COFFS HARBOUR CITY CENTRE CAR PARKING STUDY

FOR

COFFS HARBOUR CITY COUNCIL

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CONTENTS

Tables

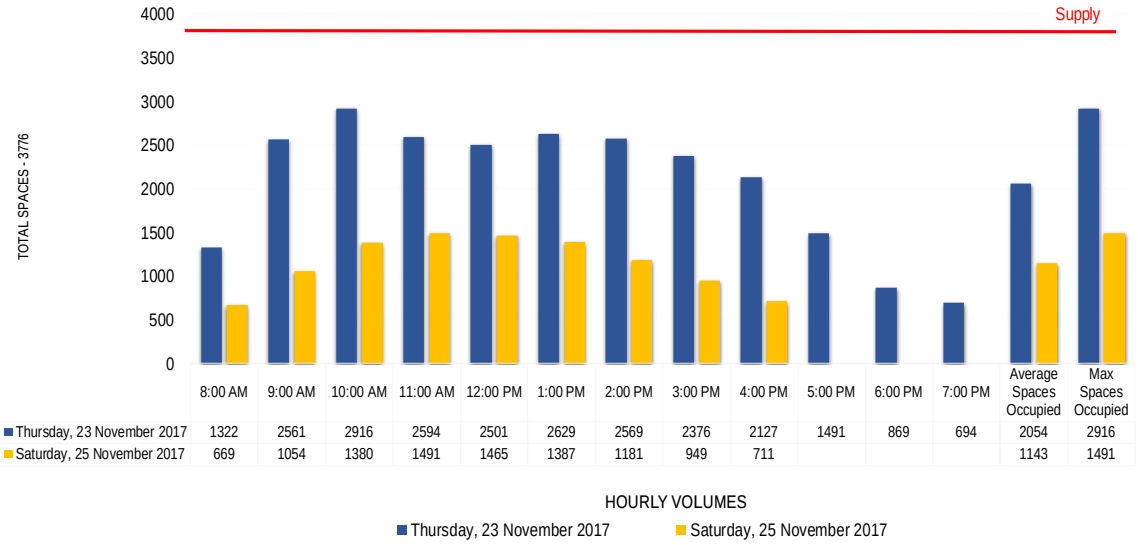
Figures

Appendices

EXECUTIVE SUMMARY

This report provides an analysis of the Coffs Harbour City Centre on-street and off-street car parking demand during a typical weekday and weekend. The analysis included an assessment of the car parking occupancy for the whole city centre study area and a more focused assessment including average duration of stay, parking turnover and compliance on sections of Moonee Street, Harbour Drive and Park Avenue. In addition to analysing the current parking demand, the 2012 parking study undertaken by GTA was analysed and compared to the current parking study results.

The 2017 car parking inventory shows that the Coffs Harbour City Centre currently provides 47% 'short-term' parking (i.e. less than 4 hours) and 53% 'long-term' parking (i.e. 4 hours and more). The overall average hourly occupancy results for Coffs Harbour City Centre is shown in Figure E1.



	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	Average Spaces Occupied	Max Spaces Occupied
Thursday, 23 November 2017	1322	2561	2916	2594	2501	2629	2569	2376	2127	1491	869	694	2054	2916
Saturday, 25 November 2017	669	1054	1380	1491	1465	1387	1181	949	711				1143	1491

Figure E1: Average Hourly Occupancy

As a whole the Coffs Harbour City Centre is shown to have sufficient parking supply to meet the parking demand. Based on the comparison between the 2012 and 2017 parking occupancy results, there has been no significant increase in parking occupancy over the five-year period.

The key results from the parking surveys include:

1. sections of on-street car parking located within the central core activity area exceed the desirable 85% occupancy rate;
2. the majority of the off-street car parks also exceed the 85% occupancy rate during peak periods; and
3. available car parks are found around the fringe areas of the study area (approximately 5-minute walk).

The aim is to have the high turnover time restrictions (i.e. 1/4P, 1/2P, 1P and 2P) located within the central streets, with the time restrictions increasing as you move towards the peripheral parking areas (i.e. located within a 5-minute walk to the CBD). This is consistent with Council's aim to promote and enhance active transport connections from the CBD to the fringe car parks.

Based on the parking analysis and comparison with the 2012 results, it is recommended that parking studies are to be undertaken every 3 - 5 years dependant on significant development / parking changes within the study area.

1. INTRODUCTION

1.1 BACKGROUND

Coffs Harbour City Centre is located within 3km from the foreshore and is a major attraction for locals and tourists in the area. It is a popular city centre and a social / recreational destination, particularly during weekends. The commercial hub consists of specialty shops, supermarkets, offices, restaurants, bars and recreational uses.

The Coffs Harbour 2031 City Centre Masterplan vision is "to create a place where economic, social and cultural pursuits fuse to enrich and enliven all who live, work and visit the City Centre." The vision for the City Centre will ultimately attract more visitors over time and provide increasing pressure on the available car parking spaces.

Coffs Harbour City Council has engaged Bitzios Consulting to undertake the City Centre Parking Study; to assess current parking supply and demand, to determine current parking patterns around the City Centre's commercial hub and identify potential improvements. The extent of the proposed study area is outlined in Figure 1.1.

Figure 1.1: Coffs Harbour City Centre Study Area

For the purpose of this assessment the study area will be analysed as a whole with a focus on Moonee Street, Park Avenue and Harbour Drive. The location of the focus streets are highlighted in Figure 1.1.

1.2 SCOPE

The scope of the Coffs Harbour City Centre Parking Study was to undertake a car parking survey and management review to identify improvements to maximise the efficiency of available on-street parking, while minimising impacts to the surrounding areas. The scope of work included:

- identification of existing parking restrictions within the study area;
- on-site investigations into the relationship between parking space utilisation and land use;
- identification of parking occupancy patterns through the use of occupancy surveys;
- detailed analysis of the existing occupancy patterns including spatial analysis and utilisation plots;
- investigations into current shortfalls in car parking provision;
- comparison to the 2012 parking surveys; and
- identification of potential strategies to improve parking within the area for residents, staff and visitors

1.3 STUDY LIMITATIONS

The parking study has been primarily based on occupancy data collected on the 23rd and 25th November 2017. These dates were selected to minimise impacts from the Christmas holiday period. Surveys for the multilevel car park, Brelsford Park off-street car parks and several on-street car parking spaces on Earl Street and Albany Street were surveyed on the 14th December 2017.

It is also important to note that the parking occupancy survey was not collected for individual bays. As such, parking restrictions placed on bays may impact general occupancy levels and give the impression that parking sections are underutilised. For example, a parking section which incorporates a loading zone is unlikely to reach full occupancy as these bays are very rarely used.

The parking occupancy surveys were undertaken by street section which may encompass a range of time restrictions.

2. METHODOLOGY

2.1 INVENTORY

An inventory of all on-street and off-street car parking spaces has been undertaken by Traffic Data and Control (TDC) showing the location of all parking bays within the study area. It should be noted that some streets with parallel on-street parking within the study area do not have marked parking bays. As such, the supply of parking spaces identified within the inventory is an estimate based on the size of an average vehicle (i.e. 6m).

2.2 PARKING SURVEY

The initial parking survey was undertaken on Thursday 23rd and Saturday 25th November 2017 for all on-street and off-street parking spaces within the City Centre study area. Hourly occupancy surveys were undertaken on Thursday 23rd November between 8:00am to 8:00pm and Saturday 25th November between 8:00am to 5:00pm. Duration of Stay (DOS) surveys were undertaken on Thursday 23rd November in 15-minute intervals between 10:00am to 1:00pm for sections along Harbour Street, Park Avenue and Moonee Street.

Further surveys were undertaken on the 14th December 2017 at the multi-level Central car park, Brelsford Park off-street car parks and several on-street car parking spaces on Earl Street and Albany Street.

The number of parked vehicles were recorded in one-hour intervals for 123 parking sections within the study area. The disaggregation of the study area's on-street and off-street parking into 123 sections is illustrated in Figure 2.1.

The surveys involved field staff recording vehicle number plates (first four digits) along with the vehicle location, every 15-minutes between 10:00am and 1:00pm in the focus streets only for the DOS surveys. This information was recorded every hour for the survey period on both days. This data was then used to analyse how many car spaces were occupied and when they were occupied. Further analysis provides parking turnover, length of stay and level of compliance (or non-compliance) at the DOS surveyed street sections along Harbour Drive, Park Avenue and Moonee Street.

Figure 2.1: Location of Individual Parking Sections

3. PARKING ANALYSIS

3.1 PARKING SUPPLY

An audit of parking was undertaken within the identified study area to determine the composition of parking within the Coffs Harbour City Centre. The parking audit identified the supply of car parking for each street section and the sign posted restrictions placed on parking bays. The composition of parking within the study area is provided in Figure 3.1 and attached in Appendix A.

The City Centre study area is predominately unrestricted parking with the time restrictions decreasing when moving towards the centre of the study area as illustrated in Figure 3.1. The parking located in the central area is largely surrounded by commercial / retail developments. The main streets subject to short term time restrictions are Harbour Drive, Moonee Street and Park Avenue (i.e. focus streets). The parking throughout the City Centre also contains several dedicated spaces such as loading zones, taxi zones, bus zones and People with Disability (PWD) bays. Parking controls along Harbour Drive, Moonee Street and Park Avenue are outlined in Figure 3.2.

N

Parking Restriction

Type

- 1/4P
- 1/2P
- 1P
- 2P
- 3P
- 4P
- N/A
- Disabled Parking
- Motorcycle Parking
- No Stopping
- Bus Zone
- Loading Zone
- Taxi Zone

Parking Inventory
Thursday 23rd November 2017

Figure 3.1: Parking Composition

N

O1

O2

O3

Moonee Street

Harbour Drive

O11

O4

Park Avenue

O5

Parking Restriction

Type

- 1/4P
- 1/2P
- 1P
- 2P
- 3P
- 4P
- N/A
- Disabled Parking
- Motorcycle Parking
- No Stopping
- Bus Zone
- Loading Zone
- Taxi Zone

Parking Inventory - Focus Streets
Thursday 23rd November 2017

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 3.2: Parking Composition - Focus Streets

The on-street and off-street car parking supply per time restriction and angle of parking is detailed in Table 3.1. The combined total of all car parking within the City Centre is 3,857 with a relatively even split between 60-degree, 90-degree and parallel spaces.

Table 3.1: Coffs Harbour City Centre Car Parking Supply

Time Restriction	Parking Angle				
	60 degrees	90 degrees	Informal	Parallel	Total
1/4P	25	-	-	12	37
1/2P	-	17	-	6	23
1P	199	-	-	107	306
2P	427	327	-	264	1018
3P	-	419	-	-	419
4P	12	-	-	35	47
Unregulated	97	1302	24	487	2172
PWD Parking	12	4	-	5	21
Motorcycle Parking	4	12	-	-	27
Loading Zone	1	3	-	23	27
Bus Zone	-	-	-	16	16
Taxi Zone	-	-	-	17	17
Total	777	2084	24	972	3857

With regards to short and long-term parking, Table 3.1 details that the City Centre has approximately 47% 'short-term' parking (i.e. less than 4 hours) and 53% 'long-term' parking. The City Centre has 1,861 on-street and 1,996 off-street car parking spaces as detailed in Table 3.2.

Table 3.2: Coffs Harbour City Centre On-Street / Off-Street Car Parking Supply

Car Park	Supply
On-Street	1861
Off-Street	1996
- Lyster Street Car Park (O1)	177
- Scarba Street Car Park (O2)	79
- Elbow Street Car Park (O3)	143
- Woolworths Car Park (O4)	252
- Gordan Street Car Park (O5)	90
- Squash Courts Car Park (O6)	52
- Coles Underground Car Park (O7)	134
- Community Village Car Park (O8)	42
- Duke Street Car Park (O9)	52
- Pool Car Park (O10)	32
- Coffs Central (O11)	896
- Brelsford Park Playground Car Park (O12)	23
- Brelsford Park Sports Field Car Park (O13)	24
Total	3857

3.2 STUDY AREA PARKING OCCUPANCY

3.2.1 On-Street Parking

A maximum on-street car parking occupancy of 71% between 10:00am – 11:00am was recorded on Thursday which dropped to 64% at 12:00pm – 1:00pm and remained relatively constant until after 4pm as illustrated in Figure 3.3. The Saturday occupancy recorded a peak of 41% between 11:00am – 1:00pm. Overall, Thursday experiences much higher levels of occupancy when compared to Saturday throughout the day.

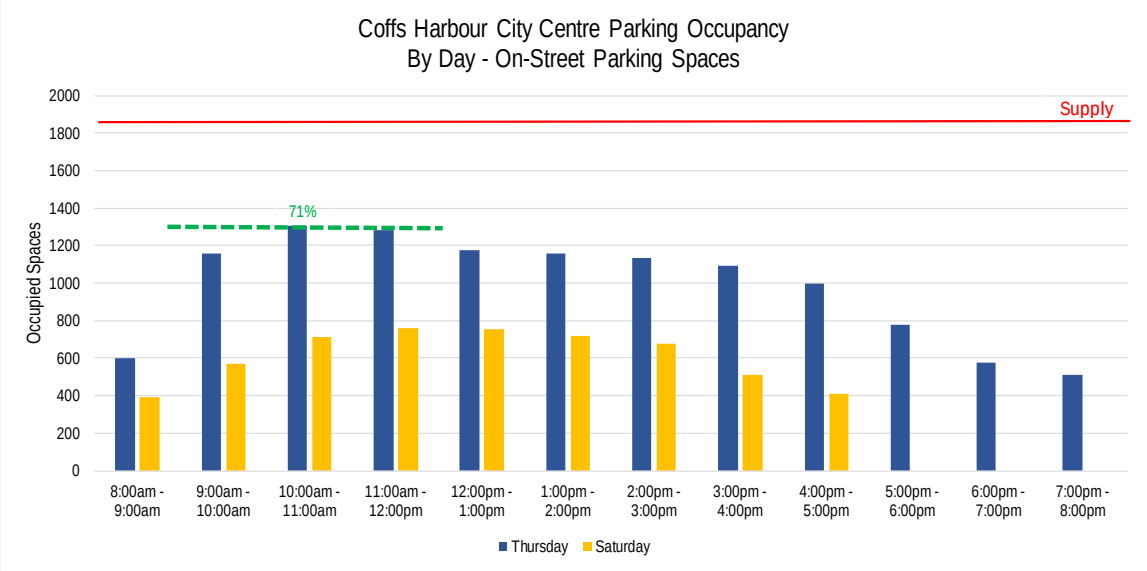


Figure 3.3: Parking Occupancy – All On-Street Parking

The Thursday and Saturday parking occupancy mapping for each hour is provided in Appendix A.

Off-Street Parking

The off-street car parking occupancy on Thursday peaked at 83% between 10:00am – 11:00am, experiencing distinct peaks and troughs in parking demand as illustrated in Figure 3.4. Saturday experienced a peak occupancy of 38% between 11:00am – 12:00pm. Overall, Thursday experiences much higher levels of occupancy when compared to Saturday.

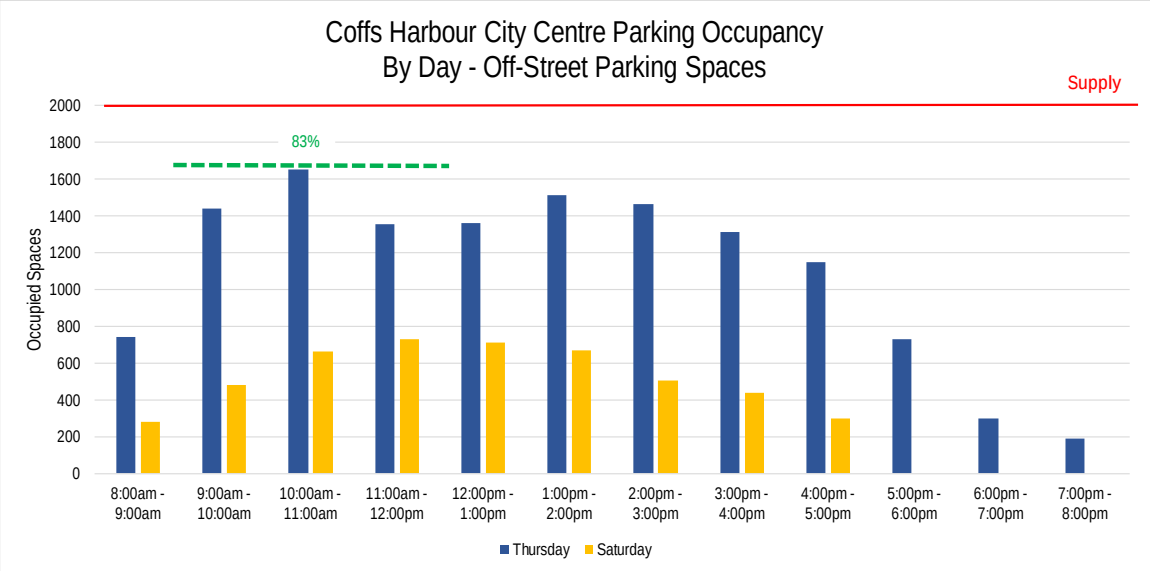


Figure 3.4: Parking Occupancy – All Off-Street Parking

The Thursday and Saturday parking occupancy mapping for each hour is provided in Appendix A.

On-Street and Off-Street Car Parking Occupancy

The combined on-street and off-street car parking occupancy for Thursday and Saturday is illustrated in Figure 3.5. The parking occupancy on Thursday peaked at 77% between 10:00am – 11:00am. Saturday experienced a peak occupancy of 40% between 11:00am – 12:00pm.

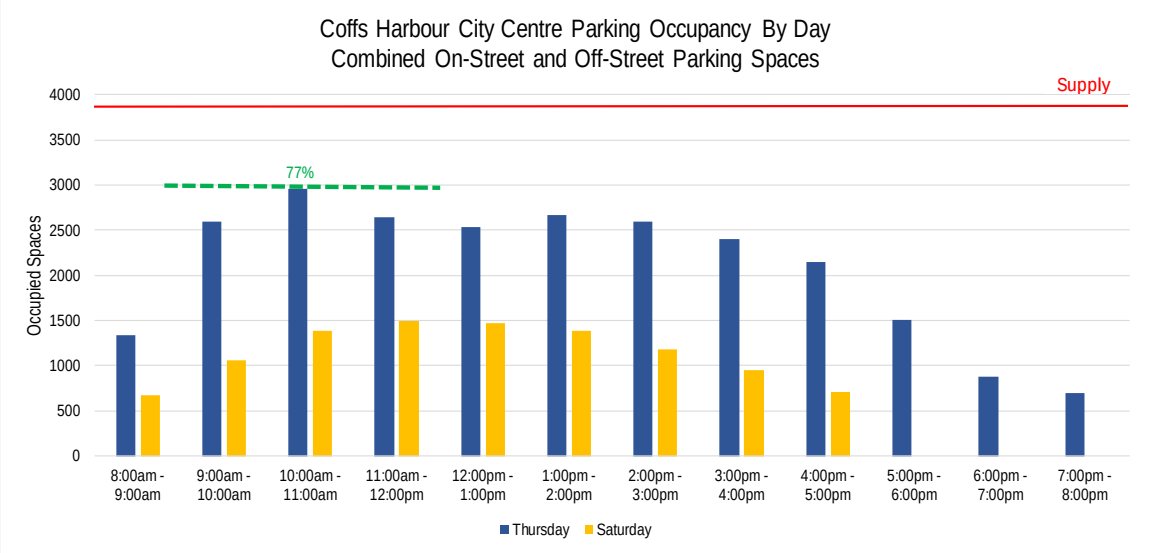


Figure 3.5: Combined On-Street and Off-Street Parking Occupancy

Temporal Variation

Further illustration of the temporal variation of the on-street and off-street car parking occupancy is shown in Figure 3.6. The parking demand profile for Saturday on-street and off-street parking are shown to be similar with a steady rise-up to 12:00pm and a steady fall to the afternoon. The on-street and off-street parking demand profiles for Thursday are shown to vary with a distinct rise and fall for off-street parking (i.e. likely attributed to off-street supermarket car parks).

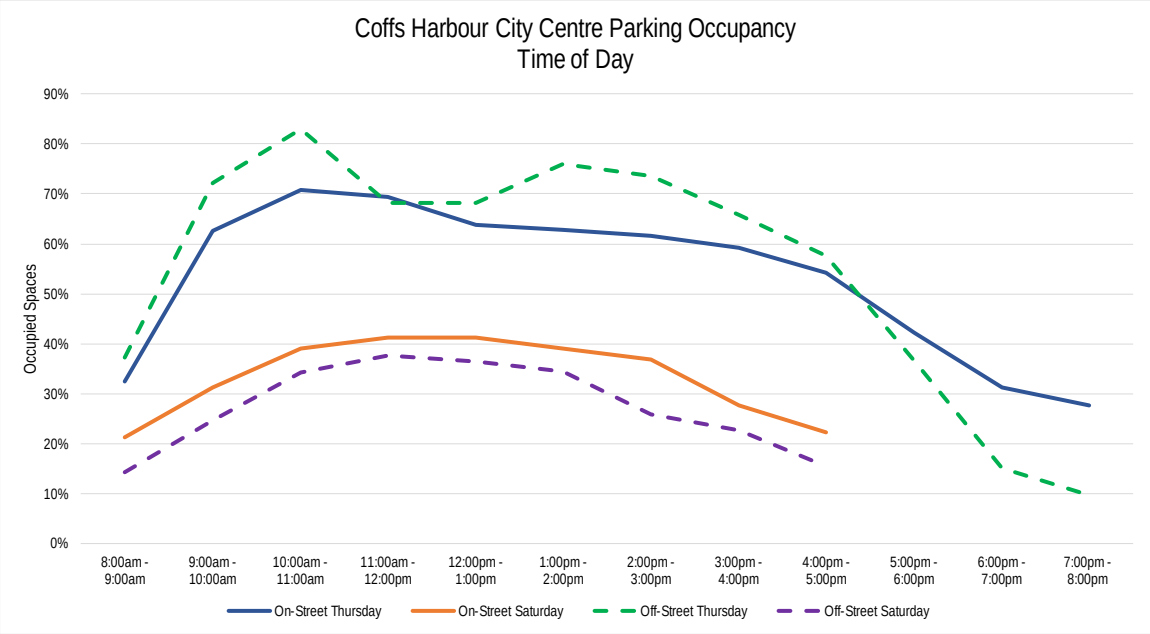


Figure 3.6: On-Street and Off-Street Parking Occupancy – Temporal Variation

Focus Streets

The parking occupancy for the three (3) focus streets of Harbour Drive, Park Avenue and Moonee Street is shown in Figure 3.7. The parking occupancy peaked at 88% on Thursday between 11:00am – 12:00pm and 64% on Saturday between 12:00pm – 1:00pm.

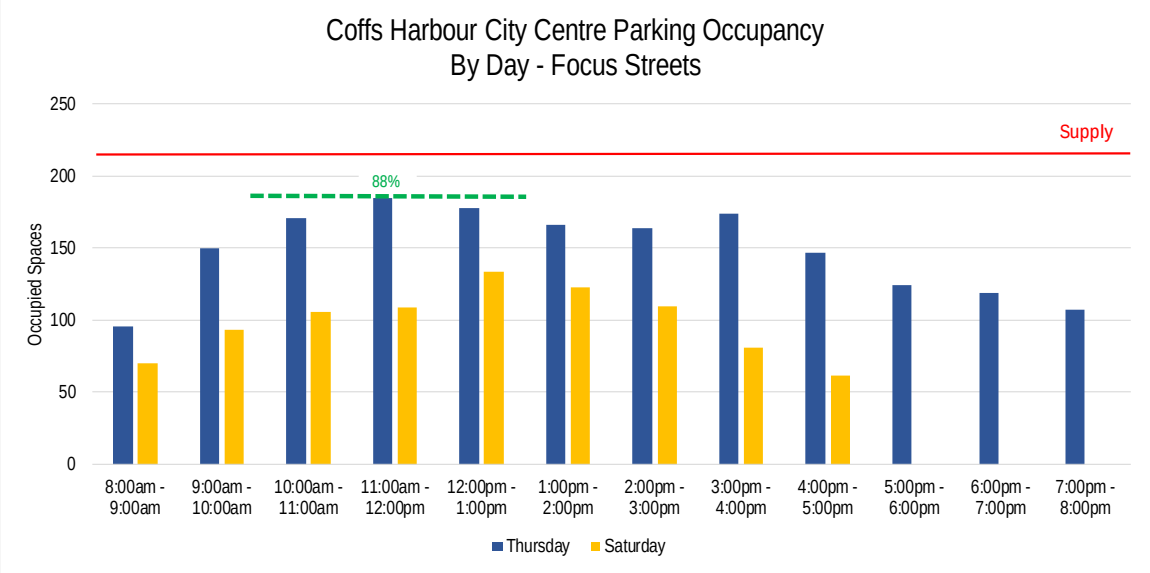


Figure 3.7: Parking Occupancy – Focus Streets

The Thursday and Saturday parking occupancy mapping for each hour is provided in Appendix A.

3.2.2 Multi-Level Car Parks

Coffs Central

The car parking occupancy surveys for Coffs Central were analysed per level and time restriction (i.e. 3P and No Limit). Coffs Central is predominately unregulated car parking with 131 spaces (15%) 2P time restricted and 182 spaces (20%) 3P time restricted out of a total of 896 spaces.

The Coffs Central occupancy by level for 2P time restricted parking is illustrated in Figure 3.8. High levels of occupancy for the ground level are shown between 10:00am – 2:00pm with a distinct fall after 2:00pm and before 10:00am.

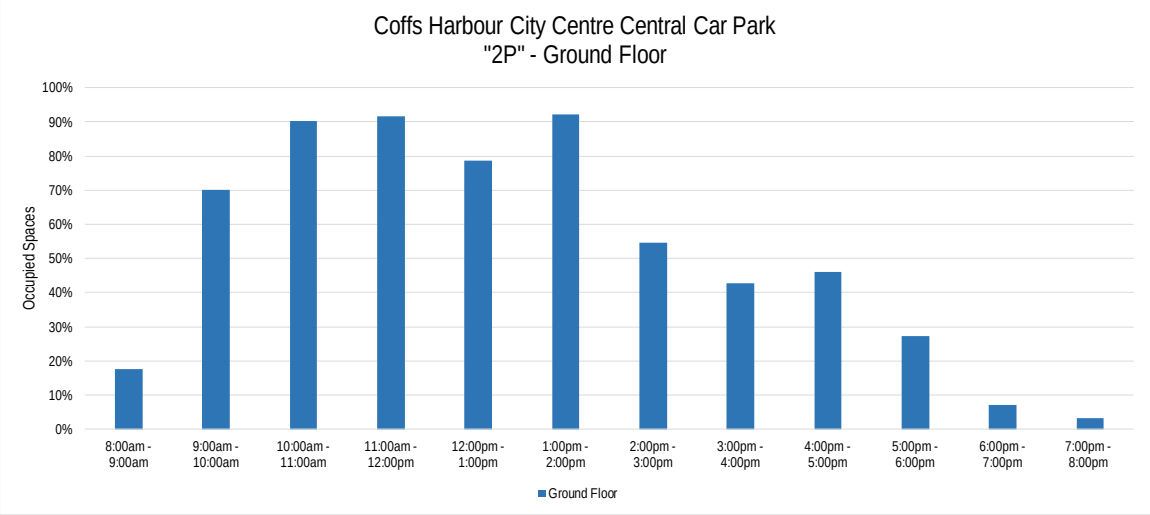


Figure 3.8: Coffs Central 2P Parking Occupancy

The 2P time restricted maximum parking occupancy for the ground floor compared against supply is illustrated in Figure 3.9. The 2P maximum occupancy for the ground floor peaks at 92% between 1:00pm – 2:00pm.

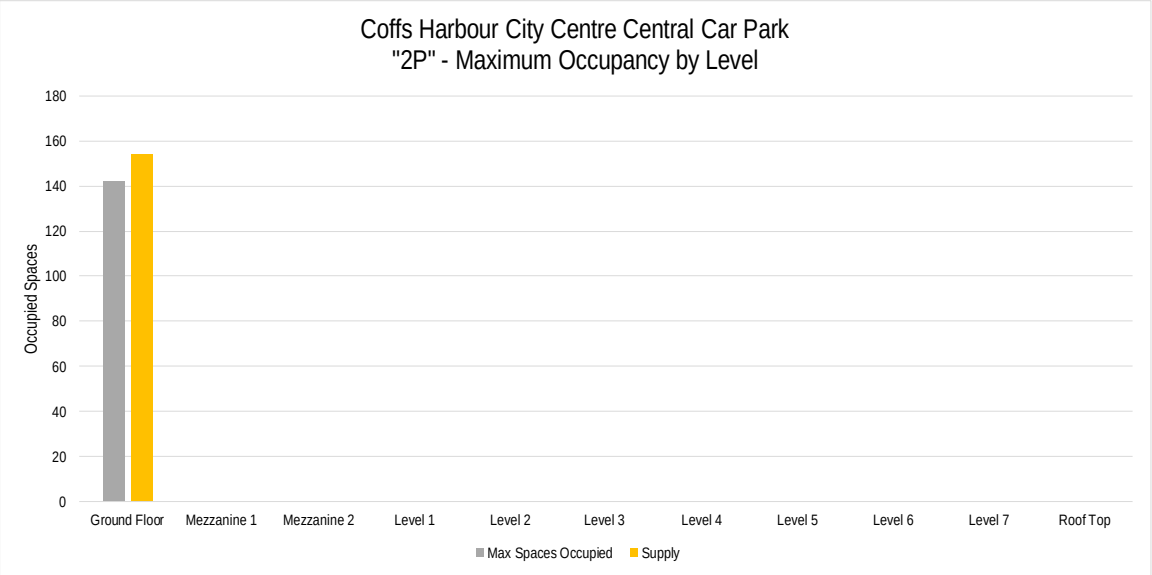


Figure 3.9: Coffs Central 2P Maximum Parking Occupancy

The Coffs Central occupancy by level for 3P time restricted parking is illustrated in Figure 3.10. High levels of occupancy for level 1 are shown between 10:00am – 2:00pm with a distinct fall after 2:00pm and before 10:00am. Level 2 and level 3 reached peak occupancy between 12:00pm – 1:00pm at 87% and 76% respectively with relatively low levels of occupancy (i.e. less than 70%) throughout the rest of the day.

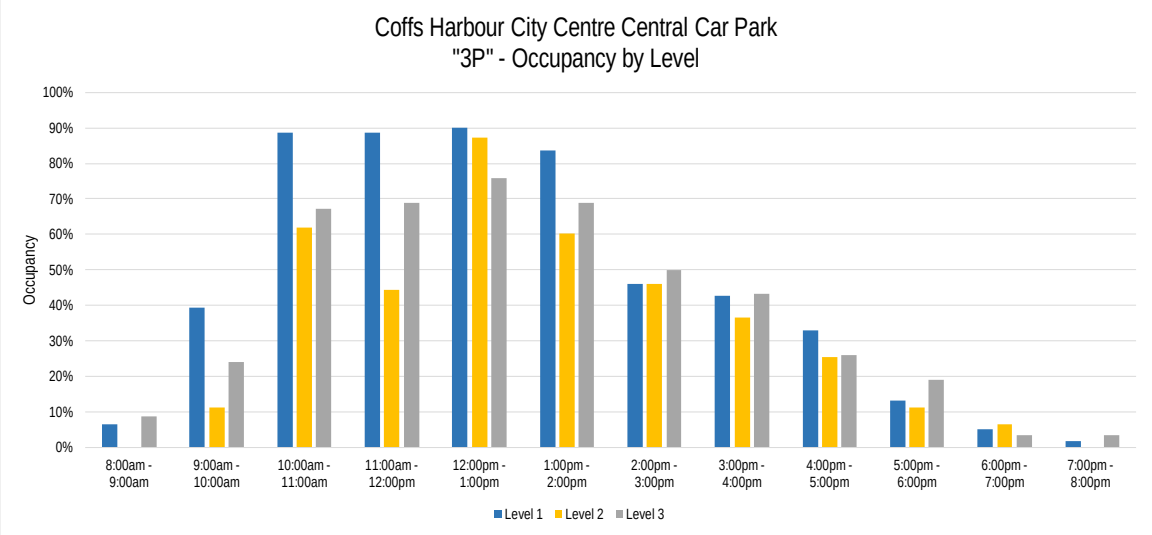


Figure 3.10: Coffs Central 3P Parking Occupancy

The 3P time restricted maximum parking occupancy per level compared against the parking supply is illustrated in Figure 3.11. The 3P maximum occupancy for level 1, level 2 and level 3 is 90%, 87% and 76% respectively, which all occur between 12:00pm – 1:00pm.

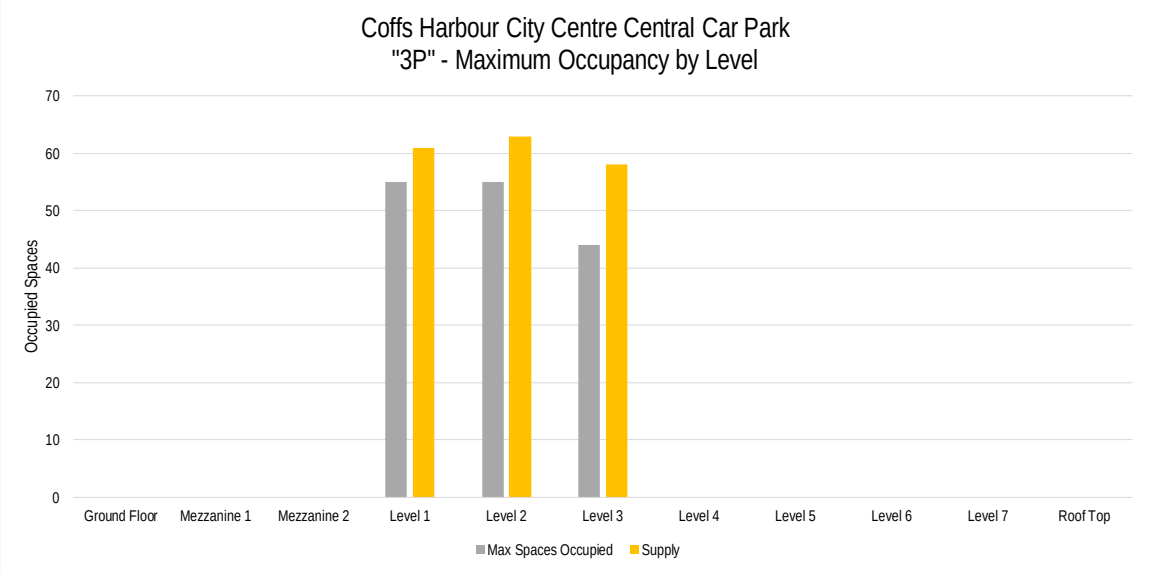


Figure 3.11: Coffs Central 3P Maximum Parking Occupancy

The Coffs Central occupancy by level for no limit parking is illustrated in Figure 3.12. High levels of occupancy are shown between 9:00am – 3:00pm for all levels except the roof top parking. The rooftop parking occupancy is shown to steadily increase and peak at 12:00pm and remain relatively constant until after 4:00pm. The fluctuation in parking on the rooftop could be reflective of staff parking arriving and departing from the car park and the rooftop being a less desirable parking spot (i.e. not sheltered).

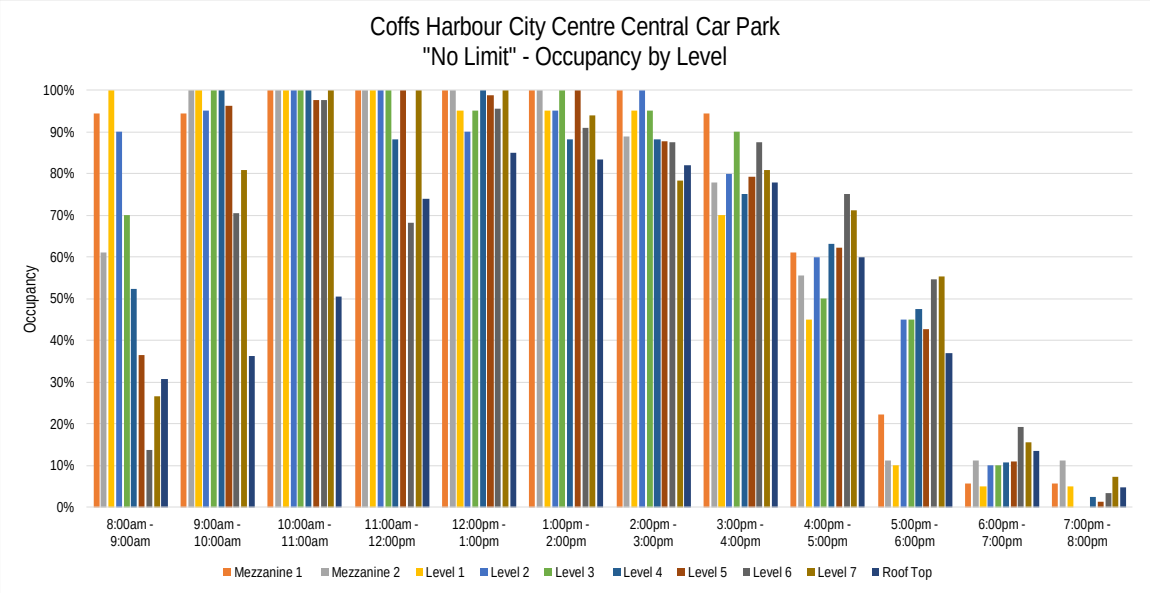


Figure 3.12: Coffs Central No Limit Parking Occupancy

The maximum parking occupancy per level has been compared against supply for no limit parking as illustrated in Figure 3.13. The maximum occupancy for every level except the ground floor and rooftop is shown to reach or be very close to reaching the capacity of the car parking supply. While the ground floor and rooftop are shown to have 10 - 20 spaces available.

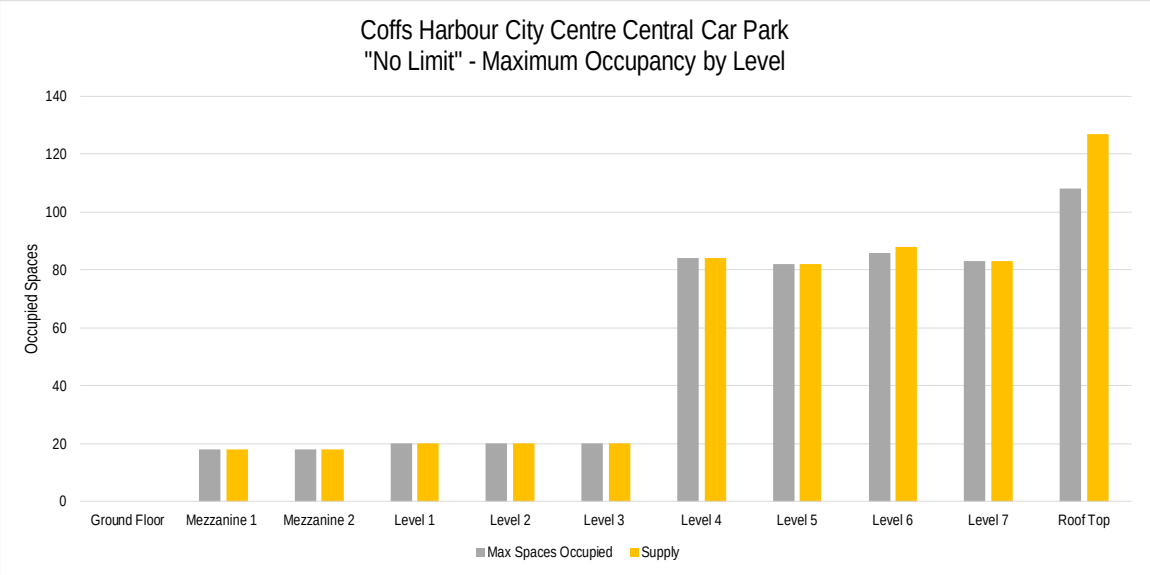


Figure 3.13: Coffs Central No Limit Parking Occupancy

The profile of short term (i.e. 2P and 3P) and long term (i.e. no limit) parking is illustrated in Figure 3.14. The short-term demand profile is shown to fluctuate between 10:00am – 1:00pm while the long-term parking does not have any distinct fluctuations throughout the course of the day.

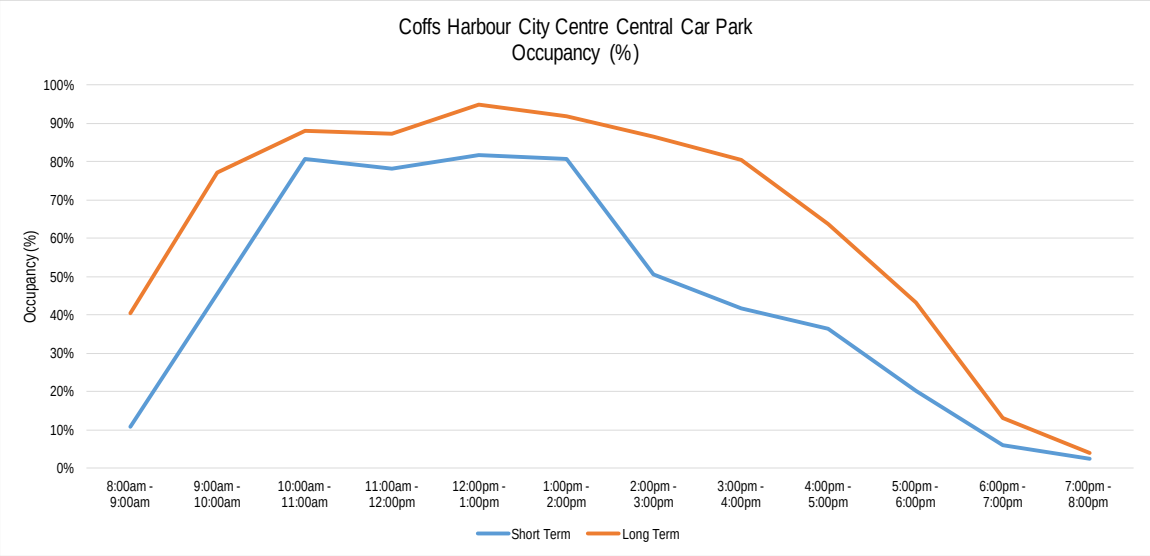


Figure 3.14: Coffs Central Short-Term and Long-Term Parking Occupancy Profile

In summary, the Coffs Central multi-level car park is shown to have a satisfactory provision of short term parking (i.e. 2P and 3P) with a peak occupancy of 82% (i.e. below the 85% threshold). The long-term parking spaces are shown to be highly utilised with a peak occupancy of 95%. This is likely attributed to staff parking in the area due to the central location within a core employment centre. Therefore, the provision of short-term and long-term parking spaces within the Coffs Central car park is considered to be adequate for a central location within the City Centre. Additional long-term parking spaces should be investigated around the fringe of the City Centre boundary.

Woolworths Car Park

The Woolworths multi-level car park has three (3) levels with 74 2P time restricted spaces located on the ground floor and 178 3P time restricted spaces located on level 1 and roof top.

The 2P car parking occupancy on ground floor is illustrated in Figure 3.15. The ground floor level has high levels of occupancy exceeding 80% between 8:00am – 2:00pm and again at 5:00pm – 6:00pm.

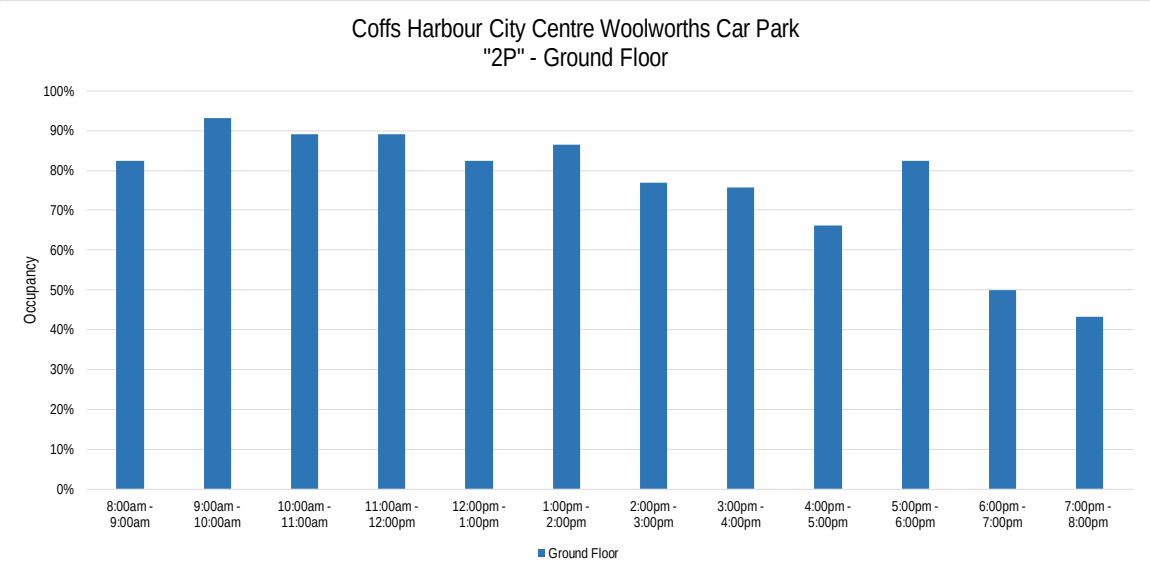


Figure 3.15: Woolworths 2P Parking Occupancy

The maximum parking occupancy per level has been compared against the parking supply as illustrated in Figure 3.16. The maximum occupancy for the ground floor is 94% which indicates that during peak times there are limited available car parking spaces.

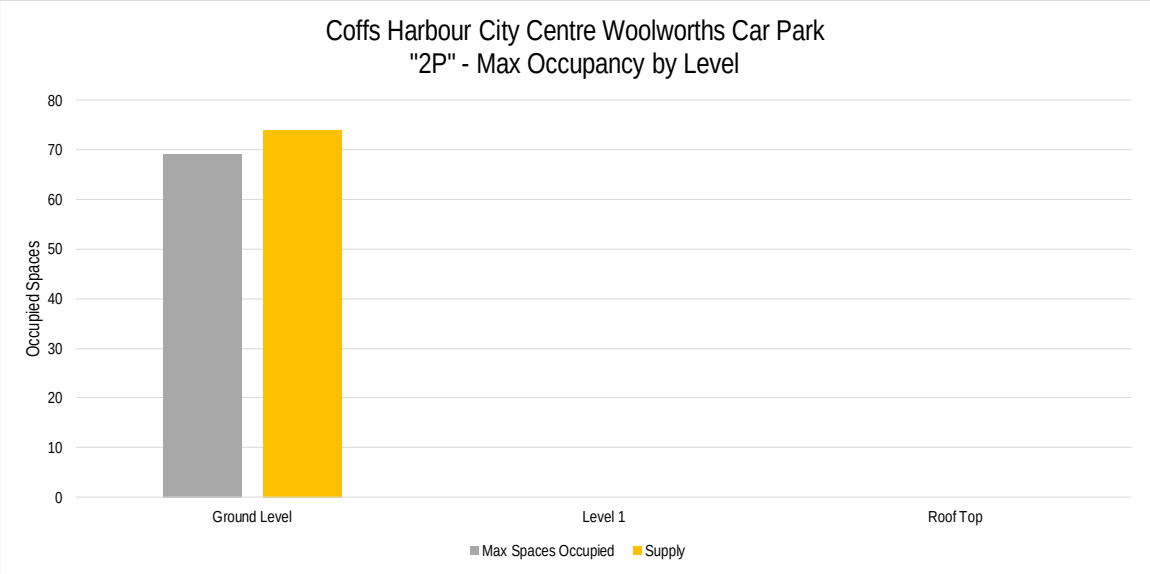


Figure 3.16: Woolworths 2P Maximum Parking Occupancy

The 3P car parking occupancy on level 1 and rooftop is illustrated in Figure 3.17. Level 1 has predominately higher levels of occupancy of 89% - 99% between 9:00am – 3:00pm with a steady decrease in occupancy after 3:00pm. The rooftop car park has high levels of occupancy of 90% - 100% between 9:00am – 12:00pm with a 30% decrease in occupancy after 12:00pm (i.e. down to 70%) and very low occupancy after 5:00pm (less than and equal to 15%).

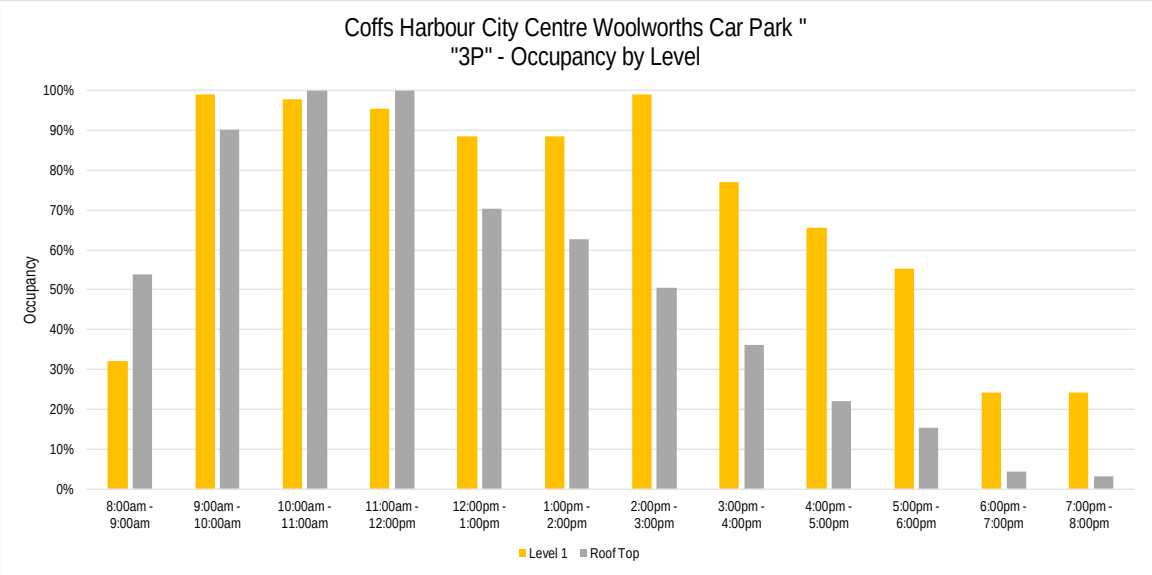


Figure 3.17: Woolworths 3P Parking Occupancy

The maximum parking occupancy per level has been compared against the parking supply as illustrated in Figure 3.18. The maximum occupancy on level 1 and rooftop was 99% and 100% respectively, which indicates that during peak times there are limited available car parking spaces, likely resulting in overflow on-street parking.

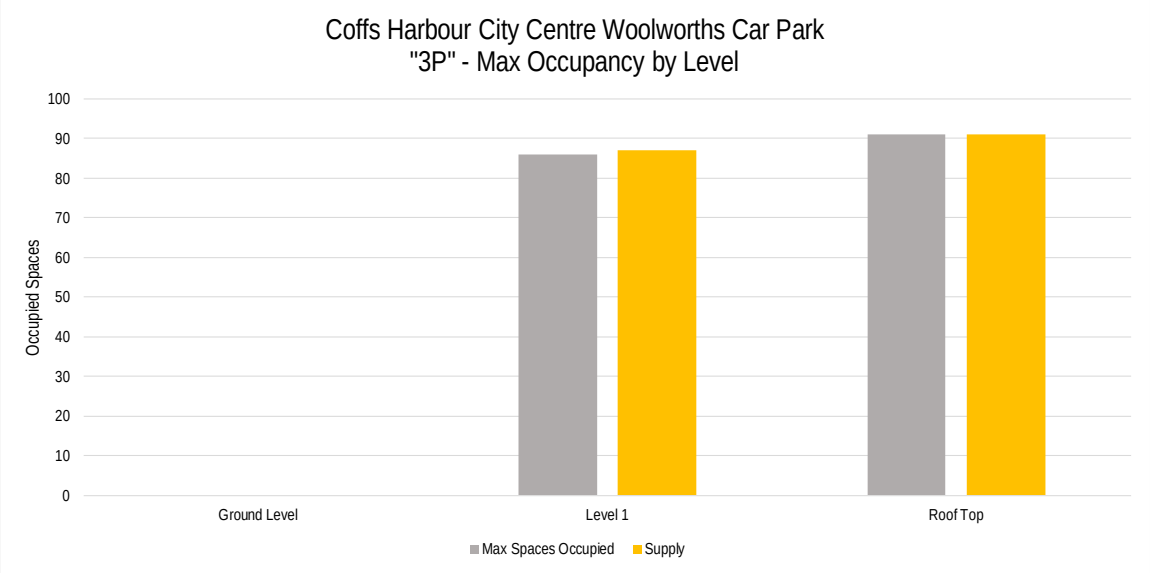


Figure 3.18: Woolworths 3P Maximum Parking Occupancy

3.3 AVERAGE DURATION OF STAY, PARKING TURNOVER AND COMPLIANCE

3.3.1 Overview

The Duration of Stay (DOS) surveys were undertaken along Harbour Drive, Park Avenue and Moonee Street for a three (3) hour period between 10:00am and 1:00pm. It is important to note that all 4P time restricted parking spaces are motorcycle parking only. The supply of the time restriction bays per street is illustrated in Figure 3.19.

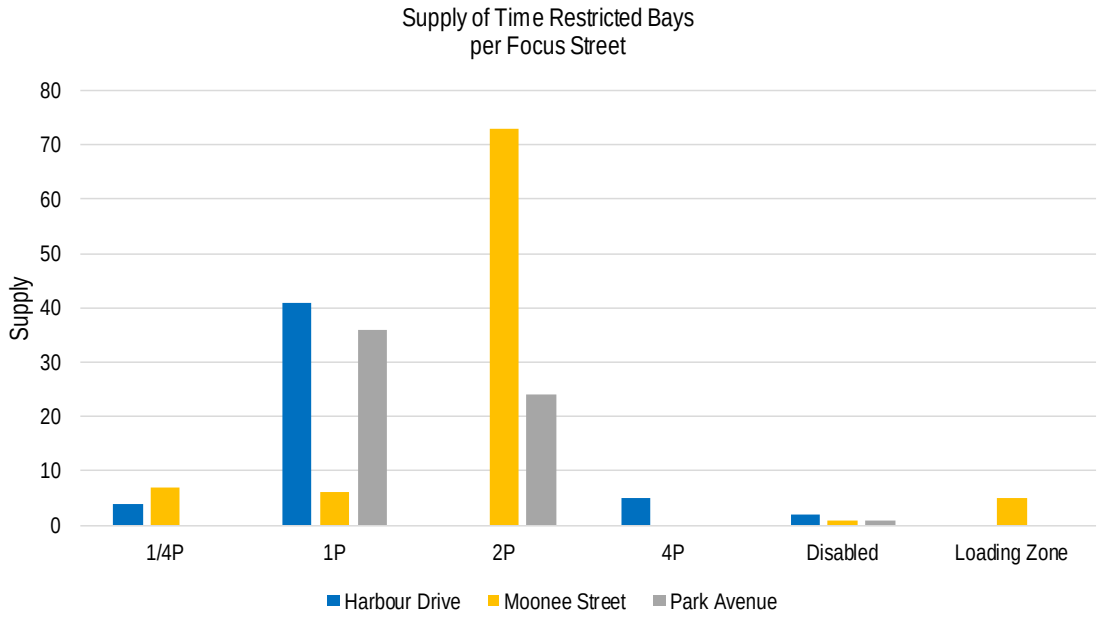


Figure 3.19: Supply of Time Restricted Bays – Focus Streets

Figure 3.19 illustrates the following:

- Harbour Drive is 79% 1P time restricted;
- Moonee Street is 79% 2P time restricted; and
- Park Avenue is 59% 1P and 39% 2P time restricted.

All maps for average DOS, turnover and overstays are provided in Appendix B.

3.3.2 Average Duration of Stay

The average Duration of Stay (DOS) per time restriction for the three (3) hour survey period is detailed in Table 3.3. The survey indicates that vehicles are parking within 1/4P restricted spaces for an average of 27 minutes, overstaying by 12 minutes. While on average, vehicles are complying with all other time restrictions along Harbour Drive, Park Avenue and Moonee Street.

Table 3.3: Average DOS by Time Restriction

Restriction	Average Duration of Stay (DOS)
1/4P	26.5 min
1P	49.2 min
2P	53.9 min
4P*	53.0 min
Disabled	63.3 min
Loading Zone	12.0 min

** 4P time restriction is limited to motorcycle parking only.*

The average DOS per time restriction along Harbour Drive, Park Avenue and Moonee Street for the three (3) hour survey period is detailed in Table 3.4. This indicates vehicles are exceeding both 1/4P and 1P time restrictions along Moonee Street, however; it is important to note that Moonee Street is predominately 2P time restricted with only seven (7) 1/4P and six (6) 1P parking spaces are available.

Table 3.4: Average DOS by Street and Time Restriction

Focus Streets	Time Restriction					
	1/4P (15 min)	1P (60 min)	2P (120 min)	4P (240 min)	Disabled	Loading Zone
Harbour Drive	25.0	35.7	-	53.0	135.0	-
Moonee Street	27.0	100.0	61.4	-	40.0	12.0
Park Avenue	-	44.0	41.3	-	15.0	-

The average DOS for the three (3) hour survey period is shown in Figure 3.20.

N

Moonee Street

Harbour Drive

Park Avenue

Average Duration of Stay

- 0 - 30 min
- 30 - 60 min
- 60 - 90 min
- 90 - 120 min
- 120 - 150 min

Average Duration of Stay (DoS)
10:00 - 13:00

Figure 3.20: Average Duration of Stay - Focus Streets

3.3.3 Turnover

The turnover per time restriction for the three (3) hour survey period is detailed in Table 3.5. The turnover for each bay was calculated by analysing the unique licence plates within each parking bay, every 15 minutes, and counting the number of change overs which occurred.

Parking turnover is a measure of how many times the car parking spaces are used over a given time by different cars. For example, all-day parking, where cars are parked at the start of the survey period and remain there for the duration will have zero turnover. Short-term parking may have many cars using the spaces (turning over) and will record a higher turnover. This is a good measure of the effectiveness of short-stay parking as it gives an indication of how often the car spaces are used.

Over the three (3) hour survey period, 1/4P time restricted spaces had an average turnover of 5.7 which indicates a lack of utilisation/turnover for these bays (i.e. optimal turnover is 12 over a three-hour period). All other time restrictions experienced good utilisation / turnover over the three (3) hour period.

Table 3.5: Average Turnover by Time Restriction for Three Hour Period

Restriction	Average Turnover
1/4P	5.7
1P	4.6
2P	3.6
4P	2.0
Disabled	1.8
Loading Zone	1.3

The average turnover for the three (3) hour survey period is shown in Figure 3.21.

N

Average Turnover
0 - 2
2 - 4
4 - 6
6 - 8

Moonee Street

Harbour Drive

Park Avenue

Thursday Average Turnover
10:00 - 13:00

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 3.21: Average Turnover - Focus Streets

3.3.4 Compliance

The overstay occurrences for the three (3) hour survey period is detailed in Table 3.6. Relative to the number of spaces available, there is a higher frequency of overstays in 1/4P parking spaces.

Table 3.6: Overstay Occurrences by Time Restriction

Restriction	Spaces Available	Overstays
1/4P	11	28
1P	83	32
2P	97	16
4P	5	0
Disabled	4	0
Loading Zone	5	0

As expected, many occurrences of overstays occurred along Harbour Drive which is predominately 1P time restricted with commercial / retail developments along the street frontage. Interestingly, the south-western side of Harbour Drive experienced the higher frequency of overstay occurrences. Moonee Street experienced minimal overstay occurrences, while Park Avenue experienced a moderate proportion of overstays. A map illustrating the street sections experiencing overstay occurrences is provided in Figure 3.22.

N

Moonee Street

Harbour Drive

Park Avenue

Overstay Occurrences

- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 - 12

Overstay Occurrences
10:00 - 13:00

Figure 3.22: Overstay Occurrences - Focus Streets

3.4 COMPARISON TO 2012 DATA

3.5 OVERVIEW

A comparison in car parking supply by time restriction between 2012 and 2017 car parking surveys is detailed in Table 3.7.

Table 3.7: 2012 and 2017 Car Parking Supply

Time Restriction	2012 Survey	2017 Survey
1/4P	35	37
1/2P	9	23
1P	299	306
2P	748	1018
3P	447	419
4P	20	47
N/A	1276	1910
PWD Parking	53	21
Motorcycle Parking	-	16
Loading Zone	-	27
Bus Zone	-	16
No Stopping	-	-
Taxi Zone	8	17
No Parking	20	-
Total	2,930	3857

A number of differences occurred between the 2012 and 2017 car parking surveys which makes it difficult to accurately compare. These differences include:

- the 2012 parking surveys coincided with New South Wales school holidays and the Labour Day long weekend while the 2017 surveys were undertaken on a typical weekday and weekend;
- the 2012 parking surveys did not cover the full extent of the City Centre zone with a total of 1,260 on-street and 1,670 off-street car parking spaces recorded. The current study recorded 1,862 on-street and 1,996 off-street car parking spaces; and
- only eight (8) off-street car parking spaces were surveyed in 2012 while 13 off-street car parking spaces were surveyed in 2017.

Figure 3.23 is an extract from the 2012 Existing Conditions Report by GTA outlining the extent of the 2012 zones.

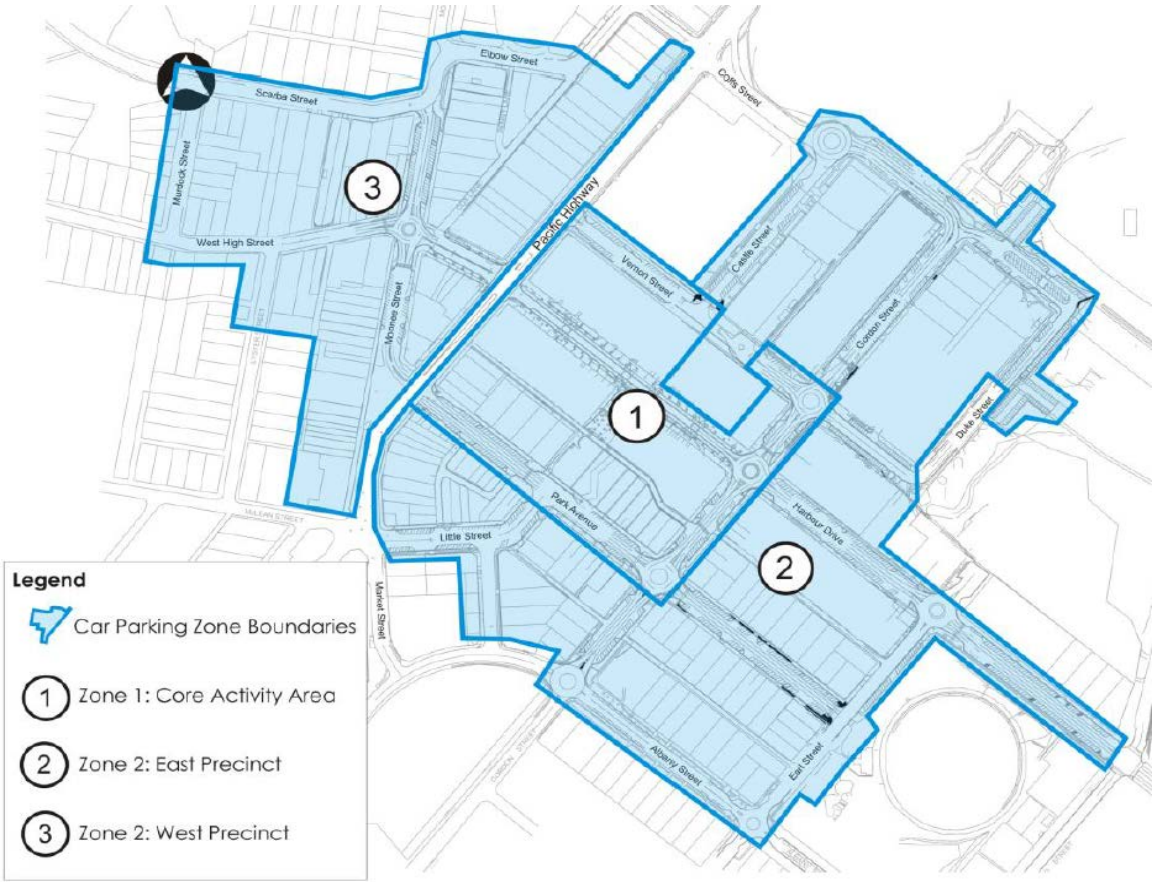


Figure 3.23: 2012 Existing Conditions Report Zones – GTA

3.6 On-Street and Off-Street Parking Comparison

3.6.1 Overview

The 2012 car parking data was reviewed and compared against the 2017 occupancy for the peak time period. The 2012 and 2017 peak car parking occupancy occurs at 11am and 10am respectively. It is important to note that the 2012 car parking surveys were undertaken on a public holiday while the 2017 surveys were undertaken on a normal work day.

3.6.2 On-Street Parking Comparison

The comparison between 2012 and 2017 on-street car parking occupancy for zones 1, 2 and 3 is illustrated in Figure 3.24. The 2012 on-street car parking occupancy was greater than the 2017 occupancy within zone 1 (i.e. Core Activity Zone) of the City Centre. The 2017 on-street parking occupancy slightly exceeding 2012 within zones 2 and 3. Overall with the zones combined, the on-street car parking occupancy for 2012 and 2017 were the same at 82%.

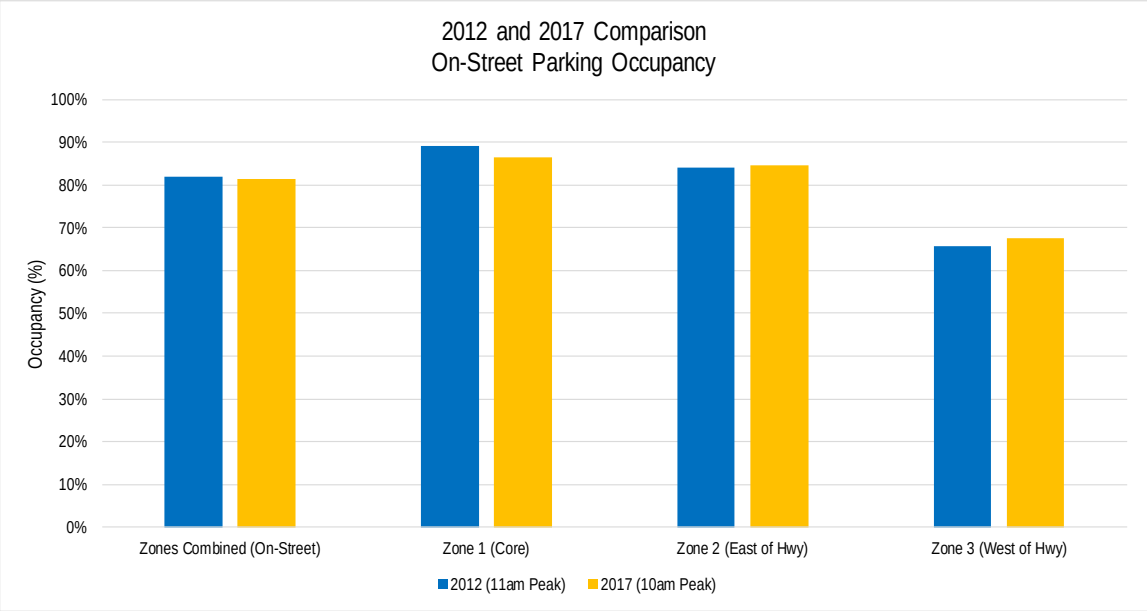


Figure 3.24: 2012 and 2017 Comparison – On-Street Parking Occupancy

3.6.3 Off-Street Parking Comparison

The comparison between 2012 and 2017 off-street car parking occupancy for zones 1, 2 and 3 is illustrated in Figure 3.25. The 2012 on-street car parking occupancy was greater than 2017 occupancy within zones 1, 2 and 3. Overall with the zones combined, the off-street car parking occupancy for 2012 at 89% exceeds the 2017 off-street parking occupancy at 83%.

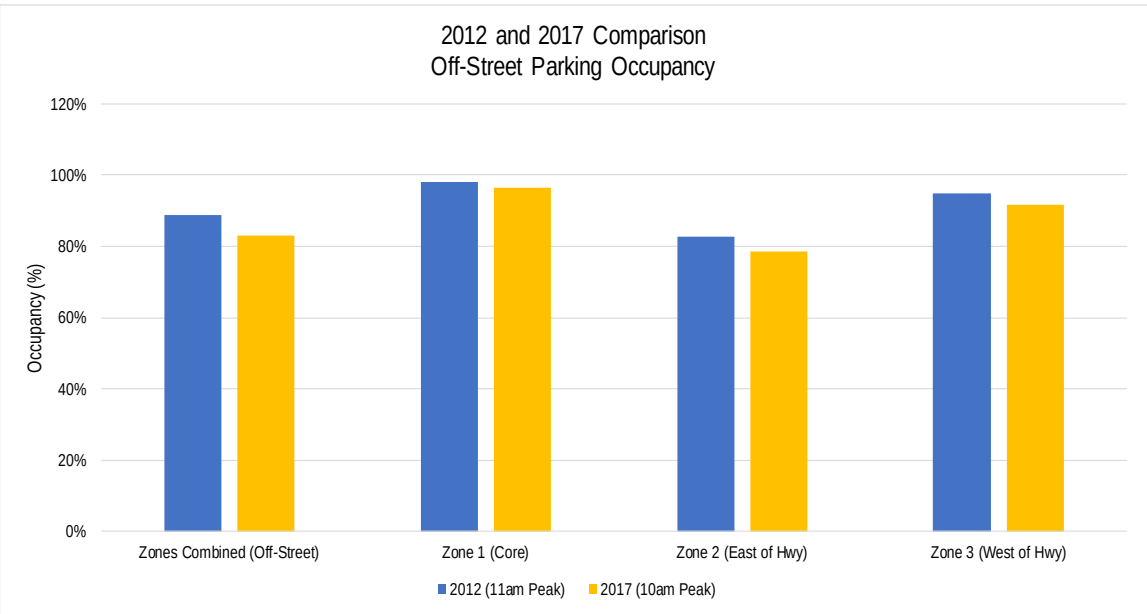


Figure 3.25: 2012 and 2017 Comparison – Off-Street Parking Occupancy

3.6.4 Combined On-Street and Off-Street Comparison

The comparison between 2012 and 2017 on-street and off-street car parking occupancy for zones 1, 2 and 3 is illustrated in Figure 3.26. The 2012 on-street car parking occupancy was greater than 2017 occupancy within zones 1, 2 and 3. Overall with the zones combined, the off-street car parking occupancy for 2012 at 86% exceeds the 2017 off-street parking occupancy at 82%.

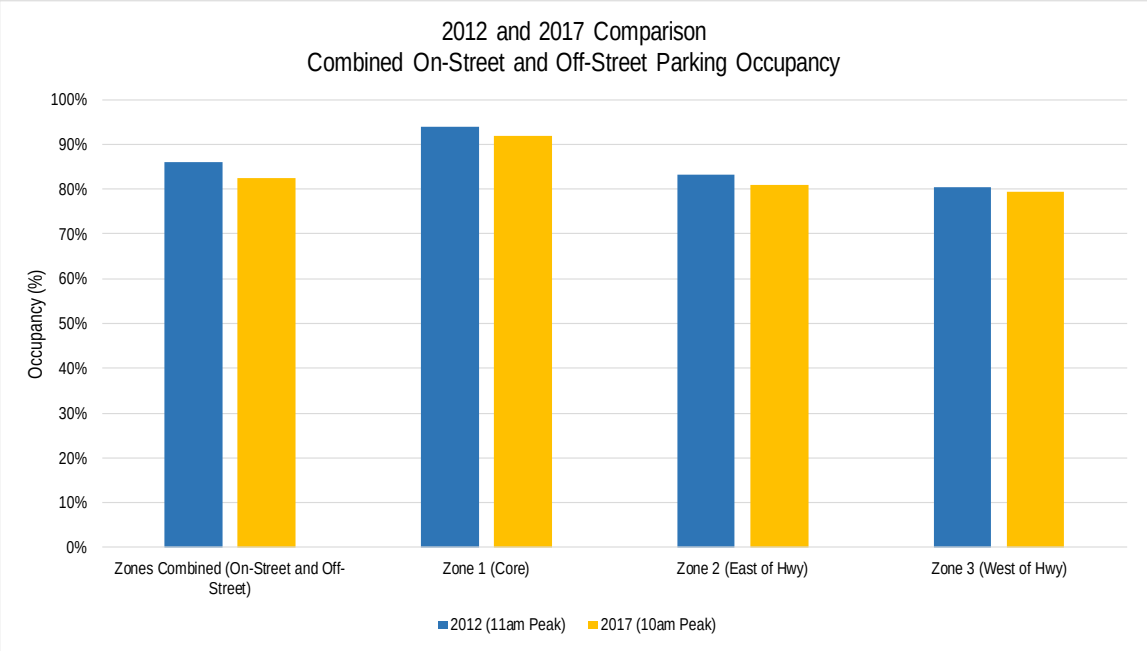


Figure 3.26: 2012 and 2017 Comparison – On-Street and Off-Street Parking Occupancy

In summary, the peak car parking occupancies for 2012 and 2017 are considered to be similar in nature when taking into consideration that the 2012 parking surveys were undertaken on a public holiday. Over the five-year period between parking surveys there has been no significant changes in occupancy levels within zones 1, 2 and 3.

3.7 COFFS CENTRAL MULTI LEVEL CAR PARK COMPARISON

The comparison between 2012 and 2017 Coffs Central multi-level car parking occupancy is illustrated in Figure 3.27 for each time restriction per level. Overall, the Coffs Central car parking occupancy for 2017 at 84% slightly exceeds the 2012 Coffs Central parking occupancy at 83%. Therefore, there is no significant change in parking occupancy over the five-year period within the Coffs Central multi-level car park.

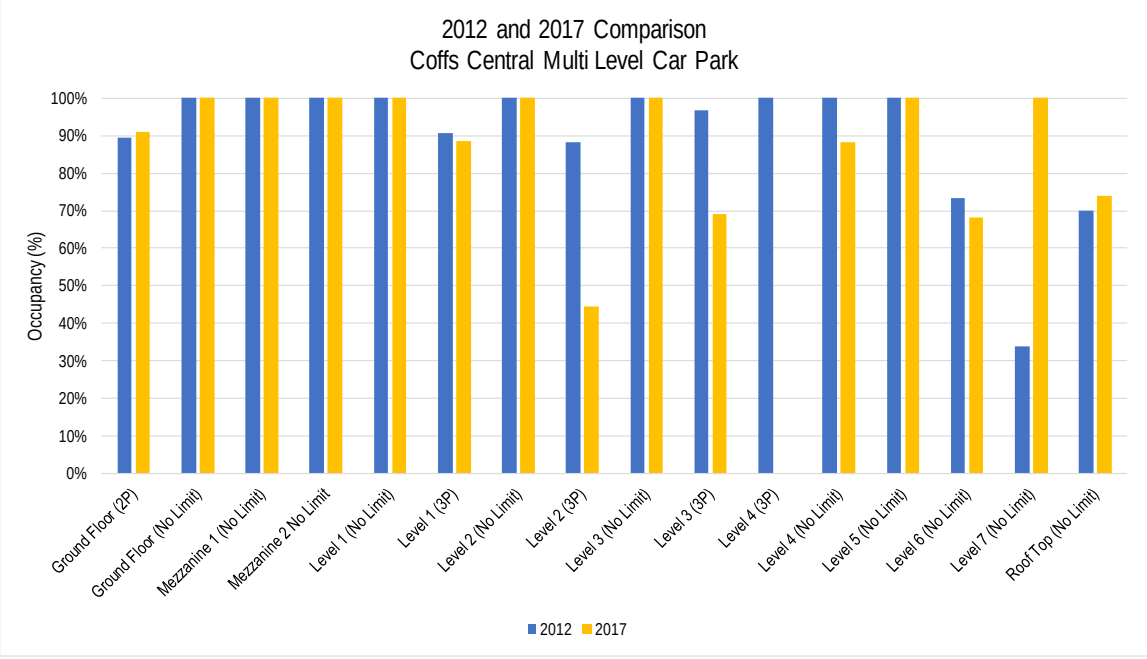


Figure 3.27: 2012 and 2017 Comparison – Coffs Central Multi Level Car Park

3.8 WOOLWORTHS MULTI LEVEL CAR PARK COMPARISON

The comparison between 2012 and 2017 Woolworths multi-level car parking occupancy is illustrated in Figure 3.28 for each time restriction per level. Overall, the peak Woolworths car parking occupancy for 2012 at 98% slightly exceeds the 2017 Woolworths car parking occupancy at 95%. Therefore, there is no significant change in parking occupancy over the five-year period within the Woolworths multi-level car park.

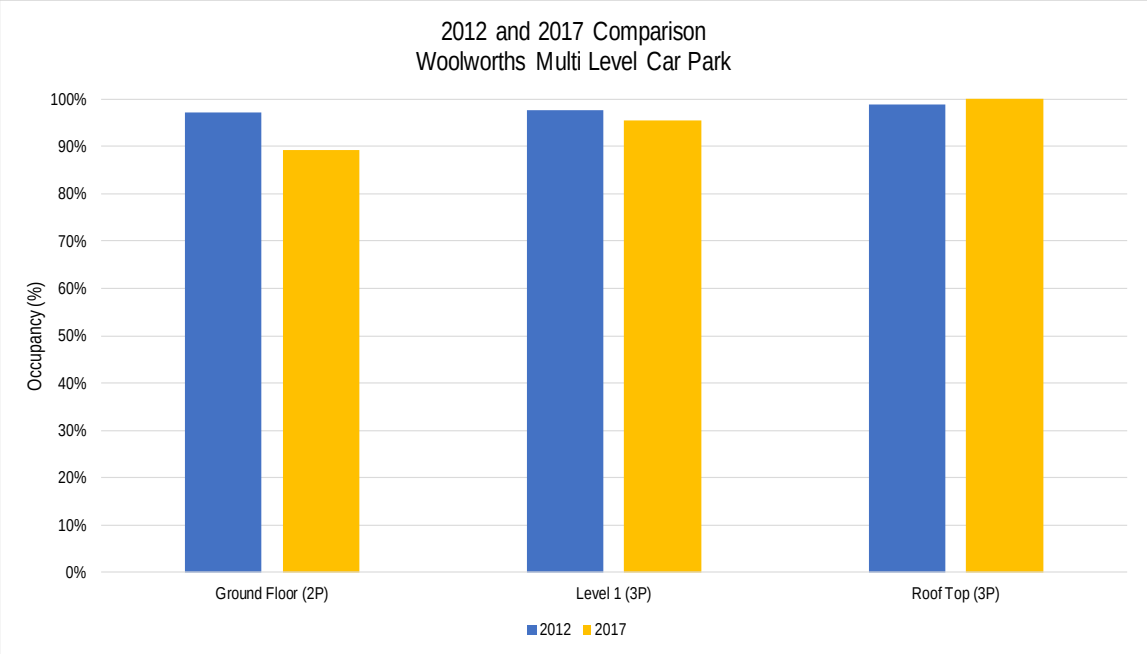


Figure 3.28: 2012 and 2017 Comparison – Woolworths Multi Level Car Park

4. PARKING MANAGEMENT

4.1 PARKING CONTEXT

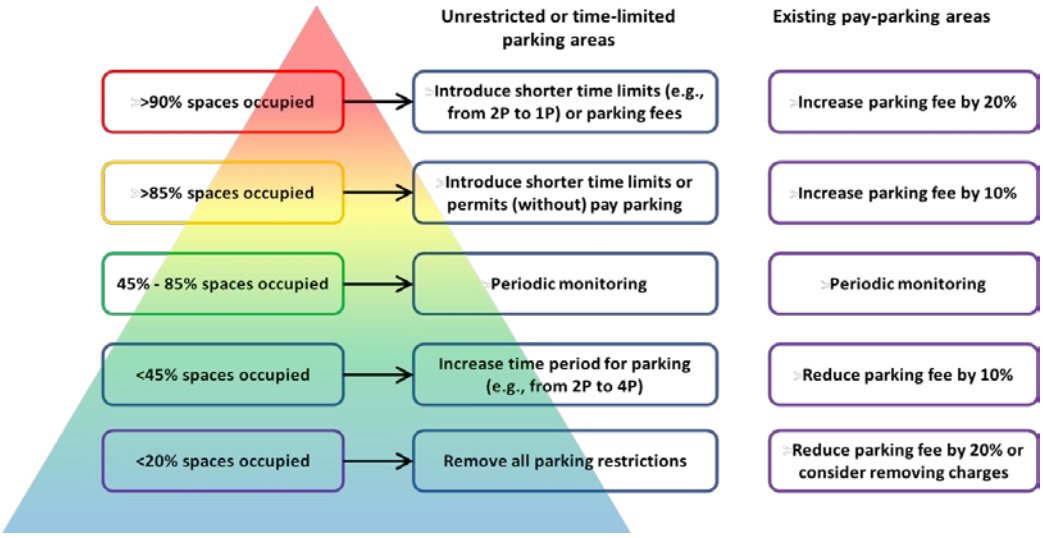
It is acknowledged that a one-size-fits-all parking policy is neither viable nor practical. It needs to be customised to meet each centre's characteristics, access and servicing needs, while also moving towards more sustainable access and parking outcomes. Coffs Harbour City Council is committed to promoting and enhancing active transport within the city centre, aiming to make walking more desirable. The aim is for a city centre where people park once and walk around the centre to each destination. This strategy supports the long-term parking located around the fringes of the city centre and high turnover parking located within the central business areas. High quality and well-connected cycleways and pedestrian footpaths will be key to promote people parking within the peripheral areas which are only located within a 5-minute walk to the Central Business District (CBD).

In order to maximise the utilisation and efficiency across the core business area, changes to the existing car parking time restrictions will be required to improve the parking hierarchy based on current demand. This will ensure that the core remains a high-turnover retail and commercial area, providing for premium short-term parking demands. This will encourage long-term parking around peripheral parking areas of the city centre.

4.2 RECOMMENDED ACTIONS

4.2.1 Changes to Parking Restrictions

To ensure that car parking spaces closest to commercial land uses and key facilities within the Coffs Harbour City Centre are occupied by the intended users, it is recommended that changes are made to the parking management within the City Centre. The primary reasons for reducing time restrictions is to maximise customer access to the centre and to optimise the efficiency of available on-street parking. Figure 4.1 outlines the framework behind the parking time restriction changes. Where the occupancy exceeds 85% for an extended period of time on any street section, the intent is to reduce the time restriction (i.e. 1P down to 1/2P) particularly when nearby land uses are predominately high turnover commercial / retail. The aim is to have the high turnover time restrictions (i.e. 1/4P, 1/2P, 1P and 2P) located within the central streets, with the time restrictions increasing as you move towards the peripheral parking areas (i.e. located within a 5-minute walk to the CBD). This is consistent with Council's aim to promote and enhance active transport connections from the CBD to the peripheral parking areas.



Adapted from Willoughby City Council, Street Parking Strategy

Figure 4.1: Street Parking Framework

The key results from the parking surveys include:

1. sections of on-street car parking located within the central core activity area exceed the desirable 85% occupancy rate;
2. the majority of the off-street car parks also exceed the 85% occupancy rate during peak periods; and
3. available car parks are found around the fringe areas of the study area (approximately 5-minute walk).

An increase in short-term car parking is needed to improve visitor turnover in high demand areas by:

1. reducing time limits (i.e. 1P to 1/2P)
2. convert long-term (unlimited) to short-term; and
3. focus the long-term parking on the fringe areas.

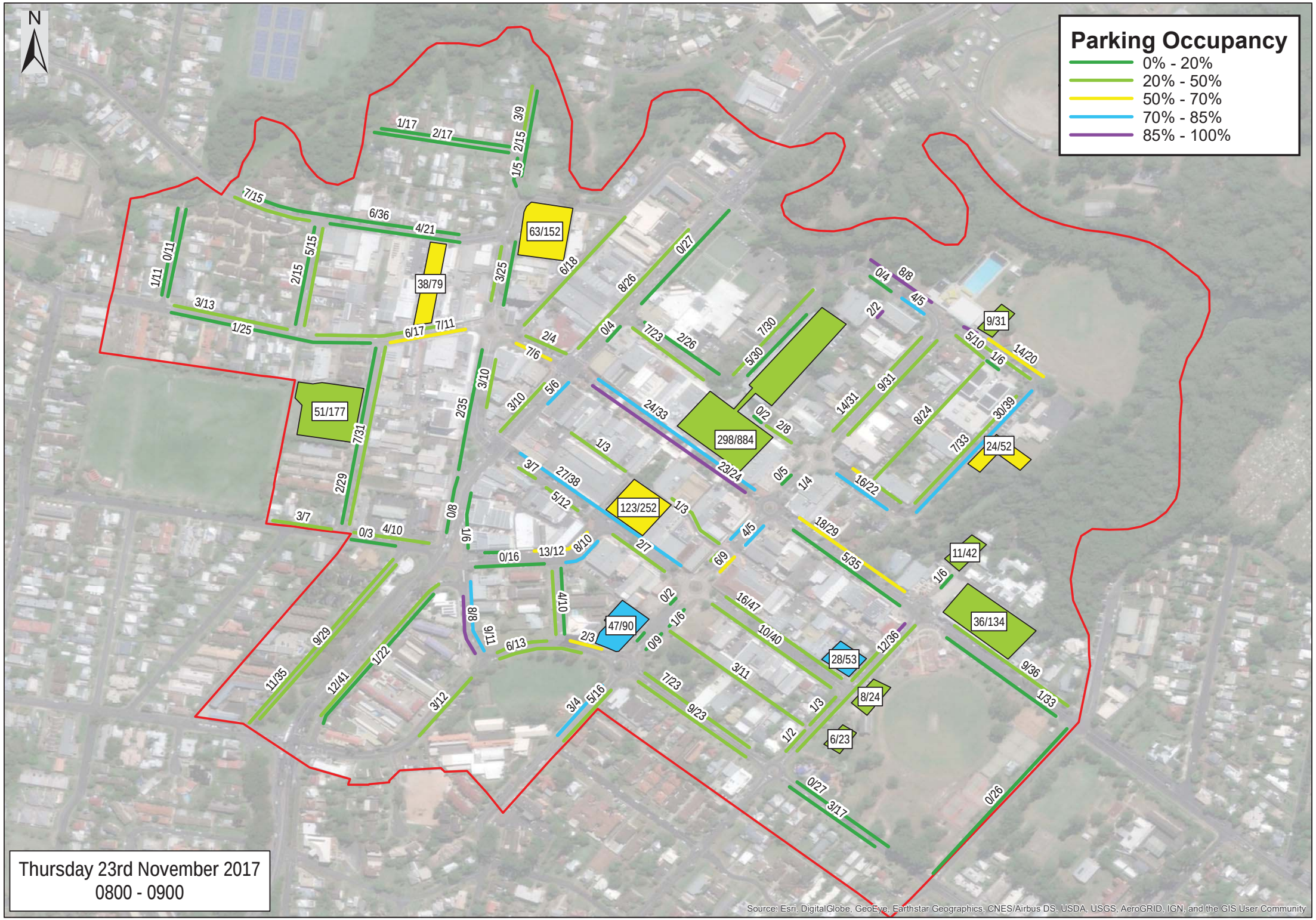
Possible changes to consider include:

- convert the 1P on-street parking along both sides of Harbour Drive between Grafton Street and Gordan Street to 1/2P parking. Increase the time period for Saturday between 8:30am – 3:00pm;
- convert the 2P on-street parking along both sides of Park Avenue between Grafton Street and Gordan Street to 1P parking.
- convert the 1P on-street parking along both sides of Park Avenue between Grafton Street and Gordan Street to 1/2P parking. Increase the time period for Saturday time restrictions to between 8:30am – 3:00pm;
- convert 2P parking between along the north-eastern side of Coffs Street between Castle Street and Gordan Street to 1P parking;
- convert the unregulated parking along Coffs Street between Gordan Street and Duke Street to 3P parking;
- convert the 2P parking along both sides of Harbour Drive between Gordan Street and Earl Street to 1P parking;
- convert the 3P parking along Harbor Drive between Gordan Street and Earl Street to 2P parking;
- convert the 2P parking along both sides od Gordan Street between Coffs Street and Harbour Drive to 1P parking;
- convert the 1P parking along both sides of Gordan Street between Harbour Drive and Park Avenue to 1/2P parking;
- convert the 1P parking along both sides of Little Street between Park Avenue and Grafton Street to 1/2P parking;
- convert 2P parking along both sides of Park Avenue between Gordan Street and Earl Street to 1P parking;
- convert 1P parking along both sides of Vernon Street between Grafton Street and Castle Street to 1/2P parking;
- convert 2P parking along both sides of Castle Street between Vernon Street and Coffs Street to 1P parking;
- convert 2P parking along the western side of Moonee Street between Scarba Street and West High Street to 1P parking; and
- further monitoring of short-term parking demand is recommended, possibly increasing the provision within the core business area by 5% - 10% with ongoing monitoring (i.e. possibly increase or decrease short-term parking based on demand).

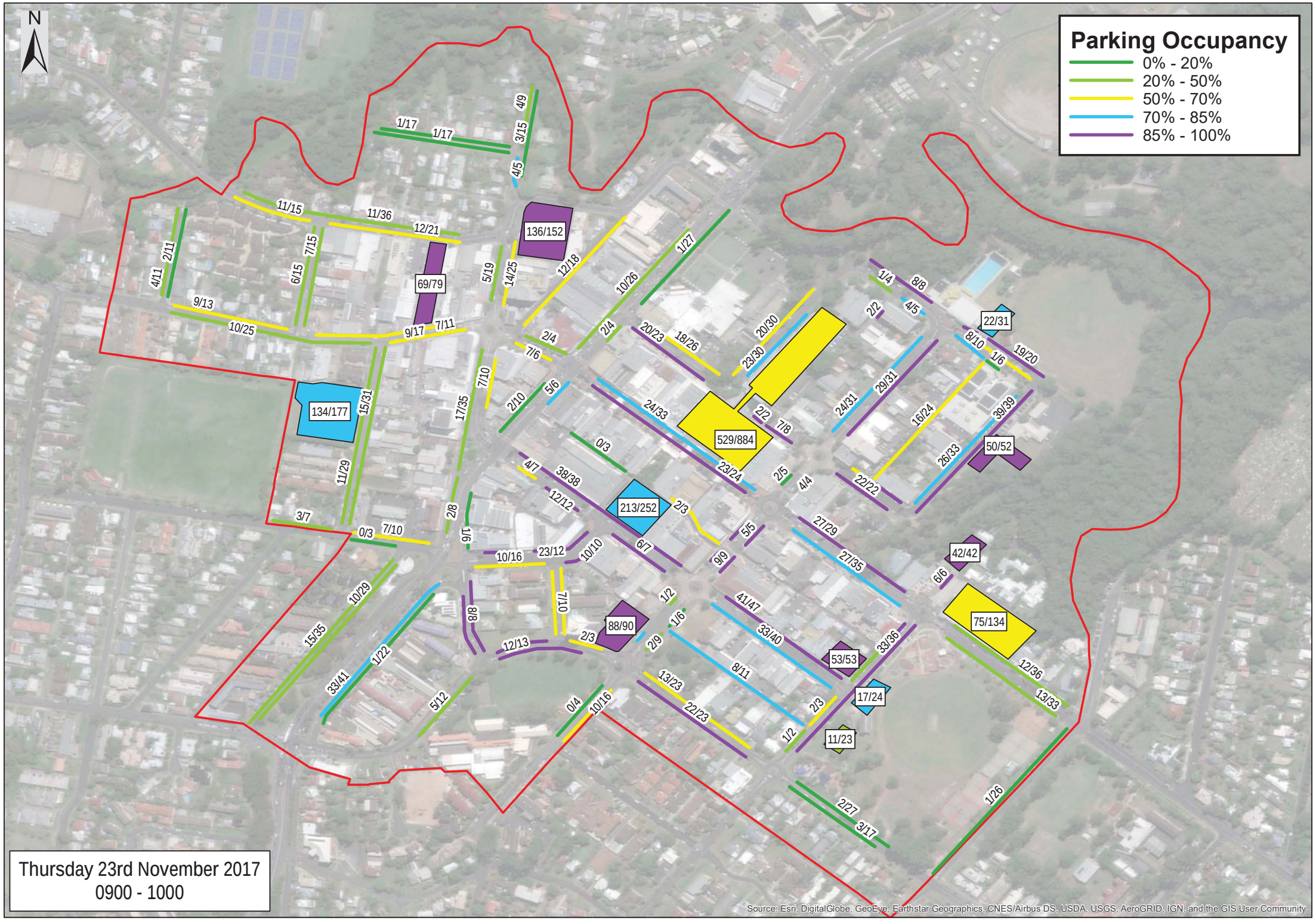
Based on the above analysis it is recommended that parking studies are to be undertaken every 3 - 5 years dependant on significant development / parking changes within the study area.

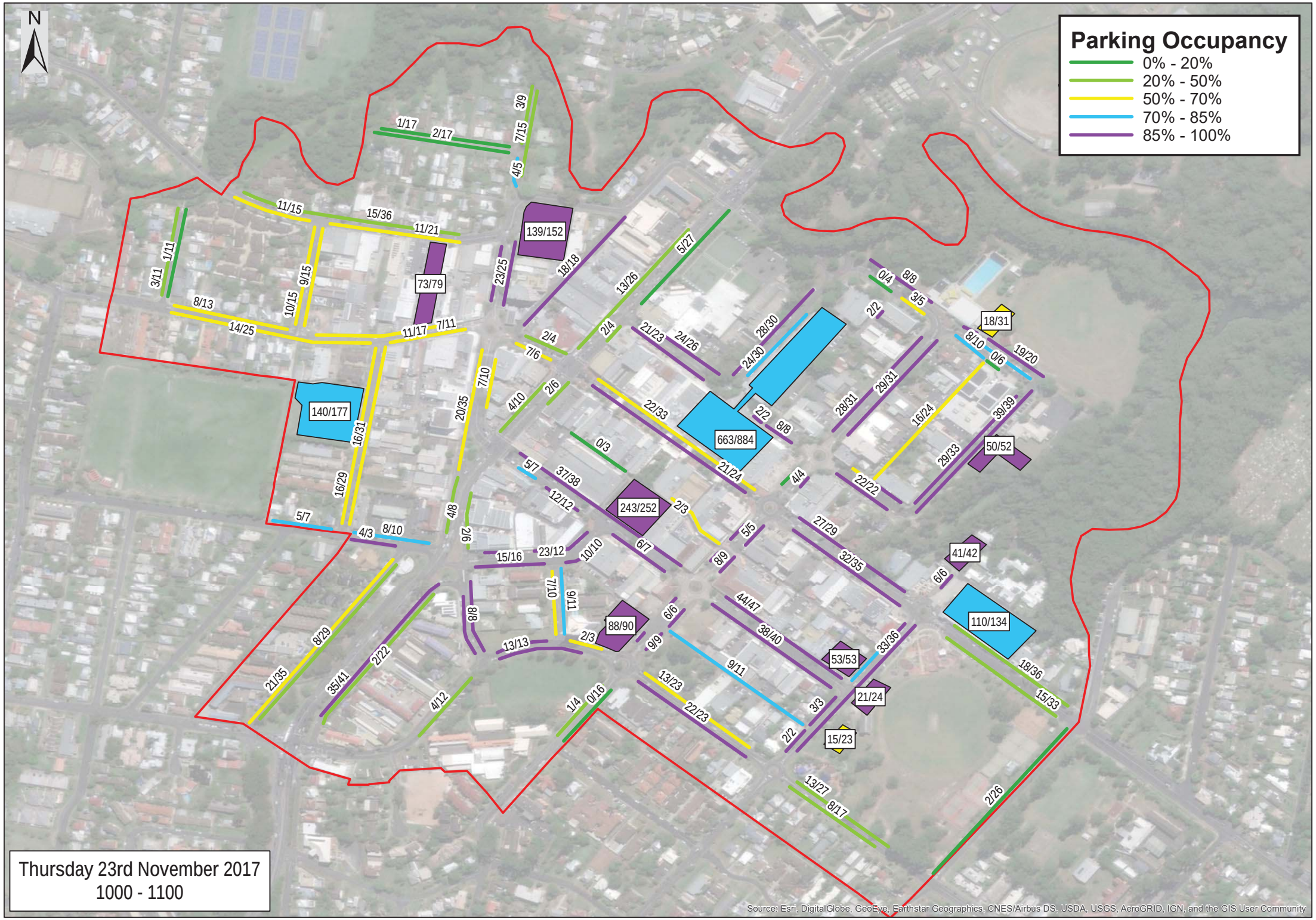
APPENDIX A

ARCGIS OCCUPANCY MAPS



Thursday 23rd November 2017
0800 - 0900


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Thursday 23rd November 2017
0900 - 1000
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
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7/15
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10/15
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73/79
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18/18
13/26
5/27
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2/4
21/23
24/26
28/30
24/30
0/4
8/8
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18/31
8/10
0/6
19/20
140/177
16/31
16/29
20/35
7/10
4/10
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22/33
663/884
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243/252
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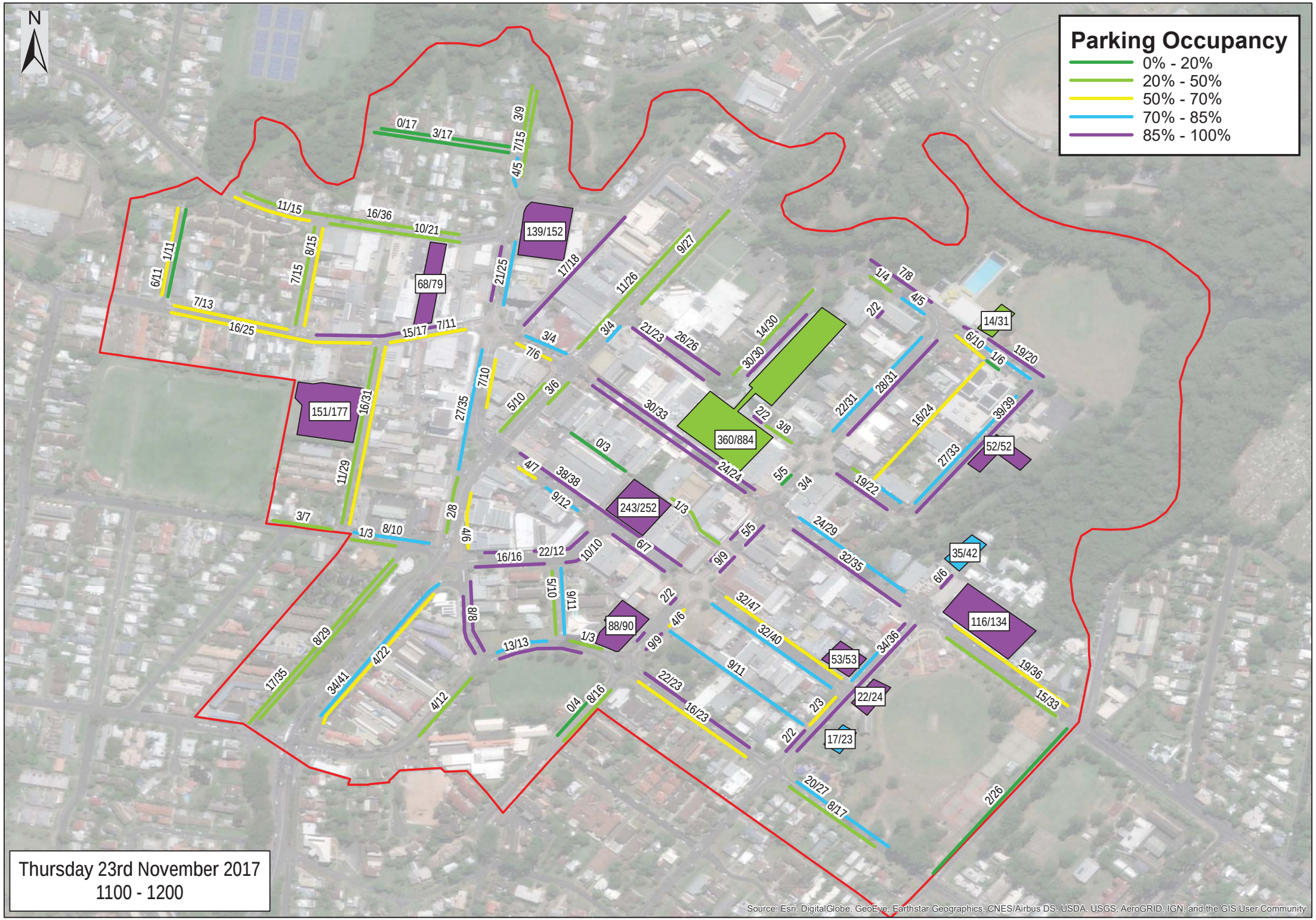
Thursday 23rd November 2017
1000 - 1100
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
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3/9
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8/15
7/15
68/79
7/13
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19/20
151/177
16/31
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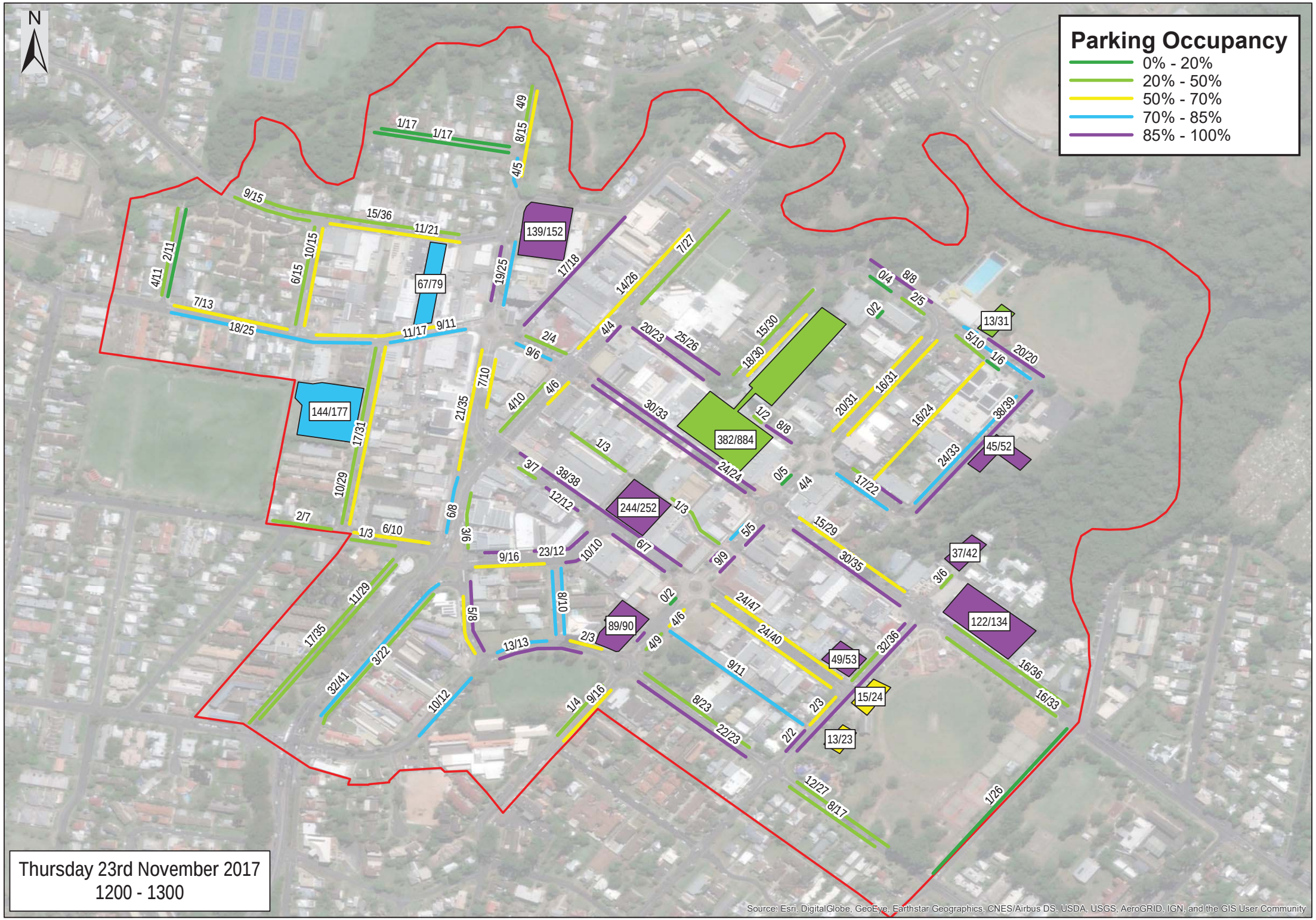
Thursday 23rd November 2017
1100 - 1200
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community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Parking Occupancy
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20% - 50%
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70% - 85%
85% - 100%
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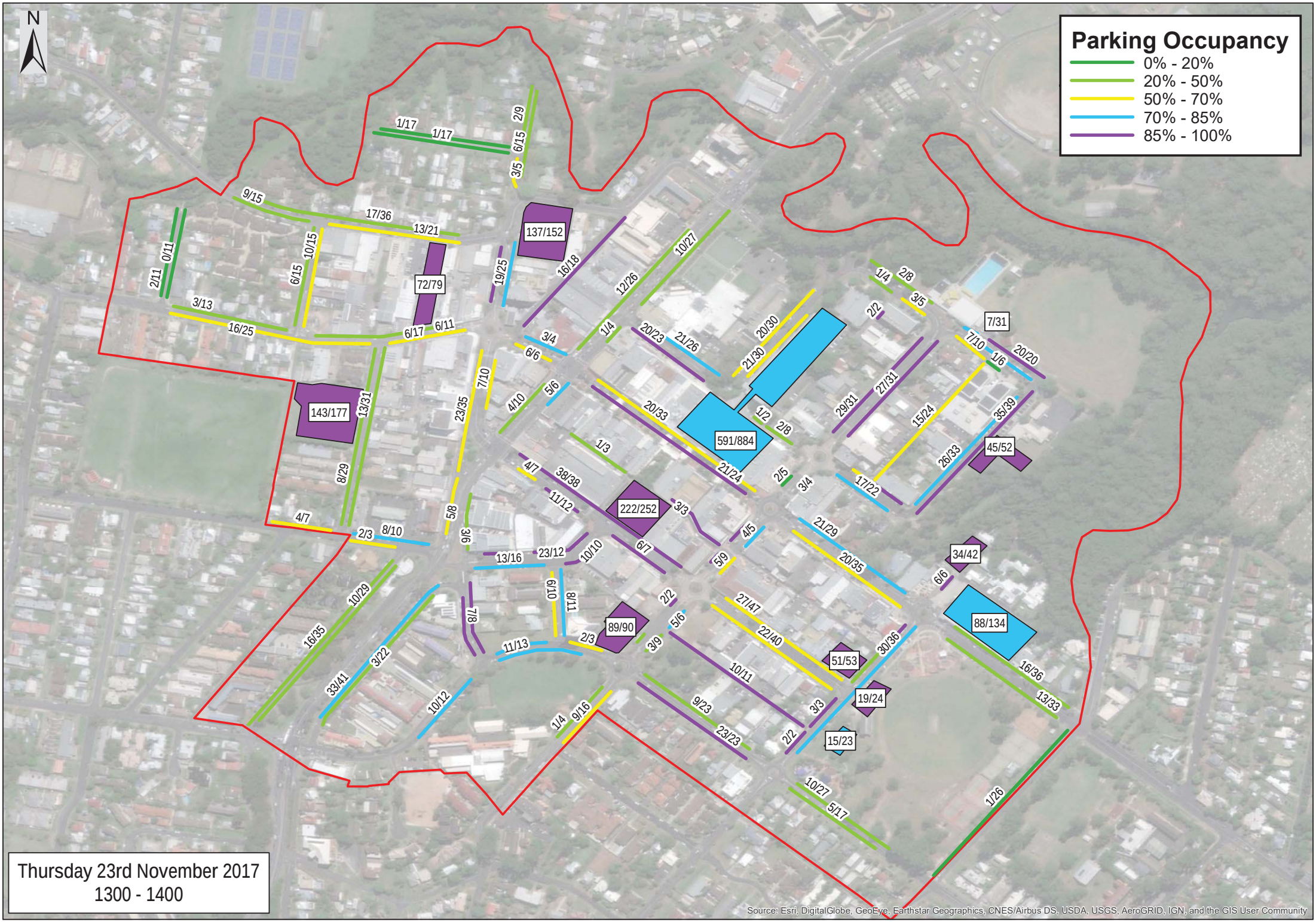
Thursday 23rd November 2017
1200 - 1300
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community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Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
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9/15
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13/21
137/152
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72/79
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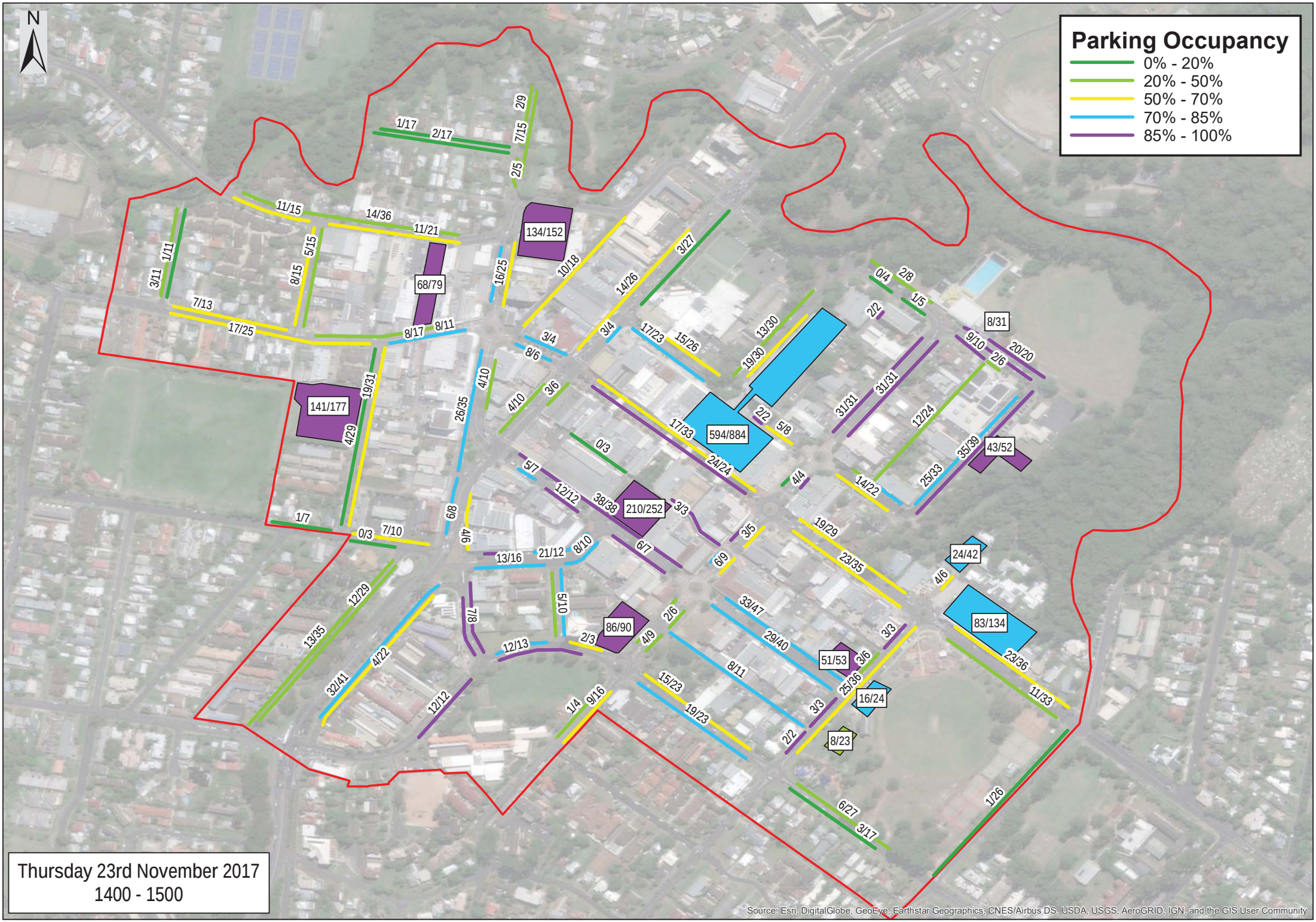
1/26
Thursday 23rd November 2017
1300 - 1400
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
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11/15
14/36
11/21
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3/11
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8/15
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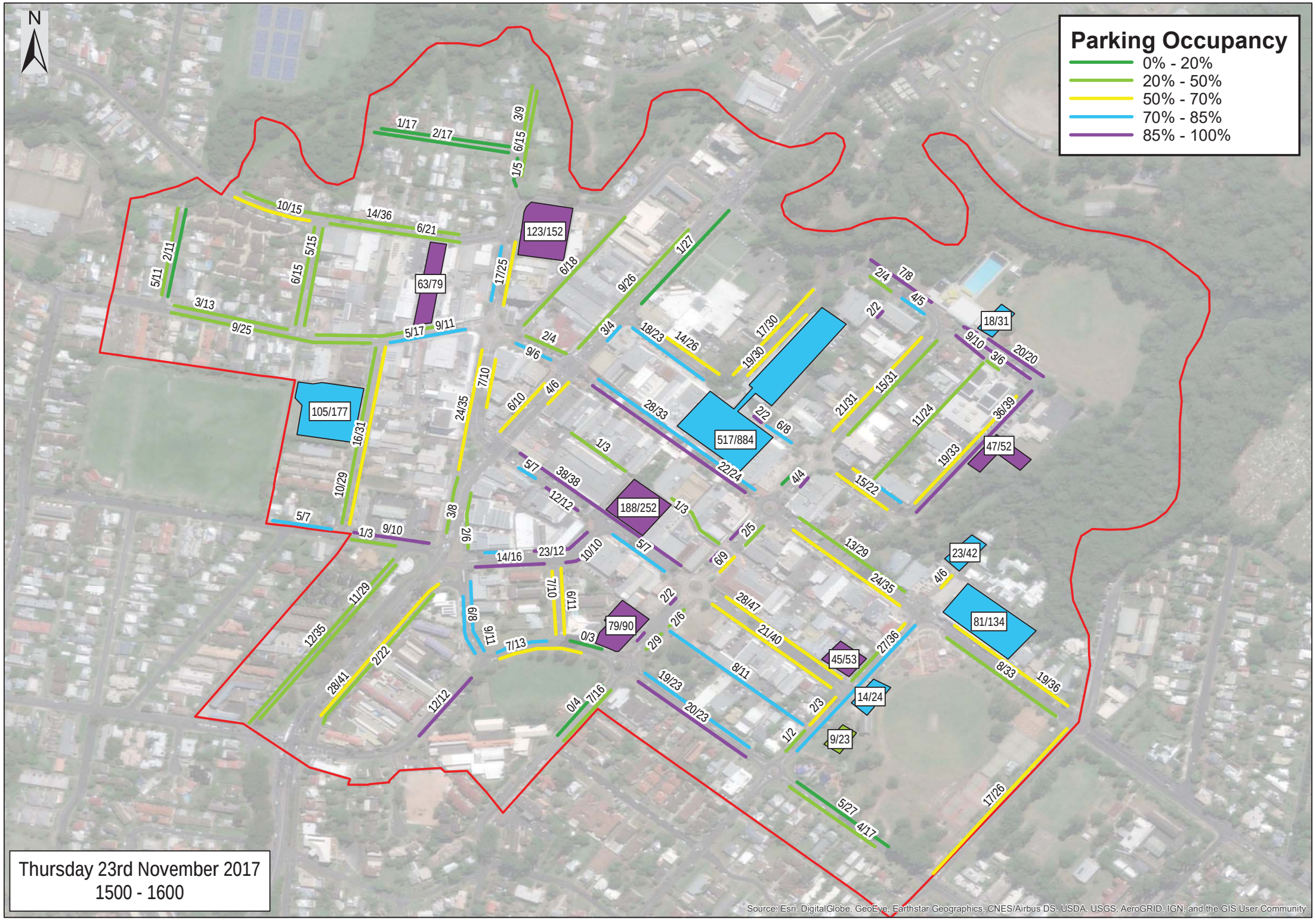
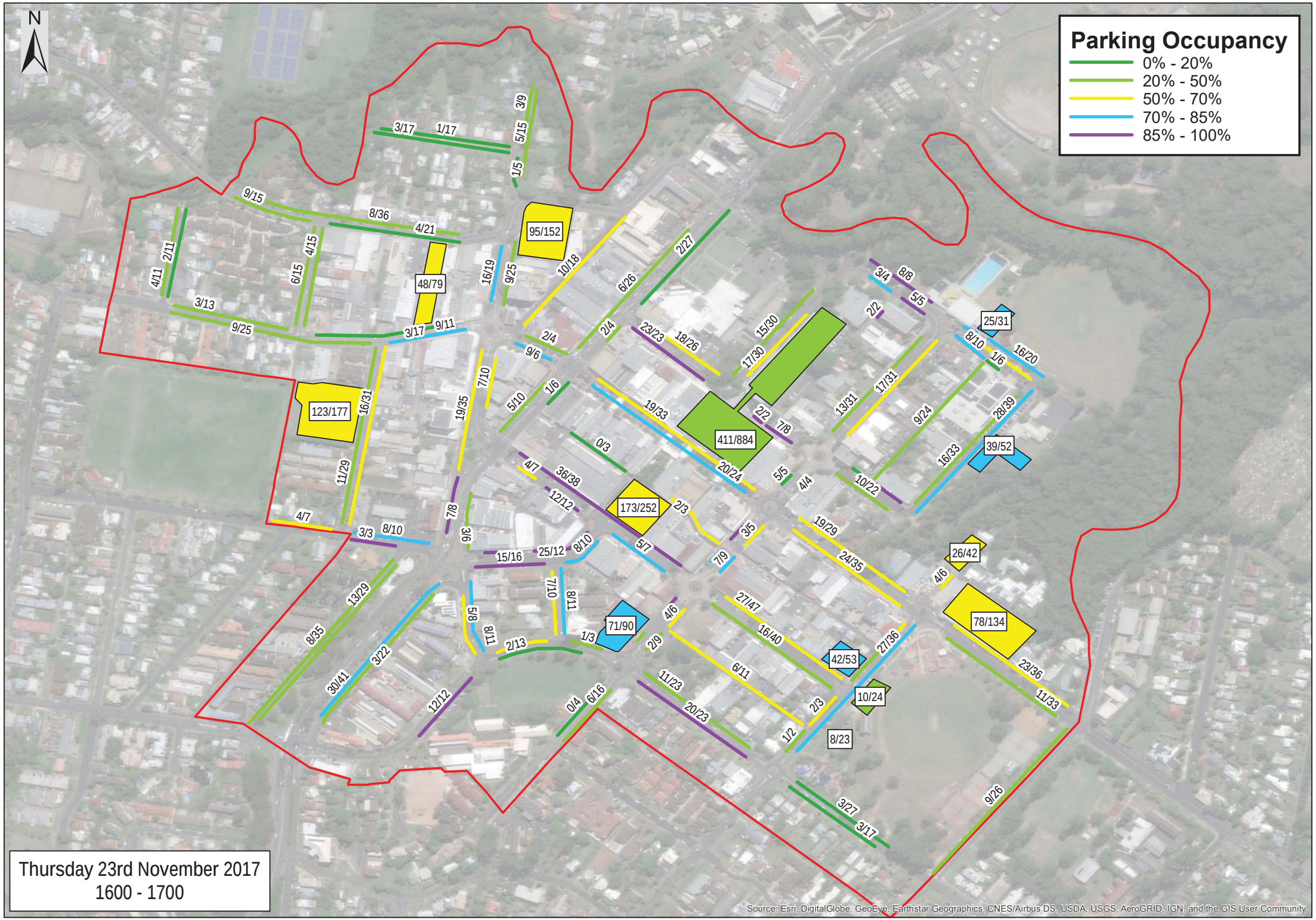
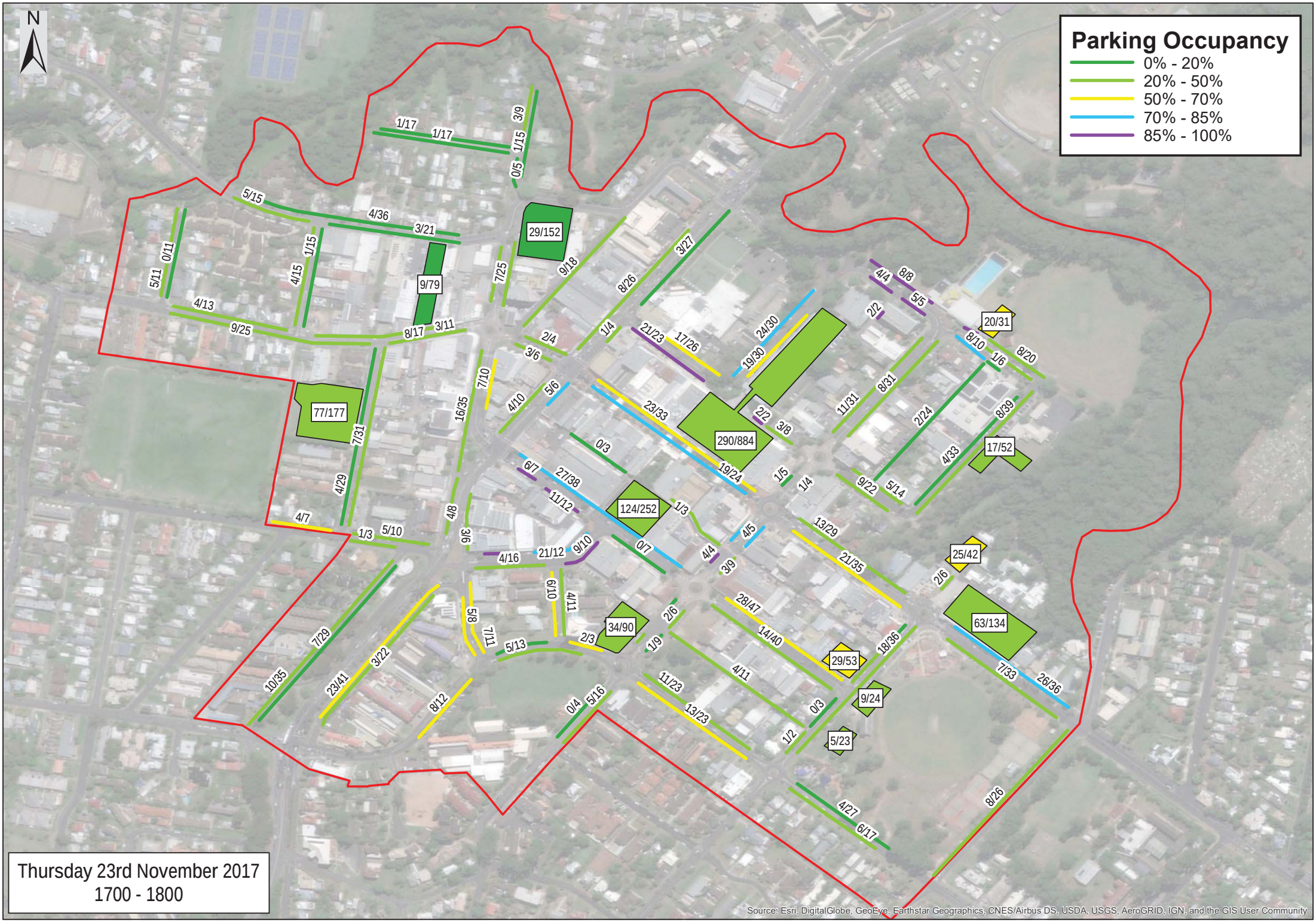
6/7
3/5
6/9
19/29
23/35
24/42
4/6
12/29
13/35
4/22
32/41
7/8
5/10
86/90
2/3
4/9
2/6
12/13
33/47
29/40
3/3
51/53
3/6
25/36
8/11
83/134
23/36
11/33
16/24
12/12
1/4
9/16
15/23
19/23
3/3
2/2
8/23
6/27
3/17
1/26
Thursday 23rd November 2017
1400 - 1500
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Thursday 23rd November 2017
1500 - 1600
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Thursday 23rd November 2017
1600 - 1700
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community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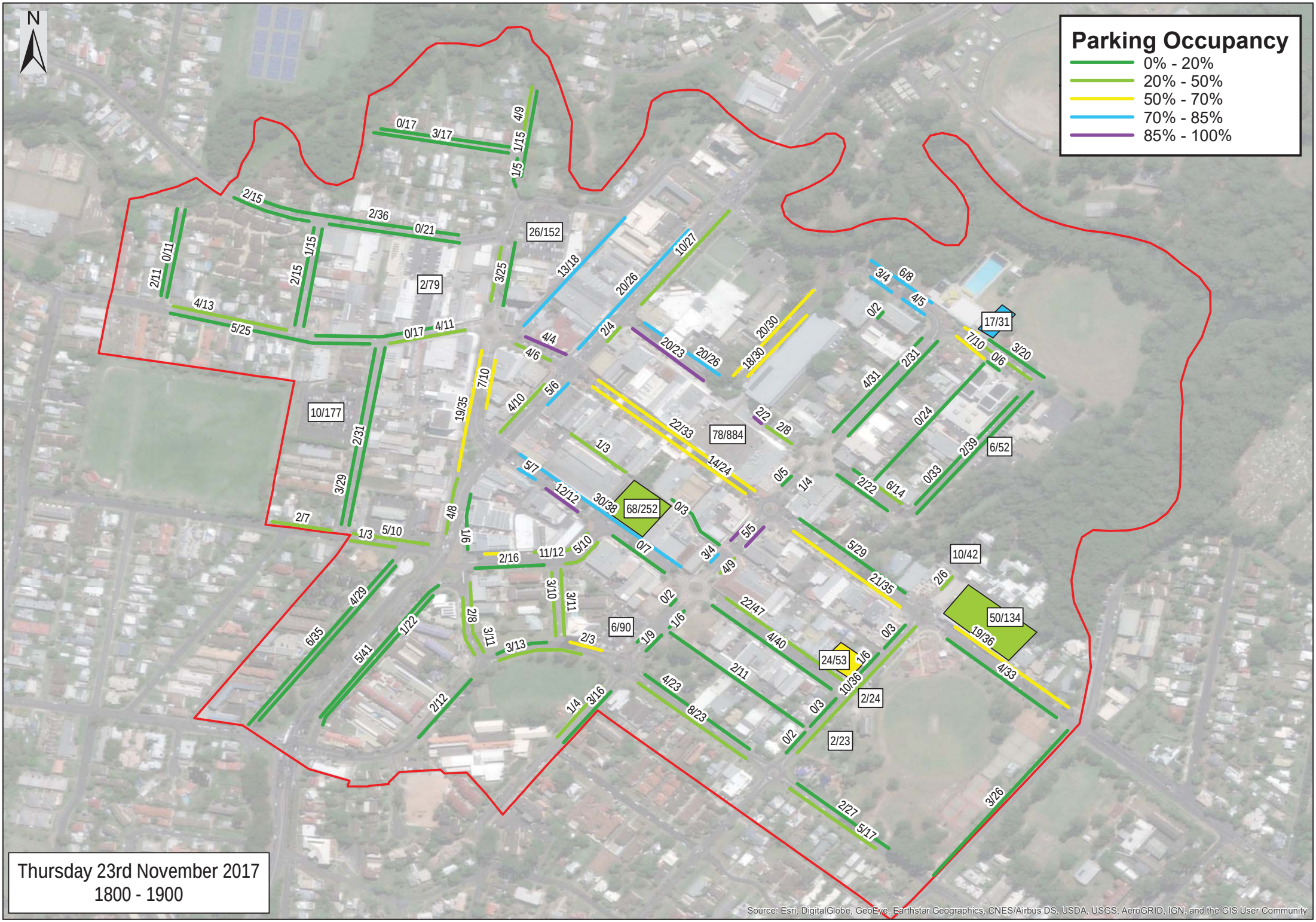
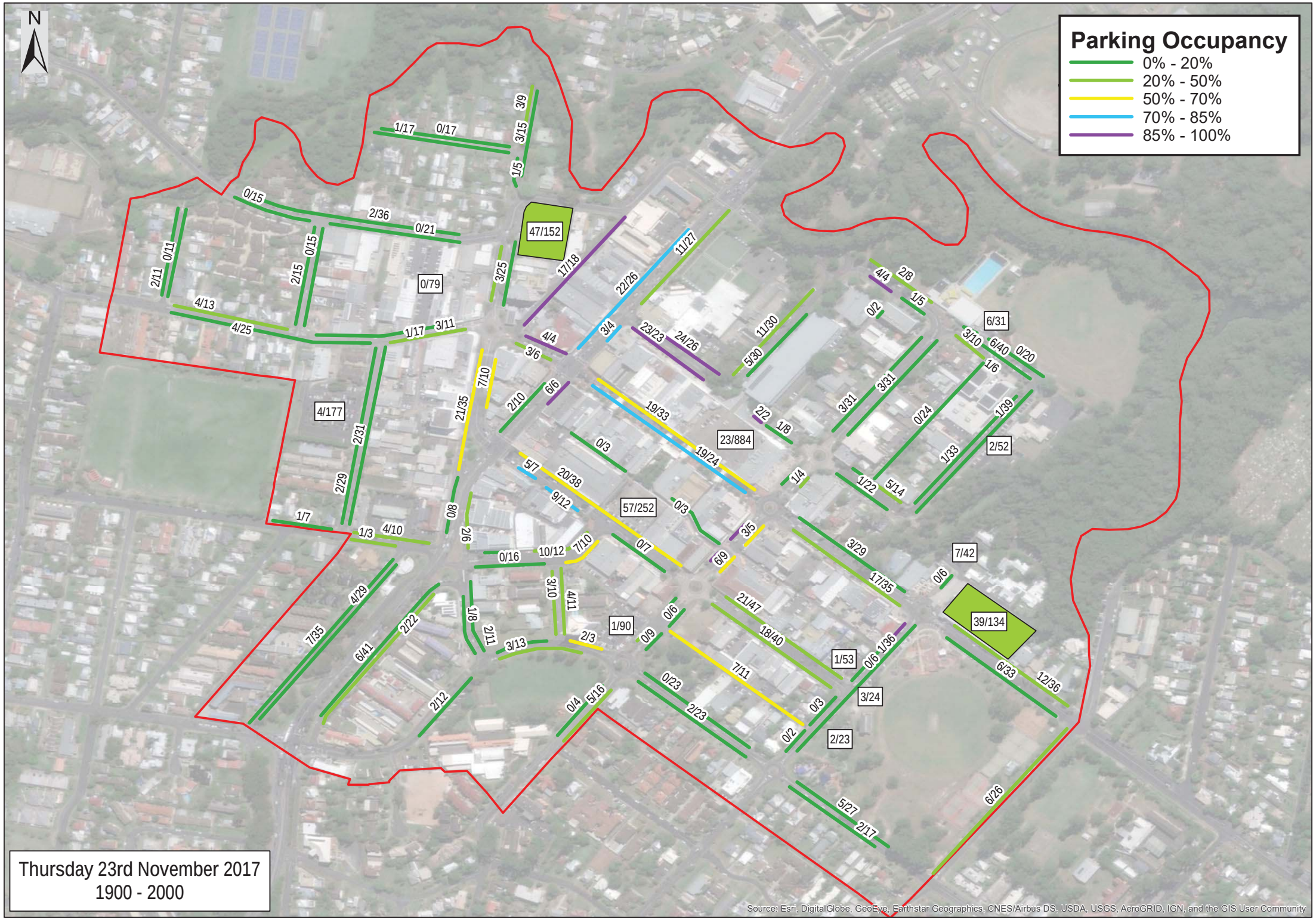
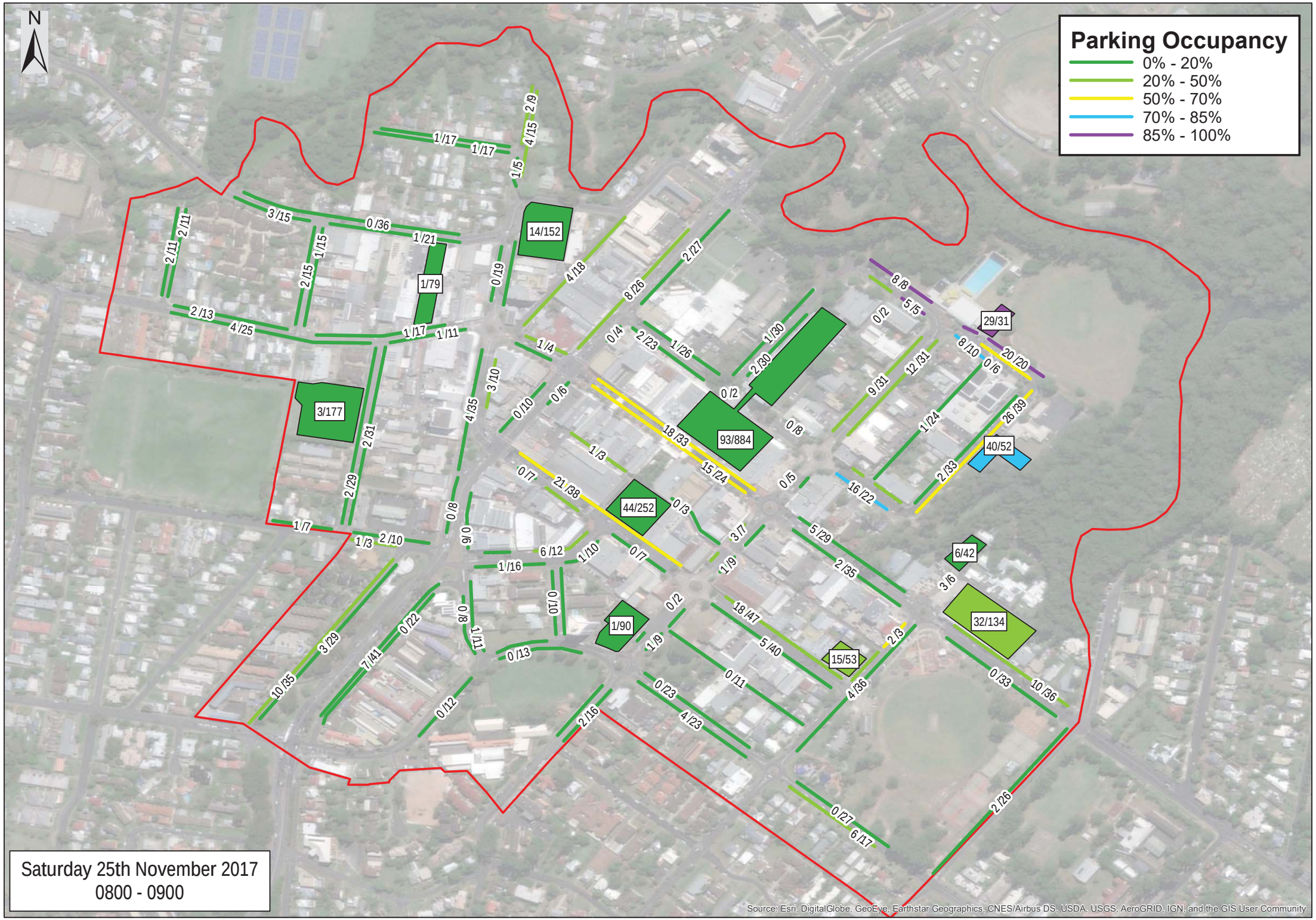
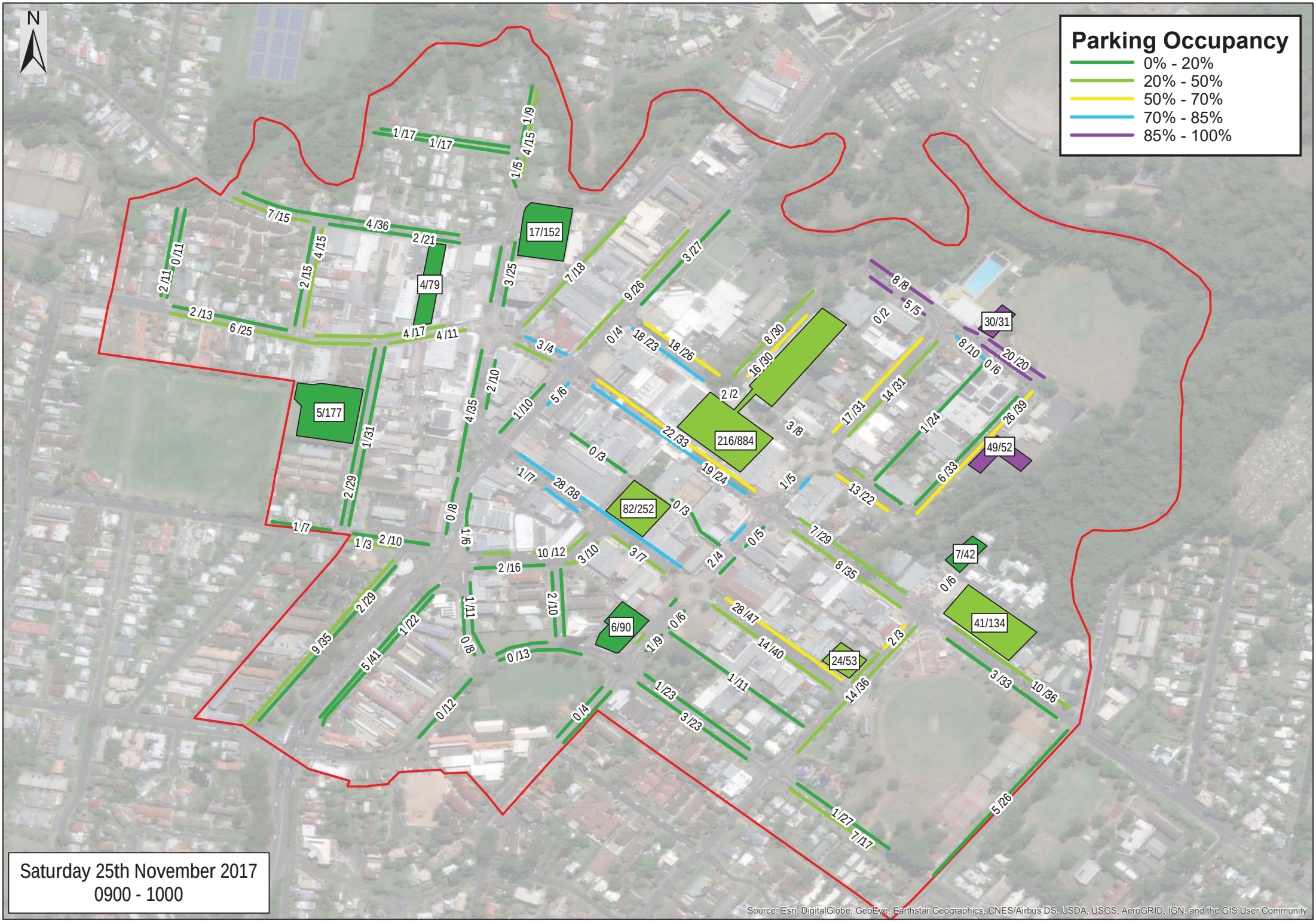
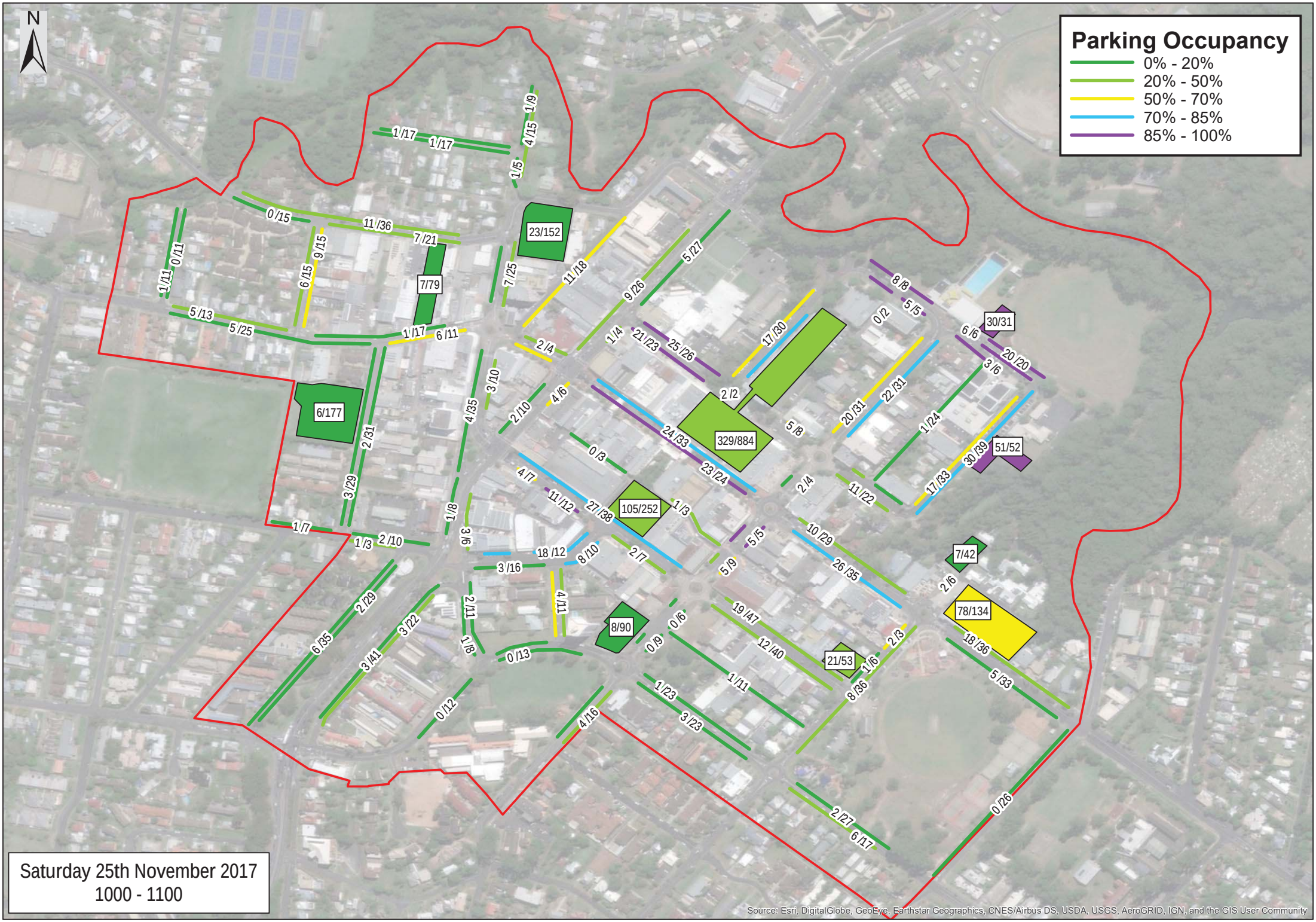
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Thursday 23rd November 2017
1700 - 1800
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

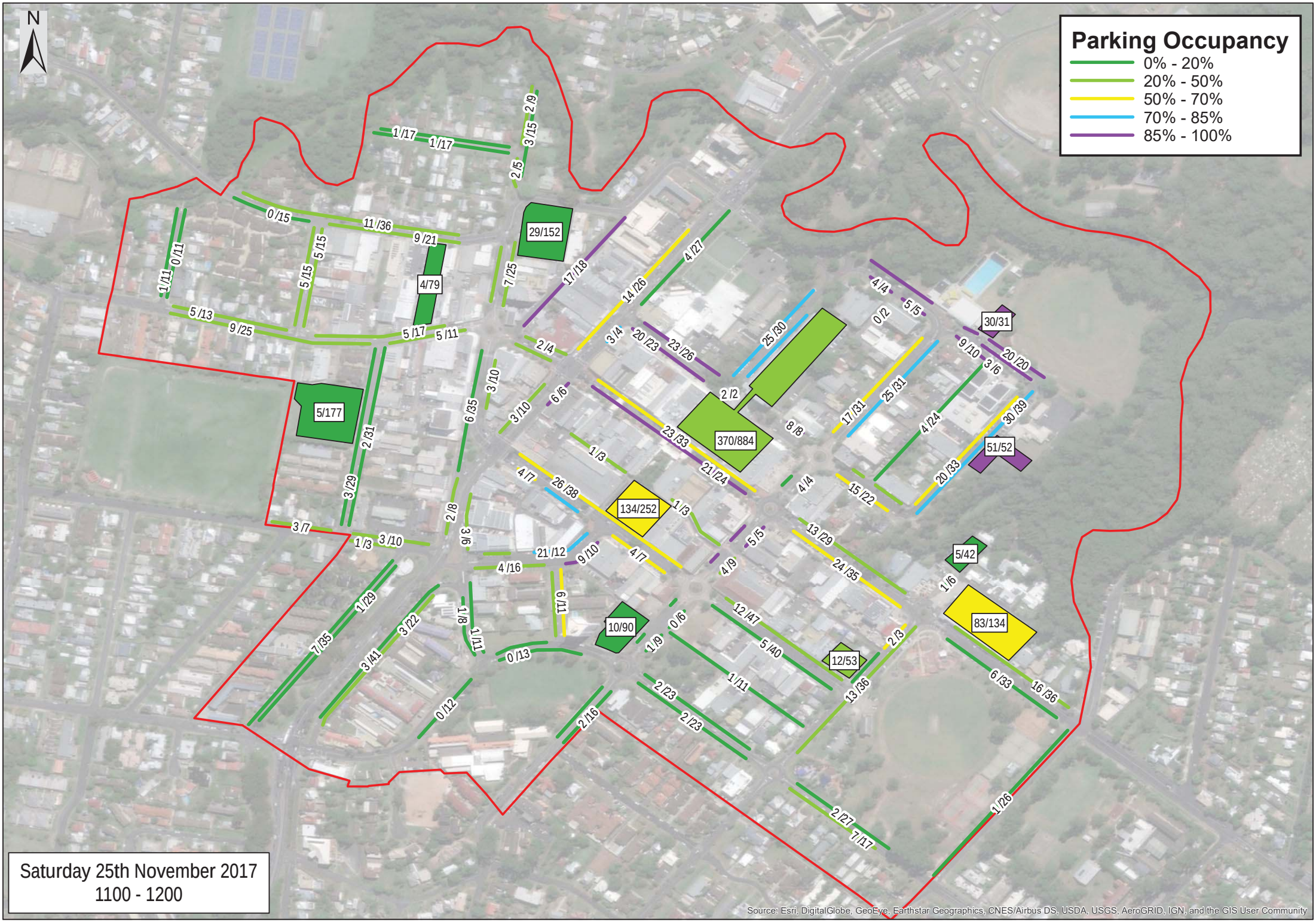

N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Thursday 23rd November 2017
1800 - 1900
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Thursday 23rd November 2017
1900 - 2000
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Saturday 25th November 2017
0800 - 0900
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Saturday 25th November 2017
0900 - 1000
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Saturday 25th November 2017
1000 - 1100
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community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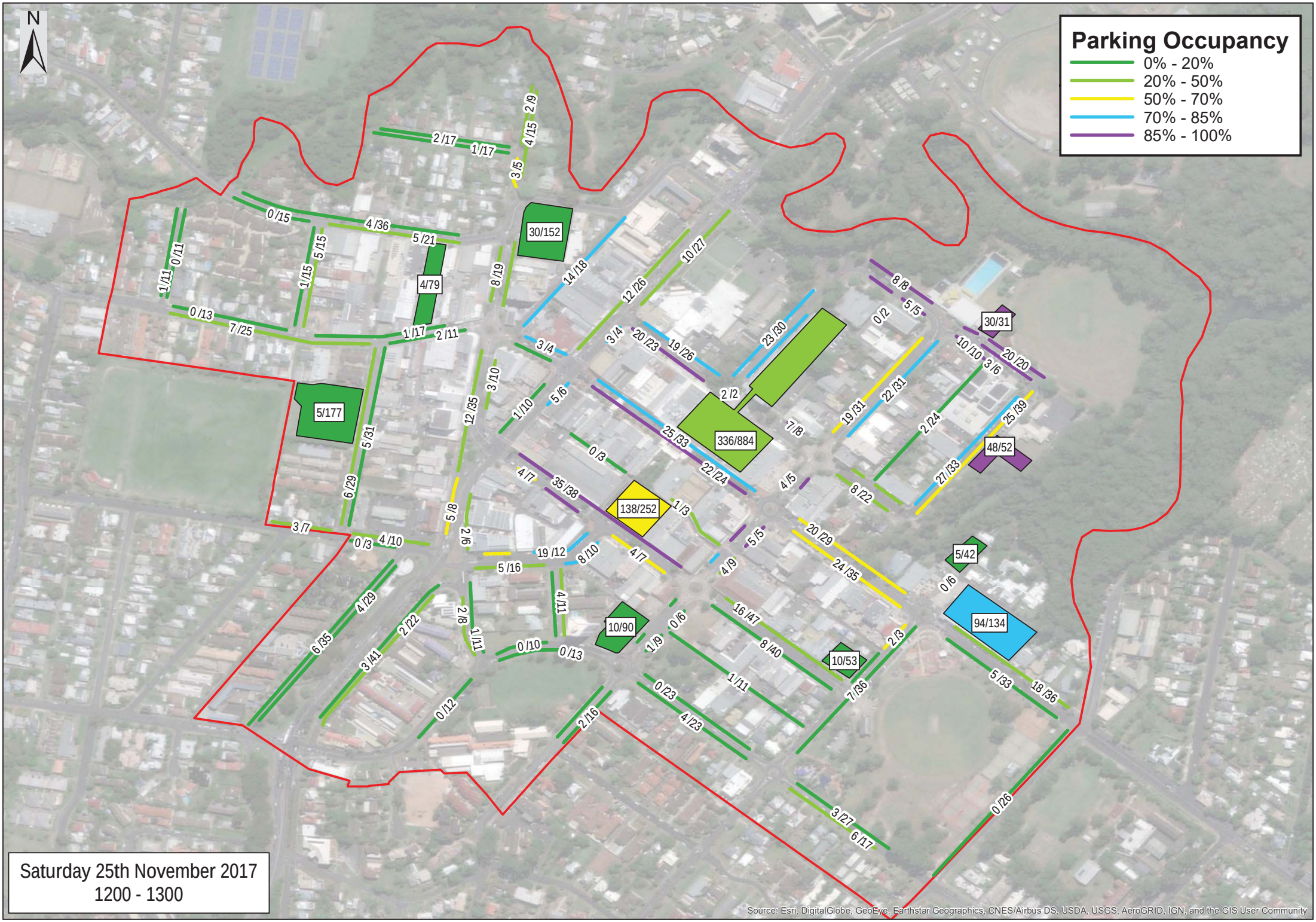
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Saturday 25th November 2017
1100 - 1200
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community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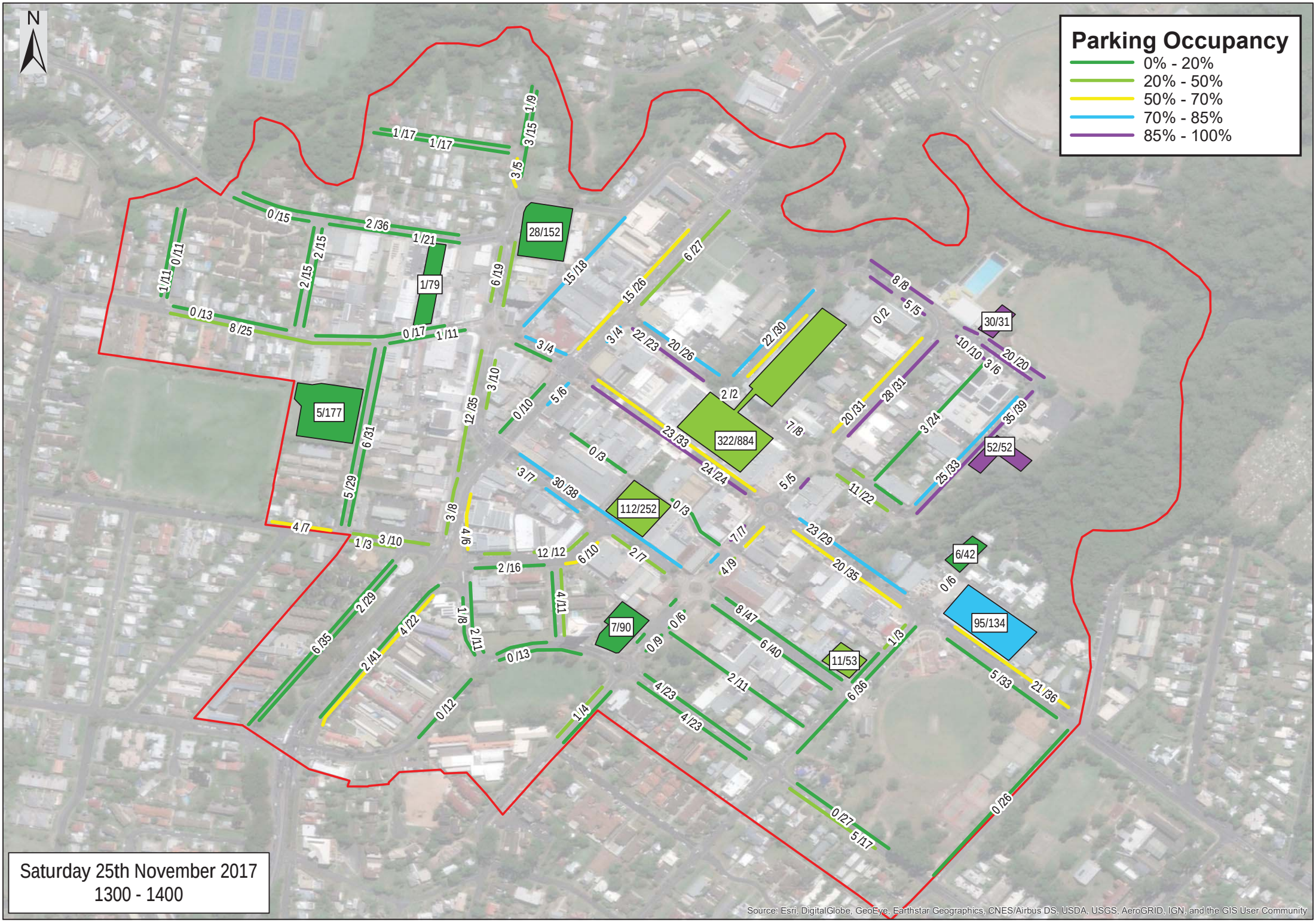
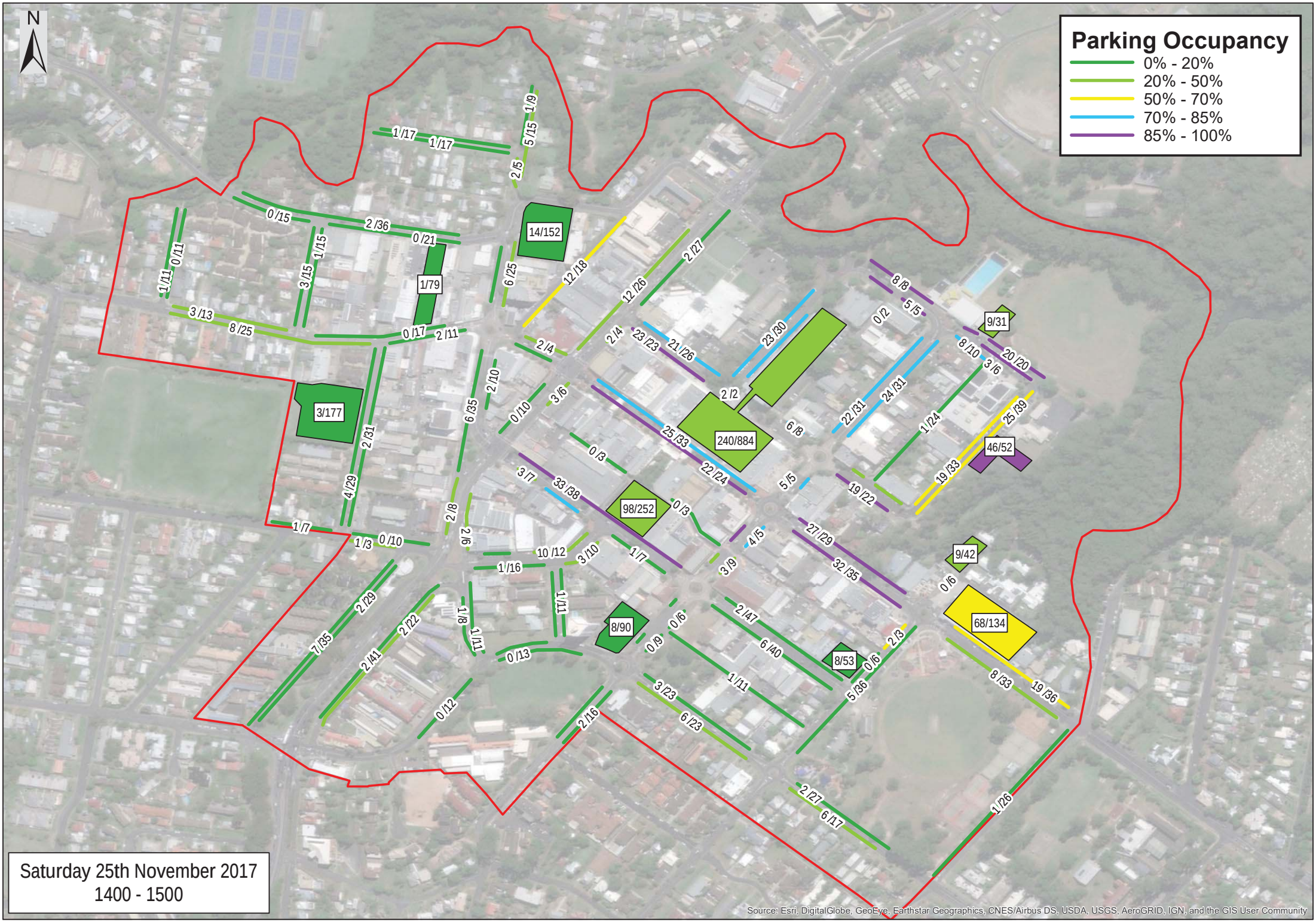
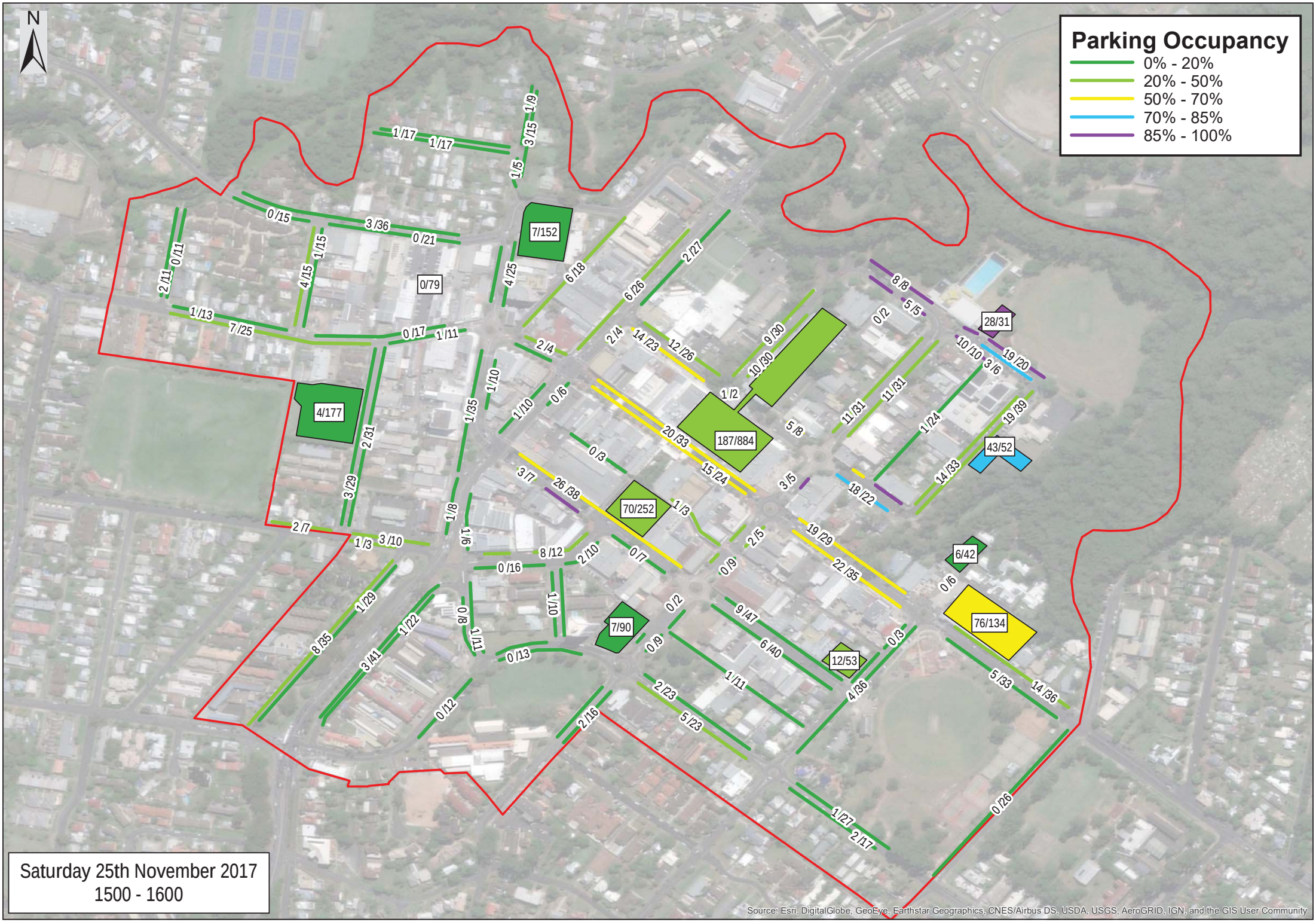
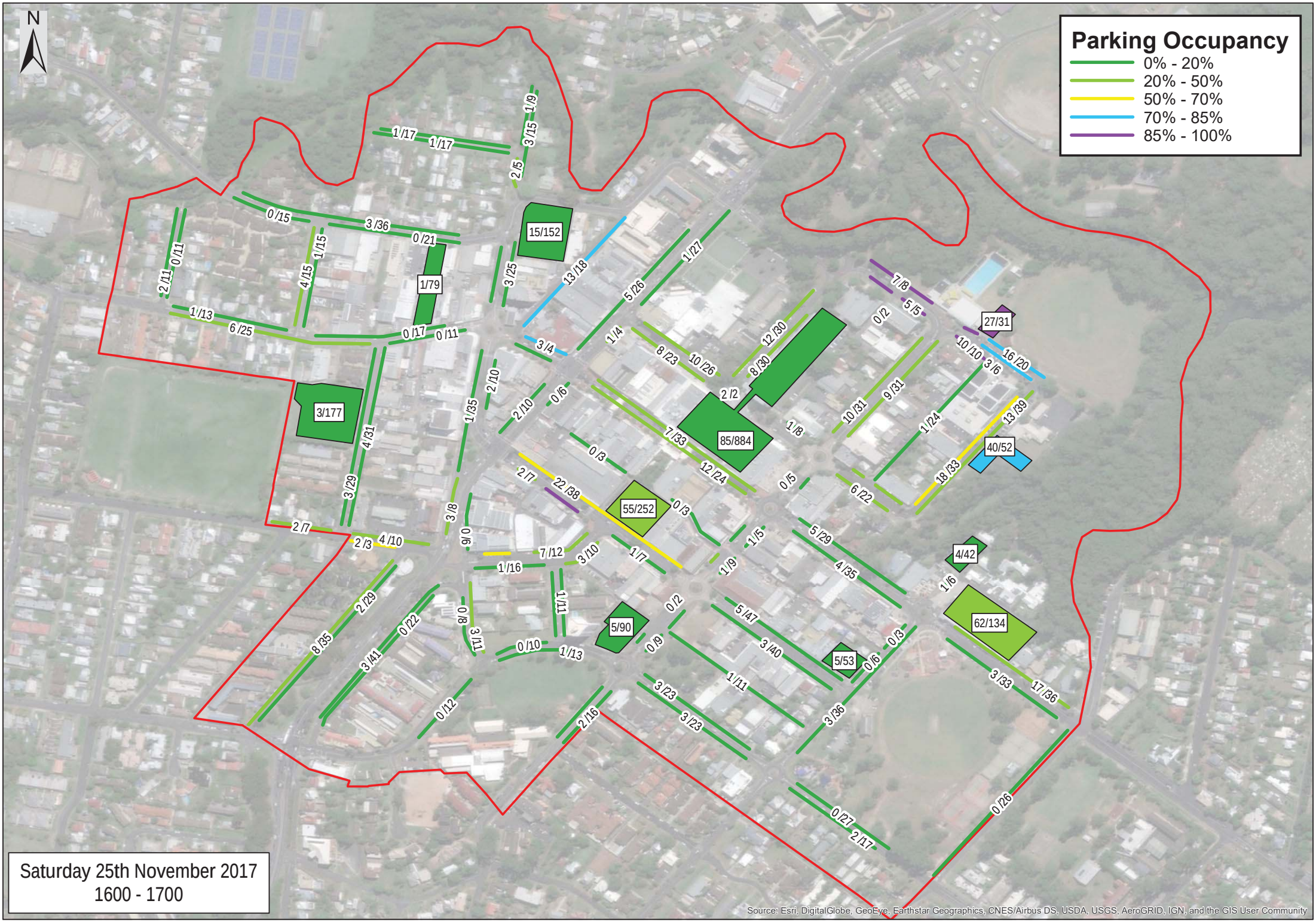
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Saturday 25th November 2017
1200 - 1300
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
28/152
1/79
5/177
322/884
112/252
7/90
11/53
6/42
95/134
52/52
30/31
Saturday 25th November 2017
1300 - 1400
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
14/152
1/79
3/177
240/884
98/252
8/90
8/53
9/31
46/52
9/42
68/134
Saturday 25th November 2017
1400 - 1500
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
Saturday 25th November 2017
1500 - 1600
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


N
Parking Occupancy
0% - 20%
20% - 50%
50% - 70%
70% - 85%
85% - 100%
15/152
1/79
3/177
85/884
55/252
5/90
5/53
27/31
40/52
4/42
62/134
Saturday 25th November 2017
1600 - 1700
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

APPENDIX B

ARCGIS DOS, TURNOVER AND OVERSTAY MAPS

N

Parking Restriction

Type

- 1/4P
- 1/2P
- 1P
- 2P
- 3P
- 4P
- N/A
- Disabled Parking
- Motorcycle Parking
- No Stopping
- Bus Zone
- Loading Zone
- Taxi Zone

Parking Inventory
Thursday 23rd November 2017

N

Moonee Street

Harbour Drive

Park Avenue

Average Duration of Stay

- 0 - 30 min
- 30 - 60 min
- 60 - 90 min
- 90 - 120 min
- 120 - 150 min

Average Duration of Stay (DoS)
10:00 - 13:00


N
Average Turnover
0 - 2
2 - 4
4 - 6
6 - 8
Moonee Street
Harbour Drive
Park Avenue
Thursday Average Turnover
10:00 - 13:00
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

N

Moonee Street

Harbour Drive

Park Avenue

Overstay Occurrences
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 - 12

Overstay Occurrences
10:00 - 13:00