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Our Reference: J1226_TMP

General Manager
Byron Shire Council
PO Box 219
Mullumbimby NSW 2482

20th September 2022

Re: Byron Bay Craft Beer and Cider Festival at North Byron Hotel – Traffic Management Plan

Dear Sir/Madam,

Ingen has been engaged by Planners North to prepare a Traffic Management Plan (TMP) for the Byron Bay Craft Beer and Cider Festival held at North Byron Hotel, Bayshore Drive in Byron Bay from the 11th to the 13th of November 2022.

Event details

The event details are as follows:

Table 1 | Event details

Item	Value	Comment
Dates	Friday 11th, Saturday 12th and Sunday 13th November 2023	
Hours of operation	10:00 – 21:00	
Patron numbers	1500 per day	Busiest days will likely be on the weekend, Friday quieter as it's a family-focused event.
Ticketing	Ages 12+ $39-$45	Under 12's are free
Parking pass	$5	Local charity
Modes of transport	Private car, solar train from CBD, shuttle from Cavanbah Centre (if available)	

Key person contacts

The key persons related to this festival as per below.

- **Planners North**
  - Kate Singleton (Partnership Principal)
  - 0438 803 021
  - kate@plannersnorth.com.au
- **North Byron Hotel**
  - Jedd Rifai
  - 0404 845 390
- **Immerse Events**
  - Jonny Ruddy
  - 0481 176 332
  - jonny@immerseevents.com

Traffic parameters

The key parameters that will determine traffic volumes and car parking demand are listed in the table below together with assumed values and explanations.

Table 2 | Traffic parameters

Item	Value range	Comment
Number of attendees per day	Up to 2000 per day	Investigate different scenarios
Arrival and departure profiles	Peak time: 11am – 1pm (lunch coinciding with arrival for Revel program. Patronage during peak time: 80% - 100% of daily patrons.	Large Revel kids and family program, likely 500 attendees entering between 10am-2pm for this and departing afterwards. No further headlines resulting in peaks. Busiest time lunch time
Percentage 'out of town'	20% - 60%	Target value 40%, value range adopted for sensitivity analysis
Mode share locals	85% - 95% private car 5% shuttle bus 0 - 10% solar train	

Mode share 'out of town'	20% - 60% private car 20% - 40% shuttle bus 20% - 40% solar train	'Out of town' guests are more likely to use the public transport options. Locals will incorporate a visit in their plans for the day and use private car.
Private car occupancy	2.0 – 2.5	Likely range based on experience with similar events
Available on-street parking spaces	Friday: Negligible amount, assume nil Saturday/Sunday: More than Friday, but still a negligible amount compared to the daily demand.	Assumed as typical during the day based on observations and experience with the area.

Car parking estimates

Since the festival will be held at the subject site for the first time and there are many unknowns, we have prepared a car parking estimate sensitivity analysis, with the results shown below using a 'low', an 'intermediate' and a 'high' traffic case. The 'high' traffic case is provided as a worst case scenario. The actual event is most likely to operate within the 'low' and 'intermediate' case.

Table 3 | Car parking demand estimate

Parameter	Low traffic case	Intermediate case	High traffic case
Attendees per day	1500	1500	1500
Patronage during peak time	80%	90%	100%
Percentage 'out of town'	60%	40%	20%
Car use locals	85%	90%	95%
Shuttle bus use locals	5%	5%	5%
Solar train locals	10%	5%	0%
Private car out of town	20%	40%	60%
Shuttle bus out of town	40%	30%	20%
Solar train out of town	40%	30%	20%
Private car occupancy	2.50	2.20	2.00

Car parks needed	**293**	**491**	**698**

The capacity for car parking at the off-street parking area is estimated based on the area available shown in Figure 1. The area of 1.5 hectares is not taken all the way to the edges of the lot to represent efficiency loss around the edges. Typical parking dimensions in free field are 6m x 3m car spaces and 8m wide aisles. The average land use per car space therefore is 30m^2, which includes half the aisle width for the frontage of the space. Based on the available space the car parking capacity in this area is 520 spaces. Based on the expectation that the 'low' or 'intermediate' traffic case will apply, there should be adequate car parking capacity in the allocated area. If there was a demand exceeding supply, then this would most likely occur on Saturday or Sunday during which time there is more on-street parking available in the area to accommodate this.

Figure 1 | Available parking area

Traffic volume estimates

Based on hours of operation, the largest impact of traffic on the local road network is likely in the first hours of the event. With a 10am opening time and busiest around lunch time, that affects morning traffic on Friday and the midday peak hour on Saturday and Sunday. Traffic generated after 6pm does not require further consideration as by that time the background traffic in the area would be sufficiently low.

Peak arrival traffic volumes for various scenarios are estimated in Table 4.

Table 4 | Peak arrival traffic volume estimates

Parameter	Low traffic case	Intermediate case	High traffic case
Arrival percentage of total	50%	70%	90%
1500 patrons - peak arrival hour	146	344	628

Key Contacts authorised to change the TGS

The key persons for this project who are authorised to make any change on this TMP during the event are described below.

Ingen Consulting
Jordy Nasario da Silva (Traffic Engineer)
0433 962 684
jordy@ingenconsulting.com.au

Ewingsdale Road queuing

Queuing on Ewingsdale Road and spill over onto the southbound off ramp and left lane of the Pacific Motorway is a daily occurrence during the AM peak hour. This queue typically dissipates between 9am and 9:30am and is limited to weekdays. The proposal for this event is to start at 10am, which is well after this queue, and therefore the traffic generated by this event will not exacerbate the daily traffic queue on the Pacific Motorway.

Speed zones

The actual posted speed (50km/hr) will be dropped to 40km/hr from the intersection of Bayshore Drive and Wallum Pl. These speed zones are depicted on the attached Traffic Guidance Schemes.

Pedestrian crossing

The Byron Bay Craft Beer and Cider Festival will not have off-street parking at the festival site. Instead, a carpark would be available around 500 meters north, with frontage to Elements Hotel in Bayshore Drive. For this reason, two pedestrian crossings at Bayshore Drive are included in this traffic management plan. Pedestrians will be crossing Bayshore Drive from the carpark access to eastern footpath, walking south through the existing public footpath to the festival location, and crossing Bayshore Drive back to the western footpath for the festival access.

Traffic Controllers

Traffic controllers will be required during the peak time for the crossing adjacent to the festival. Two traffic controllers, one for each approach, to stop Bayshore Drive traffic when festival patrons are crossing.

We understand that this is a small-scale festival and traffic controllers are not necessary the entire time. Therefore, this traffic management plan included TGSs for when traffic controllers are in place and TGSs for when traffic controllers are not in place.

Delineation

To increase pedestrian safety and direct them to cross at the proposed crossing, we adopted the use of bollards with tape or similar in the crossing frontage to the festival. Such delineation devices need to be 20 meters long and placed at the edge of the existing pavement.

Disabled parking

Negotiations are underway with adjoining land owners close to the site for the provision of disabled car parking spaces. These will be off-street and therefore not affect the Traffic Management Plan.

Drop offs and pick ups

Drop offs and pick ups by taxi, uber or friends drop off is expected to be only a small proportion of traffic and can therefore occur in existing on-street car parking spaces along Bayshore Drive. This does not need to be sign posted in order to avoid a large clutter of signs that then are not read and followed.

Portable Variable Message (VMS)

VMS is required at Ewingsdale Road to direct and give advanced warning to the traffic coming from the highway and Byron Bay town. Two VMSs will be placed at Ewingsdale Road, one for the eastbound and another for southbound traffic. The VMSs location will be just before the roundabout of Ewingsdale Road and Bayshore Drive. Advanced signs will be placed 1 km before each VMS. It is important to note that the VMSs will have two screens with 4 words maximum per screen.

Signs

Signs will be used to inform the festival traffic and all road users of the presence of a traffic controller, to direct the traffic festival, and to warn of any change of conditions. The following temporary signs will be in place during the event:

Vehicle movement plan

As explained in this traffic management plan, The Byron Bay Craft Beer and Cider Festival will not have off-street parking at the festival area, and a carpark would be available for patrons 500 meters north at Bayshore Drive. A vehicle movement plan is attached to this document for a better understanding of the proposed traffic flow.

Council will be informed of progress on these items after each strategy has been assessed for suitability and economy.

Traffic Guidance Schemes

The attached traffic guidance schemes reflect the above descriptions. If you have any questions, please do not hesitate to contact our office.

Yours sincerely,

Michiel Kamphorst
MSc, BSc, RPEng, RPEQ, NER, MAAS
PWZTMP 0052298287

Attachments: Traffic Guidance Schemes

TGS NOTES:
1. These Traffic Guidance Schemes (TGS's) are to be read in conjunction with the Traffic Management Plan (TMP) for The Byron Bay Craft Beer and Cider Festival 2022 at North Byron Hotel.
2. This TGS is valid from TBC - TBC November 2022.
3. These TGS's are to be implemented only be TfNSW certified traffic control contractors.
4. Installation of signs, barriers and other traffic control devices shall be in accordance with the AS1742 series and the TfNSW Traffic Control at Work Sites version 6.0.
5. Adequate implementation of these TGS's is to be certified by the supervising traffic engineer prior to operation of the festival.
6. Spacing and location of VMS boards is approximate only, placement of VMS boards it such that the displays are not obscured by vegetation, and solar glare is not an issue.
7. All VMS boards are to be tested prior to installation to ensure proper functioning of and adequate contrast on each display.

Legend

VMS Board

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REV:	DESCRIPTION:	DATE:	DRAWN:	REVIEWED	APPROVED:
A	For approval	19-09-22	JN	MK	MK

APROVED BY:
Michiel Kamphorst,
MSc, BSc, RPEng, RPEW, NER
PWZTMP 0052298287

Signed: **Date:**

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CLIENT:
North Byron Hotel c/- Planners North
61 Bayshore Drive
Byron Bay NSW 2481

PROJECT:
Traffic Guidance Schemes
The Byron Bay Craft Beer and Cider Festival 2022

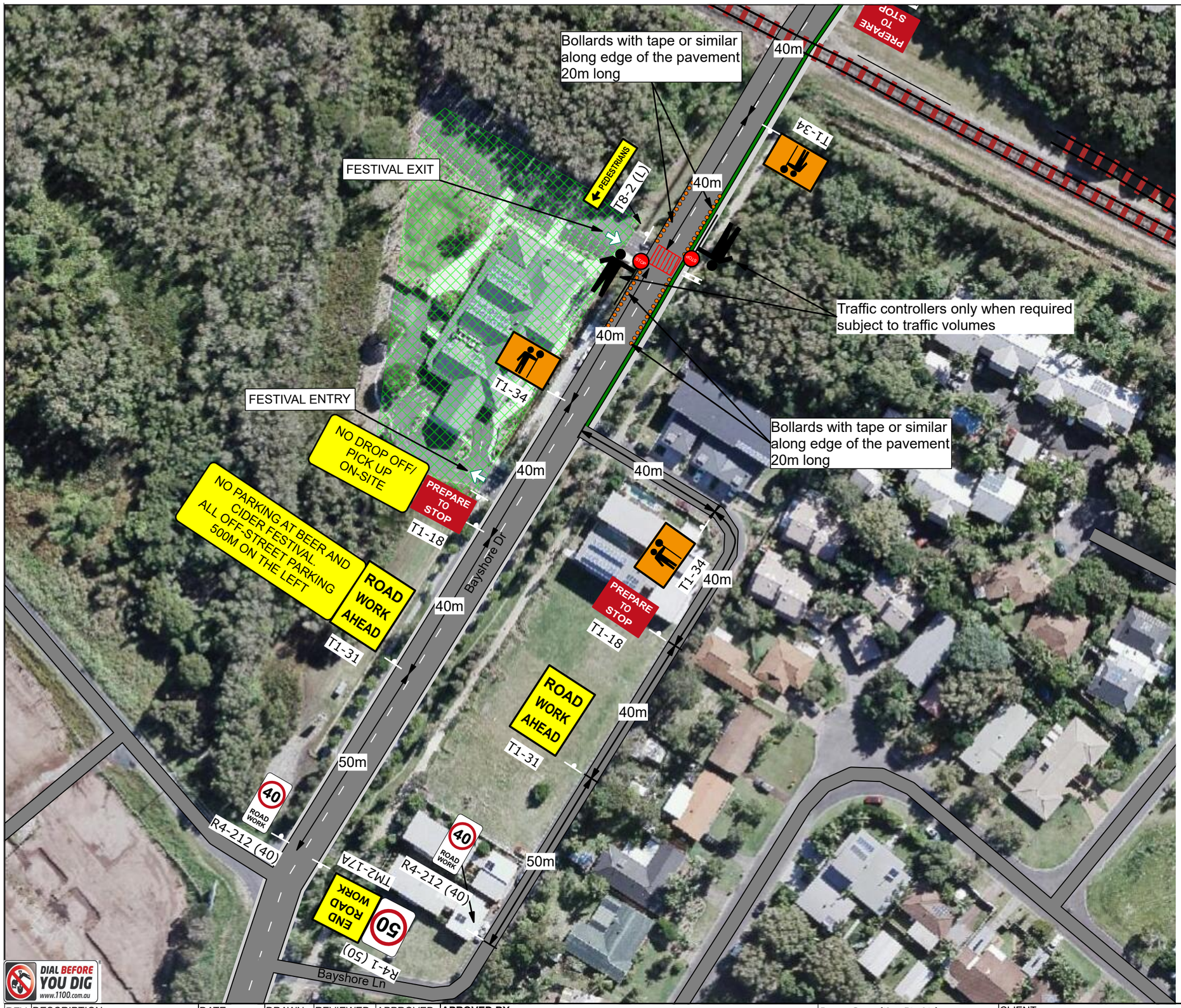
DRAWING TITLE:
Traffic Guidance Schemes - VMS plan

PROJECT NUMBER: J1226

ORIGINAL SIZE: A3

DRAWING NUMBER: J1226_TGS1

REVISION: A



N

Legend

- Bollard
- Crossing area
- Festival carpark
- Footpath
- Grassed verge
- North Byron Hotel
- Road

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6. This plan is to be used when TCs are required in the pedestrian crossing. When TCs are not required, see J1226_TGS5-6

1 : 1000 (1cm = 10m)

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61 Bayshore Drive
Byron Bay NSW 2481

PROJECT:
Traffic Guidance Schemes
The Byron Bay Craft Beer and Cider Festival 2022

DRAWING TITLE:
Traffic Guidance Schemes - Festival traffic sheet 1 of 5

PROJECT NUMBER: J1226

ORIGINAL SIZE: A3

DRAWING NUMBER: J1226_TGS2

REVISION: A

N

Legend

- Bollard
- Crossing area
- Festival carpark
- Footpath
- Grassed verge
- North Byron Hotel
- Road

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APROVED BY:
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CLIENT:
Secret Sounds
6/59 Centennial Circuit
Byron Bay NSW 2481

PROJECT:
Traffic Guidance Schemes
Splendour in The Grass 2022

DRAWING TITLE:
Traffic Guidance Schemes - Festival traffic sheet 2 of 5

PROJECT NUMBER: J1176

ORIGINAL SIZE: A3

DRAWING NUMBER: J1176_TGS3

REVISION: A

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Legend

- Bollard
- Crossing area
- Festival carpark
- Footpath
- Grassed verge
- North Byron Hotel
- Road

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Byron Bay NSW 2481

PROJECT:
Traffic Guidance Schemes
Splendour in The Grass 2022

DRAWING TITLE:
Traffic Guidance Schemes - Festival traffic sheet 3 of 5

PROJECT NUMBER: J1176

ORIGINAL SIZE: A3

DRAWING NUMBER: J1176_TGS4

REVISION: A

N

Legend

- Bollard
- Crossing area
- Festival carpark
- Footpath
- Grassed verge
- North Byron Hotel
- Road

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PROJECT:
Traffic Guidance Schemes
The Byron Bay Craft Beer and Cider Festival 2022

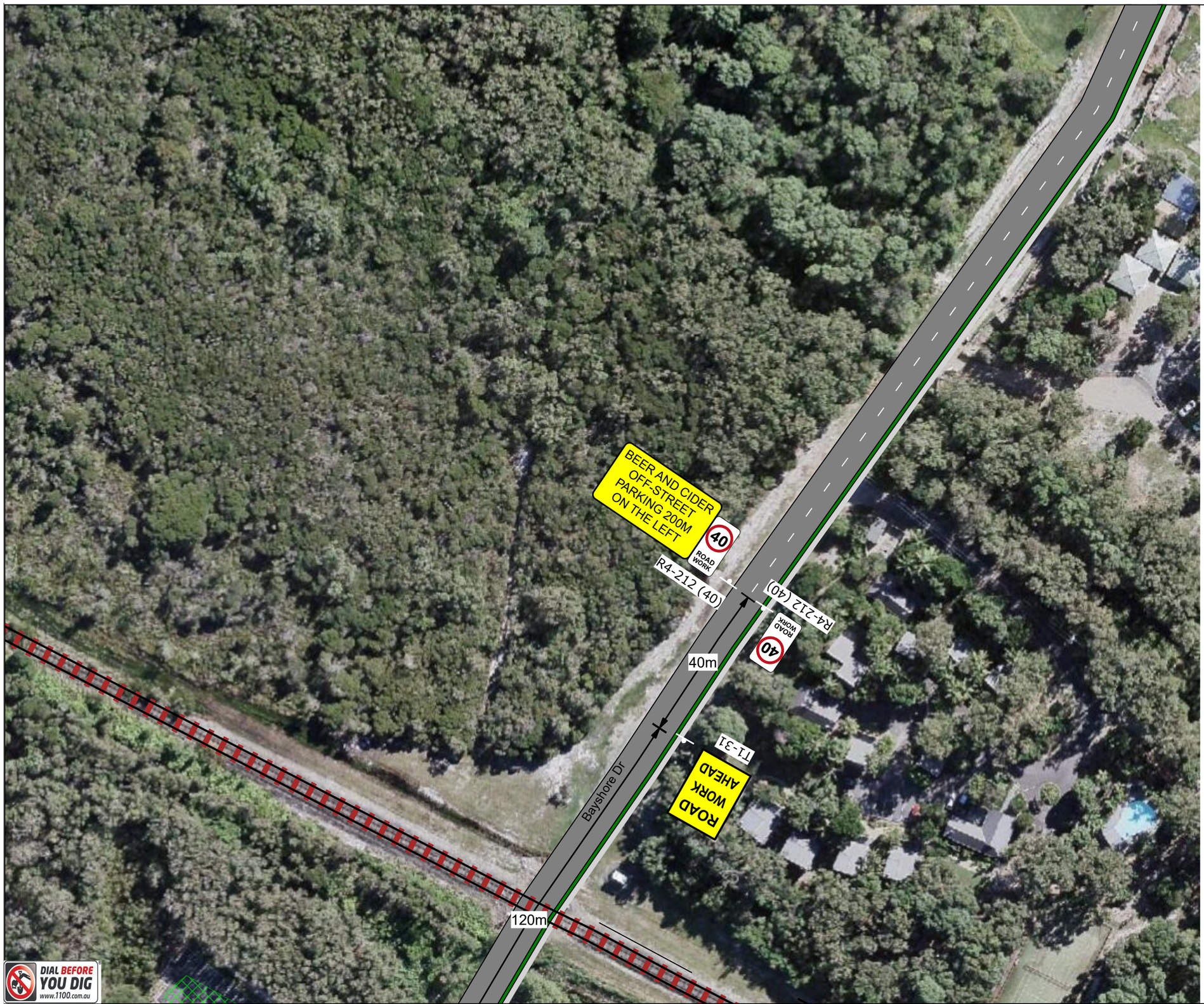
DRAWING TITLE:
Traffic Guidance Schemes - Festival traffic sheet 4 of 5

PROJECT NUMBER: J1226

ORIGINAL SIZE: A3

DRAWING NUMBER: J1226_TGS5

REVISION: A



N

Legend

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- Footpath
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PROJECT:
Traffic Guidance Schemes
Splendour in The Grass 2022

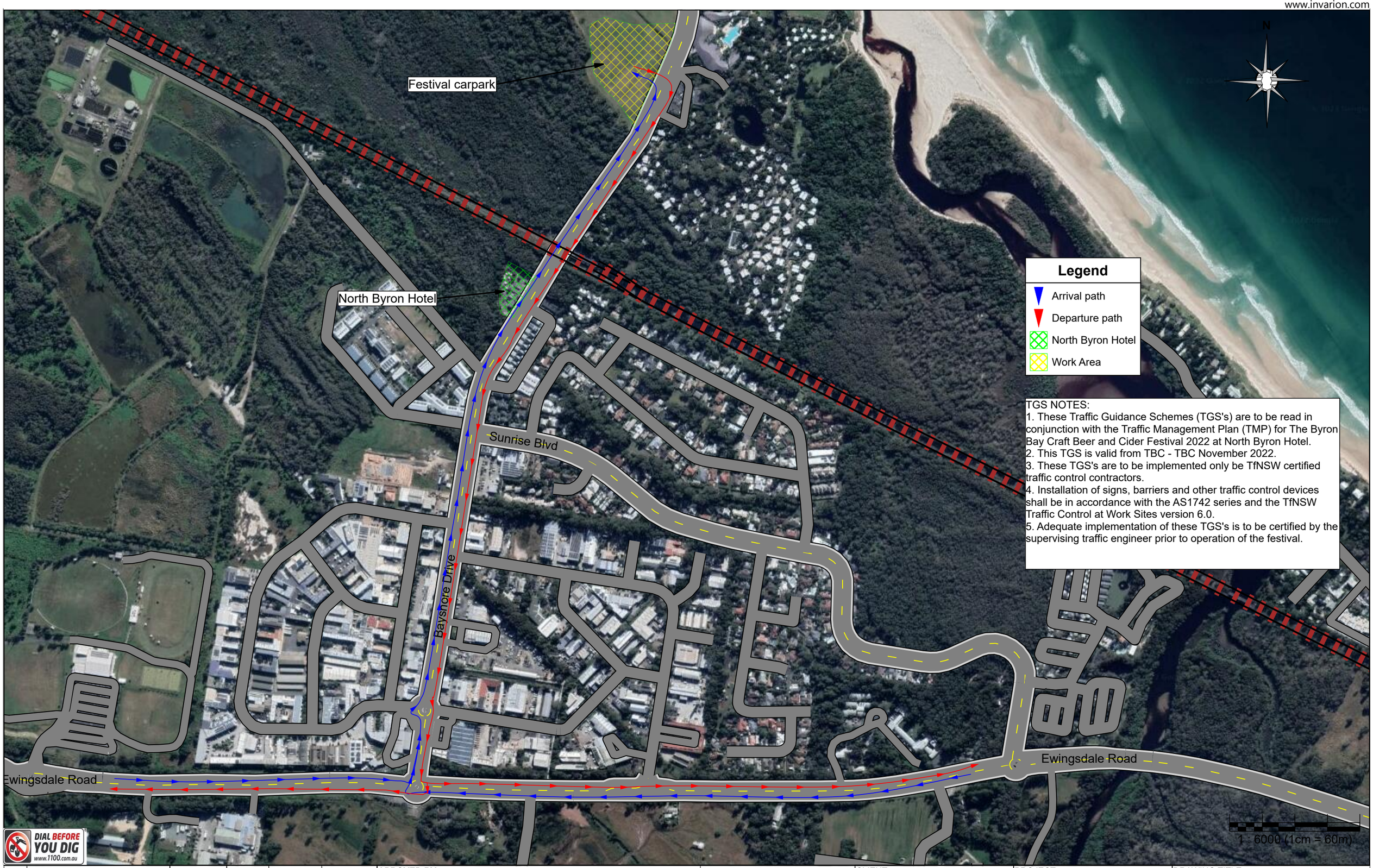
DRAWING TITLE:
Traffic Guidance Schemes - Festival traffic sheet 5 of 5

PROJECT NUMBER: J1176

ORIGINAL SIZE: A3

DRAWING NUMBER: J1176_TGS6

REVISION: A



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61 Bayshore Drive
Byron Bay NSW 2481

PROJECT:
Traffic Guidance Schemes
The Byron Bay Craft Beer and Cider Festival 2022

DRAWING TITLE:
Traffic Guidance Schemes - Vehicle movement plan

PROJECT NUMBER: J1226

ORIGINAL SIZE: A3

DRAWING NUMBER: J1226_TGS7

REVISION: A