

MIDCOAST COUNCIL

TRAFFIC AND PARKING STUDY  
FOR PROPOSED PUBLIC  
ADMINISTRATION BUILDING,  
2 BIRIPI WAY, TAREE

OCTOBER 2019

COLSTON BUDD ROGERS & KAFES PTY LTD  
ACN 002 334 296  
Level 18 Tower A  
Zenith Centre  
821 Pacific Highway  
CHATSWOOD NSW 2067

Telephone: (02) 9411 2411  
Facsimile: (02) 9411 2422  
Email: [cbrk@cbrk.com.au](mailto:cbrk@cbrk.com.au)

REF: 11346

TABLE OF CONTENTS

|  |   |
|--|---|
| 1. INTRODUCTION .....  | 1 |
| 2. EXISTING CONDITIONS.....                                      | 2 |
| 3. IMPLICATIONS OF PROPOSED PUBLIC ADMINISTRATION BUILDING ..... | 7 |

I. INTRODUCTION

I.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by MidCoast Council to prepare a development application traffic and parking report for use of the building at 2 Biripi Way, Taree for public administration. The site location is shown in Figure 1.

I.2 There is an existing building on the site which was previously occupied by Masters. The council is proposing to use part of the premises for public administration. Its existing Taree and Forster administration facilities would relocate to the building. A separate application for the remainder of the building would be made in the future.

I.3 This report assesses the traffic and parking implications of the proposed public administration building through the following chapters:

- Chapter 2 - describing existing conditions; and
- Chapter 3 - assessing the traffic and parking implications of the proposed public administration.

## 2. EXISTING CONDITIONS

### Site Location and Road Network

- 2.1 The former Masters building is located at 2 Biripi Way, Taree, as shown in Figure 1. It provides some 9,839m<sup>2</sup> and has vehicular access from Biripi Way in two locations. On-site parking is provided for some 281 cars.
- 2.2 The site is west of Manning River Drive. North of Biripi Way, Manning River Drive provides one traffic lane in each direction with an undivided carriageway and a 70 kilometre per hour speed limit. It provides a crossing of the Manning River and access into the Taree town centre to the north. South of Biripi Way, Manning River Drive provides two traffic lanes in each direction and a central concrete median. South of the site, Manning River Drive connects to Old Bar Road/The Bucketts Way at a roundabout.
- 2.3 Biripi Way connects to Manning River Drive at a roundabout. The roundabout provides two approach and circulating lanes on the Manning River Drive and Biripi Way approaches. The eastern leg of the intersection provides access to and from commercial properties on the eastern side of Manning River Drive.
- 2.4 Biripi Way provides for one traffic lane and one parking lane in each direction. It is a dead-end west of the site, having been constructed, along with the Manning River Drive roundabout, in association with the Masters development.
- 
-

- 2.5 As noted above, the existing building on the site was previously used by Masters. We prepared reports<sup>1,2</sup> in relation to the approved Masters building.

### Traffic Flows

- 2.6 Traffic generated by the proposed development will have its greatest effects during weekday morning and afternoon peak hours when it combines with other traffic on the surrounding road network. In order to gauge traffic conditions, counts were undertaken at these times at the intersection of Manning River Drive with Biripi Way.
- 2.7 The results of the surveys are shown in Figures 2 and 3, and summarized in Table 2.1.

| <b>Road</b>         | <b>Location</b>             | <b>AM peak hour</b> | <b>PM peak hour</b> |
|---------------------|-----------------------------|---------------------|---------------------|
| Manning River Drive | North of Biripi Way         | 2,250               | 1,885               |
|                     | South of Biripi Way         | 2,255               | 1,860               |
| Biripi Way          | West of Manning River Drive | 2                   | 1                   |

- 2.8 Table 2.1 shows that Manning River Drive carried some 1,860 to 2,260 vehicles per hour two-way during the surveyed morning and afternoon peak hours. Biripi Way carried low traffic flows, reflecting the fact that it is a dead-end and only provides access to the subject building which is currently unused.

<sup>1</sup> Traffic Report for Proposed Masters Home Improvement Centre, Taree, July 2011.

<sup>2</sup> Traffic Report for Section 96 Amendments to Masters Home Improvement Centre, Taree, February 2013.

---



---

### Intersection Operation

- 2.9 The capacity of the road network is largely determined by the capacity of its intersections to cater for peak period traffic flows. The surveyed intersection has been analysed using the SIDRA program for the traffic flows shown in Figures 2 and 3.
- 2.10 SIDRA simulates the operations of intersections to provide a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):
- For traffic signals, the average delay per vehicle in seconds is calculated as  $\text{delay}/(\text{all vehicles})$ , for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:
 

|          |   |     |  |
|----------|---|-----|--|
| 0 to 14  | = | "A" | Good   |
| 15 to 28 | = | "B" | Good with minimal delays and spare capacity  |
| 29 to 42 | = | "C" | Satisfactory with spare capacity   |
| 43 to 56 | = | "D" | Satisfactory but operating near capacity   |
| 57 to 70 | = | "E" | At capacity and incidents will cause excessive delays. Roundabouts require other control mode. |
| >70      | = | "F" | Unsatisfactory and requires additional capacity  |
  - For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:
- 
-

---

---

|          |   |     |  |
|----------|---|-----|--|
| 0 to 14  | = | "A" | Good   |
| 15 to 28 | = | "B" | Acceptable delays and spare capacity           |
| 29 to 42 | = | "C" | Satisfactory but accident study required       |
| 43 to 56 | = | "D" | Near capacity and accident study required      |
| 57 to 70 | = | "E" | At capacity and requires other control mode    |
| >70      | = | "F" | Unsatisfactory and requires other control mode |

- 2.11 It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.
- 2.12 The analysis found that the roundabout at the intersection of Manning River Drive with Biripi Way operates with average delays for the highest delayed movement of less than 15 seconds per vehicle during weekday morning and afternoon peak periods. This represents level of service A/B, a good level of service.
- 2.13 During weekday morning peak periods, northbound queues on Manning River Drive can extend past the subject site, including through the Biripi Way roundabout. These are caused by northbound flows accessing Taree and capacity constraints on Commerce Street at Victoria Street and the Manning River bridge.

Public Transport

- 2.14 Local bus services are provided by Busways and Tinonee Bus Company. Routes 150, 151 and 154 connect Taree with areas to the south, including Hallidays Point, Tuncurry, Forster, Buladelah, Hawks Nest, Raymond Terrace and Newcastle.
- 2.15 Route 316 connects Krambach, Tinonee and Taree. It operates along Manning River Drive past the site. A peak period service operates in each direction during weekday mornings and afternoons.



### 3. IMPLICATIONS OF PROPOSED PUBLIC ADMINISTRATION BUILDING

3.1 The council is proposing to use part of the building (6,155m<sup>2</sup>) for public administration. Its existing Taree and Forster administration facilities would relocate to the building. Some 350 people would be based at the building. Minor changes are proposed to the internal parking arrangements.

3.2 This chapter assesses the traffic and transport implications of the proposed public administration building through the following sections:

- public transport;
- parking provision;
- access and internal layout;
- traffic effects;
- summary.

#### Public Transport

3.3 As previously discussed, bus services operate along Manning River Drive, adjacent to the site, and provide links to surrounding areas, including Tinonee, Krumbach and areas to the south.

3.4 A number of employees live in the areas served by these routes and could therefore use public transport. The proposed development would therefore increase employment densities close to existing public transport services. The proposal would therefore strengthen the existing demand for these services. This is consistent with government policy and the planning principles of:

---

---

- (a) improving accessibility to employment and services by walking, cycling, and public transport;
- (b) improving the choice of transport and reducing dependence solely on cars for travel purposes;
- (c) moderating growth in the demand for travel and the distances travelled, especially by car; and
- (d) supporting the efficient and viable operation of public transport services.

#### Parking Provision

- 3.5 Part G of the Greater Taree Development Control Plan 2010 includes a parking rate of one space per 35m<sup>2</sup> net floor area for office premises/public buildings. On this basis, the proposed 6,155m<sup>2</sup> public administration building would require 176 parking spaces. This is satisfied by the proposed provision of 287 spaces.
- 3.6 The remaining 2,235m<sup>2</sup> at the western end of the building (subject to a separate future application) would require 64 spaces, based on the DCP rate of one space per 35m<sup>2</sup>. Options to provide additional parking include:
- provision of additional car parking on the eastern, western and southern sides of the car park;
  - remarking the employee parking spaces in accordance with the Australian Standard, which requires lesser width spaces than for retail uses such as Masters;
- 
-

- provision of improved public transport to and from the site, including a shuttle bus and encouraging car-pooling and cycling. Additional bicycle parking is proposed on the site in accordance with this objective.

3.7 Parking for bicycles will be provided, on the western side of the building (bicycle cage for employees) and the eastern side of the building (bicycle racks for visitors).

#### Access and Internal Layout

3.8 No changes to the existing vehicular access arrangements from Biripi Way are proposed.

3.9 The six existing car/trailer parking spaces on the western side of the car park will be converted to conventional parking spaces, resulting in an increase in six spaces to 287. Other minor modifications will be made including converting a number of parents with prams spaces to conventional parking spaces.

3.10 A number of spaces at the front of the building will be designated for visitors to the council.

#### Traffic Effects

3.11 Traffic generated by the proposed public administration building will have its greatest effects during weekday morning and afternoon peak hours when it combines with other traffic on the surrounding road network. Estimates of traffic generation have been based on:

- some 85 per cent of people present at one time;
  - some 95 per cent car driver;
- 
-

- some 55 per cent of employees arriving between 7:30 and 8:30 am; and
- some 70 per cent of employees leaving between 4:30 and 5:30 pm;

3.12 Estimated traffic generation of the proposed public administration building, including a nominal allowance for employees leaving the site in the morning or arriving in the afternoon (to/from inspections, appointments, etc.) and visitors, is as follows:

- some 170 vehicles (two-way) during the morning peak hour; and
- some 220 vehicles (two-way) during the afternoon peak hour.

3.13 These traffic generations are similar to that previously assessed by ourselves for Masters, of 195 vehicles per hour two-way during weekday afternoon peak hours. They are substantially less than the traffic generation assessed for Masters on weekends of some 450 vehicles per hour two-way.

3.14 The RMS indicates that morning peak hour traffic generation of hardware stores in non-metropolitan areas is some 80 to 85 per cent of the afternoon generation. This is equivalent to some 160 vehicles per hour two-way for the previous Masters development, a similar generation to 170 vehicles per hour for the proposed public administration building.

3.15 As previously noted, Biripi Way and the roundabout at its intersection with Manning River Drive were constructed in association with the Masters development to cater for its traffic. They are therefore also appropriate to cater for the traffic from the proposed public administration building.

---

---

- 3.16 The additional traffic has been assigned to the road network. Existing traffic flows plus the additional development traffic are shown in Figures 2 and 3, and summarized in Table 3.1.

| Road                | Location                    | AM peak hour |                  | PM peak hour |                  |
|---------------------|-----------------------------|--------------|------------------|--------------|------------------|
|                     |                             | Existing     | Plus development | Existing     | Plus development |
| Manning River Drive | North of Biripi Way         | 2,250        | +85              | 1,885        | +110             |
|                     | South of Biripi Way         | 2,255        | +85              | 1,860        | +110             |
| Biripi Way          | West of Manning River Drive | 2            | +170             | 1            | +220             |

- 3.17 Table 3.1 shows that traffic increases on Biripi Way would be some 170 to 220 vehicles per hour two-way during weekday morning and afternoon peak hours. Increases on Manning River Drive would be lower at some 85 to 110 vehicles per hour two-way.
- 3.18 The traffic increases on Manning River Drive are conservative as they do not take account of employees in Taree who already travel this way to and from work. Council employees who currently travel into Taree from the south will turn into the new premises, without using the Manning River Bridge, Commerce Street or the Victoria Street intersection. This will reduce flows on Manning River Drive and Commerce Street, north of the site. Additional employees (from Forster) will also turn off Manning River Drive prior to using Commerce Street. There are therefore likely to be fewer northbound vehicles through Commerce Street/Victoria Street during morning peak periods, compared to today.

3.19 The intersection of Manning River Drive with Biripi Way has been reanalyzed with SIDRA for the additional development traffic flows shown in Figures 2 and 3. The analysis found that the intersection would operate with average delays for the highest delayed movement of less than 15 seconds per vehicle during peak periods. This represents level of service A/B, a good level of service.

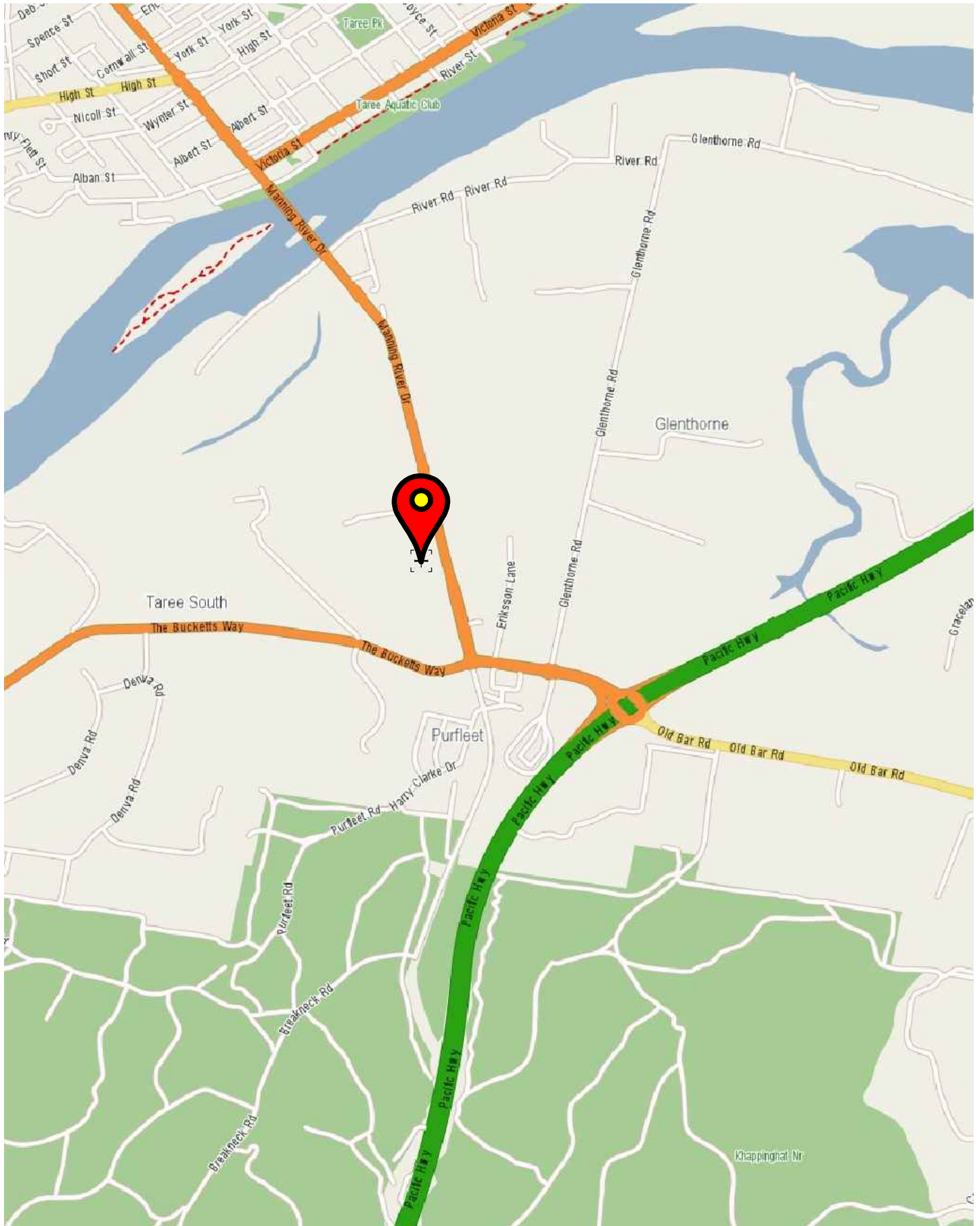
3.20 Therefore, the road network will be able to cater for the additional traffic from the proposed public administration building.

#### Summary

3.21 In summary, the main points relating to the traffic and transport implications of the proposed public administration building are as follows:

- i) the council proposes to relocate its existing Taree and Forster administration facilities to part of the former Masters building;
  - ii) a separate future application will be made for the remainder of the building;
  - iii) appropriate parking is provided for the public administration building;
  - iv) options to provide additional parking for the remainder of the building are set down in paragraph 3.6;
  - v) access and internal layout are appropriate;
  - vi) Biripi Way and the roundabout at its intersection with Manning River Drive were previously constructed to cater for Masters traffic;
- 
-

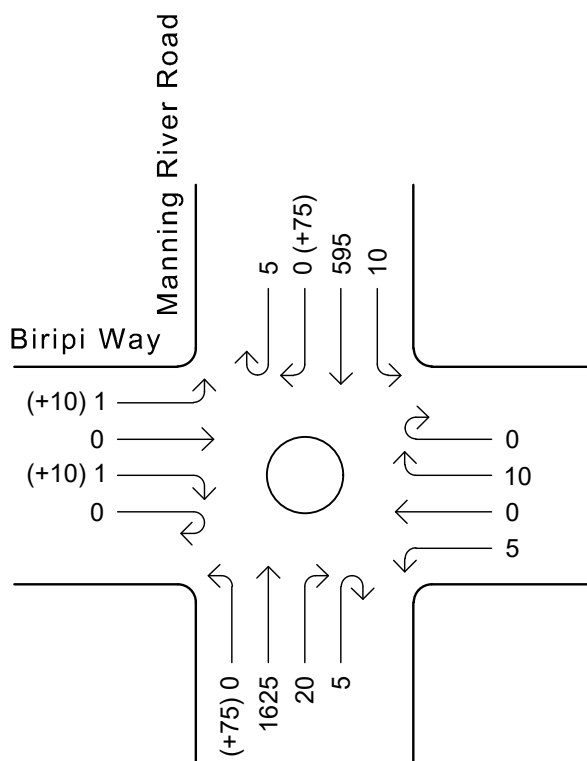
- vii) traffic generation of the proposed public administration building would be similar or less than that previously assessed for Masters; and
- viii) the road network will be able to cater for the traffic from the proposed public administration building.



Click: <https://goo.gl/maps/fGsiVpbCo1ywfKsx6>

## Location Plan

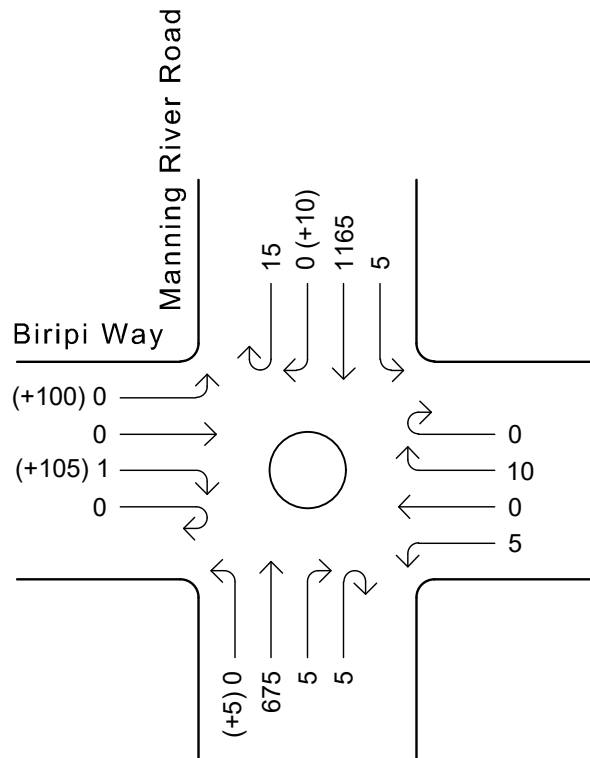




### LEGEND

- 100 - Existing Peak Hour Traffic Flows
- (+10) - Additional Development Traffic
- - Roundabout

**Existing weekday morning  
peak hour traffic flows plus  
development traffic  
Figure 2**



**LEGEND**

- 100 - Existing Peak Hour Traffic Flows
- (+10) - Additional Development Traffic
- - Roundabout

**Existing weekday afternoon  
peak hour traffic flows plus  
development traffic  
Figure 3**