STRATHFIELD COUNCIL

AUGUST 2012

TRAFFIC AND PARKING IMPACT ASSESSMENT REVIEW
PART 3A APPLICATION
AUSTRALIAN CATHOLIC UNIVERSITY, STRATHFIELD

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EXECUTIVE SUMMARY

This traffic assessment review has been undertaken in response to the Part 3A development application for the Australian Catholic University (ACU). This review has identified some fundamental flaws and underlying issues that have been inadequately assessed in relation to the current operation of the ACU and more significantly in relation to the lodged traffic, parking (including overspill parking), residential amenity and public transport impact assessment report, as submitted by ARUP in relation to the Preferred Project Report (PPR).

The ACU seek to increase their STUDENT capacity from 750 to 2,000 as well as the daily total to 2,800 students. To coincide with this increase and the proposed structural developments, the campus will accommodate a doubling of on-site car spaces contained in a basement car park and at grade parking to a total of some 717 car spaces.

The following matters of concern have been identified in relation to the PPR and the operation of the ACU as a consequence of the detailed review of the ARUP traffic and transport report as well as from our own conducted patronage and parking surveys:

- *Patronage surveys commissioned by MTE do not align with that reported in the PPR, notably, the ACU is in current breach of its consent conditions. No detailed justification has been provided by the ACU or its consultants with respect to the increase in student numbers beyond the 1994 Land & Environment consent, even allowing for the recent consent for use of the Edward Clancy premises.*
- *Traffic and parking surveys undertaken by ARUP are unconventional due to the commencement of the surveys occurring during study and exam weeks of the ACU.*
- *The PPR does not adequately justify its claim as to reduction of 120% in kerbside parking demand despite the 300% increase in student levels.*
- *The PPR fails to identify 70% of students will use public transport given the low level of walkers and cyclists as well as surveys indicating public transport use in the order of 16-17% which is considerably lower than the report 67%.*
- *No detailed assessment has been provided with respect to existing and targeted bus shuttle capacity, frequency of service and kerbside parking demand / queueing extent at both Strathfield Rail Station and within (or adjacent to) the ACU premises.*
- *The ARUP analysis fails to properly assess peak hour intersection performances for such a significant development located in a residential dominant area.*
- *The ARUP report does not include detailed assessment of impacts of ACU related traffic on the amenity of surrounding residential streets. No detailed assessment of the existing traffic flow in these streets by students (and possibly staff) searching for available kerbside parking.*
- *A Resident Parking Scheme (RPS) is unlikely to be implemented in these streets as the vast majority of dwellings have their own off-street car parking.*

The RMS guidelines state that the RPS can only be implemented if residents do not have off-street parking or cannot reasonably modify their premises to permit off-street parking.

As outlined in the following report, the flaw in fundamental assumptions, lack of detail and conflicting data have been raised which seriously jeopardise the effectiveness of the PPR prepared by ARUP.

If the ARUP report is endorsed it is considered that the residents of Strathfield, particularly to the south of the ACU campus and along Barker Road will experience INTOLERABLE conditions in regard to the traffic and parking overspill consequences of the proposed ACU expansion.

1 INTRODUCTION

M^CLaren Traffic Engineering was commissioned in 2012 by Strathfield City Council and the Strathfield Residents Group to independently review the proposed expansion of the Australian Catholic University which is submitted as a Part 3A Application.

The site is located on the northern side of Barker Road south east of Strathfield Railway Station and the town centre.

The proposed development as outlined in ARUP's Preferred Project Report (PPR) seeks the following components as part of a master plan to accommodate student growth over the next decade:

- Increase in on-site parking from 346 car spaces to 717 car spaces
- New buildings
- Altered pedestrian and vehicular access arrangements including circulation within the site
- Increase in student peak capacity's and daily volumes

The PPR has been adjusted since the Transport and Accessibility Study undertaken in 2011 and the exhibited documents on 14th December 2011 and the Car Parking Report dated 4th April 2012.

Notably, the PPR has addresses issues with public transport accessibility as well as future traffic and parking impacts on the surrounding road network, all key elements to a traffic impact study.

In summary, according to ARUP's PPR, the ACU currently operates with the following conditions:

- Up to 2,400 students per day
- A peak of 658 students at any one time
- 100% capacity of on-site parking, 350 car spaces
- Peak on-street parking of 506 which therefore equates to 856 car spaces as the current parking demand
- Public transport use in the order of 67%

While the PPR addresses the proposal, it is still determined to be an inadequate analysis for such a significant development. The deficiencies in relation to the proposal and the submitted PPR are outlined in the following report.

2 EXISTING CONSENT CONDITIONS

It is highly important to first establish the existing consent conditions for the current ACU and associated campuses at Strathfield. The following consent conditions where imposed on 16th December 1994 and are currently enforced to date:

- Classes should only be conducted only between the hours of 8:00am to 9:00pm Monday to Friday. The library shall be open only between the above hours and from 8:00am to 5:00pm on Saturday
- The number of students enrolled at the university at any one time shall not exceed 1,100 by day and 700 by night and the number of teachers employed shall no exceed 190, without prior approval of council. The number of students in attendance on site at any one time shall not exceed 510 between the hours of 8:00am and 5:00pm Monday to Friday and 247 between 5:00pm and 9:00pm Monday to Friday.

Additionally, on 15th October 2002 Council granted consent for use of Edward Clancy campus with the following conditions:

- The hours of operation are restricted to 8:00am to 9:00pm, Monday to Friday
- The student numbers are not to exceed a maximum of 240 students at any given time.

It should be noted that in 2012, Council permitted ACU to a limited trial period to increase their student numbers to 900 students at any one time across both campuses, for a duration of 6 months.

Late in 2011, Sydney Adventist College notified Council that the ACU were seeking to arrange leasing of classrooms on the SAC campus at 158 Albert Road, Strathfield, for ACU educational purposes. As part of development consent for the SAC on 20 October 2002 it was conditioned that *the existing buildings and the proposed alteration/additions shall only be used for school purposes and for no other purpose.*

3 ARUP TRANSPORT AND ACCESSIBILITY REVIEW

3.1 Report Revisions

Examining the three submissions from ARUP, including the PPR, a comparison can be made as to the aimed outcome of the ACU master plan.

TABLE 1: REPORT CHANGES

Component	Revision B, December 2011	Car Park Report 4 April 2012	PPR 9 July 2012
Student number	2,400 at any one time. Increase from 2,200 at any one time	not specified	2,000 at any one time with a cap of 2,800 per day
Staff number	260	not specified	not specified
On-site parking	644	586	717
On-street parking	Increase from existing 76% utilisation to 80-90% utilisation	not specified	Reduce from 500 to 230 ACU cars, 120% reduction
Public transport	Shuttle bus frequency's	not specified	Shuttle bus frequency's & utilisation figures, 70% use
Acknowledgement of 1994 Consent for 750 students at any one time for ACU & Edward Clancy	Yes, but adopted 2,200 for ACU & Edward Clancy as a baseline student number without justification	Not stated	Yes, but no discussion on an appropriate baseline of student attendance

The following sub sections will address matters identified by *M^CLaren Traffic Engineering* that a vital to the effectiveness of the transport and accessibility study.

3.2 Student & Staff Levels

The PPR seeks consent for 2,000 students at any one time capped at 2,800 students per day. This has significantly altered since the Revision B report which sought 2,400 students at any one time, an increase of only 9% (above an assumed baseline of 2,200 students). It is clear from the Revision B and PPR that the existing student levels used for the Revision B report where grossly inaccurate and required significant update for the PPR.

The PPR states in Section 5.1 that student attendance ranges from 515 students to 668 students. This is based on 2009-2001 and inclusive data obtained by biannual detailed audits undertaken by ACU (as a result of Strathfield Council request)

The increase to 2,000 students at any one time is an increase of 299% from 658, or 267% from the consent of 750 students during the 8:00am to 5:00pm period, Monday to Friday.

Two surveys were undertaken upon request by M^CLaren Traffic Engineering and show the student peak of 1439 (Count 1, 2nd May 2012) and 1467 (Count 2, 16th May 2012) across the ACU, Edward Clancy and Adventist College all relating to the ACU operation.

This is significantly greater than that report by the PPR and in breach of the ACU consent of 750 students at any one time.

The following points outline deficiencies in the PPR in relation to patron levels:

- The ACU detailed student audits do not identify who undertook them and their level of independency.
- The detailed student audits appear to focus on classroom data and it is questioned whether these surveys include open spaces, study areas (library's, research rooms) and teacher/lecturer/tutor attendance
- Why is there significant discrepancy's between the PPR and the Revision B in terms of existing student levels and approved student levels.
- The PPR does no address the night time operation of the ACU, which is 5:00pm to 9:00pm
- The PPR does not highlight student management to achieved capped levels of 2,800 per day.
- The PPR does not outline the proposed level of teacher/lecturers. The Revision B report states 260 in Section 4.9 however it is unknown whether this view is still maintained in the PPR.
- The PPR states that the existing daily students are 2,400 and are to be increase to 2,800 per day. Taking a logical view approach, the PPR refutes these claims itself. The PPR states in Section 3.1.2 that on average there 2,248 car trips per day. Assuming 50% are arriving with worse case scenario of 1 person per vehicle than that equals 1124 people. Additionally, Table 7 details the shuttle bus usage of around 1,600 people but for the purpose of this comparison, the shuttle bus on average has 1484 people. Therefore, the total amount of students in one day would be in the order of 2,600 which neglects other modes of transport, assumes 1 person per car and does not reflect the peak periods. This is some 200 people per day greater than the PPR claims, again showing inconsistencies throughout the report.

3.3 On-site & On-street Parking

The on-site parking provision has increased from 644 to 717 car spaces despite the decrease in proposed attendance levels of 2,400 to 2,000 in the Revision B report and PPR respectively. The existing site layout has 346 car spaces.

Table 9 of the PPR summarises the travel characteristics of the ACU operation. Importantly, it details that peak on-site parking is at capacity and the total parking (staff and students as shown in the table) is 856 car spaces (350 on-site plus 506 on-street). Logically, this is impossible to occur considering, according to the ACU audits that a maximum of 658 students attend the site at any one time and for the purpose of analysis, assuming all 190 staff are attending, equates to 848 persons on-site at any one time. This is a serious flaw in the PPR as it does not align with the ARUP analysis.

M^CLaren Traffic Engineering considers that the on-street parking of 506 spaces surveyed by ARUP have not taken into account the resident parking. Revision B outlines in Section 3.8.1 that presumably 60-65% of street kerbside occupancy is related to ACU student parking.

Count 1 and Count 2 show ACU parking is up to 70% of the kerbside occupancy. Taking the assumption of 65% outlined in the Revision B report, this equates to 329 on-street spaces associated with ACU students. Therefore, the total parking is 679 spaces (on-site + on-street).

The parking generated for 848 students and staff is 679 spaces, or 1.25 persons per parking space. The increase to 2,190 persons at any one time (2,000 students and assumed 190 staff) will generate 1,752 parking spaces. It is noted that the adopted 190 staff based on the 1994 consent is likely to be underestimated for an increase of an extra 1,250 students. Using the 1994 consent of 190 staff for 510 ACU students during the day would in fact lead to a further 466 staff for the extra 1,250 students (i.e. 1,250 x 190 / 510 = 466). So the parking figure of 1,752 spaces would increase by another 373 spaces to a total of 2,125 spaces.

The PPR details a provision of 717 on site parking spaces with a reduction in kerb-side parking. This is illogical. With reference to Section 5.2.1 (p21) of the PPR, ARUP forecasts that the additional parking demand will be in the order of 94 spaces to a combined total of 950 cars. The high reliance on the shuttle service to effect a travel mode change to the degree suggested is highly unlikely, particularly given that a minimum of two travel modes are required via Strathfield bus/rail interchange (i.e. train – ACU shuttle or public bus – ACU shuttle).

The following issues summarise the lack in detail of the PPR and inconsistencies in ARUP's analysis:

- ARUP needs to clarify the kerbside parking demand associated with the ACU in the PPR. The Revision B report outlines an assumption however, the PPR lacks significant detail.

- The PPR overlooks the relationship between the peak student attendance and the peak parking occupancy which would occur over the same period and results in an impossible scenario. This is backed up with the fundamental flaw in the assumption/calculation that street parking will reduce despite the 300% in students at any one time and 200% increase in on-site parking which currently has overspill with little to no changes in the shuttle bus service.

3.4 Public Transport

Revision B report lacked shuttle bus and public transport figures and utilisation. The PPR address these issues in Section 3.2 including the public transport infrastructure surrounding the subject site and directly relating to the ACU.

Table 7 of the PPR outlines daily bus usage for either direction of travel (to and from Strathfield Station) as recorded from the week starting 5th March 2012 For students arriving by bus, the PPR outlines in excess of 1,600 students while departing students can exceed 1,400. Based on 2,400 students per day, this is 67% of students arriving by bus.

Recent independent surveys where commissioned on Wednesday 2nd May and Wednesday 16th May 2012. Results of the bus patronage levels show that inbound students where 1,113 and 1,163 students respectively and outbound 1,038 and 994 students respectively utilised the shuttle bus service. This is considerably lower than that outlined in the PPR for the corresponding Wednesday as shown in the table below.

TABLE 2: BUS USAGE

	Count 1	Count 2	PPR
Inbound	1,113	1,163	1,604
Outbound	1,038	994	1,421

Section 7 (Conclusion) of the PPR states that the public transport patronage will be 70%. Upon review of the daily patron levels obtained from the two separate surveys along with the bus usage reveals the current public transport usage is around 16-17%. Again, this is severely lower than what the PPR aims to achieve with no indication of how the shuttle bus service will improve to accommodate the 40% increase in expected use. Not only is the PPR lacking detail in how the shuttle bus service will achieve the 70% but whether the railway station has capacity for increase in bus queuing and usage.

Approaching the public transport from a parking demand also raises anomalies in ARUP's analysis. The peak of 848 students and staff require 679 car spaces. This shows that only 25% of people utilise car pooling or other means of transport during the peak period.

3.5 Traffic Generation

Revision B and the Car Park report outlined the existing vehicle trips associated with the driveway accesses where 161 and 86 during the AM and PM respectively which were recorded in 26th May 2011 which unconventionally was during the last week of term before examination period, also known as a study week where lectures are not running. The PPR reports additional surveys taken from 18th May 2012 to 1st June 2012 (15 day period) and graphically represents the traffic at the driveway locations however only outlines and details in the relevant sections the daily volumes.

Inspection of the graphs show approximately 250 vehicle trips at 8:00am and approximately 200 vehicle trips at 5:00pm. The student peak attendance occurs from 10am-12pm where there are around 200 vehicles trips at the driveway locations.

According to ACU website, the period from 18th May 2012 to 1st June 2012 includes the study week and examination week, with no period of lectures being surveyed. Again, this is an unconventional approach and does not fully reflect the operation of the ACU.

Count 1 and Count 2 recorded vehicle trips at the driveway locations in the order of 233-311 vehicle trips during 9:15am to 10:15am where the lower range occurred during the last week of Semester 1. During the 10:00am to 12:00pm period, when student numbers peak the peak traffic at the driveways was 208-228 vehicle trips.

- Revision B and the PPR outlined unconventional survey periods as they do not comprehensively include lecture periods.
- The PPR is lacking intersection analysis, considering the Revision B report proposed a signalised intersection on Barker Road, which has now been removed as part of the PPR analysis. Additionally, the Car Park Report conducted SIDRA analysis however is flawed due to the period of the recorded data and fails to state future traffic generation figures and derivations. The Car Park report also contradicts the Revision B report by assuming an additional 40% of students park on-street despite Revision B assuming 60-65% of kerbside parking is attributed to the ACU and Count 1 & 2 showing up to 70%.
- The PPR does not adequately assess the surrounding road network as per the RMS guidelines which require the peaks of the road and the peaks of the development to be considered. It is evident that three peaks occur. Two peaks relate to the road AM and PM peak while the third peak relates to the peak student patronage which occurs around midday during the 10:00am to 12:00pm period.
- The PPR outlines a total traffic generation of 2,438 vehicles per day however, road analysis also focuses on peak hours which has not been adequately raised or addressed. The PPR assumes a car space turn over rate of 1.5 times per space however it is not outlined how this turn over rate was devised

as the 1,498 car movements at the driveway only access 346 spaces, which is 4.3 trips per space per day.

- The PPR should not wholly focus on daily vehicle levels, but assess the peak hour performance as per standards. The PPR outlines 250 vehicle trips at the driveway locations for 346 car spaces, which represents 0.7 trips per space. Increasing to 717 spaces will see a total of 502 vehicle movements at the driveway locations, some 45% greater than what is currently operating. Additionally, due to the increase from 658 to 2,000 students, the potential demand of 1,752 car spaces is expected.

4 Summary

The submitted Preferred Project Report (PPR) by ARUP for the Australian Catholic University at Strathfield has serious deficiencies and requires urgent update, more detail and evaluation.

The PPR lacks the following information and requires further revision and evaluation:

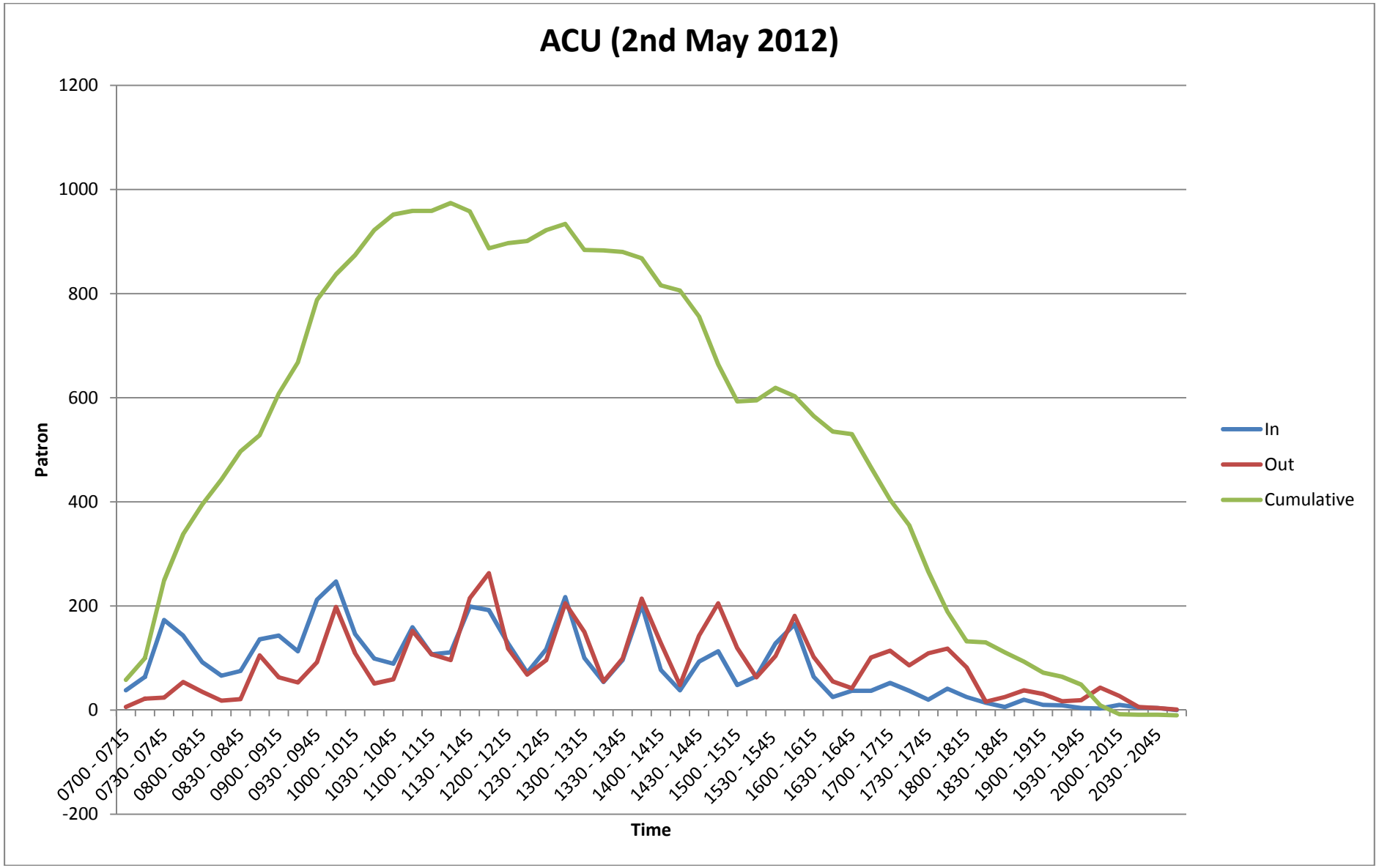
- Student audits are not defined as being independent or who carried out the classroom surveys.
- The student audit does not define survey zones i.e. is it inclusive of open space and study rooms etc.
- The report provides existing and future student and parking scenarios that do not cohesively relate as the existing parking demand outlined by the PPR is in the order of 856 spaces for a peak attendance of 658 students, or 848 including staff i.e. there are more cars than people.
- The report claims that the kerb side parking demand will decrease.
- The PPR does not define the future staff levels or the proposed night time operation levels.
- The PPR does not justify the shuttle bus capabilities to achieve 70% public transport usage as part of the master plan. The PPR aims for 2,000 students per day to use the shuttle bus however the PPR lacks detail on how it is to achieve this goal and what is required to achieve this unrealistic target.
- The PPR outlines sustainable transport initiatives including cycle and pedestrian facilities as well as public transport and car pooling. The Revision B report states in Section 3.5 and 3.6 that "*During site visits very few students were observed to walk to campus; During site visits very few students were observed to ride to the campus by bike".* There is a lack of detail in the ARUP reports with poor details shown by those above. Significant mode shifts for students have not been quantified and the proposed bicycle/pedestrian links have not been shown conceptually for feasibility.
- The PPR does not adequately analyse the traffic generation in terms of intersection performance and importantly, residential amenity of the surrounding streets. Previous SIDRA analysis where based on old surveys and not the updated surveys outlined in the PPR.
- The report does not provide logical answers as to how the increase in students by almost 3 times and on-site parking doubling results in lower kerbside parking demand.
- Clarification is required on the design of the on-site car parks and their control points, if any. If control points are introduced, in the form of boom gates, then appropriate queue lengths and boom gate setbacks are required for entry and

exit. Appropriate queuing analysis should be undertaken with consideration to the inbound and outbound demand and service time.

- Patronage surveys commissioned by MTE do not align with that reported in the PPR, notably, the ACU is in current breach of its consent conditions. No detailed justification has been provided by the ACU or its consultants with respect to the increase in student numbers beyond the 1994 Land & Environment consent, even allowing for the recent consent for use of the Edward Clancy premises.
- Traffic and parking surveys undertaken by ARUP are unconventional due to the commencement of the surveys occurring during study and exam weeks of the ACU.
- The PPR does not adequately justify its claim as to reduction of 120% in kerbside parking demand despite the 300% increase in student levels.
- The PPR fails to identify 70% of students will use public transport given the low level of walkers and cyclists as well as surveys indicating public transport use in the order of 16-17% which is considerably lower than the report 67%.
- No detailed assessment has been provided with respect to existing and targeted bus shuttle capacity, frequency of service and kerbside parking demand / queueing extent at both Strathfield Rail Station and within (or adjacent to) the ACU premises.
- The ARUP analysis fails to properly assess peak hour intersection performances for such a significant development located in a residential dominant area.
- The ARUP report does not include detailed assessment of impacts of ACU related traffic on the amenity of surrounding residential streets. No detailed assessment of the existing traffic flow in these streets by students (and possibly staff) searching for available kerbside parking.
- A Resident Parking Scheme (RPS) is unlikely to be implemented in these streets as the vast majority of dwellings have their own off-street car parking. The RMS guidelines state that the RPS can only be implemented if residents do not have off-street parking or cannot reasonably modify their premises to permit off-street parking.

In its current form the proposed development would not be supportable on traffic and parking grounds. The PPR severely lacks the required detail and level of assessment to adequately gauge the development.

If the ARUP report is endorsed it is considered that the residents of Strathfield, particularly to the south of the ACU campus and along Barker Road will experience INTOLERABLE conditions in regard to the traffic and parking overspill consequences of the proposed ACU expansion.


ACU (2nd May 2012)
Patron
1200
1000
800
600
400
200
0
-200
0700 - 0715
0730 - 0745
0800 - 0815
0830 - 0845
0900 - 0915
0930 - 0945
1000 - 1015
1030 - 1045
1100 - 1115
1130 - 1145
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1630 - 1645
1700 - 1715
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1930 - 1945
2000 - 2015
2030 - 2045
Time
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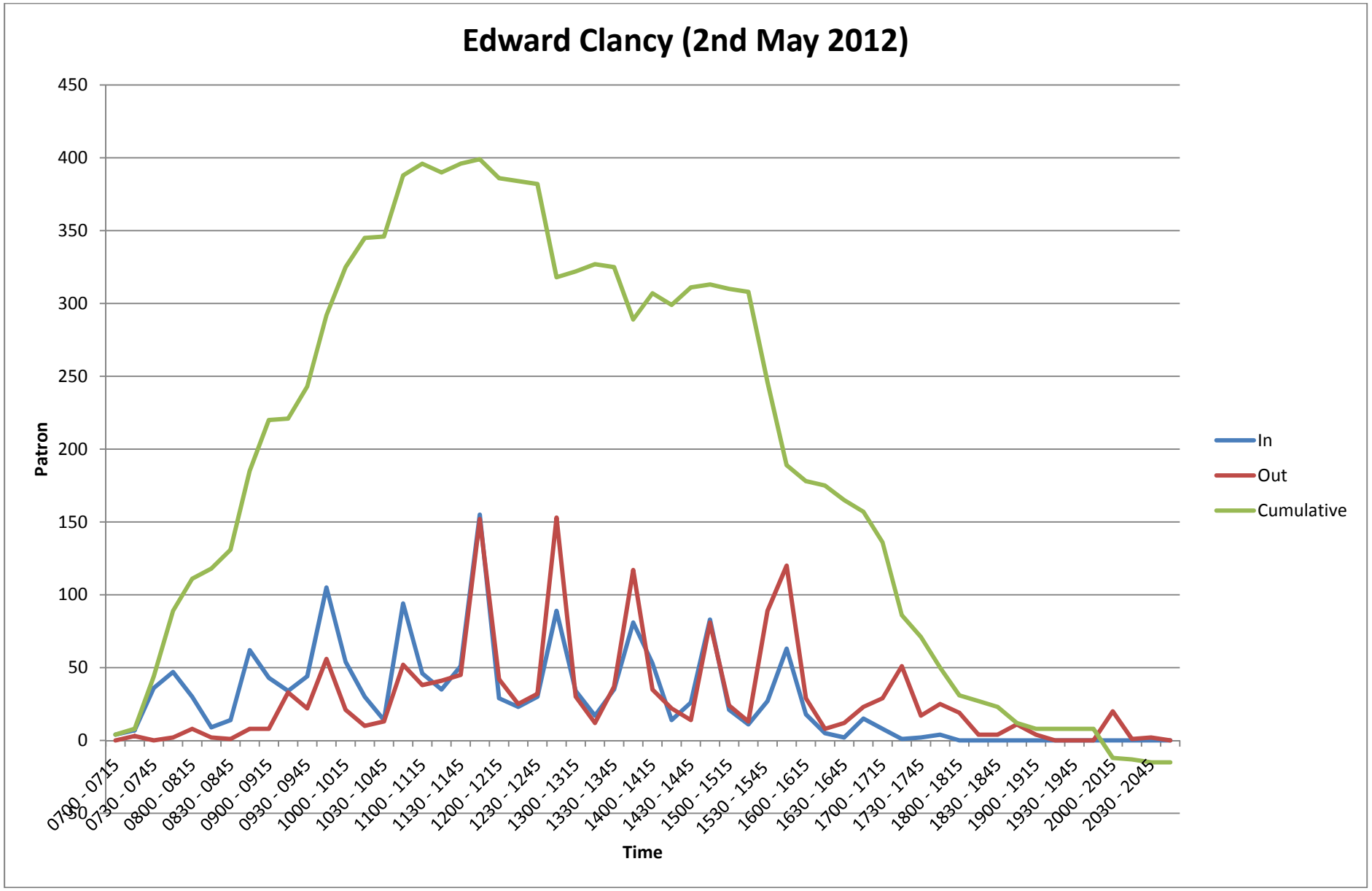
Out
Cumulative


Edward Clancy (2nd May 2012)
Patron
Time
In
Out
Cumulative
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150
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250
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350
400
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0730 - 0745
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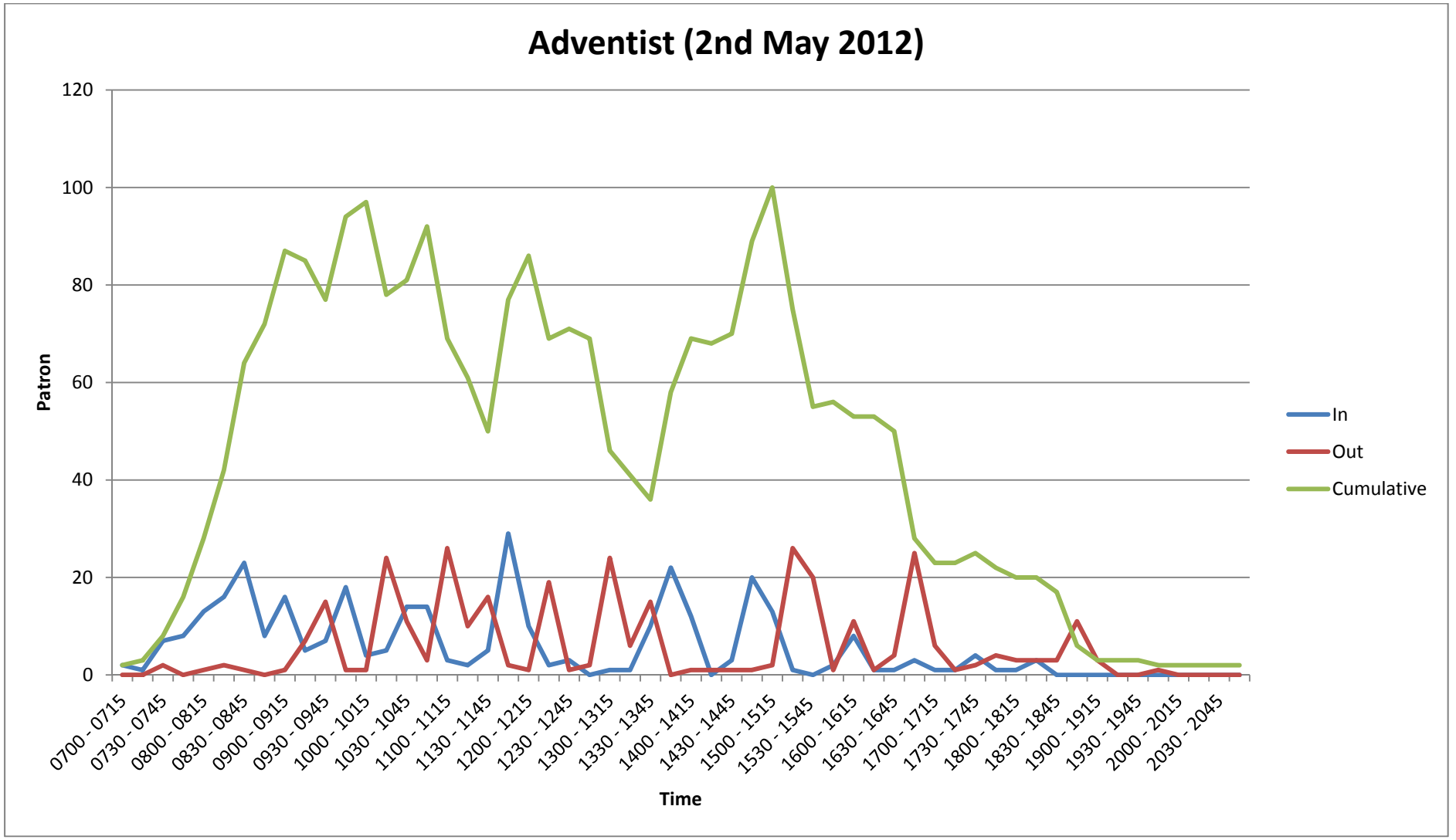
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Patron
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80
60
40
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0730 - 0745
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Time
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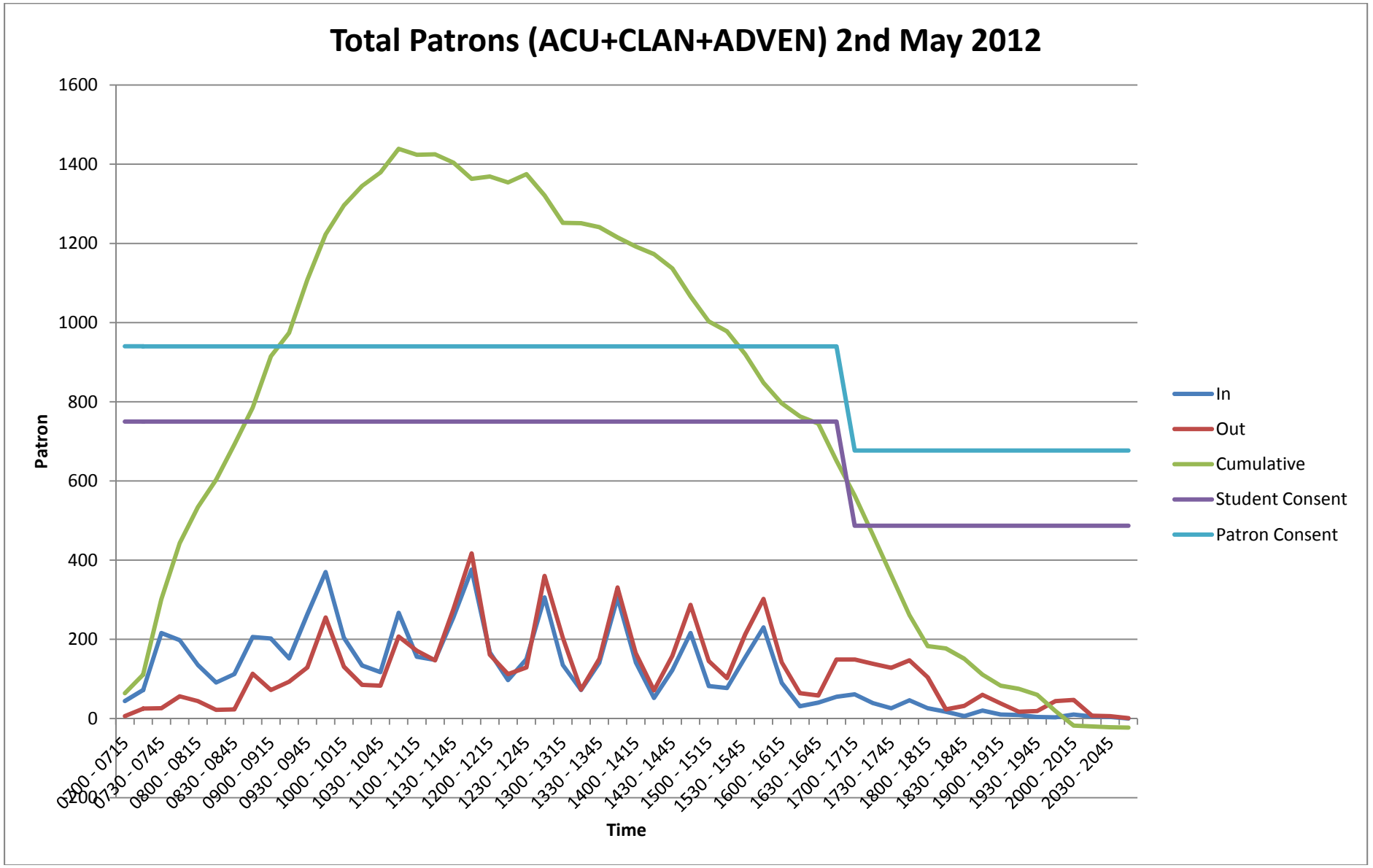
Cumulative


Total Patrons (ACU+CLAN+ADVEN) 2nd May 2012
Patron
Time
In
Out
Cumulative
Student Consent
Patron Consent
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200
400
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800
1000
1200
1400
1600
0700 - 0715
0730 - 0745
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0830 - 0845
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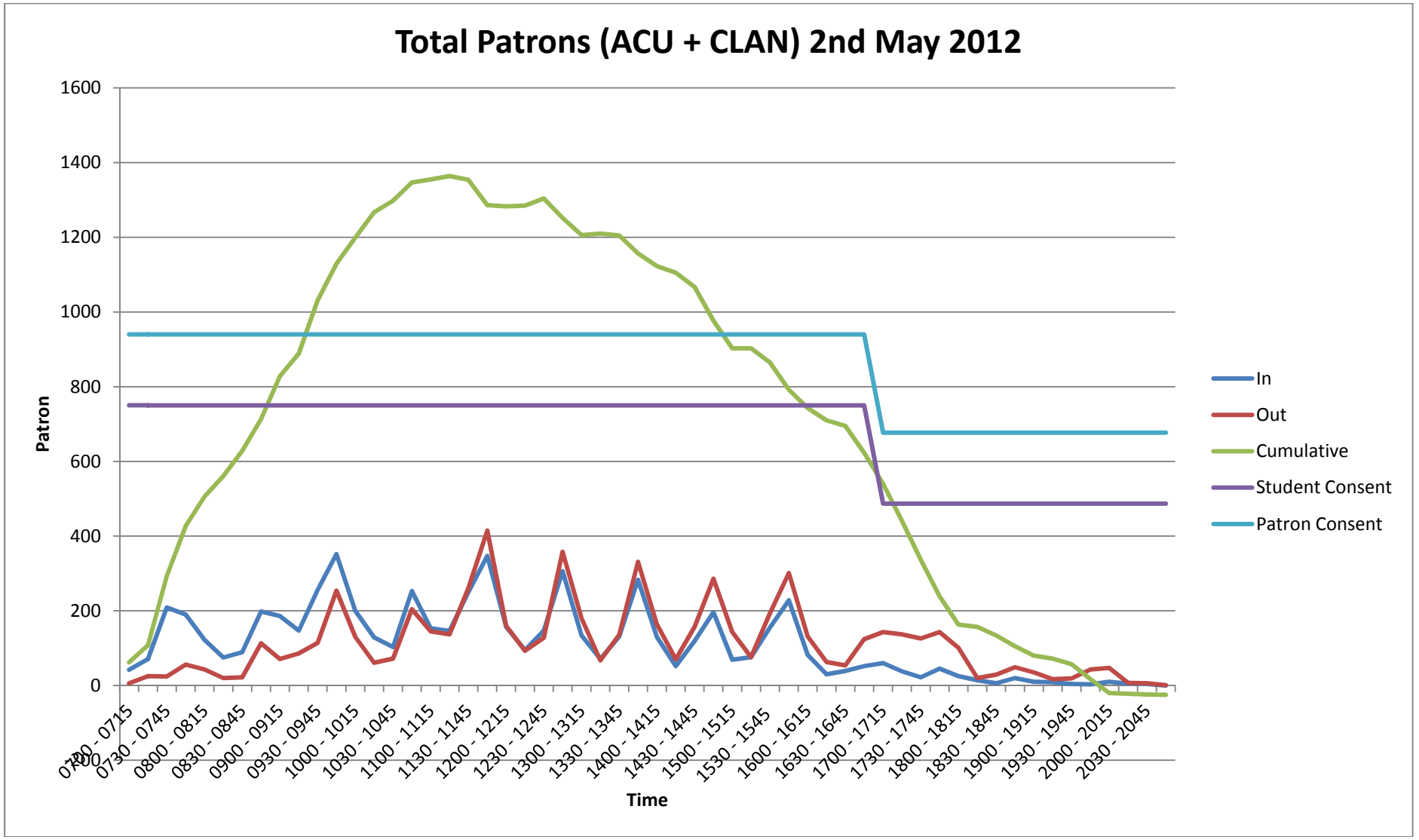
Total Patrons (ACU + CLAN) 2nd May 2012
Patron
Time
In
Out
Cumulative
Student Consent
Patron Consent
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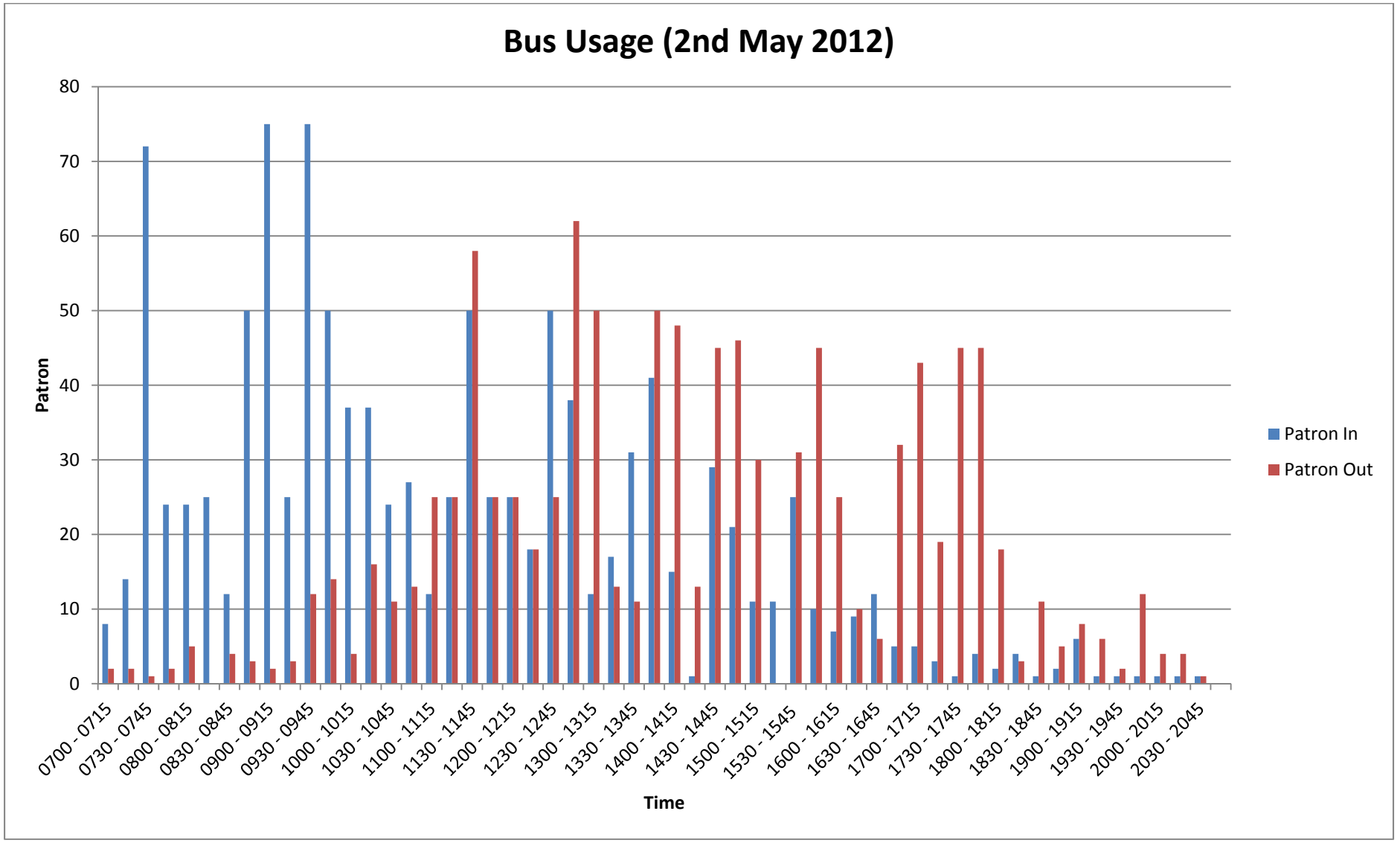
Bus Usage (2nd May 2012)
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60
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20
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0730 - 0745
0800 - 0815
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0900 - 0915
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1630 - 1645
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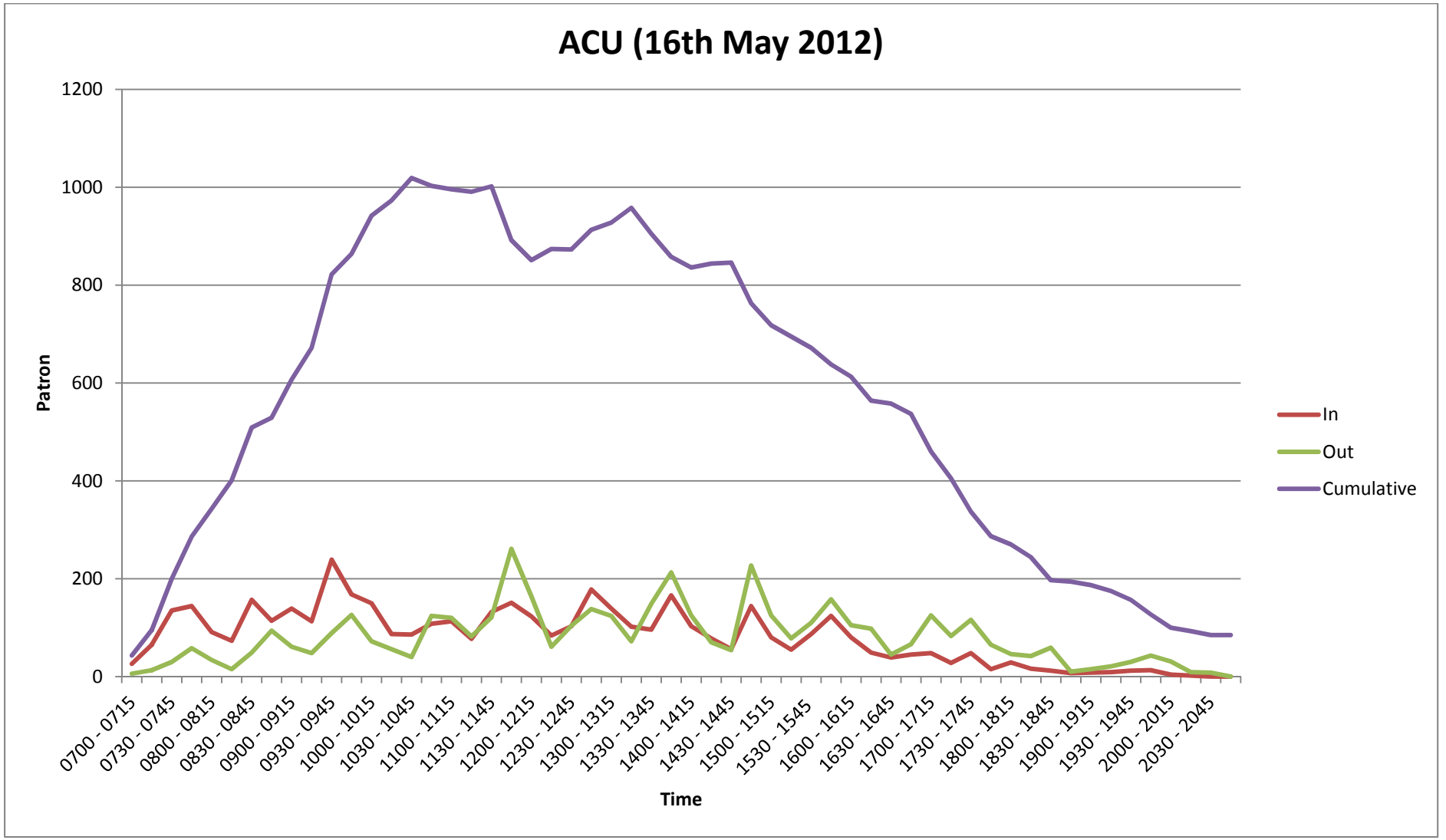
1900 - 1915
1930 - 1945
2000 - 2015
2030 - 2045
Time
Patron In
Patron Out


ACU (16th May 2012)
Patron
1200
1000
800
600
400
200
0
0700 - 0715
0730 - 0745
0800 - 0815
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0900 - 0915
0930 - 0945
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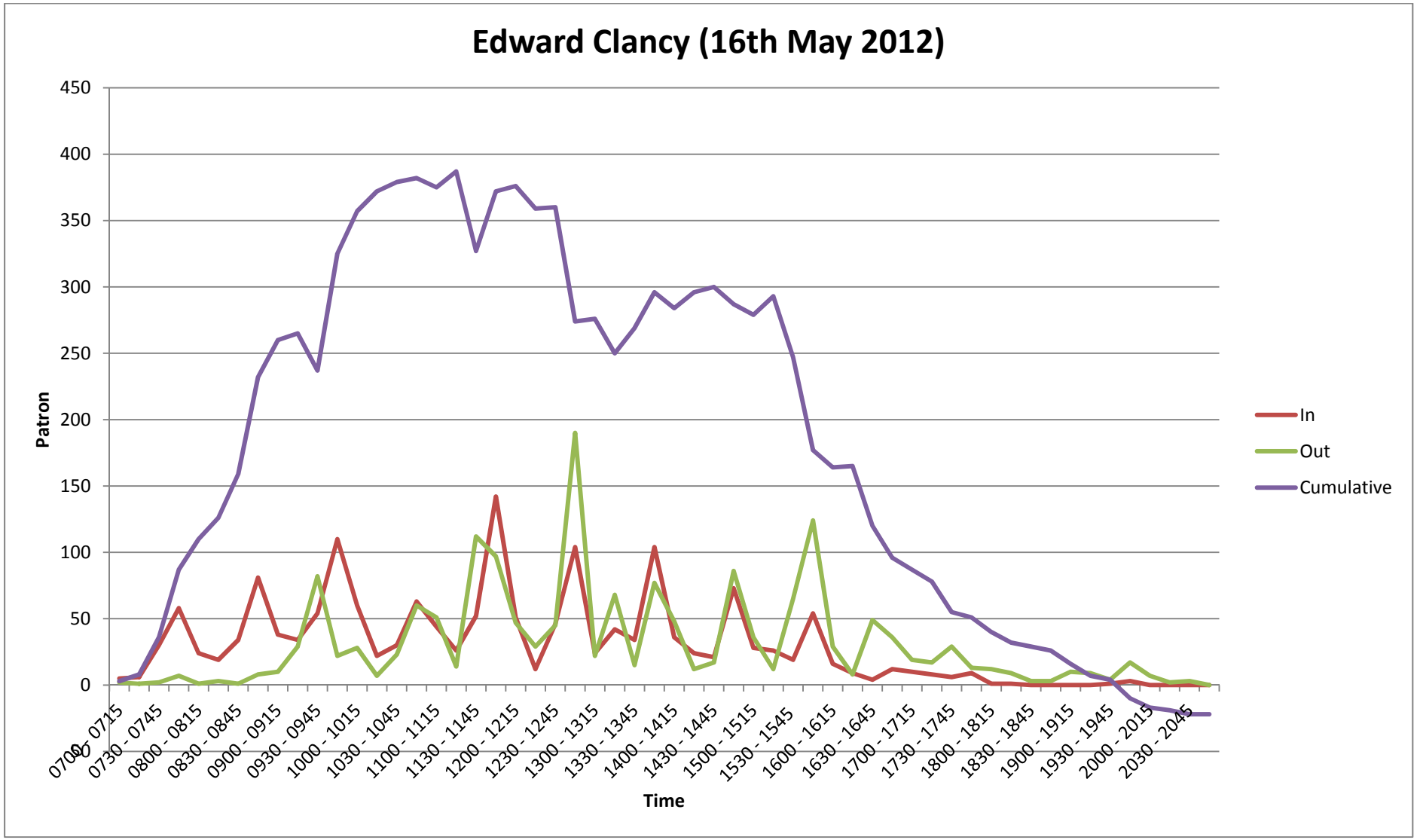
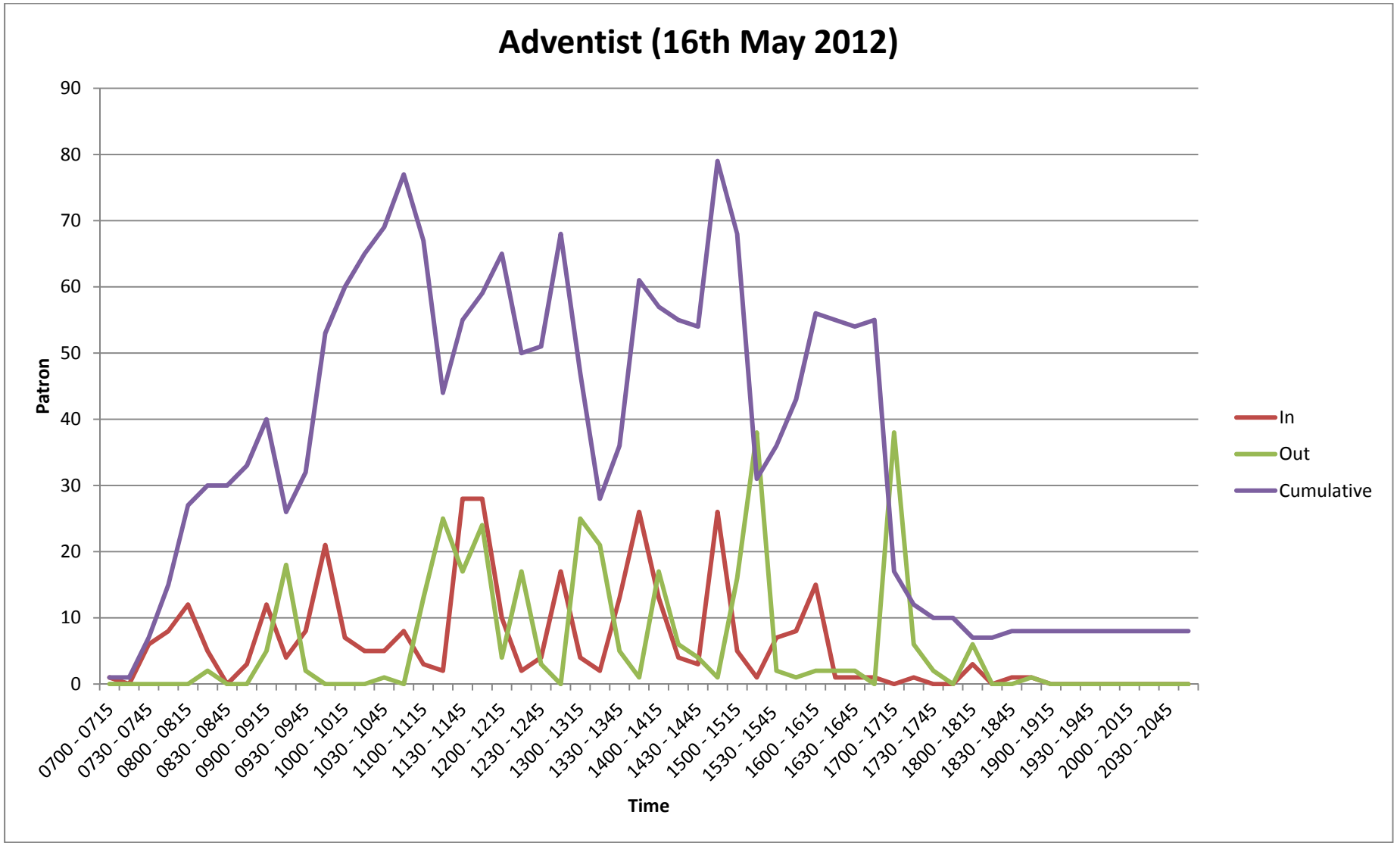
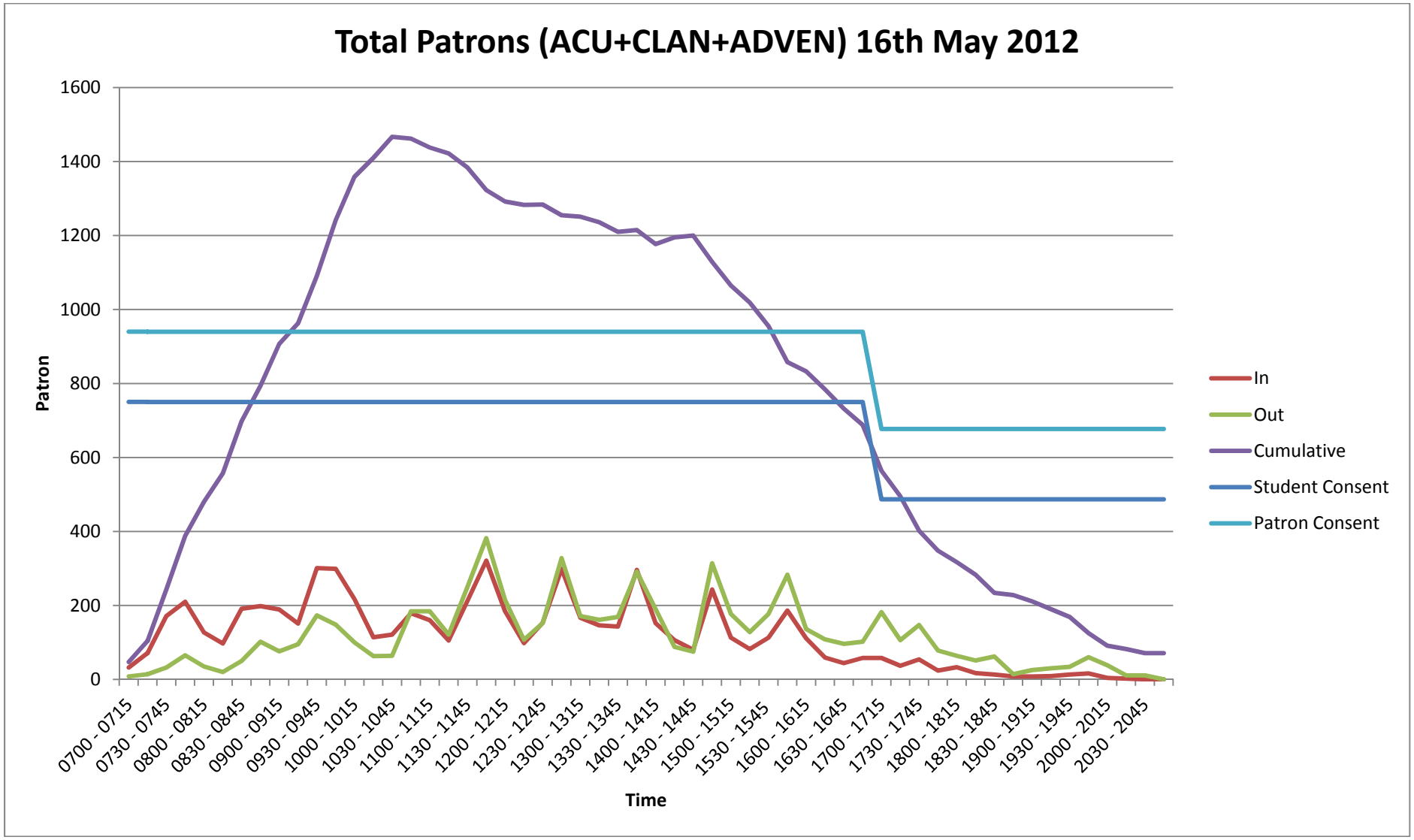
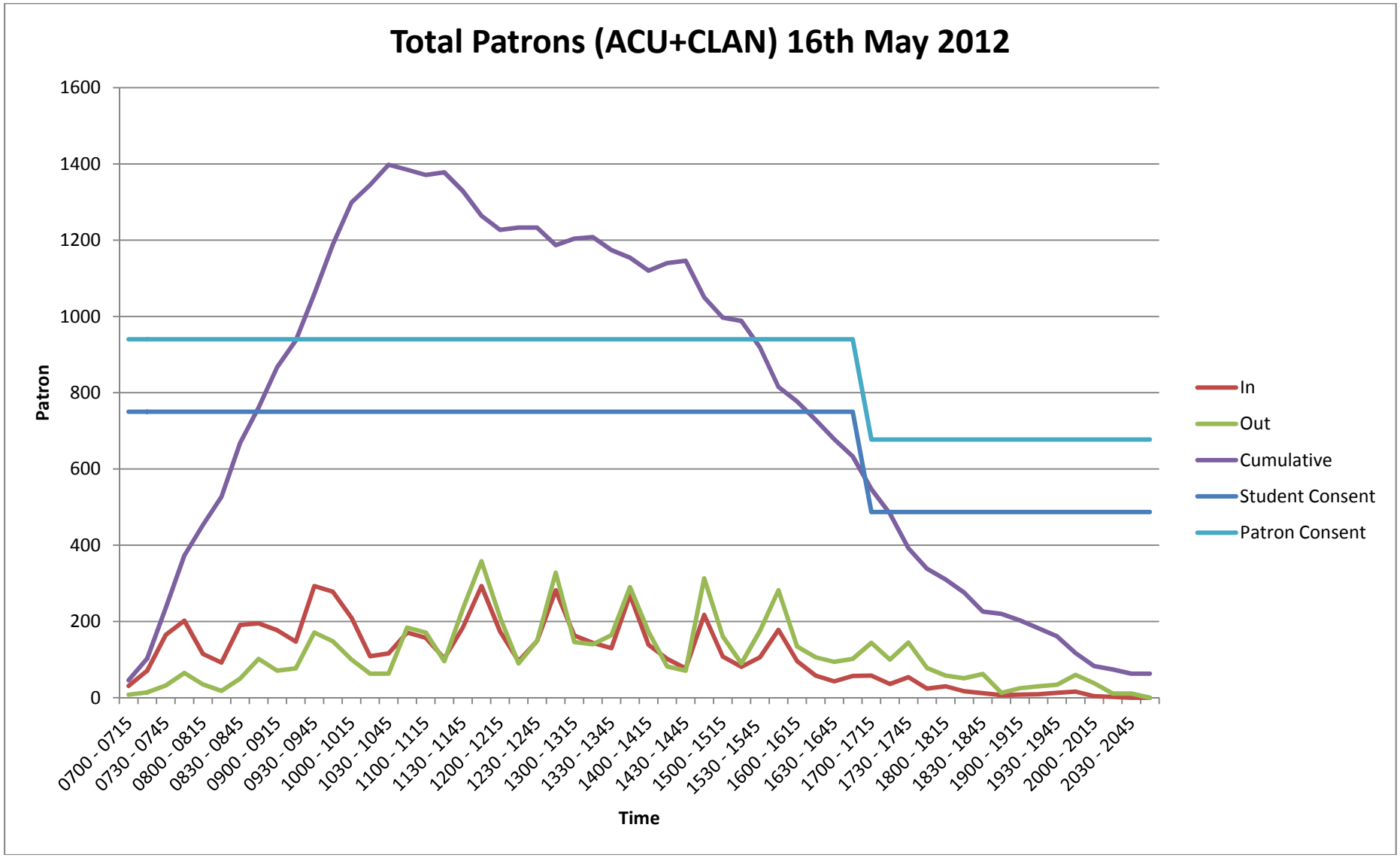
1400 - 1415
1430 - 1445
1500 - 1515
1530 - 1545
1600 - 1615
1630 - 1645
1700 - 1715
1730 - 1745
1800 - 1815
1830 - 1845
1900 - 1915
1930 - 1945
2000 - 2015
2030 - 2045
Time
In
Out
Cumulative

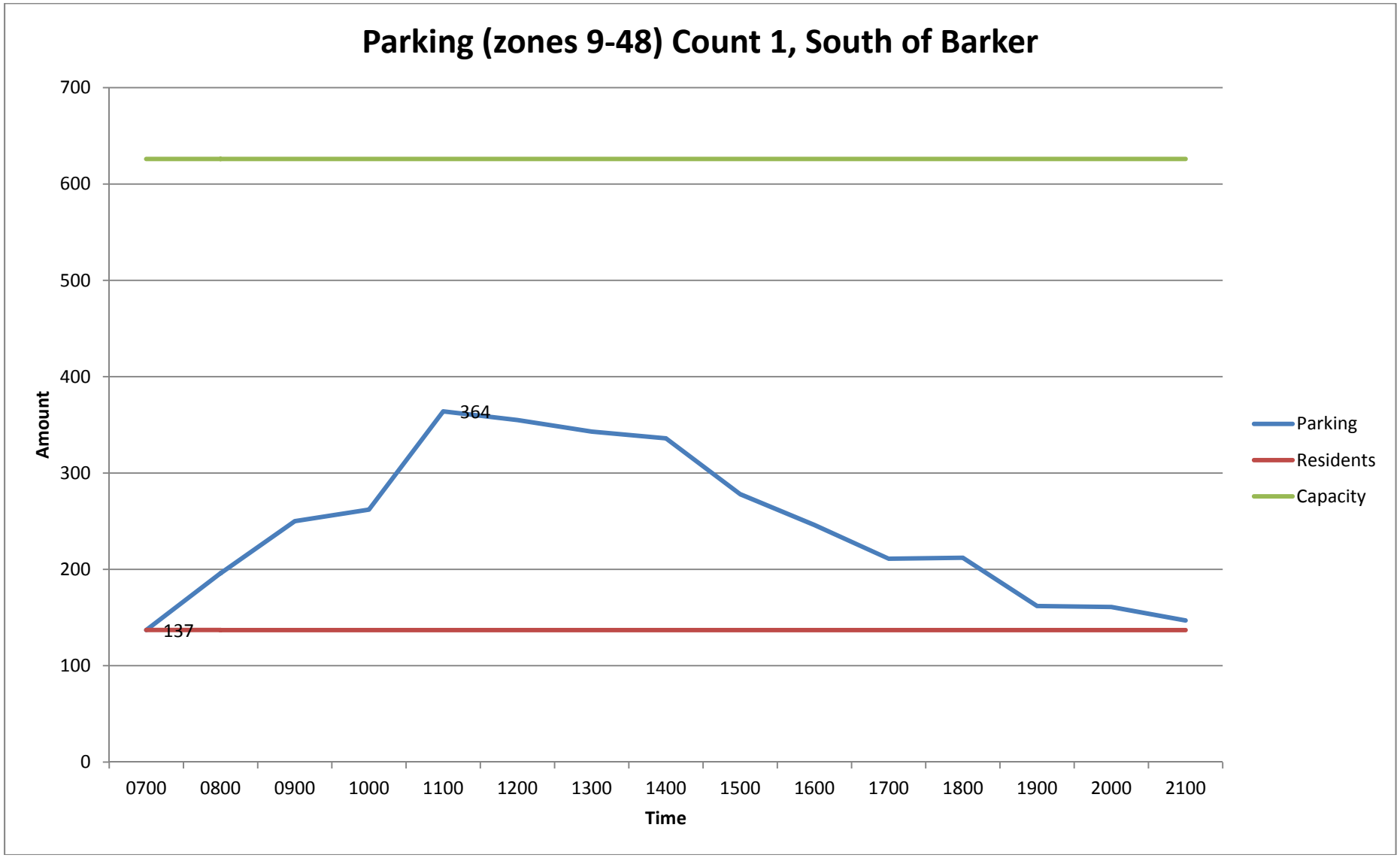

Edward Clancy (16th May 2012)
Patron
Time
In
Out
Cumulative
0
50
100
150
200
250
300
350
400
450
0700 - 0715
0730 - 0745
0800 - 0815
0830 - 0845
0900 - 0915
0930 - 0945
1000 - 1015
1030 - 1045
1100 - 1115
1130 - 1145
1200 - 1215
1230 - 1245
1300 - 1315
1330 - 1345
1400 - 1415
1430 - 1445
1500 - 1515
1530 - 1545
1600 - 1615
1630 - 1645
1700 - 1715
1730 - 1745
1800 - 1815
1830 - 1845
1900 - 1915
1930 - 1945
2000 - 2015
2030 - 2045

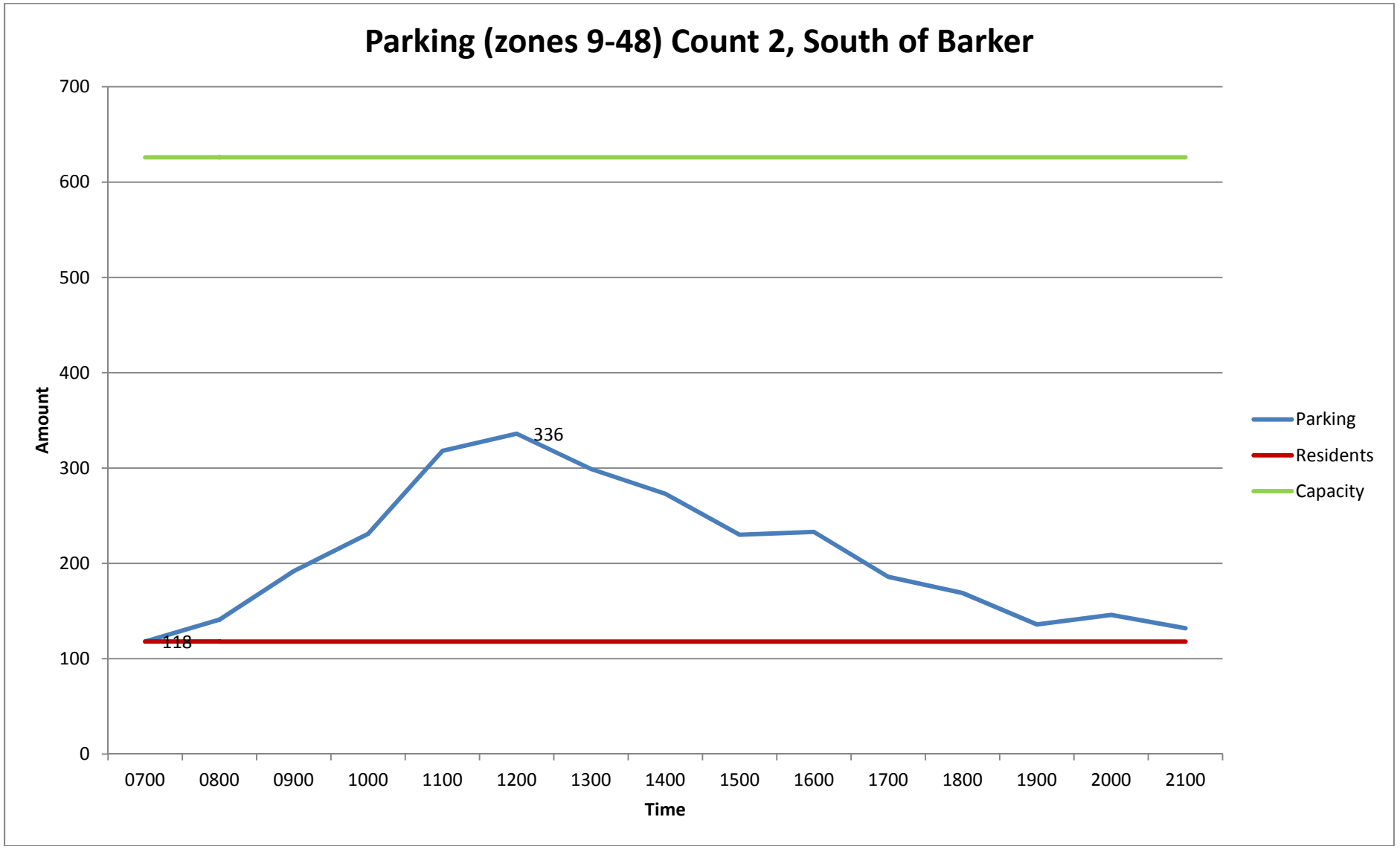

Adventist (16th May 2012)
Patron
Time
In
Out
Cumulative
0
10
20
30
40
50
60
70
80
90
0700 - 0715
0730 - 0745
0800 - 0815
0830 - 0845
0900 - 0915
0930 - 0945
1000 - 1015
1030 - 1045
1100 - 1115
1130 - 1145
1200 - 1215
1230 - 1245
1300 - 1315
1330 - 1345
1400 - 1415
1430 - 1445
1500 - 1515
1530 - 1545
1600 - 1615
1630 - 1645
1700 - 1715
1730 - 1745
1800 - 1815
1830 - 1845
1900 - 1915
1930 - 1945
2000 - 2015
2030 - 2045

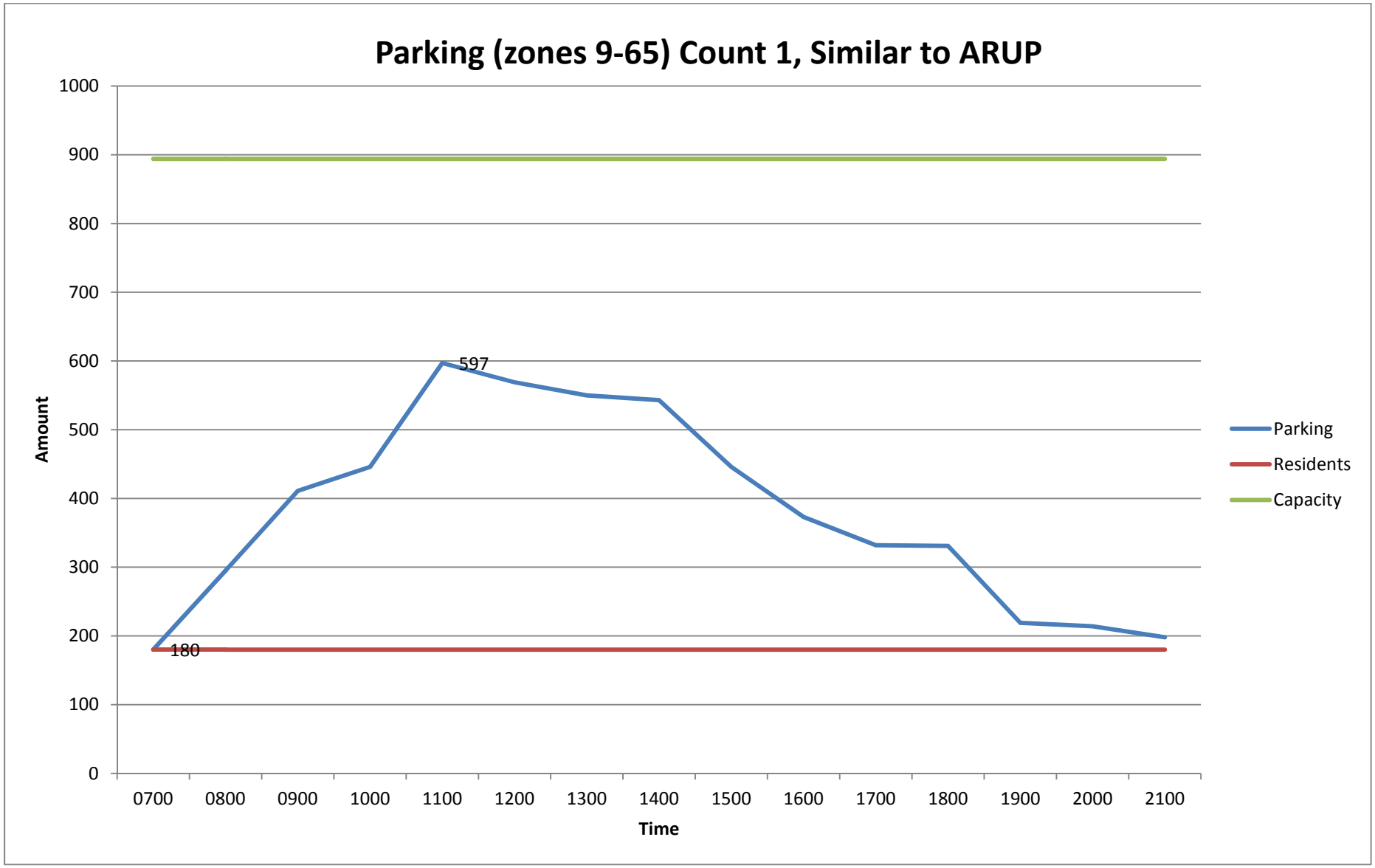

Total Patrons (ACU+CLAN+ADVEN) 16th May 2012
Patron
1600
1400
1200
1000
800
600
400
200
0
0700 - 0715
0730 - 0745
0800 - 0815
0830 - 0845
0900 - 0915
0930 - 0945
1000 - 1015
1030 - 1045
1100 - 1115
1130 - 1145
1200 - 1215
1230 - 1245
1300 - 1315
1330 - 1345
1400 - 1415
1430 - 1445
1500 - 1515
1530 - 1545
1600 - 1615
1630 - 1645
1700 - 1715
1730 - 1745
1800 - 1815
1830 - 1845
1900 - 1915
1930 - 1945
2000 - 2015
2030 - 2045
Time
In
Out
Cumulative
Student Consent
Patron Consent

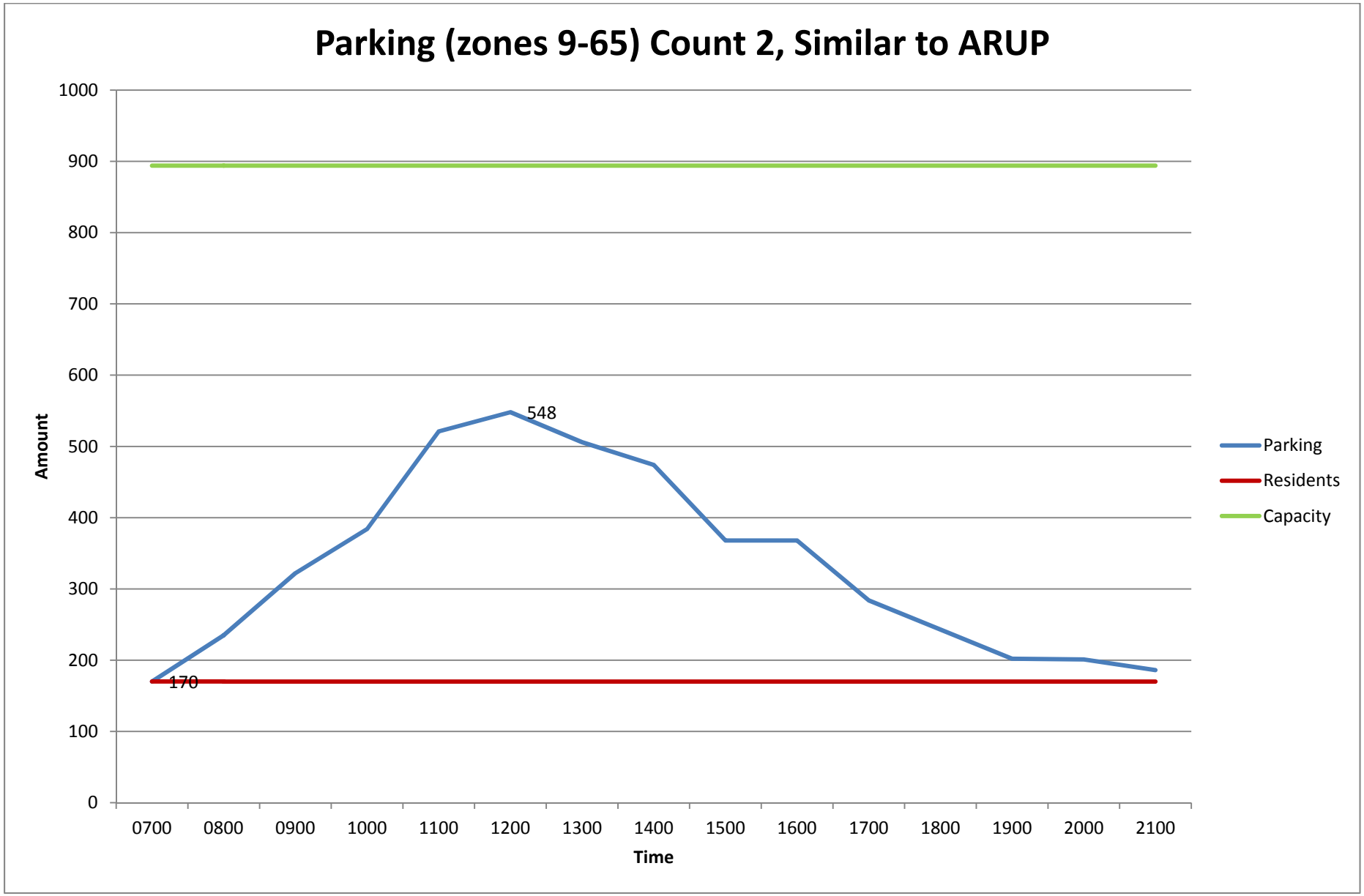

Total Patrons (ACU+CLAN) 16th May 2012
Patron
1600
1400
1200
1000
800
600
400
200
0
0700 - 0715
0730 - 0745
0800 - 0815
0830 - 0845
0900 - 0915
0930 - 0945
1000 - 1015
1030 - 1045
1100 - 1115
1130 - 1145
1200 - 1215
1230 - 1245
1300 - 1315
1330 - 1345
1400 - 1415
1430 - 1445
1500 - 1515
1530 - 1545
1600 - 1615
1630 - 1645
1700 - 1715
1730 - 1745
1800 - 1815
1830 - 1845
1900 - 1915
1930 - 1945
2000 - 2015
2030 - 2045
Time
In
Out
Cumulative
Student Consent
Patron Consent

Item		Wednesday 2nd May 2012 (Count 1)	Wednesday 16 May 2012 (Count 2)
Campus Daily Patron (ACU + CLANCY + ADVENT)		6669	6595
Campus Peak Patron (ACU + CLANCY + ADVENT)		1439	1467
Bus Daily Usage Patron	Total	2151	2157
	Arriving	1,113	1,163
Bus Usage %		16.69%	17.63%
Car Occupancy	In	1.18-1.13	1.11-1.13
	Out	1.17-1.25	1.22-1.26


Parking (zones 9-48) Count 1, South of Barker
700
600
500
400
300
200
100
0
Amount
364
137
0700
0800
0900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
Time
Parking
Residents
Capacity


Parking (zones 9-48) Count 2, South of Barker
700
600
500
400
300
200
100
0
Amount
336
118
0700
0800
0900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
Time
Parking
Residents
Capacity


Parking (zones 9-65) Count 1, Similar to ARUP
1000
900
800
700
600
500
400
300
200
100
0
Amount
597
180
0700
0800
0900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
Time
Parking
Residents
Capacity


Parking (zones 9-65) Count 2, Similar to ARUP
1000
900
800
700
600
500
400
300
200
100
0
Amount
548
170
0700
0800
0900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
Time
Parking
Residents
Capacity

ANNEXURE A
COUNT 1- 2ND MAY 2012