

PREPARED FOR
CITY OF ADELAIDE



ACTIVE TRAVEL EVALUATION

LIGHT SQUARE WAUWI ACTIVE TRAVEL REPORT

A 20-month evaluation of active travel usage across six VivaCity sensor locations within the Light Square / Wauwi precinct, City of Adelaide — January 2025 to August 2026.



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EXECUTIVE SUMMARY

LIGHT SQUARE / WAUWI: ADELAIDE'S PREMIER CBD
COMMUTER ACTIVE TRAVEL NODE



This report evaluates the active travel usage of the Light Square (Wauwi) precinct over a 20-month period from January 2025 to August 2026, leveraging continuous data from six VivaCity AI-powered sensors. Positioned in the rapidly developing West End of the Adelaide CBD, Light Square serves as a critical active transport node, intersected by the major north–south Morphett Street corridor and east–west Waymouth Street and Currie Street corridors.

The data reveals that the core active travel paths in Light Square average **4,129 total active movements per day** (595 cyclists and 3,533 pedestrians). Unlike Victoria Park, which is dominated by weekend recreational peaks, Light Square is **heavily commuter-driven**: weekday volumes (4,288/day) significantly exceed weekend volumes (3,729/day). Cycling is highly concentrated on weekdays, with commuter uplifts representing **35–51% of all weekday cycling** across key entry paths. Year-on-year analysis shows cycling growth of up to **+42%** on the Shared Path.

LIGHT SQUARE / WAUWI MASTER PLAN CONTEXT

The City of Adelaide's draft Master Plan (2024) envisions transforming the precinct into a **Greener, Safer, and more Inclusive** space — prioritising pedestrian access and cycling infrastructure over vehicle dominance. The data in this report provides compelling evidence in support of that vision.

REPORT STRUCTURE

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SECTION 01

SCHEME CONTEXT & **SENSOR LOCATIONS**

Light Square / Wauwi — one of Adelaide's six original Park Lands squares — is a critical active transport node in the CBD's West End, monitored continuously by six VivaCity AI-powered sensors.



Light Square, also known by its Kaurana name **Wauwi**, is one of the six public squares included in Colonel William Light's 1837 plan for Adelaide. Located in the north-western quarter of the city, it is bounded by Waymouth Street to the south, Currie Street to the north, and bisected by the major north–south arterial route of **Morphett Street**.

The square is a focal point of the City of Adelaide's **Light Square / Wauwi Master Plan** — a bold vision to transform the precinct into a greener, safer, and more inclusive space by prioritising pedestrian access and cycling infrastructure over vehicle dominance. The Master Plan responds to the changing nature of the West End, including more residential development, increased university and health uses, and the need to improve linkages to Hindley Street, the River Torrens / Karrawirra Pari, and Market Square.

MASTER PLAN VISION

Both options in the draft Master Plan will reduce road pavement space and increase usable open space, greening, and biodiversity. The City of Adelaide aims to double the resident population to 50,000 by 2036 — the Light Square area is projected to house 8% of this growth.

The precinct is surrounded by significant activity generators: UniSA's City West campus, the Royal Adelaide Hospital precinct, Hindley Street entertainment, and the Adelaide Central Market. This diversity of uses drives both the commuter cycling volumes and the consistent pedestrian flows captured by the VivaCity sensor network.



1.1 SENSOR LOCATIONS

SENSOR	DESCRIPTION	PRIMARY FUNCTION
Sensor 8	Shared Path	Pedestrian and cyclist movements on the square perimeter
Sensor 9	Secondary Path	Lower volume path connecting to side streets
Sensor 10	Main Corridor	High volume east–west active travel route
Sensor 11	Road / Mixed Traffic	Morphett Street mixed traffic (cyclists & pedestrians extracted only)
Sensor 13	Pedestrian Zone	Internal square pathways; high pedestrian density
Sensor 14	Cycle Path / Entry	Dedicated cycling infrastructure entry to the precinct

Note: Sensor 11 monitors Morphett Street, averaging over 15,000 total movements per day (predominantly motor vehicles). Only cyclist and pedestrian counts from Sensor 11 are included in active travel analysis.

SECTION 02

DAILY USER VOLUMES

How many cyclists, walkers, joggers and commuters use Light Square on a daily basis — including weekends? A comprehensive breakdown across all six sensor locations.



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QUESTION 1 ANSWER

4,129 ACTIVE USERS PER DAY — A COMMUTER-DOMINANT PRECINCT

4,129 AVG DAILY
TOTAL

4,288 WEEKDAY AVG

3,729 WEEKEND
AVG

595 AVG DAILY
CYCLISTS

KEY DISTINCTION FROM VICTORIA PARK

Unlike Victoria Park (which peaks on weekends due to recreational use), Light Square's weekday volumes are **15% higher** than weekend volumes. This confirms its primary function as a CBD commuter and transit node.

2.1 PRECINCT-WIDE DAILY AVERAGES

PERIOD	AVG DAILY CYCLISTS	AVG DAILY PEDESTRIANS	AVG DAILY TOTAL
Full Period (Jan 2025 – Aug 2026)	595	3,533	4,129
Weekdays (Mon–Fri)	678	3,610	4,288
Weekends (Sat–Sun)	388	3,341	3,729

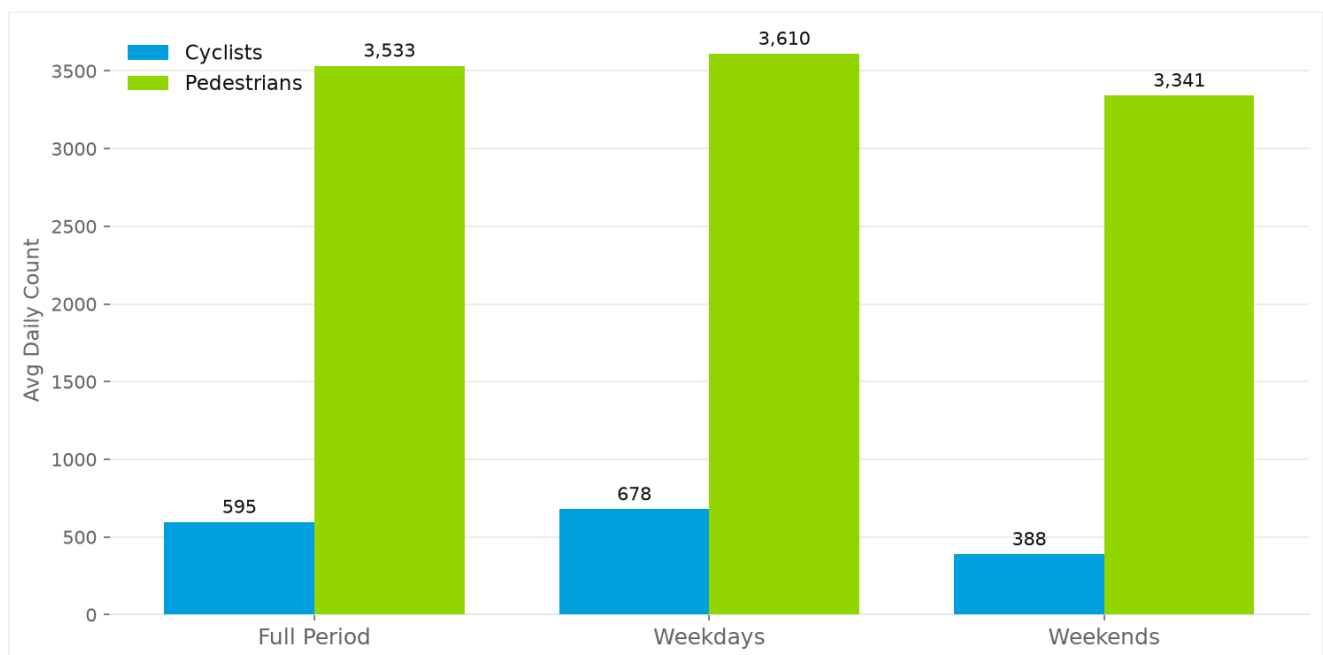


Figure 1: Average daily cyclists vs pedestrians by period (Jan 2025 – Aug 2026)



Usage varies significantly by path type. The Main Corridor (Sensor 10) and Pedestrian Zone (Sensor 13) handle the bulk of pedestrian traffic — over 1,600 pedestrians per day each. Cycling traffic is highest on the Main Corridor (441/day) and the dedicated Cycle Path Entry (Sensor 14, 366/day).

2.2 AVERAGE DAILY COUNTS BY SENSOR

LOCATION	AVG DAILY CYCLISTS	AVG DAILY PEDESTRIANS	AVG DAILY TOTAL	WEEKEND PATTERN
Sensor 10 – Main Corridor	441	1,770	2,211	0.97× (lower w/e)
Sensor 13 – Pedestrian Zone	57	1,683	1,741	0.86× (lower w/e)
Sensor 14 – Cycle Path / Entry	366	1,226	1,592	0.81× (lower w/e)
Sensor 8 – Shared Path	274	943	1,217	1.12× (higher w/e)
Sensor 9 – Secondary Path	102	54	156	1.63× (higher w/e)

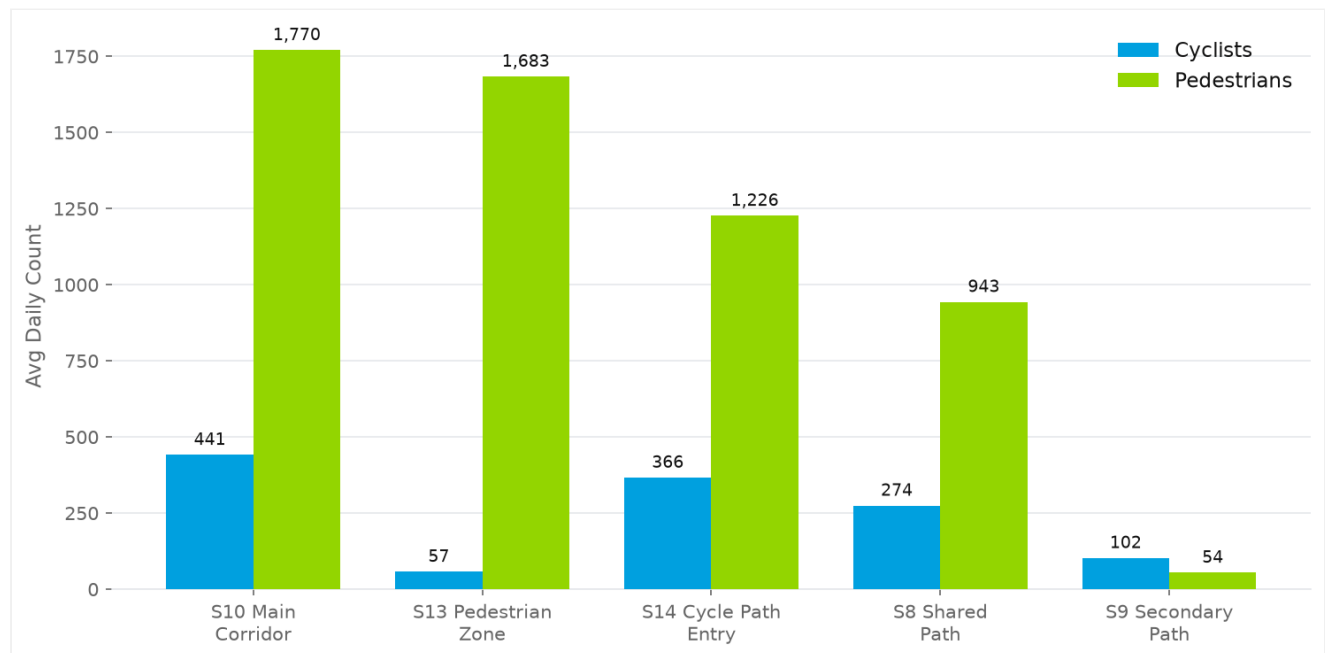


Figure 2: Average daily cyclists and pedestrians by sensor location (Jan 2025 – Aug 2026)

KEY FINDING

Sensor 10 and Sensor 14 combined account for approximately 68% of all cycling movements recorded across the precinct, confirming these two corridors as the primary cycling arteries serving Light Square.



DAY-OF-WEEK PATTERN

2.3

TUESDAY–THURSDAY PEAK: THE COMMUTER SIGNATURE

The day-of-week breakdown confirms the commuter-heavy nature of the precinct. Across almost all sensors, **Tuesday, Wednesday, and Thursday** represent the peak days for both cycling and walking — a pattern consistent with CBD office and university attendance.

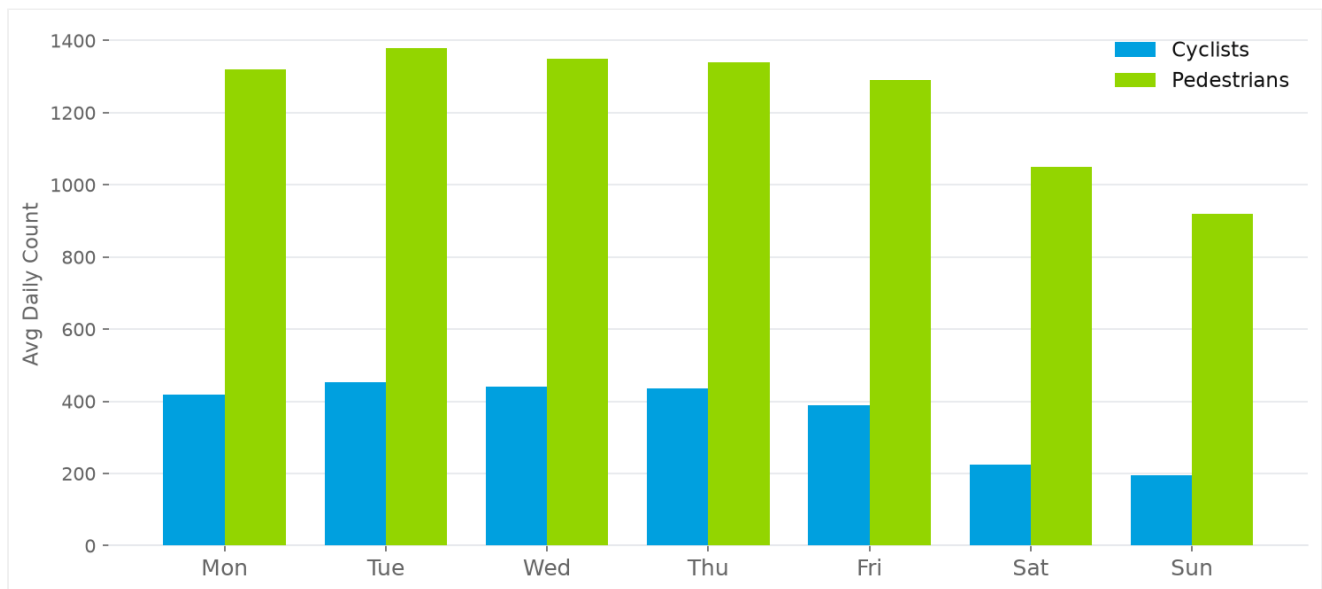


Figure 3: Sensor 14 (Cycle Path / Entry) average daily counts by day of week

- ♦ **Tuesday peak:** Sensor 14 peaks at **454 cyclists on Tuesdays**, dropping by more than half to 194 on Sundays — a clear commuter signature.
- ♦ **Friday pedestrian peak:** Pedestrian volumes on the Main Corridor (Sensor 10) peak on **Fridays at 2,099 per day**, likely driven by end-of-week social and hospitality activity in the West End.
- ♦ **Weekend resilience:** Pedestrian volumes remain relatively robust on weekends (3,341/day), driven by the Shared Path (Sensor 8) and Secondary Path (Sensor 9) — reflecting the square's role as a community green space.
- ♦ **Morphett Street (Sensor 11):** Averages over 15,000 total movements per day, predominantly motor vehicles. Active travel users navigating this corridor face significant conflict points — a key safety concern addressed by the Master Plan.

SECTION 03

ESTIMATED COMMUTER USAGE

Isolating commuter cycling from recreational activity using the weekday uplift methodology — revealing Light Square's critical role in Adelaide's CBD active transport network.



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QUESTION 2 ANSWER

~600 COMMUTER CYCLING TRIPS PER DAY — 35–51% OF ALL WEEKDAY CYCLING

METHODOLOGY

Weekend cycling = recreational baseline. Weekday excess above that baseline = commuter trips. This is a conservative estimate — some weekend cycling may also include commuting.

3.1 COMMUTER UPLIFT BY PATH

LOCATION	WEEKDAY AVG	WEEKEND BASELINE	COMMUTER UPLIFT	COMMUTER SHARE
Sensor 10 – Main Corridor	508	274	~234	~46%
Sensor 14 – Cycle Path / Entry	428	208	~220	~51%
Sensor 8 – Shared Path	304	199	~105	~35%
Sensor 9 – Secondary Path	115	71	~44	~38%
Sensor 13 – Pedestrian Zone	61	48	~13	~20%

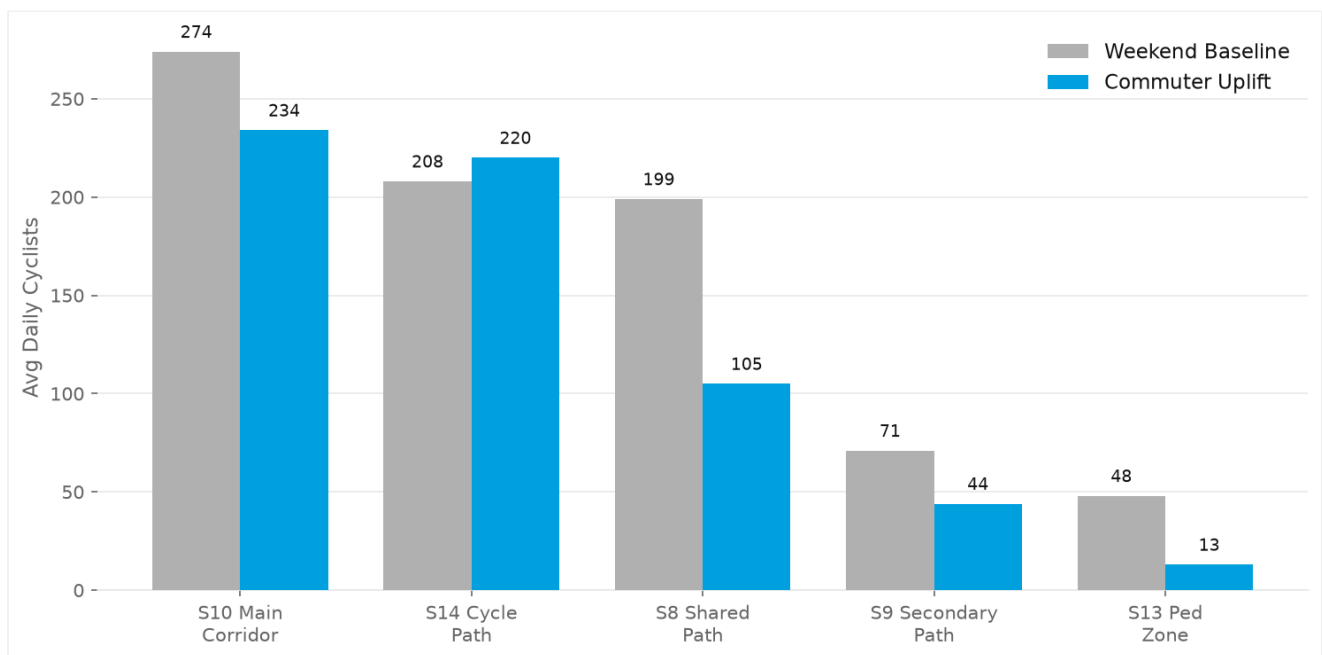


Figure 4: Weekend baseline vs commuter uplift by path (full period)

The Main Corridor (Sensor 10) and Cycle Path Entry (Sensor 14) alone carry over **450 dedicated commuter cycling trips per day**. This confirms Light Square as a critical cycling thoroughfare for Adelaide's CBD workforce.



YEAR-ON-YEAR GROWTH

3.2 EXCEPTIONAL GROWTH: UP TO +42% ON KEY COMMUTER ROUTES

Comparing the January–August period in 2025 and 2026 reveals **exceptional growth in commuter cycling** entering the precinct. This strong upward trend underscores the success of recent active transport initiatives in the West End and the increasing preference for cycling among CBD commuters.

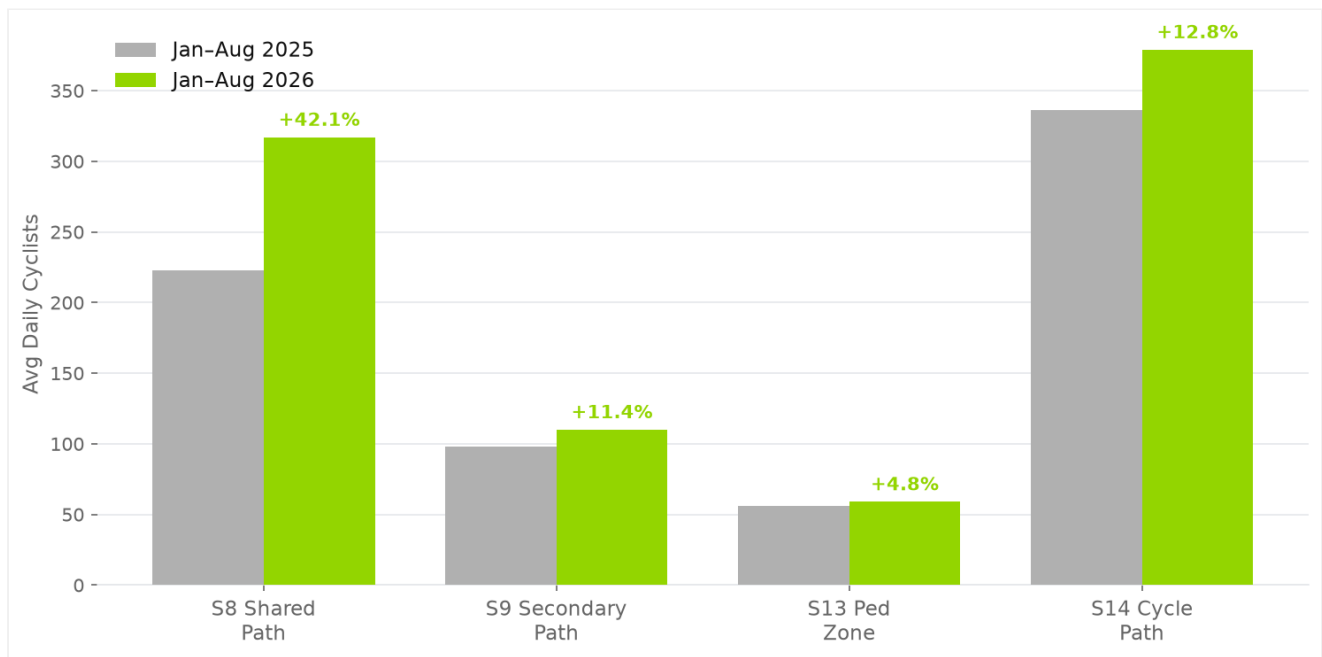


Figure 5: Year-on-year comparison of average daily cyclists (Jan–Aug 2025 vs Jan–Aug 2026)

3.2 YEAR-ON-YEAR SUMMARY

LOCATION	2025 CYCLISTS	2026 CYCLISTS	YOY CHANGE	2025 PEDS	2026 PEDS	YOY CHANGE
Sensor 8 – Shared Path	223	317	+42.1%	918	940	+2.3%
Sensor 9 – Secondary Path	98	110	+11.4%	51	58	+14.4%
Sensor 13 – Ped Zone	56	59	+4.8%	1,674	1,635	-2.3%
Sensor 14 – Cycle Path	336	379	+12.8%	1,608	1,247	-22.4%

SENSOR 14 PEDESTRIAN NOTE

The -22.4% decline in Sensor 14 pedestrian volumes likely reflects a shift in pedestrian routing as cycling volumes increase on this path — consistent with the Master Plan's goal to separate walking and cycling movements.

SECTION 04

CONTEXTUAL FACTORS & EVENT SPIKES

While primarily a commuter node, Light Square hosts vibrant cultural events that drive significant pedestrian spikes — and the data captures them all.

While Light Square is primarily a commuter node, it also serves as a vibrant event space in the West End. The sensor data captures several significant pedestrian spikes correlating with major CBD festivals and cultural events.

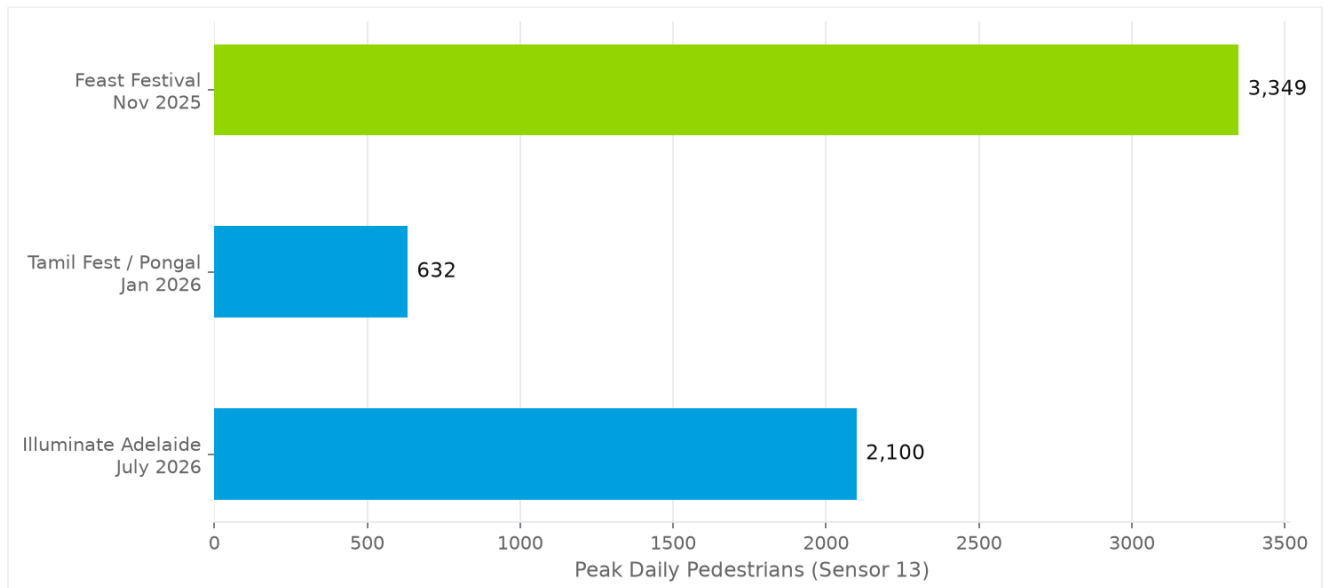


Figure 6: Peak daily pedestrian volumes during major events (Sensor 13 – Pedestrian Zone)

4.1 FEAST FESTIVAL & CITY LIGHTS (NOVEMBER 2025)

The highest pedestrian spike in the internal Pedestrian Zone (Sensor 13) occurred on **Wednesday, 5 November 2025**, recording **3,349 pedestrians** — nearly double the daily average. This aligns with the opening week of the **Feast Festival** (Adelaide's LGBTQIA+ Arts and Cultural Festival) and the associated 'City Lights' evening installations in the CBD.

4.2 TAMIL FEST / ADELAIDE PONGAL (JANUARY 2026)

Light Square hosts the annual **Tamil Fest (Adelaide Pongal)** multicultural celebration in late January. Sensor 9 (Secondary Path) recorded its highest volumes of the year during the festival week in January 2026, peaking at **632 total movements on 22 January**.

4.3 ILLUMINATE ADELAIDE (JULY)

The winter light festival, **Illuminate Adelaide**, held throughout July, drives consistent evening pedestrian traffic through the CBD. Pedestrian volumes remained robust through July and August on the Shared Path (Sensor 8) and Pedestrian Zone (Sensor 13) — resisting the typical winter decline seen in purely recreational parks.

BASELINE INTEGRITY

All event-day spikes are captured but do not distort the everyday averages reported in this document. The 4,129 daily average genuinely reflects typical daily usage of the Light Square precinct.

SECTION 05

RECOMMENDATIONS GROUNDED IN THE DATA

Four evidence-based recommendations aligned with the objectives of the Light Square / Wauwi Master Plan.



5

DATA-GROUNDED RECOMMENDATIONS

FOUR ACTIONS ALIGNED WITH THE LIGHT SQUARE / WAUWI MASTER PLAN

1

Protect & Expand Commuter Cycling Infrastructure

The data shows exceptional year-on-year cycling growth entering the square (+42% on the Shared Path, +13% on the Cycle Path Entry). This validates the Master Plan's objective to separate walking, cycling, and wheeling paths from traffic. Delivering protected cycle paths along Morphett Street and Waymouth Street will capitalise on this demonstrated demand.

2

Prioritise Weekday Amenity for the CBD Workforce

Unlike Victoria Park, Light Square's peak usage occurs on weekdays (Tuesday–Thursday). Investments in seating, shading, and safety lighting should be optimised for the CBD workforce and university student populations who use the square daily — not just weekend visitors.

3

Traffic Calming on Morphett Street

Sensor 11 data confirms Morphett Street carries immense mixed-traffic volumes (averaging over 15,000 movements daily). The Master Plan's proposal to reduce road area and prioritise safe entry points is strongly supported by the high volume of active travel users (over 4,100 daily) who must currently navigate these intersections.

4

Event Infrastructure Planning

While not experiencing the 17,000+ single-day crowds of Victoria Park, Light Square consistently hosts mid-sized cultural events (Feast Festival, Tamil Fest) that double normal pedestrian loads. The square's internal pathways (Sensor 13) handle these loads well, supporting the Master Plan's vision for an inclusive, event-capable space.

SECTION 06

EXPANDING THE SENSOR NETWORK ACROSS THE CBD

The case for broader data coverage — understanding active travel across the entire Adelaide CBD to make more informed, evidence-based decisions at every value point.



6

STRATEGIC RECOMMENDATION

FROM PRECINCT INTELLIGENCE TO CITY-WIDE ACTIVE TRAVEL UNDERSTANDING

The VivaCity sensor network currently deployed at Light Square / Wauwi and Victoria Park provides the City of Adelaide with a powerful, evidence-based foundation for active travel decision-making. However, these two precincts represent only a fraction of the active travel movements occurring across Adelaide's CBD every day. Expanding the network would transform the City's ability to understand, plan, and invest in active travel infrastructure — moving from isolated precinct insights to a **connected, city-wide intelligence platform**.

The Case for Broader CBD Coverage

A city-wide sensor network would enable the City of Adelaide to:

- **Understand full journey patterns:** Track how cyclists and pedestrians move between precincts — from Victoria Park through the CBD to Light Square and beyond — revealing the complete active travel network in use.
- **Identify unmet demand:** Pinpoint corridors with high active travel volumes but inadequate infrastructure, prioritising investment where it will have the greatest impact.
- **Measure the impact of the Light Square / Wauwi Master Plan:** Establish before/after baselines across the full precinct and surrounding streets as regeneration works are delivered, providing objective evidence of outcomes.
- **Inform the other five Adelaide squares:** Hurtle Square, Hindmarsh Square, Whitmore Square, Pennington Gardens, and Park Lands corridors all carry active travel movements that are currently unmeasured.
- **Support the 50,000 resident population target:** As residential density increases, active travel demand will grow. Continuous sensor data enables proactive infrastructure planning rather than reactive responses.
- **Optimise event management:** City-wide sensor coverage during major events (Illuminate Adelaide, Fringe, WOMAD) would provide real-time crowd flow intelligence, improving safety and amenity across all CBD precincts simultaneously.

VALUE PROPOSITION

Each additional VivaCity sensor deployed across the CBD adds to a compounding intelligence asset — the more locations monitored, the richer the network-level insights. The cost per insight decreases as the network grows, while the value to planners, engineers, and elected representatives increases exponentially.



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APPENDIX

DATA NOTES & METHODOLOGY

DATA AVAILABILITY THRESHOLD

Days with less than 85% data availability have been excluded from averages. Sensors 8, 10, 11, and 14 did not output a specific 'Data Availability Percent' column in the raw export; for these sensors, days recording zero total movements were excluded as likely offline periods.

SENSOR 10 (2026 DATA)

Sensor 10 did not have data available for the 2026 period in the provided dataset. Its averages reflect the full 2025 calendar year only.

SENSOR 11 (MIXED TRAFFIC)

Sensor 11 monitors Morphett Street, which carries significant motor vehicle traffic (averaging approximately 15,000 total movements daily). For the active travel analysis in this report, only the cyclist and pedestrian counts from Sensor 11 were extracted and analysed. Vehicle counts are excluded from all active travel totals and averages.

COMMUTER UPLIFT METHODOLOGY

The commuter uplift estimate uses weekend averages as the recreational baseline. In a CBD environment like Light Square, this is a highly reliable indicator of workforce commuting. The methodology is conservative — some weekend cycling may also include commuting, meaning the true commuter share could be higher than reported.

YEAR-ON-YEAR COMPARISON

Year-on-year comparisons use the January–August period in both 2025 and 2026 to ensure a consistent seasonal comparison window. Full-year 2026 data was not available at the time of this report.

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READY TO TAKE YOUR **ACTIVE TRAVEL DATA** TO THE NEXT LEVEL?

Contact the VivaCity ANZ team to discuss your council's requirements, arrange a live data demonstration, or request a proposal for expanding your sensor network across the Adelaide CBD.

[VIVACITYLABS.COM](https://vivacitylabs.com)

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AARON LEONARD — GENERAL MANAGER ANZ

4,129

AVG DAILY USERS

6

VIVACITY SENSORS

20

MONTHS OF DATA

+42%

PEAK CYCLING GROWTH