



2019

PALMERSTON CITY CENTRE

PARKING STUDY

BACKGROUND REPORT



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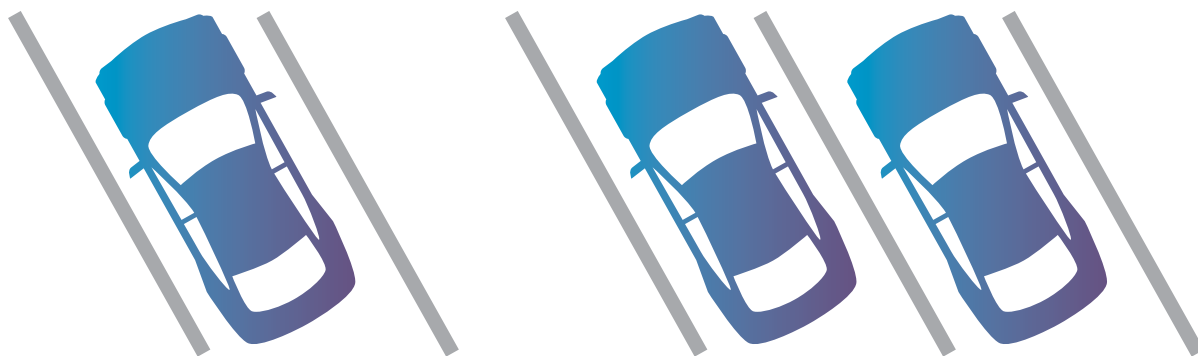


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1 INTRODUCTION

The City of Palmerston is the fastest growing municipality in the Northern Territory. Second only to Darwin in size. The City of Palmerston has a population of more than 35,000 and is projected to increase to 42,000 by 2021¹. Palmerston City Centre is the heart of this regional centre and provides several shopping centres, office and commercial spaces, as well as recreational and community facilities.

The City of Palmerston has identified the need to revise the previous (2015) Parking Strategy and develop an Implementation Plan to provide a clear pathway to parking goals by developing a clear set of objectives and an implementation plan of targeted short, medium and long-term outcomes.

This document forms the Background Report.

1.1 Structure of Study

1.1.1 Methodology Outline

The methodology generally consisted of the following:

- Parking survey data was collected in October 2018, December 2018 and February 2019 to inform the development of the Strategy and the Plan.
- A Background Report was prepared, which provided supporting, relevant information regarding the Study.
- A Parking Strategy and Implementation Plan was developed in consultation with City of Palmerston.

It is envisaged that the Strategy and plan will be reviewed periodically, in line with actions outlined in the Plan.

1.1.2 Deliverables

The deliverables of this Study comprised of:

Background Report,
Parking Strategy ('the Strategy'), and
Implementation Plan ('the Plan').

The Background Report incorporated the following:

- An assessment of the existing framework for managing parking within Palmerston City Centre (including the NT Planning Scheme, the existing Palmerston City Centre Parking



Strategy (2015), the existing Contributions Plan and the City of Palmerston Community Plan.

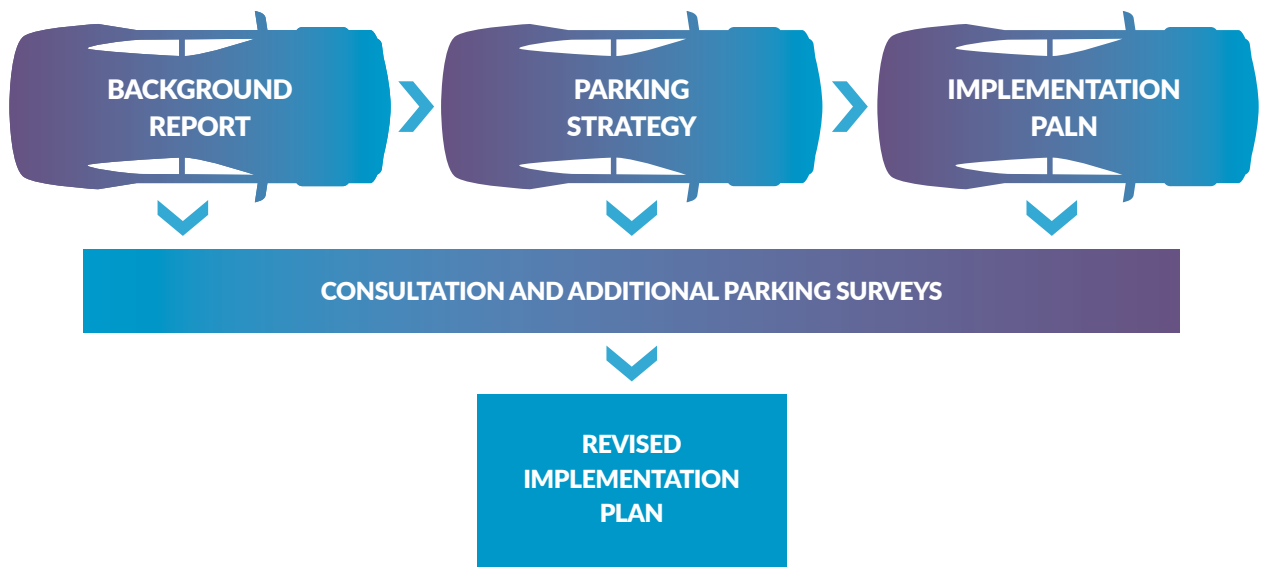
- Guidance regarding principles associated with developing a parking hierarchy and effectively establishing pricing for parking.
- A review of the parking stock and layout in the City of Palmerston City Centre.
- A description of parking surveys undertaken, including an assessment of the results, identification of issues, as well as recommendations.

The **Parking Strategy** described the foundation upon which parking outcomes were developed, as well as the objectives themselves. The Strategy sets out the following:

- The Aim for parking within the City of Palmerston,
- Key Outcomes to achieve the Aim,
- Guiding Principles.

The **Implementation Plan** set out the following:

- A series of Objective Statements to achieve Key Outcomes,
- Strategies to deliver the Objective Statements, with proposed timeframes.



To achieve the Strategy Aim, a number of key outcomes have been identified in conjunction with the Strategy and Implementation plan. The Implementation Plan provides Objectives and Strategies that sit under each identified Outcome, to allow the controlled implementation of the Parking Strategy. The structure of the Strategy and Plan is shown in Figure 2.

¹https://www.palmerston.nt.gov.au/sites/default/files/uploads/files/2018/FINAL_CoP_Comm_Infrastructure_Plan_2016.pdf



Figure 2: Structure of Strategy and Plan



2 BACKGROUND

2.1 Relevant Documents

A summary of documents relevant to the development of this Parking Study are presented in Section 2.1, including a state government guiding document (NT Planning Scheme) and local government strategic planning documents (the existing Palmerston City Centre Parking Strategy 2015, the existing Car Parking Contribution Plan and the City of Palmerston Community Plan).

2.1.1 NT Planning Scheme

The NT Planning Scheme describes the number of parking spaces required by a particular development, depending on the intended land use. The NT Planning Scheme applies to all of the Northern Territory, including Palmerston City Centre, where the minimum number of car parking spaces required is outlined in Clause 6.5.1.

The Palmerston City Centre Area Plan is shown in Figure 3. It should be noted that NTG are currently undertaking a review of the City Centre Area Plan.

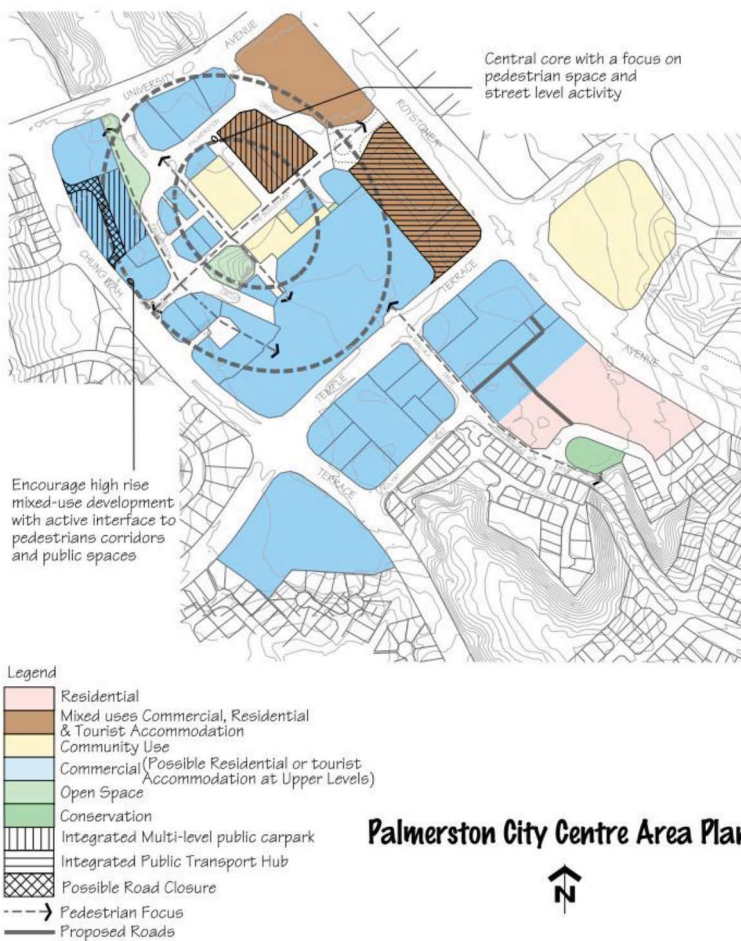


Table 2.1 summarises the rates applicable for developments within Palmerston City Centre. As outlined in the table, parking rates are variable and dependent on the type and characteristics of the proposed development. These parking rates are minimums to be provided with all new developments in Palmerston City Centre and applicable to all developments within the NT, excluding those in the Darwin CBD (CB Zone).

It is also possible to reduce the parking requirements for developments, where guidance is provided in Clause 6.5.2 of the Planning Scheme. A proposed development with fewer car parking spaces may be approved by the consent authority if the reduction is appropriate when considering the following items:

Figure 3: Palmerston City Centre Area Plan, NT Planning Scheme (note some land use changes have occurred since this City Centre Area Plan)

- a) the zoning of the land, the use or development or proposed use or development of the land and the possible future use or development of the land;
- b) the provision of car parking spaces in the vicinity of the land; and
- c) the availability of public transport in the vicinity of the land; or
- d) the use or development relates to a heritage place and the Minister responsible for the administration of the Heritage Act supports the reduced provision of car parking spaces in the interest of preserving the significance of the heritage place.

Where the Development Consent Authority (DCA) does not grant a reduction, monies can be made payable to Council through a contributions plan for the theoretical short-fall.

Table 2.1 also contains parking rates for the Darwin CB Zone. A comparison has been drawn to the rates for Palmerston and Darwin, noting that both zones function as a City Centre, however it is acknowledged that there are marked differences between the two locations.

There are similarities in the number of parking spaces required for the Palmerston City Centre and the Darwin CBD for some development types. However, for several development types there is a substantially reduced parking requirement when utilising the parking rates generated for Darwin CBD. For a hypothetical new licensed club comprised of 100m² lounge area and 20m² bar area, CB zone parking rates require only 4 parking spaces be provided, compared to the 14 parking spaces required in Palmerston. The requirement to provide more parking may influence on the overall economic viability of a proposed development.

It may be appropriate to consider adopting alternative rates or an alternative rate structure (*eg consideration of rates for shared/mixed use development types*). This will be informed by additional parking survey data, as well as an in-depth review of specific land uses and comparing theoretical, provided and actual parking demand.

It should be noted that the NT Planning system is currently under review, which will include a review of the Planning Scheme. As part of this, there may be an opportunity to seek change as it relates to Palmerston.



The Implementation Plan should involve the development of triggers to guide the timing and implementation of rate changes.



Table 2.1 NT Planning Scheme parking rates

Development Type	Palmerston City Centre (NT general)	Darwin CB Zone
Community Centre	5 per 100 m2 net floor area	2 per 100m2 net floor area
Hotel	16 for every 100m2 of net floor area used as a lounge bar or beer garden plus 50 for every 100m2 of net floor area used as a bar plus 10 for a drive-in bottle shop (if any) for cars being served or awaiting service plus 1 for every guest suite or bedroom plus 3 for every 100m2 used for dining	16 for every 100m2 of net floor area plus 0.4 for every guest suite or bedroom
Leisure and Recreation	For indoor spectator facilities (if any) 1 for every 4 seats plus 5 for every 100m2 of net floor area used as a club house otherwise than specified above, 10 for every 100m2 of net floor area	3 for every 100m2 of net floor area
Licensed Club	10 for every 100m2 of net floor area used as a lounge area or beer garden plus 20 for every 100m2 of net floor area used as a bar plus 3 for every 100m2 of net floor area used for dining	3 for every 100m2 of net floor area
Office	2.5 for every 100m2 of net floor area	3 for every 100m2 of net floor area
Restaurant	6 for every 100m2 of net floor area and any alfresco dining areas plus 10 for drive-through (if any) for cars being served or awaiting service	3 for every 100m2 of net floor area and any alfresco dining areas
Service Station	2 for every 100m2 of net floor area, or 5 whichever is the greater (not including parking serving bays)	2 for every 100m2 of net floor area or 5 whichever is the greater (not including parking serving bays)
Serviced Apartments	1 for every dwelling plus 3 for every 100m2 of net floor area not within a dwelling	1 for every dwelling plus 3 for every 100m2 of net floor area not within a dwelling
Shop	6 for every 100m2 of net floor area	3 for every 100m2 of net floor area
Showroom Sales	4 for every 100m2 of net floor area plus 1 for every 250m2 used as outdoor storage	4 for every 100m2 of net floor area plus 1 for every 250m2 used as outdoor storage

2.1.2 Palmerston City Centre Parking Strategy (2015)

The Palmerston City Centre Parking Strategy was developed in 2015 and is the current parking strategy document for the City of Palmerston. It provides a framework for the management of parking throughout the Palmerston City Centre. Developed largely in line with the City Centre Master Plan 2030, while it contains a series of high-level, categorised principles, there are several deficiencies discussed in this Section. The principles of the 2015 Strategy are summarised in Table 2.2.

Table 2.2 Palmerston City Centre Parking Strategy (2015) - Principles

Category	Principles
Sustainable Growth and Resilience	<ul style="list-style-type: none"> Gradually replace surface car parks in the center with multi-storey car parks around the edges Shift from inefficient private multi-storey car parks that are shared across residential, retail and commercial uses.
Strategic Relation of Anchors and Parking	<ul style="list-style-type: none"> Shift from a car park city center, to a city centre for people Maximise street activity by separating anchors and parking Create a high quality public realm along key pedestrian routes Provide vehicle access and loading along secondary pedestrian routes
Sustainable Transport	<ul style="list-style-type: none"> Promote walking and cycling Accelerate a modal shift towards sustainable transport Ensure sustainable transport is user friendly and that wayfinding is clear for all
Multi-storey car parks	<ul style="list-style-type: none"> Design multi-storey car parks as people places Activate the ground floor of car parks Promote events and other activities Design for long term adaptability to other uses, such as residential
On-Street Parking	<ul style="list-style-type: none"> Utilise on-street parking Price the most proximate and sought after on-street parking at the highest rate
Smart Parking	<ul style="list-style-type: none"> Use demand-responsive pricing to free up parking on each block to reduce circling and double parking Design multi-storey car parks to adapt to technological change
Parking Controls	<ul style="list-style-type: none"> Provide market-responsive parking controls Improve housing and lifestyle affordability, by reducing the requirement to own a car*
<p><i>* The Palmerston City Centre Parking Strategy 2015 outlines recommendations for new parking rates; adjusting the minimum to new maximums (see Appendix A)</i></p>	

In general, the following comments are provided:

- Although the principles identified within the 2015 Strategy are somewhat useful as general, i.e. long-term policy directions, there is a need to provide clear, defined actions as well as timeframes to guide implementation.

- The steps between the current situation and future vision need to be clearly identified. This would provide achievable and measurable targets that can be implemented by City of Palmerston to reach the desired objectives and can be achieved with an Implementation Plan.
- The 2015 Strategy is not clear as to whether changes to the Car Parking Contribution Plan are required.
- While some forward-thinking principles are adopted, consideration has not been given to planning for technological advancements (eg. Mobility as a Service, electric vehicles, autonomous vehicles).
- The 2015 Strategy incorporated adjusting minimum parking rates to maximum parking rates, however it was unclear as to how these rates were identified.
- It is recommended that any changes proposed to parking rates are based on parking survey data. It is also noted that City of Palmerston do not have direct control over the application of parking rates.
- The principles describe ideals that are generally appropriate for City of Palmerston in the long term, for example:
 - In the absence of a comprehensive public transport system, it is likely there will be a continued need for cars. The suggestion of multi-storey car parking on the city fringe is suitable and reflective of current best practice in industry.
 - The reduction of the number of parking spaces required per development (parking rates) is in line with current best practice, i.e. converting minimums to maximums.

2.1.3 Car Parking Contribution Plan

The City of Palmerston's Car Parking Contribution Plan – Central Business (2009), outlines the methodology for calculating contributions required by developers in the case that minimum parking requirements are not met.

Where there exists a shortfall in the parking provided by a developer, they may provide a contribution in lieu of parking infrastructure. Contributions for parking obtained through this framework are utilised by Council to construct multi-storey car parking to 'ensure adequate provision is made'. The Contribution Plan notes that 'ground level facilities may, in the short term, be provided on land which is designated for future multi-level development in the longer term'.

The Contribution Plan outlines that the staging of car parking infrastructure investment associated with these developments will be based on:

- Rate of growth/take up of development sites
- Car parking occupancies
- Land acquisition processes/site availability, and
- Funding availability.

The contribution amount required to be paid by a development is calculated through a formula, which is adjusted annually to account for increasing costs of construction in Palmerston (*determined by a suitably qualified Quantity Surveyor*).

The timing of payments depends on the development proposed. As outlined in the Contribution Plan:

- Where a development is associated with a change of use to which the land may be put or is a new

development (other than a subdivision), payment is required prior to commencement of the new use or occupation. A Certificate of Occupancy will not be acceded to until all contribution payments have been received by Council.

- Where payment is associated with a subdivision, payment is required on completion of physical infrastructure and prior to issue of titles. Council will not support the issue of a Certificate of Completion or clear its conditions within the Development Permit until all contribution payments are received.
- If the payment of car parking contributions is a condition on a Development Permit, then payment is due at the completion stage of the project and before commencement of use. City of Palmerston will not clear its conditions within the Development Permit until all contribution payments are received.



The following is highlighted, with respect to the Car Parking Contribution Plan:

- The Car Parking Contributions Plan is predicated on the idea that more development equates to more demand for car parking facilities (the 'predict and provide' approach), and that City of Palmerston is required to provide for this shortfall through the provision of additional parking spaces.
- There are several flaws with this. This underlying principle has been shown in other jurisdictions to result in an oversupply of parking, leading to excessive parking taking up valuable City Centre land.
- This approach also fundamentally lacks flexibility in responding to change. There appears to be little flexibility in the way that funds from the Contribution Plan can be used; ie they are to be used for the construction of new (multi-level) car parks. Flexibility can be valuable in responding to factors that may affect current and future demand (eg significant changes in economic activity).
- There have been several fundamental infrastructure changes since 2009; the policy map may need updating to reflect this.

- There is an opportunity to adjust the future spending of any funds received for uses that are more suitable for the expected level of revenue generated.

2.1.4 City of Palmerston Community Plan

The City of Palmerston Community Plan is a strategic document developed with the local Community and provides direction for the development of the City, where a series of priorities are highlighted over a 10-year period. Several key outcomes are highlighted in the Community Plan and are as follows.

OUTCOME 1: Family and Community

Palmerston is a safe and family friendly community where everyone belongs

OUTCOME 2: Vibrant Economy

Palmerston is a destination city. For employment it is a place where businesses are encouraged to set up and grow.

OUTCOME 3: Cultural Diversity

In Palmerston we celebrate our cultures in a way that values our diversity

OUTCOME 4: A Future Focus

Palmerston is an innovative city that can sustain itself through the challenges of the future.

OUTCOME 5: Environmental Sustainability

Palmerston is an environmentally friendly, liveable city that promotes renewable practices and sustainability.

OUTCOME 6: Governance

Council is trusted by the community and invests in things that the public value.

For each of these outcomes, an objective and a series of strategies is identified. In addition to this, several measures of success are identified. Those measures of success considered particularly important for the

Parking Strategy are as follows.

- Council is committed to ensuring local business and industry receive the support they need in order to grow and prosper within our region – measured through the Community Satisfaction Survey.
- Increase the canopy coverage (*percentage of areas shaded by trees*).
- Performance in actively protecting and enhancing the environmental assets and infrastructure of the City of Palmerston, while supporting local businesses and industry in sustainable land use, is improved.
- Community are satisfied that Council is committed to ensuring that the systems and processes of Council support the organisation in delivering the best possible services to the community.



2.1.5 Summary

Documents relevant to parking in City of Palmerston were reviewed:

- **The NT Planning Scheme** outlines parking rates to be adopted by new developments within the City Centre. Adopting an amended rate structure for Palmerston may be appropriate, through reviewing additional parking survey data and comparing theoretical parking demand associated with various developments.
- **The Palmerston City Centre Parking Strategy 2015** that was previously developed also has several limitations, most notably that it lacks a series of measurable targets or actions that will enable City of Palmerston to implement the Strategy. This Parking Study includes a Parking Strategy that will supersede the 2015 Strategy, such that these limitations are addressed.
- **The Car Parking Contribution Plan** describes a framework for City of Palmerston to provide parking infrastructure, however is reasonably prescriptive in nature and where funds are used only for the construction of additional parking. There is scope for the review of this Plan to include better outcomes and reflect this Study.
- **The City of Palmerston Community Plan** describes where the City of Palmerston is headed, with respect to community, economic, cultural, technological, environmental and governance outcomes. A parking strategy should reflect the aspirations of the community.

2.2 Current Best Practice

2.2.1 Other Jurisdictions

Historically, parking has been provided on a 'predict and provide' approach whereby parking is generally provided based on an appreciation of the following fundamental principles:

- More parking is better
- Each destination must satisfy its own parking needs
- Car parks should never be full and should always have some capacity
- Parking should always be free or subsidized or incorporated into building costs.

In recent years, however this standard approach has been challenged, whether driven by improved sustainability outcomes or in reaction to increased population and therefore parking demand.



There is a need to develop a strategy that will appropriately enable City of Palmerston to transition from the current 'demand satisfaction' approach towards a 'demand management' philosophy.





Parking management is shifting from demand satisfaction to demand management. Several cities and regional centres throughout Australia are now approaching parking through the lens of managing demand.



The following are examples of strategies used elsewhere, where there is mindset shift towards demand management:

- **Unbundling of parking with developments:** parking spaces are sold independent of developments, increasing the flexibility and efficiency of this space (City of Ipswich)
- **Encouraging sustainable transport modes and reducing reliance on the private vehicle:** lobbying State Government for improved public transport and shuttle bus services (Penrith City)
- **Amendments of parking rates:** Car parking rates that more accurately reflect demand with consideration given to 10% reduction subject to incorporating other initiatives (City of Greater Bendigo)
- **Smart initiatives for efficient parking:** Providing real time information about availability of parking (City of Melbourne)

The Palmerston City Centre Parking Strategy (2015) contains principles that are generally in line with best practice thinking, with a focus on sustainable transport modes and amendments to parking rates suggested.

2.2.2 Northern Territory

It is a general observation that there has been a slower uptake of best practice parking management techniques in the Northern Territory, when compared to other Australian cities. Where other local governments have already implemented pricing restrictions to control parking demand, pricing was only introduced to Darwin in 2003 and even more recently in the City of Palmerston.

This slower uptake can perhaps be attributed to a generally high reliance on private vehicles, where demand satisfaction has continued, and parking supply has increased without negative impacts felt yet. These impacts are generally associated with high population growth and parking demand.

Although the Palmerston City Centre Parking Strategy (2015) provides long term goals with demand management in mind, it does not provide the intermediate steps that will enable the City of Palmerston to push through this transition to achieve these goals.

2.3 Parking Hierarchy

2.3.1 General Principles

Guidance to effective parking management is provided in the Austroads Guide to Traffic Management Part 11 – Parking (AGTM: 11), in which effective parking management can be achieved by developing a defined parking hierarchy. Different time limits and parking prices should then be allocated to parking spaces across the area based on the hierarchy to achieve the desired outcome.

The Austroads Guide describes the allocation of kerb-side (on-street) spaces to those users requiring high levels of access and the allocation of off-street parking for the mass storage of vehicles, as shown in Figure 4.



Figure 4: Parking hierarchy, Austroads Guide to Traffic Management Part 11

The guidance provided by Austroads is useful to consider in the development of an appropriate strategy for the City of Palmerston. This provides guidance regarding the function of parking spaces, for on-street parking and off-street parking areas.

Table 2.3 describes intended functions for each parking type as suggested by Austroads.

Table 2.3 Guidance for zoning function (Austroads)

Parking Type	Intended Function
5 minute parking	Areas with very high arrival rate (<i>where passengers dropped off but where waiting is required</i>). For example near cinemas, post offices, hotels, potentially business districts and schools
10 minute parking or 15 minute parking	Quick pick-up and set-down outside schools and for high turnover. Only appropriate for motorists going to one address. For example outside commercial facilities providing high level of convenience such as banks, post offices, newsagents.
30 minute parking	Can be applicable directly outside local shops that rely on providing reasonably high level of convenience to maintain competitive market position. Usually high demand and 1 hour parking would result in inadequate turnover.
1 hour parking	Appropriate outside major shopping centres and in other locations where there is demand for parking and the activity will likely take longer than 0.5 hour. This type of parking is able to be diverted into off-street locations but parking access needs to be clearly visible from road frontage.
2 hour parking	Can be appropriate outside major shopping centres although it can result in enforcement difficulties with some motorists staying excessively long times. It is more likely to be applicable in areas with development containing professional and personal services. Can be diverted into off-street car parks. Access to the car park can be provided via other streets but the access arrangements need to be clearly identifiable from the arterial road.
4 hour parking	Appropriate where it is desired to stop all-day commuter parking but allow parking by other local people. Can be diverted into off-street car parks. While it is desirable that car park access is identifiable from the arterial road it will often be acceptable to assume that motorists are relatively well-informed regarding the access arrangements for the site.
Untimed parking	Usually generated by employees or park-n-ride motorists and will occur across all types of development. Does not require signs to be used to indicate that parking is permitted where there is no time limit or no user limitation. However, a "Parking" sign may be necessary where the method of parking (<i>eg angle parking</i>) or the method of parking (<i>eg voucher</i>) has to be indicated on a sign. Also a "Parking" sign will be necessary where the parking area is available only for certain classes of users (<i>eg motorcycles only</i>).

In general, the following principles may be useful for the City of Palmerston:

- A clear hierarchy of parking and what is trying to be achieved should be developed.
- On-street parking should be highly accessible and restricted to short term parking only, guided by the timing outlined within the Austroads Guide.
- Off-street parking should be used for mass storage of vehicles and be utilised for long-term parking, guided by the time limitations outlined by Austroads.

2.4 Pricing for Management of Parking

Circumstances that may warrant the introduction of paid parking are provided in Australian Standards (AS2890.5) as follows:

- Where there is insufficient turnover of short term parkers, where vehicles are staying longer than desired
- Where there is high demand indicated by continuous usage of at least 70 percent of available parking spaces during business hours
- Where there is insufficient off-street parking provided within walking distance of high short term parking demand.

Objectives for the implementation of paid parking as outlined within the Australian Standard (AS2890.3) and the Austroads Guide may include:

- Encouraging turnover (*to provide more available spaces for parking*)
- Encouraging drivers to park in designated long term parking areas in preference to the higher demand (*most convenient*) parking spaces
- Defining an accurate time check on parking duration to assist in enforcement (*which may reduce staffing requirements*)
- Encouraging modal shift (*bus, bicycle or walking instead of driving/parking*)
- Providing a value on parking spaces to recoup costs.

It is important to note that any scheme (*paid or unpaid*) requires effective enforcement to ensure that time limits and fees are being adhered to.

Key measures to efficient pay parking pricing are also identified in the Austroads Guidelines and includes:

- Charge higher fees and provide shorter time periods at the most convenient spaces (*on-street*) to encourage high churn.
- Use incremental price structures in certain car parks to favour short-term users, e.g. \$1 for the first hour then \$1.50 for the second hour etc.
- Daily rates should be set at more than 6 times the hourly rate, and monthly rates at more than 20 times the daily rate.
- Ensure that fee structures are flexible and can be amended up or down in order to manage demand. It is inefficient to review fees only once a year in accordance with budget timetables.
- Encourage businesses to price parking and offer discounts or refunds to their bona fide clients.
- Provide discount parking to multi-passenger vehicles (*car sharing*).
- Ensure a high level of compliance by means of regular and unpredictable enforcement which will require increased staffing and technology resources.
- Implement different parking fees in the evening and on weekends in some precincts.
- Minimise the exceptions to pay parking e.g. all residents, ratepayers, loading vehicles, couriers and disabled parkers using public parking spaces should pay.

3 PARKING IN PALMERSTON TODAY

3.1 Parking Supply

Over 3500 parking spaces are provided throughout the Palmerston City Centre in on and off-street parking areas. This consists of 23% provided by City of Palmerston and 77% provided within privately-owned parking lots.

A summary of the overall parking supply is provided in Table 3.1.

Table 3.1 Parking Supply

Parking Type	Total number of spaces
City of Palmerston	865 spaces
Private	2685 spaces
Total	3550 spaces

The City of Palmerston managed parking throughout the City Centre is generally divided into “Zones”, described as follows:

- Zone A: 2-hour parking (*priced at \$1.80 per hour*)
- Zone B: All day parking 4+ hours (*\$1.00 per hour to maximum of \$4.00*)
- Additional restrictions: Various parking areas have time limits of 1 hour, 30 minutes, 15 minutes, untimed
- Other: Disabled parking, taxi and loading zones, motorcycle parking, reserved

Table 3.2 Current Parking Supply

Parking Zone	City of Palmerston Spaces	Private Spaces	Total Spaces
15 minute	15	0	15
30 minute	13	0	13
1 hour	79	27	106
2 hour	287 (Zone A: 2hr)	357	644
3 hour	0	704	704
4 hour	0	341	341
All Day	357 (Zone B: 4+)	1253	1610
Reserved (for specific users)	114	3	117

City of Palmerston also offers annual parking permits, at a cost of \$400 per annum commencing from the new financial year. Permits are also able to be purchased at a pro-rata rate at each quarter (ie. \$300 from October, \$200 from January, \$100 from April).

Permit users are to display the permit and can park all day within Zone B (in off-street parking areas). Table 3.3 shows that the largest proportion of permit uptake occurs at the beginning of the financial year.

Table 3.3 Parking Permits Issued

Financial Year	Issued Jun/Jul-Sep	Issued Oct-Dec	Issued Jan-Mar	Issued Apr-Jun
2017/2018	138	18	20	28
2018/2019	152	12	NA	NA

Users electing to park within priced zones are required to purchase a parking ticket from nearby ticketing machines.

Parking is typically enforced through regular parking inspections undertaken by City of Palmerston staff. City of Palmerston currently has entered into agreements to enforce parking compliance in some private parking areas as well.





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 EPSG:28352



City of Palmerston

Job Number: 20181283
 Filename: 20181283GQ001A
 Revision: Rev A
 Date: 2019-02-27 16:17
 Drawn: Travis Moon

Data Acknowledgement:
 Aerial from Palmerston Council, 2016
 Cadastre and Parking data from
 Palmerston Council, 2018

- 15 Min
- 30 Min
- 1 Hour
- 2 Hours
- All day
- Untimed
- Reserved
- Study Area

**PALMERSTON PARKING
 STRATEGY - COUNCIL
 PARKING**



Job Number: 20181283
 Filename: 20181283GQ002A
 Revision: Rev A
 Date: 2019-02-27 16:16
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Data Acknowledgement:
 Aerial from Palmerston Council, 2016
 Cadastre and Parking data: Palmerston Council, 2018



EPSG:28352

- 15 Min
- 3 Hours
- 30 Min
- 4 Hours
- 1 Hour
- All day
- 2 Hours
- Untimed



- Reserved
- Secure Parking
- Study Area

City of Palmerston

PALMERSTON PARKING STRATEGY - ALL PARKING

3.2 Parking Arrangement

3.2.1 Spatial Arrangement

There are several factors that make City of Palmerston unique with respect to how parking is provided within the City Centre. These must be key considerations in developing an appropriate Strategy and Plan.

- The level of development and consequently the arrangement of parking in the Palmerston City Centre does not reflect that of typical City Centres. Typically, the clear distinction between on-street and off-street parking results in a clear parking hierarchy, which governs the designation of parking controls and pricing in line with the Austroads Guide. Within the Palmerston City Centre, several off-street areas are allocated for short-term parking, rather than long-term parking.
- City Centre areas are also typically defined by a core centre, where commercial activity and demand for parking is generally highest. This is not characteristic of the Palmerston City Centre where development is lower density and generally spread across a larger area.
- The Palmerston City Centre is somewhat disconnected in function. Parking is firmly linked to the end destination with little trip-linking. For example, a driver will park at Bunnings to shop and then drive to another destination within the City Centre (*for example Palmerston Tavern*), rather than walking.
- There is a large quantity of parking provided throughout the City Centre. Observing an aerial of the City Centre, it is clear that almost 30% of the total land in the City Centre is dedicated solely to at grade parking (Figure 5).

Given parking is currently firmly tied to end destinations, the Strategy and Plan must consider this relationship between parking and land-use in the short, medium and long term. The encouragement of trip-linking will form an important part of the Strategy.



3.2.2 Parking Controls

3.2.2.1 Zoning

As outlined in Section 2.2, on-street areas are typically suited for short-term parking and off-street areas should be reserved for long-term parking. Any parking provided should be timed appropriately, to reflect the intended function of the parking.

Within the Palmerston City Centre there is currently no clear distinction between the locations of long-term and short-term parking. Several off-street areas provide short-term parking (eg 1-hour parking for the Palmerston Recreational Centre) and the timing of some on-street areas is the same as or longer than nearby off-street areas.

There is currently limited delineation of a central city core, as parking supply and demand remains firmly tied to land use.

It is proposed that the intended function of each parking area is clearly defined within a parking hierarchy. The hierarchy will need to be staged to acknowledge that the City of Palmerston only has control over a portion of the available parking.



There is an opportunity to create a parking hierarchy and consolidate parking to improve the efficiency of existing parking. In doing this Palmerston can begin to transition toward a centric model, where change will be guided by transitions in land use.



3.2.2.2 Pricing

As outlined in Section 2.4, there may be several goals when implementing paid parking, including to encourage turnover to provide more free spaces for parking. At the same time, enforcement is critical in effective management of time limits and fees.

In the Palmerston City Centre, pricing has been set at relatively low rates; the maximum fee charged for 2 hour parking is \$3.60 and the maximum fee charged for all day parking is \$4.00. Where the goal is to encourage turnover, fees should be priced sufficiently high enough to encourage behavioral change. As discussed further in Section 3.3, data was collected in Round 1 of parking surveys to observe behavioral change in response to pricing change (*free parking in December*). It appeared that pricing at existing levels had minimal impact on parking demand and turnover in most areas.



It appears that the current pricing scheme is based on defining an accurate time check on parking duration and enabling enforcement of the parking time limits; the current parking costs are not set at a high enough level to encourage behavioral change or recoup costs.



Several scenarios could be examined to determine an appropriate pricing structure to be adopted, including:

1. Increasing parking charges to recoup costs (*a user pays system*). It is unclear what the current costs of maintaining and enforcing parking are to City of Palmerston. If charging is to cover costs, it is recommended that further investigation is undertaken to determine the true cost of providing, maintaining and enforcing parking over the full lifecycle of the parking infrastructure.
2. Retain pricing at low levels (*or ticketed no charge*) to facilitate enforcement. This may include the following scenarios;
 - 2.1. Retain existing parking controls, no changes to pricing structure
 - 2.2. Remove charging on short term (2hours or less), retain charging on long term (*All day*). Time limits enforced through meter retention/pay and display.
 - 2.3. Don't charge at all, given existing charging has minimal effect on parking behaviour. Time limits enforced through meter retention/pay and display.

It is not recommended that charges for parking be increased in the short term as:

- In all day parking areas, while demand is high, increasing charges would serve to discourage long term parking in fringe locations and may encourage all-day parking in private parking areas.
- In timed parking areas, as demand is typically low, off-street parking is accessible and parking areas having lower turnover can be managed with increased enforcement and through local amendments to parking controls.

3.3 Observed Current Parking Demand

3.3.1 Parking Survey methodology

The methodology of the parking surveys undertaken in this Parking Study is described as follows:

- Round 1: Parking surveys were conducted in 2018, both in October and December for City of Palmerston -controlled parking in the Study Area.

The October parking surveys gave an understanding of motorist parking behaviour under normal conditions where parking was controlled by pricing. The December parking surveys examined how this behaviour changed during the free Christmas trial period, where pricing was removed and parking uncontrolled. This information is useful in understanding the suitability (*or otherwise*) of the existing pricing controls in managing parking behaviour.

Details of these surveys are shown in Table 3.4.

Following a review of the Round 1 parking surveys it was found that, while an understanding of City of Palmerston parking hotspots could be obtained, it would be useful to obtain a broader picture to determine if there are overflow impacts on adjacent private parking, as well as opportunities that may exist with these areas. Consequently, a second round of parking surveys was undertaken in February 2019 (*Round 2*) to improve the understanding of the parking operation across the whole of the Palmerston City Centre.

- Round 2: Parking surveys were conducted in 2019 in February, for both City of Palmerston and private parking areas.

These surveys expanded on the number of parking areas surveyed to include private parking areas. Given the large supply of private parking available throughout the City Centre, it is important to understand how these areas currently function in terms of demand and whether there are impacts on City of Palmerston provided parking.

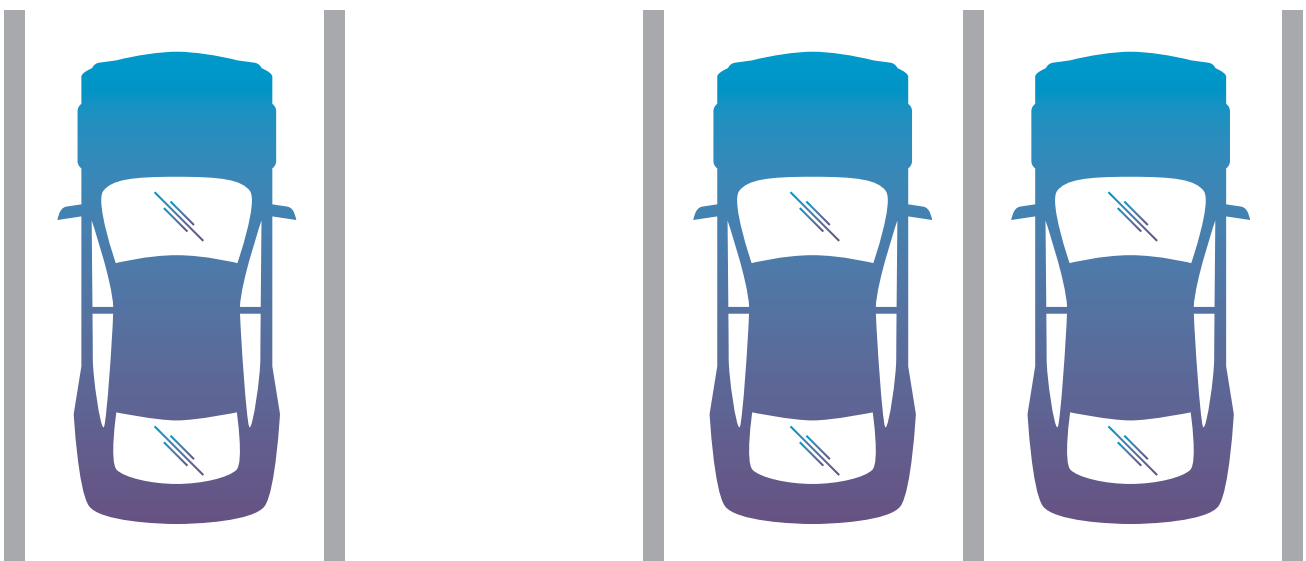
The number of days surveyed was increased to include the weekend. The number of surveys undertaken each day was also increased to provide a comprehensive picture of parking during that day.

Details of these surveys are also shown in Table 3.4.

Table 3.4 Parking survey details (Round 1 and Round 2)

Round	Type	Days Surveyed	Time Slots
Round 1	Paid (October)	Wednesday 17th October Thursday 18th October Friday 19th October	9am, 12pm, 4pm 9am, 12pm, 4pm 9am, 12pm, 5pm
	Unpaid* (December)	Wednesday 12th December Thursday 13th December Friday 14th December	9am, 12pm, 4pm 9am, 12pm, 4pm 9am, 12pm, 5pm
Round 2		Wednesday 13th February Thursday 14th February Friday 8th February Saturday 9th February Sunday 10th February	All day – 2 x (9.30am, 2.30pm) 3/4 hr – 2 x (9.00am, 2.00pm) 1/2 hr and less – 4 x (8.00am, 10.30am, 1.00pm, 3.30pm)
*time limits remained in place and were enforced in this scenario			

It is envisaged that further rounds of surveys (matching the areas surveyed in Round 2) will be undertaken into the future to continue to develop the understanding of how parking functions within the Palmerston City Centre.



3.3.2 Parking Survey Results

3.3.2.1 General

The results of the Round 1 and Round 2 parking surveys are discussed in this section for areas of notably high or low average occupancy, for parking areas in the inner City Centre and the outer City Centre. The standard benchmark indicating excessive occupancy is 85% utilisation, where occupancy higher than this suggests that significant demand exists at that location.

Other approximate indicators of demand are summarized as follows:

- Low: ~10%-25%
- Low medium: ~ 25%-40% (significant capacity still remaining)
- Medium: ~40%-60% (high capacity still remaining)
- Medium-high: ~60%-85% (capacity still remaining)
- High: >85%

On weekends, parking demand was generally very low. On weekdays, there are notable hotspots where the parking demand was consistently high and the average occupancy exceeded 85%. The same general areas were observed to have high demand across the surveys undertaken in October, December and February; the Northwestern Lot (near the City of Palmerston offices) and the large Northeastern Lot (Table 3.5).

There were also several parking areas that are being significantly underutilised and where demand was low medium, less than 40% average occupancy (Figures 6 to 9) including;

- City of Palmerston: Hillson Street (at grade) – 2 hours
- City of Palmerston: Kilgour Lane Alley (at grade) – 2 hours
- City of Palmerston: Adjacent Coles (at grade) – 2 hours
- City of Palmerston: Rolyat Street (at grade) – 2 hours
- City of Palmerston: Maluka Drive (at grade) – 2 hours and 1 hour
- City of Palmerston: Adjacent Rydges (at grade) – 2 hours
- Private: Palmerston Shopping Centre (*Target Underground*) – 4 hours
- Private: Palmerston Shopping Centre East (*at grade*) – 3 hours
- Private: Hub Complex, now largely vacant (*underground*) – All Day



- Private: Dollars Sense, now vacant (underground) – All day

Several other areas were observed to have remaining capacity during the times surveyed (Figures 6-9):

- City of Palmerston: Adjacent water tower – 2 hours
- City of Palmerston: Adjacent BWS – 2 hours
- City of Palmerston: Palmerston Rec Centre – 2 hours
- Private: Palmerston Shopping Centre South (at grade) – 2 hours
- Private: Palmerston Shopping Centre North (at grade) – 2 hours
- Private: Bunnings – All day
- Private: Oasis Shopping Centre – 3 hours
- Most other private parking offered

It is apparent that, while there are hotspots where parking demand is higher, there is also a significant over-supply of parking offered throughout the Palmerston City Centre. The average weekday occupancy is 43% for the entire City Centre and 25% on the weekend. There is an opportunity to consolidate and more effectively use the parking infrastructure already provided, to more appropriately match the demand observed.

It was also found that pricing at current levels had minimal influence on parking demand in general, particularly where there was high demand in long term parking areas (Figures 8 and 9). Pricing at current levels in short term areas also appeared to have limited influence and there is scope to address this through improved enforcement.

Table 3.5 Parking Areas With An Average Of ~85% Weekday Occupancy Or More

Round 1 (City of Palmerston Only)		Round 2 (Including Private)			
October (paid)		December (unpaid)		February (paid)	
Location	Parking Control	Location	Parking Control	Location	Parking Control
Northwestern lot, western portion	All Day Parking	Northwestern lot, western portion	All Day Parking	Northwestern lot, western portion	All Day Parking
Northwestern lot, eastern portion	All Day Parking	Northwestern lot, eastern portion	All Day Parking	Northwestern lot, eastern portion	All Day Parking
Northwestern lot, northern portion (83%)	All Day Parking	Northwestern lot, northern portion	All Day Parking	Northeastern lot (84%)	All Day Parking
Northeastern lot	All Day Parking	The Boulevard, western end	1 hour	Bus Interchange	All Day Parking
				ANZ	All Day Parking

Note: December was unpaid as City of Palmerston were incorporating free parking for the Christmas period.

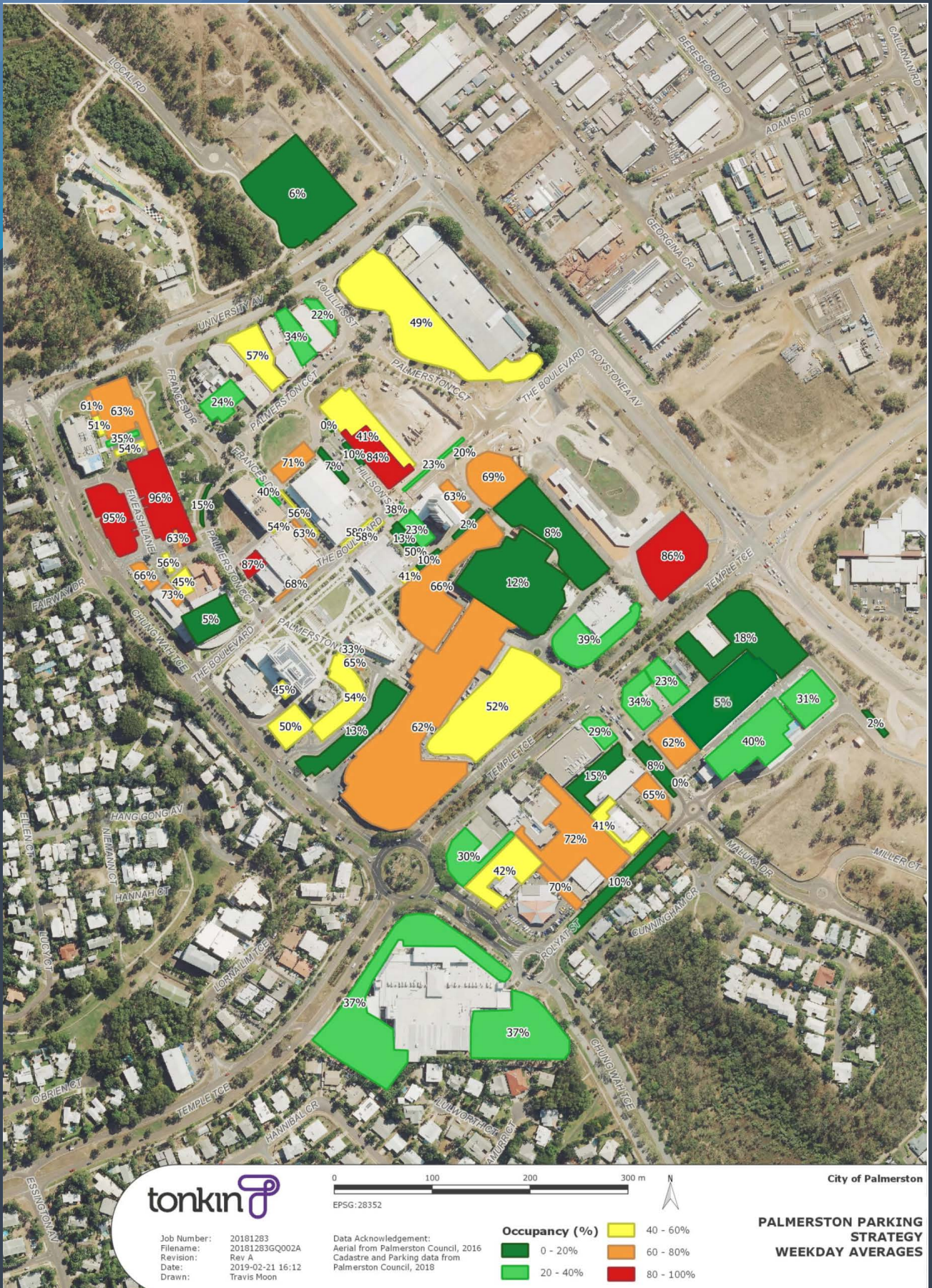


Figure 6: Occupancy Weekday Average (February - Paid)

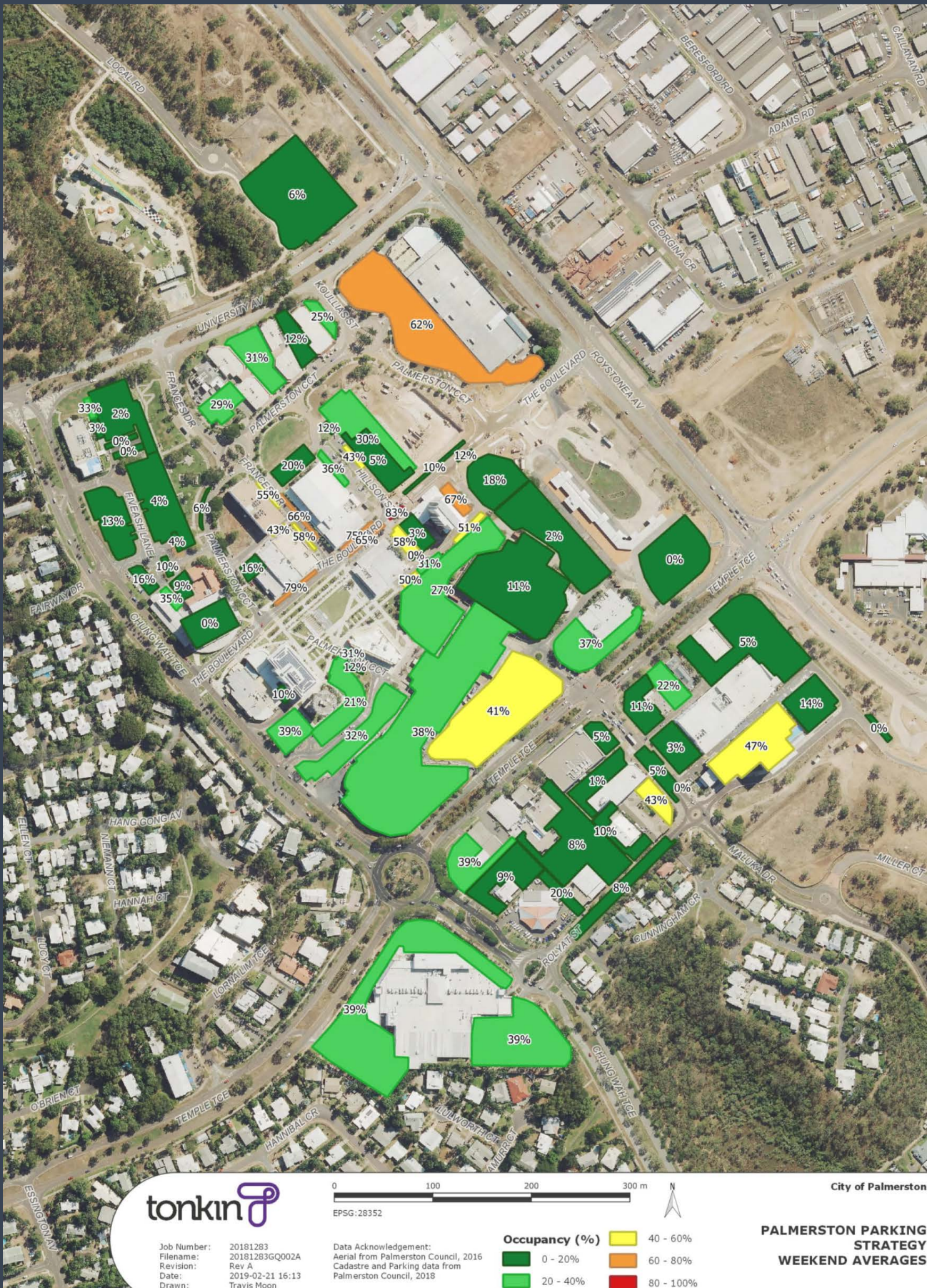


Figure 7: Occupancy Weekend Average (February - Paid)

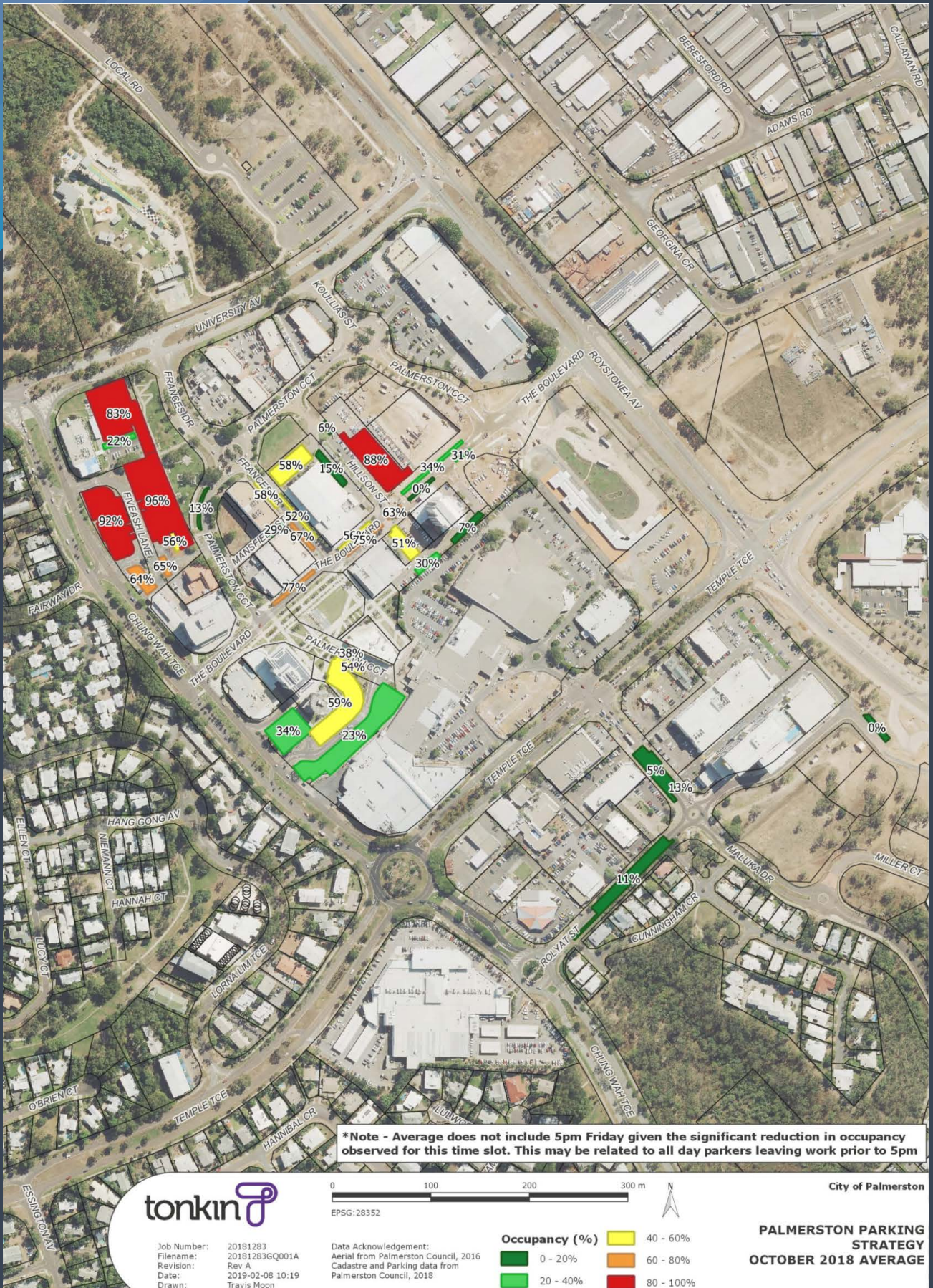


Figure 8: Occupancy Weekday Average (October - Paid)



Figure 9: Occupancy Weekday Average (December - Unpaid)



**PALMERSTON PARKING STRATEGY
PARKING AREAS**

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|----------------------------------|
| 1 Waterpark | 15 Northeastern Lot | 29 Palmerston Shopping Centre East | 43 Maluka Drive |
| 2 Northwestern Lot | 16 The Boulevard | 30 Target Under Cover | 44 KFC |
| 3 Goyder Centre | 17 Palmerston Library | 31 Coles Under Cover | 45 Hungry Jacks |
| 4 Palmerston Circuit | 18 Adjacent Hog's Breath | 32 Palmerston Shopping Centre South | 46 Hub Complex and Surrounds |
| 5 McDonalds | 19 Quest (Underground) | 33 Cazalys | 47 Hub Front |
| 6 Palm Plaza | 20 Quest (At Grade) | 34 Bus Interchange | 48 Hub Complex Underground |
| 7 Beaurepaires | 21 Vacant Block | 35 Service Station | 49 Rydges Undercover (Ground) |
| 8 Arch Rival | 22 Kilgour Lane Alley | 36 Red Rooster | 50 Rydges Multilevel (2nd Level) |
| 9 Bunnings | 23 Highway House | 37 Toyota | 51 Rolyat Street |
| 10 ANZ | 24 Adjacent BWS | 38 Rolyat Street Complex | 52 Adjacent Rydges |
| 11 Mansfield Street | 25 Adjacent Water Tower | 39 Centrelink | 53 Oasis Shopping Village |
| 12 Frances Drive | 26 Adjacent Elders | 40 Dollars Sense (vacant) | |
| 13 Palmerston Recreation Centre | 27 Adjacent Coles | 41 Vinnies | |
| 14 Hillson Street | 28 Palmerston Shopping Centre North | 42 Medical Block | |

3.3.2.2 Inner City Centre

A summary of findings for each parking area within the general Inner City Centre area is shown in Table 3.6. For typical cities, these areas would typically be characterised by high commercial activity and high parking demand.

Table 3.6 Parking Areas in Inner City

Parking Area (refer map)	Comments
City of Palmerston	
Northwestern Lot (2)	Weekday demand high, weekend demand low. Acts as storage of vehicles and appears to be largely used for all-day parking; occupancy decreases after 5pm. The all-day parking services staff for City Centre businesses; 2-hour parking services Police; 15-minute parking services Post Office; 1-hour parking services City of Palmerston. Pricing has little influence on demand here.
Palmerston Recreation Centre (13)	1 hour: weekday demand average, weekend demand low 2 hour: weekday demand very low, weekend demand low-medium Short-term parking services Recreation Centre. Turnover in 1 hour parking area low, potentially employees.
Palmerston Circuit (4)	Weekday demand very low, weekend demand very low. Underutilised.
Northwestern Lot - Post Office (2)	Gated; used for employees only. Weekday demand medium, weekend demand very low.
Frances Drive (12)	Weekday demand medium, weekend demand medium. Low turnover; used by employees of nearby businesses.
Northeastern Lot (9)	Weekday demand high for public access areas, medium for reserved parking. Weekend demand very low. Currently used for long term parking, however it is located within the inner City Centre. With the opening of the new development (Boulevard Plaza), there may need to be a change in parking to encourage turnover. All day parkers will need to be shifted elsewhere.
Hillson Street (14)	Weekday demand very low. Weekend demand low-medium. It is likely that sufficient capacity is provided elsewhere in unpaid areas (in the Northeastern Lot and Palmerston Rec Centre), minimal incentive to pay for parking at this location. This is underutilised and there is an opportunity to free up this space.
The Boulevard (16)	Weekday and weekend demand medium. Turnover reasonable. Services local shops and businesses.
Palmerston Library (13)	Weekday demand low, weekend demand medium. Services local library.
Kilgour Lane Alley (22)	Weekday demand very low, weekend demand low-medium. This area appears to be underutilised.

Parking Area (refer map)	Comments
City of Palmerston	
Adjacent BWS (24)	Weekday and weekend occupancy medium. Some lack of turnover which could be affected by parking permits. It is likely that some employees park in this area and walk to work; NTG vehicles were observed to be parking consistently at this location. This area also services the BWS and Palmerston Tavern, where turnover is required.
Adjacent Water Tower (25)	Weekday occupancy medium, weekend demand low-medium. Some lack of turnover which could be affected by parking permits. It is likely that some employees park in this area and walk to work; NTG vehicles were observed to be parking consistently at this location.
Adjacent Coles (27)	Weekday occupancy very low, weekend occupancy low-medium. This area is underutilised, particularly the southern half (near Chung Wah Terrace).
Adjacent Elders (26)	15 minute: Weekday demand and weekend demand low. 30 minute: Weekday demand medium, weekend demand low. Turnover for these spaces is required for the local shops. Turnover appears to be functioning.
Adjacent Hog's Breath (18)	Weekday demand low-medium, weekend demand very low. Parking is all-day at this location.
Mansfield Street (43)	Weekday and weekend capacity medium. Parking demand for local businesses serviced on-site.
Private	
Quest - at Grade (20), Goyder Centre (3), Vacant lot (15)	There is minimal private parking within the heart of the City Centre: <ul style="list-style-type: none"> - Parking provided by Quest and Goyder Centre is secured - Informal parking provided on the vacant lot near Quest is untimed and generally medium during the weekdays and low on the weekend.

3.3.2.3 Outer City Centre

A summary of findings for each parking area within the general outer City Centre area is shown in Table 3.7. For typical cities, these areas would typically be characterised by high commercial activity and high parking demand.

Table 3.7 Parking areas in outer city

Parking Area (refer map)	Comments
City of Palmerston	
Northwestern Lot	<p>Weekday demand high, weekend demand low.</p> <p>Acts as storage of vehicles and appears to be largely used for all-day parking; occupancy decreases after 5pm.</p> <p>The all-day parking services staff for City Centre businesses; 2-hour parking services Police; 15-minute parking services Post Office; 1-hour parking services City of Palmerston.</p> <p>There was minimal difference in the occupancies observed during December (when parking was untimed), suggested that pricing adjustments of that magnitude had little influence on demand here.</p>
Maluka Drive	Very low utilisation at all times. Underutilised; there is sufficient capacity in free parking provided by businesses so there is little incentive to pay for this time limited parking.
Rolyat Street	Very low utilisation at all times. Underutilised; there is sufficient capacity in free parking provided by businesses so there is little incentive to pay for this time limited parking.
Adjacent Rydges	Very low utilisation at all times. Underutilised; this parking is paid and located some distance away from most end destinations. Free parking is provided at those end destinations nearby.
Private (Key areas)	
Bunnings	The weekday occupancy for Bunnings was generally medium and slightly higher on the weekend, and occupancy never reached capacity. It is noted that a portion of the parking (nearest The Boulevard) always remained empty.
Palmerston Shopping Centre North	The weekday occupancy was medium and weekend occupancy medium-low. Low turnover with some parking all day. Employees were observed to be parking in this area. It is noted that the northern most portion was nearly always empty.
Palmerston Shopping Centre South	Weekday and weekend occupancy was medium. This area services the Palmerston Shopping Centre. Additional capacity was always observed.
Coles Under Cover, Target Under Cover	Weekday occupancy was medium and weekend occupancy low nearest Coles. Weekday and weekend occupancy was very low nearest Target, where a significant number of parking spaces were never occupied.
Palmerston Shopping Centre East	Weekday and weekend occupancy was very low, where a significant number of parking spaces were never occupied.
Oasis Shopping Centre	Occupancy was generally medium-low, where there was always additional capacity. Turnover was low in some areas, particularly on eastern side – likely employees.
Hub Complex and Surrounds	Occupancy was low, where there was always additional capacity.

Parking Area (refer map)	Comments
Private	
Hub Complex Underground	Weekday and weekend occupancy was very low, where a significant number of parking spaces were never occupied. It is noted that this building is largely vacant and therefore has minimal demand associated with it.
Waterpark	Weekday and weekend occupancy was very low, where a significant number of parking spaces were never occupied.

3.3.2.4 Summary

The parking survey data identifies the following:

- Supply for the City Centre as whole currently exceeds observed demand; the observed average occupancy for the City Centre is 43% (weekdays) and 25% (weekends).
- For areas of all day parking, the average occupancy for the City Centre was 49% (weekdays) and 18% (weekends).
- For areas of timed parking, the average occupancy for the City Centre was 35% (weekdays) and 31% (weekends).
- Demand for privately managed areas can typically be catered for by the parking currently provided by that development.
- Supply is sufficiently high within each of the privately managed areas which appear to have minimal increase in demand on City of Palmerston operated parking areas.
- Behavior is not measurably altered by pricing changes at the current levels.
- There are notable hotspots where demand is highest, typically where all day parking is required in the northwestern lot and northeastern lot. It is likely many of these parkers are employees of nearby businesses.
- There appears to be an opportunity to consolidate and amend the parking, such that utilisation better matches actual, observed demand.

3.3.3 Survey Conclusions



Overall, while there are notable hotspots, overall utilisation across the City Centre was generally low and there appears to be an oversupply of parking. This suggests there is an opportunity to improve the efficiency of parking spaces, through timing/pricing control adjustments, addressed through the Parking Strategy and Implementation Plan.



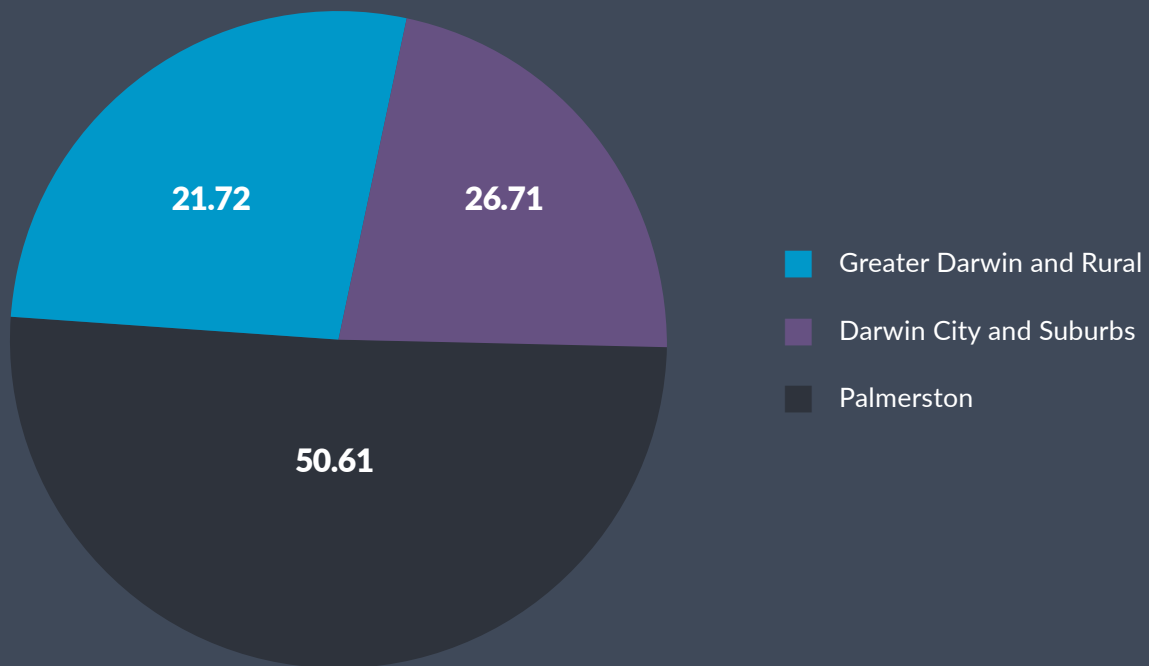
3.3.4 Vehicle Origin

Data was collected from the Australian Bureau of Statistics (ABS) 9 August 2016. This data is represented in Figure 10 and summarises the origin of drivers travelling to Palmerston.

Approximately half of drivers travelling to Palmerston are local residents of Palmerston, where the balance is comprised of those travelling from Darwin City and from the Greater Darwin region.

It should be noted that this number does not directly correspond to the number of drivers parking in the City Centre, however can be a useful indicator. .

Figure 10: Journey to work indicating driver origin



4 KEY MESSAGES

Through a review of existing planning documents and parking survey data, the following key messages are highlighted:

- The Strategy and Plan must provide clear direction and timing regarding policies and actions, backed with appropriate data. This will enable City of Palmerston to move forward confidently in implementing progressive parking changes to achieve desired outcomes.
- There are several factors that make City of Palmerston unique. These must be key considerations in developing an appropriate Strategy and Plan.
 - The arrangement of parking in the Palmerston City Centre does not reflect that for typical City Centres. Typically, the clear distinction between on-street and off-street parking results in a clear parking hierarchy, which governs the designation of parking controls and pricing in line with the Austroads Guide. In Palmerston City Centre, several off-street areas are allocated for short-term parking, however turnover is not being appropriately achieved.
 - City Centre areas are also typically defined by a core centre, where commercial activity and demand for parking is generally highest. This is not characteristic of the Palmerston City Centre where development is lower density and generally spread across a larger area.
 - Palmerston City Centre is somewhat disconnected in function. Parking is firmly linked to the end destination with little trip-linking. For example, a driver will park at Bunnings to shop and then drive to another destination within the City Centre (for example Palmerston Tavern), rather than walking.
- The parking survey data indicates:
 - Supply for the City Centre as whole currently exceeds observed demand; the observed average occupancy for the City Centre as a whole is 43% (weekday) and 25% (weekend).
 - For areas of all day parking, the average occupancy for the City Centre was 49% (weekday) and 18% (weekend).
 - For areas of timed parking, the average occupancy for the City Centre was 35% (weekday) and 31% (weekend).
 - Demand for privately managed areas can typically be



catered for by the parking currently provided by that development.

- Supply is sufficiently high within each of the privately managed areas which appear to have minimal increase in demand on City of Palmerston operated parking areas.
- Behaviour is not measurably altered by pricing changes at the current levels.
- There are notable hotspots where demand is highest, typically where all day parking is required in the Northwestern Lot and Northeastern Lot. It is likely many of these parkers are employees of nearby businesses.
- There appears to be an opportunity to consolidate and amend the parking, such that utilisation better matches actual, observed demand.
- The results of the parking surveys indicate that there are some immediate parking control/pricing changes that can be implemented through the Plan.
- Given parking is currently firmly tied to end destinations, the Strategy and Plan must consider this relationship between parking and land-use in the short, medium and long term. The encouragement of trip-linking forms an important part of the Strategy.

APPENDIX A – PARKING SURVEY DATA