



Urban & Environmental

Prepared by

Easson Shen, Urban Designer / Landscape Architect (Barker & Associates)

Cam Wallace, Partner (Barker & Associates)

Reviewed by

Cam Wallace, Partner (Barker & Associates)



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Barker & Associates Contacts

09 375 0900 | admin@barker.co.nz | barker.co.nz | PO Box 1986, Shortland Street, Auckland 1140 | Level 4, Old South British Building 3-13, Shortland Street, Auckland

Kerikeri Whangarei Warkworth **Auckland** Tauranga Hamilton Cambridge Havelock North Wellington Christchurch Wanaka

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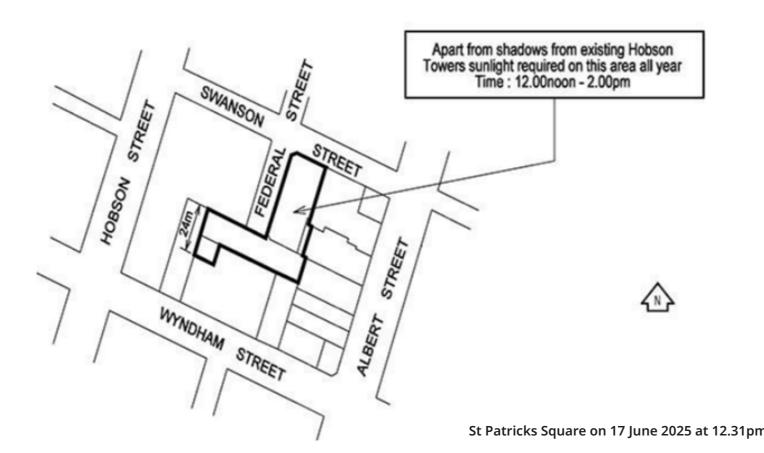


1. Purpose

During the design of the Downtown Carpark Site Development (the Proposal), it was identified that there was potential for a tower to cast shadows towards or over St Patrick's Square. As a result, B&A has been commissioned by Precinct Properties to undertake a public use audit in order to understand how St Patrick's Square was used by people so that a more accurate and robust assessment of potential shading effects could be undertaken. A subsequent systematic shading assessment has been prepared by McIndoe Urban.

2. Background

Rule H8.6.3 of the City Centre Zone within the Auckland Unitary Plan (AUP) seeks to "manage the scale of development around identified public open spaces to ensure they receive adequate sunlight when those spaces are most used". The rule, as it relates to St Patricks Square creates a height plane designed to ensure a defined area within the Square receives uninterrupted sunlight between 12pm and 2pm, all year (refer below). The exception to this is associated with shading from the existing Hobson Towers. Any building that does not comply with this Rule requires a resource consent as a Non-Complying Activity.



Rule H8.6.3 predates the AUP and has formed part of histoical planning frameworks covering the City Centre. The appropriateness or need of the sunlight admission rule in relation to St Patrick's Square was not considered in any detail as part of Plan Change 78 (as it related to the City Centre Zone). Rather, Auckland Council adopted an approach to "roll over" this rule as an existing Qualifying Matter. As a general observation, it was noted that the existing Hobson Towers cast significant shadows over this space (i.e. more than 50%) between 12pm and 2pm during winter months and the boundaries of where this Rule applies is not aligned with the upgrade and redesign of the space that was completed in 2009. This included an extension of park space into the Federal Street road reserve.

As will be noted later in this report, the most used area of St Patrick's Square is this 2009 extension area but it does not even fall within the boundary of the Rule. It is unforuntate that a more robust analysis of existing public spaces was not undertaken in light of the evidential requirements of the NPS-UD with regard to qualifying matters. This would likely have informed a refined boundary to the sunlight admission control that applies to St Patrick's Square that reflects the nature of its real world use and physical design to better enable as much development as possible within the City Centre.





3. Methodology

Based on the Rule's purpose and the specific times (12pm – 2pm) specified for St Patrick's Square it was assumed that this was generally representative of when the space was most used. In addition, the location of the Proposal relative to St Patricks Square means this is when any shadow cast would be likely to fall towards the Square. 12pm to 2pm was therefore used as the time when the audits were to be undertaken. Whilst I note that there is potential for this be well used outside of this time, I note that much of the space sits within shadows cast by existing development (e.g. the ANZ tower during the late morning) or the Hobson Towers in the afternoon, and therefore would not be relevant (or useful) in understanding potential effects from shading generated by the Proposal.

A total of 10-visits were undertaken over an approximate 1-month period between 9 June and 6 July 2025 and were limited to days with fine weather conditions to enable observation of existing shading patterns as well as understand how people use the space when it is in sunlight tying back to Rule H.8.3. Nine visits were undertaken during the working week (on all days except a Thursday), while the final visit was undertaken on a Sunday to understand the spaces potential use following Sunday Mass at St Patricks Cathedral. No Thursday site visit was possible during this period with all four potential days featuring a combination of precipitation or overcast conditions.

A summary of the weather conditions for each site visit is set out in the table below.

Date	Day	Forecast	Temp	Wind	Ground Conditions		
9/06/2025	Monday	Patchy rain possible	15-17	Breezy	Partially wet to dry		
11/06/2025	Wednesday	Partly cloudy	16-17	Breezy to windy	Dry		
17/06/2025	Tuesday	Sunny	14-15	Breezy	Dry		
18/06/2025	Wednesday	Sunny	12-13	Breezy	Dry		
23/06/2025	Monday	Mostly cloud-covered skies and no breaks for sunshine	16-17	Breezy	Dry		
24/06/2025	Tuesday	Mix of scattered to intermittent clouds	16-18	Breezy	Dry		
30/06/2025	Monday	Partly cloudy	15-16	Breezy	Dry		
1/07/2025	Tuesday	Mostly cloudy	15-16	Breezy to windy	Partially wet to dry		
4/07/2025	Friday	Mostly sunny	19-20	Breezy	Partially wet to dry		
6/07/2025	Sunday	Sunny	15-16	Breezy	Dry		

During each site visit, every person who spent time within the space was catalogued based on sex (male or female), rough age (adult or child), their purpose for being in the space and how long they spent

in the space. There was no interaction with anyone by those conducting the audit and they generally carried out the audit from the periphery of St Patrick's Square to avoid taking up a space that someone may look to use (e.g. a seating area).

People were divided into a total of 9 categories based on their observed patterns of use / purpose within the space.

Category	Comment
Category	Comment
Exercise	People observed engaging in activities that involved an athletic pursuit (e.g. stair climbs, push ups). This category included people who were taking their dogs (and cats) for walks outside.
Relaxation	People who were observed and simply sitting or lying within the space (i.e. sunbathing, reading).
Lunch	People who were observed brining / eating lunch within the space.
Phone Call	People who were observed using the space whilst solely engaged in a phone call.
Socialising	Required more than one person to be classified as socialising. Was used when at least two people used the space and were engaged in conversation, relaxation, or play with another person(s).
Smoking (incl. vaping)	People who were observed entering / lingering in the space for the sole purpose of smoking / vaping (e.g. from nearby office blocks or by taxi drivers)
Tourism	People who appeared to be tourists and were generally observed to be taking photos from a particular viewpoint which captures both the Cathedral and Sky Tower.
Maintenance	People carrying out maintenance tasks (e.g. sweeping, cleaning up rubbish), all in high- vis clothing and assumed to be Council employed contractors.
Miscellaneous	People where their purpose or use of the space was not clear upon observation or was not particularly relevant to the space itself (e.g. people waiting for taxis / ubers outside the Hotel Indigo).

Their locations within the space were also marked on a plan to enable digital recording and analysis. This data was combined with the time each individual person was recorded as being within the space allowing for a weighting exercise to be undertaken that combined both location and time to create a heat map of overall usage.

The exception to the above were people clearly passing through the space as part of general travel / movement from one destination to another. These people generally utilised the obvious desire lines / routes created by the design of the Square along the eastern boundary and the alignment of Federal Street and were passing through / to destinations in the wider area.



4. High-level Summary

A total of 878 people were observed to use St Patrick's over the 20-hours of site visits conducted, equating to an average of 87 people per visit or 43 people per hour.

The 878 people who used the square can be further broken down demographically by:

- 517 (59%) were adult males;
- 337 (38%) were adult females;
- 15 (2%) were young males; and
- 9 (1%) were young females.

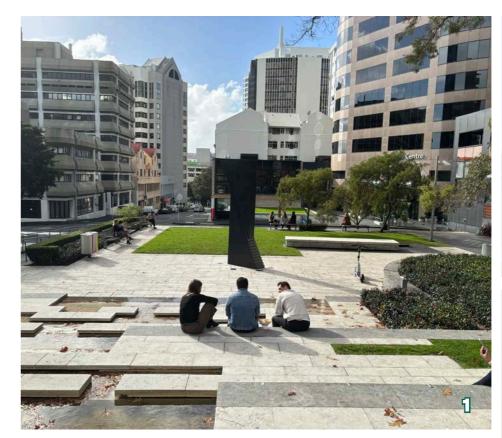
In terms of the use of St Patrick's Square, the following breakdown provides a broad understanding of how people use the Square:

- 9 (1%) were exercising;
- 149 (17%) were relaxing;
- 421 (48%) were having lunch (eating and drinking);
- 43 (5%) were undertaking a phone call;
- 119 (13.5%) were socialising;
- 62 (7%) were smoking / vaping;
- 42 (5%) were tourists;
- 5 (0.5%) were maintenance workers; and
- 28 (3%) were categorised as undertaking miscellaneous activities. Of these 11 were waiting for a taxi / uber.

In terms of how long people were within St Patrick's Square, recorded times varied between 1 minute and 117 minutes. 316 (36%) of people spent less than 10-minutes in the Square, while only 253 (29%) spent more than 20-minutes. The length of time people spent in the Square had a mean value of 16-minutes and median value of 13-minutes.

It is noted that only 637 (72%) of those people observed using St Patrick's Square, were doing so within the sunlight admission boundary. Of the 241 people using St Patrick's Square outside of the sunlight admission boundary, the vast majority did so on a series of steps / formal seating which runs along its western boundary within the Federal Street road corridor. 736 (88%) people were observed to primarily utilise park infrastructure (seating, tables, steps). A further 107 (12%) people were observed using the Square in areas that were already in full shade cast by the existing Hobson Towers or the dense canopies of two Pohutukawa trees adjacent to the entrance of the Hobson Towers.

1. Square users utilising the steps for seating; 2. Parks benches outside the sunlight admission area where the most well-used feature wihtin the Square; 3. Extensive shading cast by the Hobson Towers between 12pm and 2pm; 4. Extensive shading and dappled light along the eastern thoroughfare of the Square between 12pm-2pm; 5. The eastern thoroughfare was primarily used for transiting through the Square.











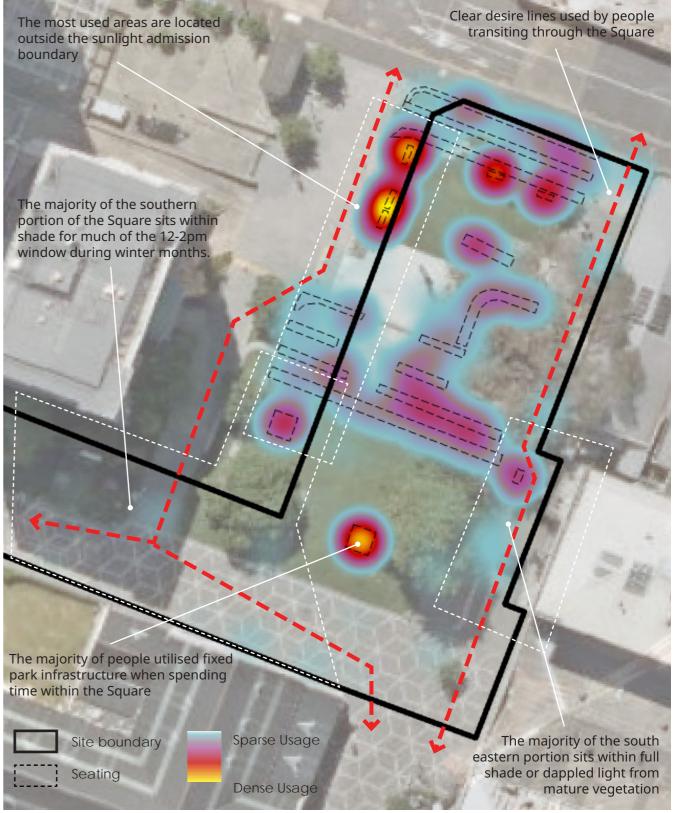


5. Site Visit Metrics & Observations

A breakdown of the uses observed during each site visit is provided in the table below. The total number of people observed in and around St Patrick's Square varied from a low of 53 (Sunday 6 July) to a high of 134 people (Wendesday 18 June).

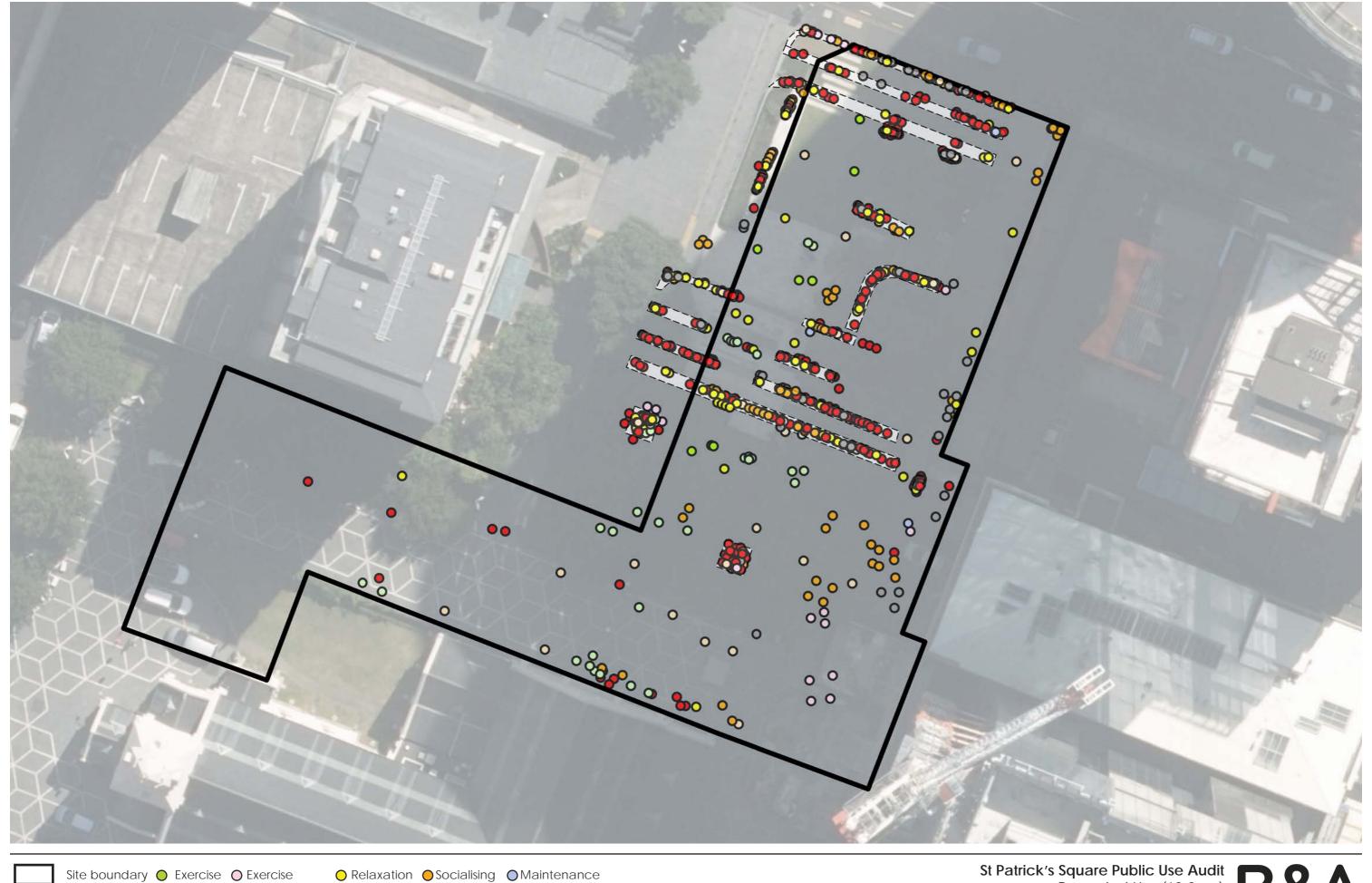
Of note, the two busiests days recorded also coincided with weekdays with clear skies and sunshine, whilst thre remainder of weekday visits featured overcast or partially cloudy conditions. Although a small sample size, this indicates that users of the Square do place value access to direct sunlight. The sunday site visit, which featured the lowest recorded volume of people also coincided with the end of Sunday Mass at St Patrick's Cathedral, and a significant portion opf those observed subsequently using the Square had been observed leaving Mass. The noticably lower overall number of people observed during Sunday also indicates that it functions as an important amenity for surrounding office workers.

Date	Day	Excercise	Relaxing	Lunch	Phone Call	Socialis- ing	Smoking	Tourists	Mainte- nance	Misc.	Total
9/06/2025	Monday	1	5	39	4	9	11	2	1	3	75
11/06/2025	Wednesday	0	16	51	7	14	2	1	1	0	92
17/06/2025	Tuesday	2	28	60	6	12	8	4	1	8	129
18/06/2025	Wednesday	0	29	60	8	26	4	5	0	2	134
23/06/2025	Monday	2	6	38	3	8	4	4	1	9	75
24/06/2025	Tuesday	0	19	34	4	16	11	2	0	3	89
30/06/2025	Monday	0	16	49	3	3	6	3	0	0	80
1/07/2025	Tuesday	0	9	42	2	4	7	5	1	1	71
4/07/2025	Friday	0	10	47	3	8	5	7	0	0	80
6/07/2025	Sunday	4	11	1	3	19	4	9	0	2	53
Totals	-	9	149	421	43	119	62	42	5	28	878



Summary of key observations

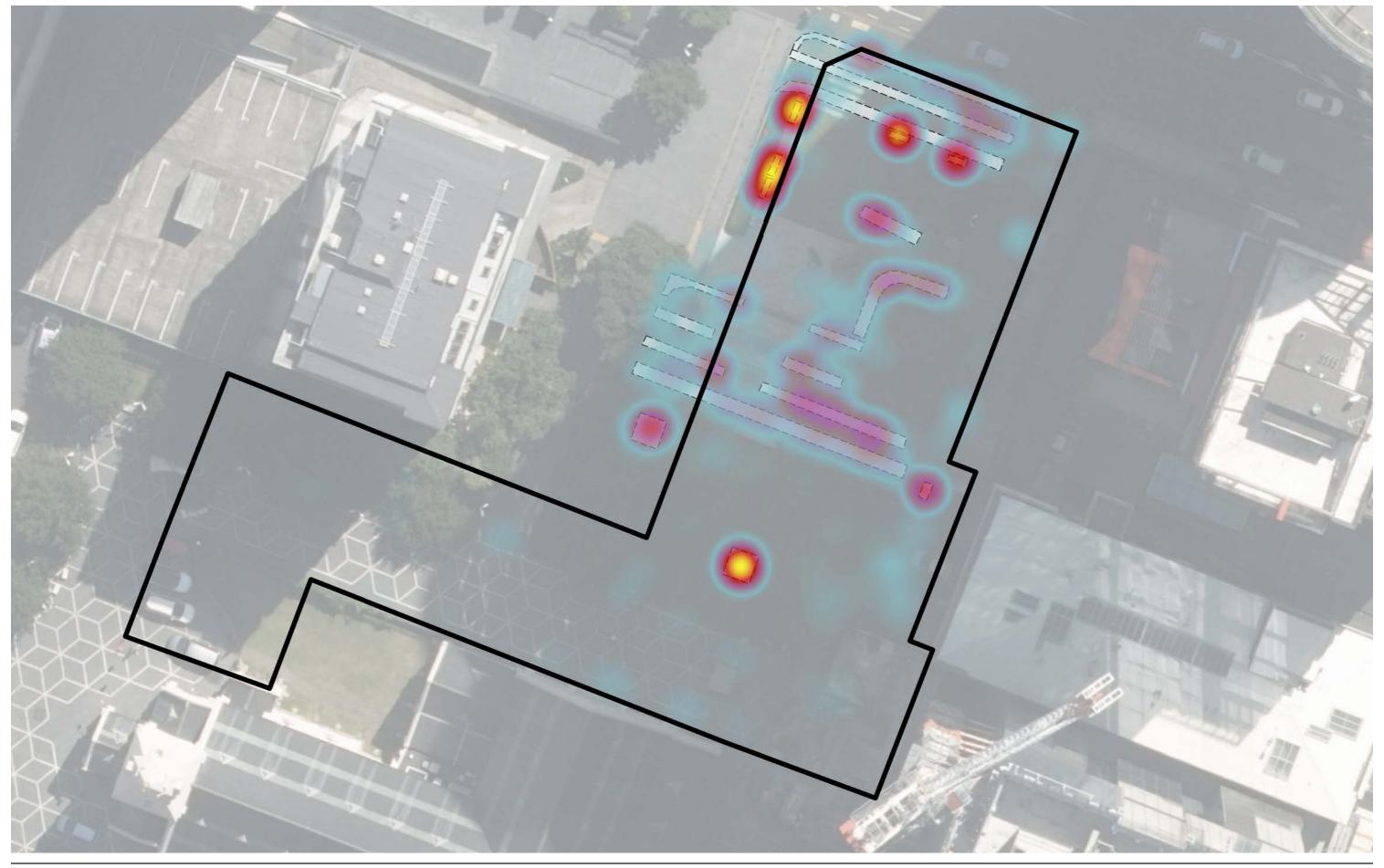




■ LunchO MiscellaneousO SmokingO Tourism

Seating

St Patrick's Square Public Use Audit Recorded Use (12-2pm) Overall Plan







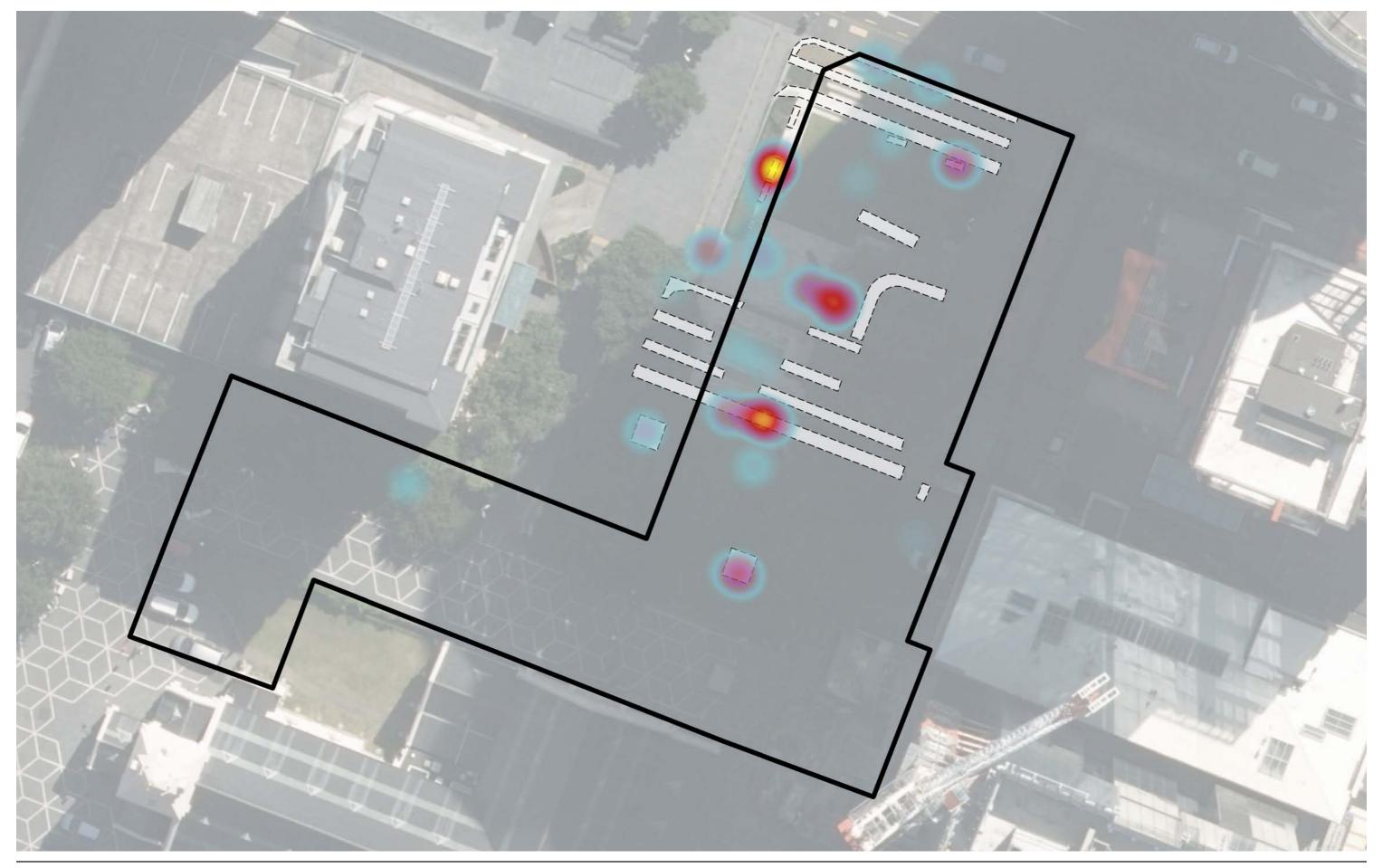
Dense Usage

Note: Based on 878 individuals and a total of 14,432 minutes of usage recorded.









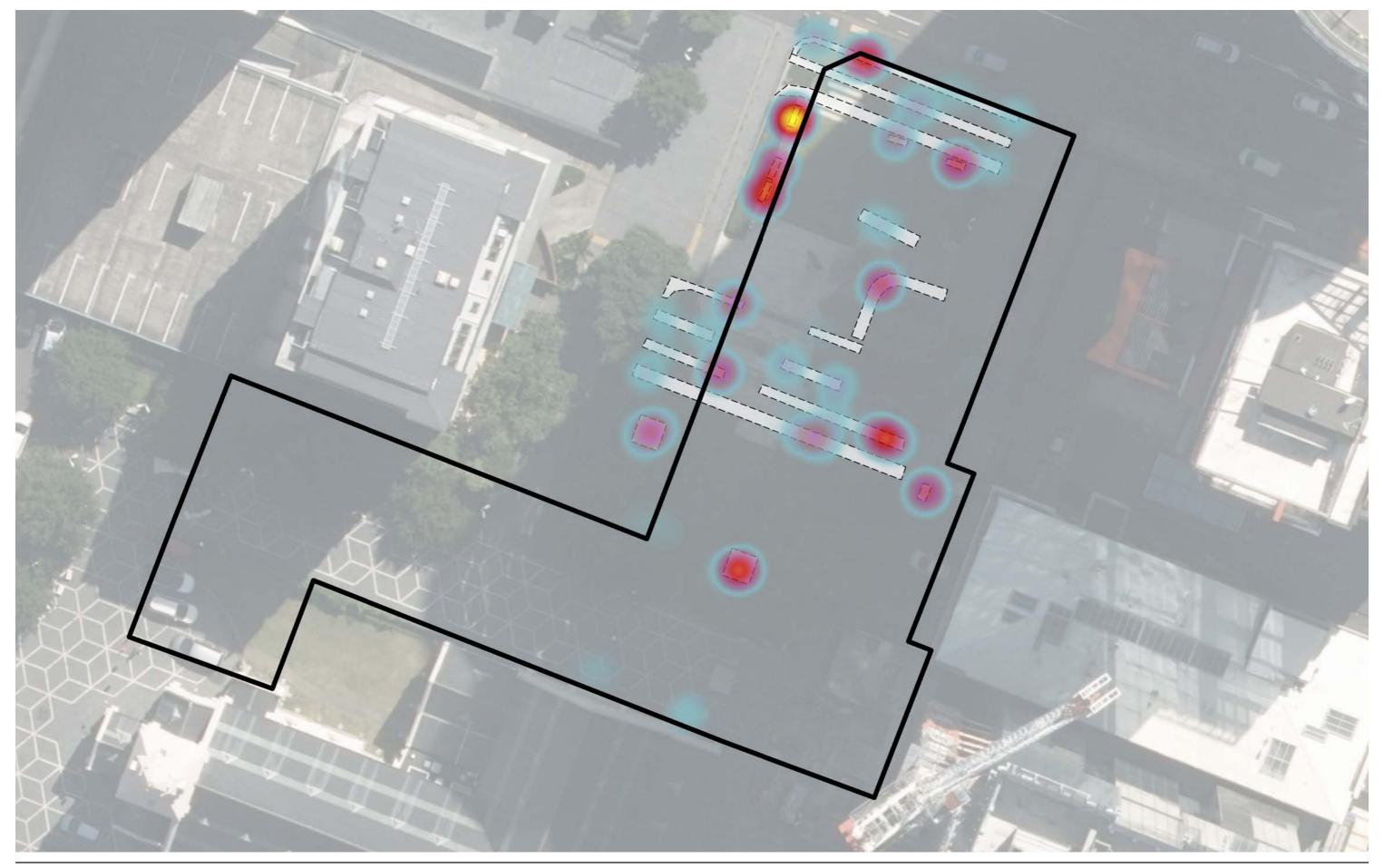




Note: A total of 53 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 6th July 2025





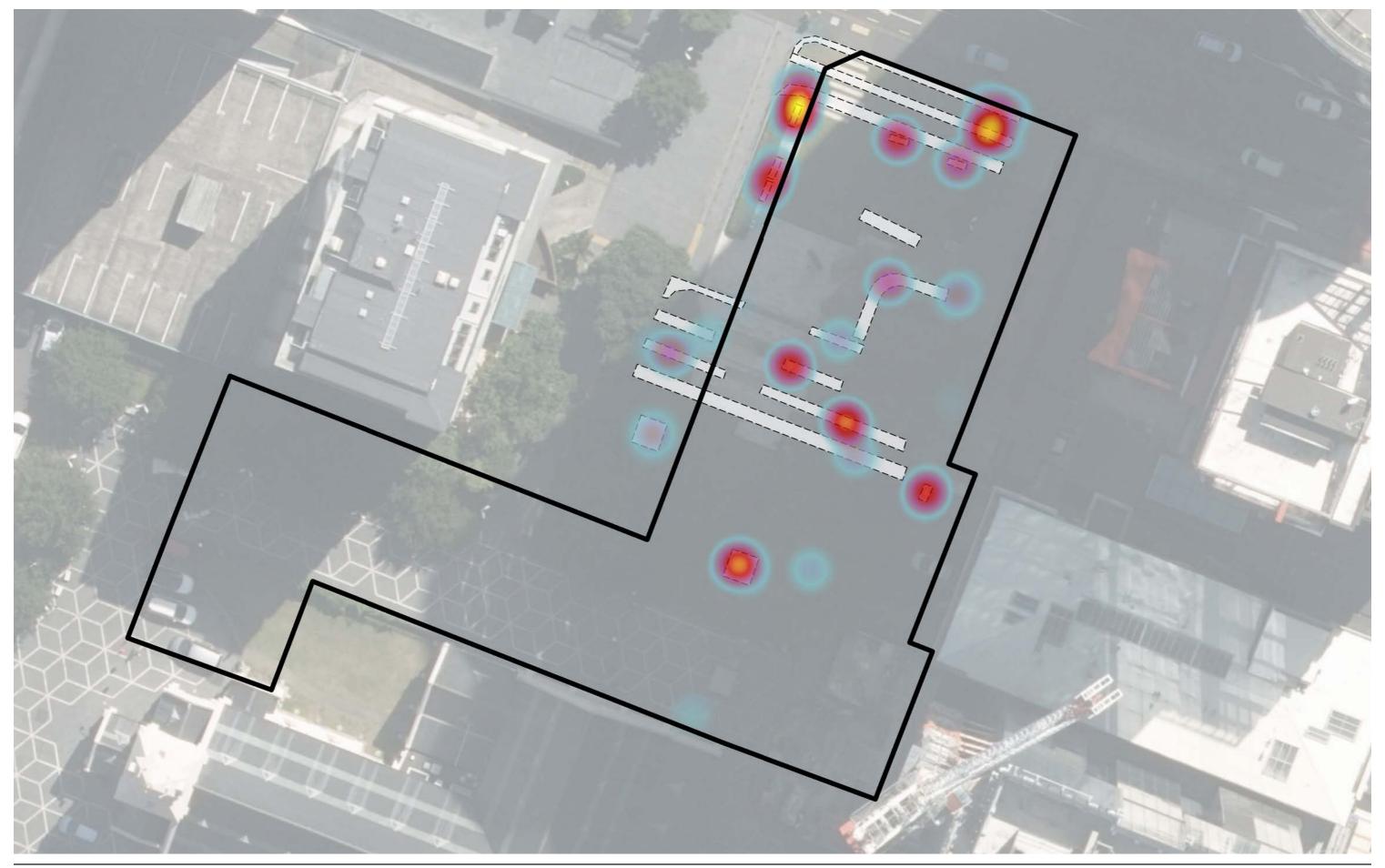




Note: A total of 80 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 4th July 2025









Note: A total of 71 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 1st July 2025





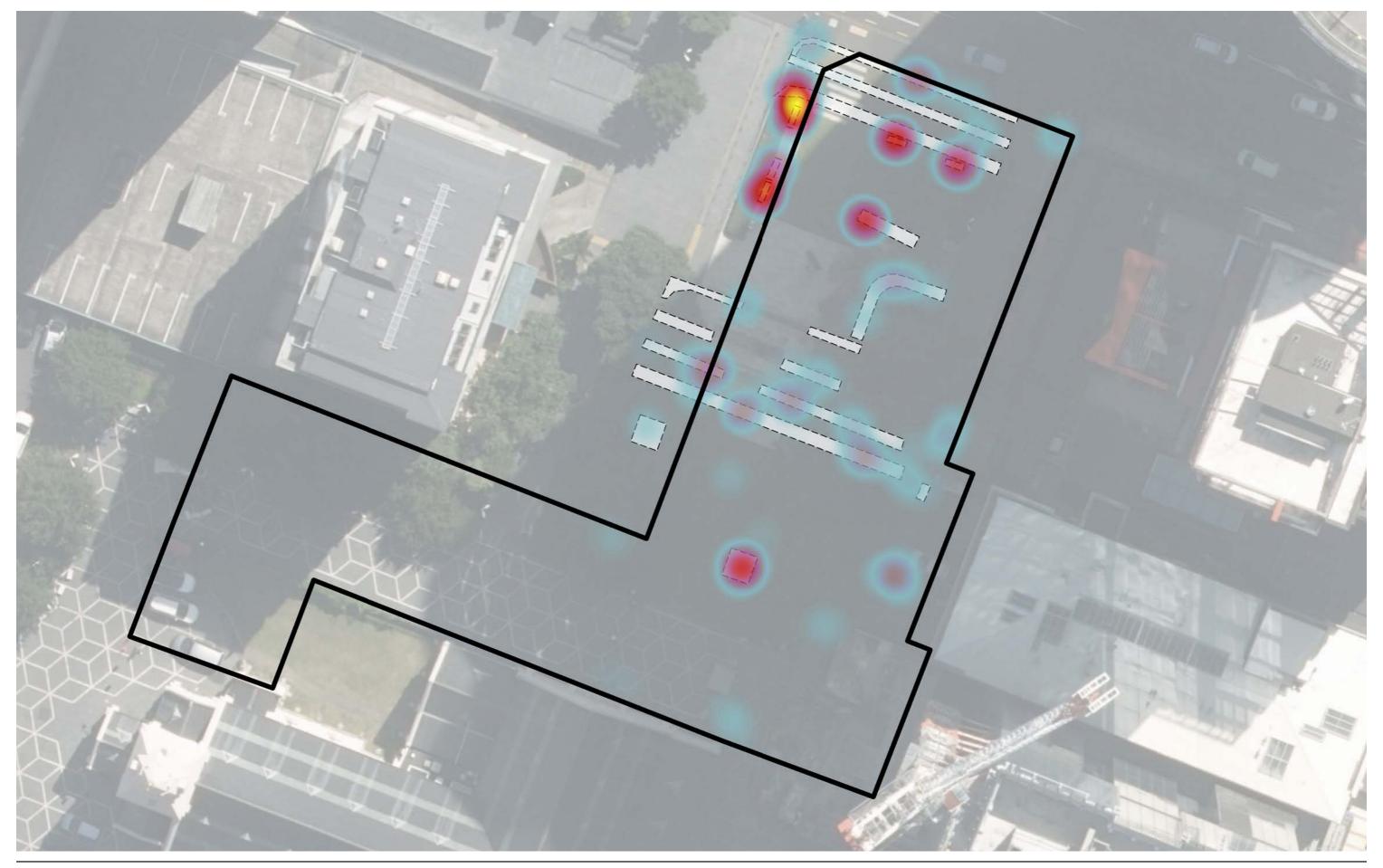




Note: A total of 80 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 30th June 2025





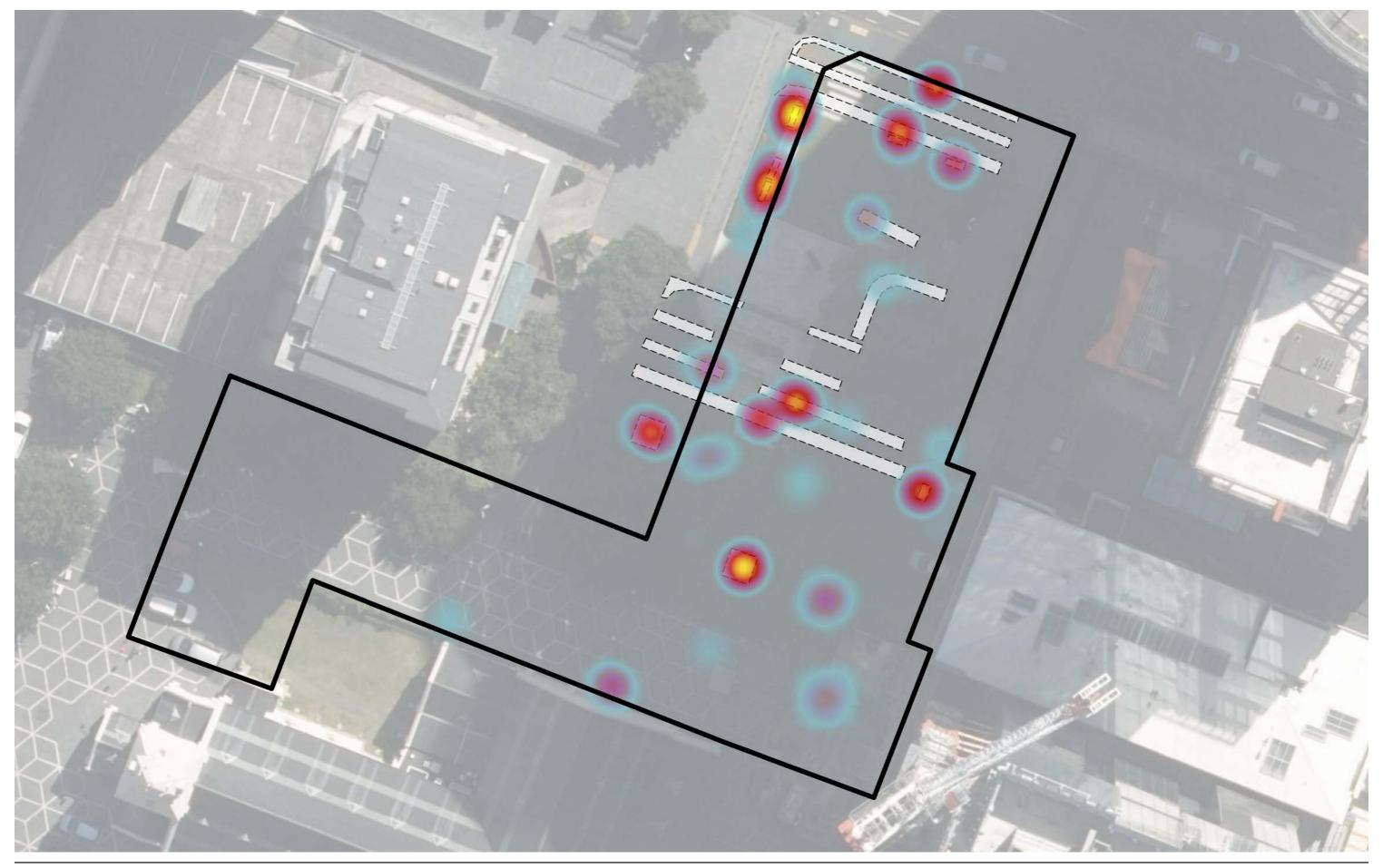




Note: A total of 89 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 24th June 2025







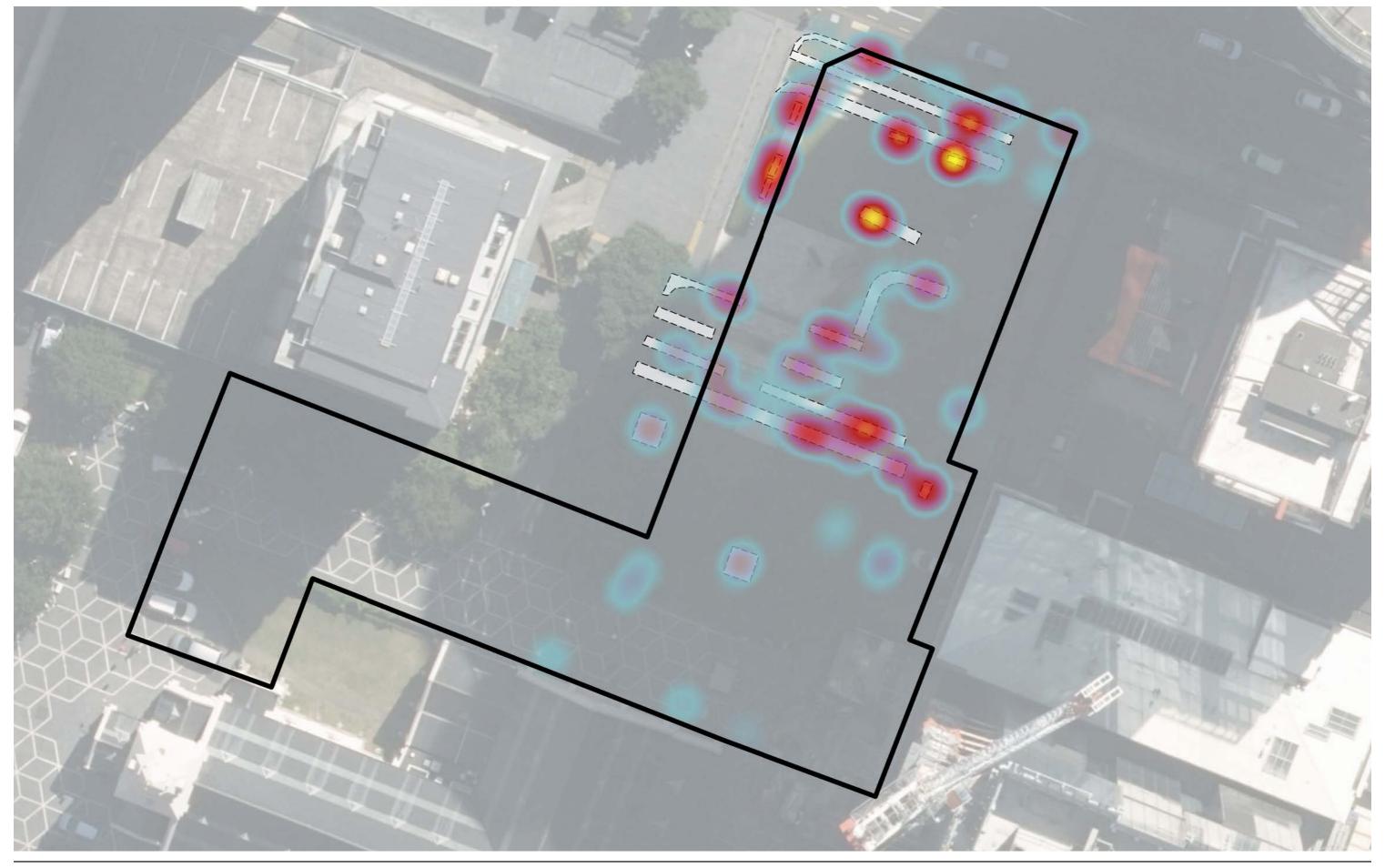


Dense Usage

A total of 75 individuals were recorded during the site visit (on the 23rd June 2025).

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 23rd June 2025 Scale. 1:300 at A3 Date. 04/09/2025









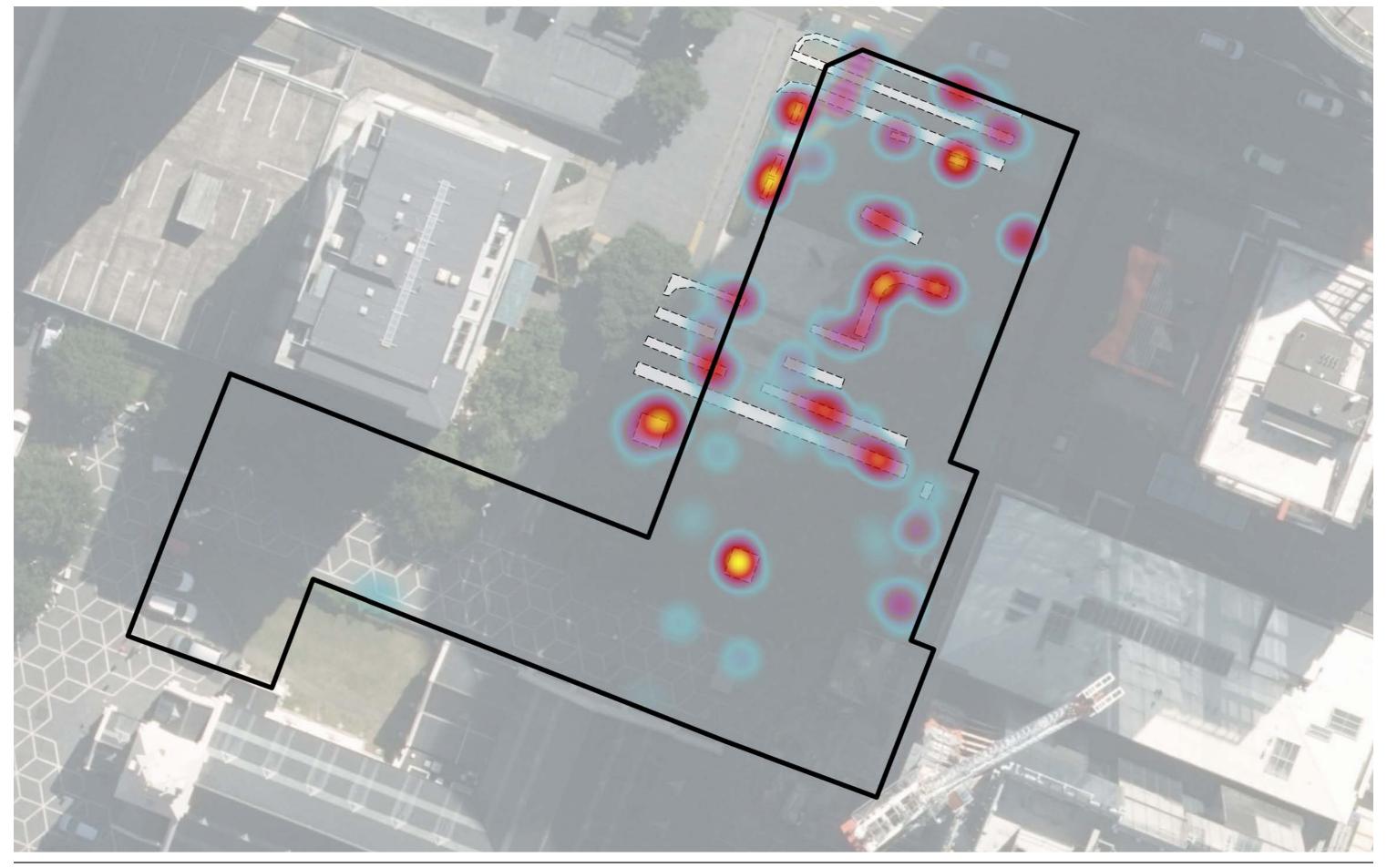
Dense Usage

Note: A total of 134 individuals were recorded during the site visit.









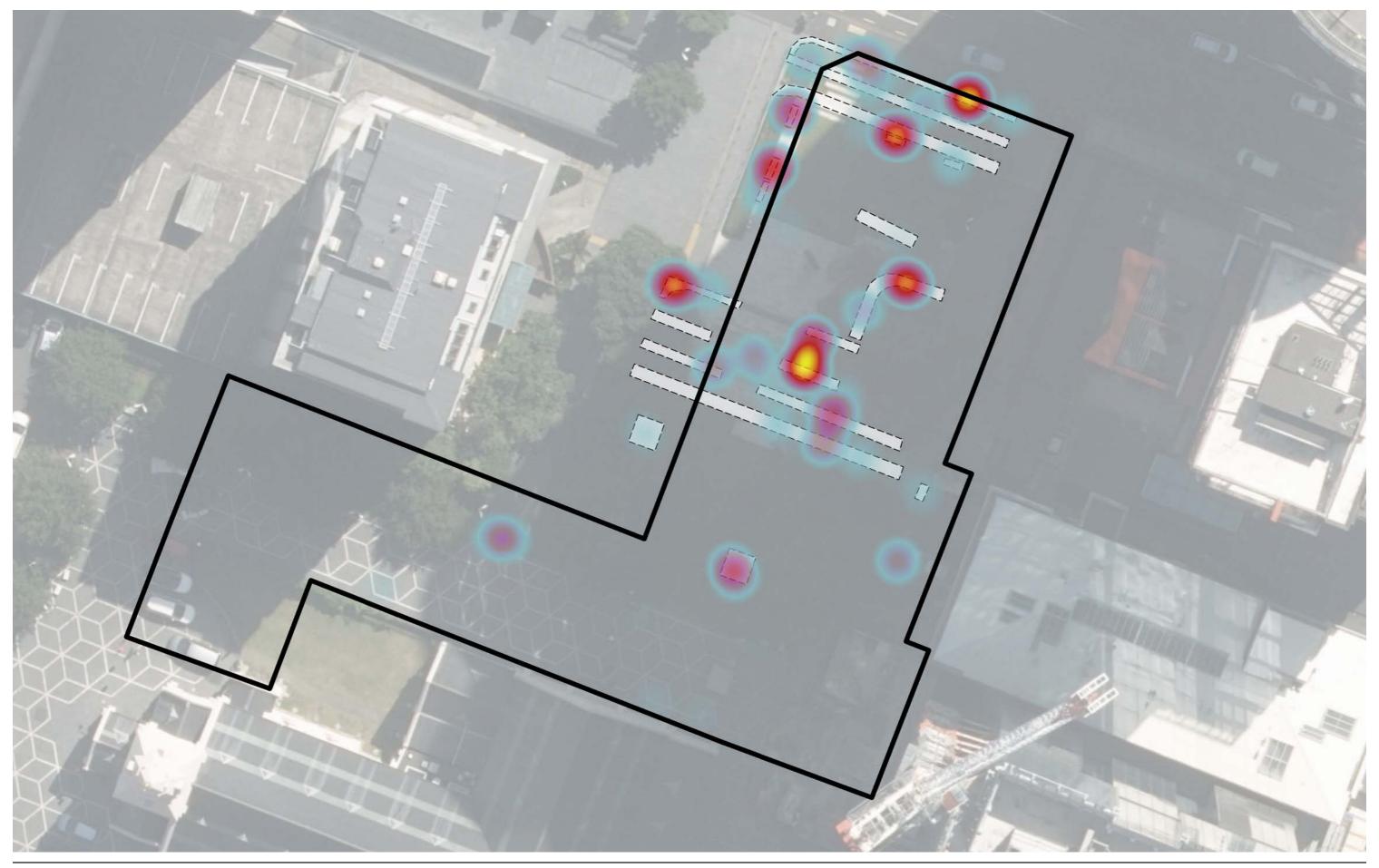




Note: A total of 129 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 17th June 2025





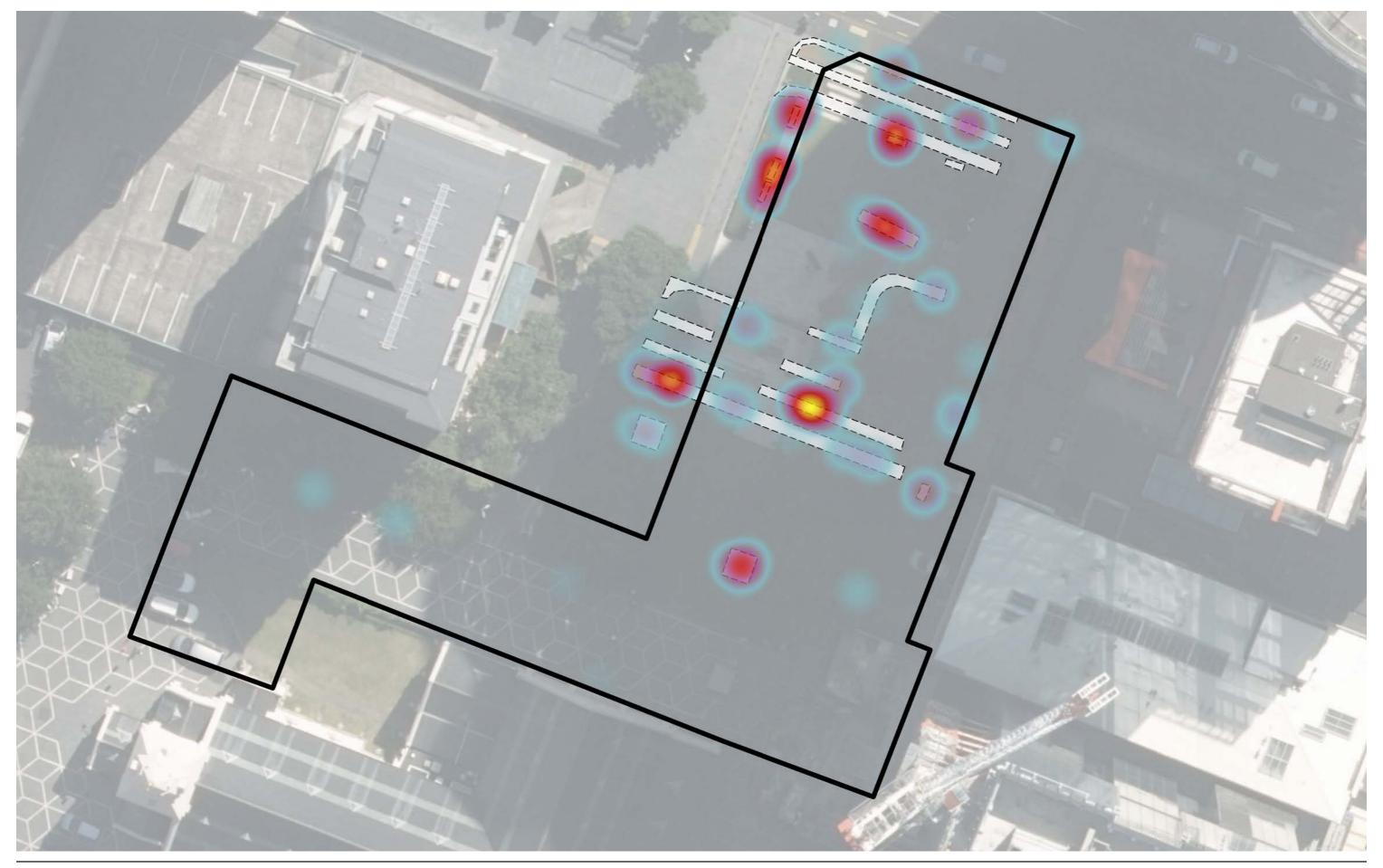




Note: A total of 75 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 9th June 2025









Note: A total of 92 individuals were recorded during the site visit.

St Patrick's Square Public Use Audit Public Presence Heat Map (12-2pm) Site Visit on the 11th June 2025



09 375 0900 | admin@barker.co.nz | barker.co.nz PO Box 1986, Shortland Street, Auckland 1140 Kerikeri | Whangarei | Warkworth | Auckland | Hamilton | Cambridge | Tauranga | Havelock North Wellington | Christchurch | Wanaka

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