

Balmain East Precinct Parking Study

Inner West Council
Draft Report



Prepared by: GTA Consultants (NSW) Pty Ltd for Inner West Council
on 20/07/2020
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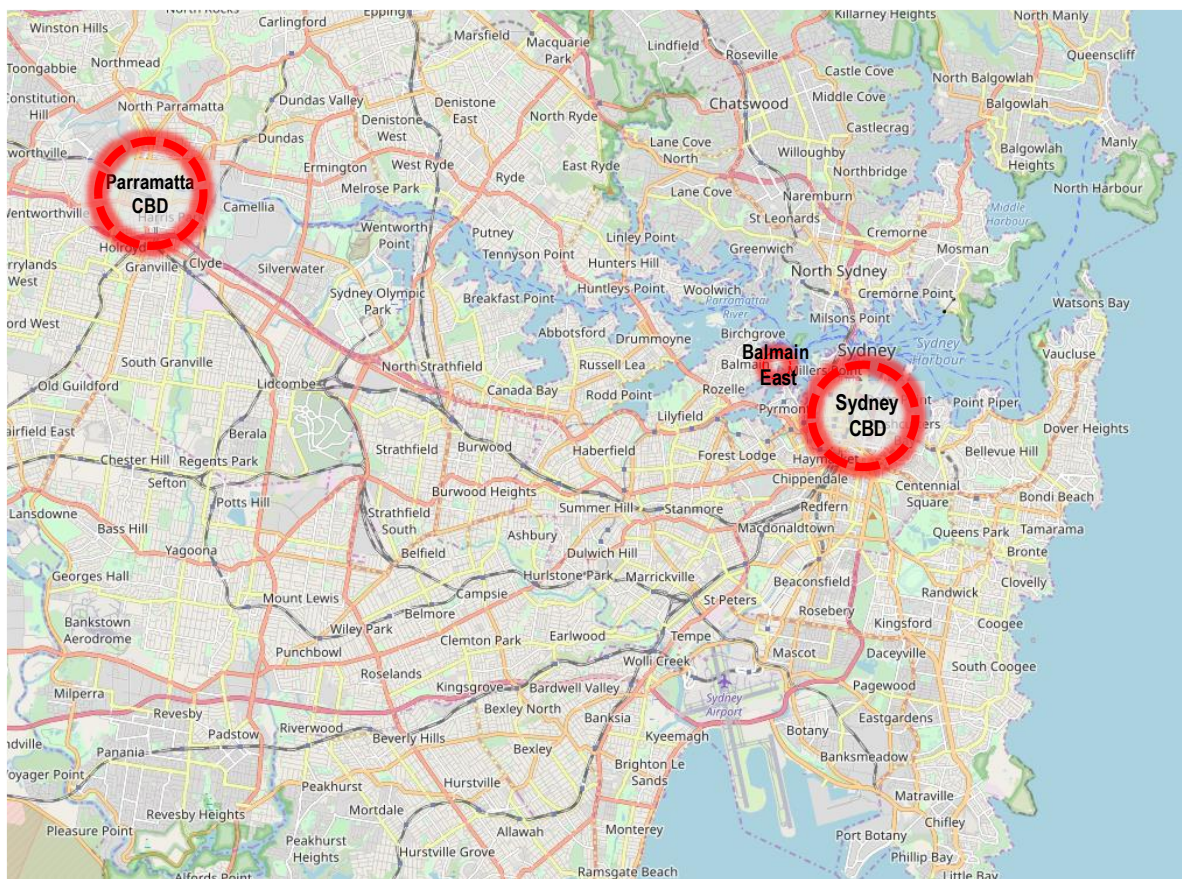
1. INTRODUCTION

1.1. Project Background

Balmain East is a precinct in the Inner West Local Government Area of the Sydney Metropolitan Area and is approximately three kilometres west of the Sydney CBD and 18 kilometres east of Parramatta CBD. The precinct is situated on the eastern end of the Balmain peninsula in Sydney Harbour and shares a boundary with the suburb of Balmain to the west.

Balmain is predominantly a residential suburb with a mix of single dwellings and low-density multi-storey unit blocks, with a small shopping strip on Darling Street and foreshore areas which have been redeveloped into open domains. The study area mainly consists of residential streets with Darling Street being the only connection going in and out of the peninsula. Public transport options comprise bus services along Darling Street and ferries from Balmain East Wharf.

Figure 1.1: Balmain East within the Sydney Metropolitan Area



Basemap Source: OpenStreetMap

The Balmain East precinct incorporates a range of major developments, consisting of commercial areas, public infrastructures and foreshore redevelopment.

The trip generators for the precinct include:

- Residential dwellings
- Balmain East shopping village
- Schools such as Nicholson Street Public School
- NSW Police Marine Area Command
- Balmain East Wharf
- Various industrial units and places of employment along the northern foreshore
- Parks and informal sports facilities.

Inner West Council has requested a review of the overall parking situation within the Balmain East Precinct as a basis for determining a parking management strategy and has commissioned GTA Consultants (GTA) to undertake a review of parking within the Balmain East precinct and to develop a strategy that sets forward how parking will be provided and managed in the future.

1.2. Purpose of the Study

The objectives of the project are:

- To review parking within Balmain East precinct, looking at location, supply, demand and distribution of both long-stay residential and short-stay commercial parking as well as any evidence of long-stay commuter parking, as the basis for determining future car parking requirements. This includes considering on-street and private off-street parking and undertaking community consultation and working with stakeholders to understand community views in relation to parking in the study area.
- To review state and local parking strategies and policies including Council's Development Control Plan parking rates for Balmain East associated with new development.
- To undertake a parking supply and demand assessment and report of parking in Balmain East. Develop an inventory of existing on-street and off-street parking identifying the parking regulations associated with this parking. Survey the parking demand of on-street and off-street parking areas to identify long and short-stay parking requirements.
- To develop a Balmain East Parking Management Strategy considering Council's strategies and plans, community views, parking demand and supply, existing active transport (walking and cycling) and public transport (bus and ferry), to improve ease of access to parking.
- To identify any discrepancies in parking policies and restrictions within Balmain East under Inner West Council and identify opportunities for standardisation.

1.3. What is Parking

Before developing a set of parking strategy principles and objectives, and how these integrate with overall transport objectives, we must have a comprehensive understanding of what parking is.

As a general rule, land uses generate and attract visitors, customers, staff and/or residents resulting in economic activity. A by-product of access to these land uses is, in its simplest form, a "trip". Trips can be made by a variety of methods including, but not limited to, walking, cycling, public transport and/or the private motor vehicle.

Where does car parking enter this equation? Car parking provides an end-of-trip facility for the private motor vehicle mode.

1.4. Types of Parking

The type of land use has differing levels of attractiveness (i.e. trip generation) and therefore has different requirements for car parking. Different uses also have different user bases and in turn different needs in regard to their required length of stay. Accordingly, different types of car parking are required (for example, pick-up/drop-off parking requires 5 to 15 minutes, short-stay parking requires one to three hours and long-stay parking is required over four hours or all day to satisfy differing needs. In a setting such as the local centre in Balmain East, a parking event can serve a number of trip purposes and a single space can be shared between a number of users over the course of the day due to the different temporal patterns of land uses. While in residential areas, a single space can only be shared between a limited number of vehicles as long-stay parking is prevalent among residents and potentially is also used by commuters accessing the ferry at Balmain East.

With consideration of the above, it is important to prioritise the demands of short-stay commercial user groups within the commercial village environment in Balmain East while limiting long-stay conflicting user groups that may arise from commuters. While in the residential area, it is important to have a sufficient amount and prioritisation of car parking relative to resident demands in the area, while limiting the needs and demand of conflicting user groups that car parking will have on the residential streets.

1.5. The Balmain East Context

In this context then, it is important that car parking within Balmain East be managed to:

- Recognise that the parking space does not attract people; it is the destination that attracts people and parking is only a by-product.
- Prioritisation of demand from different user-groups, specifically the parking demand from residents, commuters and workers on residential streets and commercial user-groups within the local commercial core.
- Balance demand for commuter parking and residential parking specially nearby to the Balmain East Wharf.
- Standardise the previous different parking permits format applied to the study area as a result of amalgamation of different council jurisdictions.

2. EXISTING CONDITIONS

2.1. Planning Context

In preparing this report, relevant policies and guidelines applicable to the Balmain East precinct were explored, which include both the still in effect *2013 Local Environmental Plan* (LEP 2013) and *2013 Development Control Plan* (DCP 2013), developed by the former Leichhardt Council and the recently published *Inner West Integrated Transport Strategy* (ITS) by Inner West Council. In addition, the *Permit Parking Guidelines* (October 2018) developed by Roads and Maritimes Services (now Transport for NSW (TfNSW)) are referenced as the official guidelines in permit parking designs to better understand the context and design parameters of permit parking schemes and how it can be utilised in a parking management strategy. This guideline is discussed further in sub-section 2.1.1.

Inner West Council also recently released a '*Draft Public Domain Parking Policy*' which is under Council review following community consultation. A summary of the draft policy is discussed in sub-section 2.1.2, which examines how public parking is managed throughout the Inner West LGA and brings together the different management approaches adopted by the former constituent councils of Inner West Council.

2.1.1. Permit Parking Guidelines - Road and Maritime Services

The *Permit Parking Guidelines* is a document that sets out criteria and guidelines for designing, implementing and administering permit parking schemes in NSW from the former Roads and Maritime Services and was last updated in October 2018.

Permit parking schemes help to improve amenity for particular classes of road users in locations where there is insufficient off-street parking and where on-street parking is limited. Permit parking also helps to balance the needs of the local community with those of the broader community in high demand areas.

There are six classes of permit parking scheme prescribed in clause 95 of the Road Transport (General) Regulation 2013, including:

- business
- commuter
- resident
- resident's visitor
- special event
- declared organisation.

According to the guideline, if local councils propose to establish a permit parking scheme, it must comply with the Regulation and this mandatory guideline. In the case of Balmain East, a key part of this study will be to investigate whether existing schemes need to be amended and whether other types of permits are warranted (e.g. commuter permits).

The guideline expresses the eligibility criteria for all permit schemes and the six classes of parking permits, with the relevant general criteria and specific criteria for the context of Balmain East summarised below.

Eligibility criteria and other features common to all permit parking schemes

- high demand for parking in the area
- inadequate off-street parking and no potential to modify premises or create off-street parking
- little or no unrestricted on-street parking close by
- vehicle is not a truck, bus, or trailer (boat or caravan)
- parking authorities have discretion over the total number of permits issued in their area of operations and how they will distribute these permits across the relevant classes of permit parking schemes.

Resident parking permits

- the number of permits issued for an area should not exceed the number of available on-street parking spaces in the area
- a maximum of one permit per bedroom in a boarding house, or two permits per household. In exceptional circumstances, the number of permits may be increased
- when issuing permits to eligible residents who have off-street parking, the number of permits which may be issued is the difference between the maximum number per household in the scheme and the number of off-street spaces available to the household
- where the number of requests for permits exceeds the number of available on-street parking spaces, only residents who do not have access to unrestricted parking along their kerbside are eligible to apply for a resident parking permit. Applications should be prioritised as follows:
 - no off-street parking space
 - one off-street car space
 - two or more off-street car spaces.

Commuter parking permits

Commuter parking schemes are established to encourage people to use public transport. They can only be established after a 12-month commuter parking trial.

Commuter parking permits may be issued as follows:

- one permit per commuter
- the parking authority should ensure there is a reasonable chance the commuter will find a parking space within the commuter permit parking area.

Resident's visitor parking permits

Residents may apply for visitor parking permits so their visitors can park within the permit area without time or fee restrictions.

- there is no off-street visitor parking at the resident's address
- there are no unrestricted on-street parking spaces in front of the residence or along the kerbside
- the parking authority may offer long-term and/or short-term visitor parking permits.

2.1.2. Draft Public Domain Parking Policy

On-street parking and Council managed car parks across Inner West Council currently operate under different policies from the former Leichhardt, Marrickville and Ashfield Councils. However, since the amalgamation there has been an absence of a unified parking management policy to manage public parking throughout the Inner West LGA.

To this end, Inner West Council prepared the *Draft Public Domain Parking Policy* which sets out a governing framework for the investigation, development, implementation and ongoing management of parking schemes and controls in the public domain including on-street parking and council managed car parks. The draft Public Domain Parking Policy proposes one consistent approach across all the Inner West.

The Policy draft covers several areas of parking management including permits for residential and commercial areas, timed parking restrictions in commercial areas, exceptions (such as Mobility Parking Scheme Permits), paid parking, authorised vehicle zones, taxi zones, and more. Relevant elements of this draft policy to Balmain East are explored below.

Resident Parking Permits

Resident parking permits enable eligible residents, who do not have sufficient on-site parking, to park on-street and avoid time limits and parking fees.

A resident parking permit is issued for a vehicle of an eligible resident provided the property does not have on-site parking available for that vehicle.

The maximum number of permits issued to any one rateable property will not exceed the following limits:

Zone Type A

- A household in Zone Type A, without any on-site parking spaces, is eligible for one parking permit.
- The one permit will be transferable for use on up to three nominated vehicles registered to that address.
- Each room of an eligible boarding house will be treated as a separate dwelling eligible for one resident parking permit.
- No permits will be issued to households with one or more on-site parking spaces.

Zone Type B

- A household in Zone Type B, without any on-site parking spaces, is eligible for up to two parking permits.
- Each room of an eligible boarding house will be treated as a separate dwelling eligible for one resident parking permit.
- A household with one on-site parking space is eligible for one parking permit for a second vehicle.
- No permits will be issued to households with two or more on-site parking spaces.

The existing resident permit parking scheme in Balmain East is operating as Zone B.

Visitor Parking Permits

Visitor parking permits enable residents' visitors to park on-street and avoid time limits and parking fees for the period of operation of the permit. Visitor permits are issued for residential properties only.

Such visitor permits will be single use, one-day permits. The annual allocation of visitor permits for eligible households will be up to 30 one-day permits.

2.1.3. Relationship between *Permit Parking Guidelines* and *Draft Public Domain Parking Policy*

Both the Roads and Maritime guideline and Inner West Council policy follow a similar philosophy of prioritising distribution to households with no available off-street parking. The Roads and Maritime guideline is more standardised with a fixed allocation of one per bedroom or two per household, capped by the maximum available on-street parking space.

The Inner West Council provision is varied with permits allowance based zonally, where Zone Type A has stricter criteria while also providing fewer on-street parking spaces per household. These Zones have not yet been defined by the policy. The Council also has specific rules regarding different types of development of which specific types will be excluded from the schedule depending on the area of the LGA. There are no clauses within the policy on limiting total number of permits issued in regard to the quantum of available parking spaces on a street. Accordingly, as the policy is silent on this limit, it is expected that the issuance of resident parking permits should not exceed the cap set by the Roads and Maritime guideline, that is, the maximum available on-street parking spaces on a street.

2.2. Study Area

2.2.1. The Study Area

The Balmain East Parking Study area is positioned at the north eastern end of the newly formed Inner West Council, which merged from the three councils of Ashfield, Leichhardt and Marrickville in 2016; Balmain East having been within the jurisdiction of former Leichhardt Council. The area generally comprises of a combination of residential units and homes, a small shopping strip at the crest of Darling Street hill and some commercial/industrial sites at the northern part of the suburb. There are also redeveloped industrial sites and much of the foreshore lands were converted to open space. The study area includes Balmain East Wharf, which was upgraded in 2015 to improve ferry services. This parking study area is bounded within the Balmain Peninsula east of Cooper Street and Jubilee Place as shown in Figure 2.1.

Figure 2.1: Balmain East study area



2.2.2. Key Streets and Sites

The study area comprises a few key streets and sites that greatly affect the dynamics of the precinct and how the area functions. Figure 2.2 identifies two major streets and 12 key places of interest that play a vital role in the study area and these are further detailed in Table 2.1.

Figure 2.2: Key streets and sites within the Balmain East Precinct

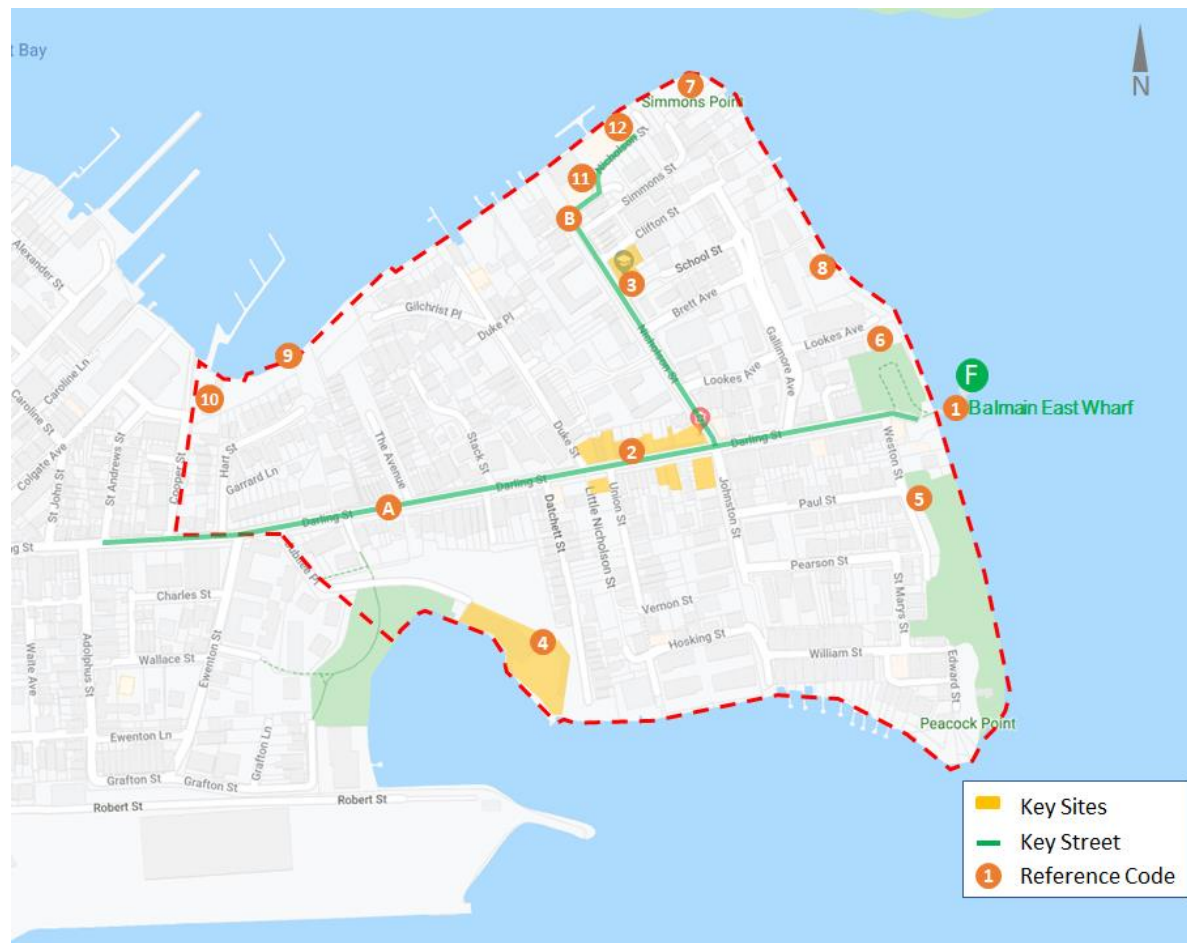


Table 2.1: Key streets and sites within the Balmain East Precinct

Reference	Key Streets	Description
A	Darling Street	Main thoroughfare and high street of Balmain East and a noted café and restaurant strip. The main local road is aligned east-west and has both residential and commercial activities.
B	Nicholson Street	Main local collector road aligned north-south with commercial and residential uses.
1	Balmain East Wharf	Having operated since 1840, it is served by Sydney Ferries' Cross Harbour route operating between Pyrmont Bay and Watsons Bay via Barangaroo. Balmain East wharf is also served by weekday and Saturday evening Parramatta River services from Sydney Olympic Park.
2	Balmain East shopping village	Located in the heart of Balmain East with Darling Street being the main core of commercial activity. The area comprises of local shops, cafes, restaurants, and a hotel.
3	Nicholson Street Public School and Balmain East Out of School Care	Nicholson Street Public School with 150 students.

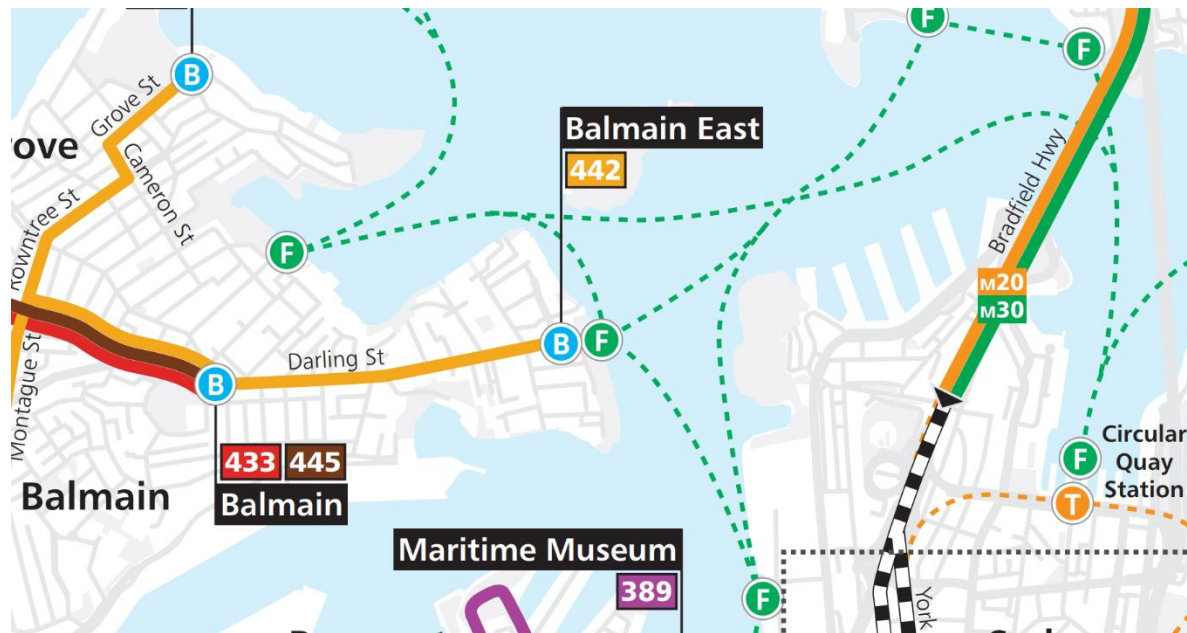
Reference	Key Streets	Description
4	NSW Police Marine Area Command	Located at south west of Balmain East at the end of Jubilee Place, the NSW Marine Area Command has the responsibility for all coastal areas in NSW.
5	Illoura Reserve	Located on the eastern shoreline of Balmain, Illoura Reserve looks directly at Barangaroo Reserve and is situated next to Balmain East Ferry Wharf.
6	Lookes Avenue Reserve	Located at the end of Lookes Avenue (east of Balmain East). A small local park with good views of the western side of Sydney Harbour Bridge. Free entry and opening times from 8am to 1:30am.
7	Simmons Point Reserve	Located at the north east of the area. A small local park with views of the western side of Sydney Harbour Bridge. Opening hours from 10am to 1:30am.
8	Origlass Park	Located at the centre of the area and is open 24 hours. Has three walkway accesses with no car access.
9	Propeller Park	Also referred to as The Avenue. It is an open space along the foreshore with views out to Sydney Harbour. Located at the north west of the area.
10	Svitzer Australia Pty Ltd	A company located at the north west corner of the area with transportation services providing harbour towage, terminal towage, and emergency response in the sea.
11	Water Wharf Workshops	Waterview Wharf Workshops is a heritage-listed former shipping company workshops at 37 Nicholson Street, Balmain.
12	Commercial Building	The commercial building includes some different business premises in located North side of Nicholas Street. The operation time for the business are from 9:00am to 5:00pm.

2.2.3. Public Transport

The precinct is well covered by public transport including bus and ferry providing access to the Sydney CBD. The Balmain East ferry wharf located in the east of the precinct provides access to the Inner Harbour ferry services, with ferry services to Circular Quay and Darling Harbour.

There is one bus service that leaves from Balmain East, Route 442, which is a frequent bus service from Balmain East to the Queen Victoria Building in the Sydney city centre.

Figure 2.3: Public Transport Map within the Precinct



Source: <https://transportnsw.info/>

Table 2.2: Public transport within the Precinct

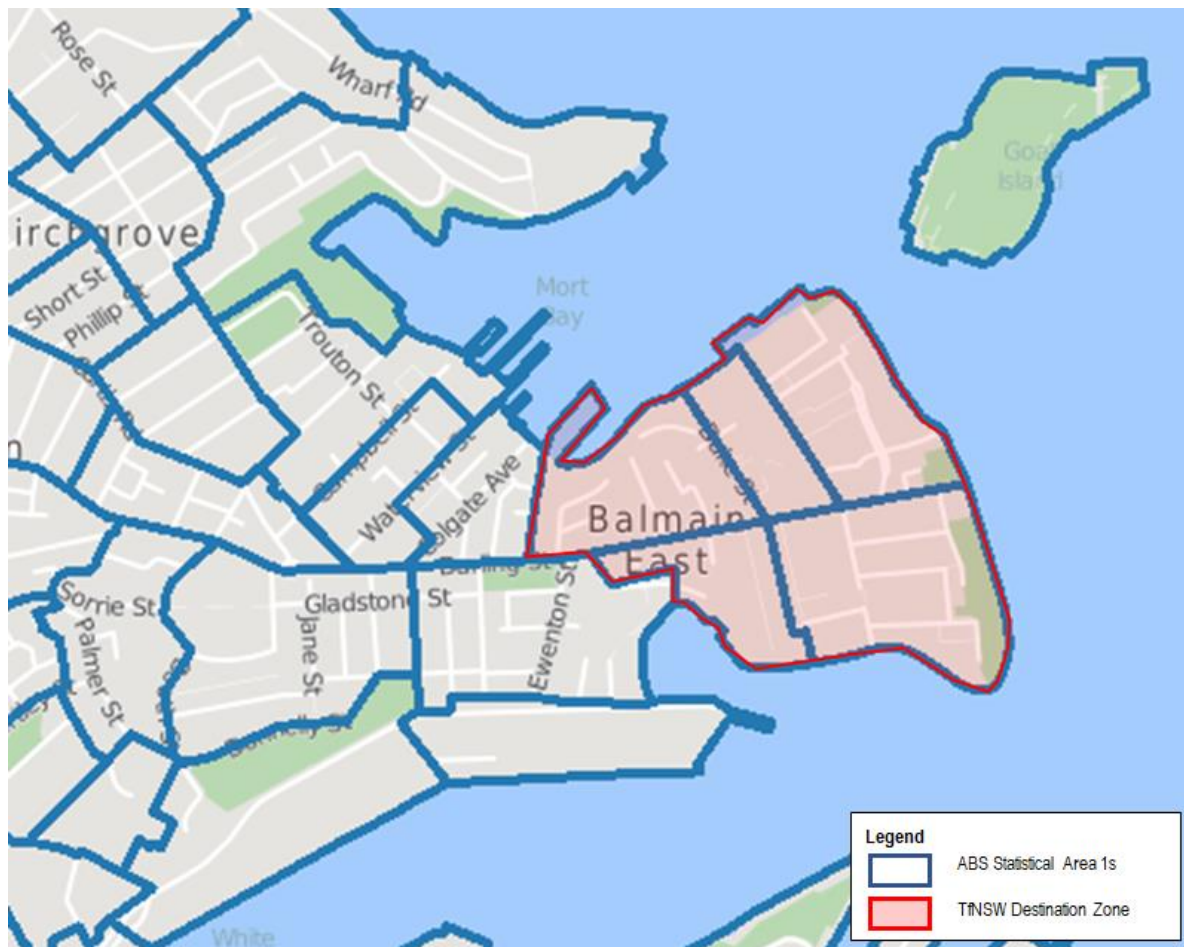
Service	Route Number	Route Description	Frequency On/Off-Peak
Bus	442	City QVB to Balmain East Wharf (Loop Service)	6 per hour peak/ 6 per hour off-peak
Ferry	F4	Cross Harbour	2 per hour peak/2 per hour off-peak
	F3	Circular Quay	2 per hour peak/ 2 per hour off-peak

2.3. Existing Travel Behaviour

2.3.1. Journey to Work

The 2016 Census Statistical Areas 1 (SA1) that make up the Destination Zones (DZ) covering the study area for the purpose of a journey to work mode share analysis are shown in Figure 2.4.

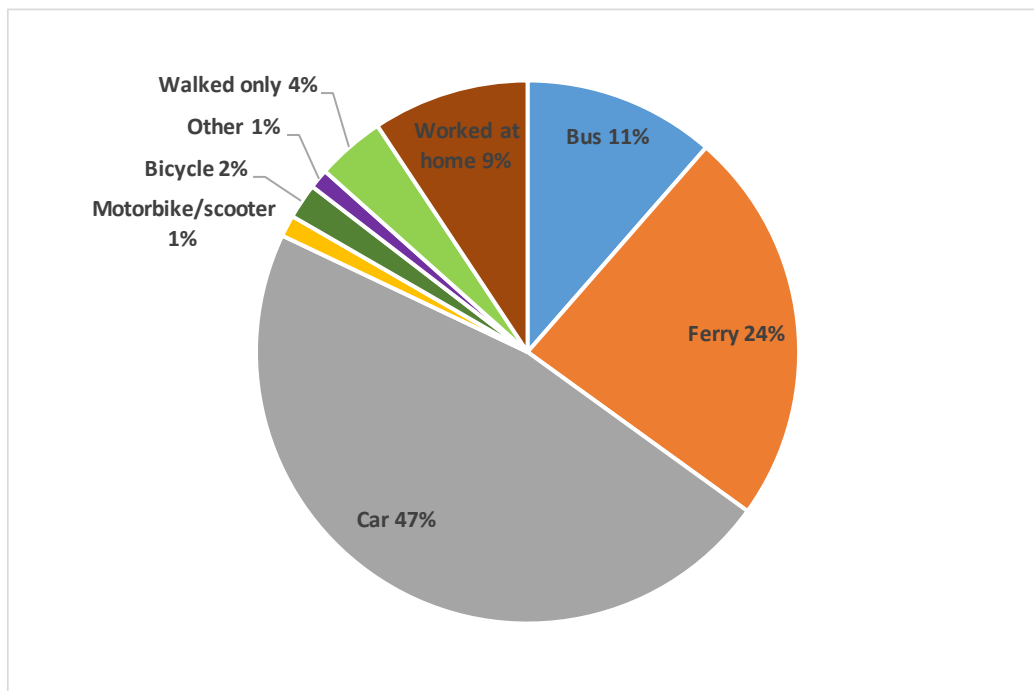
Figure 2.4: Boundary of the relevant SA1s in the study area



Source: <https://itt.abs.gov.au/itt/r.jsp?ABSMAPS>

As indicated in Figure 2.5, residents in the relevant SA1s have a high non-car journey to work mode share of 53 per cent. This high non-car mode share is likely a result of the SA1s' close proximity to the Balmain East Wharf and the bus route 442 providing frequent services to the major employment centre in Sydney CBD.

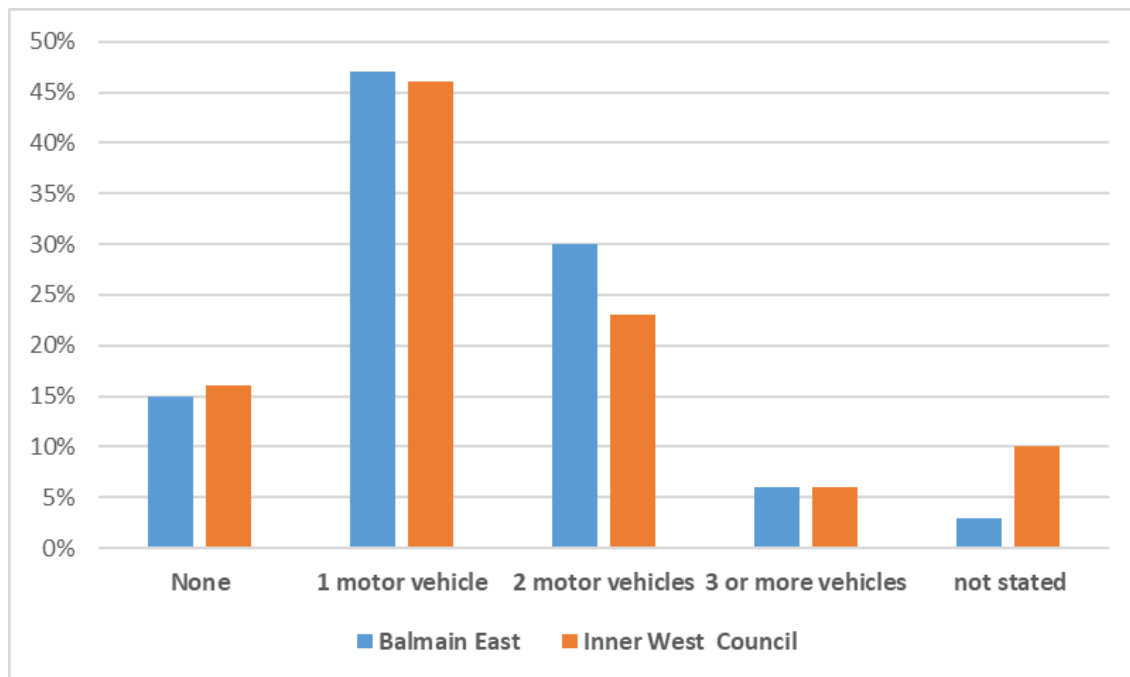
Figure 2.5: Journey to work mode share for residents in the relevant SA1s



2.3.2. Car Ownership

Based on the 2016 Census, the suburb of Balmain East has 15 per cent of households not owning a motor vehicle and 47 per cent of households owning one car. Figure 2.6 shows that this percentage of zero car ownership and one-car ownership is consistent with that of the entire Inner West Council area while the rate of ownership of two cars in Balmain East is higher than Inner West at-large. This indicates that the suburb of Balmain East is comparably more dependent on private vehicles as a method of travel, which is also reflected in the overall rate of car ownership of 1.3 vehicles per household in Balmain East compared to 1.2 vehicles per household in the overall Inner West Council area. This slightly higher car ownership rate may be due to Balmain East's location at the end of a peninsula that is relatively isolated from other parts of the Inner West and Greater Sydney, despite the strong public transport access to the city centre (which represents only one of many possible destinations).

Figure 2.6: Percentage of vehicle ownership



Source: <https://quickstats.censusdata.abs.gov.au/>

2.4. Local Car Sharing Initiatives

Car share schemes have become increasingly common throughout Sydney and are now recognised as a viable transport option for drivers. They offer an alternative to the private car and are of benefit to the residents of the area. Car share forms an integral part of the ongoing transformation of the Inner West to reduce vehicle ownership of existing and future residents, especially as a second vehicle. This is crucial for areas gravitating towards high-density living where on-site car parking typically does not support ownership of more than one vehicle.

GoGet car share has three car share pods within the Balmain East area as shown in Figure 2.7 but this amount is generally limited compared to other suburbs in the Inner West LGA due to the absence of major employment activities and medium to high density residential developments in this suburb.

Car Next Door is a peer to peer car sharing businesses where car owners are able to rent out their car when it is not being used at a time-based rate. Given its crowdsourcing nature, there is no permanent fleet established in Sydney in the same manner as GoGet. However the Car Next Door website indicates there are vehicles available for hire in the Balmain East study area.

Figure 2.7: Go-Get car share pods in the Balmain East Precinct



Source: Go-Get Cars (www.goget.com.au)

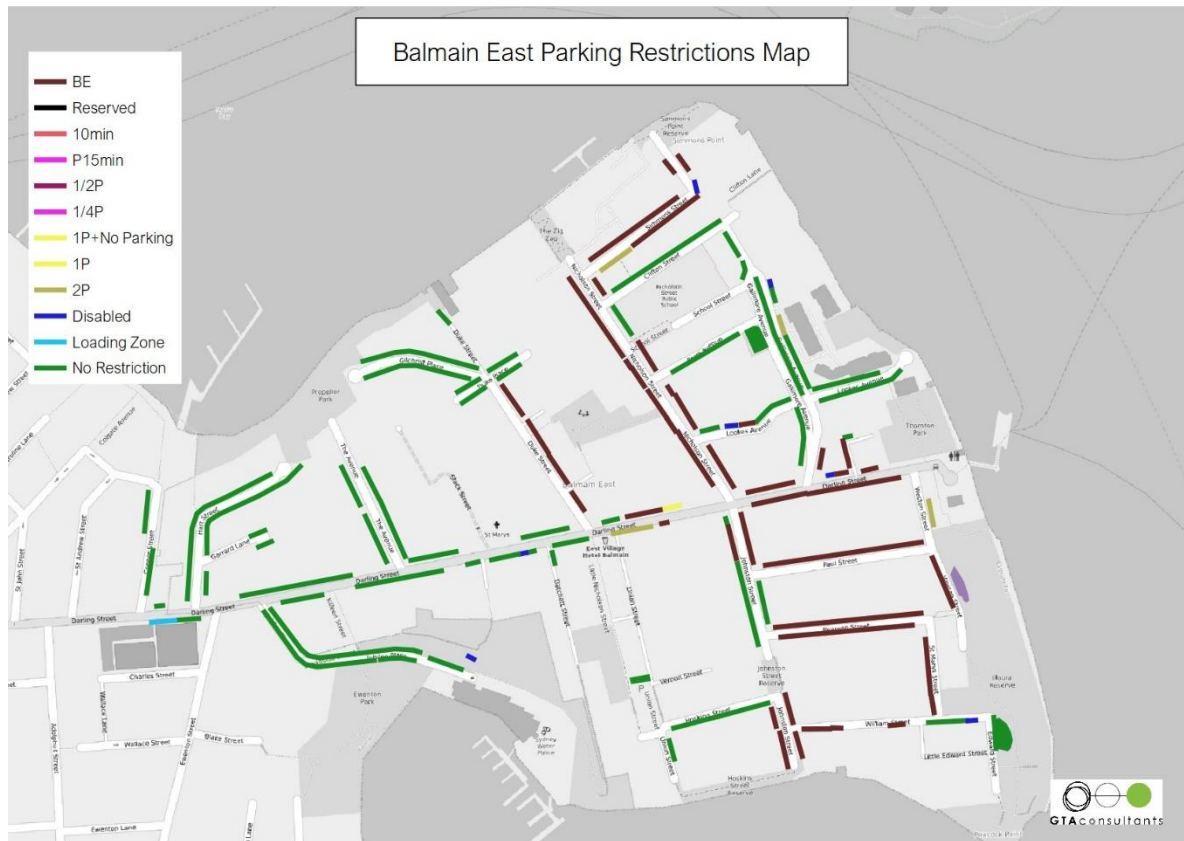
2.5. Parking Supply and Conditions

2.5.1. Background to Parking in Balmain East

Parking in Balmain East principally comprises on-street parking on residential streets with the exception of small pockets of time-restricted parking along the small shopping strip on Darling Street in the centre of Balmain East, as well as pockets of public off-street parking as documented in Figure 2.2.

2.5.2. Parking Supply within Balmain East

Figure 2.8: Balmain East Parking Restrictions Map

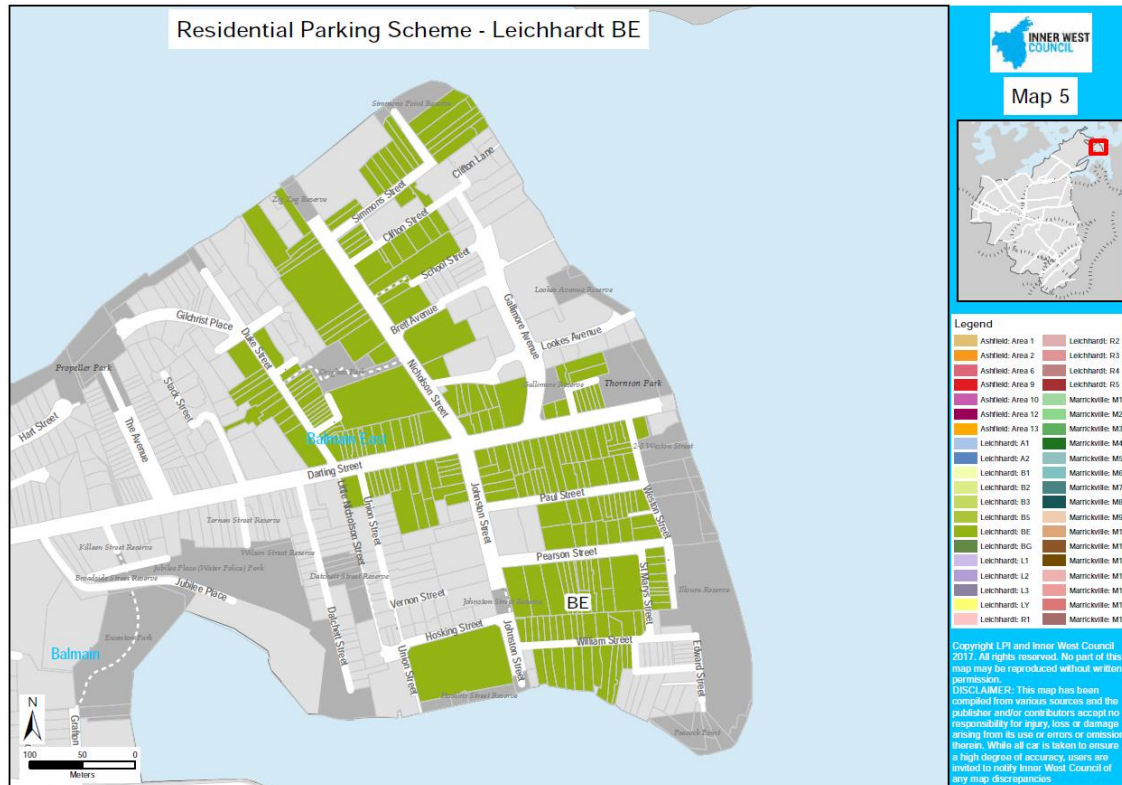


BE – "8am-6pm / Permit holders excepted Area A BE" or "8am-10pm / Permit Holders Excepted Area BE"

Figure 2.8 shows an overview of the parking restrictions in Balmain East. The on-street parking in the eastern half of the suburb is predominantly subject to the 'BE' resident permit parking zone, exempting holders of a resident parking permit from the prevailing two-hour time restriction (refer to the sub-section below). The remaining streets as shown in Figure 2.8 have unrestricted parking, with small pockets of time-restricted parking near the shops on Darling Street and elsewhere in the suburb. A small selection of disabled parking spaces is available across the study area in both residential and commercial areas.

2.5.3. Resident Parking Scheme

Figure 2.9: Residential Parking Scheme – Leichhardt BE



Source: Inner West Council (<https://www.innerwest.nsw.gov.au/live/information-for-residents/parking/permit-parking>) (March 2020)

The BE residential parking scheme in the Balmain East study area is depicted in Figure 2.9. As mentioned earlier in the preceding sub-section, the BE zone allows holders of a resident parking permit to be exempt from the prevailing two-hour time restriction, which is a 2P restriction from Monday to Friday from 8am to 6pm. Resident parking permits are currently issued to residents living in the properties shown in Figure 2.9, with a maximum of two permits issued to a household if there is no off-street parking and two or more vehicles are registered to a property. These permits are free of charge to eligible residents.

2.6. Parking Demand

2.6.1. Parking Surveys

The on-site parking surveys were conducted on Saturday, 15 February and Wednesday, 19 February 2020. The overall survey extent is the same as the study area as shown earlier in Figure 2.1. The parking survey included all Council-controlled on-street and off-street parking available to the public and involved the following tasks:

- Parking inventory collection
 - Inventory of parking capacity and restrictions
 - Parking signage audit comprising photographs and GPS coordinates of all signs.
- Parking Occupancy and duration of stay/turnover rate surveys
 - Two-hourly interval (Wednesday, 8am to 8pm)
 - Two-hourly interval (Saturday, 10am to 2pm).

2.6.2. Survey Analysis

Occupancy

The reported 'average peak' parking occupancy rate in this study is expressed as the mean of the four highest hourly occupancies, irrespective of when those highest occupancies occurred. This metric is known as 'average peak occupancy' and GTA uses this method to offset any outliers of extremely high demand as well as avoiding being solely focused on the peak hour of occupancy. This method is a more realistic measure of an occupancy rate that road users can expect throughout the day rather than at one specific hour.

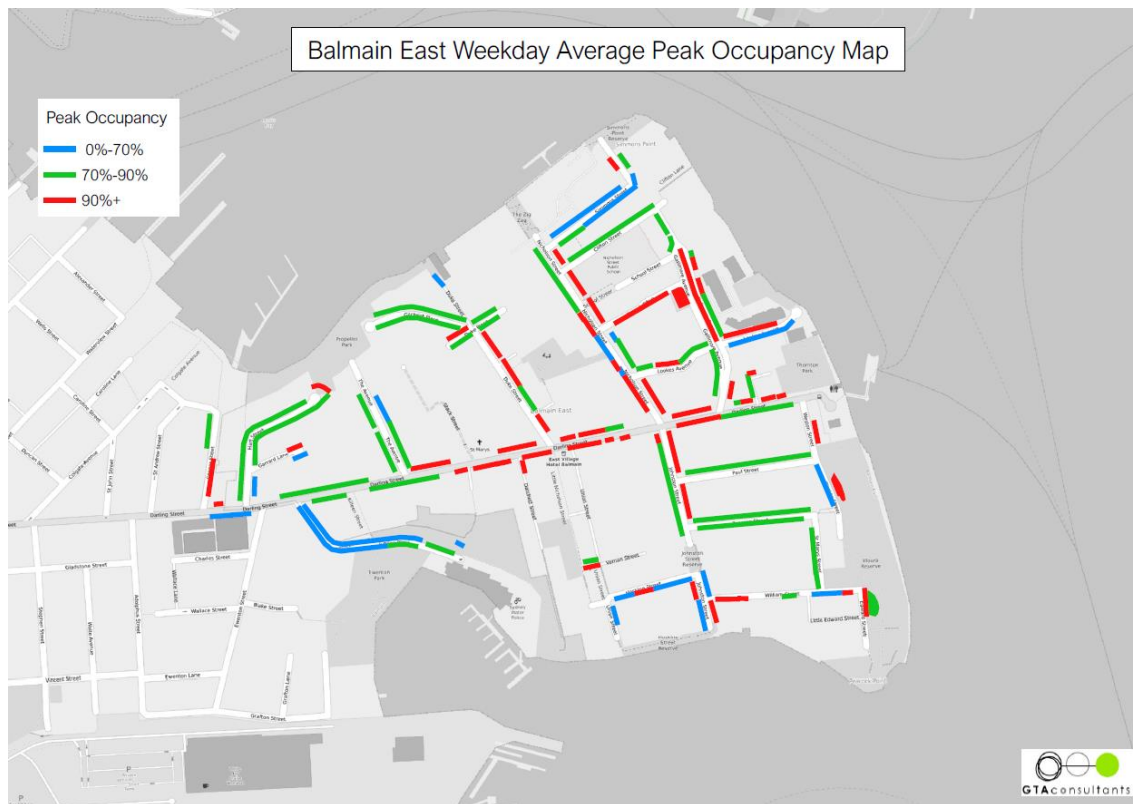
The Saturday parking data, having only three observations, was compiled and calculated as an average instead.

The occupancy rates are subsequently grouped into three different categories, they are as below:

- **0%-69%**, these parking spaces are regarded as low usage, where car parks are sparsely occupied, and customers are expected to find a parking spot at first instance.
- **70%-89%**, these parking spaces are at an optimal utilisation level where it has a high degree of utilisation indicating the kerbside space or land allocated to parking are not underused but there are enough spaces available for drivers to be able to find a parking space without circling around.
- **90%+**, these car parks are almost if not already at full capacity and drivers will struggle to find any available spaces in the first instance, leading to localised cruising for parking and consequent congestion.

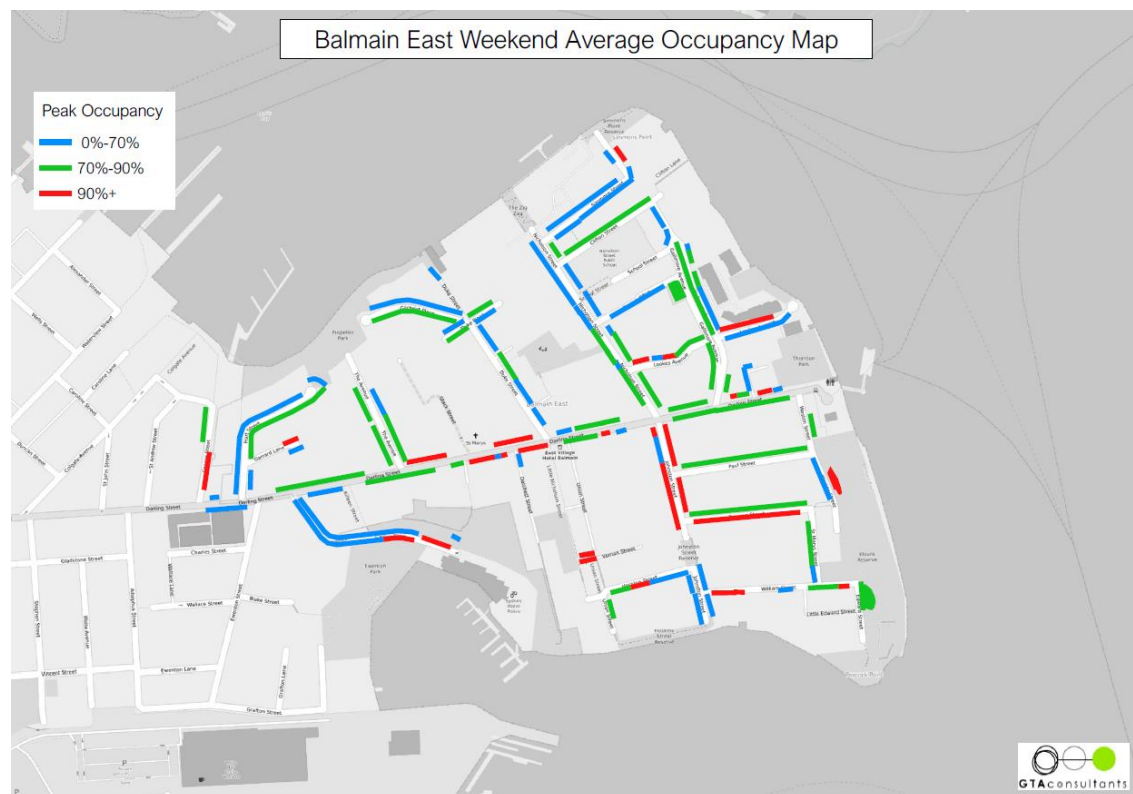
The weekday average peak and weekend average parking occupancies from the parking surveys are shown in Figure 2.10 and Figure 2.11.

Figure 2.10: Weekday average peak occupancy



As shown in Figure 2.10, there is evidence of high average peak occupancies on the surveyed weekday, reaching or exceeding 90 per cent along streets with residential permit parking restrictions such as Nicholson Street, Darling Street and Johnston Street. Farther away from the centre of Balmain East, the average peak occupancy declines to an optimal range of between 70 to 90 per cent on streets closer to the edges of the study area and the Balmain peninsula.

Figure 2.11: Weekend average occupancy



As shown in Figure 2.11, weekend average occupancies are discernibly lower than those of the surveyed weekday with only selected street segments exhibiting average occupancies of or over 90 per cent. The remainder of the study area's weekend average occupancy ranges between 70 and 90 per cent on streets closer to the centre of Balmain East while average occupancies are below 70 per cent on streets near the edges of the study area and the Balmain peninsula.

A potential explanation between the differences in the weekday and weekend occupancies is that on the weekday, residents leave their cars parked on-street while they go to work using other transport modes, while on the weekend more residents take their cars out for weekend excursions which reduces the average occupancy. Moreover, it is more likely there is commuter parking on a weekday than the weekend, which also contributes to the higher occupancies on the weekday.

Duration of stay

Duration of stay is evaluated by recording the total dwell time of all surveyed parked vehicles. Over the entire survey period, the durations of stay for all individual vehicles surveyed are averaged to derive an average duration of stay calculation for every street. The average duration of stay metric is useful for understanding the characteristics of the intended parking purpose of users. Short-stay parking is defined as a parking duration of less than three hours while any duration of three hours or more is long-stay parking. Short-stay parking could encompass people visiting residents or the local shops while long-stay parking could comprise residents' parking, commuter parking or staff parking from nearby places of employment. The weekday and weekend average durations of stay are displayed in Figure 2.12 and Figure 2.13.

Figure 2.12: Weekday average duration of stay

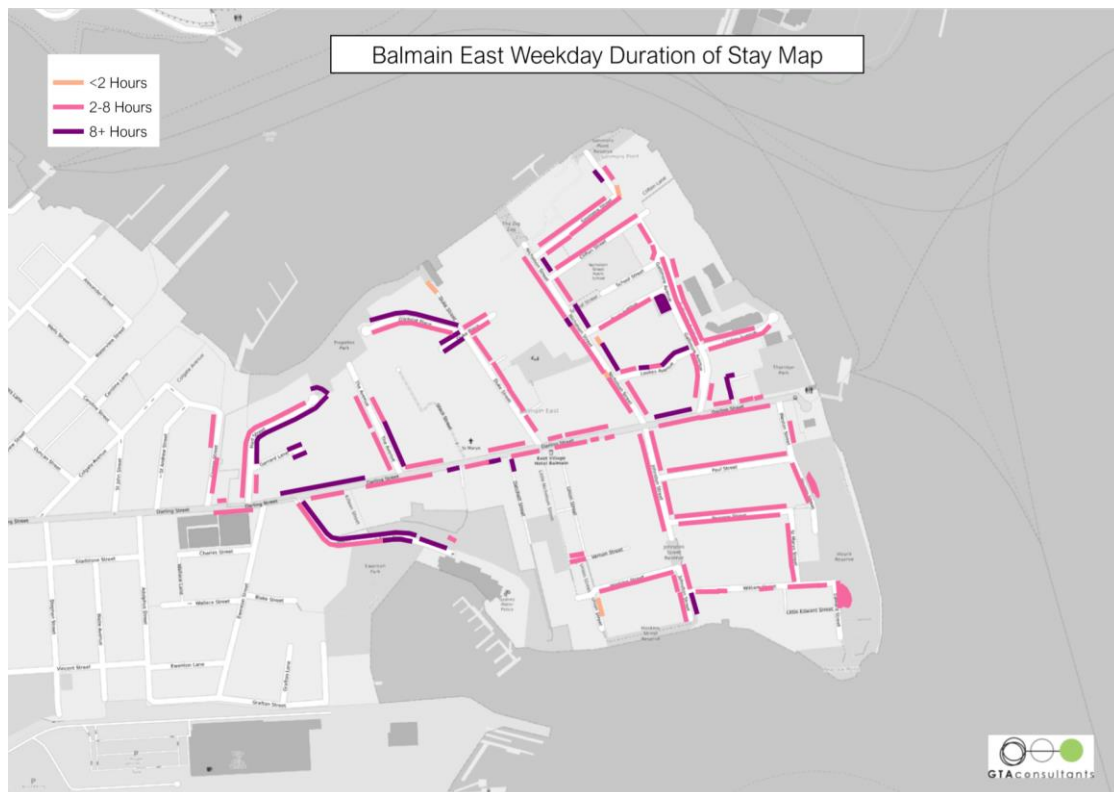
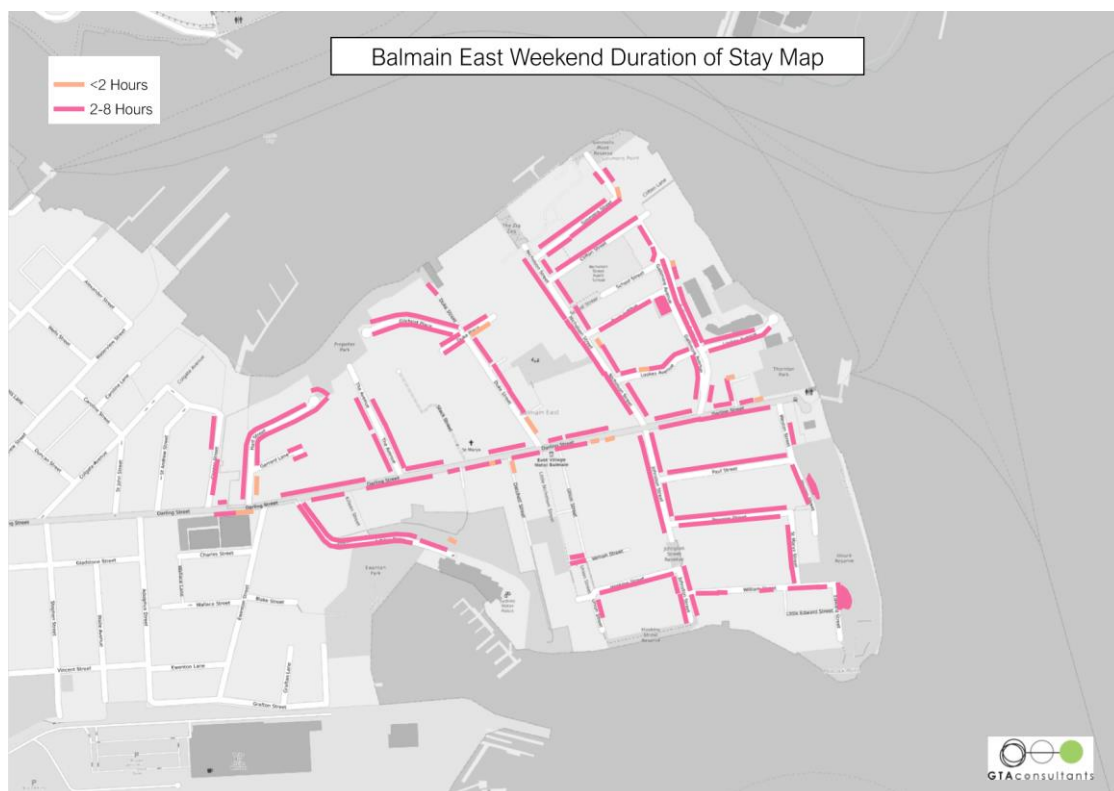


Figure 2.13: Weekend average duration of stay



As most of the Balmain East study area comprises unrestricted parking or residential permit parking within residential streets, the average durations of stay observed for the surveyed weekday and weekend are principally greater than three hours with some streets exhibiting average durations of stay greater than eight hours also observed on the weekday, which constitutes long-stay parking. It is not known whether there were average durations of stay greater than eight hours on the surveyed weekend since the survey period only lasted four hours.

Notwithstanding the predominance of long-stay parking as shown in Figure 2.12 and Figure 2.13, short-stay parking was observed primarily in the weekend near the shops on Darling Street as well as near Illoura Reserve and Thornton Park at the eastern edge of the study area beside Balmain East wharf.

Turnover Ratio

Turnover is the total number of individual cars occupying a certain parking space or street of parking spaces over a defined survey period. High turnover indicates more parking activity at a location (e.g. more customers accessing on-street parking to go to the shops) while low turnover indicates very few individual cars park at a location during a survey period due to an absence of attractors that generate visitation.

Relying on turnover data alone will induce biases due to spatial variances in parking capacity where streets with a high capacity could result in higher turnover despite having a relatively low occupancy rate. To address this bias, GTA uses the turnover ratio metric to appraise how frequent a street is used by parking users during a survey period in relation to that street's parking capacity. This ratio is calculated by dividing the number of individual cars parked on a street on the survey day by the parking capacity.

The weekday and weekend turnover ratios are displayed in Figure 2.14 and Figure 2.15.

Figure 2.14: Weekday turnover ratio

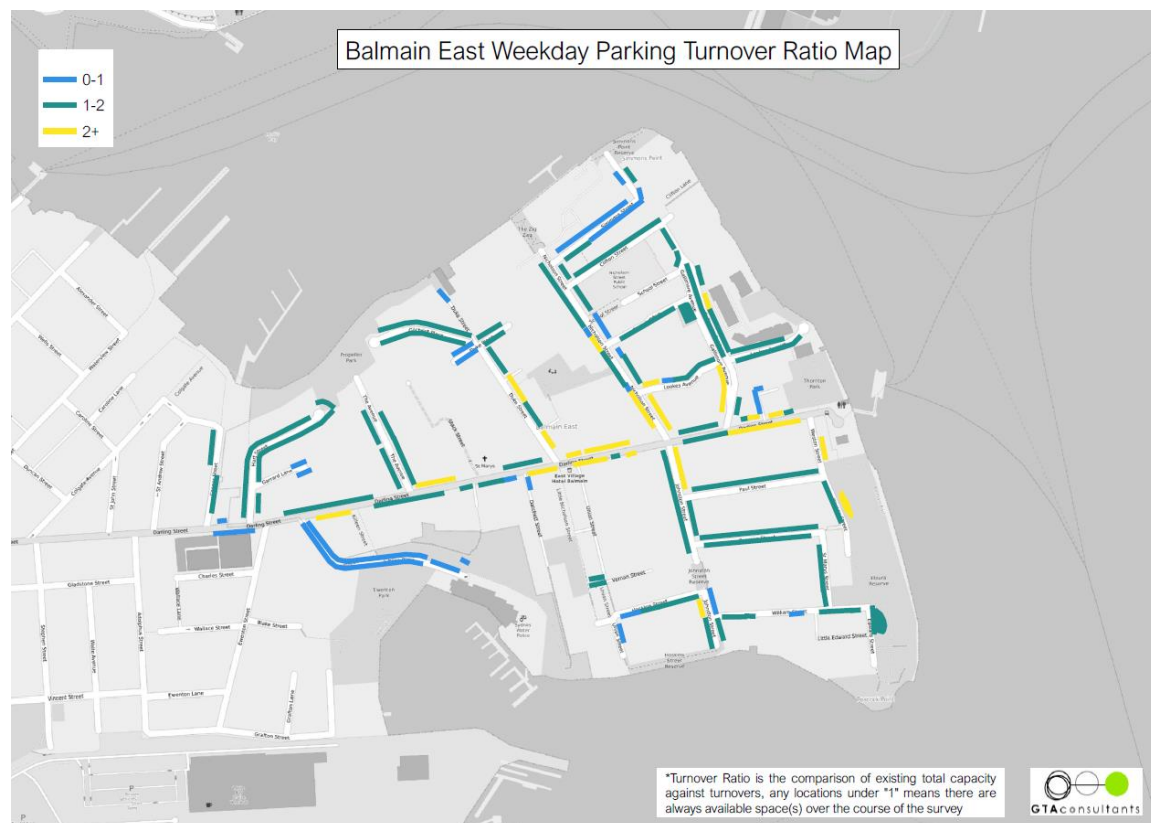
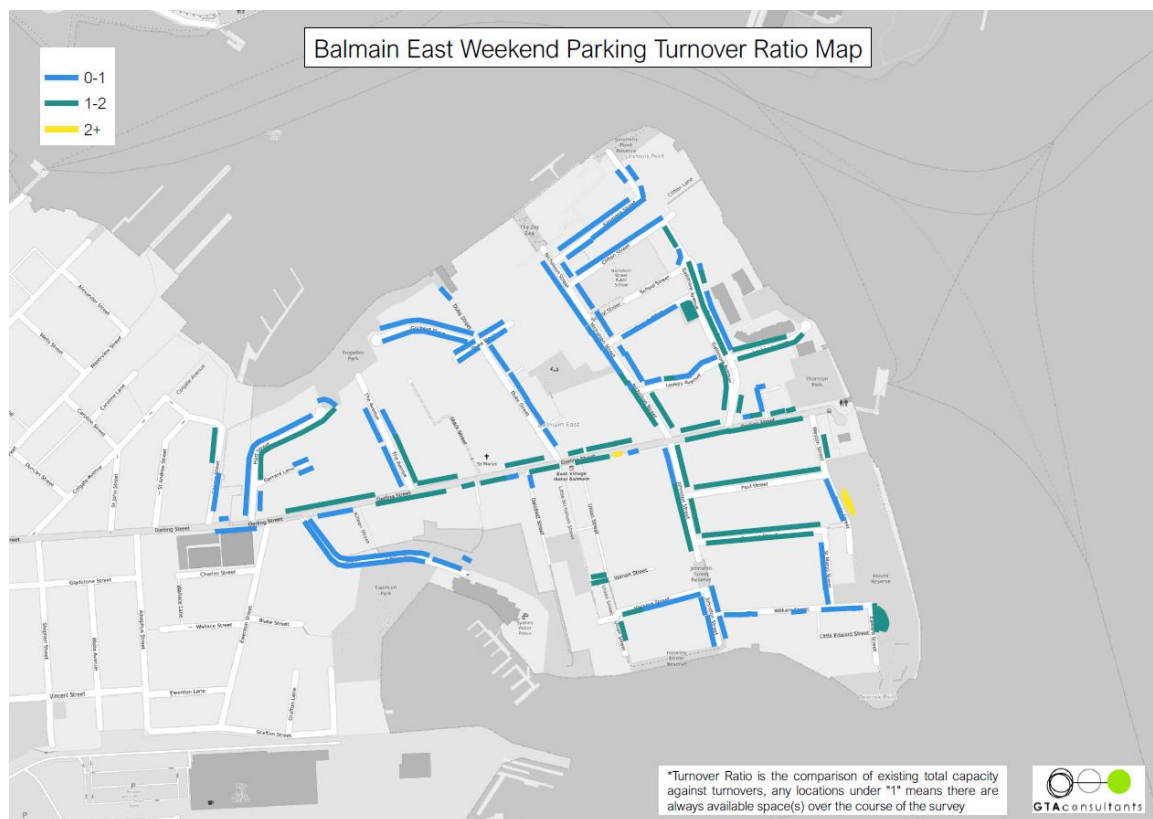


Figure 2.15: Weekend turnover ratio



The turnover ratios observed in Figure 2.14 and Figure 2.15 are higher during weekdays especially along Darling Street where there is some retail and hospitality activity attracting more than twice as many cars compared to parking supply over the weekday survey period. The residential streets elsewhere on the weekday have a ratio less than two, indicating a low level of demand over the course of the day in relation to capacity. This likely means that these streets do not attract many individual vehicles other than those that usually park there such as residents' vehicles.

On the weekend, the turnover ratio is demonstrably lower than the weekday with many more streets having a ratio of less than one. This suggests that in conjunction with the lower occupancies on a weekend, as residents take their car out for weekend excursions, there is a low level of replacement from other individual vehicles on the weekend and there is higher parking availability and lower usage compared to the weekday.

2.6.3. Accessible Parking Spaces

As observed in Figure 2.8, disabled parking spaces are sporadically spread across Balmain East, and a total of 11 parking spaces comprising both on-street and off-street spaces were counted during the survey. The average peak occupancy for these accessible parking spaces was 64 per cent during the weekday while it is 43 per cent for the weekend. Based on the analysis provided in sub-section 2.6.2, occupancy rates for accessible parking in Balmain East are considered to be low with a high degree of availability.

An average duration of stay of 6 hours and 12 minutes was observed for vehicles parked within the disabled parking spaces during the weekday survey, which is considered as long-stay parking and is supported by an average turnover ratio of 1.1 over the same survey period. Consequently, accessible parking use in Balmain East is characterised by long-stay and low turnover parking, albeit at a level that does not cause high parking occupancy levels.

2.6.4. Boat Trailer Surveys

As part of the conducted surveys, the presence of boat trailers parked on-street was also recorded to inform Council whether this occurrence is prevalent in the study area. For example, if boat trailer parking was found to be ubiquitous in Balmain East, resulting in boat trailers taking up the premium of kerbside space that could otherwise have been used for on-street parking or other uses, then Council could use this evidence to inform future policy approaches to manage boat trailer parking.

To that end, the results of the survey for boat trailer parking across the same survey days are shown in Figure 2.16 and Figure 2.17 below.

Figure 2.16: Weekday boat trailer parking

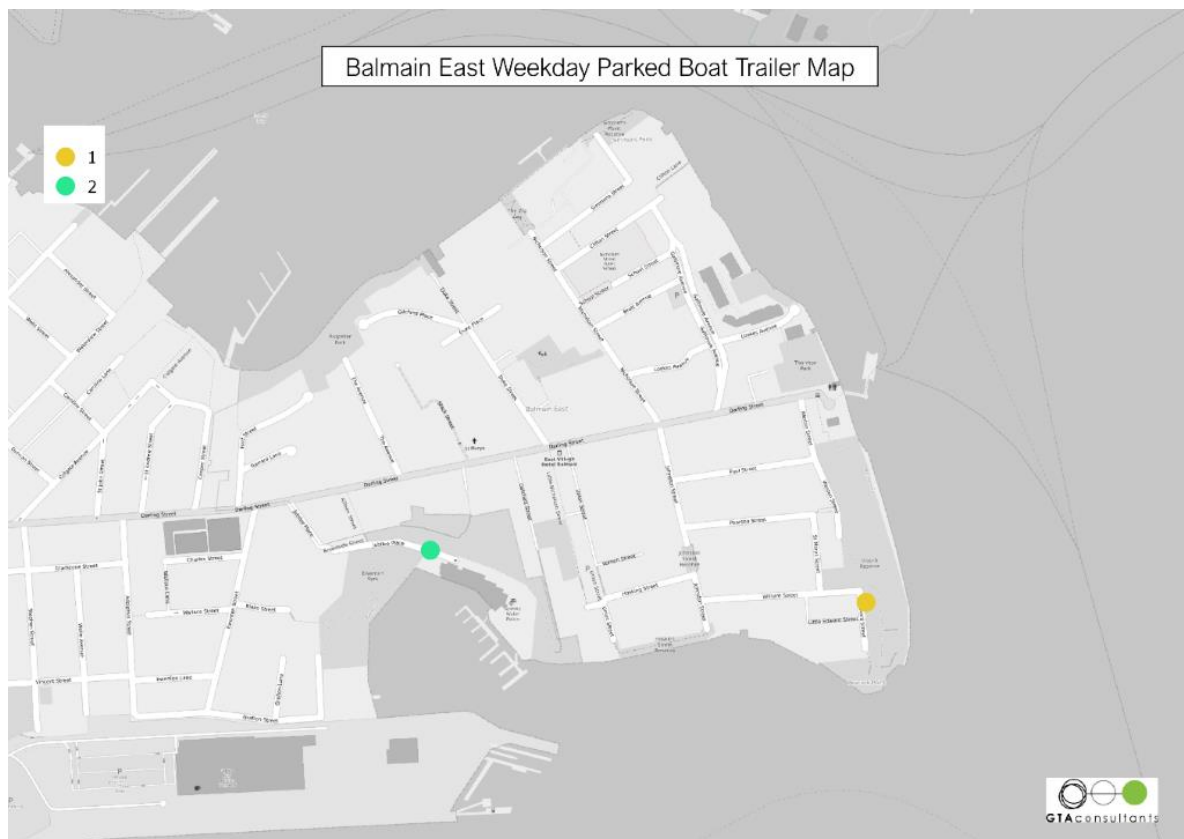
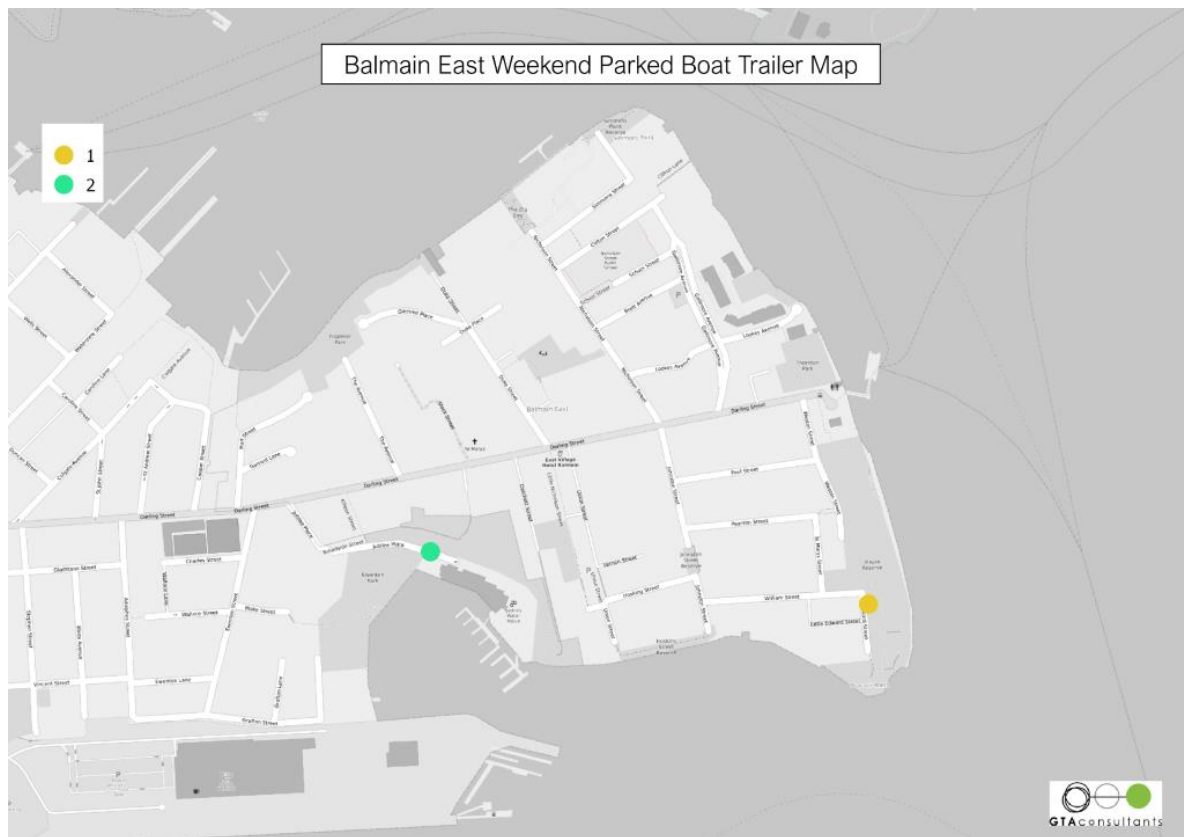


Figure 2.17: Weekend boat trailer parking



As shown, scant boat trailers were observed during the surveys, with a total of three boat trailers observed on the weekday and the weekend both confined to Jubilee Place and Edward Street. Based on Figure 2.16 and Figure 2.17, it is concluded that boat trailer parking is not an ubiquitous phenomenon in Balmain East.

2.6.5. Demand Implications

Based on the results of the preceding occupancy, duration of stay, turnover and boat trailer parking analysis, the following conclusions can be made about parking demand characteristics in Balmain East:

- Average peak parking occupancies in Balmain East are high on the weekday (at or over 90 per cent) in the central core of streets subject to the BE residential parking permit zone such as Darling Street, Nicholson Street and Johnston Street, but occupancies taper off in the residential streets closer to the edges of the study area and Balmain Peninsula to a level that ensures outside visitors have a chance to find parking without circling around.
- On the weekend, occupancies taper off compared to the weekday, suggesting more residents are taking their cars out for excursions, leaving more on-street parking capacity available. Conversely, more residents leave their cars parked on a weekday, suggesting more trips to work via other means, which is consistent with the greater than 50 per cent non-car journey to work mode share in Figure 2.5.
- The average durations of stay and turnover ratios observed on both the weekday and weekend are consistent with that of a predominantly residential setting; principally long-stay parking greater than three hours was the most widespread parking duration observed and supported by turnover ratios of less than two hours.

- Notwithstanding the predominant average duration of stay and turnover ratio trends, pockets of higher turnover and lower durations of stay were observed in areas such as the small shopping strip on Darling Street as well as the parks near Balmain East wharf.
- Boat trailer parking was not observed to be a widespread occurrence in Balmain East.

2.7. Parking Signage Check

A product of the amalgamation of the former constituent councils of Inner West Council is an amalgam of different signage types that regulate parking throughout the LGA. Many of these signs have been used historically but no longer represent standard practice as stipulated by TfNSW and many of the signs that regulate the same aspect of parking (e.g. a 1/4P restriction) may look different depending on the location within the LGA.

Accordingly, as part of this study, GTA was tasked with identifying general inconsistencies in signage and recommend standardisation where appropriate. GTA used the TfNSW standards on signage as the source of truth for what is the correct parking signage¹ to be used throughout the LGA moving forward.


To ensure consistency with the current TfNSW parking signage standards, GTA reviewed all photographed signs captured as part of the parking survey in Balmain East and identified that outdated and/or irregularly dimensioned signs are present within the study area. All non-compliant signs, examples of their locations and the recommended TfNSW signs are identified in Table 2.3 below. Another observation is the common sighting of discoloured or damaged signs that might potentially render them legally void. GTA recommends that Council replace such signs promptly to avoid enforcement complications from illegible signs.

The detailed locations of the non-compliant signs are available from the repository of sign photographs and geographical location IDs provided to Council by GTA via email and electronic file transfer on 18 March 2020.

Table 2.3: Non-compliant signs and recommended sign

Locations	Current sign and issue	Recommended TfNSW sign example
Darling Street, Paul Street	 <p>"1 hour" or "2 hour" is no longer used</p>	 <p>R5-1-1</p>

¹ <https://www.rms.nsw.gov.au/cgi-bin/index.cgi?action=searchtrafficsigns.form>

Locations	Current sign and issue	Recommended TfNSW sign example
William Street	 <p>"No parking" is no longer used</p>	 <p>R5-40</p>

2.8. Resident Permit Parking Allocation

A key aspect of the existing parking conditions in Balmain East is the current operation of the BE residential parking permit zone and the quantum of permits that are allocated. The number of permits allocated in comparison to the parking capacity of a street or the permit zone reveals the proportion of the capacity that has been set aside for residential permit parking. The *Permit Parking Guidelines* from Roads and Maritime Services stipulate that the number of permits issued for an area should not exceed the number of available on-street parking spaces in that area.

In the case of Balmain East and based on data provided by Inner West Council, there are 303 resident permits, 317 visitor permits and 18 business permits issued for the BE zone. Meanwhile, across the entire BE permit parking zone, there are only 227 total permit parking spaces available, indicating the total quantum of permits issued is almost three times the available parking capacity. Accordingly, there is evidence of overallocation of parking permits in Balmain East, contrary to the guidelines referenced above.

Table 2.4 provides a detailed breakdown of the number of permits issued per street in relation to the total capacity of parking spaces on a street subject to the BE zone, which provides an insight into which streets exhibit localised overallocation. Streets with overallocation are highlighted in red in the table. As shown in Table 2.4, permit overallocation is pervasive across all streets except Johnston Street and Weston Street.

Table 2.4: BE residential parking permit zone – number of permits issued per street in relation to the total capacity of parking spaces subject to the BE zone

Location	Number of business permits	Number of residential permits	Total capacity of parking spaces subject to the BE zone
Brett Avenue		4	0
Clifton Street		3	0
Darling Street	12	64	37
Duke Street		27	5
Gallimore Avenue		4	5
Hosking Street		14	0

Location	Number of business permits	Number of residential permits	Total capacity of parking spaces subject to the BE zone
James Lane		3	4
Johnston Street		8	21
Lookes Avenue		9	13
Nicholson Street	5	51	46
Paul Street		36	20
Pearson Street	1	38	39
Simmons Street		9	13
St Marys Street		8	9
Weston Street		3	10
William Street		21	5
Balmain East total	18	303	227

The consequence of this overallocation is that there are more permits issued than the parking capacity of the zone or street allows, causing further difficulties for residents to find an available parking space as more than the available capacity has been set aside for residential permit parking, and is a classic example of the 'tragedy of the commons'. In contrast, had the Roads and Maritime guidelines been adhered to or the permit cap set at below capacity, then those issued with residential parking permits should not be confronted with parking resource allocation problems.

2.9. Community Survey

In order to understand the day-to-day community views on the current parking situation, Council has directly engaged with the local community including residents, business owners and shopkeepers. An extensive questionnaire letter "Make parking fairer" detailing this parking study was advertised via social media and the Council website. Anyone member of the public could also request a physical copy of the questionnaire.

2.9.1. Survey Statistics

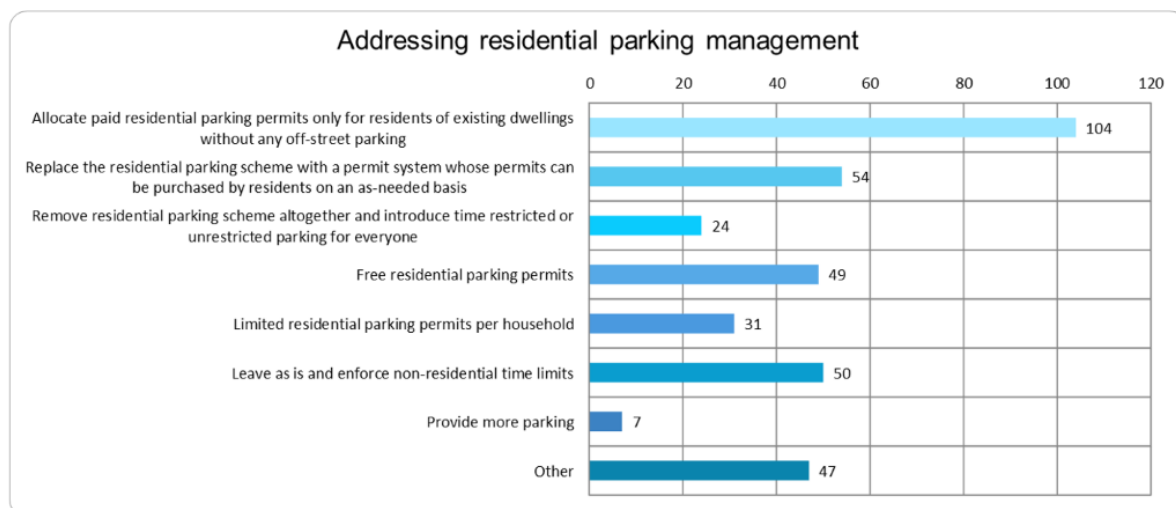
After a consultation period of one month during February to March 2020, Council received 369 questionnaire responses; the key insights to the responses are as follows:

- 83 per cent of the respondents responded "Yes" to living in Balmain East
- 79 per cent of the respondents live in a house
- 42 per cent of the respondents usually park less than 100 metres away from their place of residence
- 49 per cent of the respondents responded "Yes" to having off-street parking at their residence, 28% percent of whom have more than one off-street parking space
- 70 per cent of the respondents responded having trouble finding parking daily in their area
- throughout the week, evenings/nights are the most chosen timeframe for issues finding a parking spot near the respondents' residence
- 97 per cent of the respondents live in the Balmain East postcode area, the others are all from adjacent postcode areas.

2.9.2. Survey Responses

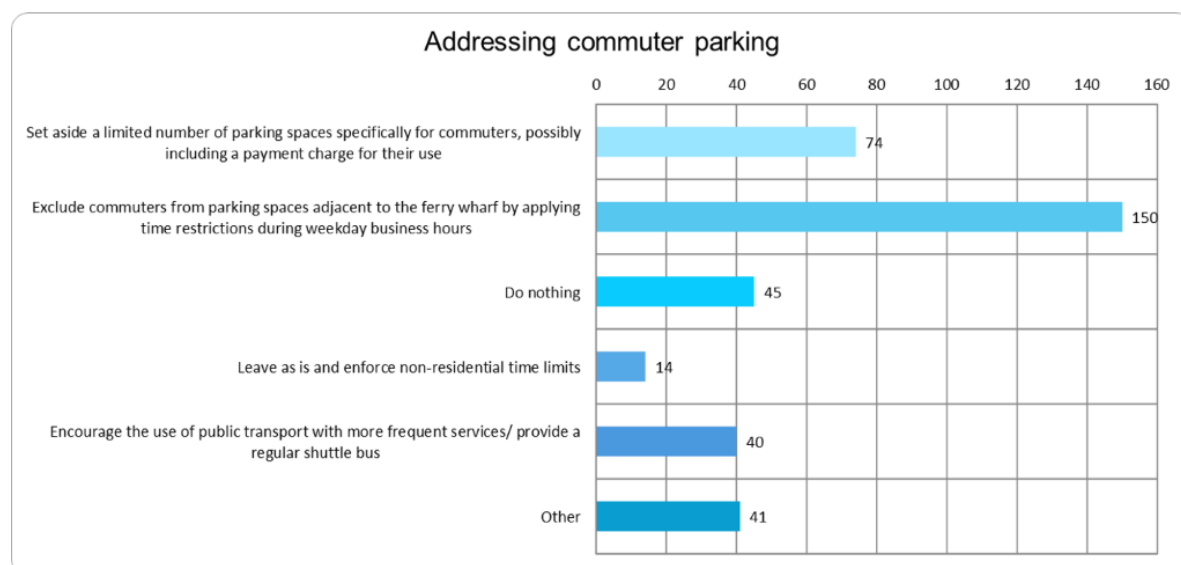
In addition to the respondents' characteristics highlighted above, the questionnaire also asked respondents on their views towards different aspects of parking management in Balmain East, especially concerning ways to manage residential parking, commuter parking and visitor parking. The results and commentary are provided below.

Figure 2.18: Respondents' views toward addressing residential parking management



The respondents highly favour resident parking permits to be made available to only those residents of dwellings without any off-street parking or in a manner that can be purchased by residents on an as-needed basis. There is also a substantial number of respondents favouring the status quo of free residential parking permits and leaving the existing scheme untouched with better enforcement.

Figure 2.19: Respondents' views toward addressing commuter parking



The most popular mechanism supported by respondents is to deter commuter parking via weekday business hour time restrictions, which is how the existing BE resident parking scheme operates.

3. SWOT ANALYSIS

3.1. SWOT Analysis

In developing the parking study, a SWOT (strength, weaknesses, opportunities and threats) analysis of parking within Balmain East was undertaken. The results of the SWOT analysis for Balmain East within the context of parking is presented in Table 3.1

Table 3.1: SWOT Analysis for Balmain East Precinct Parking Study

Strengths	Weaknesses
<ul style="list-style-type: none"> Low residential density and low capacity for redevelopment, resulting in low growth in parking demand from residents in the future. Residents appreciate prioritising paid parking permits on an as-needed basis. Low turnover and higher durations of stay mean that visitor parking demand for the residential streets outside of the main Darling Street is low. 	<ul style="list-style-type: none"> Most properties in Balmain East do not have off-street parking, meaning demand for parking cannot be internalised. High (≥ 90 per cent) parking occupancy on some residential streets combined with a residential parking permit system that does not encourage turnover and is not allocated by need or price, meaning this occurrence may persist. Coverage of residential permit parking zone over the main Darling Street makes it hard for visitors to access the parking to visit the local cafes and shops.
Opportunities	Threats
<ul style="list-style-type: none"> Reform residential parking permit allocation to ensure there is no overallocation and is allocated better according to parking needs. Explore opportunities to expand the coverage and quantum of car share pods to increase its convenience to residents as a means to reduce car ownership rates and on-street parking demand. 	<ul style="list-style-type: none"> Longstanding overallocation of residential parking permits (residents, visitors and businesses) creates the perception that anyone eligible for a permit can get a parking space, despite capacity constraints.

4. PARKING MANAGEMENT CASE STUDIES

4.1. Introduction

The purpose of this section is to run through relevant examples of how parking issues similar to those found in Balmain East have been dealt with to inform this parking study's recommendations contained in Section 5 of this report. In particular, management approaches to parking on residential streets will be explored.

4.2. Parking Management on Residential Streets

Parking hierarchies are a common policy approach used by local governments across Australia and New Zealand to address issues of competing demand for kerbside space on residential streets as well as other street types among differing user groups. Such hierarchies serve as a guideline to accommodate and prioritise various user groups within a local place context.

4.2.1. Parking hierarchies in other cities


Austroads

According to the *Austroads Guide to Traffic Management Part 11* on parking, a robust parking hierarchy should take into account the following:

- safety and convenience of all road users
- encourage moving shift from private vehicle usage
- equitable and transparent parking space allocation
- enable a consistent vision for parking infrastructure.

The guide presents an example parking hierarchy that sets out a recommended hierarchy across different place contexts, as shown in Figure 4.1.

Figure 4.1: Example parking hierarchy from Austroads

Priority	Inner core of commercial centre		Outer area	
	On-street	Off-street	On-street	Off-street
Essential 	Loading	Disability permit holders	Public transport	Long-stay/ commuter
	Public transport	Short to medium-stay	Residents	Short to medium-stay
	Drop-off/pick-up	Drop-off/pick-up	Short to medium-stay	Drop-off/pick-up
	Short to medium-stay	Loading	Disability permit holders	Park and ride
	Motorcycle/ scooter and cyclists	Motorcycle/ scooter	Loading	Residents
	Long-stay/ commuter and cyclists	Long-stay/ commuter & residents	Long-stay/ commuter	Motorcycle/ scooter
Least important	Disability permit holders	Cyclists	Drop-off/pick-up and motorcycle/ scooter and cyclists	Disability permit holders and loading and cyclists
Not allowed in this zone	Long-stay/ commuter and Park and ride	Park & ride		Public transport
	Residents	Public transport		

Source: Austroads Guide to Traffic Management Part 11 (2017) based on Glenorchy City Council (2007)

As shown in Figure 4.1, it recommends kerbside space be allocated for public transport and residents as the highest priority for 'outer areas' (which could include residential streets such as those in Balmain East), while commuter parking is a low priority. On commercial streets such as those found in the shopping strip on Darling Street, kerbside uses that support businesses such as loading, public transport and short-stay parking for customers are a high priority while long-stay parking and parking for residents is discouraged.

It is noted that Figure 4.1 is only an example guide and councils have the discretion to set out their own parking management hierarchies. For instance, the current version of Council's draft *Public Domain Parking Policy* does not include a parking management hierarchy.

The subsequent sub-sections detail examples of parking management hierarchies put into practice by cities in other jurisdictions.

Christchurch, New Zealand

Figure 4.2: Parking management hierarchy in Christchurch

	Commercial Areas	Residential Areas	Other Areas (such as Industrial)
1st priority	Safety	Safety	Safety
2nd priority*	Movement and Amenity	Movement and Amenity	Movement and Amenity
3rd priority	Mobility Parking	Mobility Parking	Mobility Parking
4th priority	Bus stops/ Cycle parks/Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)	Bus Stops	Bus stops/ Cycle parks/ Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)
5th priority	Taxi Ranks (special passenger vehicle stands)	Residents Parking	Short Stay Parking
6th priority	Loading Zones	Cycle parks/ Bike corrals Shared parking (bike share or car share)/ Micromobility parking (e.g. scooters)	Residents Parking
7th priority	Short Stay Parking	Short Stay Parking	Commuter Parking
8th priority	Residents Parking	Commuter Parking	
9th priority	Commuter Parking		

Christchurch City Council in New Zealand has adopted a parking management hierarchy to manage kerbside parking in its suburbs (Figure 4.2). The hierarchy is broadly consistent with the Austroads guideline where public transport and disability parking are prioritised in residential areas followed by parking for residents. Short-stay parking is more prioritised in commercial areas to generate more visitors.

It is worth noting commuter parking is consistently of the least importance across all place contexts; this is in agreement with the sentiments reflected from public consultation.

Kingston, VIC

Figure 4.3: Parking management hierarchy in Kingston, VIC

Residential Areas			Activity / Commercial Areas		
A	B	C	A	B	C
Residents	Traders	Loading Zones	Disabled	Traders	Residents
Bus and Taxi stops	Commuters	Short Term Parking	Short-term Parking	Commuters	Schools
	Foreshore	School	Bus and Taxi stops	Foreshore	
	Disabled			Loading Zones	

Source: Parking Management Strategy, City of Kingston Victoria (2019)

The City of Kingston, VIC acknowledges the current demand for parking often exceeds the available supply in their municipality and has established a framework for parking user priorities across different areas (e.g. residential and commercial areas). The priorities (with A being the most important and C the least important) are used to provide a clear hierarchy in establishing future traffic and parking regulations.

In residential areas, priority for kerbside space is given to parking for residents and public transport over other user groups such as commuters and school pick up and drop off, while short-stay parking is prioritised in commercial areas.

4.2.2. Residential parking permit cap

Since the Roads and Maritime permit parking guideline sets out a residential parking permit cap of no more than 100 per cent of the parking capacity of the permit zone, discretion is available to councils to set this cap at below 100 per cent of capacity. While this has not been practised in Balmain East, Auckland in New Zealand is one city which has implemented a residential parking permit cap of 85 per cent of the total number of parking spaces in a residential permit parking zone². The rationale behind this reduced cap is that it ensures a greater availability of parking for residents and visitors at all times and avoids permit overallocation problems altogether. Such a system has now been rolled out to selected inner city historic suburbs in Auckland where residential off-street parking is scarce, which is a similar environment to Balmain East.

4.3. Summary

By leaning on the findings from the above case studies on parking management for residential streets, there are aspects that could be incorporated by Council across Balmain East and the wider Inner West area. The most relevant lessons transferrable to the Balmain East and Inner West context include the establishment of a kerbside space hierarchy that aligns with the local place context and allocates space to the different user groups accordingly.

² <https://at.govt.nz/driving-parking/parking-permits/residential-parking-zone-permits-coupons/>

5. RECOMMENDATIONS

5.1. Introduction

The following details the development of a set of car parking strategy recommendations for the Balmain East study area. These recommendations have been developed following the SWOT analysis in Section 3 and the review of case studies in Section 4. The primary aim of these recommendations is to managing existing car parking provision and demands in a balanced manner which considers the needs of all stakeholders.

5.2. Key Strategic Objectives

The review of existing conditions and the parking surveys undertaken in February 2020 showed that overall, average peak parking occupancies in Balmain East are high on the weekday (at or over 90 per cent) in the central core of streets subject to the BE residential parking permit zone but occupancies taper off in the residential streets closer to the edges of the study area. In addition, pockets of higher turnover and lower durations of stay were observed in areas such as the small shopping strip on Darling Street as well as the parks near Balmain East wharf. Taking into account these characteristics, a number of recommendations have been developed to achieve the following:

- Prioritisation of long-stay residential parking on residential streets over the provision for non-residential long-stay user groups (i.e. commuters or employees).
- Consideration for the demand of short-stay user-groups for businesses where appropriate.
- Consistent parking policies and planning across the Inner West LGA.

5.3. Recommendations

5.3.1. Parking hierarchy

GTA has identified an existing high demand for on-street parking spaces as shown from the community consultation and parking survey data, which results in conflict between residents and visitors for a limited parking resource. To resolve such conflicts, a clear framework is required to inform current and future management approaches to allocating kerbside space, including for parking.

This can be achieved by establishing a clear parking management hierarchy for the Inner West that includes residential areas such as Balmain East. This could be adopted into future iterations of the draft *Public Domain Parking Policy* before it is ratified by Council and will assist Council in allocating valuable kerbside space for different types of parking as well as other transport functions, depending on the local environment. A recommended hierarchy for the residential and commercial areas in Balmain East (and indeed the Inner West at-large) could take the forms shown in Figure 5.1.

Figure 5.1: Recommended parking management hierarchy

	Residential		Commercial/Activity Centre	
Priority	Arterial	Non-arterial	Arterial	Non-arterial
1	Safety: <i>Reduced crash risk.</i>	Safety: <i>Reduced crash risk.</i>	Safety: <i>Reduced crash risk.</i>	Safety: <i>Reduced crash risk.</i>
2	Existing Property access <i>(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).</i>	Existing Property access <i>(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).</i>	Existing Property access <i>(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).</i>	Existing Property access <i>(e.g. ensure existing property accesses are retained and also accommodate vehicle movements along the street to access to properties).</i>
3	Footpath <i>(e.g. new footpaths or widening to accommodate high demand from pedestrians).</i>	Footpath <i>(e.g. new footpaths or widening to accommodate high demand from pedestrians).</i>	Footpath <i>(e.g. new footpaths or widening to accommodate high demand from pedestrians).</i>	Footpath <i>(e.g. new footpaths or widening to accommodate high demand from pedestrians).</i>
4	Public transport and cycling <i>(e.g. public transport stops, bus lane, cycleway).</i>	Public transport and cycling <i>(e.g. public transport stops, bus lane, cycleway).</i>	Public transport and cycling <i>(e.g. public transport stops, bus lane, cycleway).</i>	Public realm improvements: <i>(e.g. trees, landscaping, dining areas).</i>
5	Other vehicle movements <i>(e.g. cars, vans, trucks, motorbikes).</i>	Vehicle parking for residents.	Other vehicle movements <i>(e.g. cars, vans, trucks, motorbikes).</i>	Mobility Parking.
6	Vehicle parking for residents.	Public realm improvements: <i>(e.g. trees, landscaping, dining areas).</i>	Mobility Parking.	Cycle parking.
7	Public realm improvements: <i>(e.g. trees, landscaping, dining areas).</i>	Other vehicle movements <i>(e.g. cars, vans, trucks, motorbikes).</i>	Cycle parking.	Public transport and cycling <i>(e.g. public transport stops, bus lane, cycleway).</i>
8	Commuter parking.	Commuter parking.	Public realm improvements: <i>(e.g. trees, landscaping, dining areas).</i>	Vehicle parking for visitors.
9			Vehicle parking for visitors.	Other vehicle movements <i>(e.g. cars, vans, trucks, motorbikes).</i>

It is worth highlighting that a high ranking on this hierarchy does not necessarily mean all kerbside space should be allocated to that user group. Rather, it means that user group should be considered first and if their needs are evaluated to have been met, then other user groups lower in the hierarchy should be considered. For example, a high public transport priority in residential areas does not mean all space should be given to a bus stop. If there is no bus route, then the local authority can then consider the next user group on the list such as parking for residents. However, if a bus stop needed to be expanded due to operational adjustments and some unrestricted parking spaces used primarily by residents needed to be acquired, then the application of the hierarchy would mean the bus stop should take precedence.

The application of this parking management hierarchy also offers guidance for the management of narrow kerbside space on narrow streets. For instance, it states that safety, property access and footpath provision should be the three highest priorities for residential streets. Accordingly, on narrow streets (e.g. those less than 6.0 m in carriageway width), the safety of all road users, access to properties (e.g. for residents' cars and emergency vehicles) as well as providing footpaths should be prioritised.

It is understood that through the ratification of Council's *Integrated Transport Strategy* at the Extraordinary Council Meeting on 3 March 2020, Council's longstanding practice of allowing vehicle parking over footpaths on narrow streets in selected suburbs such as Balmain East can also be rolled out LGA-wide. Adopting the recommended hierarchy would not be in conflict with this policy. The hierarchy only states that safety, property access and footpaths should be considered before vehicle parking for residents. In this regard, where all three aspects can be provided in a narrow street, then vehicle parking can continue to be provided.

5.3.2. Residential Parking in Balmain East

Permit Cap

Based on the review and analysis of the parking surveys undertaken in February 2020, the high occupancy rate along with longer average durations of stay in some residential streets may be a function of high demand as well as the overallocation of residential parking permits relative to total parking capacity.

In fact, it is contrary to the mandatory Roads and Maritime permit parking guideline to issue more parking permits than total parking capacity. As residential parking permits are reset throughout the LGA under the soon-to-be-adopted *Public Domain Parking Policy*, it is recommended to at least cap the number of resident parking permits to capacity or a 1:1 parking space to permits ratio, if not lower for Balmain East and all other areas that have a resident parking permit scheme.

Resident Parking Permit Scheme

Aside from the permit cap recommendation, given the predominant residential character of the study area and the need to supply parking for residents' vehicles as most properties do not have off-street parking, it is recommended that the existing BE resident permit parking scheme be continued under the new regime of the *Public Domain Parking Policy*.

In terms of which zone (Zone Type A or Zone Type B) of the new regime should be implemented in Balmain East, it is recommended that Balmain East changes from Zone Type B to Type A, meaning only those dwellings without an off-street parking space is eligible for one permit only and any dwelling with one parking space or more is ineligible for a permit. This recommendation is based on the predominance of narrow streets and a premium of parking throughout the study area and the need to ensure the quantum of permits issued do not exceed capacity. Assuming a 100 per cent of capacity permit cap, implementing Zone Type A will result in fewer permits issued but across more eligible households, freeing up more space on-street for those residents without any off-street parking, as well as for visitors (see sub-section below).

In contrast, adopting Zone Type B at a 100 per cent of capacity cap means that the cap would be saturated earlier since more households can apply for more than one permit on a first-come first-serve basis, resulting in fewer households overall being able to get one permit.

Moreover, implementing Zone A and capping it further (e.g. at 85 per cent) would result in an even greater availability of parking for residents and visitors alike.

Permit Scheme Pricing

As the Roads and Maritime parking permit guideline and the draft *Public Domain Parking Policy* are silent on permit pricing, it is recommended Council use the opportunity of priced parking permits (as current exists in the former Ashfield Council area of the Inner West LGA) to better balance the allocation of residential parking permits to those with a genuine need for on-street permit parking and a willingness to pay (i.e. those residents without off-street parking but own a car have more willingness to pay), which is not inconsistent with the feedback from the community survey. Hence, the pricing will be able to offset some of the demand for parking permits.

5.3.3. Residential Visitor Parking Permit

Visitor parking permits under the *Public Domain Parking Policy* would continue in the form of the current annual allocation of up to 30 one-day permits for eligible households. However, the availability of parking spaces for visitors (irrespective of whether a visitor permit is used) is closely correlated with which zone under the *Public Domain Parking Policy* is used for Balmain East and how it is implemented. To elaborate further, in the case that Zone A is adopted for Balmain East and capped at 100 per cent of available parking capacity, there is a better chance for visitors or even tradespeople to find a parking space.

In contrast, maintaining Zone B would result in more permits being issued since it is more likely households are issued with multiple permits, leading to a greater demand for parking and less chance for visitors to access parking.

5.3.4. Parking near shops on Darling Street

GTA's on-site observations along with the parking survey results show that there is an insufficient turnover of parking along the small section of shops on Darling Street in Balmain East to provide a churn of customer access to these local cafes and stores. This is a result of very few solely time-restricted spaces available on Darling Street with most time-restricted spaces being subject to the BE residential parking permit zone that exempts residents from the time restriction.

Accordingly, it is recommended that Council allocate more time-restricted parking spaces with 1P or 2P during business hours on weekdays and on Saturday from 8am until 1pm without any residential permit parking overlay, and then after these business hours these spaces revert to unrestricted parking, during which residents could park. The recommended coverage of this time-restricted area is shown in Figure 5.2.

Figure 5.2: Recommended time-restricted parking area for Balmain East shops



Basemap Source: Google Maps

5.3.5. Boat Trailer Parking

Boat trailer parking was found not to be a significant issue in Balmain East due to the small quantity of boat trailer parking relative to the study area size. Accordingly, no specific intervention is recommended in this regard but in the future if the situation changes Council could consider implementing measures to restrict it.

5.3.6. Commuter Parking Permit Scheme

Based on community feedback, commuter parking for ferry users would be unpopular and is discouraged via the existing BE residential permit parking scheme, although this could be better enforced based on this feedback. Moreover, it is considered that commuter parking should not be encouraged in the study area given its location at the end of a peninsula, as the increase in traffic flow to Balmain East from commuters would cause discernible additional traffic effects on the study area. As such, the recommendation would be to maintain the status quo of discouraging commuter parking through the operation of the reformed Zone A permit parking zone that would by extension exclude commuter parking.

The Gallimore Avenue car park, given its proximity to the ferry wharf is likely to be used for commuter parking during business hours and residential parking at other times given the surrounding residential land use. To further discourage commuter parking, Council could consider incorporating this car park into the recommended Zone A permit parking scheme for Balmain East through updated signage. This car park is not recommended for conventional parking metering as such measures are typically only appropriate for short-stay parking in activity centres.

5.3.7. Parking Signage Update

Given the inconsistencies in selected parking signs in the study area as identified in Section 2.7 of this report, it is recommended that such signage be replaced with the standard signage is identified in Table 2.3.

5.3.8. Implementation Timeframe

In terms of the implementation of the recommendations, these have been categorised into short-term and long-term recommendations which reflect their relative priority and requisite timeframe required for implementation.

Short term (0-5 years)			
Item no.	Description	Streets affected	Priority
1	Inclusions of additional properties Clifton Lane to RPS (these properties will be limited to 1 BE permit only)	Simmons Street	High
2	2P 8am-10pm Permit Holders Excepted area BE RPS expansion in Darling Street between Duke Street and The Avenue (this new section will be limited to 1 BE permit and 1 visitor permit per property)	Darling Street (between Duke Street and The Avenue)	High
3	Reduction of 6m length No Parking zone in east side of Galimore Avenue, 30m north of Darling Street.	Galimore Avenue	High
4	Parking management in Jubilee Place. Angle parking opposite Police Marine Area Command to be time limited 4P 8am-6pm Mon-Fri, subject to dedication of land from NSW Police.	Jubilee Place	High
5	Work with carshare operators to introduce additional fixed car share spaces in Balmain East	n/a	Medium
6	Development of Parking Hierarchy	All streets within Balmain East	Low
7	Replacement of redundant, faded, damaged signs	Streets identified in the signage audit within study area.	Medium
Long term (5+ years)			
Item no.	Description	Streets affected	Priority
8	Parking changes on Darling Street shopfront/commercial area	Darling Street	High
9	Changes to boat trailer parking management consistent with other areas within Inner West LGA	Streets with historical boat trailer issues	Low
10	Introduction of permit pricing on second residential permit	All streets with RPS in Balmain East	Low
11	Introduce residential permit parking in Gallimore Avenue carpark	Galimore Avenue	Low

	(corner of Brett Avenue and Galimore Avenue)		
12	Transition to Permit zone type A within Balmain East (Household without any on-site parking spaces, is eligible for one parking permit, transferrable up to three nominated vehicles registered to that address. Households with one or more spaces are not eligible for permits)	All streets with RPS in Balmain East	Low

