plants to make		e.g. people watching, arts and cultural activations	
People walking are protected from all vehicles including cyclists		the public space shaded and comfortable		You can meet people and socialise, and it is a positive place	
People riding bikes are protected from other vehicles		The public space feels safe during the day		There are shops, cafes, community services or economic activity	
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Am I able to play and participate?	Score	night and has clear sight lines and good visibility		in both a commercial and non-commercial settings	
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Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions	

Version 2 Page 4 of 4

General

Your name

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Date

Time

What type of space is this?

Open space Public facility Street Describe the space

Snapshot of people

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Staying

For example a person sitting, standing or laying

	Men			Women			Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly	Tally	Total	Hourly
0-5									
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What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

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Long-term & permanent

Who could help deliver these ideas? (businesses/community groups/schools)

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Please fill out your evaluation below N/A Can't answer/not applicable 1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

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drinking water There is a choice of		There are features that		well attended for its function	
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Version 2 Page 4 of 4
General

Your name

Project name and stage

Council area

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Date

Time

What type of space is this?

Open space Public facility Street Describe the space

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For example a person sitting, standing or laying

	Men			Womer	n		Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly	Tally	Total	Hourly
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6-11									
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45-54									
55-64									
65+									

What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

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Ideas to improve the place Short to medium-term & low-cost

Long-term & permanent

Who could help deliver these ideas? (businesses/community groups/schools)

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drinking water There is a choice of		There are features that		well attended for its function	
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Version 2 Page 4 of 4

General

Your name

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Location Weather

Date

Time

What type of space is this?

Open space Public facility Street Describe the space

Snapshot of people

Tally the number of people ++++ = 5 people

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Moving

For example a person walking, in a wheelchair, on a bicycle

	Men			Women			OR	Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly		Tally	Total	Hourly
0-5										
6-11										
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Staying

For example a person sitting, standing or laying

	Men			Womer	n		Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly	Tally	Total	Hourly
0-5									
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What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

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Questions & observations

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High Medium Low What makes this public space special or unique? What does the community value about the space?

Ideas to improve the place Short to medium-term & low-cost

Long-term & permanent

Who could help deliver these ideas? (businesses/community groups/schools)

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Version 2 Page 4 of 4

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What type of space is this?

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What are people doing?

Tick

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Version 2 Page 4 of 4

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What type of space is this?

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	Men			Women			OR	Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly		Tally	Total	Hourly
0-5										
6-11										
12-17										
18-24										
25-34										
35-44										
45-54										
55-64										
65+										

Staying

For example a person sitting, standing or laying

	Men			Womer	n		Everyone		
Age	Tally	Total	Hourly	Tally	Total	Hourly	Tally	Total	Hourly
0-5									
6-11									
12-17									
18-24									
25-34									
35-44									
45-54									
55-64									
65+									

What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

What can you hear?

Rate if the sound is positive (P) or negative (N) in your experience. N/A if not applicable.

Birds/wildlife Trees/foliage People talking/socialising Music/creative performance Construction Traffic Industrial noise (fan/pumps) Wind Other:

Questions & observations

How would you describe the overall quality of this public space?

High Medium Low What makes this public space special or unique? What does the community value about the space?

Ideas to improve the place Short to medium-term & low-cost

Long-term & permanent

Who could help deliver these ideas? (businesses/community groups/schools)

Other observations or ideas, e.g. note any recent improvements

Please fill out your evaluation below N/A Can't answer/not applicable 1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

Divide the total score by the number of answered questions in each of the four themes. The average score for each theme provides an overview of its performance compared to the other themes.

Am I able to get there?	Score	Am I able to stay?	Score	Am I able to connect?	Score
People find it easy and pleasant to get to the public space, through a network of paths, streets, public transport and signage		People can sit in the shade or in the sun		People with a diversity of ages, genders, cultural or ethnic backgrounds are using the public space	
People can easily access the public space through multiple entrances		There are a range of comfortable places to sit, stay or relax and amenities are provided		There is an interesting atmosphere and activities	
People of all ages and abilities can easily and comfortably move around the space		There are enough trees, grass and plants to make		e.g. people watching, arts and cultural activations	
People walking are protected from all vehicles including cyclists		the public space shaded and comfortable		You can meet people and socialise, and it is a positive place	
People riding bikes are protected from other vehicles		The public space feels safe during the day		There are shops, cafes, community services or economic activity	
Average score Total score ÷ number of answered questions		The public space feels safe at night The public space is lit at		close by People are able to connect with each other	
Am I able to play and participate?	Score	night and has clear sight lines and good visibility		in both a commercial and non-commercial settings	
There are a range of things to do in the public space including exercise, recreation, games,		The public space is clean and well-maintained		There are local stories of significance (First Peoples, historic, cultural) told and celebrated in the public	
play and/or learning opportunities		The surrounding buildings scale are		space	
The public space encourages positive social interactions or individual experiences e.g. talking, casual or planned		not too dominating, allowing people to feel comfortable in the public space		There are public artworks, heritage or monuments that reflect the unique local character	
People of all ages and abilities can use the space and have the facilities they need to stay e.g. end of trip facilities or		It is well designed, visually attractive with scenic qualities		There is evidence of volunteerism, community stewardship and/or the space is well-loved and	
drinking water There is a choice of		There are features that		well attended for its function	
places or features to safely sit, play, thrive and relax		shelter you from wind, sun, and rain		There are cultural, performance or musical activations	
There are social or cultural activities appropriate to the space e.g. programmed activities or events		You are protected from noise, dust, unpleasant smells, or pollution in the public space		The public space feels welcoming with a sense of belonging and you feel encouraged to return	
Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions	

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General

Your name

Project name and stage

Council area

Location Weather

Date

Time

What type of space is this?

Open space Public facility Street Describe the space

Snapshot of people

Tally the number of people ++++ = 5 people

Use this table to count how many people are using the space for five minutes. Record users' approximate age. If you feel comfortable include their gender, alternatively just count all people together under the Everyone column. Count the number of people either moving through the site or staying. You can use the site sketch on page 1 to help define the area you are counting people in, as a smaller zone can be helpful for a busy space. Do not double count people.

Multiply the total amounts by twelve to get an hourly average of users.

Moving

For example a person walking, in a wheelchair, on a bicycle

	Men			Womer	Women		OR	Everyor	e	
Age	Tally	Total	Hourly	Tally	Total	Hourly		Tally	Total	Hourly
0-5										
6-11										
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For example a person sitting, standing or laying

	Men			Women		Everyon	е		
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What are people doing?

Tick

In a group By themselves Walking Walking a pet Riding a bicycle On a skateboard/scooter Pushing a pram Using a mobility aid Socialising Relaxing/sitting On a laptop or phone Reading Performing/busking Exercising/playing Other:

What features can you see?

Tick

Furniture/seating Shops/cafe/kiosk Market/stall Stage/event space Community building Shade structure Playspace Sportfield/court Toilets/amenities Drinking water Way-finding signage Public or community art Educational program/space Meeting room/space Public transport options Welcome desk/information pod Heritage elements Trees/plants Beach/foreshore Wetlands/river/water Animals/wildlife Other:

What can you hear?

Rate if the sound is positive (P) or negative (N) in your experience. N/A if not applicable.

Birds/wildlife Trees/foliage People talking/socialising Music/creative performance Construction Traffic Industrial noise (fan/pumps) Wind Other:

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Ideas to improve the place Short to medium-term & low-cost

Long-term & permanent

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Average score Total score ÷ number of answered questions		The public space feels safe at night The public space is lit at		close by People are able to connect with each other	
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There are a range of things to do in the public space including exercise, recreation, games,		The public space is clean and well-maintained		There are local stories of significance (First Peoples, historic, cultural) told and celebrated in the public	
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The public space encourages positive social interactions or individual experiences e.g. talking, casual or planned		not too dominating, allowing people to feel comfortable in the public space		There are public artworks, heritage or monuments that reflect the unique local character	
People of all ages and abilities can use the space and have the facilities they need to stay e.g. end of trip facilities or		It is well designed, visually attractive with scenic qualities		There is evidence of volunteerism, community stewardship and/or the space is well-loved and	
drinking water There is a choice of		There are features that		well attended for its function	
places or features to safely sit, play, thrive and relax		shelter you from wind, sun, and rain		There are cultural, performance or musical activations	
There are social or cultural activities appropriate to the space e.g. programmed activities or events		You are protected from noise, dust, unpleasant smells, or pollution in the public space		The public space feels welcoming with a sense of belonging and you feel encouraged to return	
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Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions		Average score Total score ÷ number of answered questions	

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ARUP

Placemaking NSW

The Rocks | Tallawoladah Women's Safety Strategy

Appendix C: Soundscape Assessment

Final | July 2023



This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 289487-00

Arup Australia Pty Ltd | ABN 76 625 912 665

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File reference	Final for Issue

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			Prepared by	Checked by	Approved by
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		Signature	NJ	ZR	AR
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		Signature	NJ	ZR	AR
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			Prepared by	Checked by	Approved by
		Name	Nicholas Justin	Zach Reisch	Anna Robinson
		Signature	NJ	ZR	AR

Issue Document Verification with Document



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1. Introduction

This report presents the analysis of soundscape surveys undertaken at The Rocks | Tallawoladah (The Rocks) in Sydney Australia on 15, 16 & 26 October 2022. A description of the methodology, equipment and survey information is provided along with a description of the site and investigator observations. The purpose of the surveys was to document the existing diverse and varied soundscape typologies during both day and night-time within the precinct. Outputs from this analysis as well as observations onsite also contributed to the Women's Safety Strategy and Co-design Workshops in Arup's SoundLab, delivered on the 25th and 29th of November 2022.

2. Methodology

2.1 General

The soundwalk annexures of *ISO/DIS12913 2 Acoustics—Soundscape—Part 2: Data collection and reporting requirements* have been used as the basis of the soundscape survey methodology adopted. Minimum reporting requirements are stipulated in Annex A of the standard and include:

- Conducting a Soundscape Survey, either in laboratory or field study conditions, to capture the subjective responses of participants within or experiencing the environment using standardised soundscape questionnaire.
 - A minimum of 20 participants should assess the soundscape using survey questionnaire.
- Capturing the acoustical environment, including measurement of decibel levels and statistical indices, binaural recordings, time of day, meteorological conditions and investigator observations.
 - One 15-minute measurement is required before and after the surveys are conducted.
- Reporting on general methodologies for measurement and survey procedures.

ISO/DIS12913-2 includes both investigator and interviewee questionnaires as a key component of the soundscape survey methodology. Investigator observations (made by the person undertaking the site survey) are provided in this report. Interviewee surveys have been omitted in favour of broader co-design site walks through the precinct with target respondents (women, girls and gender diverse people). Subjective responses to soundscape components are captured as part of this process and are documented in the Women's Safety Strategy.

Amendments to ISO methodologies have been implemented due to the following limitations:

- Limitations onsite.
 - Some locations and measurement times had very little foot traffic, making conducting surveys impractical.
- A need to conform with the larger objectives and methodologies of the broader project.
 - As more holistic site walks with a co-design working group and stakeholders were also conducted as part of this project, participant responses to the soundscapes of the precinct were captured at that time.
- The highly involved process specified in the ISO standard.
 - On top of user surveys within the space to be analysed, the ISO standard stipulates that two 15-minute measurements be conducted before and after the surveys. As 10 sites needed to be analysed around The Rocks, doing so would extend the time onsite beyond practical feasibility.

2.2 Survey Locations

Surveys were conducted at 10 pre-established locations as part of The Rocks Women's Safety Strategy during both daytime and night-time hours. Surveys included acoustical measurements, 360 audio and video capture and investigator observations at each location. Specific measurement locations within each site were selected based on the most representative location for each site and correlation with other technical assessments conducted as part of the Women's Safety Strategy.

Daytime surveys were conducted between 10:26am - 2:17pm on 26/10/22 and night-time surveys were conducted between 8:02pm - 1:22am 15-16/10/22. The measurement equipment was mounted on a tripod at a height of 1.6m. Figure 1 below displays the assessment locations within the precinct.



Figure 1: Women's Safety Strategy Assessment Locations

2.3 Site Conditions

Table 1 and Table 2 summarise the meteorological conditions recorded during the survey periods. Weather data has been captured from the Bureau of Meteorology (BoM) from the weather station at Observatory Hill. Weather observations can be used to help further understand and contextualise users' responses to soundscapes.

Parameters	Pre-survey (10:30am)	Post-survey (2:15pm)	
Temperature	25.3 °C	27.6 °C	
Humidity	57%	39%	
Cloud cover	Clear	Partial Cloud	
Wind (speed/direction)	13 km/h WNW	24 km/h WNW	
Qualitative (rainy/dry/humid etc)	Clear skies, slightly humid due to recent rain	Moving cloud cover throughout the day. Increasing wind	

Table 1: Meteorological conditions: Day (26/10/22)

Parameters	Pre-survey (8:00pm)	Post-survey (1:20am)
Temperature	17.3 °C	16.34 °C
Humidity	76%	84%
Cloud cover	Cloudy	Cloudy
Wind (speed/direction)	4 km/h NNE	7.0 km/h WNW
Qualitative (rainy/dry/humid etc)	Humid, still, moderate cloud cover	Humid, still, moderate cloud cover

2.4 Equipment

The equipment used to conduct the soundscape surveys is summarised in Table 3.

Туре	Model	Serial Number
Ambisonic microphone and digital recorder	Zoom H3-VR	N/A
Type 1 sound level meter	NTi XL2-TA / B&K 2250	2445716
Calibrator	B&K 4231	2737030
360 Video Camera	Insta 360 Pro	IPE2418N49E44Y

Table 3: Soundscape survey equipment

2.5 SoundLab Co-Design Process

360 video and 3D ambisonic¹ audio was recorded at fixed-perspective locations for all sites during both daytime and night-time periods. The two key purposes of these recordings are:

- 1. <u>Benchmark / Posterity:</u> Given the location's cultural and historical significance, capturing the unique and varied sites within The Rocks as they exist today was considered important in the documentation and archiving of the precinct. These recordings can also serve as a benchmark of comparison for future development and application of interventions.
- 2. <u>Co-design</u>: The video and audio recordings were curated to form the foundation of further co-design workshops as part of the Women's Safety Strategy project. These workshops were held at Arup's SoundLab², a purpose-built facility which allow users to experience immersive audio and video reproduction of the surveyed sites.

Co-design groups had the opportunity to experience The Rocks outside the times conducted during the day/night walks to provide further insight and feedback into women's safety and mobility within the precinct. As both audio and video has been captured, users are provided a platform to comment on all aspects of the precinct (e.g. soundscape, lighting, visual amenity) in a more accessible way. Responses made during this workshop, along with feedback captured during the site walks, will feed into the subsequent Women's Safety Strategy. For more information on the SoundLab's co-design process, please see the *Methodology* section of the main Women's Safety Strategy document.

¹ Ambisonic audio is sound captured using specially designed microphones that are able to record a 360° sound field. When this ambisonic audio is played back through the correct processes it replicates the environment recorded including important spatial information such as height and directionality.

² For more information about the SoundLab, please view this link.

3. Key Results

3.1 About Soundscape Results

The key outputs of the soundscape analysis conducted differs somewhat to those of lighting, CPTED, and place results. Where these other technical disciplines are assessing a site for the purpose of evaluation against set technical criteria (i.e. there is a 'good' result and a 'bad' result), soundscape analysis documents the aural environment of a site as it was at a particular point in time.

The Soundscape analysis establishes a benchmark for the acoustic environments in each location and can be used more broadly to compare different typologies within the Precinct. Furthermore, the 360° video and audio recorded during site visits allows the subjective experience of women and girls captured during the site walks and workshops to be revisited, supported and validated at any point in the future.

This soundscape analysis should be read in conjunction with the experiences of women and girls made during the co-design process and included within the core Women's Safety Strategy document. Through this documentation, links can be drawn between the subjective responses of co-design participants and the sound sources within the Precinct that may be responsible for eliciting participants responses.

3.2 Key Results by Sound Category

To summarise the observations onsite, results have been categorised into the following categories and can be viewed in Figure 2 and Figure 3 below:

- Biophilic: Sounds that come from nature such as birdsong, wind through leaves, waves etc
- Anthropogenic: Sound generated by people such as conversation, foot traffic, patrons, music (both live musicians, amplified or background music)
- Industry: Sound generated from different modes of transport such as traffic, and rail, mechanical plant

The proportion of each colour visible represents the proportion of how much the sound category contributed to the soundscape witnessed during onsite measurements.



Figure 2: Soundscape results: Day



Figure 3: Soundscape results: Night

3.3 Key Results Table

Table 4 below summarises the key sound sources audible in each location during both day and night visits.

Site	Key Results
Site 1: George Street North	 Daytime: low traffic and pedestrian activity; biophilic sounds present; working professional demographic, with more lone travellers and children present. Night-time: high traffic, pedestrians, and patrons; greater activation; family, couples, larger groups demographics.
Site 2: Globe Street	 Daytime: thoroughfare, seats not in use; traffic sound was consistent. Night-time: thoroughfare, seats not in use; groups of intoxicated men being boisterous; patron sound and music were keynotes.
Site 3: Cumberland Place and Steps	 Daytime: quiet compared to surrounds; traffic from surrounding roads was keynote; low activity. Night-time: quiet compared to surrounds; traffic from surrounding roads was predominant; distant amplified music heard; low activity; people speaking in hushed voices.
Site 4: Argyle Street	 Daytime: distant traffic and mechanical hums as keynote sounds; little foot traffic; the cut reverberates sound. Night-time: high foot traffic; people in groups; frequent cars passing; laughter and conversations heard; alcohol consumption and partying.
Site 5: Jack Mundey Place	 Daytime: busy with wide demographics of foot traffic; travellers observed; patrons, conversations, and amplified music were keynotes; cars and mechanical hums were also noted. Night-time: louder amplified music; more patrons than the day; greater levels of intoxication; transient events were keynote sounds.

 Table 4: Soundscape Analysis Summary Table

Site 6: Cadman's Cottage and Bligh and Barney Reserve	 Daytime: balance of natural and industrial sounds; high foot traffic; l amount of lingering people. Night-time: dance music as keynote; moderate foot traffic. 		
Site 7: Unwin's Courtyard	0	Rocks Square as keynote; loud construction and plant noise.	
Site 8: Foundation Park		Daytime: extraneous construction noise meant that measurements could not be taken. Night-time; no foot traffic; quiet; general city 'hum' as keynote; sirens, laughing, and raised conversations were also heard from nearby sites.	
Site 9: Dawes Point Park (Tar-ra) South			
Site 10: Dawes Point Park (Tar-ra) East		Daytime: biophilic sounds; birdsong present; variety of activities observed; relaxed atmosphere; multiple transport sound sources. Night-time: biophilic sounds; bats present; low levels of activity; relaxed atmosphere; taxis and cars on the Sydney Harbour Bridge noted.	

4. Site Assessment

4.1 Terminology

Table 5 provides a summary of soundscape taxonomy and terminology³ which has been used in the investigator observations to describe the acoustic environments of each of the 10 locations.

Component	Description	Example
Soundscape components	All audible components that make up a soundscape	Total sound, background and foreground
Keynote	The key sound / theme for the environment. Keynote sounds are those heard continuously or frequently enough to form a background.	Road traffic, people, moving water, flora & fauna etc;
Soundscape ecology	The study of natural sounds – the biophonic and geophonic soundscape components	Flora and fauna, water, etc
Sound signals	Soundscape components that convey information and which therefore need to be not just audible but intelligible over certain distances	Announcements, messaging, emergency systems
Sound events	Transient soundscape components or features	Aircraft, car honk, barking dog
Soundmarks	The sonic equivalent of a landmark, soundmarks refer to community sounds that are unique or specially regarded or noticed by people in that community.	Bells, call to prayer, ship horns around ports etc
Soundscape icons	Soundmarks that have reached a status such that listeners have come to identify a location by them	The Pedestrian crossing sounds heard in Australia
Soundscape features	One or a number of clearly distinguishable components that define the character of the local soundscape	Waves at a beach, livestock in a paddock

Table 5: Soundscape Terminology

4.2 Qualitative Analysis

Table 6 below provides a qualitative analysis of the soundscape observed at each site location as well as more generally observations made by the investigator during the measurement period. Additionally, please note that the N/A result recorded for location 8 (Foundation Park) was due to extraneous noise which meant that recordings could not be taken.

Location Measurement Date/Time		Component	Description / observations	
	Date/Time		Day	Night
Street North 10:26 A Night: 1	Day: 26/10/22 10:26 AM Night: 15/10/22 8:02 PM	General Observations	Moderate amounts of foot traffic from mostly working professionals travelling in groups (e.g. getting coffee). One young girl <3 years old travelling with male guardian observed. A couple observed using the public benches around the area to chat	High amounts of foot traffic predominantly headed into The Rocks, mixed demographics and group sizes. People appear relaxed. Patrons appear to enjoy the live music (some singing along to songs)
		Keynote	The main consistent sound audible within the background of this soundscape is a general 'city hum' caused by mechanical plant in the surrounding area and distant traffic. Construction sounds were also generally present within the recordings as well as light traffic along George Street and the train and light rail near by	Traffic, patrons from adjacent pubs/bars and amplified / live music

Table 6: Soundscape component analysis

³ Terminology originally established by R. Murray Schafer in 'The Soundscape', 1993

Location	Measurement Date/Time	Component	ont Description / observations		
	Date/Time		Day	Night	
		Soundscape Ecology	Occasional bird song Light wind through trees	Occasional Seagulls	
		Sound events	Passing conversations of pedestrians Multiple train and light-rail passbys	Train passby x2 Ferry horn x1 4 large motorbikes circled George Street Cul-de-sac. Loudly revving engines	
		Soundscape Components	Intermittent construction audible throughout the measurement. Most distant and hard to localise, some more intermittent but closer at the Luis Vuitton pop-up adjacent. Transport sounds from cars, trains and light rail Pedestrian crossing sounds Pedestrians' conversation and general foot traffic	Traffic – George Street South bound congested leaving The Rocks Patrons – The Fortune of War & The Russel Hotel. Some conversation audibly intoxicated but largely unintelligible Live music - (acoustic guitar / singer). Amplified music when performer took a break	
2) Globe Street Day: 26/10/22 10:48 AM Night: 15/10/22 20:26 PM	10:48 AM Night: 15/10/22	General Observations	Cafes along Nurses walk more occupied however, no sound from conversation or hospitality audible Low amounts of foot traffic, most assumed to be professionals working in the area. Most people appear relaxed in this area	The location mainly used as thoroughfare with low amounts of foot traffic. Nurses Walk dark and unoccupied. Several groups of assumed intoxicated patrons using the area to walk from Harrington Street to George St.	
		Keynote	Traffic from George Street and mechanical plant are the main audible sounds within this location	Traffic, patrons from adjacent pubs/bars and amplified / live music from George Street	
		Sound events	School group passes by location	Several groups of predominantly males walking down from Harrington Street having boisterous / loud conversations.	
		Soundscape Components	Passing pedestrians, some holding conversations Some distant construction Mechanical plant Traffic from George St	Live music - (acoustic guitar / singer) and amplified music from pubs on George Street frontage Traffic – From George Street more distant given proximity to curbside. More audible when music noise is low Patron Noise – from pubs on George Street frontage. Conversations are unintelligible	
3) Cumberland Place and Steps	Day: 26/10/22 11:10 AM Night: 15/10/22 21:18 PM	General Observations	Before recording we were asked for locations to Cambridge Street by someone lost Two instances of older females going up the stairs with noticeable effort One tour group stops at Susannah Place Generally low amounts of foot traffic, most lone travellers – some in couples	Low levels of foot traffic. People generally speaking in low volume conversations when walking through. Given the relatively enclosed location, flanked by buildings and hard surfaces – conversations had around above at Harrington Street and Cambridge Street reverberate into this area. They are generally hard to understand or localise. Asked for directions to George Street en route to this location	
		Keynote	The main feature of the soundscape here is traffic. Although hard to localise, cars sound fairly constant and fast moving – assumed to be coming from The Cahill Expressway	Traffic sound controls the background of this area. Music from surrounding pubs is the most noticeable sound within the foreground	

Location	Measurement Date/Time	Component	nt Description / observations		
	Date/Time		Day	Night	
		Soundscape ecology	Some birdsong	Crickets constant throughout most of measurement.	
		Soundscape Components	Traffic Mechanical plant Some instances of pedestrians having conversations	Distant music from surrounding pubs/venues Distant Traffic audible Mechanical plant audible during low levels of traffic and music sound.	
4) Argyle Street	Day: 26/10/22 11:35 AM Night: 15/10/22 22:12 PM	General Observations	Before footage, an individual with vision impairment was observed walking up Argyle St, the up Cambridge Street then back down Argyle Street – potentially lost Limited amounts of foot traffic	The concrete and brick tunnels above Argyle Street cause the conversations and traffic underneath to reverberate causing an 'amplified' effect. Older couples appear to be leaving the precinct towards Barangaroo while younger people are entering The Rocks Individual sent up Cambridge Street to find their 'lost' friends'	
		Keynote	Traffic and mechanical plant are most noticeable in this location	Traffic along Argyle St, music from surrounding venues and constant conversation and foot traffic from passing pedestrians are the most noticeable themes in this location.	
		Sound events	N/A	Raised conversations / laughing and yelling occasionally grab attention	
		Soundscape ecology	Water dripping from moss growing on the walls of the tunnel Some birdsong audible	N/A	
		Soundscape Components	Semi-regular car passbys along Argyle Street General hum from mechanical plant audible Construction noise from Sirius re- development	Amplified dance music from The Glenmore above. Other music from surround venues audible as a general low rumble Frequent car passbys from cars along Argyle St Constant foot traffic and louder (assumed intoxicated) conversations audible. Conversations both close and intelligible from people passing by directly in front and more distant, from other parts of the precinct	
5) Jack Mundey Place	ey Day: 26/10/22 12:23 PM Night: 15/10/22 22:44 PM	General Observations	Much busier in terms of foot traffic compared to other sites during the day. Looks like an even split of tourists and professionals. Mainly in small groups but individuals also observed. People seem relaxed with audible laughter and excitement in conversations heard	Highly activated area with lots of foot traffic and patrons in the surrounding pubs/venues. Most people seem excited and positive and travel in groups or couples. Police presence in this area, moved on just before recording started.	
		Keynote	Amplified music from venues Patron sounds from surrounding pubs and venues Mechanical plant – very tonal and noticeable throughout the measurement. Assumed to be from The Bavarians Rooftop	Patrons conversation / foot traffic and music from surrounding venues control most of the total sound audible at this location	

Location	Measurement Date/Time	Component	Description / observations		
	Date/Time		Day	Night	
		Sound events	l x plane fly over School group walks past	Person on aggressive sounding phone call trying to locate their friend. Party bus does two rotations around Argyle St, men shouting from the windows.	
		Soundscape Components	Traffic from Argyle St Amplified music from venues Patron, pedestrians, conversations and general foot traffic Mechanical plant	Patron / foot traffic from both people using the area as a thoroughfare and people eating / drinking at the surrounding venues Music from surrounding pubs / venues Regular traffic from Argyle St. Cars regularly stopping due to pedestrian crossing	
6) Cadman's Cottage and Bligh and Barney Reserve Day: 26/10/22 12:44 PM Night: 15/10/22 23:06 PM	General Observations	A couple sitting on the grass chatting over lunch High levels of foot traffic along the Overseas Passenger Terminal – a lot of people in the same uniform, potentially some kind walking towards an event of conference No cruise ship present	Low pedestrian traffic along Circular Quay W, appears to be older demographic. People seem relaxed and not as energetic/excited/boisterous as within Jack Mundey Place		
		Keynote	A mix of natural and industry sounds are present here	Dance music from Cruise Bar in the Overseas Passenger Terminal dominant. Some conversations from foot traffic along Circular Quay W audible	
		Sound events	Ferry horns (several)	Emergency service sirens	
		Soundscape Ecology	Wind through trees Some birdsong	N/A	
		Soundscape Components	Nearby conversation from couple sitting on the grass adjacent Some transport noise from cars along George Street and distant ferry horns Conversations from foot traffic along the Passenger Terminal	Dance music Some pedestrian conversation / foot traffic	
Courtyard 13:10 Night:	Day: 26/10/22 13:10 PM Night: 15/10/22 23:50 PM	General Observations	One couple and another individual smoking in the area when measurements began – both sitting on the benches present. Both seem relaxed	No one present within this location for the duration of the measurement. Kendall lane also no foot traffic and very dark Drug use witnessed in Kendall Lane, outside of Unwin's Courtyard. All lighting was off in this area making it easier to disguise.	
		Keynote	Sounds of kids from a school group playing in The Rocks Place above Mechanical plant also audible from termination below stairs	Live music from singer / acoustic guitarist located in the rear courtyard of The Orien dominates the acoustic environment in this location. Patrons singing along at times as well audible	
		Sound Signal	Raised voice of teachers instruction communicating with children audible	N/A	
		Soundscape ecology	Wind through leaves of tree in courtyard	N/A	

Location Measurement Date/Time		Component	Description / observations		
Date	Date/Time		Day	Night	
		Sound events	A foreign tourn group comes through the location, then leaves Intermittent construction audible throughout the measurement	Helicopter flyover x1 Bottles smashing by bar staff when thrown into bin	
		Soundscape Components	Mechanical plant Construction Kids playing	Live music from singer / guitarist Mechanical noise audible during periods without patron / music.	
8) Foundation Park (inc. Key Connection)	Day: N/A ¹ Night: 16/10/222 00:17 AM	General Observations	N/A ¹	No foot traffic or people present for the duration of this measurement. The site is comparatively darker than the previous 7 locations measured and further removed from the more activated sites aforementioned. This location is comparatively the quietest location measured with the exception of Location 10.	
		Keynote	N/A ¹	This location is characterised by relatively low levels of sound. The most dominant sources of sound are insects and surrounding mechanical plant. Distant traffic is also audible and characterised as a 'city hum' dispersed with sound events listed below. Low levels of bass music heard at times – likely from The Argyle	
		Soundscape ecology	N/A ¹	Crickets / insects audible throughout the measurement	
		Sound events	N/A ¹	Intermittent reversing alarms, cars revving of engines and car honks audible throughout but sound very distant and hard to localise. Emergency services siren occurs once during measurement Distant conversation / shouting audible at one point within the measurement. Not intelligible or able to localise.	
		Soundscape Components	N/A ¹	Insects, mechanical plant, 'city hum', distant traffic contribute towards the background of this soundscape Sound events are audible within the foreground but not often loud enough to grab a lot of the listeners attention	
9) Dawes Point Park (Tar-ra) South	Day: 26/10/22 13:36 PM Night: 16/10/2 00:43 AM	General Observations	Very windy in this location A couple using mobility scooters headed towards Dawes Point Reserve then. Just before the decline to go down the hill they turn around and go another way Low levels of foot traffic – generally lone travellers but one group observed sitting at the benches present	Low foot traffic throughout the measurement period. Males travelling in groups only present	

Location	Measurement Date/Time	Component	Description / observations	
Dater Thire	Date/Thire		Day	Night
		Keynote	The most noticeable sounds within this environment is the constant knocking and rattling caused by cars and trains going over the Sydney Harbour Bridge (SHB) above. Trains crossing above are much louder but less regular than cars.	The most noticeable sounds within this environment are the constant knocking and rattling caused by cars and trains going over the Sydney Harbour Bridge (SHB) above. Trains crossing above are much louder but less regular than cars
		Soundscape ecology	Some birdsong audible	N/A
		Sound events	Construction noise from Sirius also audible at times	Intermittent sirens, cars revving of engines and car honks audible throughout. Events are audible at varying distances and hard to localise.
				Group of males walk past the measurement equipment chatting – they appear relaxed
		Soundscape Components	The sound of traffic and trains over the SHB makes up much of the total sound heard in this environment. The sound is very enveloping, giving the feeling it's coming from all around you.	The sound of traffic and trains over the SHB makes up much of the total sound heard in this environment. The sound is very enveloping, giving the feeling it's coming from all around you.
10) Dawes Point Park (Tar-ra) EastDay: 26/10/22 14:02 PM Night: 16/1022 1:00 AM	14:02 PM Night: 16/1022	General Observations	Lots of people walking along the promontory by the water. A lot wearing the same uniform witnessed in location 6 Wedding photography occurring Two separate individuals laying/sleeping on the grass on the hill	Although this space is relatively quiet there is still limited foot traffic along the promontory. During the measurement a group of younger people (mixed genders) sitting by the water, an individual fishing as well as some pedestrians was observed. Semi-regular, primarily taxis travelling along Hickson Rd
	Keynote	The main Keynotes in this area is a mix between the distant sound of conversation held by pedestrians walking along the promontory, traffic both along Hickson Rd and over the SHB. Frequent transportation sounds from ferries and helicopters not experienced in other locations gives this site a level of distinction.	The main sounds present within this location is transport noise, both intermittently from cars along Hickson Road and traffic/trains over the SHB. The rattling of the SHB experienced in location 9 is still audible here however, lower in level. Bats were only heard within this location and as such provides a level of distinction	
		Soundscape ecology	Birdsong audible	to other measurement sites. Bats audible within the trees,
		Sound events	Wind through tress Several Helicopter flyovers Several passbys from ferries and boats on the harbour	Waves from Sydney Harbour Several train passbys over the SHB. Emergency services siren x1 Some intermittent laughing/shouting from
			Several train passbys over the SHB. Pedestrian crossing sound	pedestrians
		Soundscape Components	Semi-regular car passbys along Hickson Rd Conversations and general foot traffic from the promontory	Transport sounds make up much of the background here however, there are sound events such as audible conversation and pass by of pedestrians that are loud and clear enough to grab the attention of the listener.

Location	Measurement Date/Time	Component	Description / observations	
	Dutt, Thit		Day	Night

Notes:

- 1) Due to extraneous construction noise generated within the Sirius worksite adjacent to the analysis location, measurements were not able to be conducted as the acoustic environment was not considered representative of normal operations
- 2) Specific measurement locations were between day and night-time were changed. This was to avoid extraneous wind noise affecting measurements during the day.

4.3 Quantitative Analysis

Table 7 summarises the acoustic parameters measured on site. These measurements provide a quantitative analysis of the existing acoustic environments for each site. Parameters presented are in alignment with *ISO/DIS12913-2* and include overall sound pressure levels (e.g. A-weighted and C-weighted equivalent continuous sound pressure level; $L_{Aeq,T}$; $L_{Ceq,T}$) and percent exceedance levels ($L_{AF5,T}$ and $L_{AF95,T}$). These results can be used to establish the variability of the total sound pressure level over time (e.g. the difference between levels exceeded 5 % and 95 % of the time expressed in A-weighted sound pressure level in dB $L_{AF5,T}$ - $L_{AF95,T}$) and the spectral content (e.g. the difference between A- and C- weighted equivalent sound pressure level in dB $L_{Ceq,T}$ - $L_{Aeq,T}$). A glossary of definitions for each index is provided in table footnote for reference.

Location	Measurement Date/Time	Parameter (T=15min) ¹	Measurement Results (dB)	
			Day	Night
1) George Street North	Day: 26/10/22 10:26 AM	L _{Aeq,T}	73	76
	Night: 15/10/22 8:02 PM	L _{Ceq,T}	79	86
		L _{AF5,T}	71	78
		L _{AF95,T}	60	60
2) Nurses Walk & Globe St	Day: 26/10/22 10:48 AM	L _{Aeq,T}	59	63
2) Globe Street	10:48 AM Night: 15/10/22 20:26 PM	L _{Ceq,T}	70	72
		L _{AF5,T}	62	66
		L _{AF95,T}	56	56
3) Cumberland Place and Stairs	Day: 26/10/22 11:10 AM	L _{Aeq,T}	59	59
3) CumberlandPlace and Steps	Night: 15/10/22 21:18 PM	$L_{Ceq,T}$	68	67
		L _{AF5,T}	60	61
		L _{AF95,T}	54	54
4) Argyle St	Day: 26/10/22 11:35 AM	L _{Aeq,T}	65	68
4) Argyle Street	Night: 15/10/22 22:12 PM	L _{Ceq,T}	74	78
		L _{AF5,T}	69	71
		L _{AF95,T}	58	63
5) Jack Mundey Place	Day: 26/10/22 12:23 PM	L _{Aeq,T}	65	74
5) Jack Mundey	12:23 PM Night: 15/10/22 22:44 PM	L _{Ceq,T}	74	83
Place		L _{AF5,T}	67	77

Table 7: Acoustic measurement parameters

Location	Measurement Date/Time	Parameter (T=15min) ¹	Measurement Results (dB)	
			Day	Night
		L _{AF95,T}	62	69
6) Bligh & Barney Reserve	Day: 26/10/22 12:44 PM	L _{Acq,T}	60	70
6) Cadman's Cottage and Bligh and Barney Reserve	Night: 15/10/22 23:06 PM	L _{Ceq,T}	73	84
		L _{AF5,T}	61	74
		L _{AF95,T}	56	63
7) Unwin's Courtyard	Day: 26/10/22 13:10 PM	L _{Acq,T}	66	64
7) Unwin's	Night: 15/10/22 23:50 PM	L _{Ceq,T}	74	73
Courtyard		L _{AF5,T}	67	68
		L _{AF95,T}	62	57
8) Foundation Park	Day: N/A Night: 16/10/222 00:17 AM	L _{Aeq,T}	N/A ²	59
1 alk		L _{Ceq,T}		67
		L _{AF5,T}		56
		L _{AF95,T}		51
9) Dawes Point (Under SHB)	Day: 26/10/22 13:36 PM	L _{Acq,T}	67	72
8) Foundation Park (inc. Key Connection)	Night: 16/10/2 00:43 AM	L _{Ceq,T}	78	76
		L _{AF5,T}	73	74
		L _{AF95,T}	62	54
10) Dawes Point ³ (Through	Day: 26/10/22 14:02 PM Night: 16/1022 1:00 AM	L _{Aeq,T}	63	59
Reserve)		L _{Ceq,T}	76	68
		L _{AF5,T}	67	64
		L _{AF95,T}	57	51

Notes:

1)

• $L_{Aeq,T}$ is the 'equivalent continuous sound level', Leq, is used to describe the level of a time-varying sound or vibration measurement.

Leq is often used as the "average" level for a measurement where the level is fluctuating over time. Mathematically, it is the energyaverage level over a period of time (i.e. the constant sound level that contains the same sound energy as the measured level). When the dB(A) weighting is applied, the level is denoted dB L_{Aeq} . Often the measurement duration is quoted, thus $L_{Aeq,15}$ min represents the dB(A) weighted energy-average level of a 15-minute measurement.

- L_{Ceq.T} The frequency of a sound affects its perceived loudness and human hearing is less sensitive at low and very high frequencies. When seeking to represent the summation of sound pressure levels across the frequency range of human hearing into a single number, weighting is typically applied. The linear or C-weighting curve is typically used where there is the potential for excess low-frequency sound at higher sound pressure levels.
- LAF5.T is the statistical level often used as the "average maximum" level of a sound level that varies with time.

Mathematically, the L5 level is the sound level exceeded for 5% of the measurement duration. As an example, 63 dB $L_{A5,18hr}$ is a sound level of 63 dB(A) or higher for 5% of the 18-hour measurement period.

• LAF95,T is the statistical level is often used as the "average minimum" or "background" level of a sound level that varies with time.

Mathematically, L95 is the sound level exceeded for 95% of the measurement duration. As an example, 45 dB L_{A90,15min} is a sound level of 45 dB(A) or higher for 90% of the 15-minute measurement period.

2) Due to extraneous construction noise generated within the Sirius worksite adjacent to the analysis location, measurements were not able to be conducted as the acoustic environment was not considered representative of normal operations.

Location	Measurement Date/Time	Parameter (T=15min) ¹	Measurement Results (dB)		
	Date, Thic		Day	Night	

3) Specific measurement locations were between day and night-time. This was to avoid extraneous wind noise affecting measurements during the day. Please see Appendix A for further details

4.4 Investigator Observations

4.4.1 George Street North

The analysis conducted at this location revealed that soundscape features varied between the recorded day and night periods. During the day, the site contained low amounts of traffic and pedestrian activity compared to the night where high levels of traffic, pedestrians and patron / live music was observed. While the night period was much more activated with bars, pubs and busy footpaths along George Street, during the day more people were observed to linger in the space, using the public benches present in the site. More biophilic sounds were observed during the day such as wind through trees and seagulls while during the night, sound from traffic along George Street and patron/music noise was predominantly noticeable. The demographic of pedestrians during the day were mostly working professionals while during the night-time the demographic was mixed between groups of families, couples, and larger groups. More lone travellers and children were observed during the day.

4.4.2 Globe Street

During both day and night-time measurements this location's function was primarily observed as a thoroughfare between George Street and Harrington. Although there are seats in this area, they were never observed in use. While Nurses Walk during the day showed some signs of activation with people sitting at the café's this didn't contribute audibly to the soundscape. Further, during the night-time the extent of Nurses walk appeared dark and empty. Several groups of boisterous men having raised conversations with noticeable intoxication passed along this area during the night, one audibly warning one of their companions stating, "They have security cameras" (referring to the security cameras at the top of the Harrington Street). Patron and music from the George Street bars was a keynote in this area during the night however, during the day, traffic from the surrounding roads was the main consistent sound in this location.

4.4.3 Cumberland Place and Steps

The soundscape in this location during the day and night were relatively similar. Both times, the location was quiet when compared to surrounding locations 1, 2, and 4. At both times the main keynote in this location was traffic from surrounding roads. During the night distant amplified music was audible from surrounding pubs/venues and contributed to the total sound. There was low foot traffic during both times with the exception of tour groups which visit the location during the day and night. During the night-time it was observed people noticeably spoke in hushed voices and walked quickly through the area. During the day, it was observed that less mobile individuals used the heritage steps in the location with some effort.

4.4.4 Argyle Street

The activation of this location varied significantly between the day and night-time measurement periods. During the night-time, there was fairly high amounts of foot traffic with people generally travelling in groups. The site had frequent car passbys along Argyle Street as well as audible music from The Glenmore pub contributing to the Keynote of the area. During night, the site was busy and louder conversations / laughter was audible. Due to the audible dance music and general pedestrian behaviour in this area there was an indication alcohol consumption and partying here was commonplace. During the day no amplified music was audible, the keynote of the area was predominantly controlled by distant traffic from surrounding streets as well as passby's on Argyle Street and a constant mechanical 'hum'. There was little foot traffic in this area and no highly notable sound events to distract or capture the attention of the listener. The natural form of the two concrete tunnels directly above this section of Argyle Street reverberate a lot of the sound that passes underneath (traffic / conversation). This effect tends to make sources sound 'bigger' or louder than they truly are and was more noticeable during the night-time.

4.4.5 Jack Mundey Place

This site was the most consistently activated space within the assessed precinct. During the day, the site was busy with large amounts of foot traffic from a wide demographic of people including working professionals, tourists, and school groups. People both travelling in groups and independently was observed. The main keynotes of this area include patrons sitting in bars / restaurants around the area, some amplified music (at low levels) from venues as well as general conversations had by people moving through the space. Cars passing by Argyle Street was also noticeable as well as a constant, tonal mechanical hum assumed to be coming from the top of the Bavarian Café. People seem relaxed and enjoying the space.

While still activated, this site had noticeable differences during the night-time. More venues were playing amplified music and at louder, more noticeable levels. There were more patrons at some of the venues including The Bavarian and a line of people awaiting entry into The Argyle. The type of conversations held by pedestrians around inferred a reasonable proportion of people were intoxicated. Main keynotes heard in this location were transient sound events, attracting the attention of the listener towards different areas of the site a frequently. Key sound events include a man having an aggravated sounding phone call trying to locate someone else in the precinct and an event party bus that drove along Argyle Street twice that had several men shouting from the windows.

4.4.6 Cadman's Cottage and Bligh and Barney Reserve

This location showed a balance between natural and industry sounds during the day-time period. Soundscape components included birds, wind through trees as well as some car sounds from George Street behind and ferry horns from Circular Quay. There was a lot of foot traffic along the Circular Quay Promontory, a large constituent of these pedestrians were wearing a similar shirt indicating they could have been part of an event or conference. A couple were sitting on the grass adjacent having lunch together however, not many other people were lingering in the area – this could be due to a lack of public seating. There was no cruise ship docked during the measurement. During the night-time the dominant keynote in this area was clearly audible dance music from Cruise Bar located in the Overseas Passenger Terminal. Given the relatively quiet level of other soundscape components in this area, the music controlled most of the foreground sound in this location. A moderate amount of foot traffic still observed along the promontory however, less than during the day

4.4.7 Unwin's Courtyard

During the daytime this location was used by some people to sit on the public benches present, there was low amounts of foot traffic with the exception of one tour group that passed through. The most notable keynote sounds in this location during the day were a group of school children playing in The Rocks Square, above the Courtyard. Also audible was loud construction assumed to be from the Sirius construction site and mechanical plant noise from a termination within the space. During the night there was no foot traffic through the space observed or through Kendall Lane. Adjacent to Unwin's Courtyard was the external area of The Orient Hotel. During the time of measurement, there was a singer / guitarist playing in this space that was clearly audible at the location of measurement, however, could not be seen visually around the corner. Patrons could also be heard singing along to some of the songs. A notable sound event was the loud smashing of bottles caused by bar staff tipping empty bottles into the recycling bin.

4.4.8 Foundation Park

During the night-time period this location was very quiet, and no foot traffic was observed for the duration of the measurement period. Most of the keynotes for this area included a general city 'hum' consisting of distant traffic and mechanical plant. Some more noticeable sound events were audible such as sirens, and laughing / raised conversation likely from Argyle Street or Playfair St.

During the daytime measurements could not be conducted due to the extraneous construction noise occurring at the Sirius re-development directly adjacent. Any measurements recorded during this time would not have been representative of what the soundscape of the area would be after construction is complete.

4.4.9 Dawes Point Park (Tar-ra) South

During both day and nighttime measurements the dominant sound source in this location is the constant knocking / rattling sounds generated by traffic and trains going over the Sydney Harbour Bridge (SHB) above. While the source is quite enveloping and a unique soundscape feature to this area it is not instantly recognisable

without prior experience to this location. Although there is public benches and open grass areas that can be used for recreation the observed use during both night and day was as more of a throughfare / transitory space. During the night, distant sound events of cars loudly revving engines or emergency services sirens were audible. While individual men, women and groups of people were observed using the space during the day, only groups of younger men were observed in the space during the night period.

4.4.10 Dawes Point Park (Tar-ra) East

Both during day and night-time measurements biophilic sounds were audible as memorable soundscape events. During the night, a number of bats were present in the trees around the hill while during the day birdsong was audible. During the night there some pedestrian presence around the promontory including one person fishing, a group sitting and talking and low foot traffic of people walking along the promontory. During the day people used the location for a variety of activities including lying / sleeping on the grass, wedding photography near the bridge, exercise and walking along the promontory. There was a relaxed feel to the space during both night and day which was supported by the fact people were willing to linger in the area at both these times. During the day there was a combination of transport sounds that also were notable including helicopter flyovers, which acted as more quick sound events, ferries going slowly past in the harbour and constant traffic from both Hickson Rd and over the SHB. The rattle / knocking described in Section 4.9 was audible in this location but at a lower level given the further distance away from under the SHB. During night the main transport sound was the semi-regular passbys of predominantly taxi's along Hickson Rd with some traffic noise from cars bass over the SHB also audible.