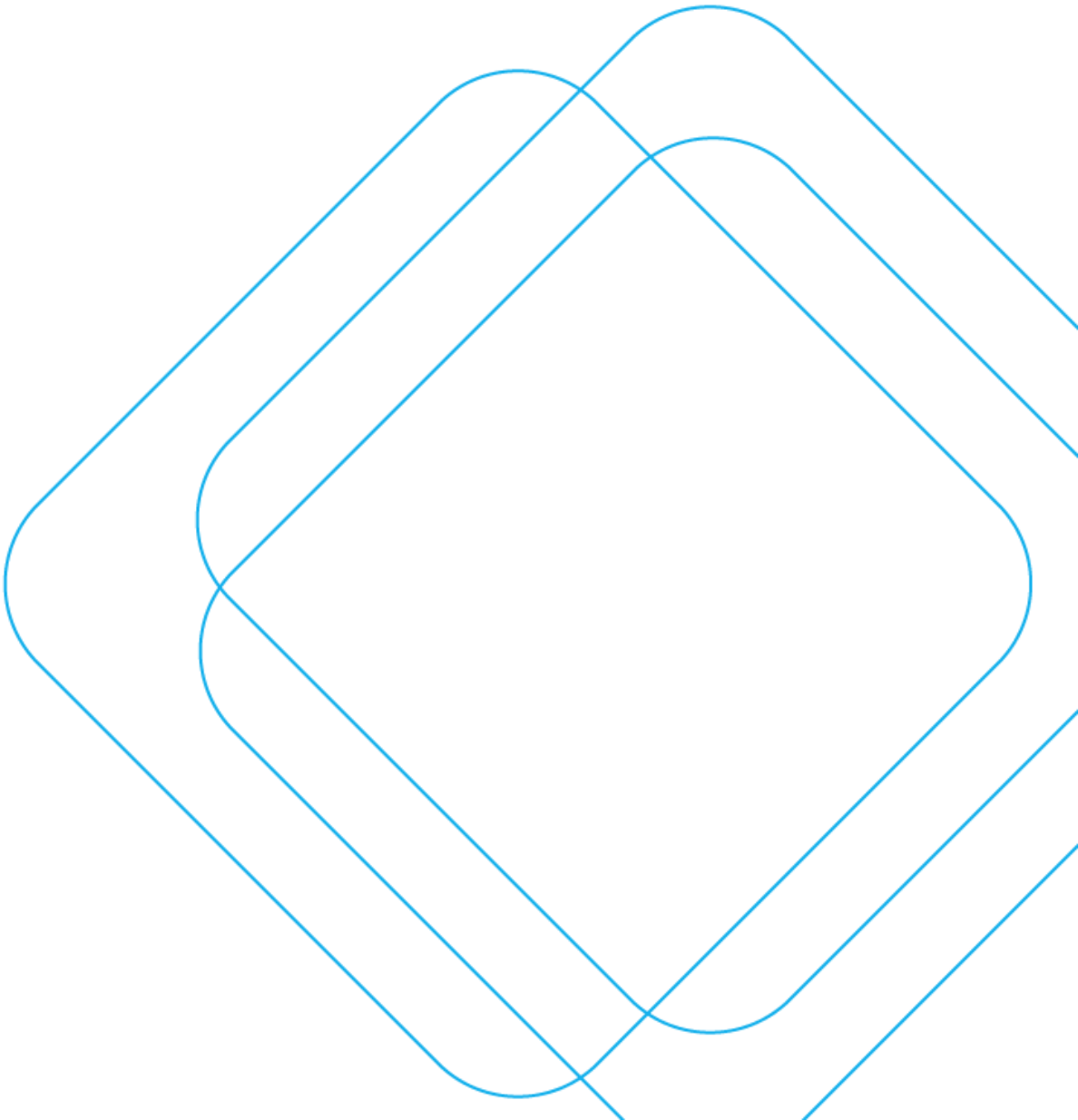
SCT Consulting

COFFS HARBOUR JETTY FORESHORE STATE ASSESSED PLANNING PROPOSAL

Transport and Parking Impact Assessment

27 FEBRUARY 2025

SCT Consulting acknowledges the traditional owners of the lands on which we work.
We pay our respects to Elders past, present and emerging.



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Contents

Executive Summary

Background

Property and Development NSW (PDNSW) is continuing to lead the revitalisation of the Coffs Harbour Jetty Foreshore Precinct (the Precinct) on behalf of the NSW Government. SCT Consulting has been engaged by PDNSW to prepare a Transport Impact Assessment that assesses the impact of the revitalisation on the existing surrounding road network and parking.

The Proposal in a strategic planning context

A background review of relevant documentation from a strategic transport planning context was undertaken, to determine how the Illustrative Masterplan aligns (and sometimes exceeds) some of the broader, strategic objectives, at a State, regional and local level. The outcome of this review is outlined in **Section 2.0**.

In summary, the proposed improvements outlined in the Illustrative Masterplan will align with, or even exceed several transport related objectives outlined in the relevant strategic documents reviewed. The Illustrative Masterplan will improve both parking and transport, by introducing more formalised parking opportunities, provide a more connected active transport network (with improved connections to the Train Station) through more cycle connections, footpaths and crossing opportunities, and improve configuration and integration of Jordan Esplanade through the Precinct.

Existing conditions

The Precinct

The existing character areas within the Precinct are predominately parklands, community use, tourism use, the jetty beach and a marina. Within the Precinct, west of the railway line, there is currently unused transport land and along the most northern part of the Precinct is a major informal parking area. The area just west of the Precinct consists of mainly residential and retail use, with some accommodation provided.

Much of the Precinct is currently inaccessible for public enjoyment. Residual railway land is fenced off and separated from public access. While gravelled areas provide overflow parking, these do not reflect the potential of this foreshore. While there are some nice, well-maintained parts in this area, much can be done to enhance the Jetty foreshore.

Travel patterns

Journey to Work data suggests that most people traveling to get to the Coffs Harbour area as well as leaving the area for work do so by car, either as driver or passenger, with 87% and 81% in and out respectively. It also shows that only a small proportion travel by either active or public transport, with three and seven per cent in and out respectively.

Road hierarchy and network performance

The key roads providing access to the Precinct from the west are Marina Drive in the north and Camperdown Street in the south, while Jordan Esplanade is the key north-south route providing access to the Precinct and connecting Marina Drive with Camperdown Street. Coffs Harbour Foreshore is connected to the Coffs Harbour Town Centre via Harbour Drive. It is connected to surrounding towns and cities via the Pacific Highway, which runs through the town, and the North Coast railway line, which has a station in Coffs Harbour.

SIDRA modelling indicates that the road network currently performs satisfactorily, although with slightly worse LoS and DoS, due to increased traffic demand, on the weekend compared to the weekday. For the Camperdown Street / Harbour Drive intersection, significant eastbound and westbound demand on Harbour Drive results in the right movement from Hood Street to Harbour Drive reducing to LoS C during the weekend peak period.

Marina Drive is connected to Harbour Drive and Orlando Street at a priority (give-way) intersection, where Marina Drive has the least priority, giving way to traffic on Harbour Drive and Orlando Street. Therefore, traffic on Marina Drive can back up and cross the level crossing (located 60m east of the priority intersection) at peak times, particularly on weekends when large volume of traffic accesses the Jetty Foreshore precinct and the weekend markets. However, the analysis indicates that the Harbour Drive / Orlando Street / Marina Drive intersection still operates at an overall good level of service (LoS A on weekdays and LoS B on weekends) under current conditions.

Parking supply and demand

The Precinct is currently supported by a large amount of formal and informal parking areas. There are 863 formal parking and 630 informal parking spaces in the Precinct, making up a total of 1,493 parking spaces, currently concentrated to the north and south of the Precinct.

Occupancy surveys showed that the availability of spaces in proximity to the Marina, the foreshore and the Sunday markets is higher than the occupancy around Corrambirra point during the Sunday peak time. During the Tuesday, the occupancy rate is lower across all areas except for around the Marina. The analysis also shows that there are ample available parking spaces throughout the Precinct even on a Sunday, with the least number of spaces available around the middle of the Precinct adjacent to the train station (with 23 spaces) and the most at the ad-hoc gravelled parking area to the north (with 192 spaces).

Public and active transport

None of the existing public transport options (bus stops or the train station) are currently accessible within an 800m walking catchment from the Precinct, with limited frequencies of both bus and train services currently serving the Precinct. During the AM, PM and weekend peak hours, one or two bus services in each direction service the Precinct, while there are only one daily train to Brisbane and Sydney respectively.

The Precinct and the foreshore area can be accessed by pedestrians at two access points over the railway line, at the northern part of the Precinct, via an at-grade crossing at Marina Drive and at the southern end via a bridge crossing at Jordan Esplanade. There are no footpaths provided along the northern side of Marina Drive between Jordan Esplanade and the beach. There is generally a lack of connectivity across the foreshore to the train station due to the railway line.

The Proposal

The Illustrative Masterplan

The Illustrative Masterplan will encompass the six key sub-precincts North Park, Jetty Hub, Activity Hub / Village Green, Corrambirra Point and The Marina. The Illustrative Masterplan will introduce several access and transport improvements to the Precinct, for both private vehicle and public and active transport including:

– Improve configuration, efficiency, and integration of Jordan Esplanade as the main north-south vehicular connector through the precinct. This includes upgrading the existing Camperdown Street / Jordan Esplanade intersection to a roundabout, to improve the safety and efficiency of this intersection.

– A bend in Jordan Esplanade at the Village Green is introduced to slow traffic movement around the proposed amphitheatre. This will be a raised, shared vehicle / pedestrian thoroughfare.

– Ensure that carpark and site entrances cause a minimal disturbance to pedestrian movement, prioritising access on secondary or private roads rather than Jordan Esplanade where possible.

– Increase and improve public car parking including formalising ad-hoc gravel parking at North Park and dispersing accessible parking across the site.

– Distribute new and improved parking across the precinct alongside Jordan Esplanade to provide parking adjacent to all public spaces.

– Enhance connectivity between the precinct and the train station by introducing a pedestrian overpass across the railway at the site of the proposed Activity Hub.

– Encourage passive, recreational cycling by introducing a shareway that extends throughout the precinct, hugging the tree line in the parklands. This shareway will accommodate slower moving cyclists alongside pedestrians.

– Connect into existing shareways and cycling networks to extend movement to and from the precinct.

– Provide dedicated cycleways along Jordan Esplanade for faster moving cyclists in a safer environment.

Parking provision and demand

The introduction of the Illustrative Masterplan will result in the provision of 1,596 on-street public parking spaces, which is an increase of 103 total parking spaces (or seven per cent), compared to the existing public parking supply. The proportion of formal parking spaces will however increase more significantly, by 52 per cent (from 863 to 1,313 spaces), with the introduction of the Illustrative Masterplan. The public parking provision is also more spread out across the key areas of the Precinct.

Based on the DCP parking rates, a total of approximately 1,130 parking spaces will be required to support the approximate future GFAs of the Illustrative Masterplan. Based on initial feasibility studies, approximately 830 off-street parking spaces can be provided throughout the entire Precinct as part of the Illustrative Masterplan, either as basement, undercroft or at-grade parking.

When considering the additional formal spaces provided as well as the occupancy rates of the on-street parking, there will be 590 available on-street parking spaces available throughout the Precinct one the Illustrative Masterplan is implemented during the peak periods. This will cover the shortfall of the 300 required off-street parking spaces.

With approximately 300 off-street spaces required to support the retail / food and beverage uses which are most likely to be linked trips with other visiting purposes to the precinct, it is expected these customers would be parking on the surrounding street network to visit multiple areas within the precinct. Hence, we can confirm that the combined on-street and off-street parking provision proposed can support the current peak activities as well as the proposed development as part of the Illustrative Masterplan.

Trip generation

In total, the Illustrative Masterplan is expected to generate 426, 469 and 577 trips during the AM, PM, and weekend peak hours respectively.

Public and active transport demand

The introduction of the Illustrative Masterplan would result in approximately 20, 25 and 30 additional public transport trips during the AM, PM and weekend peak hours respectively. This assumes a shift to five per cent of public transport usage, based on improved transport infrastructure (such as improved pedestrian access to the station), with the Illustrative Masterplan in place.

Walking trips within the Precinct are expected to mainly be generated by patrons accessing the Precinct by car, and then walking within the Precinct. Assuming an occupancy rate of 1.2 people in each car, these trips together with the expected ‘walk only’ and cycling demand would equate to approximately 510, 560 and 690 active transport trips being generated by the Illustrative Masterplan. Assuming three per cent of the active trips would be cycling, with the Illustrative Masterplan in place, approximately 10, 15 and 20 trips would be cycling trips during the AM, PM and weekend peak hours respectively.

Transport and parking impact assessment

Road network impact

All intersections except for the Camperdown Street / Harbour Drive intersection will operate with an acceptable LoS and DoS during all assessed time periods, with complete (100%) implementation of the Illustrative Masterplan.

The results of the Camperdown Street / Harbour Drive intersection are considered acceptable as the LoS F is only for the minor right and through movements, with 43 vehicles per hour from Camperdown Street and six vehicles per hour from Hood Street, during weekends only. All other movements at the intersection are expected to perform at LoS B or better. It is noted that right and through movements are minor, limited to 43 vehicles per hour from Camperdown Street and eight vehicles per hour from Hood Street. None of these trips were however generated by the Illustrative Masterplan. The results indicate that the poor performance of the right and through movements from Camperdown and Hood Streets are not a direct result of additional Illustrative Masterplan traffic flows on these movements. No infrastructure upgrades are therefore proposed to this intersection.

The intersection of Camperdown Street / Jordan Esplanade will be upgraded to a roundabout, as part of the upgrade of Jordan Esplanade (which forms the main north-south vehicular connector through the precinct as part of the Illustrative Masterplan), to improve the safety and efficiency of this intersection.

Parking impacts

When considering both on-street and off-street parking, the Illustrative Masterplan exceeds the DCP requirements overall, as the parking demand will be met by either basement or at-grade parking, or by available on-street parking (considering existing occupancy rates) and additional on-street public parking supply created by the Illustrative Masterplan.

Based on the above, the Illustrative Masterplan is not expected to have a negative impact on parking throughout the Precinct.

Public and active transport impacts

Although the public transport service frequency is low to and from the Precinct, the existing public transport is expected to be able to cater for the additional 20, 25 and 30 hourly (AM, PM and weekend respectively) public transport trips generated by the Illustrative Masterplan, assuming a shift towards public transport in the future. With Illustrative Masterplan in place, the Precinct would benefit from a further increase in public transport services, which would encourage a shift away from cars in the future.

Several walking and cycling improvements will be introduced in the Precinct as part of the Illustrative Masterplan. These improvements are expected to encourage a further shift towards active transport, with approximately 510, 560 and 690 active transport trips being generated by the Illustrative Masterplan, with the majority being walking trips.

The Illustrative Masterplan is expected to be able to cater for the future active transport demand, with the proposed future upgrades in place.

Proposed traffic and transport solutions

Based on the Transport and Parking Impact Assessment undertaken for the State Assessed Planning Proposal of the Precinct, the transport network and parking situation in the Precinct can accommodate the Proposal, with the implementation of the proposed transport and parking improvements. In addition to those proposed improvements, the following should be considered:

– No immediate public transport infrastructure upgrades are proposed to the Precinct as part of the Illustrative Masterplan. However, additional bus routes could be introduced in the future along Jordan Esplanade, which is designed to accommodate buses. It is therefore proposed that TfNSW be consulted regarding the feasibility of extending bus services / introducing new bus routes (along Jordan Esplanade) to the Precinct. Additional bus stops along Jordan Esplanade have been considered as part of the Jordan Esplanade upgrade, to accommodate future bus services to the Foreshore Precinct.

– None of the public transport options (bus stops or the train station) are currently accessible via a short walk from the Precinct, with limited frequencies of both bus and train services currently serving the Precinct. During the AM, PM and weekend peak hours, one or two bus services in each direction service the Precinct, while there are only one daily train to Brisbane and Sydney respectively. It is therefore recommended that TfNSW continues to review rail service demand, and providing additional capacity for train options, including to Sydney and Brisbane.

– As highlighted in the North Coast Regional Plan, it is recommended that place-based transport plans are considered to be developed for areas experiencing high growth, such as key cities and centres across the North Coast region. This could be considered in the next phase of the project, should the implementation of the Illustrative Masterplan be approved.

1.0 Introduction

1.1 Background

Property and Development NSW (PDNSW) is continuing to lead the revitalisation of the Coffs Harbour Jetty Foreshore Precinct (the Precinct) on behalf of the NSW Government. SCT Consulting has been engaged by PDNSW to prepare a Transport Impact Assessment (TIA) that assesses the impact of the revitalisation on the existing surrounding road network and parking, for all transport modes.

This TIA supports a Planning Justification Report that outlines proposed amendments to the Coffs Harbour Local Environmental Plan (CHLEP) 2013 and will be submitted to the Department of Planning, Housing and Infrastructure (DPHI) as part of a State Assessed Planning Proposal (planning proposal).

As Coffs Harbour continues to grow as a Regional City, the NSW Government and Coffs Harbour City Council have, through various strategic planning exercises, identified four key strategic priorities to reimagine its direction and respond to current and future challenges and opportunities:

– Deliver a regional economy (CHCC LSPS, 2020; CH Economic Development Strategy, 2017) that is diverse, sophisticated and able to retain businesses and skills

– Evolve the tourism offering CHCC LSPS, 2020) with improved attractions, activities and accommodation

– Provide more housing (CHCC LSPS, 2020) in accessible locations, including affordable housing

– Provide better connections between places with more sustainable movement choices (CHRCAP, 2021; CHCC, 2020).

As a large, strategically located and wholly government owned site, the Precinct represents a significant opportunity to deliver on each of these key regional priorities. In this planning proposal, PDNSW seeks to celebrate the unique location, history and culture of the Jetty Foreshore to deliver outcomes for the benefit of the Coffs Harbour community. The revitalisation will be staged and funded, over time, to deliver the shared community vision.

1.2 The Coffs Harbour Bypass

The Coffs Harbour bypass project has been developed to complement the Pacific Highway upgrade program and will, when completed (in 2027), provide free flowing dual carriageway conditions for the Pacific Highway between Hexham and the Queensland border. As described in the Coffs Harbour Bypass Environmental Impact Study (Appendix F, Arup), the project includes a 12km bypass of Coffs Harbour from south of England's Road to Korora Hill in the north and a 2km upgrade of the existing highway between Korora Hill and Sapphire.

The introduction of the bypass will reduce traffic along the Pacific Highway, surrounding roads and through the Precinct. This could however have a negative effect on casual tourists and visitation numbers to the Precinct, and as a result the social and economic position of the Precinct, as visitors may bypass the area, rather than drive through it. It is therefore vital that the future planning proposal unlocks land potential and drive tourism due to its improved amenity and public open space.

1.3 Our shared community vision

Coffs' family playground, a precinct of parks and places, that connects community with Country. The community is and always has been at the heart of creating a thriving regional economy and destination for Coffs Harbour. Shaped with the community, our vision is to ensure The Jetty Foreshore will become a world-class oceanfront precinct through the principles shown in **Figure 1-1**.

Figure 1-1 Vision for the Coffs Harbour Jetty Foreshore

1.4 The Precinct

The Precinct, wholly owned by the NSW Government, is strategically significant to the State and to the Coffs Harbour region. The Precinct is located on the traditional lands of the Gumbaynggirr people, in saltwater freshwater Country. It encompasses approximately 62 hectares of foreshore land, 5km east of the Coffs Harbour CBD, located on the Coffs Harbour coast with direct access to the Pacific Ocean. Access is provided on Marina Drive in the north, and Camperdown Street in the south, with Jordan Esplanade bisecting the site north to south. A Precinct map showing existing conditions is provided at **Figure 1-2**.

The west boundary is generally defined by the railway line and Coffs Harbour Railway Station. To the north the Precinct borders a culturally significant site known as “Happy Valley”, which has been returned as freehold land to the Coffs Harbour and District Local Aboriginal Land Council (LALC). Gallows and Boambee Beaches are located to the south of the Precinct, where Littoral Rainforest occurs. Coffs Harbour itself, the Pacific Ocean, Muttonbird Island and South Coffs Island (Corambirra Point) form the eastern boundary.

The Precinct is a popular destination for both locals and tourists offering a variety of attractions and amenities. These include Jetty Beach and extensive parklands with biodiversity value, as well as items of heritage significance such as the Coffs Harbour Jetty and Ferguson’s Cottage, owned by the Coffs Harbour LALC. Further, the Coffs Harbour Fisherman’s Co-op, the Coffs Harbour Yacht Club, weekly Sunday markets, and community hub building (recently delivered by PDNSW) are located within the Precinct. Various public works including breakwater and boat ramp upgrades have been undertaken over recent years to support the marina function.

There are redeveloped and well-maintained parts in the area however, much can be done to enhance the Coffs Harbour Jetty Foreshore Precinct. A large portion of the Precinct is currently gravelled, and a large area of residual railway land is fenced off and inaccessible to the public, as shown in **Figure 1-3**. While gravelled areas provide informal overflow parking, they do not reflect the potential of this foreshore.

Figure 1-2 Coffs Harbour Jetty Foreshore Precinct

Source: SJB, 2025

Figure 1-3 Existing state of the Precinct rail lands and gravelled areas

1.5 The Illustrative Masterplan

The planning proposal is supported by an Illustrative Masterplan (**Figure 1-4**) that presents a potential development outcome that could be realised at the Coffs Harbour Jetty Foreshore Precinct – it is not prescriptive nor is it determined. The Illustrative Masterplan builds on the shared vision created via extensive community and stakeholder consultation and provides further detail in relation to land use and development outcomes sought for the Precinct.

The Place Principles shown in **Figure 1-5**, agreed with the community, guided the formation of the Illustrative Masterplan.

The Illustrative Masterplan is broadly organised across six sub-precincts that will each have a distinct character and function. These are identified as:

1. Foreshore Parklands – with improved amenities, proposed new board walk and nature-based playground.
2. The Marina – An active marina revitalised to accommodate local marine based businesses that reflect their regional importance.
3. North Park – Functional open space with recreational courts and formalised parking.

4. Jetty Hub – A hub of residential and tourist accommodation supporting activation, tourism and regional attraction located adjacent to the current Jetty Walkway, with massing capped at 6 storeys stepping down in scale when closer to public areas.
5. Activity Hub and Village Green – An active village green that delivers increased public open space connected to the existing foreshore parklands and may include family-friendly food and beverage, community uses and club houses or facilities to support events. A local business activity zone connected to the rail station.
6. Corambirra Point – A new regional tourist destination on the site of the former Deep Sea Fishing Club site including publicly accessible cafes and restaurants, a function space, activity centre and tourist accommodation.

A precinct map showing the Illustrative Masterplan and the six distinct zones is provided at **Figure 1-6**.

Figure 1-4 Illustrative Masterplan

Source: SJB, 2025

Figure 1-5 Community-led place principles

Gathering place

Become the premier place on the North Coast where all are welcome and feel at home, now and in the future

Seamlessly connected

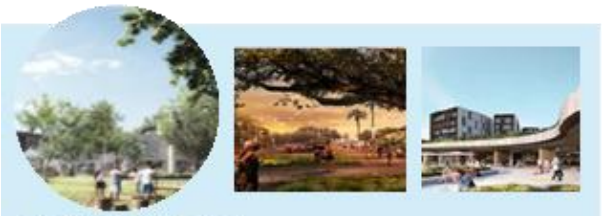
Tie the city structure and regional networks into the precinct and provide accessibility for all abilities throughout

Sustainable economy

Foster a wider mix of uses that leverage existing industry to create a balance of local employment opportunities and waterfront activation

Resilient environment

Be the exemplar for the North Coast on adapting to climate change by safeguarding existing assets and mitigating future risk



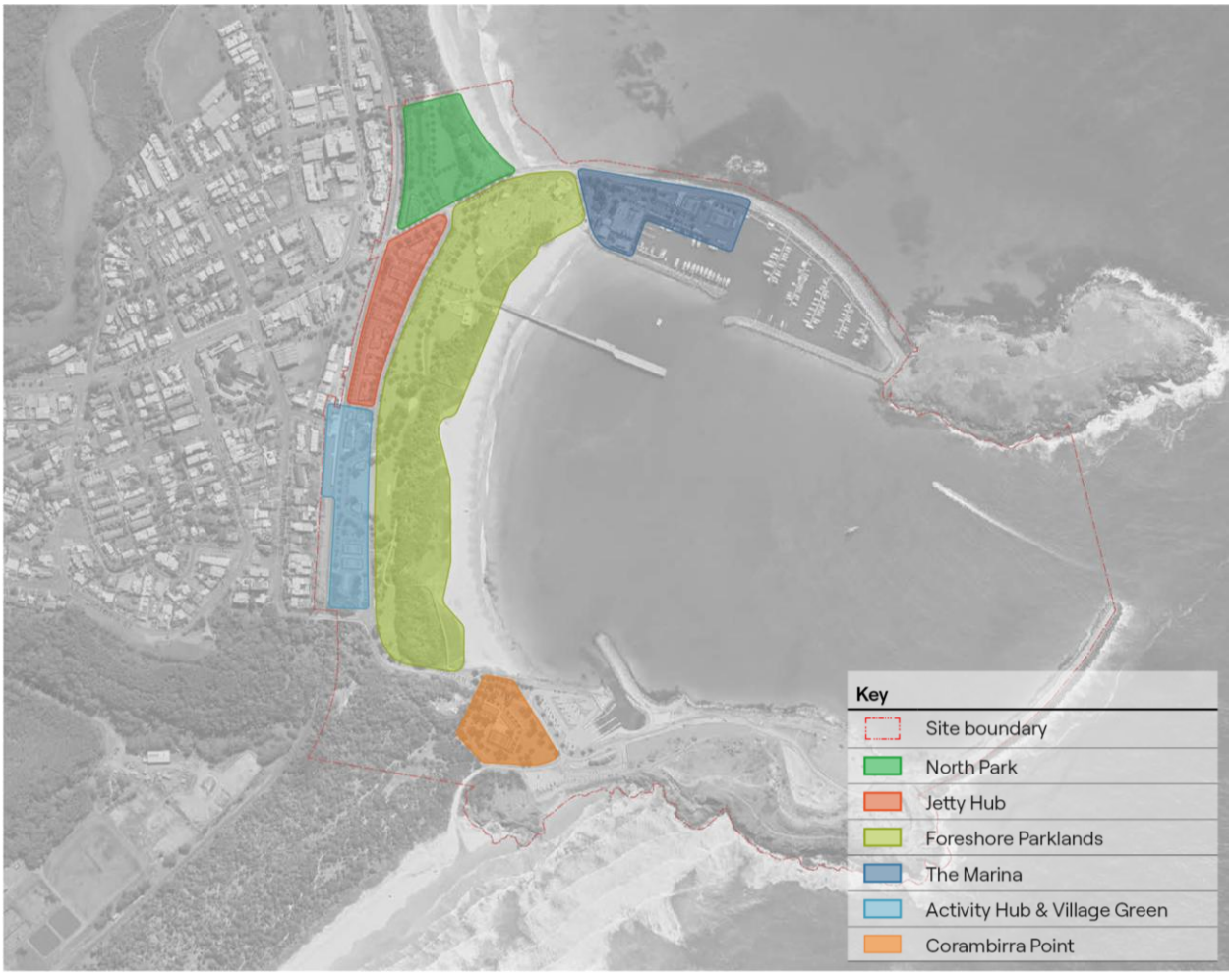
Choice destination

Enhance the precinct as a family friendly collection of local and regional destinations offering an accessible, engaging, safe, comfortable and inclusive environment day and night

Celebrate Country

Ensure opportunities for Gumbaynggirr people to Care for Country and heal Country, with long-term community involvement, cultural activation and education, and protection of significant heritage sites

Figure 1-6 Sub-precinct map



Source: SJB, 2025

1.6 The planning proposal

The master planning of large-scale precincts follows a highly consultative and stepped approach. The current step, which paves the way for the revitalisation of the Coffs Harbour Jetty Foreshore Precinct, is the application for a State Assessed Planning Proposal, which is a legislated process.

PDNSW is lodging a planning proposal with the Department of Planning, Housing and Infrastructure that seeks approval for:

– Changes to permissible land uses

– Changes to permissible maximum building heights

– Planning controls for future State Significant Development Applications including design guidelines and design excellence processes.

This TIA supports this planning proposal.

1.7 Purpose of report

This TIA report presents advice on the impact the State Assessed Planning Proposal may have on the existing traffic, transport and parking situation within the Precinct, as well as on surrounding areas. The TIA is intended to support the planning proposal, to be used in the formation of future infrastructure design and construction works.

The technical requirements that apply to a State Assessed Planning Proposal are outlined in the Local Environmental Plan Making Guidelines' Attachment C (NSW Department of Planning, Industry and Environment, September 2022)'.

A traffic impact assessment has been prepared that addresses the requirements shown in **Table 1-1**.

Table 1-1 Traffic and Transport requirements for the Coffs Harbour Foreshore State Assessed Planning Proposal

Requirement	Addressed in section
Approach, methodology and assumptions^	Section 4.0 Section 5.0
Anticipated traffic and transport implications of the proposal (existing conditions and future planned development)	Section 3.0 Section 4.0 Section 5.0 Section 6.0
Details of transport infrastructure improvements (not engineering designs) required to accommodate the proposal, proposed funding and delivery arrangements (if relevant)	Section 7.1
Consideration of the following (if relevant):	
– Suitability of the site access arrangements in terms of location and layout	Section 4.0
– Staging of the development	Section 4.0
– Hierarchy of streets	Section 4.6
– Public transport access requirements	Section 4.6
– Traffic generating aspects of the proposal	Section 5.1
– Trip containment	Section 5.1
– The likely future developments in the surrounding area that would impact the transport assessment	Section 5.0
– Active transport – walking and cycling network	Section 4.6
– The likely future transport infrastructure that would be generated by the development and link to the surrounding area	Section 6.1 Section 7.0
– Traffic, transport and access impacts of the planning proposal on the surrounding transport network	Section 6.0
– Approach to parking	Section 4.6

^ It is requested that the proposed scope and methodology for the transport and movement assessment and proposed assumptions (i.e. traffic generation rates, public transport mode shifts, trip containment, directional split etc) should be confirmed at the pre-lodgement stage, in consultation with council and Transport for NSW.

1.8 Report structure

The report comprises the following sections relating to traffic and transport:

- **Section 2.0** summarises the strategic context of the Precinct and describes how the Master Plan could support the future intents of the region.
- **Section 3.0** describes the existing transport conditions for all modes of transport.
- **Section 4.0** describes the Proposal for the Precinct, including proposed parking provision compared to parking requirements for the different proposed land uses.
- **Section 5.0** assesses the estimated vehicle trips and their distribution to the surrounding existing road network, as well as the expected public and active transport demand generated by the Proposal.
- **Section 6.0** describes the likely traffic, transport and parking impacts associated with the additional trips generated by the Proposal.
- **Section 7.0** describes any proposed infrastructure upgrades and public transport measures required because of the introduction of the Proposal.
- **Section 8.0** summarises the report and presents the key findings and recommendations.

2.0 Strategic Planning Context

2.1 Future Transport Strategy – Our vision for transport in NSW

Future Transport Strategy sets out the NSW Government's vision for transport in a growing and changing state. The Strategy will guide the community on strategic directions for future planning, investment, delivery, and operations and has been developed in consultation across the NSW Government. It also sets the strategic directions for Transport to achieve world-leading mobility for customers, communities, businesses, and our people.

In summary, the Transport Strategy aims to:

- **Improve transport solutions for the customer –** this involves stronger investment in public transport, walking and cycling networks, offering convenient alternatives to driving and building a sustainable transport system.
- **Moving towards net zero emissions** – this involves encouraging the uptake of electric buses, cars, trucks, and trains – and eventually ships and planes – and considering climate change impacts in all decision making.
- **Enhancing liveability for customers and communities** – this involves working with local communities to create safer, greener, and more liveable 15-minute neighbourhoods across NSW, where wider footpaths, cycle lanes, street trees, pedestrian crossings and lower speeds will improve access to nearby shops and services.
- **Releasing the potential of our infrastructure** – this involves reallocating road space to more efficient modes of transport like buses, walking, cycling and micromobility devices.
- **Building for resilience and economic growth** – A resilient and reliable transport system will support freight and passenger journeys and successful places. Transport networks will contribute to the overall resilience of our places and communities.

The Strategy specifically outlines actions with regards to network planning and masterplanning. It states that Transport NSW will work closely across government on guidelines to facilitate better network planning and master planning, with emphasis on improving design quality and promoting public and active transport in new neighbourhoods. Specific actions include:

- Explore reforms to policies leading to public transport networks being in place at the time of settlement of new areas of housing and / or jobs.
- Prepare best practice guidelines for network planning for new areas.
- Prioritise regular, timetabled bus services in preference to site-specific shuttle bus services.

One of Transport for NSW's aspirations for regional NSW is also to increase public and active transport use over the next ten years to assist with the provision of more transport choices for regional communities. This includes improving bus services and improved walking and cycling infrastructure within towns to accommodate shorter trips.

Implication for the Precinct: The Future Transport Strategy emphasises the importance of planning and providing and improving active and public transport for new developments and bringing this in as part of any masterplanning process. Aspirations for the regional communities specifically include increasing public and active transport use over the next ten years, to assist with the provision of more transport choices. This includes improving bus services and improved walking and cycling infrastructure within towns to accommodate shorter trips. Any future infrastructure changes also need to balance the often-competing design requirements between movement and place.

2.2 North Coast Regional Plan

North Coast Regional Plan 2041 sets a 20-year strategic land use planning framework for the region, aiming to protect and enhance the region's assets and plan for a sustainable future. As a 20-year plan, it applies to the Local Government Areas (LGAs) of Ballina, Bellingen, Byron, Clarence Valley, Coffs Harbour, Kempsey, Kyogle, Lismore, Nambucca, Port Macquarie - Hastings, Richmond Valley, and Tweed.

The Regional Plan provides an overarching framework to guide subsequent and more detailed land use plans, development proposals and infrastructure funding decisions at a regional, subregional, and local level. Priorities for each council are set out in Local Government Narratives, which will guide further investigations and implementation.

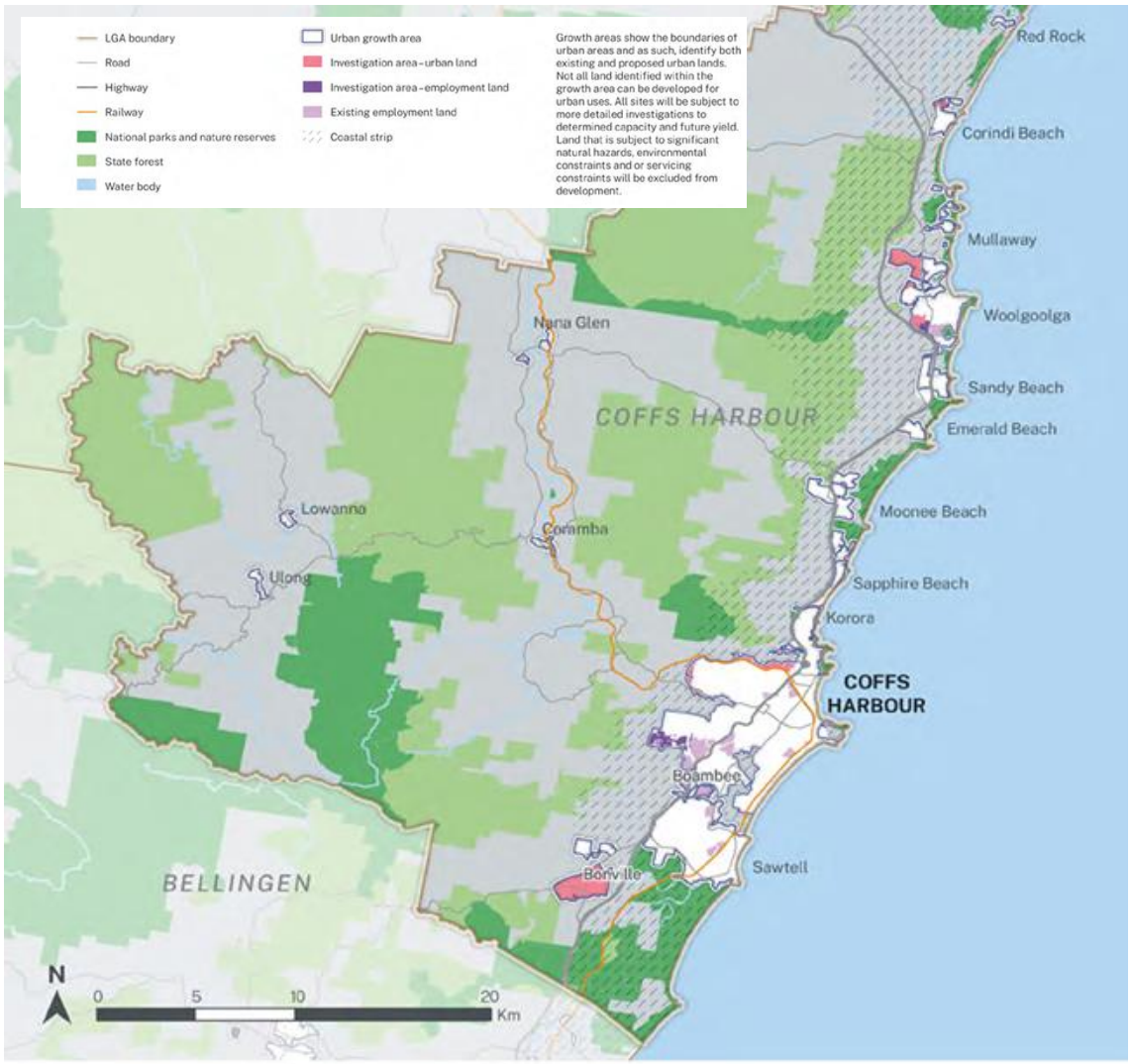
Several objectives listed in the Plan are applicable to transport for the region and as such apply to the delivery of the Proposal. These include Objective 16 (Increase active and public transport usage) which aims to:

– Encourage infill opportunities in and around activity nodes and invest in facility enhancements at these key locations, which will promote the densities necessary to foster public transport options.

– Promote walking and cycling as a preferred choice of transport by linking key activity locations and provide safe pedestrian crossings, lower traffic speeds, separated cycling paths and before and after trip facilities such as secure bicycle storage.

The Plan highlights that the Coffs Harbour LGA is fostering collaborative partnerships with adjoining LGAs which together have growing creative, digital innovation, manufacturing and transport industries that will facilitate new employment opportunities in Coffs Harbour and the Mid North Coast. The Coffs Coast is an accredited ECO Destination and is a leader in environmental tourism and the area will continue as a destination for international and national sporting events and tourism growth. The urban growth area for Coffs Harbour is shown in **Figure 2-1**. One of the transport related actions in the Plan, for areas experiencing high growth are to ensure that they have well planned and sustainable transport options, and that place-based Transport Plans will be developed for key cities and centres across the North Coast region.

Figure 2-1 Coffs Harbour LGA urban growth area map



Source: The North Coast Regional Plan (NSW Department of Planning and Environment, 2022)

The Plan also highlights the implementation of Regional City Action Plans (RCAPs) for Port Macquarie, Coffs Harbour, Lismore, and Tweed Heads. The Coffs Harbour RCAP includes the Precinct and is shown in **Figure 2-2**.

Figure 2-2 Coffs Harbour Regional City Action Plan

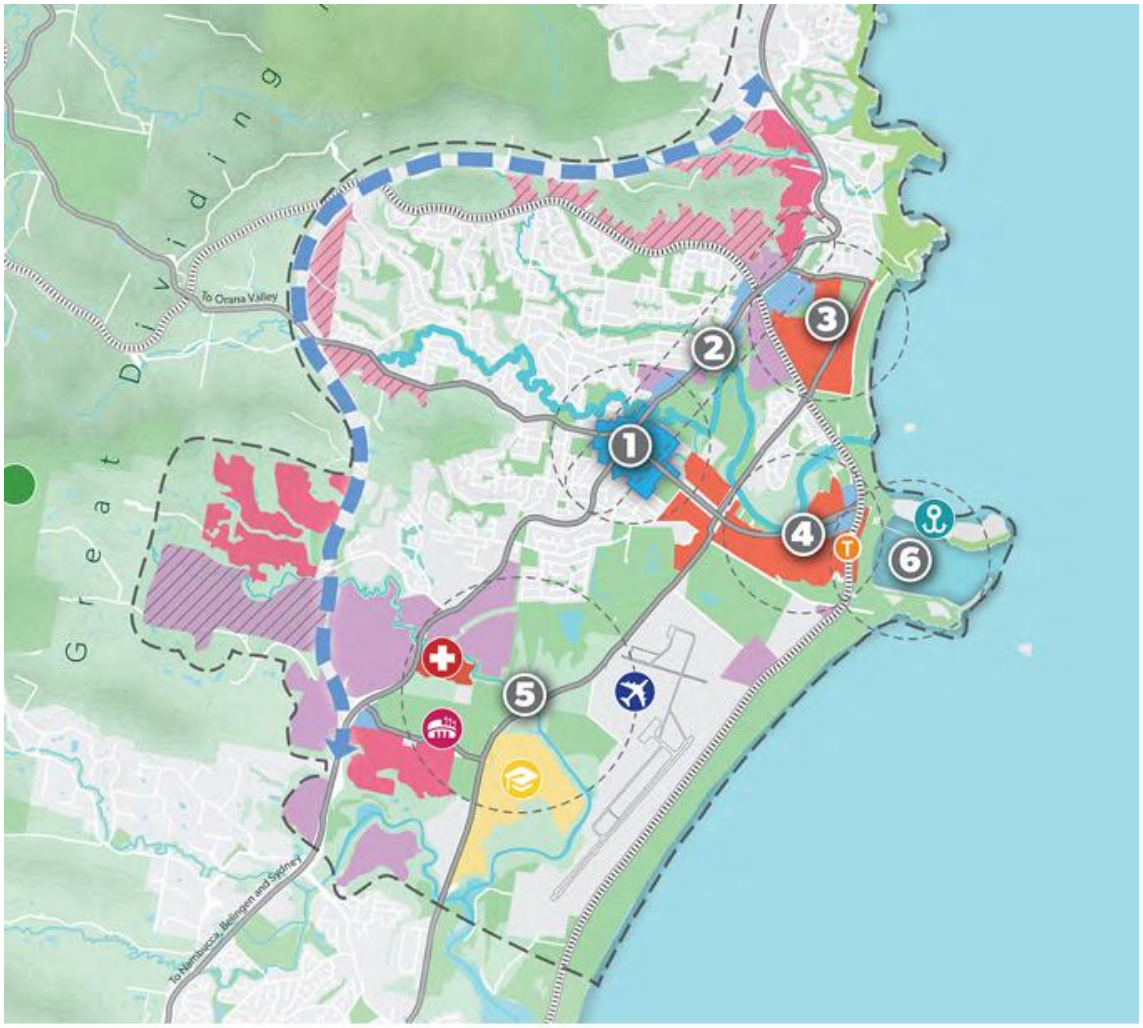


Figure 9: Coffs Harbour RCAP Vision Map

City Action Plan Area	Future Connectivity	City Centre	Train Station
1 City Heart	Railway	Commercial	Education precinct
2 City Spine	Main road	Employment Land	Health precinct
3 Park Beach	Distinctive Places	Investigation Area - Employment Land	Airport
4 Jetty Core	Environmental	Existing Urban Release Area	Stadium
5 South Coffs Enterprise Area	Parks and reserves	Investigation Area - Urban Release	Marina
6 Jetty Foreshore	Waterway	Urban Renewal	National Park

Source: North Coast Regional Plan (NSW Department of Planning and Environment, 2022)

Implication for the Precinct: Objectives listed in the plan relating to the delivery of the Proposal aim to increase active and public transport usage by:

- encouraging infill opportunities in and around activity nodes, and invest in facility enhancements at these key locations, which will promote the densities necessary to foster public transport options.
- promoting walking and cycling as a preferred choice of transport by linking key activity locations and provide safe pedestrian crossings, lower traffic speeds, separated cycling paths and before and after trip facilities.

Place-based Transport Plans are recommended to be developed for areas experiencing high growth, such as key cities and centres across the North Coast region.

2.3 Coffs Harbour Bypass

The Coffs Harbour bypass project has been developed to complement the Pacific Highway upgrade program and will, when completed (in 2027), provide free flowing dual carriageway conditions for the Pacific Highway between Hexham and the Queensland border.

As described in the Coffs Harbour Bypass Environmental Impact Study (Appendix F – Traffic and Transport Assessment, Arup), the project includes a 12km bypass of Coffs Harbour from south of England's Road to Korora Hill in the north and a 2km upgrade of the existing highway between Korora Hill and Sapphire. The project would provide a four-lane divided highway that bypasses Coffs Harbour, passing through the North Boambee Valley, Roberts Hill and then traversing the foothills of the Coffs Harbour basin to the west and north to Korora Hill, as seen in **Figure 2-3**. Once completed, the project will save motorists 12 minutes travel time, bypass up to 12 sets of traffic lights and remove thousands of vehicles from the Coffs Harbour CBD.

Figure 2-3 Coffs Harbour Bypass Project

Source: Coffs Harbour Bypass Environmental Impact Study (Appendix F – Traffic and Transport Assessment, Arup)

The benefits of the project include:

– Improved amenity and eased congestion by the removal of through traffic from the Coffs Harbour CBD. This will make Coffs Harbour a more attractive place to visit, shop and work.

– Improved road safety by removing through traffic (light and heavy vehicles) and some local traffic from the existing road network, reducing conflicts and improving safety for all road users.

- Improved travel time for through and local traffic, reducing through traffic travel times.
- Improved transport efficiency of the existing Pacific Highway through Coffs Harbour, relieving congestion on the wider Coffs Harbour road network and providing an alternative route for some local trips. The improved transport efficiency, accessibility and amenity to the Coffs Harbour CBD introduces the opportunity for strategic investment and equitable development to stimulate wider economic benefits for the Coffs Harbour region.
- Improved freight efficiency for heavy vehicles by providing a high standard dual carriageway road to complement the National Land Transport Network, Future Transport Strategy 2056 and the recently upgraded Pacific Highway.

Some key impacts the bypass will have on the Pacific Highway and surrounding roads and the Proposal compared to the existing situation include:

- Increased traffic volumes on the Pacific Highway south of England's Road by 3,900 vehicles per day (vpd) (an 11 per cent increase), because of some trips diverting from Hogbin Drive to the Pacific Highway corridor.
- Decreased traffic volumes on the Pacific Highway south of Albany Street (just south of the CBD) by 12,600 vpd, (a 40 per cent decrease).
- Substantially decreased traffic volumes on the Pacific Highway north of Orlando Street (just north of the CBD) by 10,000 vpd (a 23 per cent decrease).
- Substantially reduced traffic volumes on the Pacific Highway south of Bruxner Park Road by 9,200 vpd (a 24 per cent decrease).
- Decreased traffic volumes by up to approximately 9,200 vpd on Hogbin Drive north of Stadium Drive, which is a 31 per cent decrease.
- A decrease in passing traffic through the Precinct, could negatively impact casual tourists and visitation numbers to the area, and as a result the social and economic position of the Precinct, as visitors may bypass the Precinct, rather than drive through it.

Implication for the Precinct: The introduction of the bypass will reduce traffic along the Pacific Highway, surrounding roads and through the Precinct. This could however have a negative effect on casual tourists and visitation numbers to the Precinct, and as a result the social and economic position of the Precinct, as visitors may bypass the area, rather than drive through it. It is therefore vital that the future planning proposal unlocks land potential and drive tourism due to its improved amenity and public open space.

2.4 Coffs Harbour's Movement and Place (Transport) Strategy

The Coffs Harbour Movement and Place (Transport) Strategy (September 2023) (the Transport Strategy) aims to provide a shared vision and direction to change the way the region's places and transport networks are designed, planned, and delivered to deliver maximum benefit for the community and for visitors.

The Strategy highlights that Coffs Harbour is well placed to harness the opportunities afforded by the forecast growth, regional setting, and natural assets to drive improved transport choices and support the places where people live and work. The following overarching objectives support the Strategy's vision and are of relevance to the Proposal:

- **Providing a Resilient Transport System** - Building more walking and cycling networks and improving bus services will help encouraging a shift towards more sustainable forms of travel.
- **Making walking and riding a better choice for short trips** - Make it safer and more convenient to walk and ride for all ages and abilities, from 8 to 80 years old. This will be done by building connected networks, safe crossings, providing better amenities and facilities, creating more inviting street and path environments (including more trees and better shading) to increase peoples want to walk and ride.
- **Improving Public Transport** - Improving the bus network in and around Coffs Harbour is a huge opportunity to improve the lives for a large part of our community who have difficulty in getting to essential services due to a lack of easily accessible or affordable transport options. It will also provide the whole community with a more viable option to driving. The City of Coffs Harbour will work with Transport for NSW and bus service providers to support the public transport program in delivering bus stops and walking connections to bus stops.
- **Ensuring the Delivery of Services and Goods to Our Local Businesses** - Facilitating adequate off-street servicing and loading / dock facilities can limit congestion and amenity impacts at street frontages, while securing freight connectivity for local businesses.

The Strategy sets out goals for a viable transport system for the City of Coffs Harbour. The following 10 Big Moves have been identified to plan for and invest in, over the next 20 years:

1. Improving our walking and cycling networks
2. Improving our walking and cycling networks
3. Better streets
4. Better streets
5. Improving our public transport services
6. Improving our public transport services
7. Investing in our blue and green grid
8. Investing in our blue and green grid
9. Beyond the bypass
10. Beyond the bypass

The Strategy highlights the need for improved active transport connections from the Jetty foreshore to surrounding areas and the City Centre. The Transport Strategy states that there are some 19,000 people who live within 2km of the Coffs Harbour City Centre, including in the West and Central Coffs, Park Beach, and the Jetty Precinct. By providing the right environment for walking and cycling, and improving active transport infrastructure, a large proportion of these people could be swayed to walk or ride into the City Centre or to other key destinations. Coffs Creek for example has the potential to become an off-road pedestrian and bike path network that extends into West Coffs and link with the city centre, Jetty, and Park Beach.

Implication for the Precinct: The Transport Strategy sets out ambitious objectives and targets to improve transport in Coffs Harbour over the next 20 years. Although several of the suggested improvements have not yet been implemented, the Strategy provides a clear vision aiming to improve transport infrastructure in the area, as well as encouraging a shift towards more sustainable transport modes. It should be noted that, for most of the outlined goals however, significant funding resources will be required, if not at a Local government level, then from State government sources.

2.5 Coffs Harbour LGA Local Strategic Planning Statement

Coffs Harbour Local Strategic Planning Statement (LSPS) has been prepared by CHCC to set out the 20-year vision for land use planning in the Coffs Harbour LGA. The LSPS aims to outline how growth and change will be managed to maintain the high levels of liveability, environmental amenity and landscape quality that characterises Coffs Harbour.

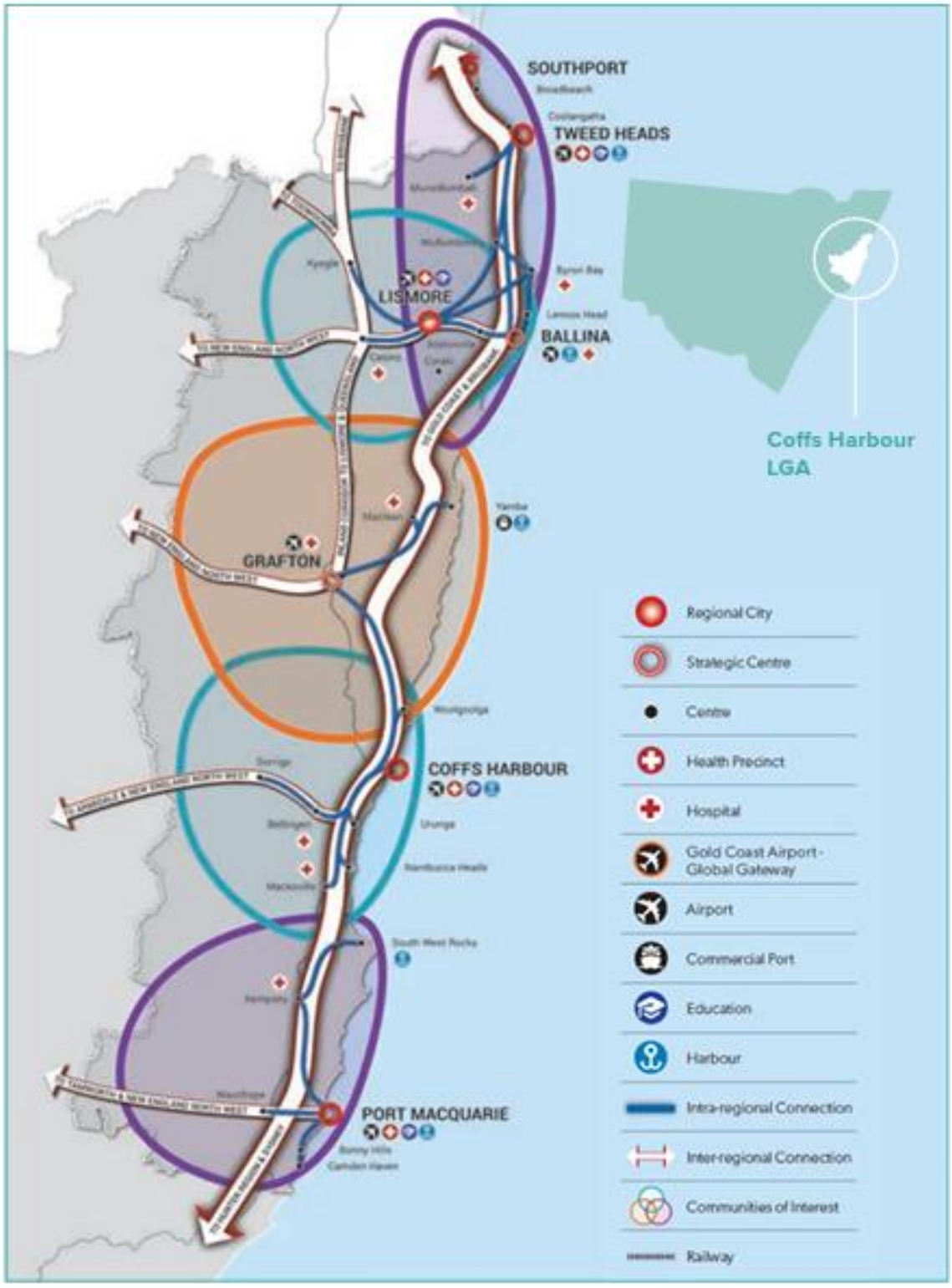
The LSPS highlights Coffs Harbour as one of four regional cities (Coffs, Tweed, Ballina and Port Macquarie) on the North Coast (**Figure 2-4**). It provides a significant share of the region's housing and jobs, and delivers a variety of high-level services, including civic, entertainment and cultural venues. The LGA also comprises several coastal and hinterland villages, towns and localities and has several key employment areas.

The LSPS sets out a vision for the LGA which in relation to transport includes that 'A compact, cosmopolitan city is being delivered for Coffs Harbour through a placemaking framework, which is based on an efficient public transport system, an urban layout which encourages walking and cycling, low energy consumption and reduced pollution'.

The LSPS sets out eight planning principles for the Coffs Harbour LGA:

1. Prioritising people, places, and the place-making framework
2. Protecting the natural environment
3. Prioritising safety for all ages - day and night
4. Promoting quality-built form and urban design
5. Providing quality public spaces
6. Promoting walking and cycling as the preferred choice of transport
7. Promoting 20-minute neighbourhoods
8. Prioritise post-bypass planning

Figure 2-4 Coffs Harbour in the North Coast regional context



Source: Coffs Harbour LGA LSPS 2020 (Coffs Harbour City Council, June 2020)

Under each of the planning principles are a total of 16 planning priorities. Those of specific relevance to transport include planning principles P1, P2 and P12:

– **P1 – Deliver and implement the Compact City Program Key Priorities** which include principles of promoting walking and cycling as the preferred choice of transport and outlines the following relevant actions:

  - Work with the NSW Government during the development of the NSW Government's Precinct Masterplan (east of the North Coast rail line) (Action 1.3).

- Work with the NSW Government to deliver outcomes associated with the Coffs Harbour Regional City Action Plan (Action 1.4).

– **P2 – Deliver and implement the Place and Movement Strategy** which aims to making existing and new neighbourhoods more walkable and compact and outlines the following relevant actions:

- Prepare a Jetty Precinct Place and Movement Plan (Action 2.4).
- Work with the NSW Government (Transport for NSW, and Planning, Industry and Environment) to deliver outcomes associated with the Coffs Harbour Regional City Action Plan and the Coffs Harbour Place and Movement Strategy (Action 2.8).

– **P5 – Develop and deliver a post-Bypass place strategy for Coffs Harbour City** which highlights opportunities to:

- Improve connections between the eastern and western side of the city, with extensions of this spine from west of the City Centre down to the Jetty Precinct and across the railway line into the Jetty Foreshore area.
- NSW Government to explore options for additional connectivity in and out of the Jetty Foreshore within the Precinct master planning project east of the North Coast rail line.
- Improve active and public transport linkages.
- Establish a more pedestrian friendly and high amenity environment.

Implication for the Precinct: The LSPS outlines several transport planning priorities relevant to the Precinct, and the aim to improve sustainable and public transport in the area, such as options for additional connectivity in and out of the Jetty Foreshore within the Precinct, east of the North Coast rail line. The Proposal will exceed the expectation of the above outlined planning principles, with its commitment to deliver a diverse and sophisticated regional economy, evolve the tourism offering, provide more housing (including affordable housing) in accessible locations and providing better connections with more sustainable movement choices.

2.6 Coffs Coast Tourism Strategic Plan 2020

City of Coffs Harbour is well known as a popular coastal holiday destination, particularly for families, with a range of beaches located near its city centre including Diggers Beach, Jetty Beach, and Park Beach and variety of midrange accommodation options. Its city location, that is close to the Harbour and Jetty foreshore, provides a different coastal setting compared with other destinations along the East Coast of Australia.

Coffs Coast Strategic Tourism Plan 2020 (May 2016) is underpinned by a comprehensive situational analysis and stakeholder engagement process, to guide the strategic direction the tourism across the Coffs Coast over the next five years. The aim of the plan is to 'strengthen the Coffs Coast visitor economy by increasing overnight visitor stays, length of stay, expenditure, and dispersal across the region. This will be achieved by positioning the Coffs Coast as a leading regional destination for leisure and nature-based tourism, events, and cultural experiences.

Coffs Harbour LGA's vision for tourism is 'to support the sustainable growth of tourism through the inclusive partnership of government and local businesses, that positions the Coffs Coast as a regional destination for events and quality tourism experiences, which are connected to our natural and coastal environments, our vibrant and culturally distinctive hinterland communities and our relaxed way of life'.

The Plan sets out 11 different key directions for the Coffs Harbour tourism, with the 'Visitor Transport Services' being of relevance for the future transport in the area. The 'Visitor Transport Services' direction aims to 'strategically plan for Pacific Highway upgrades, increased air services from key visitor markets, and the improvement of local transport services for visitors to the Coffs Coast to 2020'. Specific strategies (of which Strategy 4.4 is of particular interest for the future transport network) under this directive include:

– Strategy 4.1: Strategically plan to reduce negative visitor perceptions and access issues regarding the upgrade of the Pacific Highway and its impact on the Coffs Coast, and the proposed bypass of Coffs Harbour to 2020.

– Strategy 4.2: Work with Coffs Harbour Regional Airport to attract and promote new and existing air services to the Coffs Coast to 2020.

– Strategy 4.3: Support the Coffs Harbour International Marina to position the Marina as an attractive destination for visiting small vessels.

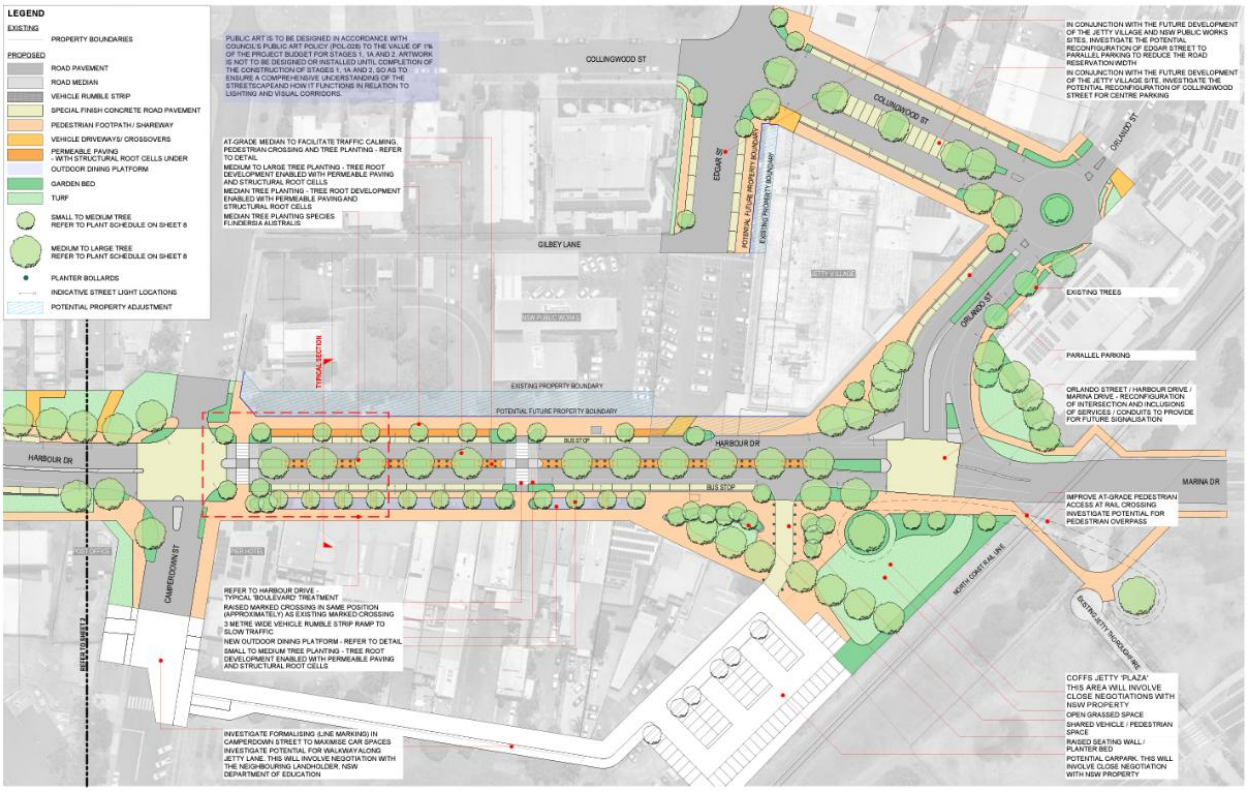
– Strategy 4.4: Investigate ways to improve local road and visitor transport services to encourage visitors around the Coffs Coast, which involves actions to:
  - S4.4.1: Investigate and promote opportunities to establish viable commercial local transport services to connect coastal and hinterland towns and villages and enhance visitor dispersal around the Coffs Coast.
  - S4.4.2: Investigate opportunities to improve and promote local bus services for visitors around the Coffs Coast.
  - S4.4.3: Continue to develop infrastructure to support cycle tourism for the Coffs Coast.
  - S4.4.4: Work with nature-based and adventure tourism stakeholders to promote cycling tourism and mountain bike trails and tracks as part of the Coffs Coast Marketing Plan 2020.
  - S4.4.5: Support improvements to road infrastructure and develop alternate routes to Waterfall Way (e.g., Eastern Dorrigo Way – Coramba, Megan, Dorrigo).
– Strategy 4.5: Work with Railcorp NSW and commercial coach services to promote rail transport services to the Coffs Coast.

Implication for the Precinct: The Plan sets out the strategic direction for tourism across the Coffs Coast over the next five years, with the view to 'strengthen the Coffs Coast visitor economy by increasing overnight visitor stays, length of stay, expenditure, and dispersal across the region'. The Proposal will meet or even exceed all the objectives outlined in the Plan, with an example being the proposed provision of top end accommodation (as opposed to the existing 'midrange' range accommodation outlined in the Plan), with the boutique hotel proposed as part of the Proposal.

2.7 Coffs Jetty Strip Structure Plan

There is currently considerable pressure from businesses and landholders in the Jetty Strip area (as seen in **Figure 2-5**) to improve the function and appeal of the location, including pedestrian circulation, amenity, traffic flow and parking area as it is an important 'Gateway' into the Jetty and Marina Precinct.

Figure 2-5 Coffs Jetty Strip Structure Plan



Source: Coffs Jetty Strip Structure Plan (King and Campbell, May 2020)

The Coffs Harbour Jetty Strip Structure Plan project was initiated by Council's adoption of the Local Growth Management Strategy and development interests in several key sites on Harbour Drive and Orlando Street. Thoughtful and effective stakeholder engagement and design is required to realise the long-term benefits for the Jetty Strip and the community.

The Study Area also consider key connections with and influences on the core Study Area, including:

– Road approaches along Harbour Drive, Marina Drive and Orlando Street

– Side streets, particularly Collingwood Street, Edgar Street, Camperdown Street and Hood Street

– Key development sites on the northern side of Harbour Drive and western side of Orlando Street respectively

– Pedestrian connections with the Jetty and Marina Precinct and Coffs Harbour High School.

Several improvements are proposed to improve the Coffs Jetty area, including:

– **The straightening of Harbour Drive** - specifically at the Harbour Drive / Orlando Street / Marina Drive intersection will provide a direct connection into the Jetty and Marina Precinct. Traffic analysis undertaken indicates that this straightening / realignment is possible and will not result in significant impacts to the traffic network.

– **Precinct traffic calming along Harbour Drive from Camperdown Street to Orlando Street by:**

  - Narrowing the road carriageway for eastbound traffic, from Edinburgh Street down the hill to Camperdown Street.
  - Separated and narrowed carriageways at the Harbour Drive entry and exit carriageways at the intersection into and from the Core area (Main Street).
  - Reconfiguring the Harbour Drive / Orlando Street intersection – such that traffic entering from the west will be slowed significantly (to a stop in many instances) at the start of the Core area (Main Street) section. In addition, it is also proposed to introduce a special paving treatment at this intersection.
  - Shared Zone regulatory road signage be installed at both vehicle entries into the Core area (Main Street).

– **Broader open space and pedestrian connections -** to improve pedestrian connections to and from Harbour Drive and to provide for improved public spaces in the Precinct generally, by:

  - A stronger and more direct pedestrian/ cycleway connection from the Jetty and Marina Precinct to Harbour Drive over the North Coast Rail line.
  - A plaza fronting the Jetty Strip and Main Street, using the northern portion of NSW Property land and the road reservation in the vicinity of the existing small car park.
  - Incorporation of generous footways down both sides of Harbour Drive and a continuous at-grade median in the middle of the street.
  - Incorporation of an on-road bike lane.

– **Retain or increase on-street parking:**

  - Increased on-street parking along Collingwood Street, between Edgar Street, Orlando Street and Harbour Drive (an additional 23 on-street parking spaces).
  - An additional 8 on-street carparking in Harbour Drive, between Camperdown and Edinburgh Streets.
  - The existing on-street parking in Camperdown Street in the vicinity of the High School could be formalised (by line marking). This may increase efficiency and parking space numbers.
  - Partial use of the NSW Property land parcel for off-street carparking. This has been identified as a priority action through the engagement process.

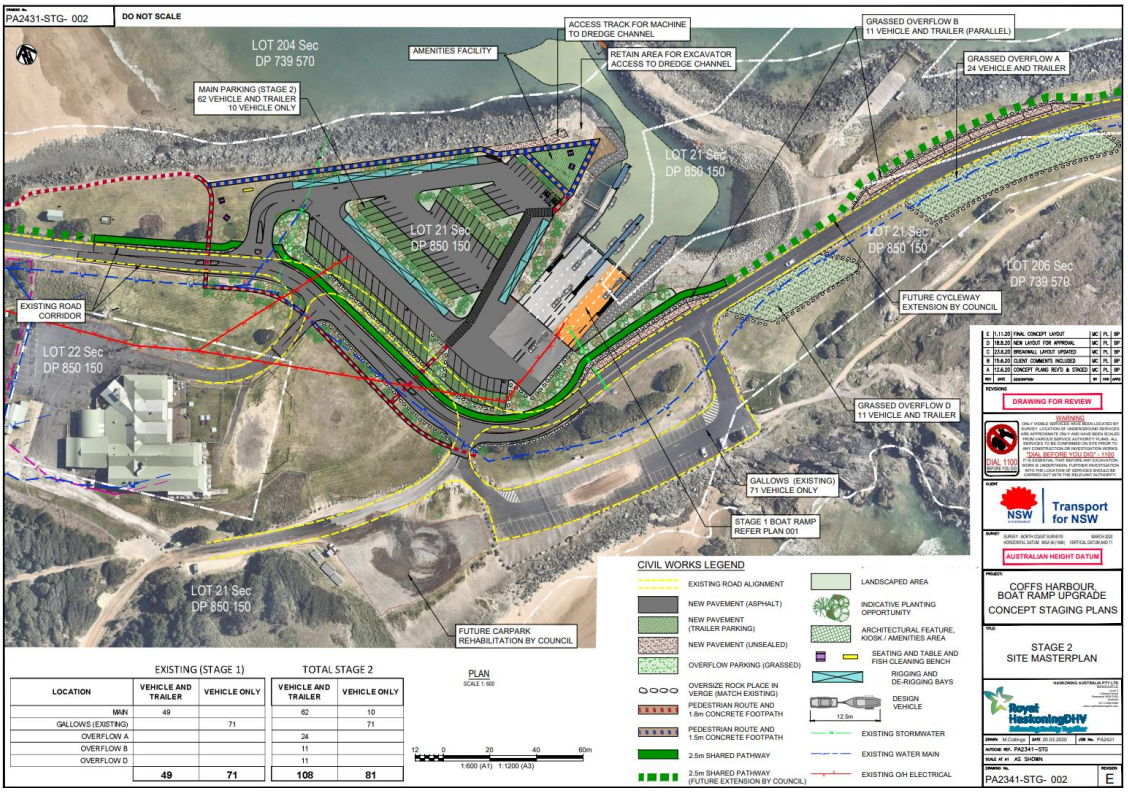
Implication for the Precinct: The Coffs Jetty Strip Structure Plan was developed in 2020 and it should be noted that the proposed works have not yet been implemented, and it is understood that there is no funding commitment by Council to undertake this work. This suggests that there is a need for the Proposal, which would encourage and drive the financial investment for the area, and as a result, improve traffic, transport and connections to and from the Precinct.

2.8 Coffs Harbour Regional Boat Ramp Upgrade

Transport for NSW Maritime has upgraded the Coffs Harbour Regional Boat Ramp, located at the eastern end of Jordan Esplanade, to increase the size of the ramp, provide more facilities and improve parking options. The boat ramp and pontoons have been completed, and work is now being undertaken to the finishing touches to the carpark and facilities. The works were undertaken in two stages, with Stage 1 (the boat ramp and pontoons) now completed and Stage 2 (the car park and facilities) currently being undertaken.

The existing Coffs Harbour boat ramp comprises a three-lane boat ramp with a single pontoon. There are 50 marked car and trailer parking spaces with access to Jordan Esplanade provided via an unformalised crossover, which is about 33m wide. The existing pedestrian path terminates on the northern side of the boat ramp car park, directing pedestrians through the car park and past the manoeuvring area for the boat ramp. A key pedestrian and cycle desire line is to the South Break Wall located east of the boat ramp. An existing shared path connection is located east of the boat ramp on the northern side of Jordan Esplanade; however, no connection currently exists through or past the boat ramp.

Figure 2-6 Stages 1 and 2 of the Coffs Harbour Regional Boat Ramp Upgrade



Source: https://www.transport.nsw.gov.au/projects/current-projects/coffs-harbour-regional-boat-ramp (May 2023)

The two main stages of the boat ramp upgrade comprise two main stages (as shown in **Figure 2-6**):

– Stage 1 included:

  - This included upgrades to the boat ramp to include six ramp lanes, additional pontoons, dredging and extension of the breakwall. Stage 1 did not include any changes to parking or access arrangements.

– Stage 2 includes:

  - Extending the existing main carpark to include 62 car and trailer spaces and 10 car-only spaces (including two PWD spaces) and nine rigging and de-rigging spaces around the main car park;
  - Providing a new carpark entrance at the western end of the carpark and blocking the entry adjacent to the boat ramp off Jordan Esplanade (for safety reasons);
  - A new shared pathway (2.5m) extension for walking / cycling along Jordan Esplanade; and
  - A new pedestrian pathway on south side of Jordan Esplanade with access to Gallows beach carpark and to amenities facility in the main carpark area.

The parking assessment for the Boat Ramp upgrade project considered that the proposed parking provision in Stage 2 of the upgrade, as well as the existing parking in the broader area, would be sufficient to cater for the existing and forecast vehicle demand for the boat ramp.

The traffic assessment considered that the additional three boat ramp lanes would generate an additional 36 vehicles per hour, assuming one boat could be launched or retrieved from each lane of the boat ramp every five minutes. Trip generation is expected to vary between and even distribution of vehicles entering and exiting and a 'tidal movement' of vehicles. Traffic generated by the boat ramp was not expected to result in adverse impacts to the operations of the surrounding road network with about 1-2 vehicles entering or exiting the boat ramp car park during peak periods.

Implication for the Precinct: The boat ramp upgrade increased the size of the ramp, provided more facilities and improved parking options. However, the existing pedestrian path terminates on the northern side of the boat ramp car park, directing pedestrians through the car park and past the manoeuvring area for the boat ramp, with no connection through or past the boat ramp. Implementing the active transport initiatives of the Proposal would however improve this link, as if proposes to harness pedestrian connectivity from north to south.

3.0 Existing conditions

3.1 Existing use and character areas

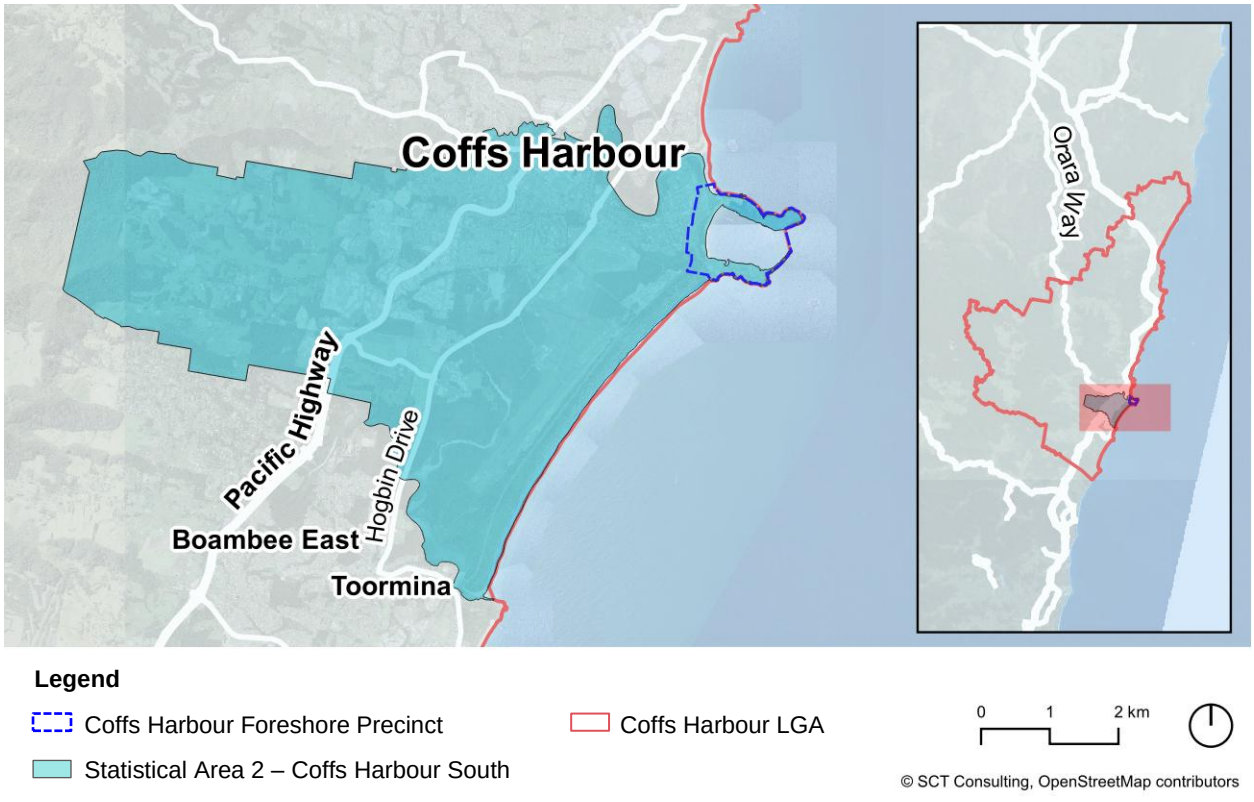
Areas within the Precinct are currently predominately parklands, community use, tourism use, the jetty beach and a marina. Within the Precinct, to the west of the railway line, there is currently unused transport land and along the most northern part of the Precinct is a major informal parking area. The area just west of the Precinct consists of mainly residential and retail use, with some accommodation provided.

Much of the Precinct is currently inaccessible for public enjoyment. Residual railway land is fenced off and separated from public access. While gravelled areas provide overflow parking, these do not reflect the potential of this foreshore. While there are some nice, well-maintained parts in this area, much can be done to enhance the Jetty foreshore.

3.2 Journey to Work Data

Journey to Work data was analysed to determine how people travel to and from the Statistical Area 2 (SA2) of Coffs Harbour South (as shown in **Figure 3-1**), to get to and from work. The type of mode workers use as well as where they are coming from or traveling to was determined and is shown in **Figure 3-1** and **Table 3-2**.

Figure 3-1 Coffs Harbour SA2 area



Source: Australian Bureau of Statistics (April 2023)

The Journey to Work Data outlined in **Table 3-1** presents the mode of transport of which workers within the Coffs Harbour South SA2 use to come into the area as well as workers living in the area traveling to get to work. The data suggests that most people traveling to get to the SA2 area as well as leaving the area for work do so by car, either as driver or passenger, with 87% and 81% in and out respectively. It also shows that only a small proportion travel by either active or public transport, with three and seven per cent in and out respectively.

Table 3-1 Journey to Work Data (2021) by mode of transport for the SA2 area of Coffs Harbour South

Mode	Workers travelling to the area		Workers leaving the area	
	Number of trips	Proportion of trips (%)	Number of trips	Proportion of trips (%)
Public transport	81	1	74	2
Car (as driver / passenger)	**11,650**	**87**	**3,193**	**81**
Active transport	277	2	196	5
Other mode	221	2	21	1
Worked from home	1,186	9	437	11
Total	**13,415**	**100**	**3,968**	**100**

Source: Australian Bureau of Statistics (April 2023)

The Journey to Work Data outlined in **Table 3-2** presents where residents in the Coffs Harbour South SA2 travel to for work as well as where people working in the area are coming from.

The data suggests that most people traveling to get to the SA2 area for work south of the Precinct, from come Sawtell – Boambee (24 percent), closely followed by the north, with the Coffs Harbour North SA2 (24 percent). Most residents living within the Coffs Harbour SA2 area however, travel to work within the same SA2, with 56 percent of work trips being contained within the Coffs Harbour SA2. This suggests that most trips for residents in the area travel a shorter distance to get to work, whereas residents coming into the area generally come from either the north or south.

Table 3-2 Journey to Work Data (2021) by origin and destination for the SA2 area of Coffs Harbour South

Origin (SA2) – Destination (SA2)	Workers travelling to the area		Residents leaving the area for work	
	Number of trips	Proportion of trips (%)	Number of trips	Proportion of trips (%)
Coffs Harbour South	2,233	17	**2,233**	**56**
Sawtell – Boambee SA2	**3,106**	**24**	329	8
Coffs Harbour North	3,000	23	779	19
Korora - Emerald Beach	1,500	12	42	1
Coramba - Nana Glen - Bucca	617	5	24	1
Bellingen	374	3	34	1
Other	2,285	16	541	14
Total	**13,115**	**100**	**3,982**	**100**

Source: Australian Bureau of Statistics (April 2023)

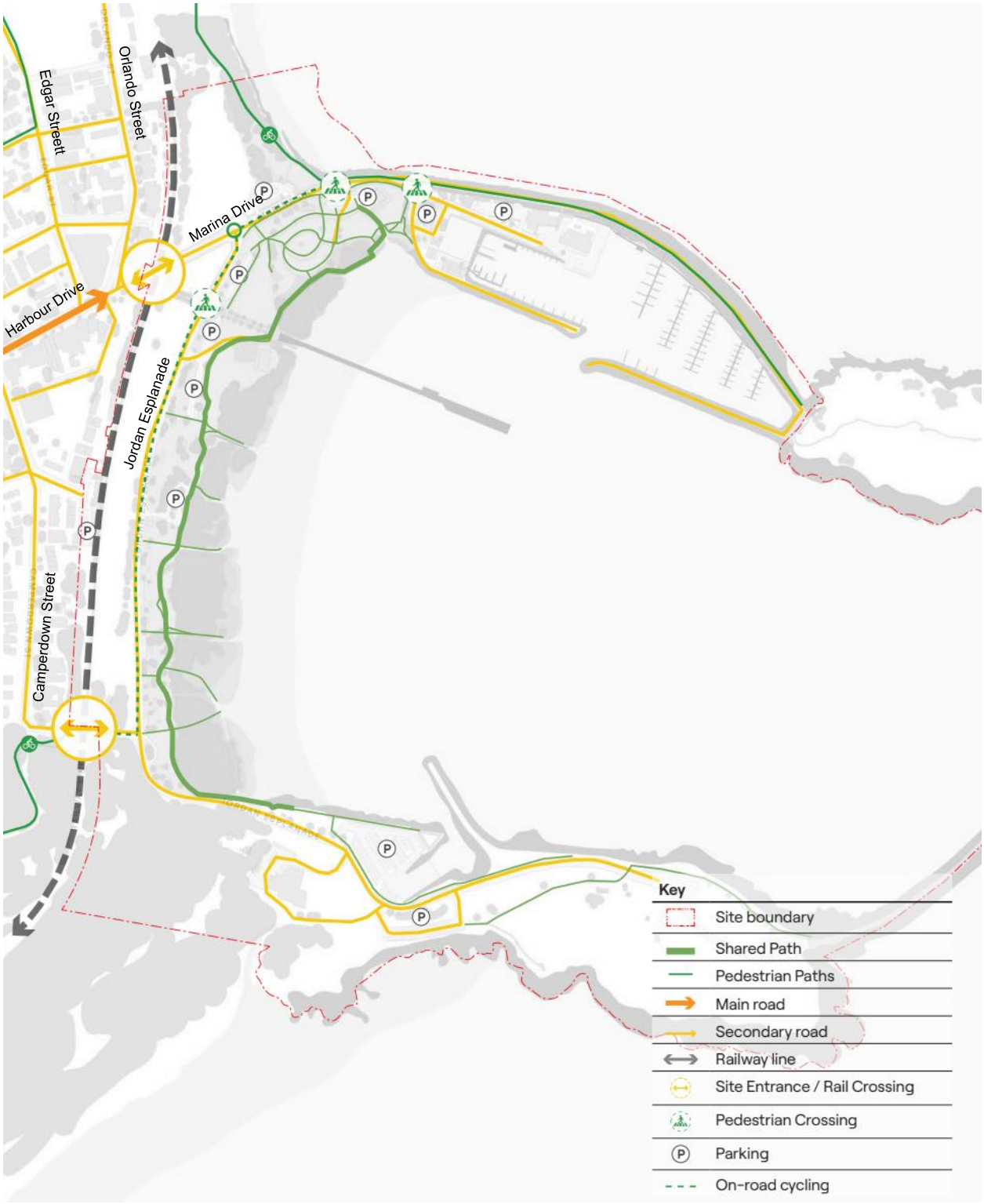
3.3 Road network

3.3.1 Road hierarchy

The key roads providing access to the Precinct from the west are Marina Drive in the north and Camperdown Street in the south, while Jordan Esplanade is the key north-south route providing access to the Precinct and connecting Marina Drive with Camperdown Street, as seen in **Figure 3-2**.

The Precinct is connected to the Coffs Harbour Town Centre via Harbour Drive. It is connected to surrounding towns and cities via the Pacific Highway, which runs through the town, and the North Coast railway line, which has a station in Coffs Harbour.

Figure 3-2 Road network surrounding the Precinct



Source: Coffs Foreshore Draft Urban Design Report (SJB, 2024)

The characteristics of the key surrounding routes (**Figure 3-2**) are:

– **Orlando Street** is a two lane, two-way (except for the section between Marina Drive and Collingwood Street, which has two lanes in the southbound direction) local distributor road that runs between Marina Drive / Harbour Drive in the south and connects to the Pacific Highway in the north. It provides the key connection from the arterial road network in the north to the Precinct

– **Marina Drive** is the primary access to the northern part of the Precinct, given it is the eastern extension of Harbour Drive, which is the main east-west connection between Coffs Harbour Town Centre and the Foreshore precinct. Harbour Drive is a four-lane road, west of Edinburgh Street, and becomes a two-lane road with on-street parking serving the highly pedestrianised Jetty Strip area (between Camperdown Street and Marina Drive). Harbour Drive becomes busy, especially at the Jetty Strip area in the westbound direction on a Sunday morning, with a mix of pedestrian activities and on-street parking activities in a slow (40km/h) speed environment. Formal and informal off-street parking is provided at several locations on both sides of the road along Marina Drive.

– **Camperdown Street** runs in a north-south direction parallel to Jordan Esplanade and is the alternative southern access to the Precinct. Camperdown Street is a two-lane local street passing the Coffs Harbour High School, access to the train station and residential areas. It becomes an overpass of the rail corridor at its southern end before connecting to Jordan Esplanade. Along the eastern side of Camperdown Street between Nile Street and Harbour Drive, time-restricted angle on-street parking is provided, while parallel parking is provided along the western side. South of Nile Street, on-street parallel parking is provided on both sides of the road.

  Camperdown Street provides access to the off-street shared path lane via a pedestrian bridge over the railway line, west of Jordan Esplanade. South of Nile Street however, the provision of footpaths is limited along Camperdown Street, mainly to the narrow railway bridge on the southern side of the road, and to a section of road along the eastern side of Camperdown Street.

– **Jordan Esplanade** connects the whole precinct from Marina Drive to Corrambirra Point. It is a two-lane road with a 50km/h posted speed and no kerb and channel. It acts as the only road access to Corrambirra Point in the southern end of the Precinct. Formal and informal off-street parking is provided at several locations on both sides of the road, along with informal parallel on-street parking.

  An off-road footpath that connects Marina Drive in the north to the Coffs Harbour Boat Ramp, Gallows Beach and the South Breakwall promenade in the south is provided parallel to Jordan Esplanade. Along this footpath, there are also several connections to the Jetty Beach.

– **Collingwood Street** is an undivided road with one lane in each direction that runs in an east-west direction and connects to Orlando Street via a roundabout in the east and Mildura Street (which connects to Harbour Drive) in the west. Parallel parking is (restricted to 2P on weekdays and Saturdays on the northern side) is provided on both sides of the road near the roundabout with Orlando Street.

3.3.2 Traffic volumes

Three sets of traffic surveys were undertaken over different time periods between 2022 and 2023. These include weekday and Sunday traffic surveys during the January 2022 school holidays, March 2023, and April 2023 (Easter holidays). The analysis indicates that traffic volumes is at its peak during the summer holiday. As a worst-case scenario, the January 2022 weekday and Sunday traffic counts have therefore been adopted as the base case traffic conditions for the purpose of this analysis.

Traffic counts were also undertaken for the Orlando Street / Collingwood Street and Harbour Drive / Camperdown intersections in May 2023, because counts for these intersections were not collected in 2022, to better understand the impact of the Proposal on the surrounding road network.

As the intersection counts for the majority of the intersections analysed are based on the 2022 counts, the March 2023 volumes for Orlando Street/Collingwood Street and Harbour Drive/Camperdown intersections were proportionally scaled (based in the traffic flow difference between 2022 and 2023), to match with the January 2022 data. This is to ensure the network is assessed based on the maximum traffic demand, and that all intersections are based on the ‘same year’.

The existing peak hour traffic volumes for the key roads within the study area are illustrated in **Table 3-3**.

Table 3-3 Existing (2022) traffic volumes at key roads within and in proximity to the Precinct

Location	Direction	Traffic volumes (vehicles per hour)		
		Weekday AM Peak (9AM-10AM)	Weekday PM Peak (5.45PM-6.45PM)	Sunday Peak (10AM-11AM)
Orlando Street, north of Marina Drive	NB	353	293	470
	SB	496	458	752
Harbour Drive, south of Marina Drive	EB	370	377	521
	WB	418	452	673
Harbour Drive, west of Camperdown Street	EB	392	415	547
	WB	365	412	749
Marina Drive, west of Jordan Esplanade	EB	470	453	890
	WB	370	390	754
Marina Drive, east of Jordan Esplanade	EB	287	291	419
	WB	258	254	411
Jordan Esplanade, north of Camperdown Street	NB	156	182	459
	SB	185	179	316
Jordan Esplanade, south of Camperdown Street	NB	222	238	487
	SB	235	224	477

Source: Matrix Traffic and Transport Data, 2022

3.3.3 Intersection performance

Operational performance is typically measured through an assessment of the throughput of network, with average delay per vehicle used to access the performance of an individual intersection. The average delay per vehicle measure is linked to a Level of Service (LoS) index which characterises the intersection's operational performance. **Table 3-4** provides a summary of the LoS performance bands, as defined by the TfNSW Traffic Modelling Guidelines.

Table 3-4 Level of Service categories

Level of Service	Average delay per vehicle (seconds)	Performance explanation
A	Less than 14.5	Good operation
B	14.5 to 28.4	Good with acceptable delays and spare capacity
C	28.5 to 42.4	Satisfactory
D	42.5 to 56.4	Operating near capacity
E	56.5 to 70.4	At capacity, at signals incidents will cause excessive delays. Roundabouts require other control method.
F	70.5 or greater	At capacity, at signals incidents will cause excessive delays. Roundabouts require other control method.

Source: Roads and Maritime Services (2002), Traffic Modelling Guidelines

Intersection performance is also measured using the degree of saturation (DoS), which is a measure of the spare capacity of each intersection. A degree of DoS greater than 1.0 implies that the turning movement is at capacity and not acceptable.

Table 3-5 presents the existing levels of service at intersections in the Precinct, with detailed SIDRA modelling results presented in **Appendix A**. Like the traffic volumes, it indicates the increased traffic demand on the weekend compared to the weekday, resulting in slightly higher degree of saturations and delays for specific movement. The intersections perform at a LoS A or B in all time periods (except for the Camperdown Street / Harbour Drive intersection), with low average vehicle delays experienced by most drivers.

For the Camperdown Street / Harbour Drive intersection, significant eastbound and westbound demand on Harbour Drive results in the right movement from Hood Street to Harbour Drive reducing to LoS D during the weekend peak period.

It should be noted that Marina Drive is connected to Harbour Drive and Orlando Street at a priority (give-way) intersection, where Marina Drive has the least priority, giving way to traffic on Harbour Drive and Orlando Street. Therefore, traffic on Marina Drive can back up and cross the level crossing (located 60m east of the priority intersection) at peak times, particularly on weekends when large volume of traffic accesses the Jetty Foreshore precinct and the weekend markets. However, the analysis indicates that the Harbour Drive / Orlando Street / Marina Drive intersection still operates at an overall good level of service (LoS A on weekdays and LoS B on weekends) under current conditions.

Table 3-5 Existing intersection performance

Location (intersection control type)	Weekday AM Peak (9AM-10AM)			Weekday PM Peak (5.45PM-6.45PM)			Sunday Peak (10AM-11AM)		
	DoS	Delay (secs)	LoS	DoS	Delay (secs)	LoS	DoS	Delay (secs)	LoS
Orlando Street / Collingwood Street (roundabout)	0.39	10.4	A	0.35	10	A	0.57	12	A
Orlando Street / Marina Drive / Harbour Drive (priority control)	0.23	6.2	A	0.21	6.0	A	0.49	9.8	A
Marina Drive / Jordan Esplanade (roundabout)	0.29	11.7	A	0.28	11.6	A	0.62	17.6	B
Camperdown Street / Jordan Esplanade (priority control)	0.12	5.8	A	0.13	5.6	A	0.25	7.7	A
Jetty Beach House carpark / Jordan Esplanade (priority control)	0.13	5.5	A	0.13	5.5	A	0.26	10.9	A
Gallows Beach carpark / Jordan Esplanade (priority control)	0.07	4.7	A	0.07	4.8	A	0.16	5.0	A
Gallows Beach carpark / Jordan Esplanade (priority control – 6b)	0.07	4.8	A	0.07	4.8	A	0.16	5.1	A
Camperdown Street / Harbour Drive	0.37	16.4	B	0.40	18.4	B	0.60	44.3	D

Notes: DoS = Degree of Saturation, where 1.0 means the intersection is at capacity, LoS = Level of service (average of all arms of the intersection). For priority and roundabout intersections, the DoS, delay and LoS for the worst performing movement is reported.

3.4 Parking supply and demand

The Precinct is currently supported by a large amount of formal and informal parking areas, as illustrated in **Figure 3-3**. There are 863 formal parking and 630 informal parking spaces in the Precinct, making up a total of 1,493 parking spaces, currently concentrated to the north and south of the Precinct (**Figure 3-4**) as shown in **Table 3-6**. To easily compare the existing parking supply and demand with the proposed future Masterplan supply and demand (**Section 4.4**), the future geographical areas of the Masterplan have been used for the existing scenario, although these 'area boundaries' currently do not exist.

SCT Consulting undertook parking surveys across the precinct on a weekday and a Sunday during the January 2022 school holiday period. The Sunday surveys were undertaken when the Harbourside Markets were operating to indicate peak parking demand.

Throughout the Precinct, the parking utilisation during the peak periods was about 35 per cent on the weekday at 11am and about 70 per cent on the Sunday, also at about 11am. This utilisation varied across the precinct, with some parking areas surveyed as full or close to full, especially in the Marina, in the vicinity of the markets and along Jordan Esplanade during the Sunday peak period.

Figure 3-3 Existing parking supply along the Coffs Harbour Foreshore Precinct

Source: SJB, 2024

As seen in **Table 3-6**, the occupancy in proximity to the Marina, the foreshore and the Sunday markets is higher than the occupancy around Corrambirra point during the Sunday peak time.

During the Tuesday, the occupancy rate is lower across all areas except for around the Marina. The reason for the high Tuesday occupancy parking rate around the Marina is likely to be associated with patrons working at the Marina and lunch patrons visiting the Marina.

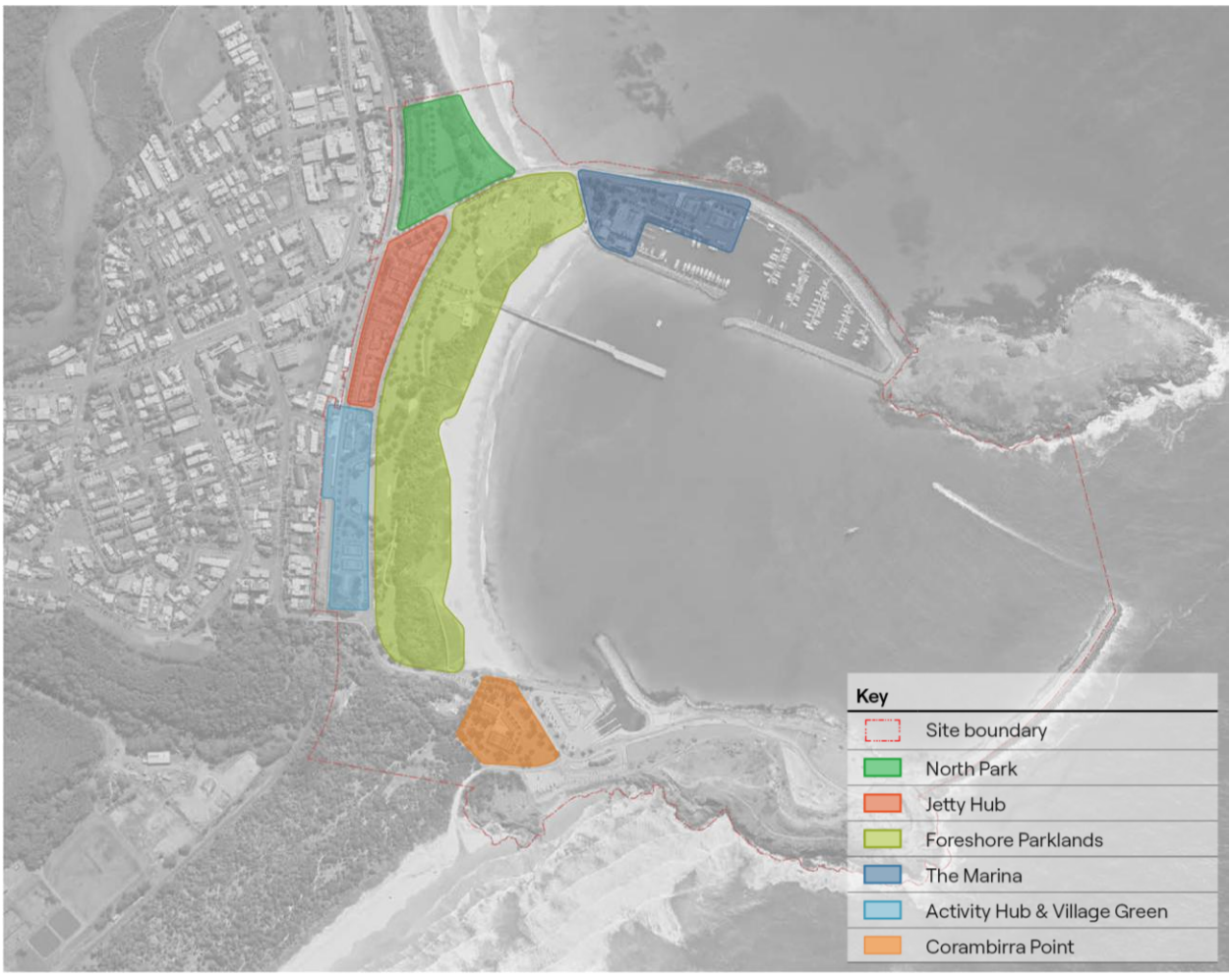
The analysis also shows that there are ample available parking spaces throughout the Precinct even on a Sunday, with the least number of spaces available at the Activity Hub / Village Green (with 23 spaces) and the most at North Park (with 192 spaces).

Table 3-6 Existing parking supply and occupancy by future key area

Future sub-precinct	Formal supply (spaces)	Informal supply (spaces)	Total supply (spaces)	Tuesday (weekday)		Sunday (weekend)	
				Occupancy (%)	Availability (spaces)	Occupancy (%)	Availability (spaces)
North Park	105*	352	**457**	12%	402	58%	192
Jetty Hub	194	178	**372**	21%	294	82%	67
Activity Hub / Village Green	71	67	**138**	8%	127	83%	23
Corrambirra Point	251**	33	**284**	29%	202	51%	139
Marina	242	0	**242**	73%	65	85%	36
Total Foreshore	**863**	**630**	**1,493**	**27%**	**1,090**	**69%**	**458**

* This assumes that the 40 formal parking spaces on the southern side of Marina Drive could be used for parking for North Park patrons in the future
** This includes the 84 formal parking spaces to be delivered with the Coffs Harbour Regional Boat Ramp Stage 2 project
Source: SJB June 2023 and SCT Consulting Parking Surveys January 2022

Figure 3-4 The proposed sub-precincts of the planning proposal

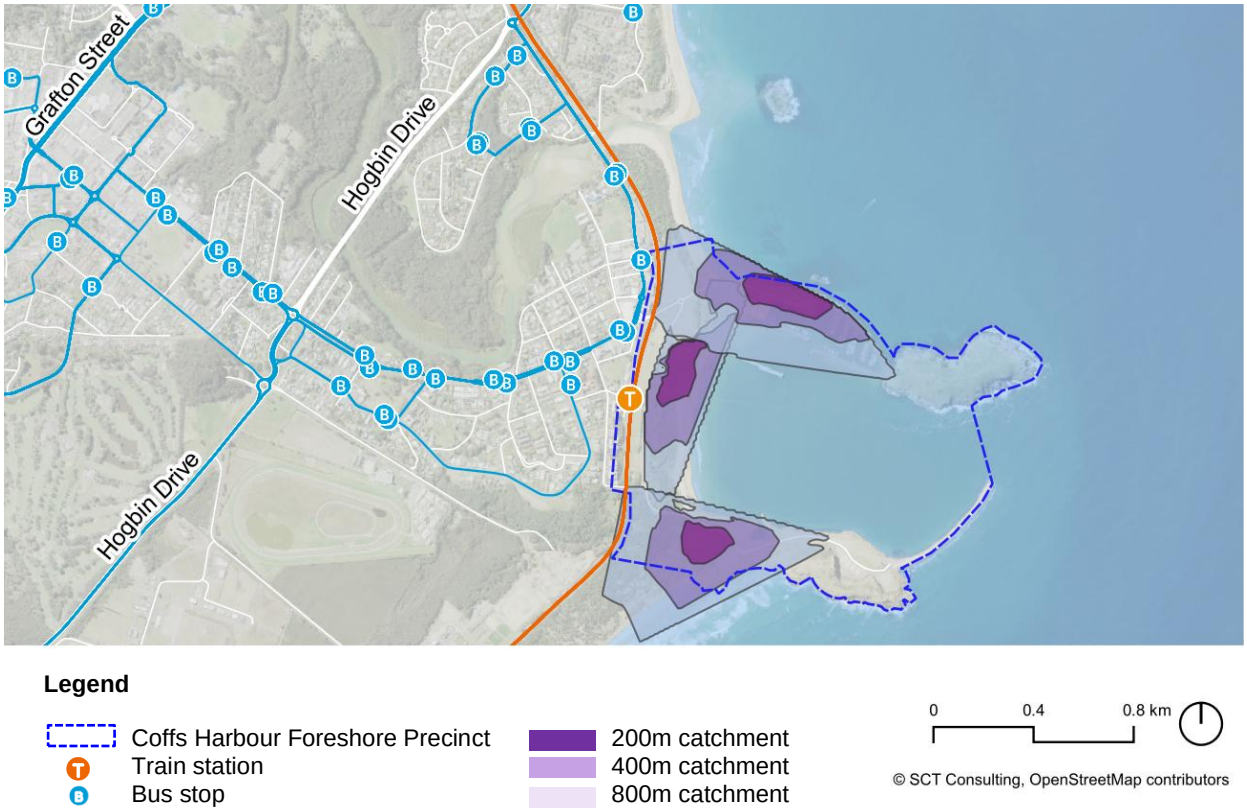


Source: SJB, 2025

3.5 Public transport

The public transport network in proximity to the Precinct consists of both train and bus services as shown in **Figure 3-5**. The walking catchments for 200m, 400m and 800m from three locations (north, middle, and south) around the Precinct are also shown. The catchments suggest that none of the public transport options (bus stops or the train station) are currently accessible within this walking distance, from the Precinct.

Figure 3-5 Existing public transport networks and walking catchments



3.5.1 Bus services

Two bus services (routes 361 and 365) currently run along Harbour Drive and Orlando Street directly west of the Precinct, as summarised in **Table 3-7**. As seen, the frequency of the buses in proximity of the Precinct are currently limited, with one or two services per hour in both directions. Several bus routes (routes 360, 360M and 366) also run along Grafton Street, approximately 3km west of the Precinct, between Park Beach Plaza and Coffs Harbour Hospital (routes 360 and 360M) and Park Avenue (route 366) respectively.

The nearest bus stops to the Precinct only serve route 365 and are located on Harbour Drive, south of Marina Drive and on Harbour Drive, west of Orlando Street. These bus stops are however both located outside of the walking catchments of 400m and 800m of the Precinct. No bus routes currently operate along Jordan Esplanade.

Table 3-7 Bus services in proximity of the Precinct

Route	Origin and destination	Corridor in proximity of Precinct	Average number of services per hour (both ways)		
			AM Peak Hour*	PM Peak Hour*	Weekend Peak Hour*
361	Bellingen to Coffs Harbour	Hogbin Drive / Harbour Drive	<1	<1	-
365	Park Beach Plaza to Coffs Harbour Centre via Coffs Harbour Jetty	Harbour Drive / Orlando Street	1	2	2

* AM and PM peak hours are between 6AM and 9AM and between 3PM and 7PM respectively. The weekend day is between 8AM and 6PM.
Source: https://transportnsw.info/routes/details/north-coast-network (May 2023)

3.5.2 Train services

The Coffs Harbour train station is located just west of Jordan Esplanade, with access provided from Angus McLeod Place. There is however currently no direct pedestrian access link provided from the Precinct area to the train station (across the railway line). The nearest vehicle and pedestrian crossing points across the rail line are provided at a crossing at the same level as the rail line (at grade), at Marina Drive and via a vehicle overbridge at Camperdown Street.

The Coffs Harbour train station is serviced by five different routes that run between Central and Brisbane, Central and Casino and Central and Grafton. The frequency of trains stopping at the Coffs Harbour Train Station is summarised in **Table 3-8**. As seen, only one train service currently run to Sydney and Brisbane respectively each day.

Table 3-8 Train services at the Coffs Harbour Train Station

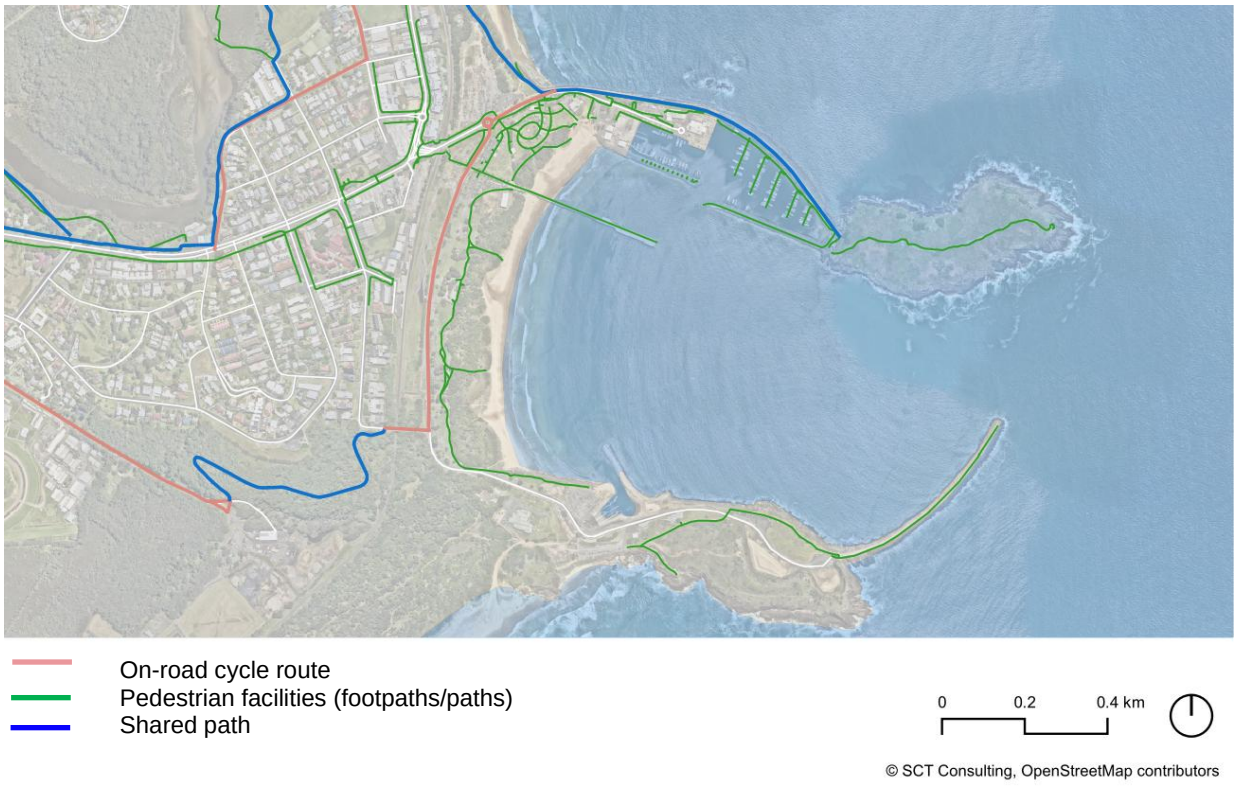
Route	Destination	Number of daily trains
31	Brisbane	1
32, 34, 36	Sydney	1
33	Casino	5

Source: https://transportnsw.info/routes/train (June 2023)

3.6 Active transport

The active transport network in proximity of the Precinct consists of some footpaths, cycle routes and shared paths, as shown in **Figure 3-6**.

Figure 3-6 Existing active transport network



3.6.1 Cycling

Off-road shared paths in proximity of the Precinct are provided south of Camperdown Street and along the northern site boundary parallel to Marina Drive. These off-road routes provide access to the Coffs Harbour town centre via the on-road (mixed with traffic) cycle routes west of the Precinct. Generally, there is a lack of both cycling and walking connectivity across the foreshore to the train station due to the railway line.

3.6.2 Walking

The Precinct and the foreshore area can be accessed by pedestrians at two access points over the railway line, at the northern part of the Precinct, via an at-grade crossing at Marina Drive and at the southern end via a bridge crossing at Jordan Esplanade. There are no footpaths provided along the northern side of Marina Drive between Jordan Esplanade and the beach. There is generally a lack of connectivity across the foreshore to the train station due to the railway line.

Moving through the parklands, there are some existing pedestrian connections and accessible park landing points which help integrate north and south. In surrounding parts of the Precinct, many pedestrian routes share the same network with vehicles, which may be a safety concern.

Two formal crossing opportunities (one zebra crossing and one mid-block refuge at the roundabout) are provided along Marina Drive east of Jordan Esplanade, providing access from the car park areas north of the road to the Foreshore areas and Jordan Esplanade. A zebra crossing on Jordan Esplanade provides access from the railway crossing to off-street parking areas and the Coffs Harbour Jetty.

No footpaths are provided along Jordan Esplanade, but an off-road footpath that connects Marina Drive in the north to the Coffs Harbour Boat Ramp, Gallows Beach and the South Breakwall promenade in the south is provided parallel to Jordan Esplanade. Along this footpath, there are also several connections to the Jetty Beach. Footpaths are provided on both sides of the road along Camperdown Street north of Nile Street, but south of Nile Street however, the provision of footpaths is limited mainly to the narrow railway bridge on the southern side of the road, and to a section of road along the eastern side of Camperdown Street.

The walking catchments (**Figure 3-5**) for 200m, 400m and 800m from three locations (north, middle, and south) around the Precinct suggest that none of the public transport options (bus stops or the train station) are currently accessible via a short walk from the Precinct.

4.0 The State Assessed Planning Proposal

4.1 The Illustrative Masterplan

The State Assessed Planning Proposal is supported by an Illustrative Masterplan which presents a potential development outcome that could be realised at the Precinct. The Illustrative Masterplan and the Precinct boundaries are shown in **Figure 4-1**.

Figure 4-1 The Masterplan and Precinct boundaries

Source: SJB, 2025

The Illustrative Masterplan builds on the extensive community and stakeholder consultation carried out to date and provides further detail in relation to land use and development outcomes sought for the Precinct. It sets out a shared vision for the Jetty Foreshore to become a world-class oceanfront precinct by:

– **Respecting:** Gumbaynggirr, environmental and maritime roots now and into the future

– **Promoting:** Community character, coastal activity and local economic sustainability

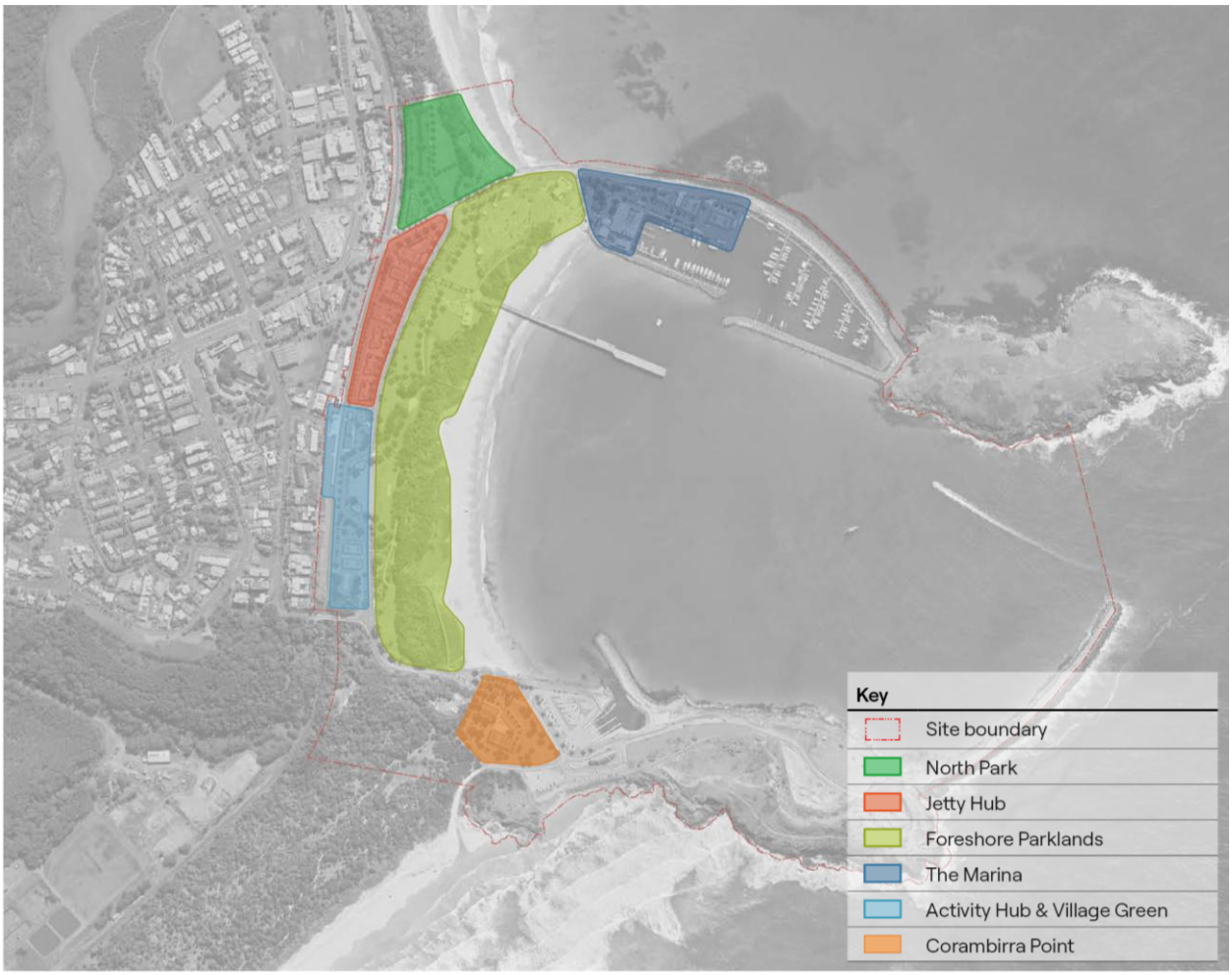
– **Connecting:** People to the water, the water to the city, and the city to the highlands.

4.2 Key areas and land use

The Precinct is located in the Coffs Harbour LGA, approximately 1.5km east of the Coffs Harbour Town Centre, with direct foreshore access to the Pacific Ocean. It encompasses the six sub-precincts North Park, Jetty Hub, Activity Hub / Village Green, Corrambirra Point and The Marina, as seen in **Figure 4-2**. The key land uses within each of the sub-precincts are outlined in **Table 4-1**, and are identified as:

1. **Foreshore Parklands** – with improved amenities, proposed new board walk and nature-based playground.
2. **The Marina** – An active marina revitalised to accommodate local marine based businesses that reflect their regional importance.
3. **North Park** – Functional open space with recreational courts and formalised parking.
4. **Jetty Hub** – A hub of residential and tourist accommodation supporting activation, tourism and regional attraction located adjacent to the current Jetty Walkway, with massing capped at 6 storeys stepping down in scale when closer to public areas.
5. **Activity Hub and Village Green** – An active village green that delivers increased public open space connected to the existing foreshore parklands and may include family-friendly food and beverage, community uses and club houses or facilities to support events. A local business activity zone connected to the rail station.
6. **Corambirra Point** – A new regional tourist destination on the site of the former Deep Sea Fishing Club site including publicly accessible cafes and restaurants, a function space, activity centre and tourist accommodation.

Figure 4-2 Proposed sub-precincts of the Illustrative Masterplan



Source: SJB, 2025

Table 4-1 Sub-precincts and key proposed land use

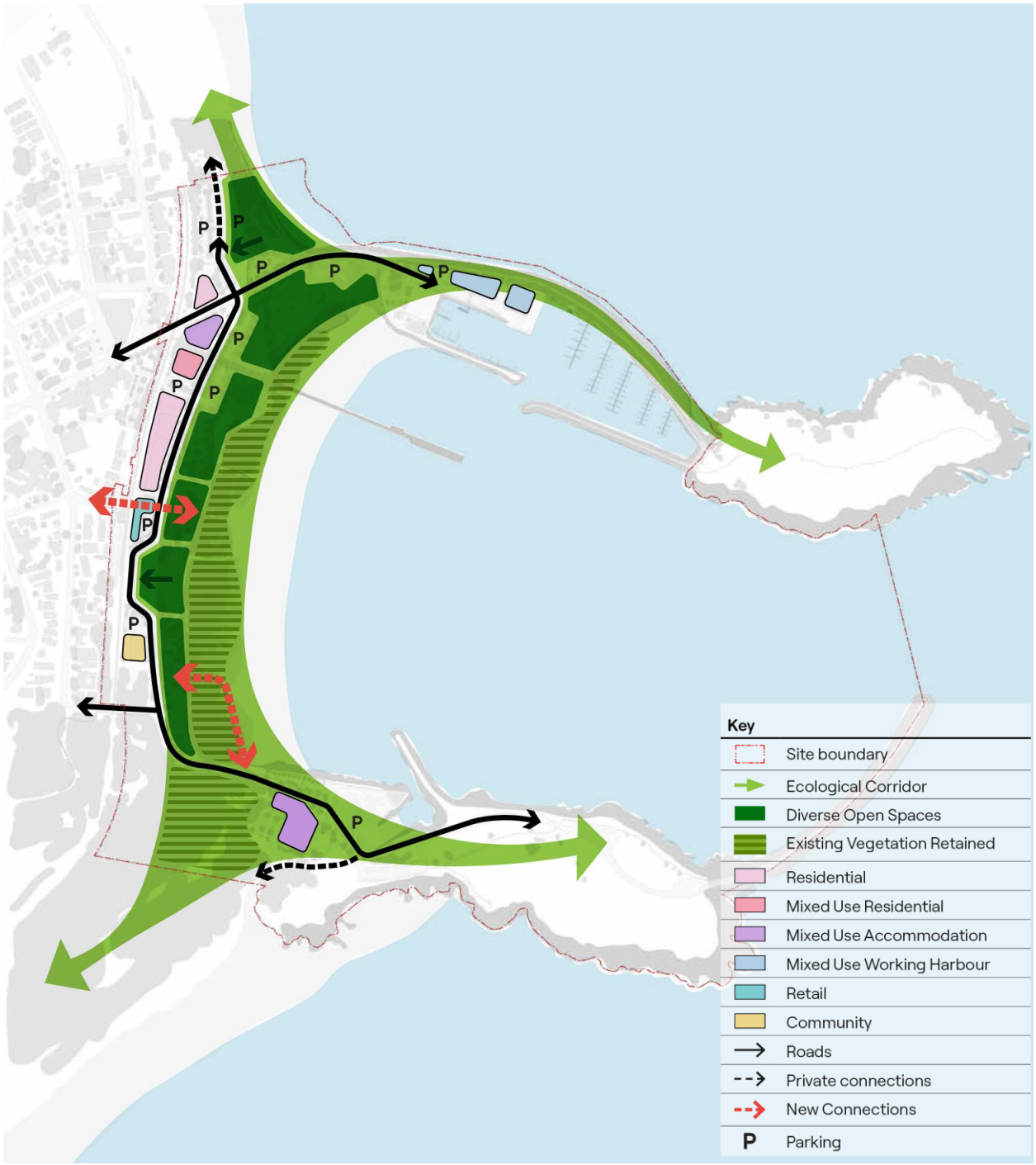
Key area and key land uses	Key area and key land uses
1. North Park	**4. Corrambirra Point (Deep Sea Fishing)**
New public spaces; Recreation areas, picnic facilities	Regional tourist destination; hotel/accommodation
Max 6 storeys accommodation	Function facilities and F&B
Formalised parking near train line	Improved connection to foreshore via beach side board-walk
New connections for access and servicing	Bush walk and storytelling experiences
2. Jetty Hub	**5. The Marina**
Iconic mixed-use development	Working harbour
Max 6 storeys by Jetty Walk	New and improved Fish Co-op regional destination
4-6 storey infill accommodation to south	Commercial and F&B
Appropriate car parking across the zone	On-grade car parking screened by retail
Additional options for local business use	Improved access and car parking
3. Activity hub and Village Green	**6. Foreshore Parklands**
Local shops and F&B by station	Improved amenities and connectivity
Bridge over railway	Community building will be new attraction
Village Green community space	Natural themed play adjacent to the Activity Hub
Community buildings in the Green	Passive recreation
Supported by car parking	Beach board walk
Connected to existing foreshore	North-south shared pathway
	Fast on-road cycleway not within the parkland
	Reduced parking footprint; more open space

Source: Coffs Foreshore Draft Urban Design Report (SJB, 2024)

4.3 Proposed structure plans and transport improvements

The proposed structure plan is shown in **Figure 4-3**. The plan provides improved active transport connectivity and open space by establishing an integrated network of pedestrian and cycling connections, connecting through a series of diverse parklands. Several key open spaces are formed around existing and new focal points within the Parklands, with a core focus on retaining existing vegetation and a strong connection to Country through landscape and narrative elements.

Figure 4-3 Proposed structure plan



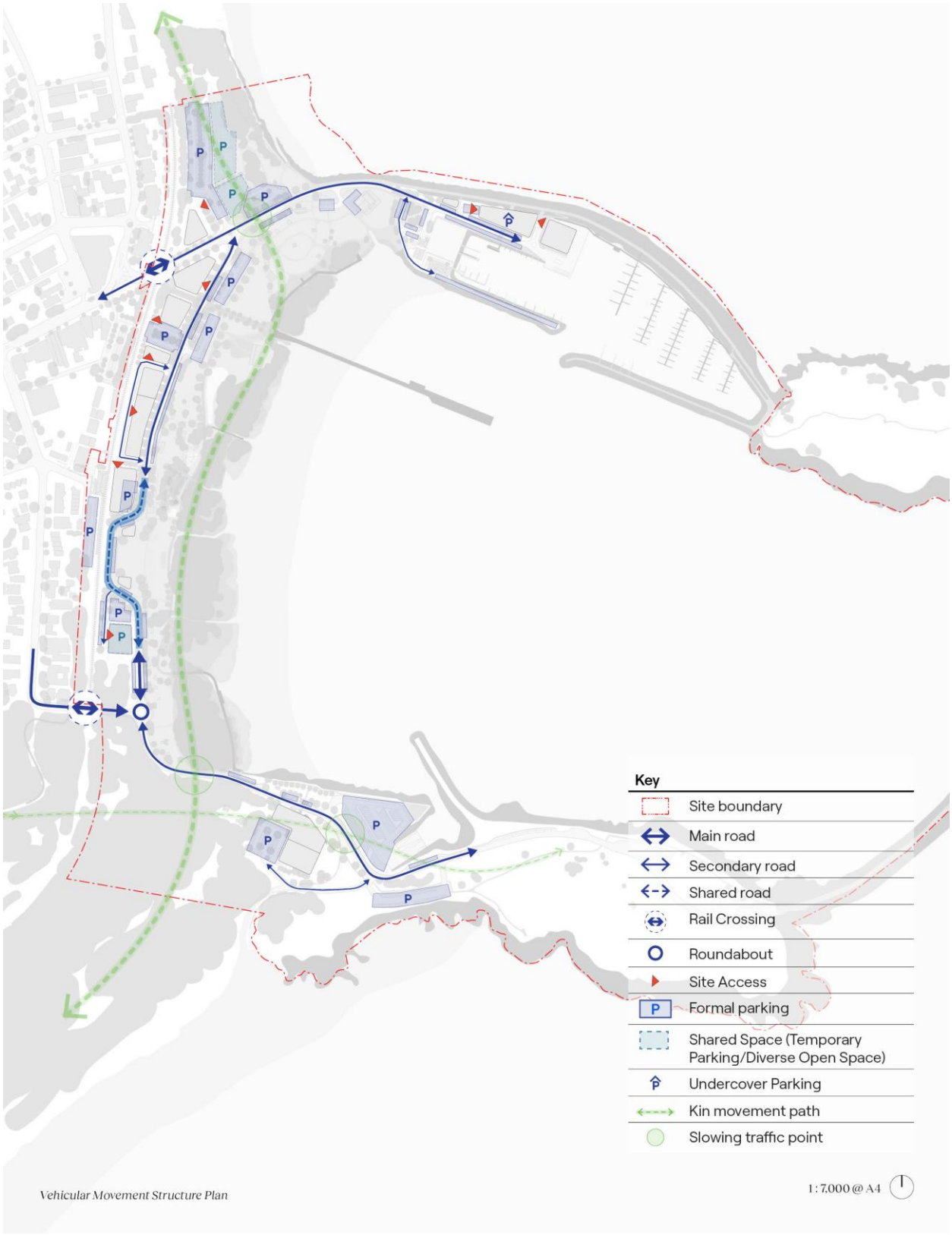
Source: SJB, 2025

4.3.1 Vehicular movement structure plan

The proposed vehicular movement structure plan (**Figure 4-4**) will introduce several transport improvements for the Precinct, including:

- Improve configuration, efficiency, and integration of Jordan Esplanade as the main north-south vehicular connector through the precinct. This includes upgrading the existing Camperdown Street / Jordan Esplanade intersection to a roundabout, to improve the safety and efficiency of this intersection.
- A bend in Jordan Esplanade at the Village Green is introduced to slow traffic movement around the proposed amphitheatre. This will be a raised, shared vehicle / pedestrian thoroughfare.
- Ensure that carpark and site entrances cause a minimal disturbance to pedestrian movement, prioritising access on secondary or private roads rather than Jordan Esplanade where possible.
- Increase and improve public car parking including formalising ad-hoc gravel parking at North Park and dispersing accessible parking across the site. Informal parking to utilise appropriate materials/grass so that the areas may also be used for passive or casual sports use.
- Distribute new and improved parking across the precinct alongside Jordan Esplanade to provide parking adjacent to all public spaces.
- Use dual naming for Jetty Foreshore and surrounding streets for both colonial and Aboriginal names.
- Provide for kin movement via animal crossings for roads to allow local fauna to inhabit all places and move freely.
- Ensure stormwater run-off from car parks is captured, stored and filtered in proposed water basins prior to being discharged to the ocean.

Figure 4-4 Proposed vehicular movement structure plan



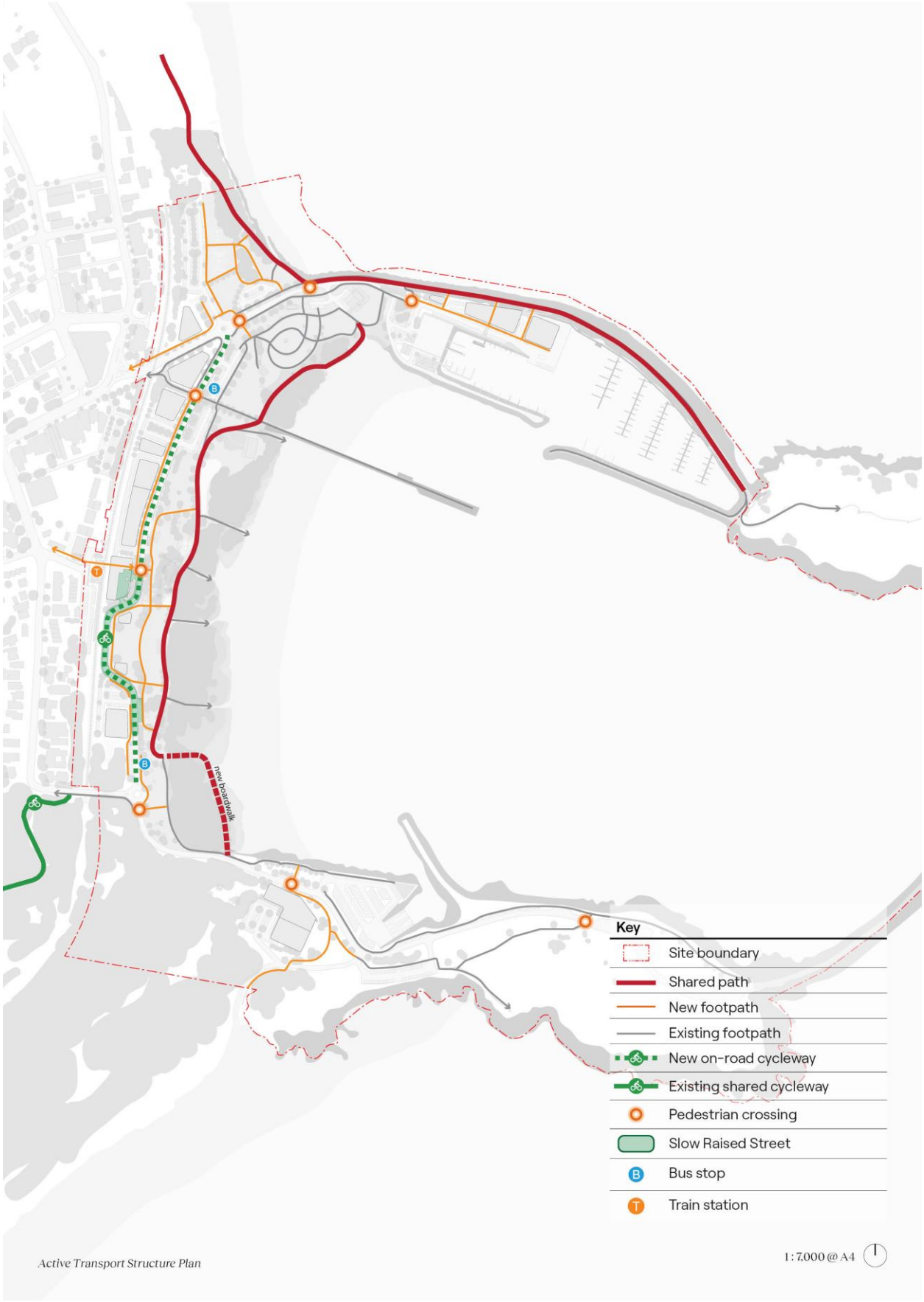
Source: SJB, 2025

4.3.2 Active transport structure plan

The proposed vehicular movement structure plan (**Figure 4-5**) will introduce several active transport improvements to the Precinct, including:

- Enhance connectivity between the precinct and the train station by introducing a pedestrian overpass across the railway at the site of the proposed Activity Hub. 24/7 access must be provided in a safe environment.
- Encourage passive, recreational cycling by introducing a shareway that extends throughout the precinct, hugging the tree line in the parklands. This shareway will accommodate slower moving cyclists alongside pedestrians.
- Connect into existing shareways and cycling networks to extend movement to and from the precinct.
- Provide dedicated cycleways along Jordan Esplanade for faster moving cyclists in a safer environment. Road painting and line-marking will provide clear delineation between spaces for cyclists and vehicles.
- Provide a raised pedestrian / vehicle shareway around the Village Green. This surface will be clearly legible as a pedestrian priority area through the use of plaza-style paving, bollards, signage, and speed management devices such as speed bumps and rumble strips.
- Limit access through culturally significant locations such as Happy Valley and Fergusons Cottage to protect these important Aboriginal cultural sites.
- Minimise impact of foot traffic on dune planting areas by providing legible but low-key walking paths from parkland areas to the foreshore.
- Develop wayfinding signage that promotes Gumbaynggirr culture and an opportunity to educate the local community in areas of movement.
- Ensure all locations across the Foreshore are accessible and equitable, creating an inviting space for all people.

Figure 4-5 Proposed active transport structure plan



Source: SJB, 2025

4.4 Parking provision and requirements

4.4.1 Proposed on-street public parking provision

The Precinct is currently supported by a large amount of formal and informal parking areas, as described in **Section 3.4**. There are currently 863 formal parking and 630 informal parking spaces provided in the precinct, making up a total of 1,493 existing parking spaces across the entire Precinct. Whilst not within the precinct area of this plan, there is a plan for a formal parking area at the area known as the Whale Tail on the western side of the railway line, adjacent to Marina Drive. This could accommodate an additional 93 parking spaces in the long term but has not been included for the purpose of this analysis.

With the implementation of the Illustrative Masterplan, changes are proposed to the existing public on-street parking provision throughout the Precinct, as seen in **Figure 4-6**. Overall, there will be an increase and improvement of public car parking including formalising some of the existing ad-hoc gravel parking and dispersing accessible parking across the Precinct. With the implementation of the Illustrative Masterplan, the number of formal and informal parking spaces will be 1,313 and 283 spaces respectively, resulting in a total of 1,596 public parking spaces. This equates to an increase of 103 parking spaces, or seven per cent, compared to the existing public parking supply. The proportion of formal parking spaces will however increase more significantly, by 52 per cent (from 863 to 1,313 spaces), with the introduction of the Illustrative Masterplan. The public parking provision is also more spread out across the key areas of the Precinct.

The design objectives for the future parking of the Illustrative Masterplan are:

– Redistribute parking to be primarily formal to enable more efficient parking layouts.

– Increase and improve public car parking including formalising ad-hoc gravel parking at North Park and dispersing accessible parking across the site. Informal parking to utilise appropriate materials/grass so that the areas may also be used for passive or casual sports use.

– Distribute new and improved parking across the precinct alongside Jordan Esplanade to provide parking adjacent to all public spaces.

– Remove some of the existing parking, east of Jordan Esplanade, close to the community facility, returning that area to passive parkland and redistributing parking nearby.

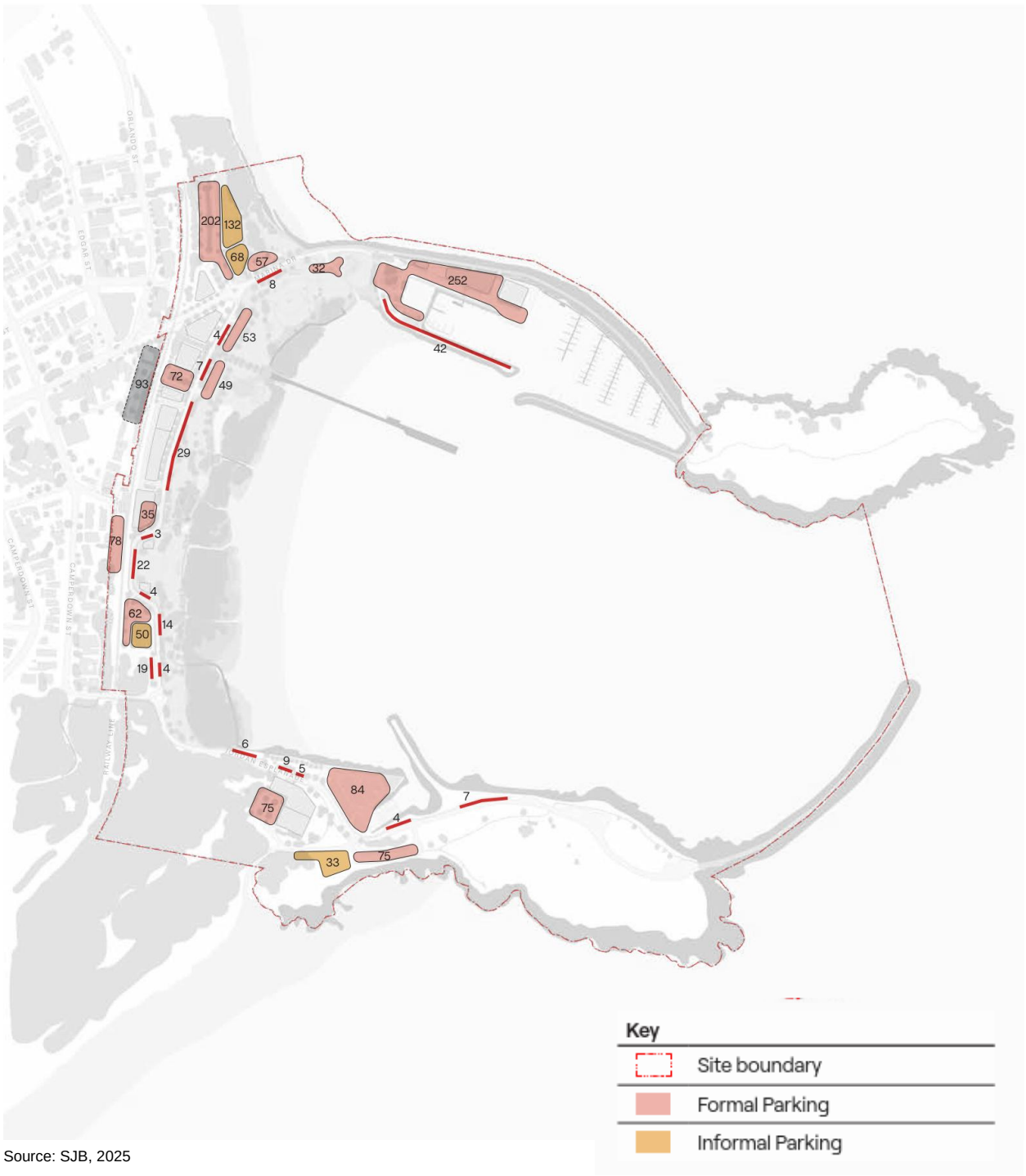
– Utilise staging sites for temporary parking whilst the precinct develops.

– Ensure that Happy Valley is well-buffered from the new formalised parking area in North Park through dense vegetation whilst providing private access from the carpark to Happy Valley.

– Design parking to be embedded in the landscape, using appropriate planting and surface materials that enable a connection with Country and correspond to the local character of the precinct.

– Private parking to be provided in below ground parking for each building as required, in accordance with parking rates appropriate to their land use and setting.

Figure 4-6 On-street parking provision after the implementation of the Illustrative Masterplan



Source: SJB, 2025

A comparison between the existing on-street parking provision and the proposed on-street parking provision with the Illustrative Masterplan is shown in **Table 4-2**. As seen, there will be more parking with the Illustrative Masterplan at all areas except for the Jetty Hub, where there will be 158 parking spaces less than the existing scenario.

Table 4-2 Existing and proposed (Illustrative Masterplan in place) public parking supply by key area

Areas	Existing on-street parking supply (spaces)			On-street parking supply with Illustrative Masterplan (spaces)			Change in total supply (spaces)	Available spaces (with the Illustrative Masterplan)
	Formal	Informal	Total	Formal	Informal	Total		
North Park	105*	352	**457**	299	200	**499**	+42	234
Jetty Hub	194	178	**372**	214	0	**214**	-158	-91
Activity Hub / Village Green	71	67	**138**	241	50	**291**	+153	176
Corrambirra Point	251**	33	**284**	265	33	**298**	+14	153
Marina***	242	0	**242**	294	0	**294**	+52	117
Total Foreshore	**863**	**630**	**1,493**	**1,313 (+52%)**	**283 (-55%)**	**1,596 (+7%)**	**+103**	**590**

* This assumes that the 40 formal parking spaces on the southern side of Marina Drive could be used for parking for North Park patrons
** This includes the 82 formal parking spaces to be delivered with the Coffs Harbour Regional Boat Ramp Stage 2 project
*** Peak demand for Marina is for the Tuesday because most future patrons are expected to park at the Marina during weekdays predominantly.
Source: SCT Consulting Parking Surveys January 2022 (for occupancy)

As described in **Section 3.4**, occupancy surveys were undertaken across the precinct on a weekday and a Sunday during the January 2022 school holiday period, with the Sunday surveys being undertaken when the Harbourside Markets were operating, to indicate peak parking demand. Applying the same occupancy rates as surveyed for the existing on-street parking supply, there would be a shortfall in the Jetty Hub precinct of 91 available parking spaces, as shown in **Table 4-2**, with the Illustrative Masterplan in place. However, the shortfall in demand in this area can be met by the additional on-street public parking that are re-distributed to the neighbouring areas in North Park and Activity Hub.

Overall, there will be an increase of seven per cent (103 spaces) in public parking supply with the Illustrative Masterplan, compared to the existing public parking supply.

4.4.2 Parking requirements and provision (off-street parking)

Parking requirements

Coffs Harbour Development Control Plan (DCP) 2015 has been used to determine the parking requirements for the Precinct for all proposed land uses, as seen in **Table 4-3**. The DCP however lists a range of parking rates that could apply to the Food and Beverage (F&B) component, being:

– 1 space per 6.6m^2 which applies to F&B parking rates

– 1 space per 13.2m^2 which applies to F&B parking rates (when it is ancillary to other uses)

– 1 space per 25m^2 which applies to food and drink premises (which includes a restaurant / café, take away food and drink premises, a pub, a small bar) with consumption on or off the premises.

The intent of the additional F&B offer is to support the additional activities and visitors attracted to the foreshore precinct. Hence it is expected most of the F&B customers would either be ancillary to the public domain and retail uses in the foreshore area. Because of this, a reduced rate of 1 space per 13.2m^2 (which is the middle rate of all three rates proposed in the DCP) has been adopted, based on the DCP rate of F&B as an ancillary use.

The 1 space / 13.2m^2 would also be justified by considering:

– the Coffs Harbour's Movement and Place (Transport) Strategy's goals to improve active and public transport and carefully managing parking.

– the provision of active transport links and improved public transport facilities and services as part of the Illustrative Masterplan.

– the likely sharing of parking facilities with those provided for retail uses and the increased provision public parking facilities.

Table 4-3 Parking requirements in the Coffs Harbour DCP 2015

Type of land use	Number of spaces required (DCP requirement)	Applies to land use in Illustrative Masterplan
Residential		
Less than 100m^2	1 space per dwelling	Residential land use (including visitors)
More than100m^2	2 spaces per dwelling	
Visitor spaces	1 space per 5 dwellings	
Hotel / accommodation		
Unit	1 space per unit	Accommodation land use
Employee	1 space per 2 employees	
-	1 employee per 10 units	
Function centre (as part of hotel)		
Function centre	1 space per 13.2m^2	Function centre at Corrambirra Point
Food & Beverage (F&B) (ancillary to other uses)		
Food and beverage	1 space per 13.2m^2 *	F&B component of Retail / F&B use
Neighbourhood shops		
Retail / neighbourhood shops	1 space per 25m^2	Retail component of Retail / F&B use
Community and office		
Community use	1 space per 40m^2	Community use at Activity hub / Village Green and Corrambirra Point
Business		
	1 space per 40m^2 GBA	The Working Harbour (at the Marina)
Basement car parking rate (standard assumption)		
	1 space per 40m^2 GBA	Basement car parking

Source: Coffs Harbour DCP 2015

* Coffs Harbour DCP lists a parking rate of 1 space per 6.6 sqm, 1 space per 13.2 sqm or 1 space per 25 sqm

The parking requirements based on the proposed approximately land use GFA for the Illustrative Masterplan are outlined in **Table 4-4**. As seen, the number of total parking spaces required is approximately 1,130 spaces for the entire Precinct.

Table 4-4 Parking requirements based on DCP requirements

Type of land use	Proposed total GFA (m2)	Yield (number of units/rooms)	Required parking spaces
Residential	21,200	241	290
Residential visitors	-		48
Hotel / accommodation	11,500	256	268
Retail / Food & Beverage	5,000		290
Commercial	5,000		125
Function	1,000		76
Community	1,300		33
Total	**45,000**	**-**	**1,130**

Parking provision

Based on the DCP parking rates, a total of approximately 1,130 parking spaces will be required to support the approximate future GFAs of the Illustrative Masterplan. Based on initial feasibility studies, approximately 830 off-street parking spaces can be provided throughout the entire Precinct as part of the Illustrative Masterplan, either as basement, undercroft or at-grade parking.

When considering the additional formal spaces provided as well as the occupancy rates of the on-street parking, there will be 590 available on-street parking spaces available throughout the Precinct once the Illustrative Masterplan is implemented during the peak periods. This will cover the shortfall of the 300 required off-street parking spaces.

With approximately 300 off-street spaces required to support the retail / food and beverage uses which are most likely to be linked trips with other visiting purposes to the precinct, it is expected these customers would be parking on the surrounding street network to visit multiple areas within the precinct. Hence, we can confirm that the combined on-street and off-street parking provision proposed can support the current peak activities as well as the proposed development as part of the Illustrative Masterplan.

5.0 Trip generation and distribution

5.1 Vehicle trip generation and distribution

5.1.1 Trip generation

Peak hour vehicle trip generation has been considered for the Illustrative Masterplan based on TfNSW's Guide to Traffic Generating Developments (Oct 2002) and Updated traffic surveys (TDT 2013/04a), as summarised in **Table 5-1**.

Due to the location of the Precinct, it is likely that some trips generated by the non-residential and non-hotel components, such as the restaurants / cafes, retail, community use and function use, would be part of one trip. These trip types are referred to as multi-purpose or linked trips. To account for this, the trip generation for the non-residential and non-hotel uses have been reduced by 25 per cent. This is a standard practice when undertaking traffic assessments and is not unique to this planning proposal.

Table 5-1 Traffic trip generation rates based on land use

Land Use	Trip generation rates			Assumption
	Weekday AM	Weekday PM	Weekend peak	
Apartments (trips/unit)	0.39	0.22	0.39	Weekend peak trip generation for apartments is assumed to equal the weekday AM peak hour trip generation rate.
Hotel/motel (trips/rooms)	0.2	0.4	0.4	Based on Motel PM peak hour trip rate, with AM peak hour slightly reduced.
Commercial (trips/100m^2)	0.99	0.96	0	Based on the average of Newcastle and Wollongong Office block trip rates for the AM and PM peak hours. Given offices are closed on weekend no commercial trips are assumed for the weekend peak hour.
Restaurant Original (trips/100m^2)	5	5	5	Land use considered as part of multi-purpose trips, hence original trip rate modified and reduced by 25 per cent.
Restaurant Modified (trips/100m^2)	3.75	3.75	3.75	
Retail Original (trips/100m^2)	2.76	4.6	10.7	AM trip rate is assumed as 60 percent of the PM rate.
Retail Modified (trips/100m^2)	2.07	3.45	8.03	Land use considered as part of multi-purpose trips, hence original trip rate modified and reduced by 25 per cent.
Community use Original (trips/100m^2)	5	5	5	The Guide to Traffic Generating Developments does not provide trip rates for Community Use and Functions, hence the trip generation for restaurants is considered suitable for the Community use and Function land use.
Community use Modified (trips/100m^2)	3.75	3.75	3.75	Land use considered as part of multi-purpose trips, hence original trip rate modified and reduced by 25 per cent.

Source: RMS Guide to Traffic Generating Development v2.2 (2002) and Technical Direction Updated traffic surveys (2013)

The number of vehicle trips generated by the full delivery of the Illustrative Masterplan based on the trip generation rates presented in **Table 5-1** are shown in **Table 5-2**. In total, the Illustrative Masterplan is expected to generate **426, 469 and 577 trips** during the AM, PM, and weekend peak hours respectively.

Table 5-2 Traffic generation for the proposed development

Type of land use	Proposed total GFA (m2)	Yield (number of units/rooms)	Number of trips (per hour)		
			Weekday AM	Weekday PM	Weekend peak
Residential	21,200	241	94	53	94
Hotel	11,500	256	51	102	102
Retail / F&B	5,000	-	52	86	201
Commercial	5,000	-	50	48	0
Function	1,000	-	38	38	38
Community	1,300	-	49	49	49
Total	**45,000**	**-**	**426**	**469**	**577**

Source: RMS Guide to Traffic Generating Development v2.2 (2002) and Technical Direction Updated traffic surveys (2013) and SJB 2024

5.1.2 Trip distribution

Trips calculated from the Illustrative Masterplan is based on a combination of factors, including the peak period, the Illustrative Masterplan key areas, their land use, and existing traffic distribution at key intersections. The in/out split assumed for the number of trips entering and exiting the precinct is presented in **Table 5-3**. The split used is a standard practice when undertaking traffic assessments and is not unique to this planning proposal. It is also guided by the TfNSW's Guide to Traffic Generating Developments (Oct 2002) and Updated traffic surveys (TDT 2013/04a).

Table 5-3 In and out trip distribution for trips generated by the Illustrative Masterplan

Peak Period	Residential (In:Out)	Retail (In:Out)	Restaurant (In:Out)	Hotel (In:Out)	Community (In:Out)	Function (In:Out)	Commercial (In:Out)
AM	10:90	50:50	50:50	50:50			90:10
PM	90:10		80:20				10:90
Weekend	50:50		50:50				50:50

In addition to the above assumptions, trip distribution for certain road segments is made using the following assumptions:

- **North Park / Jetty Hub**: all in/out trips are estimated to enter and exit from Marina Drive
- **Activity Hub:** 50 per cent trips to enter/exit from Marina Drive and 50 per cent from Camperdown Street via Jordan Esplanade
- **Corrambirra Point:** 30 per cent trips to enter/exit from Marina Drive and 70 per cent from Camperdown Street via Jordan Esplanade
- **The Marina:** 90 per cent trips to enter/exit from Marina Drive and 10 per cent from Camperdown Street via Jordan Esplanade
- **Marina Drive / Orlando Street / Harbour Drive intersection:** based on existing traffic counts, 40 per cent of traffic is expected to enter the precinct from the west via Harbour Drive and 60 percent from the north via Orlando Street. This is observed to be reversed for traffic exiting the precinct, with 60 per cent using Harbour Drive and 40 per cent exiting via Orlando Street. This movement split is considered suitable for the future traffic flows generated by the Illustrative Masterplan, and hence adopted for traffic distribution.

5.2 Public and active transport demand

As described in **Section 3.2**, most people traveling to get to the statistical (SA2) area of Coffs Harbour South as well as leaving the area for work do so by car, either as driver or passenger, with 87 per cent and 81 per cent traveling by car in and out respectively. It also shows that only a small proportion travel by either active or public transport, with three per cent (one per cent public transport and two per cent active transport), and seven per cent (two per cent public transport and five per cent active transport), in and out respectively.

The impact of the public and active transport demand on the surrounding road network is further described in **Sections 6.3** and **6.4**.

5.2.1 Public transport demand

Based on the existing journey-to-work data in **Section 3.2**, only one and two per cent will travel to and from Coffs Harbour respectively by public transport, while the majority will be car trips. Based on the vehicle trips generated by the Illustrative Masterplan (426, 469 and 577 in the AM, PM and weekend peak hours respectively), this would equate to approximately five, 10 and 15 patrons arriving by public transport in the AM, PM and weekend peak hours respectively. Since JTW data is not available on weekends, the higher proportion (of two per cent) is assumed for the weekend peak hour.

The Illustrative Masterplan's design principles include creating a connected and accessible community and one of the design moves aims to create activity nodes near the station to further connect the Foreshore to the Jetty hub. In addition, future pedestrian links are expected to improve access to both train and bus services. These improvements are likely to encourage a shift towards public transport in the future once the Illustrative Masterplan is implemented. Assuming a shift to five per cent of public transport with the Illustrative Masterplan in place would result in approximately 20, 25 and 30 public transport trips during the AM, PM and weekend peak hours respectively.

5.2.2 Active transport demand

Based on the existing journey to work data in **Section 3.2**, two and seven per cent will travel to and from Coffs Harbour respectively by active transport, while the majority will be car trips. Based on the vehicle trips generated by the Illustrative Masterplan (426, 469 and 577 in the AM, PM and weekend peak hours respectively), this would equate to approximately 10, 30 and 40 active transport trips (walking only or cycling) being generated in the AM, PM and weekend peak hours respectively. Since JTW data is not available on weekends, the higher proportion (of seven per cent) is assumed for the weekend peak hour.

Walking trips within the Precinct are expected to mainly be generated by patrons accessing the Precinct by car, and then walking within the Precinct. Assuming an occupancy rate of 1.2 people in each car, this would equate to approximately 510, 560 and 690 trips being generated by the Illustrative Masterplan, in addition to the walking only and cycling trips.

As described in **Section 4.3**, several walking and cycling improvements will be introduced in the Precinct as part of the Illustrative Masterplan. These improvements are expected to encourage a further shift towards cycling once the Illustrative Masterplan is implemented. Assuming three per cent of the active trips would be cycling, with the Illustrative Masterplan in place, this would result in approximately 15, 15 and 20 cycling trips during the AM, PM and weekend peak hours respectively.

6.0 Transport and parking impact assessment

6.1 Road network impacts

To understand the impact on the surrounding road network because of additional traffic associated with the delivery of the Illustrative Masterplan, an impact assessment compared to the existing road network (as presented in **Section 3.3**) was undertaken.

The impact assessment has been undertaken for a future year of 2033, with a background growth (based on historic growth data) applied to the existing (2023) traffic flows.

6.1.1 Background traffic growth

A background growth rate of 0.9% per annum compounded annually over 10 years was used to calculate the background traffic in 2033. This scenario is considered as the Future Year (FY) Base. Trips generated by the Illustrative Masterplan are then applied to the FY base traffic volume, including the background traffic growth.

The intersection performance of all intersections, with the applied background growth, is shown in **Table 6-1**, while detailed SIDRA modelling results are presented in **Appendix B**. The results indicate that all intersections under the weekday AM and PM peak hour are forecast to perform at LoS B or better with the background traffic growth, except for the Camperdown Street / Harbour Drive intersection which will perform with a LoS E during weekends. The LoS E for this intersection is only experienced for two movements, being right turn from the south (Camperdown Street) and the right turn from the north (Hood Street), and for a small number of vehicles only (36 and six vehicles for the right turn from the south and north respectively).

Similar to existing conditions, the weekend demand is generally higher than weekdays, resulting in slightly greater delays compared to weekday intersection performance.

Table 6-1 Intersection performance results with background traffic growth

Intersection	Weekday AM Peak (9AM-10AM)			Weekday PM Peak (5.45PM-6.45PM)			Sunday Peak (10AM-11AM)		
	DoS	Delay (secs)	LoS	DoS	Delay (secs)	LoS	DoS	Delay (secs)	LoS
Orlando Street / Collingwood Street	0.41	10.6	A	0.37	10.2	A	0.61	12.8	A
Orlando Street / Marina Drive / Harbour Drive	0.24	6.6	A	0.21	6.2	A	0.52	10.7	A
Marina Drive / Jordan Esplanade	0.29	11.7	A	0.28	11.6	A	0.62	17.6	B
Camperdown Street / Jordan Esplanade	0.11	5.6	A	0.12	5.6	A	0.22	8.0	A
Jetty Beach House carpark / Jordan Esplanade	0.12	5.4	A	0.13	5.5	A	0.27	10.6	A
Gallows Beach carpark / Jordan Esplanade	0.07	4.6	A	0.07	4.6	A	0.15	5.1	A
Gallows Beach carpark / Jordan Esplanade	0.06	4.8	A	0.06	4.8	A	0.15	5.1	A
Camperdown Street / Harbour Drive	0.40	18.5	B	0.44	21.0	B	0.66	66.5	E

6.1.2 Future year with the Illustrative Masterplan

As outlined in **Section 5.0**, the Illustrative Masterplan will generate an **increase in trips** compared to the existing situation. The forecast trips with the Illustrative Masterplan in the peak hours include:

– **426 trips** per weekday AM peak hour

– **469 trips** per weekday PM peak hour

– **577 trips** per weekend peak hour

The intersection performance of all intersections, with the trips generated by the Illustrative Masterplan, is shown in **Table 6-2**, while detailed SIDRA modelling results are presented in **Appendix C**.

Except for the intersection of Camperdown Street / Jordan Esplanade, all intersections layouts assessed are based on existing layouts. The intersection of Camperdown Street / Jordan Esplanade will be upgraded to a roundabout, as part of the upgrade of Jordan Esplanade (which forms the main north-south vehicular connector through the precinct as part of the Illustrative Masterplan), to improve the safety and efficiency of this intersection.

Table 6-2 Intersection performance results with the Illustrative Masterplan traffic flows

Intersection	Weekday AM Peak (9AM-10AM)			Weekday PM Peak (5.45PM-6.45PM)			Sunday Peak (10AM-11AM)		
	DoS	Delay (secs)	LoS	DoS	Delay (secs)	LoS	DoS	Delay (secs)	LoS
Orlando Street / Collingwood Street	0.48	11.3	A	0.48	10.7	A	0.70	15.2	B
Orlando Street / Marina Drive / Harbour Drive	0.42	9.5	A	0.44	9.8	A	0.81	20.2	B
Marina Drive / Jordan Esplanade	0.37	16	B	0.42	12.6	A	0.87	33.5	C
Camperdown Street / Jordan Esplanade [1]	0.19	10	A	0.22	10	A	0.46	13	A
Jetty Beach House carpark / Jordan Esplanade	0.51	6	A	0.17	6	A	0.30	13	A
Gallows Beach carpark / Jordan Esplanade	0.09	5	A	0.09	5	A	0.19	5	A
Gallows Beach carpark / Jordan Esplanade	0.06	5	A	0.07	5	A	0.16	5	A
Camperdown Street / Harbour Drive	0.49	28	B	0.53	37.4	C	1.13	349.5	F

1. The Camperdown Street / Jordan Esplanade intersection has been upgraded to a roundabout as part of the Illustrative Masterplan.

The results indicate that all intersections under the weekday AM and PM and weekend peak hours are forecast to perform at LoS C or better with the Illustrative Masterplan in place, except for the intersection of Camperdown Street / Harbour Drive, which will perform with a LoS F during the weekend.

For the Camperdown Street / Harbour Drive intersection, the through and right turn movements from Camperdown Street and Hood Street are forecast to perform at LoS F under the weekend peak period with the Illustrative Masterplan in place, compared to a LoS E for the right turn movements without the Illustrative Masterplan in place. All other movements at the intersection are expected to perform at LoS B or better.

It is noted that right and through movements are minor, limited to 43 vehicles per hour from Camperdown Street and eight vehicles per hour from Hood Street. None of these trips were however generated by the Illustrative Masterplan, as the number of vehicles without the Illustrative Masterplan for these movements are also 43 and eight vehicles from Camperdown Street and Hood Street respectively. The results indicate that the poor performance of the right and through movements from Camperdown and Hood Streets are not a direct result of additional Illustrative Masterplan traffic flows on these movements. No infrastructure upgrades are therefore proposed to this intersection, and any potential future upgrades required are not a result of the impact of the planning proposal.

Similar to existing conditions, the weekend demand is generally higher than weekdays, resulting in slightly greater delays compared to weekday intersection performance.

6.2 Parking impacts

As described in **Section 4.4**, the introduction of the Illustrative Masterplan will result in the provision of 1,596 on-street public parking spaces, which is an increase of 103 parking spaces (or seven per cent), compared to the existing public parking supply. The proportion of formal parking spaces will however increase more significantly, by 52 per cent (from 863 to 1,313 spaces), with the introduction of the Illustrative Masterplan.

Based on the DCP parking rates, a total of approximately 1,130 parking spaces will be required to support the approximate future GFAs of the Illustrative Masterplan. Based on initial feasibility studies, approximately 830 off-street parking spaces can be provided throughout the entire Precinct as part of the Illustrative Masterplan, either as basement, undercroft or at-grade parking.

When considering the additional formal spaces provided as well as the occupancy rates of the on-street parking, there will be 590 available on-street parking spaces available throughout the Precinct one the Illustrative Masterplan is implemented during the peak periods. This will cover the shortfall of the 300 required off-street parking spaces.

With approximately 300 off-street spaces required to support the retail / food and beverage uses which are most likely to be linked trips with other visiting purposes to the precinct, it is expected these customers would be parking on the surrounding street network to visit multiple areas within the precinct. Hence, we can confirm that the combined on-street and off-street parking provision proposed can support the current peak activities as well as the proposed development as part of the Illustrative Masterplan.

Based on the above, the Illustrative Masterplan is not expected to have a negative impact on public parking throughout the Precinct.

6.3 Public transport impacts

As described in **Section 3.5**, none of the public transport options (bus stops or the train station) are currently accessible via a short walk from the Precinct, with limited frequencies of both bus and train services currently serving the Precinct. During the AM, PM and weekend peak hours, one or two bus services in each direction service the Precinct, while there are only one daily train to Brisbane and Sydney respectively.

As described in **Section 5.2**, the introduction of the Illustrative Masterplan would result in approximately 20, 25 and 30 additional public transport trips during the AM, PM and weekend peak hours respectively. This assumes a shift to five per cent of public transport usage, based on improved transport infrastructure (such as improved pedestrian access to the station), with the Illustrative Masterplan in place.

Although the public transport service frequency is low to and from the Precinct, the existing public transport is expected to be able to cater for the future public transport demand generated by the Illustrative Masterplan. However, with the Illustrative Masterplan in place, the Precinct would benefit from a further increase in public transport services as well as improved connections to train station and bus stops, which would encourage a further shift away from cars in the future.

6.4 Active transport impacts

As described in **Section 5.2**, walking trips generated by the Illustrative Masterplan are mainly due to car trips arriving to and from the Precinct. Assuming an occupancy rate of 1.2 people in each car, these trips together with the expected ‘walk only’ and cycling demand would equate to approximately 510, 560 and 690 active transport trips being generated by the Illustrative Masterplan. Assuming three per cent of the active trips would be cycling, with the Illustrative Masterplan in place, approximately 15, 15 and 20 trips would be cycling trips during the AM, PM and weekend peak hours respectively.

The proposed vehicular movement structure plan (**Figure 4-5**) will introduce several active transport improvements to the Precinct, including:

– Enhance connectivity between the precinct and the train station by introducing a pedestrian overpass across the railway at the site of the proposed Activity Hub. 24/7 access must be provided in a safe environment.

– Encourage passive, recreational cycling by introducing a shareway that extends throughout the precinct, hugging the tree line in the parklands. It will accommodate slower moving cyclists alongside pedestrians.

– Connect into existing shareways and cycling networks to extend movement to and from the precinct.

– Provide dedicated cycleways along Jordan Esplanade for faster moving cyclists in a safer environment. Road painting and line-marking will provide clear delineation between spaces for cyclists and vehicles.

- Provide a raised pedestrian / vehicle shareway around the Village Green. This surface will be clearly legible as a pedestrian priority area through the use of plaza-style paving, bollards, signage, and speed management devices such as speed bumps and rumble strips.
- Limit access through culturally significant locations such as Happy Valley and Fergusons Cottage to protect these important Aboriginal cultural sites.
- Minimise impact of foot traffic on dune planting areas by providing legible but low-key walking paths from parkland areas to the foreshore.
- Develop wayfinding signage that promotes Gumbaynggirr culture and an opportunity to educate the local community in areas of movement.
- Ensure all locations across the Foreshore are accessible and equitable, creating an inviting space for all people.

These improvements are expected to encourage a further shift towards cycling and walking once the Illustrative Masterplan is implemented. The Illustrative Masterplan is expected to be able to cater for the future active transport demand, with the proposed upgrades in place.

7.0 Proposed traffic and transport solutions

7.1 Intersection upgrades

The modelling results presented in **Section 6.1.2** indicate that all intersections under the weekday AM and PM and weekend peak hours are forecast to perform at LoS C or better with the Illustrative Masterplan in place, except for the intersection of Camperdown Street / Harbour Drive, which will perform with a LoS F during the weekend. This is due to the performance of the right and through movements from Camperdown and Hood Streets. However, the poor performance of the right and through movements from Camperdown and Hood Streets are not a direct result of additional Illustrative Masterplan traffic flows on these movements.

Based on the analysis and intersection performance, no infrastructure upgrades are required to the analysed intersections due to the impact of the Illustrative Masterplan. Any potential future upgrades required to the Camperdown Street / Harbour Drive intersection are therefore not a result of the impact of the planning proposal.

The intersection of Camperdown Street / Jordan Esplanade will however be upgraded to a roundabout, as part of the upgrade of Jordan Esplanade (which forms the main north-south vehicular connector through the precinct as part of the Illustrative Masterplan), to improve the safety and efficiency of this intersection.

7.2 Active transport upgrades

The proposed vehicular movement structure plan (**Figure 4-5**) will introduce several active transport improvements to the Precinct, including:

- Enhance connectivity between the precinct and the train station by introducing a pedestrian overpass across the railway at the site of the proposed Activity Hub. 24/7 access must be provided in a safe environment.
- Encourage passive, recreational cycling by introducing a shareway that extends throughout the precinct, hugging the tree line in the parklands. This shareway will accommodate slower moving cyclists alongside pedestrians.
- Connect into existing shareways and cycling networks to extend movement to and from the precinct.
- Provide dedicated cycleways along Jordan Esplanade for faster moving cyclists in a safer environment. Road painting and line-marking will provide clear delineation between spaces for cyclists and vehicles.
- Provide a raised pedestrian / vehicle shareway around the Village Green. This surface will be clearly legible as a pedestrian priority area through the use of plaza-style paving, bollards, signage, and speed management devices such as speed bumps and rumble strips.
- Limit access through culturally significant locations such as Happy Valley and Fergusons Cottage to protect these important Aboriginal cultural sites.
- Minimise impact of foot traffic on dune planting areas by providing legible but low-key walking paths from parkland areas to the foreshore.
- Develop wayfinding signage that promotes Gumbaynggirr culture and an opportunity to educate the local community in areas of movement.
- Ensure all locations across the Foreshore are accessible and equitable, creating an inviting space for all people.

7.3 Public transport improvements

No immediate public transport infrastructure upgrades are proposed to the Precinct as part of the Illustrative Masterplan. However, additional bus routes could be introduced in the future along Jordan Esplanade, which is designed to accommodate buses. It is therefore proposed that TfNSW be consulted regarding the feasibility of extending bus services / introducing new bus routes (along Jordan Esplanade) to the Precinct. Additional bus stops along Jordan Esplanade have been considered as part of the Jordan Esplanade upgrade, to accommodate future bus services to the Foreshore Precinct.

As described in **Section 3.5**, none of the public transport options (bus stops or the train station) are currently accessible via a short walk from the Precinct, with limited frequencies of both bus and train services currently serving the Precinct. During the AM, PM and weekend peak hours, one or two bus services in each direction service the Precinct, while there are only one daily train to Brisbane and Sydney respectively. It is therefore recommended that

TfNSW continues to review rail service demand, and providing additional capacity for train options, including to Sydney and Brisbane. The potential pedestrian overpass near the station will also significantly improve east-west pedestrian connections to the foreshore, across the existing barrier of the railway line.

Introducing more public transport options to and from the Precinct is expected to encourage a future reduction in car demand over time.

8.0 Key findings and recommendations

8.1 The proposal

Property and Development NSW (PDNSW) is continuing to lead the revitalisation of the Coffs Harbour Jetty Foreshore Precinct (the Precinct) on behalf of the NSW Government. SCT Consulting has been engaged by PDNSW to prepare a Transport Impact Assessment (TIA) report that assesses the impact of the revitalisation on the surrounding road network and parking.

The State Assessed Planning Proposal is supported by an Illustrative Masterplan which presents a potential development outcome that could be realised at the Precinct. The Illustrative Masterplan builds on the extensive community and stakeholder consultation carried out to date and provides further detail in relation to land use and development outcomes sought for the Precinct. Transport priorities aim to provide a connected and integrated network, with strong regional relationships between transport links and coastal destinations.

The Illustrative Masterplan will introduce several access and transport improvements to the Precinct, for both private vehicle and public and active transport including:

– Improve configuration, efficiency, and integration of Jordan Esplanade as the main north-south vehicular connector through the precinct. This includes upgrading the existing Camperdown Street / Jordan Esplanade intersection to a roundabout, to improve the safety and efficiency of this intersection.

– A bend in Jordan Esplanade at the Village Green is introduced to slow traffic movement around the proposed amphitheatre. This will be a raised, shared vehicle / pedestrian thoroughfare.

– Ensure that carpark and site entrances cause a minimal disturbance to pedestrian movement, prioritising access on secondary or private roads rather than Jordan Esplanade where possible.

– Increase and improve public car parking including formalising ad-hoc gravel parking at North Park and dispersing accessible parking across the site.

– Distribute new and improved parking across the precinct alongside Jordan Esplanade to provide parking adjacent to all public spaces.

– Enhance connectivity between the precinct and the train station by introducing a pedestrian overpass across the railway at the site of the proposed Activity Hub.

– Encourage passive, recreational cycling by introducing a shareway that extends throughout the precinct, hugging the tree line in the parklands. This shareway will accommodate slower moving cyclists alongside pedestrians.

– Connect into existing shareways and cycling networks to extend movement to and from the precinct.

– Provide dedicated cycleways along Jordan Esplanade for faster moving cyclists in a safer environment.

In summary, the proposed improvements outlined in the Illustrative Masterplan will align with, or even exceed several transport related objectives outlined in the relevant strategic documents reviewed. The Illustrative Masterplan will improve both parking and transport, by introducing more formalised parking opportunities, a more connected active transport network (with improved connections to the Train Station) through more cycle connections, footpaths and crossing opportunities, and improved configuration and integration of Jordan Esplanade through the Precinct.

8.2 Key findings

8.2.1 Trip generation and road network impact

In total, the Illustrative Masterplan is expected to generate **426, 469 and 577 trips** during the AM, PM, and weekend peak hours respectively.

All intersections will operate with an acceptable LoS and DoS during all assessed time periods, with complete (100%) implementation of the Illustrative Masterplan.

The results of the Camperdown Street / Harbour Drive intersection are considered acceptable as the LoS F is only for the minor right and through movements, with 43 vehicles per hour from Camperdown Street and six vehicles per hour from Hood Street, during weekends only. All other movements at the intersection are expected to perform at LoS B or better. It is noted that right and through movements are minor, limited to 43 vehicles per hour from Camperdown

Street and eight vehicles per hour from Hood Street. None of these trips were however generated by the Illustrative Masterplan, as the number of vehicles without the Illustrative Masterplan for these movements are also 43 and eight vehicles from Camperdown Street and Hood Street respectively. The results indicate that the poor performance of the right and through movements from Camperdown and Hood Streets are not a direct result of additional Illustrative Masterplan traffic flows on these movements. No infrastructure upgrades are therefore proposed to this intersection, and any potential future upgrades required are not a result of the impact of the planning proposal.

The intersection of Camperdown Street / Jordan Esplanade will be upgraded to a roundabout, as part of the upgrade of Jordan Esplanade (which forms the main north-south vehicular connector through the precinct as part of the Illustrative Masterplan), to improve the safety and efficiency of this intersection.

8.2.2 Parking provision and impacts

The introduction of the Illustrative Masterplan will result in the provision of 1,596 on-street public parking spaces, which is an increase of 103 parking spaces (or seven per cent), compared to the existing public parking supply. The proportion of formal parking spaces will however increase more significantly, by 52 per cent (from 863 to 1,313 spaces), with the introduction of the Illustrative Masterplan. The public parking provision is also more spread out across the key areas of the Precinct.

Based on the DCP parking rates, a total of approximately 1,130 parking spaces will be required to support the approximate future GFAs of the Illustrative Masterplan. Based on initial feasibility studies, approximately 830 off-street parking spaces can be provided throughout the entire Precinct as part of the Illustrative Masterplan, either as basement, undercroft or at-grade parking.

When considering the additional formal spaces provided as well as the occupancy rates of the on-street parking, there will be 590 available on-street parking spaces available throughout the Precinct one the Illustrative Masterplan is implemented during the peak periods. This will cover the shortfall of the 300 required off-street parking spaces.

With approximately 300 off-street spaces required to support the retail / food and beverage uses which are most likely to be linked trips with other visiting purposes to the precinct, it is expected these customers would be parking on the surrounding street network to visit multiple areas within the precinct. Hence, we can confirm that the combined on-street and off-street parking provision proposed can support the current peak activities as well as the proposed development as part of the Illustrative Masterplan.

Based on the above, the Illustrative Masterplan is not expected to have a negative impact on public parking throughout the Precinct.

8.2.3 Public transport demands and impacts

None of the existing public transport options (bus stops or the train station) are currently accessible via a short walk from the Precinct, with limited frequencies of both bus and train services currently serving the Precinct. During the AM, PM and weekend peak hours, one or two bus services in each direction service the Precinct, while there are only one daily train to Brisbane and Sydney respectively.

The introduction of the Illustrative Masterplan would result in approximately 20, 25 and 30 additional public transport trips during the AM, PM and weekend peak hours respectively. This assumes a shift to five per cent of public transport usage, based on improved transport infrastructure (such as improved pedestrian access to the station), with the Illustrative Masterplan in place.

No immediate public transport infrastructure upgrades are proposed to the Precinct as part of the Illustrative Masterplan. However, additional bus routes could be introduced in the future along Jordan Esplanade, which is designed to accommodate buses. It is therefore proposed that TfNSW be consulted regarding the feasibility of extending bus services / introducing new bus routes (along Jordan Esplanade) to the Precinct. Additional bus stops along Jordan Esplanade have been considered as part of the Jordan Esplanade upgrade, to accommodate future bus services to the Foreshore Precinct.

It is also recommended that TfNSW continues to review rail service demand, and providing additional capacity for train options, including to Sydney and Brisbane. The potential pedestrian overpass near the station will also significantly improve east-west pedestrian connections to the foreshore, across the existing barrier of the railway line.

8.2.4 Active transport demand and impacts

Several walking and cycling improvements will be introduced in the Precinct as part of the Illustrative Masterplan. These improvements are expected to encourage a further shift towards cycling. Assuming three per cent of the active trips would be cycling, with the Illustrative Masterplan in place, this would result in approximately 15, 15 and 20 cycling trips during the AM, PM and weekend peak hours respectively.

Walking trips generated by the Illustrative Masterplan are mainly due to car trips arriving to and from the Precinct. Assuming an occupancy rate of 1.2 people in each car, these trips together with the expected 'walk only' and cycling demand would equate to approximately 510, 560 and 690 active transport trips being generated by the Illustrative Masterplan.

The above improvements are expected to encourage a further shift towards cycling and walking once the Illustrative Masterplan is implemented. The Illustrative Masterplan is expected to be able to cater for the future active transport demand, with the proposed upgrades in place.

8.3 Recommendations

Based on the Transport and Parking Impact Assessment undertaken for the State Assessed Planning proposal, the transport network and parking situation in the Precinct can accommodate the Proposal, with the implementation of the proposed transport and parking improvements. In addition to those proposed improvements, the following should be considered:

– No immediate public transport infrastructure upgrades are proposed to the Precinct as part of the Illustrative Masterplan. However, additional bus routes could be introduced in the future along Jordan Esplanade, which is designed to accommodate buses. It is therefore proposed that TfNSW be consulted regarding the feasibility of extending bus services / introducing new bus routes (along Jordan Esplanade) to the Precinct. Additional bus stops along Jordan Esplanade have been considered as part of the Jordan Esplanade upgrade, to accommodate future bus services to the Foreshore Precinct.

– None of the public transport options (bus stops or the train station) are currently accessible via a short walk from the Precinct, with limited frequencies of both bus and train services currently serving the Precinct. During the AM, PM and weekend peak hours, one or two bus services in each direction service the Precinct, while there are only one daily train to Brisbane and Sydney respectively. It is therefore recommended that TfNSW continues to review rail service demand, and providing additional capacity for train options, including to Sydney and Brisbane.

– As highlighted in the North Coast Regional Plan, it is recommended that place-based transport plans are considered to be developed for areas experiencing high growth, such as key cities and centres across the North Coast region. This could be considered in the next phase of the project, should the implementation of the Illustrative Masterplan be approved.

APPENDIX A

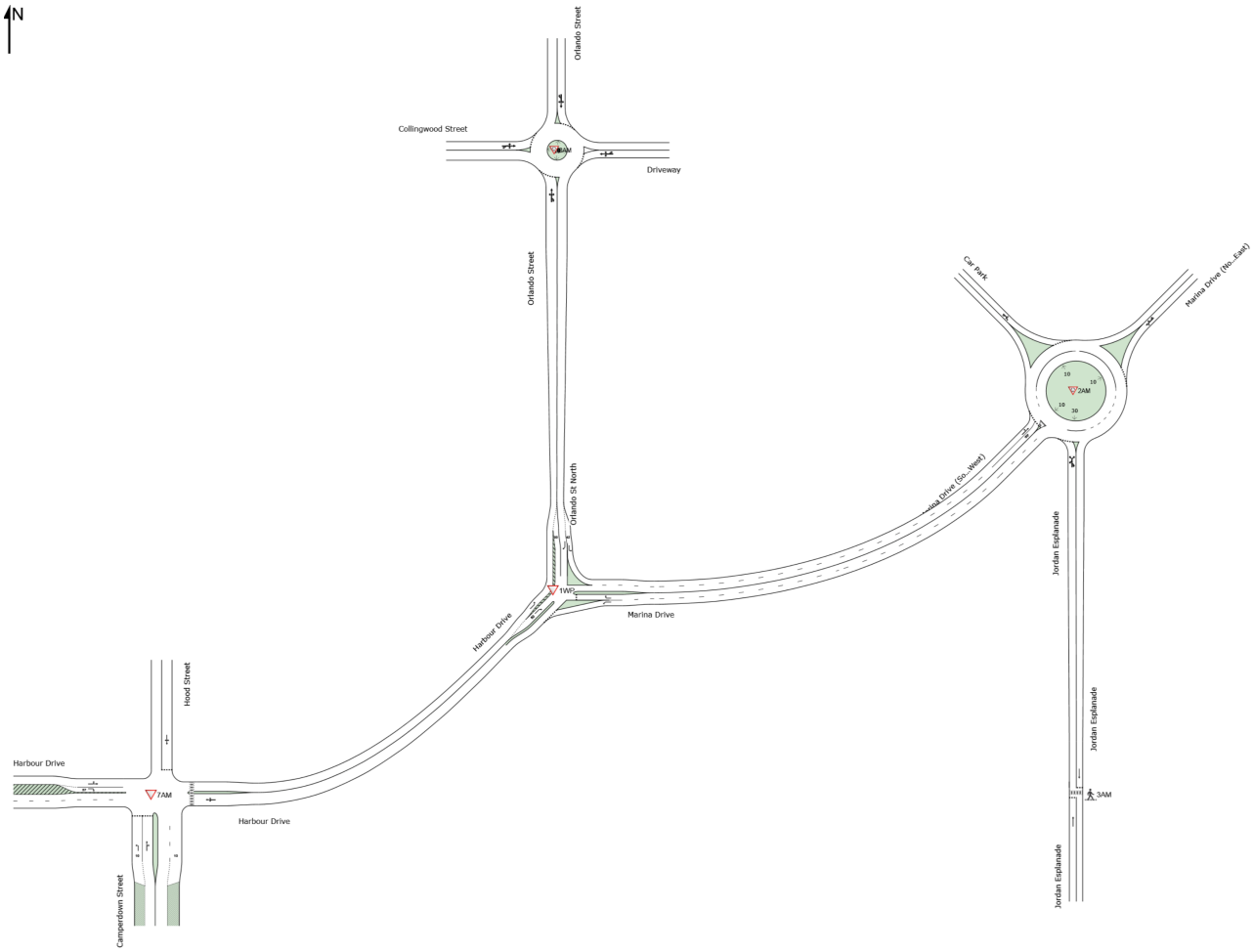
EXISTING SIDRA ANALYSIS RESULTS

NETWORK LAYOUT

Network: N101 [North_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8AM	NA	ORL_COLL_23_AM_X
1WP	NA	ORL_MAR_HAR_23_AM_Ex Layout
2AM	NA	MAR_JOR_23_AM_X
3AM	NA	JOR_PED_23_AM_X
7AM	NA	HAR_HOOD_CAMP_23_AM_X

Organisation: SCT CONSULTING PTY LTD | Licence: NETWORK / FLOATING | Created: Thursday, 4 April 2024 12:31:13 PM
Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 7AM [HAR_HOOD_CAMP_23_AM_X (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

Hood St/ Harbour Drive Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	73	0.0	73	0.0	0.063	5.9	LOS A	0.2	1.7	0.41	0.60	0.41	42.5
8	T1	All MCs	2	0.0	2	0.0	0.100	11.8	LOS A	0.3	2.4	0.75	0.87	0.75	39.5
9	R2	All MCs	26	0.0	26	0.0	0.100	16.4	LOS B	0.3	2.4	0.75	0.87	0.75	35.1
Approach			101	0.0	101	0.0	0.100	8.7	LOS A	0.3	2.4	0.51	0.68	0.51	40.5
East: Harbour Drive															
10	L2	All MCs	53	0.0	53	0.0	0.387	5.0	LOS A	2.5	17.8	0.27	0.17	0.27	46.6
11	T1	All MCs	374	1.1	374	1.1	0.387	0.6	LOS A	2.5	17.8	0.27	0.17	0.27	46.4
12	R2	All MCs	11	0.0	11	0.0	0.387	7.1	LOS A	2.5	17.8	0.27	0.17	0.27	46.1
Approach			437	1.0	437	1.0	0.387	1.3	NA	2.5	17.8	0.27	0.17	0.27	46.4
North: Hood Street															
1	L2	All MCs	6	0.0	6	0.0	0.041	6.0	LOS A	0.1	1.0	0.64	0.75	0.64	35.5
2	T1	All MCs	1	0.0	1	0.0	0.041	12.2	LOS A	0.1	1.0	0.64	0.75	0.64	41.6
3	R2	All MCs	9	0.0	9	0.0	0.041	15.5	LOS B	0.1	1.0	0.64	0.75	0.64	36.7
Approach			17	0.0	17	0.0	0.041	11.7	LOS A	0.1	1.0	0.64	0.75	0.64	36.8
West: Harbour Drive															
4	L2	All MCs	8	0.0	8	0.0	0.327	5.2	LOS A	2.0	14.4	0.26	0.12	0.26	46.0
5	T1	All MCs	353	2.4	353	2.4	0.327	0.6	LOS A	2.0	14.4	0.26	0.12	0.26	43.9
6	R2	All MCs	52	0.0	52	0.0	0.044	6.0	LOS A	0.2	1.3	0.46	0.59	0.46	42.6
Approach			413	2.0	413	2.0	0.327	1.4	NA	2.0	14.4	0.28	0.18	0.28	43.5
All Vehicles			967	1.3	967	1.3	0.387	2.3	NA	2.5	17.8	0.31	0.24	0.31	44.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 8AM [ORL_COLL_23_AM_X (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	38	0.0	38	0.0	0.279	4.0	LOS A	1.3	8.9	0.22	0.43	0.22	43.4
2	T1	All MCs	318	2.6	318	2.6	0.279	3.8	LOS A	1.3	8.9	0.22	0.43	0.22	43.9
3	R2	All MCs	3	0.0	3	0.0	0.279	7.2	LOS A	1.3	8.9	0.22	0.43	0.22	28.0
3u	U	All MCs	11	0.0	11	0.0	0.279	8.8	LOS A	1.3	8.9	0.22	0.43	0.22	28.8
Approach			369	2.3	369	2.3	0.279	4.0	LOS A	1.3	8.9	0.22	0.43	0.22	43.7
East: Driveway															
4	L2	All MCs	3	0.0	3	0.0	0.012	4.9	LOS A	0.1	0.5	0.63	0.62	0.63	15.1
5	T1	All MCs	1	0.0	1	0.0	0.012	5.3	LOS A	0.1	0.5	0.63	0.62	0.63	41.5
6	R2	All MCs	4	0.0	4	0.0	0.012	8.0	LOS A	0.1	0.5	0.63	0.62	0.63	40.7
6u	U	All MCs	1	0.0	1	0.0	0.012	9.6	LOS A	0.1	0.5	0.63	0.62	0.63	16.9
Approach			9	0.0	9	0.0	0.012	6.9	LOS A	0.1	0.5	0.63	0.62	0.63	37.1
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.391	4.3	LOS A	2.8	19.7	0.39	0.47	0.39	42.4
8	T1	All MCs	407	0.0	407	0.0	0.391	4.4	LOS A	2.8	19.7	0.39	0.47	0.39	43.1
9	R2	All MCs	59	0.0	59	0.0	0.391	7.7	LOS A	2.8	19.7	0.39	0.47	0.39	45.1
9u	U	All MCs	28	0.0	28	0.0	0.391	9.2	LOS A	2.8	19.7	0.39	0.47	0.39	45.1
Approach			497	0.0	497	0.0	0.391	5.0	LOS A	2.8	19.7	0.39	0.47	0.39	43.6
West: Collingwood Street															
10	L2	All MCs	69	0.0	69	0.0	0.175	5.5	LOS A	0.9	6.3	0.50	0.63	0.50	44.5
11	T1	All MCs	1	0.0	1	0.0	0.175	5.5	LOS A	0.9	6.3	0.50	0.63	0.50	41.3
12	R2	All MCs	101	0.0	101	0.0	0.175	8.8	LOS A	0.9	6.3	0.50	0.63	0.50	41.7
12u	U	All MCs	1	0.0	1	0.0	0.175	10.4	LOS A	0.9	6.3	0.50	0.63	0.50	44.3
Approach			173	0.0	173	0.0	0.175	7.5	LOS A	0.9	6.3	0.50	0.63	0.50	43.3
All Vehicles			1048	0.8	1048	0.8	0.391	5.1	LOS A	2.8	19.7	0.35	0.49	0.35	43.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1WP [ORL_MAR_HAR_23_AM_Ex Layout (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	188	1.1	188	1.1	0.111	3.5	LOS A	0.5	3.7	0.35	0.48	0.35	32.1
6	R2	All MCs	203	1.6	203	1.6	0.236	6.2	LOS A	0.8	5.9	0.50	0.69	0.50	29.8
Approach			392	1.3	392	1.3	0.236	4.9	LOS A	0.8	5.9	0.43	0.59	0.43	30.9
North: Orlando St North															
7	L2	All MCs	274	1.2	274	1.2	0.154	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	30.1
9a	R1	All MCs	257	2.5	257	2.5	0.136	2.6	LOS A	0.0	0.0	0.00	0.41	0.00	29.0
Approach			531	1.8	531	1.8	0.154	2.7	NA	0.0	0.0	0.00	0.39	0.00	29.6
SouthWest: Harbour Drive															
30a	L1	All MCs	168	5.0	168	5.0	0.091	2.8	LOS A	0.0	0.0	0.00	0.43	0.00	35.2
32a	R1	All MCs	221	0.0	221	0.0	0.114	3.2	LOS A	0.6	4.4	0.38	0.46	0.38	33.5
Approach			389	2.2	389	2.2	0.114	3.0	NA	0.6	4.4	0.21	0.44	0.21	34.2
All Vehicles			1312	1.8	1312	1.8	0.236	3.5	NA	0.8	5.9	0.19	0.47	0.19	31.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2AM [MAR_JOR_23_AM_X (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	173	1.8	173	1.8	0.189	3.5	LOS A	0.9	6.6	0.38	0.50	0.38	32.6
1a	L1	All MCs	2	0.0	2	0.0	0.189	3.5	LOS A	0.9	6.6	0.38	0.50	0.38	37.2
3a	R1	All MCs	32	0.0	32	0.0	0.189	7.3	LOS A	0.9	6.6	0.38	0.50	0.38	37.5
3u	U	All MCs	1	0.0	1	0.0	0.189	9.8	LOS A	0.9	6.6	0.38	0.50	0.38	32.6
Approach			207	1.5	207	1.5	0.189	4.1	LOS A	0.9	6.6	0.38	0.50	0.38	33.9
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	71	0.0	71	0.0	0.294	5.1	LOS A	1.7	11.8	0.48	0.48	0.48	34.2
25	T1	All MCs	198	1.1	198	1.1	0.294	4.6	LOS A	1.7	11.8	0.48	0.48	0.48	34.2
26	R2	All MCs	1	0.0	1	0.0	0.294	9.0	LOS A	1.7	11.8	0.48	0.48	0.48	29.4
26u	U	All MCs	3	0.0	3	0.0	0.294	10.7	LOS A	1.7	11.8	0.48	0.48	0.48	37.5
Approach			273	0.8	273	0.8	0.294	4.8	LOS A	1.7	11.8	0.48	0.48	0.48	34.2
NorthWest: Car Park															
27	L2	All MCs	1	0.0	1	0.0	0.020	6.2	LOS A	0.1	0.6	0.54	0.67	0.54	31.8
29a	R1	All MCs	1	0.0	1	0.0	0.020	8.9	LOS A	0.1	0.6	0.54	0.67	0.54	24.6
29	R2	All MCs	12	0.0	12	0.0	0.020	10.0	LOS A	0.1	0.6	0.54	0.67	0.54	24.6
29u	U	All MCs	1	0.0	1	0.0	0.020	11.7	LOS A	0.1	0.6	0.54	0.67	0.54	23.9
Approach			15	0.0	15	0.0	0.020	9.8	LOS A	0.1	0.6	0.54	0.67	0.54	25.3
SouthWest: Marina Drive (South West)															
30	L2	All MCs	12	9.1	12	9.1	0.177	4.0	LOS A	1.3	9.1	0.20	0.39	0.20	37.8
31	T1	All MCs	266	0.4	266	0.4	0.177	3.8	LOS A	1.3	9.1	0.20	0.39	0.20	40.5
32b	R3	All MCs	213	0.5	213	0.5	0.159	8.0	LOS A	1.1	8.0	0.21	0.59	0.21	32.3
32u	U	All MCs	6	0.0	6	0.0	0.159	9.2	LOS A	1.1	8.0	0.21	0.59	0.21	32.3
Approach			497	0.6	497	0.6	0.177	5.7	LOS A	1.3	9.1	0.20	0.48	0.20	37.3
All Vehicles			992	0.8	992	0.8	0.294	5.2	LOS A	1.7	11.8	0.32	0.49	0.32	35.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3AM [JOR_PED_23_AM_X (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	191	1.7	191	1.7	0.109	3.3	LOS A	0.4	2.6	0.09	0.45	0.09	45.6
Approach			191	1.7	191	1.7	0.109	3.3	LOS A	0.4	2.6	0.09	0.45	0.09	45.6
North: Jordan Esplanade															
8	T1	All MCs	260	0.4	260	0.4	0.168	3.3	LOS A	0.7	4.9	0.12	0.45	0.12	44.9
Approach			260	0.4	260	0.4	0.168	3.3	LOS A	0.7	4.9	0.12	0.45	0.12	44.9
All Vehicles			451	0.9	451	0.9	0.168	3.3	NA	0.7	4.9	0.11	0.45	0.11	45.2

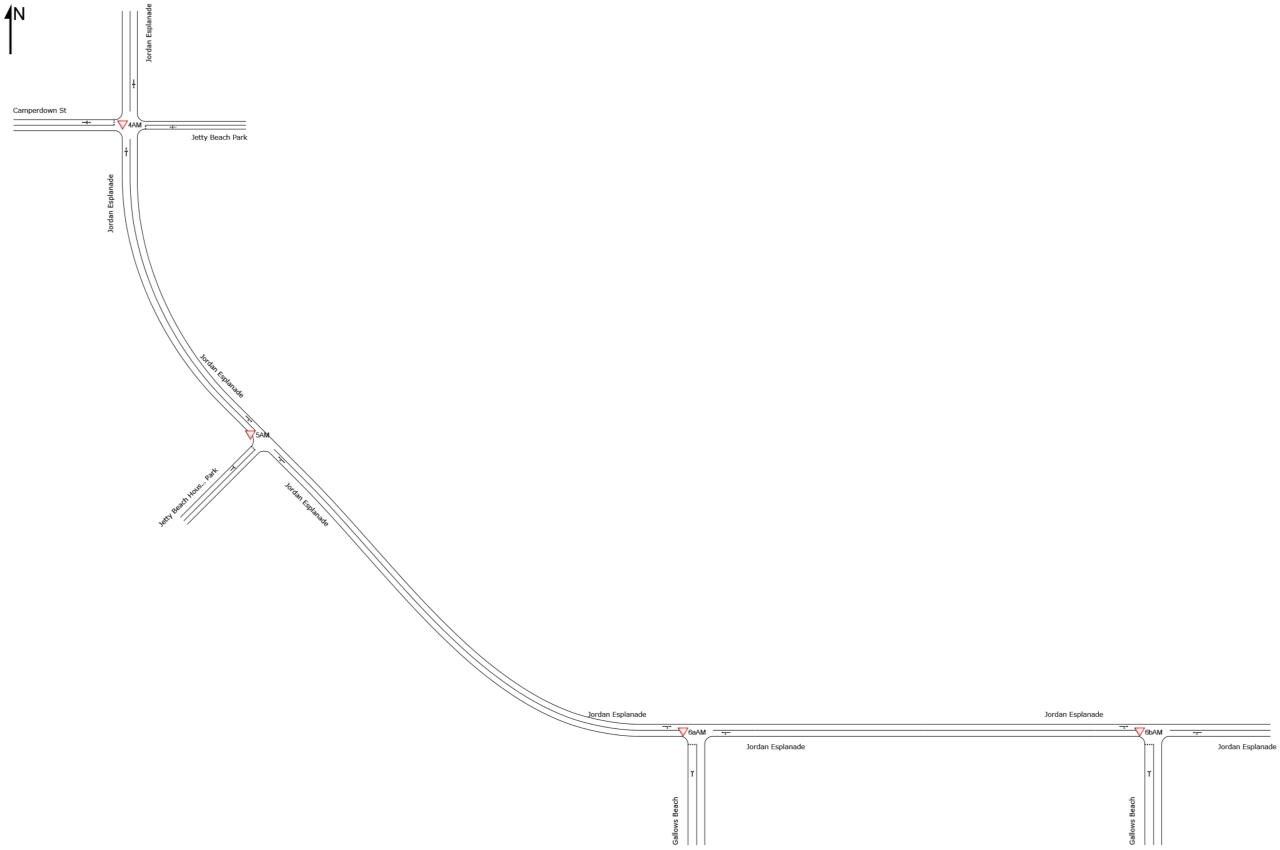
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N102 [South_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽4AM	NA	JOR_CAM_23_AM_X
▽5AM	NA	JOR_JET_23_AM_X
▽6aAM	NA	JOR_GAL_23_AM_X_6a
▽6bAM	NA	JOR_GAL_23_AM_X_6b

Organisation: SCT CONSULTING PTY LTD | Licence: NETWORK / FLOATING | Created: Thursday, 4 April 2024 12:13:42 PM
Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 4AM [JOR_CAM_23_AM_X (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

Camperdown St Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	79	0.0	79	0.0	0.118	4.6	LOS A	0.0	0.2	0.01	0.19	0.01	47.5
2	T1	All MCs	155	1.4	155	1.4	0.118	0.0	LOS A	0.0	0.2	0.01	0.19	0.01	48.8
3	R2	All MCs	2	50.0	2	50.0	0.118	5.3	LOS A	0.0	0.2	0.01	0.19	0.01	44.6
Approach			236	1.3	236	1.3	0.118	1.6	NA	0.0	0.2	0.01	0.19	0.01	48.3
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.002	3.2	LOS A	0.0	0.1	0.27	0.47	0.27	23.5
5	T1	All MCs	1	0.0	1	0.0	0.002	2.5	LOS A	0.0	0.1	0.27	0.47	0.27	44.8
6	R2	All MCs	1	0.0	1	0.0	0.002	3.5	LOS A	0.0	0.1	0.27	0.47	0.27	44.0
Approach			3	0.0	3	0.0	0.002	3.1	LOS A	0.0	0.1	0.27	0.47	0.27	43.1
North: Jordan Esplanade															
7	L2	All MCs	1	0.0	1	0.0	0.098	5.1	LOS A	0.1	0.5	0.04	0.05	0.04	28.3
8	T1	All MCs	185	0.6	185	0.6	0.098	0.0	LOS A	0.1	0.5	0.04	0.05	0.04	49.4
9	R2	All MCs	9	0.0	9	0.0	0.098	5.2	LOS A	0.1	0.5	0.04	0.05	0.04	48.3
Approach			196	0.5	196	0.5	0.098	0.3	NA	0.1	0.5	0.04	0.05	0.04	49.1
West: Camperdown St															
10	L2	All MCs	9	0.0	9	0.0	0.067	4.9	LOS A	0.2	1.3	0.29	0.59	0.29	45.3
11	T1	All MCs	1	0.0	1	0.0	0.067	4.0	LOS A	0.2	1.3	0.29	0.59	0.29	30.8
12	R2	All MCs	62	1.7	62	1.7	0.067	5.6	LOS A	0.2	1.3	0.29	0.59	0.29	43.4
Approach			73	1.4	73	1.4	0.067	5.5	LOS A	0.2	1.3	0.29	0.59	0.29	43.6
All Vehicles			507	1.0	507	1.0	0.118	1.7	NA	0.2	1.3	0.06	0.19	0.06	47.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5AM [JOR_JET_23_AM_X (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	2	0.0	2	0.0	0.116	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	44.0
22	T1	All MCs	220	1.0	220	1.0	0.116	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.6
Approach			222	0.9	222	0.9	0.116	0.0	NA	0.0	0.0	0.00	0.01	0.00	49.5
NorthWest: Jordan Esplanade															
28	T1	All MCs	239	0.9	239	0.9	0.129	0.0	LOS A	0.1	0.4	0.02	0.02	0.02	49.6
29	R2	All MCs	7	14.3	7	14.3	0.129	5.3	LOS A	0.1	0.4	0.02	0.02	0.02	45.8
Approach			246	1.3	246	1.3	0.129	0.2	NA	0.1	0.4	0.02	0.02	0.02	49.5
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	6	16.7	6	16.7	0.005	5.3	LOS A	0.0	0.2	0.30	0.50	0.30	29.4
32	R2	All MCs	1	0.0	1	0.0	0.005	5.4	LOS A	0.0	0.2	0.30	0.50	0.30	29.4
Approach			7	14.3	7	14.3	0.005	5.3	LOS A	0.0	0.2	0.30	0.50	0.30	29.4
All Vehicles			476	1.3	476	1.3	0.129	0.2	NA	0.1	0.4	0.02	0.02	0.02	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6aAM [JOR_GAL_23_AM_X_6a (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.15	0.46	0.15	23.3
3	R2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.15	0.46	0.15	23.3
Approach			2	0.0	2	0.0	0.001	2.8	LOS A	0.0	0.0	0.15	0.46	0.15	23.3
East: Jordan Esplanade															
4	L2	All MCs	1	0.0	1	0.0	0.035	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	43.6
5	T1	All MCs	67	0.0	67	0.0	0.035	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.5
Approach			68	0.0	68	0.0	0.035	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
West: Jordan Esplanade															
11	T1	All MCs	138	0.8	138	0.8	0.072	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.7
12	R2	All MCs	1	0.0	1	0.0	0.072	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	42.4
Approach			139	0.8	139	0.8	0.072	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
All Vehicles			209	0.5	209	0.5	0.072	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6bAM [JOR_GAL_23_AM_X_6b (Site Folder: Weekday AM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_AM_Base (Network Folder: BY 2023_AM Peak)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	19	0.0	19	0.0	0.017	3.4	LOS A	0.1	0.4	0.13	0.48	0.13	25.1
3	R2	All MCs	12	0.0	12	0.0	0.017	3.5	LOS A	0.1	0.4	0.13	0.48	0.13	43.7
Approach			31	0.0	31	0.0	0.017	3.4	LOS A	0.1	0.4	0.13	0.48	0.13	39.8
East: Jordan Esplanade															
4	L2	All MCs	35	0.0	35	0.0	0.044	4.6	LOS A	0.0	0.0	0.00	0.22	0.00	45.8
5	T1	All MCs	49	2.1	49	2.1	0.044	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	47.5
Approach			84	1.3	84	1.3	0.044	1.9	NA	0.0	0.0	0.00	0.22	0.00	46.8
West: Jordan Esplanade															
11	T1	All MCs	84	0.0	84	0.0	0.067	0.1	LOS A	0.2	1.7	0.13	0.22	0.13	47.5
12	R2	All MCs	53	0.0	53	0.0	0.067	4.8	LOS A	0.2	1.7	0.13	0.22	0.13	35.9
Approach			137	0.0	137	0.0	0.067	1.9	NA	0.2	1.7	0.13	0.22	0.13	45.6
All Vehicles			252	0.4	252	0.4	0.067	2.1	NA	0.2	1.7	0.09	0.25	0.09	45.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Organisation: SCT CONSULTING PTY LTD | Licence: NETWORK / FLOATING | Processed: Thursday, 4 April 2024 12:12:53 PM
Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 7PM [HAR_HOOD_CAMP_23_PM_X (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

Hood St/ Harbour Drive Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	69	0.0	69	0.0	0.063	6.1	LOS A	0.2	1.7	0.43	0.62	0.43	42.4
8	T1	All MCs	1	0.0	1	0.0	0.156	13.3	LOS A	0.5	3.7	0.79	0.89	0.79	38.5
9	R2	All MCs	38	0.0	38	0.0	0.156	18.4	LOS B	0.5	3.7	0.79	0.89	0.79	33.7
Approach			108	0.0	108	0.0	0.156	10.5	LOS A	0.5	3.7	0.56	0.72	0.56	39.2
East: Harbour Drive															
10	L2	All MCs	35	0.0	35	0.0	0.418	5.1	LOS A	2.9	20.1	0.29	0.17	0.29	46.7
11	T1	All MCs	418	0.8	418	0.8	0.418	0.7	LOS A	2.9	20.1	0.29	0.17	0.29	46.5
12	R2	All MCs	17	0.0	17	0.0	0.418	7.2	LOS A	2.9	20.1	0.29	0.17	0.29	46.1
Approach			469	0.7	469	0.7	0.418	1.2	NA	2.9	20.1	0.29	0.17	0.29	46.5
North: Hood Street															
1	L2	All MCs	5	0.0	5	0.0	0.066	6.0	LOS A	0.2	1.6	0.70	0.84	0.70	33.3
2	T1	All MCs	1	0.0	1	0.0	0.066	13.4	LOS A	0.2	1.6	0.70	0.84	0.70	40.2
3	R2	All MCs	15	0.0	15	0.0	0.066	17.6	LOS B	0.2	1.6	0.70	0.84	0.70	34.8
Approach			21	0.0	21	0.0	0.066	14.5	LOS B	0.2	1.6	0.70	0.84	0.70	34.9
West: Harbour Drive															
4	L2	All MCs	11	0.0	11	0.0	0.322	5.1	LOS A	2.0	14.1	0.26	0.12	0.26	46.0
5	T1	All MCs	348	1.5	348	1.5	0.322	0.6	LOS A	2.0	14.1	0.26	0.12	0.26	43.9
6	R2	All MCs	78	0.0	78	0.0	0.068	6.2	LOS A	0.3	2.0	0.48	0.61	0.48	42.5
Approach			437	1.2	437	1.2	0.322	1.7	NA	2.0	14.1	0.30	0.21	0.30	43.3
All Vehicles			1036	0.8	1036	0.8	0.418	2.7	NA	2.9	20.1	0.33	0.26	0.33	43.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

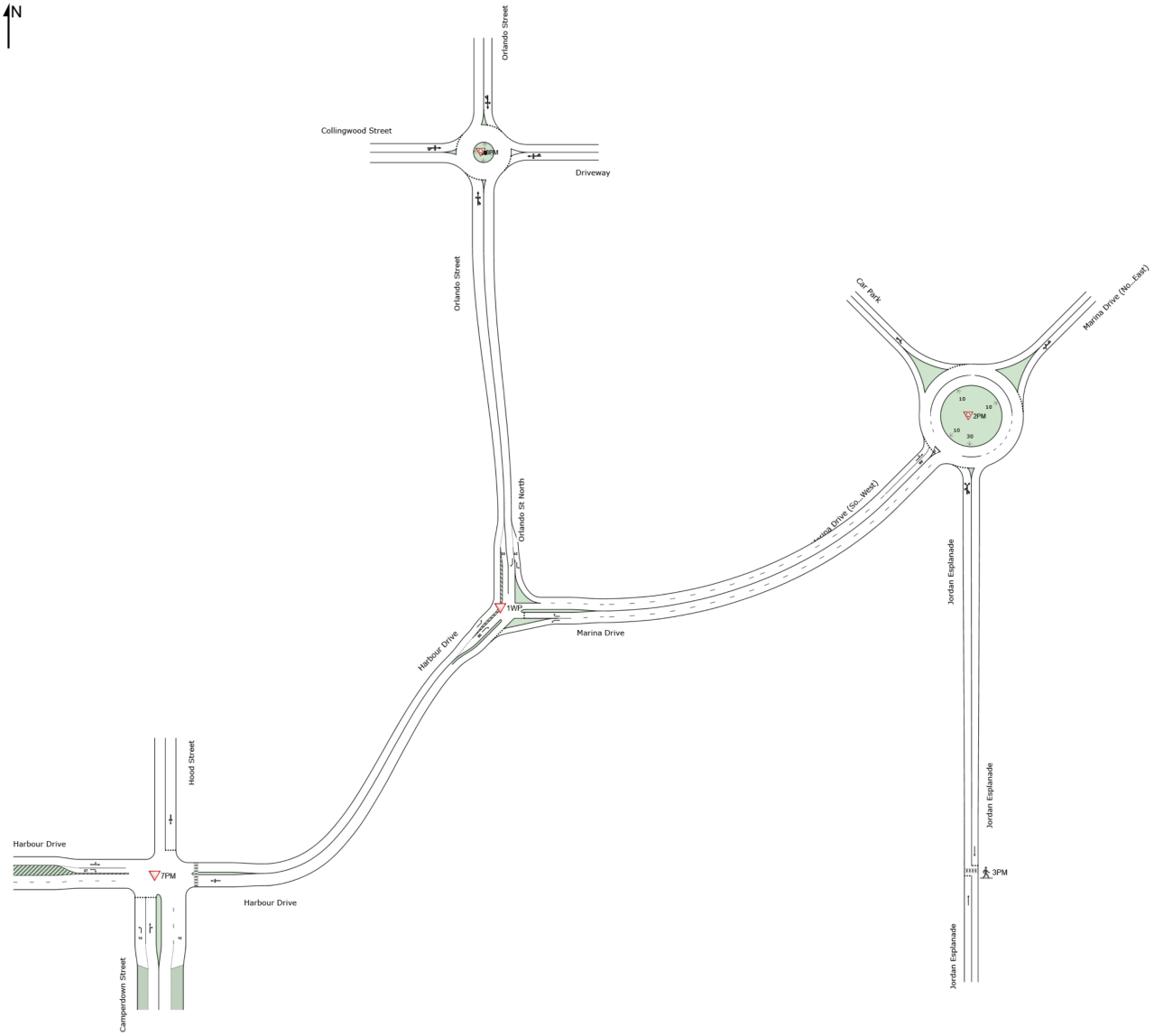
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [North_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8PM	NA	ORL_COLL_23_PM_X
1WP	NA	ORL_MAR_HAR_23_PM_Ex Layout
2PM	NA	MAR_JOR_23_PM_X
3PM	NA	JOR_PED_23_PM_X
7PM	NA	HAR_HOOD_CAMP_23_PM_X

MOVEMENT SUMMARY

Site: 8PM [ORL_COLL_23_PM_X (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	21	0.0	21	0.0	0.229	3.9	LOS A	1.0	6.8	0.17	0.43	0.17	43.6
2	T1	All MCs	275	2.7	275	2.7	0.229	3.7	LOS A	1.0	6.8	0.17	0.43	0.17	44.1
3	R2	All MCs	1	0.0	1	0.0	0.229	7.1	LOS A	1.0	6.8	0.17	0.43	0.17	28.5
3u	U	All MCs	14	0.0	14	0.0	0.229	8.6	LOS A	1.0	6.8	0.17	0.43	0.17	29.3
Approach			311	2.4	311	2.4	0.229	3.9	LOS A	1.0	6.8	0.17	0.43	0.17	43.9
East: Driveway															
4	L2	All MCs	4	0.0	4	0.0	0.010	4.5	LOS A	0.1	0.4	0.60	0.59	0.60	15.8
5	T1	All MCs	1	0.0	1	0.0	0.010	4.9	LOS A	0.1	0.4	0.60	0.59	0.60	42.4
6	R2	All MCs	2	0.0	2	0.0	0.010	7.6	LOS A	0.1	0.4	0.60	0.59	0.60	41.5
6u	U	All MCs	1	0.0	1	0.0	0.010	9.1	LOS A	0.1	0.4	0.60	0.59	0.60	17.7
Approach			8	0.0	8	0.0	0.010	5.9	LOS A	0.1	0.4	0.60	0.59	0.60	35.5
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.348	4.1	LOS A	2.4	16.8	0.32	0.45	0.32	42.8
8	T1	All MCs	389	1.1	389	1.1	0.348	4.2	LOS A	2.4	16.8	0.32	0.45	0.32	43.5
9	R2	All MCs	52	0.0	52	0.0	0.348	7.5	LOS A	2.4	16.8	0.32	0.45	0.32	45.3
9u	U	All MCs	12	0.0	12	0.0	0.348	9.0	LOS A	2.4	16.8	0.32	0.45	0.32	45.3
Approach			455	0.9	455	0.9	0.348	4.7	LOS A	2.4	16.8	0.32	0.45	0.32	43.9
West: Collingwood Street															
10	L2	All MCs	72	0.0	72	0.0	0.145	5.1	LOS A	0.7	5.0	0.44	0.61	0.44	44.8
11	T1	All MCs	1	0.0	1	0.0	0.145	5.1	LOS A	0.7	5.0	0.44	0.61	0.44	41.8
12	R2	All MCs	76	0.0	76	0.0	0.145	8.4	LOS A	0.7	5.0	0.44	0.61	0.44	42.2
12u	U	All MCs	1	0.0	1	0.0	0.145	10.0	LOS A	0.7	5.0	0.44	0.61	0.44	44.6
Approach			149	0.0	149	0.0	0.145	6.8	LOS A	0.7	5.0	0.44	0.61	0.44	43.9
All Vehicles			923	1.3	923	1.3	0.348	4.8	LOS A	2.4	16.8	0.29	0.47	0.29	43.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1WP [ORL_MAR_HAR_23_PM_Ex Layout (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	229	1.4	229	1.4	0.134	3.5	LOS A	0.6	4.6	0.35	0.48	0.35	32.1
6	R2	All MCs	185	0.0	185	0.0	0.211	6.0	LOS A	0.7	5.1	0.49	0.68	0.49	30.0
Approach			415	0.8	415	0.8	0.211	4.6	LOS A	0.7	5.1	0.41	0.57	0.41	31.1
North: Orlando St North															
7	L2	All MCs	234	0.5	234	0.5	0.131	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	30.1
9a	R1	All MCs	246	1.7	246	1.7	0.130	2.6	LOS A	0.0	0.0	0.00	0.41	0.00	29.0
Approach			480	1.1	480	1.1	0.131	2.7	NA	0.0	0.0	0.00	0.39	0.00	29.6
SouthWest: Harbour Drive															
30a	L1	All MCs	123	3.4	123	3.4	0.066	2.8	LOS A	0.0	0.0	0.00	0.43	0.00	35.2
32a	R1	All MCs	243	0.9	243	0.9	0.125	3.2	LOS A	0.7	4.9	0.37	0.46	0.37	33.6
Approach			366	1.7	366	1.7	0.125	3.0	NA	0.7	4.9	0.25	0.45	0.25	34.1
All Vehicles			1261	1.2	1261	1.2	0.211	3.4	NA	0.7	5.1	0.21	0.47	0.21	31.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2PM [MAR_JOR_23_PM_X (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	199	1.6	199	1.6	0.220	3.5	LOS A	1.1	7.8	0.39	0.50	0.39	32.5
1a	L1	All MCs	2	0.0	2	0.0	0.220	3.5	LOS A	1.1	7.8	0.39	0.50	0.39	37.0
3a	R1	All MCs	39	0.0	39	0.0	0.220	7.3	LOS A	1.1	7.8	0.39	0.50	0.39	37.4
3u	U	All MCs	2	0.0	2	0.0	0.220	9.9	LOS A	1.1	7.8	0.39	0.50	0.39	32.5
Approach			242	1.3	242	1.3	0.220	4.2	LOS A	1.1	7.8	0.39	0.50	0.39	33.8
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	67	0.0	67	0.0	0.285	5.0	LOS A	1.6	11.3	0.47	0.48	0.47	34.2
25	T1	All MCs	192	0.0	192	0.0	0.285	4.5	LOS A	1.6	11.3	0.47	0.48	0.47	34.2
26	R2	All MCs	2	0.0	2	0.0	0.285	8.9	LOS A	1.6	11.3	0.47	0.48	0.47	29.5
26u	U	All MCs	6	0.0	6	0.0	0.285	10.6	LOS A	1.6	11.3	0.47	0.48	0.47	37.5
Approach			267	0.0	267	0.0	0.285	4.8	LOS A	1.6	11.3	0.47	0.48	0.47	34.2
NorthWest: Car Park															
27	L2	All MCs	3	0.0	3	0.0	0.031	6.2	LOS A	0.1	1.0	0.54	0.68	0.54	32.0
29a	R1	All MCs	7	0.0	7	0.0	0.031	8.9	LOS A	0.1	1.0	0.54	0.68	0.54	24.6
29	R2	All MCs	12	0.0	12	0.0	0.031	10.0	LOS A	0.1	1.0	0.54	0.68	0.54	24.6
29u	U	All MCs	1	0.0	1	0.0	0.031	11.6	LOS A	0.1	1.0	0.54	0.68	0.54	23.8
Approach			23	0.0	23	0.0	0.031	9.2	LOS A	0.1	1.0	0.54	0.68	0.54	26.0
SouthWest: Marina Drive (South West)															
30	L2	All MCs	18	5.9	18	5.9	0.180	4.1	LOS A	1.3	9.2	0.23	0.39	0.23	37.8
31	T1	All MCs	258	0.0	258	0.0	0.180	3.9	LOS A	1.3	9.2	0.23	0.39	0.23	40.3
32b	R3	All MCs	192	1.6	192	1.6	0.152	8.1	LOS A	1.1	7.5	0.24	0.59	0.24	32.1
32u	U	All MCs	8	0.0	8	0.0	0.152	9.3	LOS A	1.1	7.5	0.24	0.59	0.24	32.1
Approach			476	0.9	476	0.9	0.180	5.7	LOS A	1.3	9.2	0.24	0.48	0.24	37.2
All Vehicles			1008	0.7	1008	0.7	0.285	5.2	LOS A	1.6	11.3	0.34	0.49	0.34	35.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3PM [JOR_PED_23_PM_X (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	229	1.4	229	1.4	0.132	3.3	LOS A	0.5	3.2	0.09	0.45	0.09	45.6
Approach			229	1.4	229	1.4	0.132	3.3	LOS A	0.5	3.2	0.09	0.45	0.09	45.6
North: Jordan Esplanade															
8	T1	All MCs	245	0.9	245	0.9	0.159	3.3	LOS A	0.7	4.6	0.12	0.45	0.12	44.9
Approach			245	0.9	245	0.9	0.159	3.3	LOS A	0.7	4.6	0.12	0.45	0.12	44.9
All Vehicles			475	1.1	475	1.1	0.159	3.3	NA	0.7	4.6	0.11	0.45	0.11	45.2

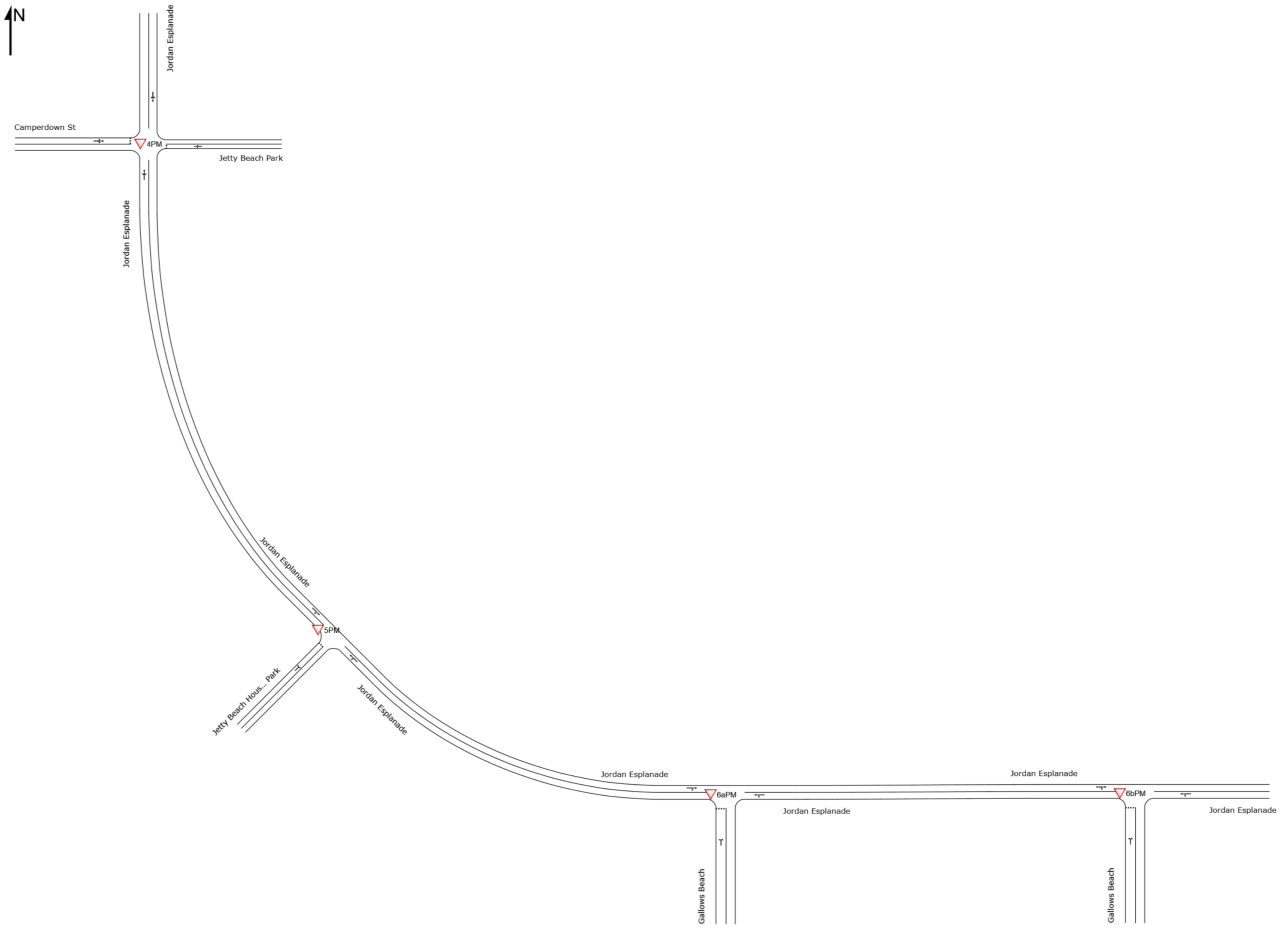
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N102 [South_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽4PM	NA	JOR_CAM_23_PM_X
▽5PM	NA	JOR_JET_23_PM_X
▽6aPM	NA	JOR_GAL_23_PM_X_6a
▽6bPM	NA	JOR_GAL_23_PM_X_6b

Organisation: SCT CONSULTING PTY LTD | Licence: NETWORK / FLOATING | Created: Thursday, 4 April 2024 12:32:44 PM
Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 4PM [JOR_CAM_23_PM_X (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

Camperdown St Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	76	0.0	76	0.0	0.126	4.6	LOS A	0.0	0.1	0.00	0.17	0.00	47.6
2	T1	All MCs	176	1.8	176	1.8	0.126	0.0	LOS A	0.0	0.1	0.00	0.17	0.00	48.9
3	R2	All MCs	1	0.0	1	0.0	0.126	4.6	LOS A	0.0	0.1	0.00	0.17	0.00	45.3
Approach			253	1.3	253	1.3	0.126	1.4	NA	0.0	0.1	0.00	0.17	0.00	48.5
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.002	3.2	LOS A	0.0	0.1	0.27	0.47	0.27	23.5
5	T1	All MCs	1	0.0	1	0.0	0.002	2.5	LOS A	0.0	0.1	0.27	0.47	0.27	44.8
6	R2	All MCs	1	0.0	1	0.0	0.002	3.6	LOS A	0.0	0.1	0.27	0.47	0.27	44.0
Approach			3	0.0	3	0.0	0.002	3.1	LOS A	0.0	0.1	0.27	0.47	0.27	43.1
North: Jordan Esplanade															
7	L2	All MCs	2	0.0	2	0.0	0.096	5.1	LOS A	0.1	0.5	0.05	0.06	0.05	28.3
8	T1	All MCs	178	1.2	178	1.2	0.096	0.1	LOS A	0.1	0.5	0.05	0.06	0.05	49.3
9	R2	All MCs	11	0.0	11	0.0	0.096	5.2	LOS A	0.1	0.5	0.05	0.06	0.05	48.3
Approach			191	1.1	191	1.1	0.096	0.4	NA	0.1	0.5	0.05	0.06	0.05	48.8
West: Camperdown St															
10	L2	All MCs	16	0.0	16	0.0	0.066	5.0	LOS A	0.2	1.4	0.30	0.58	0.30	45.3
11	T1	All MCs	1	0.0	1	0.0	0.066	4.0	LOS A	0.2	1.4	0.30	0.58	0.30	28.2
12	R2	All MCs	58	0.0	58	0.0	0.066	5.6	LOS A	0.2	1.4	0.30	0.58	0.30	43.3
Approach			75	0.0	75	0.0	0.066	5.5	LOS A	0.2	1.4	0.30	0.58	0.30	43.7
All Vehicles			521	1.0	521	1.0	0.126	1.6	NA	0.2	1.4	0.06	0.19	0.06	47.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5PM [JOR_JET_23_PM_X (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	3	0.0	3	0.0	0.136	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	43.9
22	T1	All MCs	258	0.8	258	0.8	0.136	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.5
Approach			261	0.8	261	0.8	0.136	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
NorthWest: Jordan Esplanade															
28	T1	All MCs	252	0.8	252	0.8	0.134	0.0	LOS A	0.0	0.3	0.02	0.02	0.02	49.7
29	R2	All MCs	6	0.0	6	0.0	0.134	5.1	LOS A	0.0	0.3	0.02	0.02	0.02	46.7
Approach			258	0.8	258	0.8	0.134	0.1	NA	0.0	0.3	0.02	0.02	0.02	49.6
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	11	10.0	11	10.0	0.007	5.3	LOS A	0.0	0.2	0.33	0.51	0.33	29.2
32	R2	All MCs	1	0.0	1	0.0	0.007	5.5	LOS A	0.0	0.2	0.33	0.51	0.33	29.2
Approach			12	9.1	12	9.1	0.007	5.3	LOS A	0.0	0.2	0.33	0.51	0.33	29.2
All Vehicles			531	1.0	531	1.0	0.136	0.2	NA	0.0	0.3	0.02	0.02	0.02	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6aPM [JOR_GAL_23_PM_X_6a (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.16	0.46	0.16	23.1
3	R2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.16	0.46	0.16	23.1
Approach			2	0.0	2	0.0	0.001	2.8	LOS A	0.0	0.0	0.16	0.46	0.16	23.1
East: Jordan Esplanade															
4	L2	All MCs	1	0.0	1	0.0	0.043	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	43.6
5	T1	All MCs	83	0.0	83	0.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.6
Approach			84	0.0	84	0.0	0.043	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.5
West: Jordan Esplanade															
11	T1	All MCs	135	0.0	135	0.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.6
12	R2	All MCs	1	0.0	1	0.0	0.070	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	42.4
Approach			136	0.0	136	0.0	0.070	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
All Vehicles			222	0.0	222	0.0	0.070	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 6bPM [JOR_GAL_23_PM_X_6b (Site Folder: Weekday PM Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_2023_PM_Base (Network Folder: BY 2023_PM Peak)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	22	0.0	22	0.0	0.019	3.4	LOS A	0.1	0.5	0.14	0.48	0.14	25.0
3	R2	All MCs	12	0.0	12	0.0	0.019	3.5	LOS A	0.1	0.5	0.14	0.48	0.14	43.7
Approach			34	0.0	34	0.0	0.019	3.5	LOS A	0.1	0.5	0.14	0.48	0.14	39.2
East: Jordan Esplanade															
4	L2	All MCs	32	0.0	32	0.0	0.048	4.6	LOS A	0.0	0.0	0.00	0.19	0.00	46.2
5	T1	All MCs	61	0.0	61	0.0	0.048	0.0	LOS A	0.0	0.0	0.00	0.19	0.00	48.0
Approach			93	0.0	93	0.0	0.048	1.6	NA	0.0	0.0	0.00	0.19	0.00	47.3
West: Jordan Esplanade															
11	T1	All MCs	82	1.3	82	1.3	0.067	0.1	LOS A	0.2	1.8	0.14	0.23	0.14	47.4
12	R2	All MCs	53	0.0	53	0.0	0.067	4.8	LOS A	0.2	1.8	0.14	0.23	0.14	35.7
Approach			135	0.8	135	0.8	0.067	1.9	NA	0.2	1.8	0.14	0.23	0.14	45.4
All Vehicles			261	0.4	261	0.4	0.067	2.0	NA	0.2	1.8	0.09	0.25	0.09	45.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [North_2023_Weekend_Base - Existing layout at Marina Orlando (Network Folder: BY 2023_WKend)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8WP	NA	ORL_COLL_23_WP
1WP	NA	ORL_MAR_HAR_23_WP_Ex Layout
2WP	NA	MAR_JOR_23_WP
3WP	NA	JOR_PED_23_WP
7WP	NA	HAR_HOOD_CAMP_23_WP

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Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 8WP [ORL_COLL_23_WP (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_Weekend_Base - Existing layout at Marina Orlando (Network Folder: BY 2023_WKend)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	37	0.0	37	0.0	0.352	3.9	LOS A	1.8	12.4	0.20	0.42	0.20	43.5
2	T1	All MCs	437	0.0	437	0.0	0.352	3.7	LOS A	1.8	12.4	0.20	0.42	0.20	44.0
3	R2	All MCs	2	0.0	2	0.0	0.352	7.1	LOS A	1.8	12.4	0.20	0.42	0.20	28.2
3u	U	All MCs	19	0.0	19	0.0	0.352	8.7	LOS A	1.8	12.4	0.20	0.42	0.20	29.0
Approach			495	0.0	495	0.0	0.352	4.0	LOS A	1.8	12.4	0.20	0.42	0.20	43.8
East: Driveway															
4	L2	All MCs	4	0.0	4	0.0	0.014	7.3	LOS A	0.1	0.6	0.77	0.66	0.77	11.9
5	T1	All MCs	1	0.0	1	0.0	0.014	7.7	LOS A	0.1	0.6	0.77	0.66	0.77	39.9
6	R2	All MCs	2	0.0	2	0.0	0.014	10.4	LOS A	0.1	0.6	0.77	0.66	0.77	39.1
6u	U	All MCs	1	0.0	1	0.0	0.014	12.0	LOS A	0.1	0.6	0.77	0.66	0.77	14.0
Approach			8	0.0	8	0.0	0.014	8.7	LOS A	0.1	0.6	0.77	0.66	0.77	31.6
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.566	4.4	LOS A	5.3	37.1	0.44	0.45	0.44	42.4
8	T1	All MCs	696	0.0	696	0.0	0.566	4.4	LOS A	5.3	37.1	0.44	0.45	0.44	43.1
9	R2	All MCs	39	0.0	39	0.0	0.566	7.7	LOS A	5.3	37.1	0.44	0.45	0.44	45.1
9u	U	All MCs	26	0.0	26	0.0	0.566	9.3	LOS A	5.3	37.1	0.44	0.45	0.44	45.1
Approach			763	0.0	763	0.0	0.566	4.7	LOS A	5.3	37.1	0.44	0.45	0.44	43.4
West: Collingwood Street															
10	L2	All MCs	85	0.0	85	0.0	0.177	6.2	LOS A	0.9	6.6	0.57	0.66	0.57	44.3
11	T1	All MCs	1	0.0	1	0.0	0.177	6.2	LOS A	0.9	6.6	0.57	0.66	0.57	41.0
12	R2	All MCs	73	0.0	73	0.0	0.177	9.5	LOS A	0.9	6.6	0.57	0.66	0.57	41.4
12u	U	All MCs	1	0.0	1	0.0	0.177	11.1	LOS A	0.9	6.6	0.57	0.66	0.57	44.1
Approach			160	0.0	160	0.0	0.177	7.8	LOS A	0.9	6.6	0.57	0.66	0.57	43.4
All Vehicles			1426	0.0	1426	0.0	0.566	4.8	LOS A	5.3	37.1	0.37	0.47	0.37	43.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1WP [ORL_MAR_HAR_23_WP_Ex Layout (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_Weekend_Base - Existing layout at Marina Orlando (Network Folder: BY 2023_WKend)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	466	0.7	466	0.7	0.269	3.6	LOS A	1.5	10.2	0.38	0.50	0.38	31.9
6	R2	All MCs	328	0.0	328	0.0	0.495	9.8	LOS A	2.5	17.3	0.70	0.98	1.05	25.9
Approach			795	0.4	795	0.4	0.495	6.1	LOS A	2.5	17.3	0.51	0.70	0.66	29.1
North: Orlando St North															
7	L2	All MCs	547	0.0	547	0.0	0.306	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	30.1
9a	R1	All MCs	242	0.4	242	0.4	0.126	2.6	LOS A	0.0	0.0	0.00	0.41	0.00	29.0
Approach			789	0.1	789	0.1	0.306	2.8	NA	0.0	0.0	0.00	0.38	0.00	29.8
SouthWest: Harbour Drive															
30a	L1	All MCs	163	0.0	163	0.0	0.085	2.7	LOS A	0.0	0.0	0.00	0.42	0.00	35.3
32a	R1	All MCs	385	0.3	385	0.3	0.197	3.2	LOS A	1.2	8.1	0.38	0.46	0.38	33.5
Approach			548	0.2	548	0.2	0.197	3.1	NA	1.2	8.1	0.27	0.45	0.27	34.0
All Vehicles			2133	0.2	2133	0.2	0.495	4.1	NA	2.5	17.3	0.26	0.52	0.31	30.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2WP [MAR_JOR_23_WP (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_Weekend_Base - Existing layout at Marina Orlando (Network Folder: BY 2023_WKend)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	419	0.3	419	0.3	0.509	5.2	LOS A	3.7	25.6	0.68	0.64	0.71	29.8
1a	L1	All MCs	6	0.0	6	0.0	0.509	5.2	LOS A	3.7	25.6	0.68	0.64	0.71	35.0
3a	R1	All MCs	56	0.0	56	0.0	0.509	9.0	LOS A	3.7	25.6	0.68	0.64	0.71	35.7
3u	U	All MCs	2	0.0	2	0.0	0.509	11.6	LOS A	3.7	25.6	0.68	0.64	0.71	29.8
Approach			483	0.2	483	0.2	0.509	5.7	LOS A	3.7	25.6	0.68	0.64	0.71	31.0
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	129	0.0	129	0.0	0.628	11.9	LOS A	5.8	40.9	0.85	0.87	1.12	25.4
25	T1	All MCs	280	0.4	280	0.4	0.628	11.5	LOS A	5.8	40.9	0.85	0.87	1.12	25.4
26	R2	All MCs	15	0.0	15	0.0	0.628	15.9	LOS B	5.8	40.9	0.85	0.87	1.12	24.6
26u	U	All MCs	8	0.0	8	0.0	0.628	17.6	LOS B	5.8	40.9	0.85	0.87	1.12	31.0
Approach			433	0.2	433	0.2	0.628	11.9	LOS A	5.8	40.9	0.85	0.87	1.12	25.5
NorthWest: Car Park															
27	L2	All MCs	14	15.4	14	15.4	0.218	9.7	LOS A	1.0	7.1	0.70	0.82	0.70	28.6
29a	R1	All MCs	25	0.0	25	0.0	0.218	11.1	LOS A	1.0	7.1	0.70	0.82	0.70	21.9
29	R2	All MCs	83	0.0	83	0.0	0.218	12.2	LOS A	1.0	7.1	0.70	0.82	0.70	21.9
29u	U	All MCs	1	0.0	1	0.0	0.218	13.8	LOS A	1.0	7.1	0.70	0.82	0.70	22.3
Approach			123	1.7	123	1.7	0.218	11.7	LOS A	1.0	7.1	0.70	0.82	0.70	23.0
SouthWest: Marina Drive (South West)															
30	L2	All MCs	133	0.8	133	0.8	0.337	4.3	LOS A	2.9	20.7	0.37	0.42	0.37	37.1
31	T1	All MCs	363	0.0	363	0.0	0.337	4.2	LOS A	2.9	20.7	0.37	0.42	0.37	39.4
32b	R3	All MCs	429	0.0	429	0.0	0.337	8.4	LOS A	2.9	20.3	0.39	0.57	0.39	31.4
32u	U	All MCs	12	0.0	12	0.0	0.337	9.6	LOS A	2.9	20.3	0.39	0.57	0.39	31.4
Approach			937	0.1	937	0.1	0.337	6.2	LOS A	2.9	20.7	0.38	0.49	0.38	35.7
All Vehicles			1976	0.3	1976	0.3	0.628	7.7	LOS A	5.8	40.9	0.58	0.63	0.64	31.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3WP [JOR_PED_23_WP (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_Weekend_Base - Existing layout at Marina Orlando (Network Folder: BY 2023_WKend)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	429	0.2	429	0.2	0.283	3.8	LOS A	1.1	7.9	0.32	0.52	0.32	44.7
Approach			429	0.2	429	0.2	0.283	3.8	LOS A	1.1	7.9	0.32	0.52	0.32	44.7
North: Jordan Esplanade															
8	T1	All MCs	518	0.0	518	0.0	0.404	4.5	LOS A	2.3	15.8	0.45	0.56	0.47	43.9
Approach			518	0.0	518	0.0	0.404	4.5	LOS A	2.3	15.8	0.45	0.56	0.47	43.9
All Vehicles			947	0.1	947	0.1	0.404	4.2	NA	2.3	15.8	0.39	0.54	0.40	44.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Akçelik M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 7WP [HAR_HOOD_CAMP_23_WP (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2023_Weekend_Base - Existing layout at Marina Orlando (Network Folder: BY 2023_WKend)]

Hood St/ Harbour Drive Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	173	0.0	173	0.0	0.144	6.6	LOS A	0.6	4.4	0.55	0.71	0.55	42.0
8	T1	All MCs	7	0.0	7	0.0	0.363	31.4	LOS C	1.2	8.7	0.93	1.01	1.10	30.1
9	R2	All MCs	36	0.0	36	0.0	0.363	44.3	LOS D	1.2	8.7	0.93	1.01	1.10	23.6
Approach			216	0.0	216	0.0	0.363	13.7	LOS A	1.2	8.7	0.63	0.77	0.66	37.3
East: Harbour Drive															
10	L2	All MCs	53	0.0	53	0.0	0.603	5.8	LOS A	5.7	40.4	0.40	0.22	0.40	46.2
11	T1	All MCs	609	0.7	609	0.7	0.603	0.9	LOS A	5.7	40.4	0.40	0.22	0.40	45.5
12	R2	All MCs	39	0.0	39	0.0	0.603	8.0	LOS A	5.7	40.4	0.40	0.22	0.40	45.6
Approach			701	0.6	701	0.6	0.603	1.7	NA	5.7	40.4	0.40	0.22	0.40	45.6
North: Hood Street															
1	L2	All MCs	9	0.0	9	0.0	0.084	6.2	LOS A	0.3	1.8	0.80	0.89	0.80	29.1
2	T1	All MCs	2	0.0	2	0.0	0.084	25.5	LOS B	0.3	1.8	0.80	0.89	0.80	37.3
3	R2	All MCs	6	0.0	6	0.0	0.084	41.1	LOS C	0.3	1.8	0.80	0.89	0.80	31.2
Approach			18	0.0	18	0.0	0.084	20.8	LOS B	0.3	1.8	0.80	0.89	0.80	31.3
West: Harbour Drive															
4	L2	All MCs	8	0.0	8	0.0	0.451	5.3	LOS A	3.3	23.0	0.30	0.14	0.30	45.8
5	T1	All MCs	495	0.2	495	0.2	0.451	0.7	LOS A	3.3	23.0	0.30	0.14	0.30	43.3
6	R2	All MCs	73	0.0	73	0.0	0.058	6.7	LOS A	0.3	1.9	0.59	0.66	0.59	42.1
Approach			576	0.2	576	0.2	0.451	1.5	NA	3.3	23.0	0.34	0.20	0.34	42.9
All Vehicles			1511	0.3	1511	0.3	0.603	3.6	NA	5.7	40.4	0.41	0.30	0.42	42.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

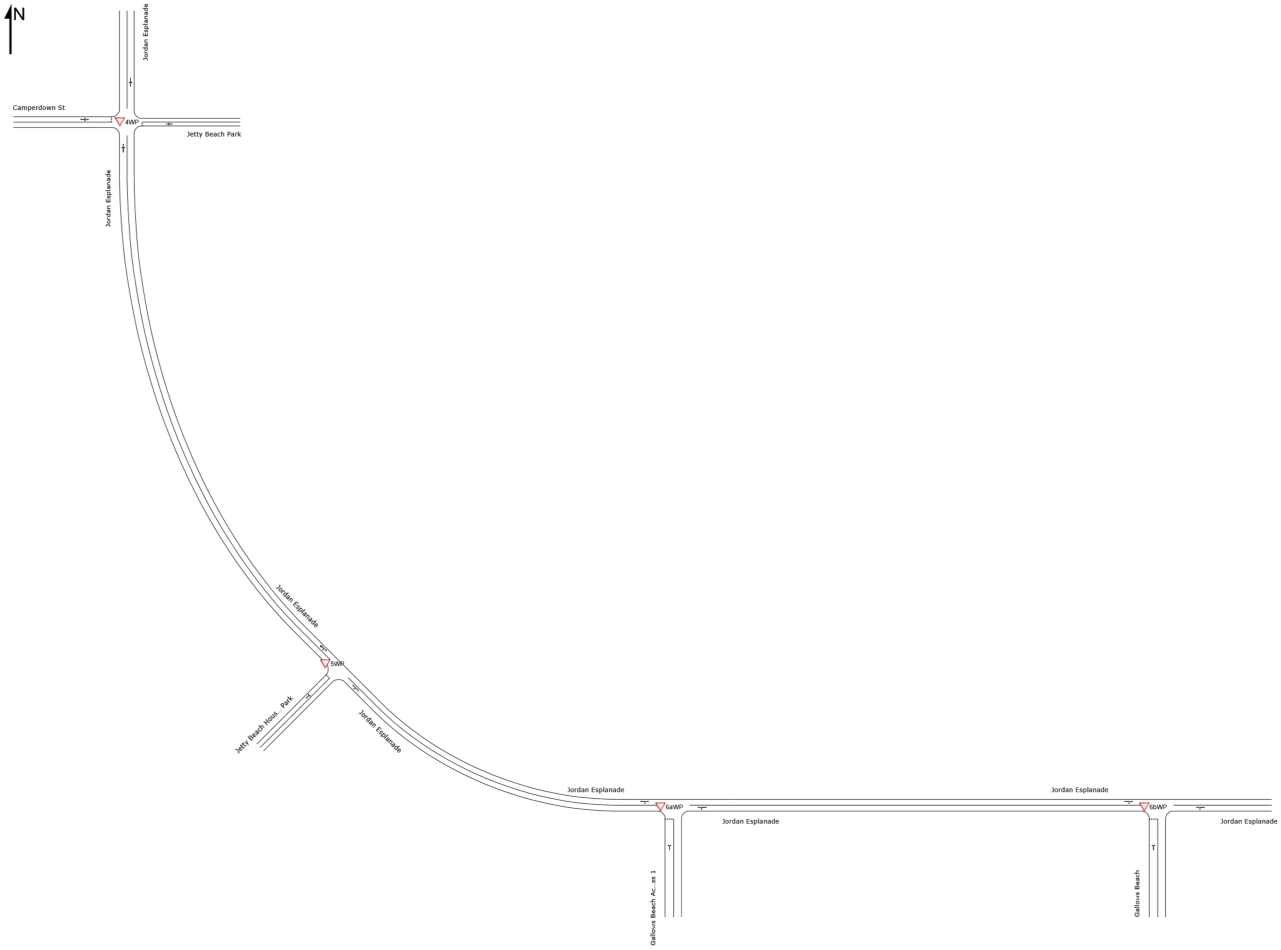
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [South_2023_Weekend_Base (Network Folder: BY 2023_WKend)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽4WP	NA	JOR_CAM_23_WP
▽5WP	NA	JOR_JET_23_WP
▽6aWP	NA	JOR_GAL_23_WP_6a
▽6bWP	NA	JOR_GAL_23_WP_6b

Organisation: SCT CONSULTING PTY LTD | Licence: NETWORK / 1PC | Created: Tuesday, 9 April 2024 3:54:23 PM
Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 4WP [JOR_CAM_23_WP (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2023_Weekend_Base (Network Folder: BY 2023_WKend)]

Camperdown St Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	214	0.0	214	0.0	0.256	4.6	LOS A	0.0	0.3	0.01	0.23	0.01	47.2
2	T1	All MCs	296	0.4	296	0.4	0.256	0.0	LOS A	0.0	0.3	0.01	0.23	0.01	48.5
3	R2	All MCs	3	0.0	3	0.0	0.256	5.0	LOS A	0.0	0.3	0.01	0.23	0.01	44.6
Approach			513	0.2	513	0.2	0.256	1.9	NA	0.0	0.3	0.01	0.23	0.01	47.9
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.003	3.8	LOS A	0.0	0.1	0.44	0.55	0.44	19.6
5	T1	All MCs	1	0.0	1	0.0	0.003	4.1	LOS A	0.0	0.1	0.44	0.55	0.44	43.6
6	R2	All MCs	1	0.0	1	0.0	0.003	5.1	LOS A	0.0	0.1	0.44	0.55	0.44	42.8
Approach			3	0.0	3	0.0	0.003	4.3	LOS A	0.0	0.1	0.44	0.55	0.44	41.5
North: Jordan Esplanade															
7	L2	All MCs	1	0.0	1	0.0	0.254	6.3	LOS A	0.7	5.0	0.22	0.25	0.22	27.8
8	T1	All MCs	395	0.0	395	0.0	0.254	0.5	LOS A	0.7	5.0	0.22	0.25	0.22	47.8
9	R2	All MCs	84	0.0	84	0.0	0.254	6.3	LOS A	0.7	5.0	0.22	0.25	0.22	47.5
Approach			480	0.0	480	0.0	0.254	1.5	NA	0.7	5.0	0.22	0.25	0.22	47.6
West: Camperdown St															
10	L2	All MCs	36	0.0	36	0.0	0.182	5.4	LOS A	0.6	4.0	0.49	0.73	0.49	44.4
11	T1	All MCs	1	0.0	1	0.0	0.182	5.7	LOS A	0.6	4.0	0.49	0.73	0.49	27.5
12	R2	All MCs	107	0.0	107	0.0	0.182	8.0	LOS A	0.6	4.0	0.49	0.73	0.49	41.7
Approach			144	0.0	144	0.0	0.182	7.3	LOS A	0.6	4.0	0.49	0.73	0.49	42.6
All Vehicles			1140	0.1	1140	0.1	0.256	2.5	NA	0.7	5.0	0.16	0.30	0.16	47.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5WP [JOR_JET_23_WP (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2023_Weekend_Base (Network Folder: BY 2023_WKend)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	3	0.0	3	0.0	0.251	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	44.0
22	T1	All MCs	480	0.2	480	0.2	0.251	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.7
Approach			483	0.2	483	0.2	0.251	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
NorthWest: Jordan Esplanade															
28	T1	All MCs	495	0.0	495	0.0	0.272	0.1	LOS A	0.2	1.3	0.05	0.06	0.05	49.4
29	R2	All MCs	9	0.0	9	0.0	0.272	6.3	LOS A	0.2	1.3	0.05	0.06	0.05	46.5
29u	U	All MCs	5	0.0	5	0.0	0.272	10.6	LOS A	0.2	1.3	0.05	0.06	0.05	49.4
Approach			509	0.0	509	0.0	0.272	0.4	NA	0.2	1.3	0.05	0.06	0.05	49.3
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	8	0.0	8	0.0	0.007	5.8	LOS A	0.0	0.2	0.45	0.56	0.45	28.2
32	R2	All MCs	1	0.0	1	0.0	0.007	6.7	LOS A	0.0	0.2	0.45	0.56	0.45	28.2
Approach			9	0.0	9	0.0	0.007	5.9	LOS A	0.0	0.2	0.45	0.56	0.45	28.2
All Vehicles			1002	0.1	1002	0.1	0.272	0.3	NA	0.2	1.3	0.03	0.04	0.03	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6aWP [JOR_GAL_23_WP_6a (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2023_Weekend_Base (Network Folder: BY 2023_WKend)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach Access 1															
1	L2	All MCs	1	0.0	1	0.0	0.001	2.9	LOS A	0.0	0.0	0.24	0.47	0.24	22.2
3	R2	All MCs	1	0.0	1	0.0	0.001	3.2	LOS A	0.0	0.0	0.24	0.47	0.24	22.2
Approach			2	0.0	2	0.0	0.001	3.1	LOS A	0.0	0.0	0.24	0.47	0.24	22.2
East: Jordan Esplanade															
4	L2	All MCs	1	0.0	1	0.0	0.079	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	43.7
5	T1	All MCs	152	0.7	152	0.7	0.079	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
Approach			153	0.7	153	0.7	0.079	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.7
West: Jordan Esplanade															
11	T1	All MCs	311	0.0	311	0.0	0.160	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
12	R2	All MCs	1	0.0	1	0.0	0.160	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	42.5
Approach			312	0.0	312	0.0	0.160	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.8
All Vehicles			466	0.2	466	0.2	0.160	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6bWP [JOR_GAL_23_WP_6b (Site Folder: Weekend Peak BY)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2023_Weekend_Base (Network Folder: BY 2023_WKend)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	40	0.0	40	0.0	0.040	3.5	LOS A	0.1	1.0	0.21	0.50	0.21	24.2
3	R2	All MCs	24	0.0	24	0.0	0.040	4.0	LOS A	0.1	1.0	0.21	0.50	0.21	43.4
Approach			64	0.0	64	0.0	0.040	3.7	LOS A	0.1	1.0	0.21	0.50	0.21	39.3
East: Jordan Esplanade															
4	L2	All MCs	97	0.0	97	0.0	0.109	4.6	LOS A	0.0	0.0	0.00	0.25	0.00	45.6
5	T1	All MCs	111	1.0	111	1.0	0.109	0.0	LOS A	0.0	0.0	0.00	0.25	0.00	47.2
Approach			207	0.5	207	0.5	0.109	2.2	NA	0.0	0.0	0.00	0.25	0.00	46.4
West: Jordan Esplanade															
11	T1	All MCs	182	0.0	182	0.0	0.159	0.3	LOS A	0.7	4.8	0.25	0.29	0.25	46.9
12	R2	All MCs	128	0.0	128	0.0	0.159	5.1	LOS A	0.7	4.8	0.25	0.29	0.25	34.5
Approach			311	0.0	311	0.0	0.159	2.3	NA	0.7	4.8	0.25	0.29	0.25	44.6
All Vehicles			582	0.2	582	0.2	0.159	2.4	NA	0.7	4.8	0.16	0.30	0.16	45.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

APPENDIX B

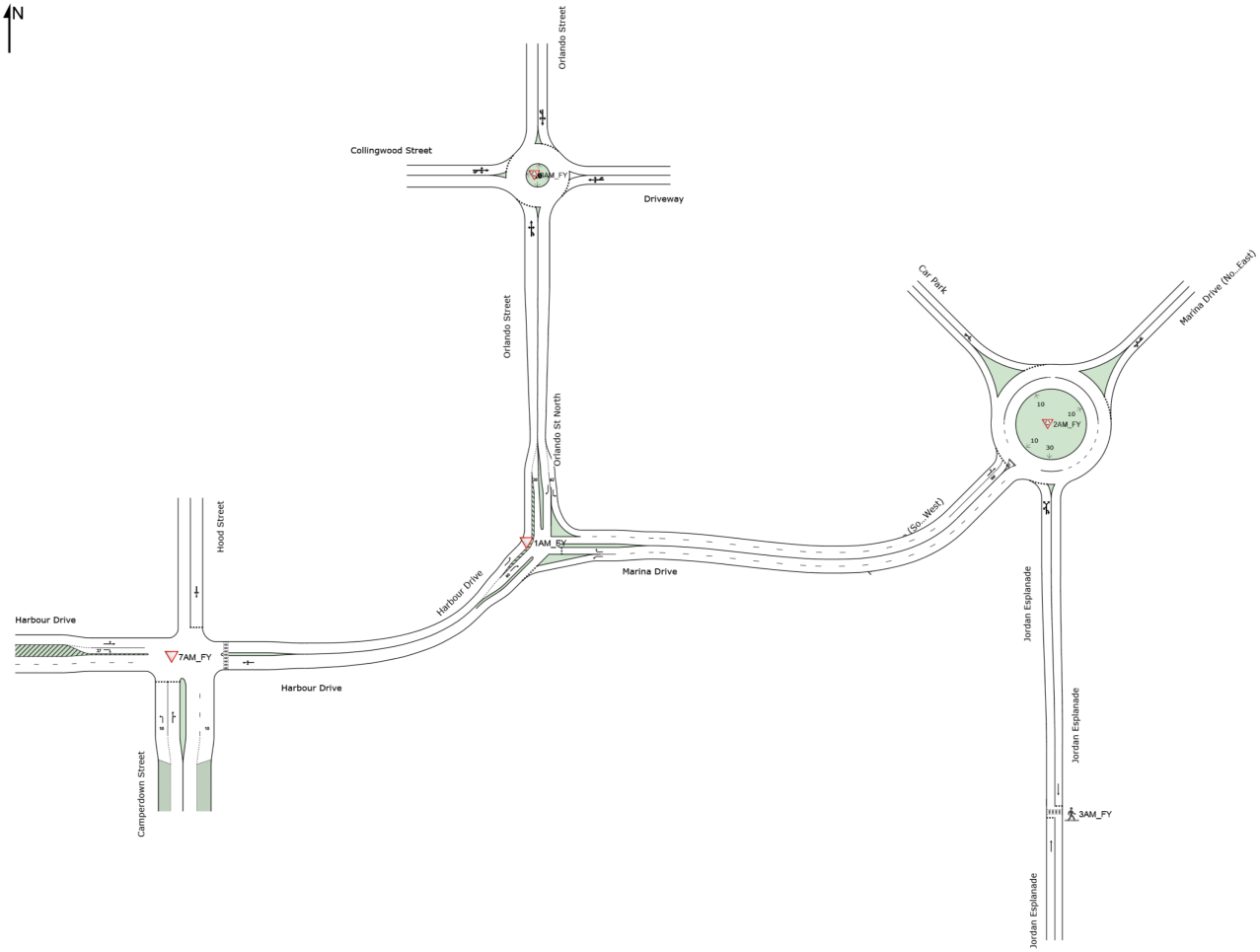
FUTURE YEAR SIDRA ANALYSIS RESULTS

NETWORK LAYOUT

Network: N101 [North_2033_AM_Base (Network Folder: FY Base_2033_AM)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8AM_FY	NA	ORL_COLL_33_AM_FY_B
1AM_FY	NA	ORL_MAR_HAR_33_AM_FY_B
2AM_FY	NA	MAR_JOR_33_AM_FY_B
3AM_FY	NA	JOR_PED_33_AM_FY_B
7AM_FY	NA	HAR_HOOD_CAMP_33_AM_FY_B

MOVEMENT SUMMARY

Site: 8AM_FY [ORL_COLL_33_AM_FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_AM_Base (Network Folder: FY Base_2033_AM)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	38	0.0	38	0.0	0.302	4.0	LOS A	0.6	4.0	0.22	0.43	0.22	43.4
2	T1	All MCs	351	2.4	351	2.4	0.302	3.8	LOS A	0.6	4.0	0.22	0.43	0.22	43.9
3	R2	All MCs	3	0.0	3	0.0	0.302	7.2	LOS A	0.6	4.0	0.22	0.43	0.22	28.0
3u	U	All MCs	11	0.0	11	0.0	0.302	8.8	LOS A	0.6	4.0	0.22	0.43	0.22	28.7
Approach			402	2.1	402	2.1	0.302	4.0	LOS A	0.6	4.0	0.22	0.43	0.22	43.7
East: Driveway															
4	L2	All MCs	3	0.0	3	0.0	0.013	5.2	LOS A	0.0	0.2	0.66	0.63	0.66	14.7
5	T1	All MCs	1	0.0	1	0.0	0.013	5.6	LOS A	0.0	0.2	0.66	0.63	0.66	41.2
6	R2	All MCs	4	0.0	4	0.0	0.013	8.3	LOS A	0.0	0.2	0.66	0.63	0.66	40.5
6u	U	All MCs	1	0.0	1	0.0	0.013	9.9	LOS A	0.0	0.2	0.66	0.63	0.66	16.5
Approach			9	0.0	9	0.0	0.013	7.2	LOS A	0.0	0.2	0.66	0.63	0.66	36.7
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.419	4.4	LOS A	1.3	8.9	0.40	0.47	0.40	42.3
8	T1	All MCs	445	0.0	445	0.0	0.419	4.4	LOS A	1.3	8.9	0.40	0.47	0.40	43.0
9	R2	All MCs	59	0.0	59	0.0	0.419	7.7	LOS A	1.3	8.9	0.40	0.47	0.40	45.0
9u	U	All MCs	28	0.0	28	0.0	0.419	9.2	LOS A	1.3	8.9	0.40	0.47	0.40	45.0
Approach			535	0.0	535	0.0	0.419	5.0	LOS A	1.3	8.9	0.40	0.47	0.40	43.6
West: Collingwood Street															
10	L2	All MCs	69	0.0	69	0.0	0.179	5.7	LOS A	0.4	2.6	0.52	0.64	0.52	44.4
11	T1	All MCs	1	0.0	1	0.0	0.179	5.7	LOS A	0.4	2.6	0.52	0.64	0.52	41.2
12	R2	All MCs	101	0.0	101	0.0	0.179	9.0	LOS A	0.4	2.6	0.52	0.64	0.52	41.5
12u	U	All MCs	1	0.0	1	0.0	0.179	10.6	LOS A	0.4	2.6	0.52	0.64	0.52	44.2
Approach			173	0.0	173	0.0	0.179	7.7	LOS A	0.4	2.6	0.52	0.64	0.52	43.1
All Vehicles			1119	0.8	1119	0.8	0.419	5.1	LOS A	1.3	8.9	0.36	0.49	0.36	43.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1AM_FY [ORL_MAR_HAR_33_AM_FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_AM_Base (Network Folder: FY Base_2033_AM)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	188	1.1	188	1.1	0.114	3.6	LOS A	0.2	1.5	0.38	0.50	0.38	31.9
6	R2	All MCs	203	1.6	203	1.6	0.246	6.6	LOS A	0.4	2.5	0.51	0.71	0.53	29.5
Approach			392	1.3	392	1.3	0.246	5.1	LOS A	0.4	2.5	0.45	0.61	0.46	30.6
North: Orlando St North															
7	L2	All MCs	274	1.2	274	1.2	0.154	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	30.1
9a	R1	All MCs	295	2.1	295	2.1	0.156	2.6	LOS A	0.0	0.0	0.00	0.41	0.00	29.0
Approach			568	1.7	568	1.7	0.156	2.7	NA	0.0	0.0	0.00	0.39	0.00	29.6
SouthWest: Harbour Drive															
30a	L1	All MCs	201	4.2	201	4.2	0.108	2.7	LOS A	0.0	0.0	0.00	0.42	0.00	35.3
32a	R1	All MCs	221	0.0	221	0.0	0.119	3.3	LOS A	0.3	1.8	0.41	0.48	0.41	33.4
Approach			422	2.0	422	2.0	0.119	3.0	NA	0.3	1.8	0.21	0.45	0.21	34.3
All Vehicles			1382	1.7	1382	1.7	0.246	3.5	NA	0.4	2.5	0.19	0.47	0.19	31.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2AM_FY [MAR_JOR_33_AM_FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_AM_Base (Network Folder: FY Base_2033_AM)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	173	1.8	173	1.8	0.189	3.5	LOS A	0.4	2.7	0.38	0.50	0.38	32.6
1a	L1	All MCs	2	0.0	2	0.0	0.189	3.5	LOS A	0.4	2.7	0.38	0.50	0.38	37.2
3a	R1	All MCs	32	0.0	32	0.0	0.189	7.3	LOS A	0.4	2.7	0.38	0.50	0.38	37.5
3u	U	All MCs	1	0.0	1	0.0	0.189	9.8	LOS A	0.4	2.7	0.38	0.50	0.38	32.6
Approach			207	1.5	207	1.5	0.189	4.1	LOS A	0.4	2.7	0.38	0.50	0.38	33.9
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	71	0.0	71	0.0	0.294	5.1	LOS A	0.7	4.7	0.48	0.48	0.48	34.2
25	T1	All MCs	198	1.1	198	1.1	0.294	4.6	LOS A	0.7	4.7	0.48	0.48	0.48	34.2
26	R2	All MCs	1	0.0	1	0.0	0.294	9.0	LOS A	0.7	4.7	0.48	0.48	0.48	29.4
26u	U	All MCs	3	0.0	3	0.0	0.294	10.7	LOS A	0.7	4.7	0.48	0.48	0.48	37.5
Approach			273	0.8	273	0.8	0.294	4.8	LOS A	0.7	4.7	0.48	0.48	0.48	34.2
NorthWest: Car Park															
27	L2	All MCs	1	0.0	1	0.0	0.020	6.2	LOS A	0.0	0.2	0.54	0.67	0.54	31.8
29a	R1	All MCs	1	0.0	1	0.0	0.020	8.9	LOS A	0.0	0.2	0.54	0.67	0.54	24.6
29	R2	All MCs	12	0.0	12	0.0	0.020	10.0	LOS A	0.0	0.2	0.54	0.67	0.54	24.6
29u	U	All MCs	1	0.0	1	0.0	0.020	11.7	LOS A	0.0	0.2	0.54	0.67	0.54	23.9
Approach			15	0.0	15	0.0	0.020	9.8	LOS A	0.0	0.2	0.54	0.67	0.54	25.3
SouthWest: Marina Drive (South West)															
30	L2	All MCs	12	9.1	12	9.1	0.177	4.0	LOS A	0.5	3.7	0.20	0.39	0.20	37.8
31	T1	All MCs	266	0.4	266	0.4	0.177	3.8	LOS A	0.5	3.7	0.20	0.39	0.20	40.5
32b	R3	All MCs	213	0.5	213	0.5	0.159	8.0	LOS A	0.5	3.2	0.21	0.59	0.21	32.3
32u	U	All MCs	6	0.0	6	0.0	0.159	9.2	LOS A	0.5	3.2	0.21	0.59	0.21	32.3
Approach			497	0.6	497	0.6	0.177	5.7	LOS A	0.5	3.7	0.20	0.48	0.20	37.3
All Vehicles			992	0.8	992	0.8	0.294	5.2	LOS A	0.7	4.7	0.32	0.49	0.32	35.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3AM_FY [JOR_PED_33_AM_FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_AM_Base (Network Folder: FY Base_2033_AM)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	191	1.7	191	1.7	0.109	3.3	LOS A	0.1	1.0	0.09	0.45	0.09	45.6
Approach			191	1.7	191	1.7	0.109	3.3	LOS A	0.1	1.0	0.09	0.45	0.09	45.6
North: Jordan Esplanade															
8	T1	All MCs	260	0.4	260	0.4	0.168	3.3	LOS A	0.3	2.0	0.12	0.45	0.12	44.9
Approach			260	0.4	260	0.4	0.168	3.3	LOS A	0.3	2.0	0.12	0.45	0.12	44.9
All Vehicles			451	0.9	451	0.9	0.168	3.3	NA	0.3	2.0	0.11	0.45	0.11	45.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 7AM_FY [HAR_HOOD_CAMP_33_AM_FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_AM_Base (Network Folder: FY Base_2033_AM)]

Hood St/ Harbour Drive Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	73	0.0	73	0.0	0.049	5.7	LOS A	0.1	0.6	0.43	0.58	0.43	42.4
8	T1	All MCs	2	0.0	2	0.0	0.114	13.2	LOS A	0.2	1.1	0.79	0.89	0.79	38.6
9	R2	All MCs	26	0.0	26	0.0	0.114	18.5	LOS B	0.2	1.1	0.79	0.89	0.79	33.8
Approach			101	0.0	101	0.0	0.114	9.2	LOS A	0.2	1.1	0.53	0.67	0.53	40.0
East: Harbour Drive															
10	L2	All MCs	53	0.0	53	0.0	0.405	5.3	LOS A	1.2	8.2	0.29	0.18	0.29	46.6
11	T1	All MCs	412	1.0	412	1.0	0.405	0.7	LOS A	1.2	8.2	0.29	0.18	0.29	46.3
12	R2	All MCs	11	0.0	11	0.0	0.405	6.3	LOS A	1.2	8.2	0.29	0.18	0.29	46.0
Approach			475	0.9	475	0.9	0.405	1.3	NA	1.2	8.2	0.29	0.18	0.29	46.3
North: Hood Street															
1	L2	All MCs	6	0.0	6	0.0	0.045	5.7	LOS A	0.1	0.4	0.67	0.77	0.67	34.6
2	T1	All MCs	1	0.0	1	0.0	0.045	13.6	LOS A	0.1	0.4	0.67	0.77	0.67	41.0
3	R2	All MCs	9	0.0	9	0.0	0.045	17.4	LOS B	0.1	0.4	0.67	0.77	0.67	36.0
Approach			17	0.0	17	0.0	0.045	12.8	LOS A	0.1	0.4	0.67	0.77	0.67	36.1
West: Harbour Drive															
4	L2	All MCs	8	0.0	8	0.0	0.356	5.2	LOS A	0.9	6.5	0.27	0.12	0.27	46.0
5	T1	All MCs	385	2.2	385	2.2	0.356	0.6	LOS A	0.9	6.5	0.27	0.12	0.27	43.8
6	R2	All MCs	52	0.0	52	0.0	0.033	5.8	LOS A	0.1	0.5	0.49	0.56	0.49	42.5
Approach			445	1.9	445	1.9	0.356	1.3	NA	0.9	6.5	0.29	0.17	0.29	43.4
All Vehicles			1038	1.2	1038	1.2	0.405	2.3	NA	1.2	8.2	0.32	0.23	0.32	44.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

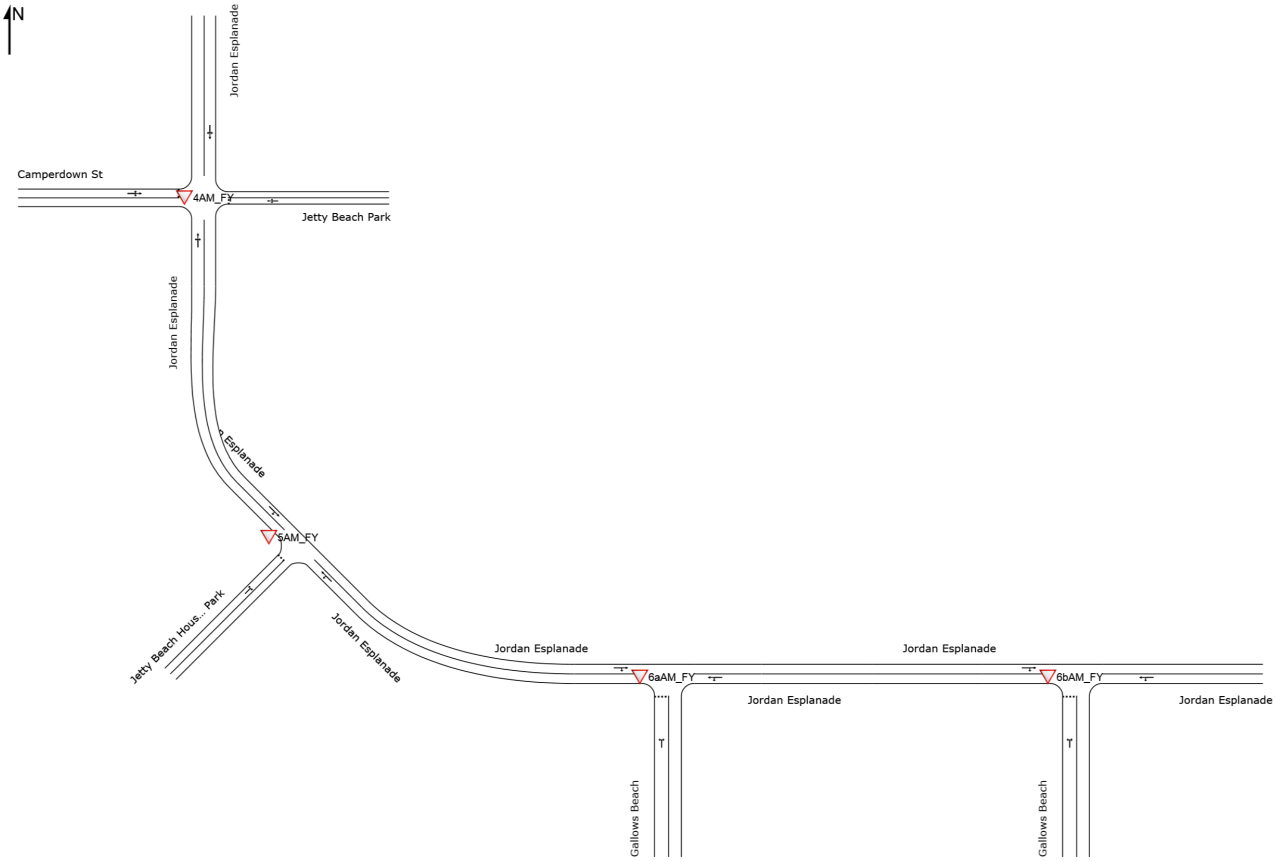
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [South_2033_AM_Base (Network Folder: FY Base_2033_AM)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽4AM_FY	NA	JOR_CAM_33_AM_FY_B
▽5AM_FY	NA	JOR_JET_33_AM_FY_B
▽6aAM_FY	NA	JOR_GAL_33_AM_X_6a _FY_B
▽6bAM_FY	NA	JOR_GAL_33_AM_X_6b _FY_B

Organisation: SCT CONSULTING PTY LTD | Licence: NETWORK / 1PC | Created: Tuesday, 9 April 2024 4:40:38 PM
Project: S:\Projects\SCT_00358_Coffs Harbour Foreshore Precinct TTIA\3. Technical Work Area\1. Network Optimisation\SCT_00358_Coffs Harbour_v0.7_Staging.sip9

MOVEMENT SUMMARY

Site: 4AM_FY [JOR_CAM_33_AM_FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_AM_Base (Network Folder: FY Base_2033_AM)]

Camperdown St Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	79	0.0	79	0.0	0.118	4.6	LOS A	0.0	0.1	0.01	0.19	0.01	47.5
2	T1	All MCs	155	1.4	155	1.4	0.118	0.0	LOS A	0.0	0.1	0.01	0.19	0.01	48.8
3	R2	All MCs	2	50.0	2	50.0	0.118	5.3	LOS A	0.0	0.1	0.01	0.19	0.01	44.6
Approach			236	1.3	236	1.3	0.118	1.6	NA	0.0	0.1	0.01	0.19	0.01	48.3
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.002	3.2	LOS A	0.0	0.0	0.27	0.47	0.27	23.5
5	T1	All MCs	1	0.0	1	0.0	0.002	2.5	LOS A	0.0	0.0	0.27	0.47	0.27	44.8
6	R2	All MCs	1	0.0	1	0.0	0.002	3.5	LOS A	0.0	0.0	0.27	0.47	0.27	44.0
Approach			3	0.0	3	0.0	0.002	3.1	LOS A	0.0	0.0	0.27	0.47	0.27	43.1
North: Jordan Esplanade															
7	L2	All MCs	1	0.0	1	0.0	0.098	5.1	LOS A	0.0	0.2	0.04	0.05	0.04	28.3
8	T1	All MCs	185	0.6	185	0.6	0.098	0.0	LOS A	0.0	0.2	0.04	0.05	0.04	49.4
9	R2	All MCs	9	0.0	9	0.0	0.098	5.2	LOS A	0.0	0.2	0.04	0.05	0.04	48.3
Approach			196	0.5	196	0.5	0.098	0.3	NA	0.0	0.2	0.04	0.05	0.04	49.1
West: Camperdown St															
10	L2	All MCs	9	0.0	9	0.0	0.067	4.9	LOS A	0.1	0.5	0.29	0.59	0.29	45.3
11	T1	All MCs	1	0.0	1	0.0	0.067	4.0	LOS A	0.1	0.5	0.29	0.59	0.29	30.8
12	R2	All MCs	62	1.7	62	1.7	0.067	5.6	LOS A	0.1	0.5	0.29	0.59	0.29	43.4
Approach			73	1.4	73	1.4	0.067	5.5	LOS A	0.1	0.5	0.29	0.59	0.29	43.6
All Vehicles			507	1.0	507	1.0	0.118	1.7	NA	0.1	0.5	0.06	0.19	0.06	47.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5AM_FY [JOR_JET_33_AM_FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_AM_Base (Network Folder: FY Base_2033_AM)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	2	0.0	2	0.0	0.116	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	44.0
22	T1	All MCs	220	1.0	220	1.0	0.116	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.6
Approach			222	0.9	222	0.9	0.116	0.0	NA	0.0	0.0	0.00	0.01	0.00	49.5
NorthWest: Jordan Esplanade															
28	T1	All MCs	239	0.9	239	0.9	0.129	0.0	LOS A	0.0	0.2	0.02	0.02	0.02	49.6
29	R2	All MCs	7	14.3	7	14.3	0.129	5.3	LOS A	0.0	0.2	0.02	0.02	0.02	45.8
Approach			246	1.3	246	1.3	0.129	0.2	NA	0.0	0.2	0.02	0.02	0.02	49.5
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	6	16.7	6	16.7	0.005	5.3	LOS A	0.0	0.1	0.30	0.50	0.30	29.4
32	R2	All MCs	1	0.0	1	0.0	0.005	5.4	LOS A	0.0	0.1	0.30	0.50	0.30	29.4
Approach			7	14.3	7	14.3	0.005	5.3	LOS A	0.0	0.1	0.30	0.50	0.30	29.4
All Vehicles			476	1.3	476	1.3	0.129	0.2	NA	0.0	0.2	0.02	0.02	0.02	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6aAM_FY [JOR_GAL_33_AM_X_6a _FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_AM_Base (Network Folder: FY Base_2033_AM)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.15	0.46	0.15	23.3
3	R2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.15	0.46	0.15	23.3
Approach			2	0.0	2	0.0	0.001	2.8	LOS A	0.0	0.0	0.15	0.46	0.15	23.3
East: Jordan Esplanade															
4	L2	All MCs	1	0.0	1	0.0	0.035	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	43.6
5	T1	All MCs	67	0.0	67	0.0	0.035	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.5
Approach			68	0.0	68	0.0	0.035	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
West: Jordan Esplanade															
11	T1	All MCs	138	0.8	138	0.8	0.072	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.7
12	R2	All MCs	1	0.0	1	0.0	0.072	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	42.4
Approach			139	0.8	139	0.8	0.072	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
All Vehicles			209	0.5	209	0.5	0.072	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6bAM_FY [JOR_GAL_33_AM_X_6b _FY_B (Site Folder: Weekday AM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_AM_Base (Network Folder: FY Base_2033_AM)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	19	0.0	19	0.0	0.017	3.4	LOS A	0.0	0.2	0.13	0.48	0.13	25.1
3	R2	All MCs	12	0.0	12	0.0	0.017	3.5	LOS A	0.0	0.2	0.13	0.48	0.13	43.7
Approach			31	0.0	31	0.0	0.017	3.4	LOS A	0.0	0.2	0.13	0.48	0.13	39.8
East: Jordan Esplanade															
4	L2	All MCs	35	0.0	35	0.0	0.044	4.6	LOS A	0.0	0.0	0.00	0.22	0.00	45.8
5	T1	All MCs	49	2.1	49	2.1	0.044	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	47.5
Approach			84	1.3	84	1.3	0.044	1.9	NA	0.0	0.0	0.00	0.22	0.00	46.8
West: Jordan Esplanade															
11	T1	All MCs	84	0.0	84	0.0	0.067	0.1	LOS A	0.1	0.7	0.13	0.22	0.13	47.5
12	R2	All MCs	53	0.0	53	0.0	0.067	4.8	LOS A	0.1	0.7	0.13	0.22	0.13	35.9
Approach			137	0.0	137	0.0	0.067	1.9	NA	0.1	0.7	0.13	0.22	0.13	45.6
All Vehicles			252	0.4	252	0.4	0.067	2.1	NA	0.1	0.7	0.09	0.25	0.09	45.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

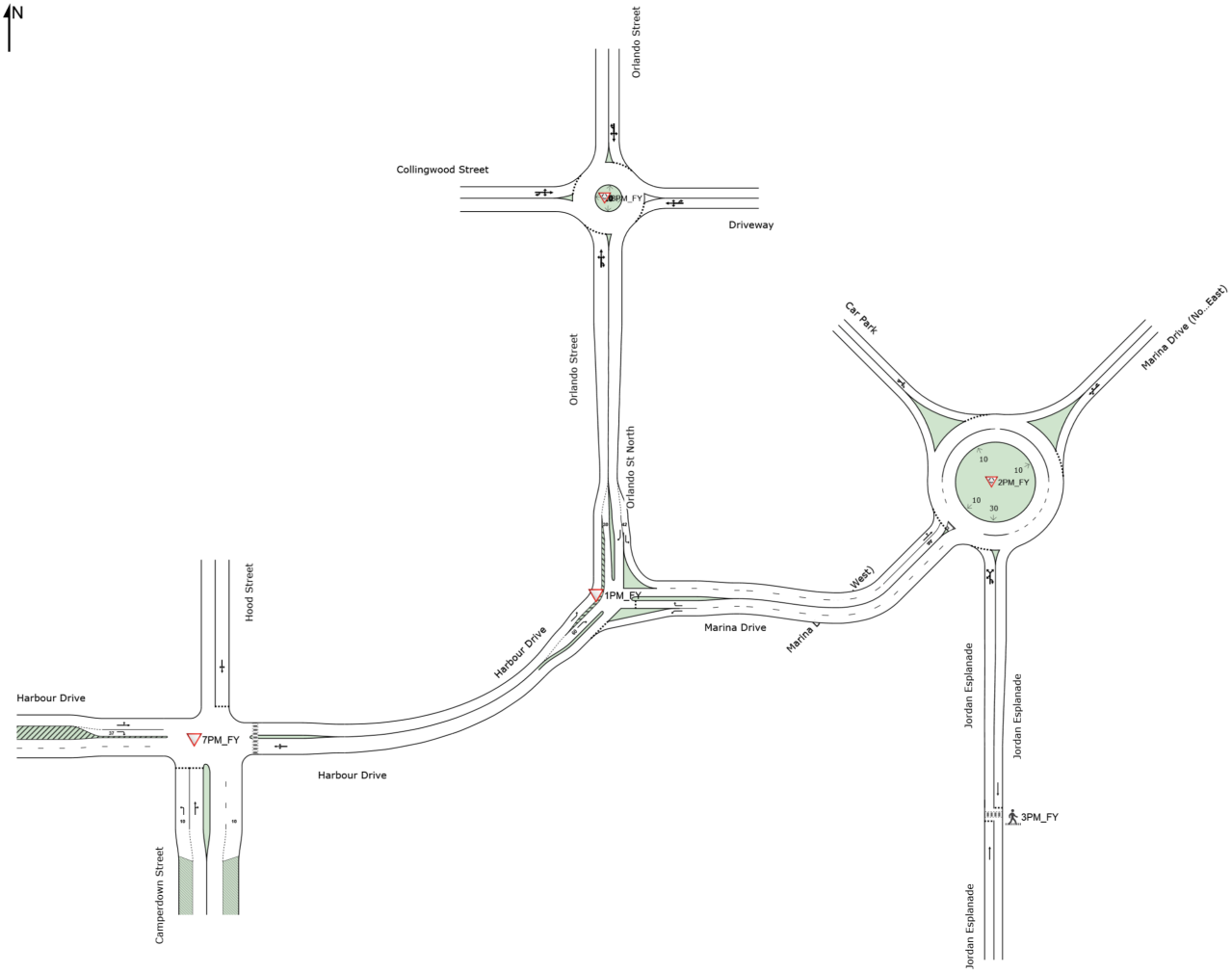
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [North_2033_PM_Base (Network Folder: FY Base_2033_PM)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8PM_FY	NA	ORL_COLL_33_PM_FY_B
1PM_FY	NA	ORL_MAR_HAR_33_PM_FY_B
2PM_FY	NA	MAR_JOR_33_PM_FY_B
3PM_FY	NA	JOR_PED_33_PM_FY_B
7PM_FY	NA	HAR_HOOD_CAMP_33_PM_FY_B

MOVEMENT SUMMARY

Site: 8PM_FY [ORL_COLL_33_PM_FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_Base (Network Folder: FY Base_2033_PM)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	21	0.0	21	0.0	0.251	3.9	LOS A	0.4	3.1	0.17	0.42	0.17	43.6
2	T1	All MCs	307	2.4	307	2.4	0.251	3.7	LOS A	0.4	3.1	0.17	0.42	0.17	44.1
3	R2	All MCs	1	0.0	1	0.0	0.251	7.1	LOS A	0.4	3.1	0.17	0.42	0.17	28.4
3u	U	All MCs	14	0.0	14	0.0	0.251	8.7	LOS A	0.4	3.1	0.17	0.42	0.17	29.3
Approach			343	2.2	343	2.2	0.251	3.9	LOS A	0.4	3.1	0.17	0.42	0.17	43.9
East: Driveway															
4	L2	All MCs	3	0.0	3	0.0	0.012	4.7	LOS A	0.0	0.2	0.62	0.62	0.62	15.4
5	T1	All MCs	1	0.0	1	0.0	0.012	5.1	LOS A	0.0	0.2	0.62	0.62	0.62	41.7
6	R2	All MCs	4	0.0	4	0.0	0.012	7.8	LOS A	0.0	0.2	0.62	0.62	0.62	40.9
6u	U	All MCs	1	0.0	1	0.0	0.012	9.4	LOS A	0.0	0.2	0.62	0.62	0.62	17.2
Approach			9	0.0	9	0.0	0.012	6.7	LOS A	0.0	0.2	0.62	0.62	0.62	37.3
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.374	4.1	LOS A	1.1	7.5	0.33	0.45	0.33	42.7
8	T1	All MCs	426	1.0	426	1.0	0.374	4.2	LOS A	1.1	7.5	0.33	0.45	0.33	43.5
9	R2	All MCs	52	0.0	52	0.0	0.374	7.5	LOS A	1.1	7.5	0.33	0.45	0.33	45.3
9u	U	All MCs	12	0.0	12	0.0	0.374	9.0	LOS A	1.1	7.5	0.33	0.45	0.33	45.3
Approach			491	0.9	491	0.9	0.374	4.7	LOS A	1.1	7.5	0.33	0.45	0.33	43.9
West: Collingwood Street															
10	L2	All MCs	72	0.0	72	0.0	0.148	5.3	LOS A	0.3	2.1	0.47	0.62	0.47	44.7
11	T1	All MCs	1	0.0	1	0.0	0.148	5.3	LOS A	0.3	2.1	0.47	0.62	0.47	41.7
12	R2	All MCs	76	0.0	76	0.0	0.148	8.6	LOS A	0.3	2.1	0.47	0.62	0.47	42.1
12u	U	All MCs	1	0.0	1	0.0	0.148	10.2	LOS A	0.3	2.1	0.47	0.62	0.47	44.5
Approach			149	0.0	149	0.0	0.148	7.0	LOS A	0.3	2.1	0.47	0.62	0.47	43.8
All Vehicles			992	1.2	992	1.2	0.374	4.8	LOS A	1.1	7.5	0.30	0.47	0.30	43.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1PM_FY [ORL_MAR_HAR_33_PM_FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_Base (Network Folder: FY Base_2033_PM)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	229	1.4	229	1.4	0.138	3.6	LOS A	0.3	1.9	0.37	0.50	0.37	32.0
6	R2	All MCs	185	0.0	185	0.0	0.218	6.2	LOS A	0.3	2.1	0.50	0.69	0.50	29.8
Approach			415	0.8	415	0.8	0.218	4.8	LOS A	0.3	2.1	0.43	0.59	0.43	31.0
North: Orlando St North															
7	L2	All MCs	234	0.5	234	0.5	0.131	2.9	LOS A	0.0	0.0	0.00	0.37	0.00	30.1
9a	R1	All MCs	282	1.5	282	1.5	0.148	2.6	LOS A	0.0	0.0	0.00	0.41	0.00	29.0
Approach			516	1.0	516	1.0	0.148	2.7	NA	0.0	0.0	0.00	0.39	0.00	29.6
SouthWest: Harbour Drive															
30a	L1	All MCs	156	2.7	156	2.7	0.083	2.7	LOS A	0.0	0.0	0.00	0.42	0.00	35.3
32a	R1	All MCs	243	0.9	243	0.9	0.130	3.3	LOS A	0.3	2.0	0.40	0.47	0.40	33.4
Approach			399	1.6	399	1.6	0.130	3.1	NA	0.3	2.0	0.24	0.45	0.24	34.1
All Vehicles			1329	1.1	1329	1.1	0.218	3.5	NA	0.3	2.1	0.21	0.47	0.21	31.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2PM_FY [MAR_JOR_33_PM_FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_Base (Network Folder: FY Base_2033_PM)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	199	1.6	199	1.6	0.219	3.5	LOS A	0.4	3.1	0.39	0.50	0.39	32.5
1a	L1	All MCs	2	0.0	2	0.0	0.219	3.5	LOS A	0.4	3.1	0.39	0.50	0.39	37.1
3a	R1	All MCs	39	0.0	39	0.0	0.219	7.3	LOS A	0.4	3.1	0.39	0.50	0.39	37.4
3u	U	All MCs	1	0.0	1	0.0	0.219	9.9	LOS A	0.4	3.1	0.39	0.50	0.39	32.5
Approach			241	1.3	241	1.3	0.219	4.2	LOS A	0.4	3.1	0.39	0.50	0.39	33.9
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	67	0.0	67	0.0	0.284	5.0	LOS A	0.6	4.5	0.47	0.48	0.47	34.2
25	T1	All MCs	192	0.0	192	0.0	0.284	4.5	LOS A	0.6	4.5	0.47	0.48	0.47	34.2
26	R2	All MCs	2	0.0	2	0.0	0.284	8.9	LOS A	0.6	4.5	0.47	0.48	0.47	29.5
26u	U	All MCs	6	0.0	6	0.0	0.284	10.6	LOS A	0.6	4.5	0.47	0.48	0.47	37.5
Approach			267	0.0	267	0.0	0.284	4.8	LOS A	0.6	4.5	0.47	0.48	0.47	34.3
NorthWest: Car Park															
27	L2	All MCs	3	0.0	3	0.0	0.031	6.2	LOS A	0.1	0.4	0.54	0.68	0.54	32.0
29a	R1	All MCs	7	0.0	7	0.0	0.031	8.9	LOS A	0.1	0.4	0.54	0.68	0.54	24.6
29	R2	All MCs	12	0.0	12	0.0	0.031	10.0	LOS A	0.1	0.4	0.54	0.68	0.54	24.6
29u	U	All MCs	1	0.0	1	0.0	0.031	11.6	LOS A	0.1	0.4	0.54	0.68	0.54	23.8
Approach			23	0.0	23	0.0	0.031	9.2	LOS A	0.1	0.4	0.54	0.68	0.54	26.1
SouthWest: Marina Drive (South West)															
30	L2	All MCs	18	5.9	18	5.9	0.180	4.1	LOS A	0.5	3.7	0.23	0.39	0.23	37.8
31	T1	All MCs	258	0.0	258	0.0	0.180	3.9	LOS A	0.5	3.7	0.23	0.39	0.23	40.3
32b	R3	All MCs	192	1.6	192	1.6	0.152	8.1	LOS A	0.4	3.0	0.24	0.59	0.24	32.1
32u	U	All MCs	8	0.0	8	0.0	0.152	9.3	LOS A	0.4	3.0	0.24	0.59	0.24	32.1
Approach			476	0.9	476	0.9	0.180	5.7	LOS A	0.5	3.7	0.23	0.48	0.23	37.2
All Vehicles			1007	0.7	1007	0.7	0.284	5.2	LOS A	0.6	4.5	0.34	0.49	0.34	35.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3PM_FY [JOR_PED_33_PM_FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_Base (Network Folder: FY Base_2033_PM)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	229	1.4	229	1.4	0.149	3.3	LOS A	0.2	1.7	0.12	0.45	0.12	45.5
Approach			229	1.4	229	1.4	0.149	3.3	LOS A	0.2	1.7	0.12	0.45	0.12	45.5
North: Jordan Esplanade															
8	T1	All MCs	245	0.9	245	0.9	0.159	3.3	LOS A	0.3	1.9	0.12	0.45	0.12	44.9
Approach			245	0.9	245	0.9	0.159	3.3	LOS A	0.3	1.9	0.12	0.45	0.12	44.9
All Vehicles			475	1.1	475	1.1	0.159	3.3	NA	0.3	1.9	0.12	0.45	0.12	45.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 7PM_FY [HAR_HOOD_CAMP_33_PM_FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_Base (Network Folder: FY Base_2033_PM)]

Hood St/ Harbour Drive Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	69	0.0	69	0.0	0.049	5.8	LOS A	0.1	0.6	0.45	0.60	0.45	42.3
8	T1	All MCs	1	0.0	1	0.0	0.178	15.0	LOS B	0.2	1.7	0.82	0.91	0.84	37.4
9	R2	All MCs	38	0.0	38	0.0	0.178	21.0	LOS B	0.2	1.7	0.82	0.91	0.84	32.3
Approach			108	0.0	108	0.0	0.178	11.2	LOS A	0.2	1.7	0.59	0.71	0.59	38.6
East: Harbour Drive															
10	L2	All MCs	35	0.0	35	0.0	0.441	5.4	LOS A	1.3	9.1	0.31	0.17	0.31	46.6
11	T1	All MCs	454	0.7	454	0.7	0.441	0.7	LOS A	1.3	9.1	0.31	0.17	0.31	46.4
12	R2	All MCs	17	0.0	17	0.0	0.441	7.0	LOS A	1.3	9.1	0.31	0.17	0.31	46.1
Approach			506	0.6	506	0.6	0.441	1.2	NA	1.3	9.1	0.31	0.17	0.31	46.4
North: Hood Street															
1	L2	All MCs	5	0.0	5	0.0	0.073	5.7	LOS A	0.1	0.7	0.74	0.87	0.74	32.1
2	T1	All MCs	1	0.0	1	0.0	0.073	14.9	LOS B	0.1	0.7	0.74	0.87	0.74	39.4
3	R2	All MCs	15	0.0	15	0.0	0.073	19.8	LOS B	0.1	0.7	0.74	0.87	0.74	33.8
Approach			21	0.0	21	0.0	0.073	16.1	LOS B	0.1	0.7	0.74	0.87	0.74	33.9
West: Harbour Drive															
4	L2	All MCs	11	0.0	11	0.0	0.351	5.2	LOS A	0.9	6.4	0.27	0.12	0.27	46.0
5	T1	All MCs	381	1.4	381	1.4	0.351	0.6	LOS A	0.9	6.4	0.27	0.12	0.27	43.8
6	R2	All MCs	78	0.0	78	0.0	0.051	5.9	LOS A	0.1	0.7	0.51	0.58	0.51	42.4
Approach			469	1.1	469	1.1	0.351	1.6	NA	0.9	6.4	0.31	0.20	0.31	43.2
All Vehicles			1104	0.8	1104	0.8	0.441	2.6	NA	1.3	9.1	0.34	0.25	0.34	43.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

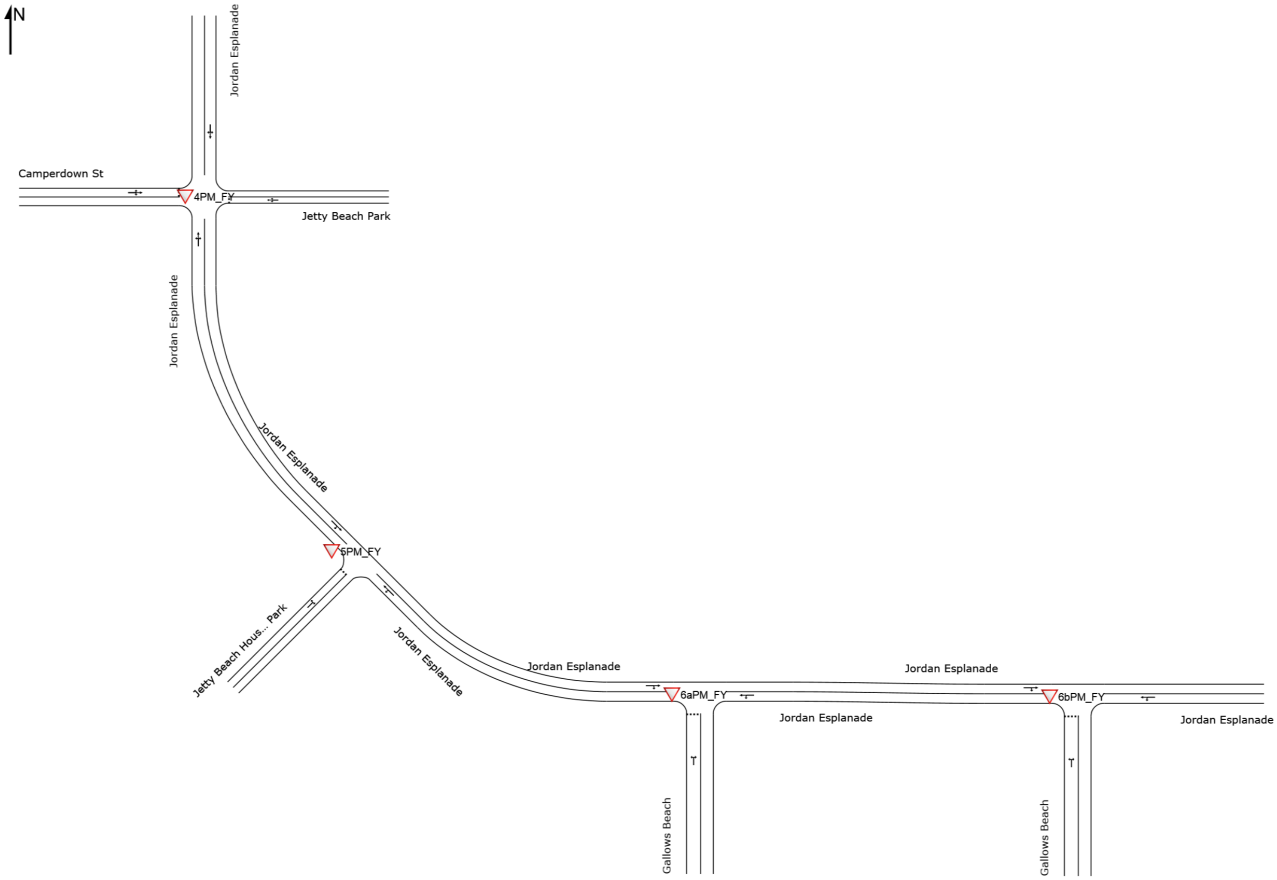
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [South_2033_PM_Base (Network Folder: FY Base_2033_PM)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽4PM_FY	NA	JOR_CAM_33_PM_FY_B
▽5PM_FY	NA	JOR_JET_33_PM_FY_B
▽6aPM_FY	NA	JOR_GAL_33_PM_X_6a _FY_B
▽6bPM_FY	NA	JOR_GAL_33_PM_X_6b _FY_B

MOVEMENT SUMMARY

Site: 4PM_FY [JOR_CAM_33_PM_FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_Base (Network Folder: FY Base_2033_PM)]

Camperdown St Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	76	0.0	76	0.0	0.126	4.6	LOS A	0.0	0.0	0.00	0.17	0.00	47.6
2	T1	All MCs	176	1.8	176	1.8	0.126	0.0	LOS A	0.0	0.0	0.00	0.17	0.00	48.9
3	R2	All MCs	1	0.0	1	0.0	0.126	4.6	LOS A	0.0	0.0	0.00	0.17	0.00	45.3
Approach			253	1.3	253	1.3	0.126	1.4	NA	0.0	0.0	0.00	0.17	0.00	48.5
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.002	3.2	LOS A	0.0	0.0	0.27	0.47	0.27	23.5
5	T1	All MCs	1	0.0	1	0.0	0.002	2.5	LOS A	0.0	0.0	0.27	0.47	0.27	44.8
6	R2	All MCs	1	0.0	1	0.0	0.002	3.6	LOS A	0.0	0.0	0.27	0.47	0.27	44.0
Approach			3	0.0	3	0.0	0.002	3.1	LOS A	0.0	0.0	0.27	0.47	0.27	43.1
North: Jordan Esplanade															
7	L2	All MCs	2	0.0	2	0.0	0.096	5.1	LOS A	0.0	0.2	0.05	0.06	0.05	28.3
8	T1	All MCs	178	1.2	178	1.2	0.096	0.1	LOS A	0.0	0.2	0.05	0.06	0.05	49.3
9	R2	All MCs	11	0.0	11	0.0	0.096	5.2	LOS A	0.0	0.2	0.05	0.06	0.05	48.3
Approach			191	1.1	191	1.1	0.096	0.4	NA	0.0	0.2	0.05	0.06	0.05	48.8
West: Camperdown St															
10	L2	All MCs	16	0.0	16	0.0	0.066	5.0	LOS A	0.1	0.5	0.30	0.58	0.30	45.3
11	T1	All MCs	1	0.0	1	0.0	0.066	4.0	LOS A	0.1	0.5	0.30	0.58	0.30	28.2
12	R2	All MCs	58	0.0	58	0.0	0.066	5.6	LOS A	0.1	0.5	0.30	0.58	0.30	43.3
Approach			75	0.0	75	0.0	0.066	5.5	LOS A	0.1	0.5	0.30	0.58	0.30	43.7
All Vehicles			521	1.0	521	1.0	0.126	1.6	NA	0.1	0.5	0.06	0.19	0.06	47.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5PM_FY [JOR_JET_33_PM_FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_Base (Network Folder: FY Base_2033_PM)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	3	0.0	3	0.0	0.136	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	43.9
22	T1	All MCs	258	0.8	258	0.8	0.136	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.5
Approach			261	0.8	261	0.8	0.136	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4
NorthWest: Jordan Esplanade															
28	T1	All MCs	252	0.8	252	0.8	0.134	0.0	LOS A	0.0	0.1	0.02	0.02	0.02	49.7
29	R2	All MCs	6	0.0	6	0.0	0.134	5.1	LOS A	0.0	0.1	0.02	0.02	0.02	46.7
Approach			258	0.8	258	0.8	0.134	0.1	NA	0.0	0.1	0.02	0.02	0.02	49.6
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	11	10.0	11	10.0	0.007	5.3	LOS A	0.0	0.1	0.33	0.51	0.33	29.2
32	R2	All MCs	1	0.0	1	0.0	0.007	5.5	LOS A	0.0	0.1	0.33	0.51	0.33	29.2
Approach			12	9.1	12	9.1	0.007	5.3	LOS A	0.0	0.1	0.33	0.51	0.33	29.2
All Vehicles			531	1.0	531	1.0	0.136	0.2	NA	0.0	0.1	0.02	0.02	0.02	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6aPM_FY [JOR_GAL_33_PM_X_6a _FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_Base (Network Folder: FY Base_2033_PM)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.16	0.46	0.16	23.1
3	R2	All MCs	1	0.0	1	0.0	0.001	2.8	LOS A	0.0	0.0	0.16	0.46	0.16	23.1
Approach			2	0.0	2	0.0	0.001	2.8	LOS A	0.0	0.0	0.16	0.46	0.16	23.1
East: Jordan Esplanade															
4	L2	All MCs	1	0.0	1	0.0	0.043	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	43.6
5	T1	All MCs	83	0.0	83	0.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.6
Approach			84	0.0	84	0.0	0.043	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.5
West: Jordan Esplanade															
11	T1	All MCs	135	0.0	135	0.0	0.070	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.6
12	R2	All MCs	1	0.0	1	0.0	0.070	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	42.4
Approach			136	0.0	136	0.0	0.070	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
All Vehicles			222	0.0	222	0.0	0.070	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6bPM_FY [JOR_GAL_33_PM_X_6b _FY_B (Site Folder: Weekday PM Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_Base (Network Folder: FY Base_2033_PM)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	22	0.0	22	0.0	0.019	3.4	LOS A	0.0	0.2	0.14	0.48	0.14	25.0
3	R2	All MCs	12	0.0	12	0.0	0.019	3.5	LOS A	0.0	0.2	0.14	0.48	0.14	43.7
Approach			34	0.0	34	0.0	0.019	3.5	LOS A	0.0	0.2	0.14	0.48	0.14	39.2
East: Jordan Esplanade															
4	L2	All MCs	32	0.0	32	0.0	0.048	4.6	LOS A	0.0	0.0	0.00	0.19	0.00	46.2
5	T1	All MCs	61	0.0	61	0.0	0.048	0.0	LOS A	0.0	0.0	0.00	0.19	0.00	48.0
Approach			93	0.0	93	0.0	0.048	1.6	NA	0.0	0.0	0.00	0.19	0.00	47.3
West: Jordan Esplanade															
11	T1	All MCs	82	1.3	82	1.3	0.067	0.1	LOS A	0.1	0.7	0.14	0.23	0.14	47.4
12	R2	All MCs	53	0.0	53	0.0	0.067	4.8	LOS A	0.1	0.7	0.14	0.23	0.14	35.7
Approach			135	0.8	135	0.8	0.067	1.9	NA	0.1	0.7	0.14	0.23	0.14	45.4
All Vehicles			261	0.4	261	0.4	0.067	2.0	NA	0.1	0.7	0.09	0.25	0.09	45.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

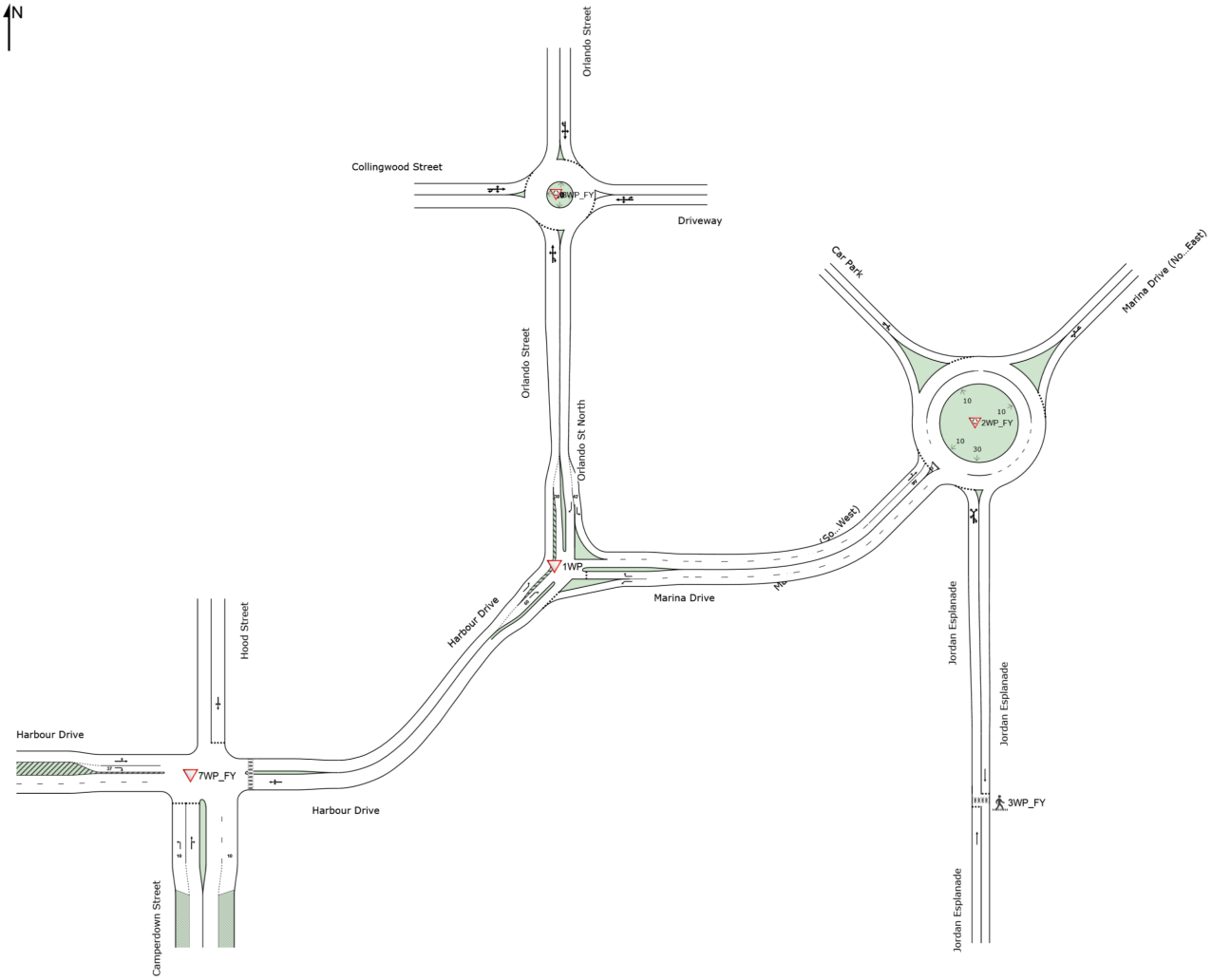
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [North_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8WP_FY	NA	ORL_COLL_33_WP_FY
1WP	NA	ORL_MAR_HAR_33_WP_FY
2WP_FY	NA	MAR_JOR_33_WP_FY
3WP_FY	NA	JOR_PED_33_WP_FY
7WP_FY	NA	HAR_HOOD_CAMP_33_WP_FY

MOVEMENT SUMMARY

Site: 8WP_FY [ORL_COLL_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	37	0.0	37	0.0	0.378	3.9	LOS A	0.8	5.6	0.21	0.42	0.21	43.5
2	T1	All MCs	475	0.0	475	0.0	0.378	3.7	LOS A	0.8	5.6	0.21	0.42	0.21	44.0
3	R2	All MCs	2	0.0	2	0.0	0.378	7.1	LOS A	0.8	5.6	0.21	0.42	0.21	28.1
3u	U	All MCs	19	0.0	19	0.0	0.378	8.7	LOS A	0.8	5.6	0.21	0.42	0.21	28.9
Approach			533	0.0	533	0.0	0.378	3.9	LOS A	0.8	5.6	0.21	0.42	0.21	43.8
East: Driveway															
4	L2	All MCs	4	0.0	4	0.0	0.016	8.2	LOS A	0.0	0.3	0.80	0.68	0.80	11.0
5	T1	All MCs	1	0.0	1	0.0	0.016	8.6	LOS A	0.0	0.3	0.80	0.68	0.80	39.2
6	R2	All MCs	2	0.0	2	0.0	0.016	11.3	LOS A	0.0	0.3	0.80	0.68	0.80	38.5
6u	U	All MCs	1	0.0	1	0.0	0.016	12.8	LOS A	0.0	0.3	0.80	0.68	0.80	13.2
Approach			8	0.0	8	0.0	0.016	9.6	LOS A	0.0	0.3	0.80	0.68	0.80	30.6
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.612	4.4	LOS A	2.5	17.5	0.47	0.45	0.47	42.2
8	T1	All MCs	761	0.0	761	0.0	0.612	4.5	LOS A	2.5	17.5	0.47	0.45	0.47	42.9
9	R2	All MCs	39	0.0	39	0.0	0.612	7.8	LOS A	2.5	17.5	0.47	0.45	0.47	45.0
9u	U	All MCs	26	0.0	26	0.0	0.612	9.3	LOS A	2.5	17.5	0.47	0.45	0.47	45.0
Approach			828	0.0	828	0.0	0.612	4.8	LOS A	2.5	17.5	0.47	0.45	0.47	43.2
West: Collingwood Street															
10	L2	All MCs	85	0.0	85	0.0	0.183	6.5	LOS A	0.4	2.8	0.59	0.67	0.59	44.2
11	T1	All MCs	1	0.0	1	0.0	0.183	6.5	LOS A	0.4	2.8	0.59	0.67	0.59	40.8
12	R2	All MCs	73	0.0	73	0.0	0.183	9.8	LOS A	0.4	2.8	0.59	0.67	0.59	41.2
12u	U	All MCs	1	0.0	1	0.0	0.183	11.4	LOS A	0.4	2.8	0.59	0.67	0.59	44.0
Approach			160	0.0	160	0.0	0.183	8.0	LOS A	0.4	2.8	0.59	0.67	0.59	43.2
All Vehicles			1529	0.0	1529	0.0	0.612	4.9	LOS A	2.5	17.5	0.39	0.47	0.39	43.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1WP [ORL_MAR_HAR_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	466	0.7	466	0.7	0.286	3.8	LOS A	0.6	4.3	0.43	0.54	0.43	31.6
6	R2	All MCs	328	0.0	328	0.0	0.529	10.7	LOS A	1.1	7.6	0.74	1.02	1.15	25.1
Approach			795	0.4	795	0.4	0.529	6.7	LOS A	1.1	7.6	0.56	0.74	0.73	28.5
North: Orlando St North															
7	L2	All MCs	547	0.0	547	0.0	0.306	2.9	LOS A	0.0	0.0	0.00	0.36	0.00	30.1
9a	R1	All MCs	311	0.3	311	0.3	0.162	2.6	LOS A	0.0	0.0	0.00	0.41	0.00	29.0
Approach			858	0.1	858	0.1	0.306	2.8	NA	0.0	0.0	0.00	0.38	0.00	29.8
SouthWest: Harbour Drive															
30a	L1	All MCs	201	0.0	201	0.0	0.105	2.7	LOS A	0.0	0.0	0.00	0.42	0.00	35.3
32a	R1	All MCs	385	0.3	385	0.3	0.210	3.4	LOS A	0.5	3.4	0.44	0.50	0.44	33.2
Approach			586	0.2	586	0.2	0.210	3.2	NA	0.5	3.4	0.29	0.47	0.29	33.9
All Vehicles			2239	0.2	2239	0.2	0.529	4.3	NA	1.1	7.6	0.27	0.53	0.33	30.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2WP_FY [MAR_JOR_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

NA
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	419	0.3	419	0.3	0.509	5.2	LOS A	1.5	10.3	0.68	0.64	0.71	29.8
1a	L1	All MCs	6	0.0	6	0.0	0.509	5.2	LOS A	1.5	10.3	0.68	0.64	0.71	35.0
3a	R1	All MCs	56	0.0	56	0.0	0.509	9.0	LOS A	1.5	10.3	0.68	0.64	0.71	35.7
3u	U	All MCs	2	0.0	2	0.0	0.509	11.6	LOS A	1.5	10.3	0.68	0.64	0.71	29.8
Approach			483	0.2	483	0.2	0.509	5.7	LOS A	1.5	10.3	0.68	0.64	0.71	31.0
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	129	0.0	129	0.0	0.628	11.9	LOS A	2.3	16.5	0.85	0.87	1.12	25.4
25	T1	All MCs	280	0.4	280	0.4	0.628	11.5	LOS A	2.3	16.5	0.85	0.87	1.12	25.4
26	R2	All MCs	15	0.0	15	0.0	0.628	15.9	LOS B	2.3	16.5	0.85	0.87	1.12	24.6
26u	U	All MCs	8	0.0	8	0.0	0.628	17.6	LOS B	2.3	16.5	0.85	0.87	1.12	31.0
Approach			433	0.2	433	0.2	0.628	11.9	LOS A	2.3	16.5	0.85	0.87	1.12	25.5
NorthWest: Car Park															
27	L2	All MCs	14	15.4	14	15.4	0.218	9.7	LOS A	0.4	2.9	0.70	0.82	0.70	28.6
29a	R1	All MCs	25	0.0	25	0.0	0.218	11.1	LOS A	0.4	2.9	0.70	0.82	0.70	21.9
29	R2	All MCs	83	0.0	83	0.0	0.218	12.2	LOS A	0.4	2.9	0.70	0.82	0.70	21.9
29u	U	All MCs	1	0.0	1	0.0	0.218	13.8	LOS A	0.4	2.9	0.70	0.82	0.70	22.3
Approach			123	1.7	123	1.7	0.218	11.7	LOS A	0.4	2.9	0.70	0.82	0.70	23.0
SouthWest: Marina Drive (South West)															
30	L2	All MCs	133	0.8	133	0.8	0.337	4.3	LOS A	1.2	8.3	0.37	0.42	0.37	37.1
31	T1	All MCs	363	0.0	363	0.0	0.337	4.2	LOS A	1.2	8.3	0.37	0.42	0.37	39.4
32b	R3	All MCs	429	0.0	429	0.0	0.337	8.4	LOS A	1.2	8.2	0.39	0.57	0.39	31.4
32u	U	All MCs	12	0.0	12	0.0	0.337	9.6	LOS A	1.2	8.2	0.39	0.57	0.39	31.4
Approach			937	0.1	937	0.1	0.337	6.2	LOS A	1.2	8.3	0.38	0.49	0.38	35.7
All Vehicles			1976	0.3	1976	0.3	0.628	7.7	LOS A	2.3	16.5	0.58	0.63	0.64	31.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3WP_FY [JOR_PED_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	429	0.2	429	0.2	0.283	3.8	LOS A	0.5	3.2	0.32	0.52	0.32	44.7
Approach			429	0.2	429	0.2	0.283	3.8	LOS A	0.5	3.2	0.32	0.52	0.32	44.7
North: Jordan Esplanade															
8	T1	All MCs	518	0.0	518	0.0	0.404	4.5	LOS A	0.9	6.3	0.45	0.56	0.47	43.9
Approach			518	0.0	518	0.0	0.404	4.5	LOS A	0.9	6.3	0.45	0.56	0.47	43.9
All Vehicles			947	0.1	947	0.1	0.404	4.2	NA	0.9	6.3	0.39	0.54	0.40	44.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 7WP_FY [HAR_HOOD_CAMP_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

Hood St/ Harbour Drive Interection
Site Category: Future Year Base
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	192	0.0	192	0.0	0.175	7.0	LOS A	0.3	2.1	0.58	0.75	0.58	41.9
8	T1	All MCs	7	0.0	7	0.0	0.498	48.1	LOS D	0.7	4.8	0.96	1.05	1.22	25.2
9	R2	All MCs	36	0.0	36	0.0	0.498	66.5	LOS E	0.7	4.8	0.96	1.05	1.22	18.7
Approach			235	0.0	235	0.0	0.498	17.4	LOS B	0.7	4.8	0.65	0.80	0.70	35.2
East: Harbour Drive															
10	L2	All MCs	53	0.0	53	0.0	0.666	6.0	LOS A	2.9	20.3	0.45	0.24	0.45	46.0
11	T1	All MCs	678	0.6	678	0.6	0.666	1.1	LOS A	2.9	20.3	0.45	0.24	0.45	45.1
12	R2	All MCs	39	0.0	39	0.0	0.666	9.1	LOS A	2.9	20.3	0.45	0.24	0.45	45.4
Approach			769	0.5	769	0.5	0.666	1.8	NA	2.9	20.3	0.45	0.24	0.45	45.2
North: Hood Street															
1	L2	All MCs	9	0.0	9	0.0	0.118	6.4	LOS A	0.1	1.0	0.86	0.93	0.86	25.6
2	T1	All MCs	2	0.0	2	0.0	0.118	33.1	LOS C	0.1	1.0	0.86	0.93	0.86	34.6
3	R2	All MCs	6	0.0	6	0.0	0.118	57.3	LOS E	0.1	1.0	0.86	0.93	0.86	28.1
Approach			18	0.0	18	0.0	0.118	27.5	LOS B	0.1	1.0	0.86	0.93	0.86	28.1
West: Harbour Drive															
4	L2	All MCs	8	0.0	8	0.0	0.493	5.3	LOS A	1.5	10.7	0.32	0.15	0.32	45.7
5	T1	All MCs	541	0.2	541	0.2	0.493	0.8	LOS A	1.5	10.7	0.32	0.15	0.32	42.9
6	R2	All MCs	92	0.0	92	0.0	0.081	7.1	LOS A	0.1	1.0	0.62	0.71	0.62	42.0
Approach			641	0.2	641	0.2	0.493	1.7	NA	1.5	10.7	0.36	0.23	0.36	42.6
All Vehicles			1663	0.3	1663	0.3	0.666	4.3	NA	2.9	20.3	0.45	0.32	0.46	41.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

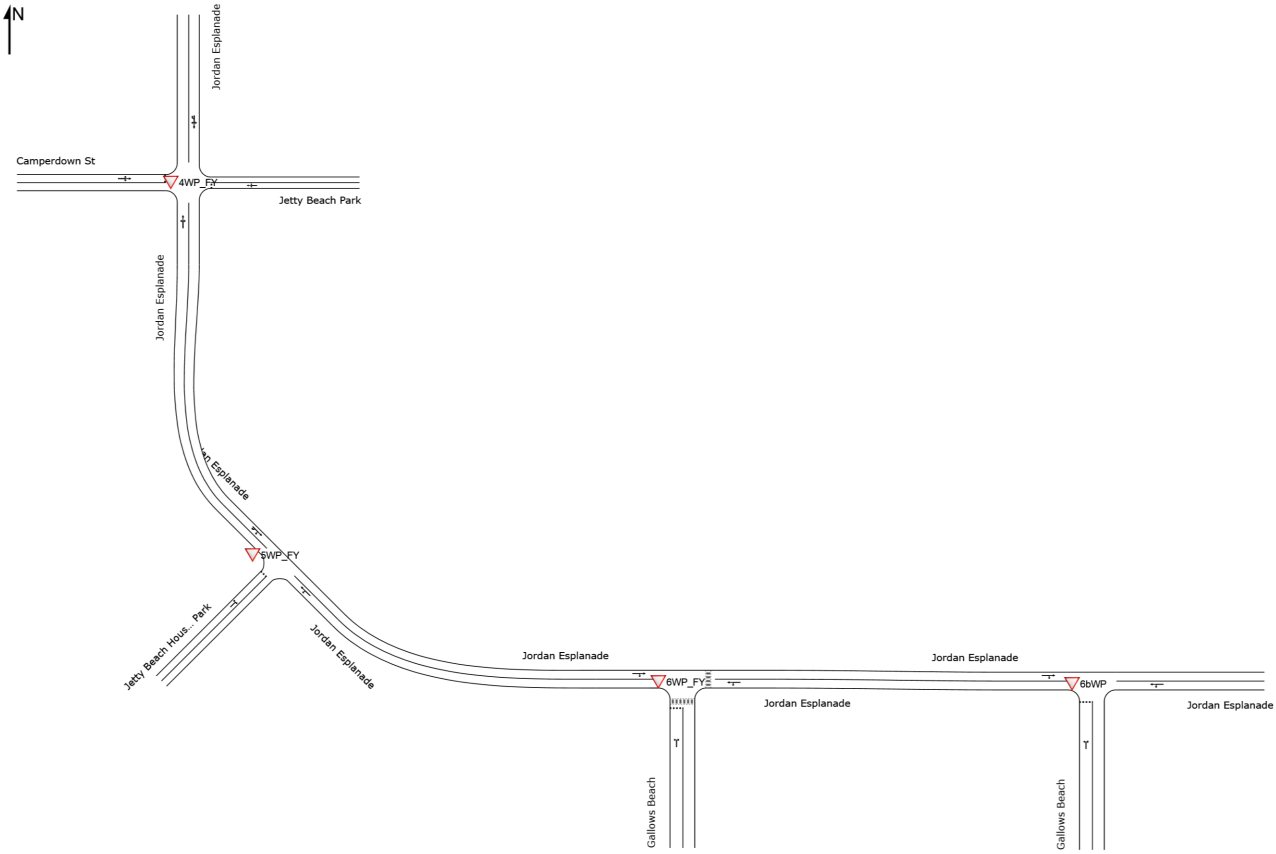
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [South_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽4WP_FY	NA	JOR_CAM_33_WP_FY
▽5WP_FY	NA	JOR_JET_33_WP_FY
▽6WP_FY	NA	JOR_GAL_33_WP_FY
▽6bWP	NA	JOR_GAL_33_WP_6b_FY

MOVEMENT SUMMARY

Site: 4WP_FY [JOR_CAM_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

Camperdown St Interection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	214	0.0	214	0.0	0.247	4.6	LOS A	0.0	0.1	0.01	0.24	0.01	47.2
2	T1	All MCs	277	0.4	277	0.4	0.247	0.0	LOS A	0.0	0.1	0.01	0.24	0.01	48.5
3	R2	All MCs	3	0.0	3	0.0	0.247	5.0	LOS A	0.0	0.1	0.01	0.24	0.01	44.5
Approach			494	0.2	494	0.2	0.247	2.0	NA	0.0	0.1	0.01	0.24	0.01	47.9
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.003	3.8	LOS A	0.0	0.0	0.44	0.54	0.44	19.7
5	T1	All MCs	1	0.0	1	0.0	0.003	4.0	LOS A	0.0	0.0	0.44	0.54	0.44	43.7
6	R2	All MCs	1	0.0	1	0.0	0.003	5.0	LOS A	0.0	0.0	0.44	0.54	0.44	42.9
Approach			3	0.0	3	0.0	0.003	4.3	LOS A	0.0	0.0	0.44	0.54	0.44	41.6
North: Jordan Esplanade															
7	L2	All MCs	1	0.0	1	0.0	0.255	6.3	LOS A	0.3	2.0	0.22	0.25	0.22	27.8
8	T1	All MCs	395	0.0	395	0.0	0.255	0.5	LOS A	0.3	2.0	0.22	0.25	0.22	47.8
9	R2	All MCs	84	0.0	84	0.0	0.255	6.3	LOS A	0.3	2.0	0.22	0.25	0.22	47.5
9u	U	All MCs	1	0.0	1	0.0	0.255	8.0	LOS A	0.3	2.0	0.22	0.25	0.22	47.3
Approach			481	0.0	481	0.0	0.255	1.5	NA	0.3	2.0	0.22	0.25	0.22	47.6
West: Camperdown St															
10	L2	All MCs	36	0.0	36	0.0	0.179	5.3	LOS A	0.2	1.6	0.48	0.72	0.48	44.5
11	T1	All MCs	1	0.0	1	0.0	0.179	5.6	LOS A	0.2	1.6	0.48	0.72	0.48	27.6
12	R2	All MCs	107	0.0	107	0.0	0.179	7.9	LOS A	0.2	1.6	0.48	0.72	0.48	41.8
Approach			144	0.0	144	0.0	0.179	7.2	LOS A	0.2	1.6	0.48	0.72	0.48	42.7
All Vehicles			1122	0.1	1122	0.1	0.255	2.5	NA	0.3	2.0	0.16	0.31	0.16	47.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5WP_FY [JOR_JET_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	3	0.0	3	0.0	0.251	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	44.0
22	T1	All MCs	480	0.2	480	0.2	0.251	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.7
Approach			483	0.2	483	0.2	0.251	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
NorthWest: Jordan Esplanade															
28	T1	All MCs	495	0.0	495	0.0	0.272	0.1	LOS A	0.1	0.5	0.05	0.06	0.05	49.4
29	R2	All MCs	9	0.0	9	0.0	0.272	6.3	LOS A	0.1	0.5	0.05	0.06	0.05	46.5
29u	U	All MCs	5	0.0	5	0.0	0.272	10.6	LOS A	0.1	0.5	0.05	0.06	0.05	49.4
Approach			509	0.0	509	0.0	0.272	0.4	NA	0.1	0.5	0.05	0.06	0.05	49.3
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	8	0.0	8	0.0	0.007	5.8	LOS A	0.0	0.1	0.45	0.56	0.45	28.2
32	R2	All MCs	1	0.0	1	0.0	0.007	6.7	LOS A	0.0	0.1	0.45	0.56	0.45	28.2
Approach			9	0.0	9	0.0	0.007	5.9	LOS A	0.0	0.1	0.45	0.56	0.45	28.2
All Vehicles			1002	0.1	1002	0.1	0.272	0.3	NA	0.1	0.5	0.03	0.04	0.03	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6WP_FY [JOR_GAL_33_WP_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	40	0.0	40	0.0	0.040	2.9	LOS A	0.1	0.4	0.21	0.48	0.21	22.6
3	R2	All MCs	24	0.0	24	0.0	0.040	3.3	LOS A	0.1	0.4	0.21	0.48	0.21	22.6
Approach			64	0.0	64	0.0	0.040	3.0	LOS A	0.1	0.4	0.21	0.48	0.21	22.6
East: Jordan Esplanade															
4	L2	All MCs	97	0.0	97	0.0	0.109	4.6	LOS A	0.0	0.0	0.00	0.25	0.00	36.7
5	T1	All MCs	111	1.0	111	1.0	0.109	0.0	LOS A	0.0	0.0	0.00	0.25	0.00	39.4
Approach			207	0.5	207	0.5	0.109	2.1	NA	0.0	0.0	0.00	0.25	0.00	38.0
West: Jordan Esplanade															
11	T1	All MCs	182	0.0	182	0.0	0.159	0.3	LOS A	0.3	1.9	0.25	0.29	0.25	35.1
12	R2	All MCs	128	0.0	128	0.0	0.159	5.1	LOS A	0.3	1.9	0.25	0.29	0.25	33.0
Approach			311	0.0	311	0.0	0.159	2.3	NA	0.3	1.9	0.25	0.29	0.25	34.1
All Vehicles			582	0.2	582	0.2	0.159	2.3	NA	0.3	1.9	0.16	0.30	0.16	34.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6bWP [JOR_GAL_33_WP_6b_FY (Site Folder: Weekend Peak FY Base 2033)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Base (Network Folder: FY Base 2033_Wkend)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	40	0.0	40	0.0	0.040	3.5	LOS A	0.1	0.4	0.21	0.50	0.21	24.2
3	R2	All MCs	24	0.0	24	0.0	0.040	4.0	LOS A	0.1	0.4	0.21	0.50	0.21	43.4
Approach			64	0.0	64	0.0	0.040	3.7	LOS A	0.1	0.4	0.21	0.50	0.21	39.3
East: Jordan Esplanade															
4	L2	All MCs	97	0.0	97	0.0	0.109	4.6	LOS A	0.0	0.0	0.00	0.25	0.00	45.6
5	T1	All MCs	111	1.0	111	1.0	0.109	0.0	LOS A	0.0	0.0	0.00	0.25	0.00	47.2
Approach			207	0.5	207	0.5	0.109	2.2	NA	0.0	0.0	0.00	0.25	0.00	46.4
West: Jordan Esplanade															
11	T1	All MCs	182	0.0	182	0.0	0.159	0.3	LOS A	0.3	1.9	0.25	0.29	0.25	46.9
12	R2	All MCs	128	0.0	128	0.0	0.159	5.1	LOS A	0.3	1.9	0.25	0.29	0.25	34.5
Approach			311	0.0	311	0.0	0.159	2.3	NA	0.3	1.9	0.25	0.29	0.25	44.6
All Vehicles			582	0.2	582	0.2	0.159	2.4	NA	0.3	1.9	0.16	0.30	0.16	45.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

APPENDIX C

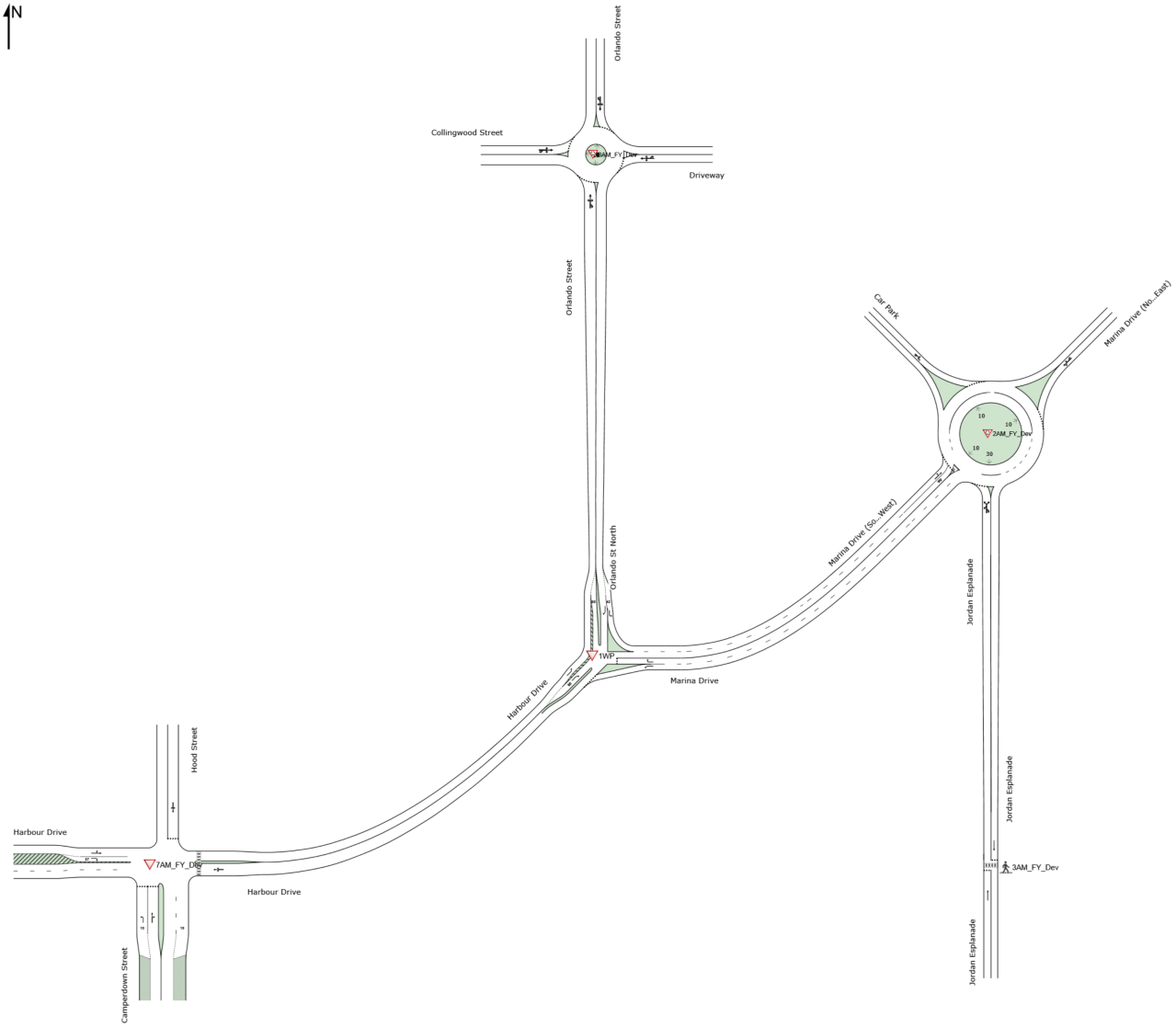
WITH ILLUSTRATIVE MASTERPLAN SIDRA ANALYSIS RESULTS

NETWORK LAYOUT

Network: N101 [North_FY with Dev_AM- Existing layout (Network Folder: FY with Dev_Weekday AM)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8AM_FY_Dev	NA	ORL_COLL_33_AM_Dev
1WP	NA	ORL_MAR_HAR_33_AM_Exiting layout
2AM_FY_Dev	NA	MAR_JOR_33_AM_Dev
3AM_FY_Dev	NA	JOR_PED_33_AM_Dev
7AM_FY_Dev	NA	HAR_HOOD_CAMP_33_AM_Dev

MOVEMENT SUMMARY

Site: 8AM_FY_Dev [ORL_COLL_33_AM_Dev (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_FY with Dev_AM- Existing layout (Network Folder: FY with Dev_Weekday AM)]

NA
Site Category: 2033 with Dev
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	38	0.0	38	0.0	0.376	4.0	LOS A	1.9	13.6	0.24	0.43	0.24	43.4
2	T1	All MCs	461	0.0	461	0.0	0.376	3.8	LOS A	1.9	13.6	0.24	0.43	0.24	43.9
3	R2	All MCs	3	0.0	3	0.0	0.376	7.2	LOS A	1.9	13.6	0.24	0.43	0.24	27.9
3u	U	All MCs	11	0.0	11	0.0	0.376	8.8	LOS A	1.9	13.6	0.24	0.43	0.24	28.6
Approach			513	0.0	513	0.0	0.376	4.0	LOS A	1.9	13.6	0.24	0.43	0.24	43.7
East: Driveway															
4	L2	All MCs	4	0.0	4	0.0	0.013	6.0	LOS A	0.1	0.5	0.71	0.63	0.71	13.4
5	T1	All MCs	1	0.0	1	0.0	0.013	6.4	LOS A	0.1	0.5	0.71	0.63	0.71	41.0
6	R2	All MCs	2	0.0	2	0.0	0.013	9.1	LOS A	0.1	0.5	0.71	0.63	0.71	40.2
6u	U	All MCs	1	0.0	1	0.0	0.013	10.7	LOS A	0.1	0.5	0.71	0.63	0.71	15.4
Approach			8	0.0	8	0.0	0.013	7.4	LOS A	0.1	0.5	0.71	0.63	0.71	33.3
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.487	4.4	LOS A	4.0	28.3	0.44	0.47	0.44	42.2
8	T1	All MCs	537	0.0	537	0.0	0.487	4.5	LOS A	4.0	28.3	0.44	0.47	0.44	42.9
9	R2	All MCs	59	0.0	59	0.0	0.487	7.8	LOS A	4.0	28.3	0.44	0.47	0.44	45.0
9u	U	All MCs	28	0.0	28	0.0	0.487	9.3	LOS A	4.0	28.3	0.44	0.47	0.44	45.0
Approach			626	0.0	626	0.0	0.487	5.0	LOS A	4.0	28.3	0.44	0.47	0.44	43.4
West: Collingwood Street															
10	L2	All MCs	69	0.0	69	0.0	0.195	6.4	LOS A	1.1	7.4	0.59	0.67	0.59	44.0
11	T1	All MCs	1	0.0	1	0.0	0.195	6.4	LOS A	1.1	7.4	0.59	0.67	0.59	40.6
12	R2	All MCs	101	0.0	101	0.0	0.195	9.7	LOS A	1.1	7.4	0.59	0.67	0.59	40.9
12u	U	All MCs	1	0.0	1	0.0	0.195	11.3	LOS A	1.1	7.4	0.59	0.67	0.59	43.8
Approach			173	0.0	173	0.0	0.195	8.4	LOS A	1.1	7.4	0.59	0.67	0.59	42.6
All Vehicles			1320	0.0	1320	0.0	0.487	5.1	LOS A	4.0	28.3	0.38	0.48	0.38	43.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1WP [ORL_MAR_HAR_33_AM_Exiting layout (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_FY with Dev_AM- Existing layout (Network Folder: FY with Dev_Weekday AM)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	267	0.8	267	0.8	0.215	6.0	LOS A	0.9	6.7	0.40	0.62	0.40	38.4
6	R2	All MCs	322	1.0	322	1.0	0.428	9.5	LOS A	2.0	14.5	0.61	0.90	0.84	30.1
Approach			589	0.9	589	0.9	0.428	7.9	LOS A	2.0	14.5	0.52	0.77	0.64	33.3
North: Orlando St North															
7	L2	All MCs	365	0.9	365	0.9	0.205	4.3	LOS A	0.0	0.0	0.00	0.47	0.00	31.0
9a	R1	All MCs	295	2.1	295	2.1	0.217	4.8	LOS A	1.1	7.6	0.42	0.59	0.42	28.8
Approach			660	1.4	660	1.4	0.217	4.5	NA	1.1	7.6	0.19	0.52	0.19	30.1
SouthWest: Harbour Drive															
30a	L1	All MCs	201	4.2	201	4.2	0.108	3.8	LOS A	0.0	0.0	0.00	0.50	0.00	40.6
32a	R1	All MCs	285	0.0	285	0.0	0.289	7.7	LOS A	1.5	10.2	0.61	0.77	0.65	38.2
Approach			486	1.7	486	1.7	0.289	6.1	NA	1.5	10.2	0.36	0.66	0.38	39.2
All Vehicles			1736	1.3	1736	1.3	0.428	6.1	NA	2.0	14.5	0.35	0.65	0.40	34.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2AM_FY_Dev [MAR_JOR_33_AM_Dev (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_FY with Dev_AM- Existing layout (Network Folder: FY with Dev_Weekday AM)]

NA
Site Category: 2033 with Dev
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	306	1.0	306	1.0	0.334	4.0	LOS A	1.9	13.4	0.49	0.54	0.49	31.9
1a	L1	All MCs	2	0.0	2	0.0	0.334	4.0	LOS A	1.9	13.4	0.49	0.54	0.49	36.7
3a	R1	All MCs	40	0.0	40	0.0	0.334	7.8	LOS A	1.9	13.4	0.49	0.54	0.49	37.0
3u	U	All MCs	1	0.0	1	0.0	0.334	10.3	LOS A	1.9	13.4	0.49	0.54	0.49	31.9
Approach			350	0.9	350	0.9	0.334	4.4	LOS A	1.9	13.4	0.49	0.54	0.49	32.9
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	75	0.0	75	0.0	0.376	4.8	LOS A	2.3	15.9	0.60	0.50	0.60	30.5
25	T1	All MCs	238	0.9	238	0.9	0.376	4.0	LOS A	2.3	15.9	0.60	0.50	0.60	30.5
26	R2	All MCs	1	0.0	1	0.0	0.376	8.3	LOS A	2.3	15.9	0.60	0.50	0.60	32.1
26u	U	All MCs	3	0.0	3	0.0	0.376	9.7	LOS A	2.3	15.9	0.60	0.50	0.60	33.1
Approach			317	0.7	317	0.7	0.376	4.3	LOS A	2.3	15.9	0.60	0.50	0.60	30.5
NorthWest: Car Park															
27	L2	All MCs	1	0.0	1	0.0	0.060	7.1	LOS A	0.3	1.9	0.60	0.76	0.60	30.6
29a	R1	All MCs	1	100.0	1	100.0	0.060	16.0	LOS B	0.3	1.9	0.60	0.76	0.60	23.4
29	R2	All MCs	36	0.0	36	0.0	0.060	10.9	LOS A	0.3	1.9	0.60	0.76	0.60	23.4
29u	U	All MCs	1	0.0	1	0.0	0.060	12.6	LOS A	0.3	1.9	0.60	0.76	0.60	23.1
Approach			39	2.7	39	2.7	0.060	11.0	LOS A	0.3	1.9	0.60	0.76	0.60	23.6
SouthWest: Marina Drive (South West)															
30	L2	All MCs	16	6.5	16	6.5	0.231	3.0	LOS A	1.8	12.9	0.24	0.31	0.24	34.2
31	T1	All MCs	343	0.3	343	0.3	0.231	2.5	LOS A	1.8	12.9	0.24	0.31	0.24	35.5
32b	R3	All MCs	287	0.4	287	0.4	0.215	6.5	LOS A	1.6	11.5	0.25	0.54	0.25	29.3
32u	U	All MCs	6	0.0	6	0.0	0.215	7.3	LOS A	1.6	11.5	0.25	0.54	0.25	29.3
Approach			653	0.5	653	0.5	0.231	4.3	LOS A	1.8	12.9	0.24	0.41	0.24	33.0
All Vehicles			1358	0.7	1358	0.7	0.376	4.5	LOS A	2.3	15.9	0.40	0.47	0.40	32.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3AM_FY_Dev [JOR_PED_33_AM_Dev (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_FY with Dev_AM- Existing layout (Network Folder: FY with Dev_Weekday AM)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	333	0.9	333	0.9	0.190	3.3	LOS A	0.7	4.9	0.10	0.45	0.10	45.6
Approach			333	0.9	333	0.9	0.190	3.3	LOS A	0.7	4.9	0.10	0.45	0.10	45.6
North: Jordan Esplanade															
8	T1	All MCs	338	0.3	338	0.3	0.218	3.3	LOS A	1.0	6.8	0.13	0.44	0.13	44.9
Approach			338	0.3	338	0.3	0.218	3.3	LOS A	1.0	6.8	0.13	0.44	0.13	44.9
All Vehicles			671	0.6	671	0.6	0.218	3.3	NA	1.0	6.8	0.11	0.45	0.11	45.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 7AM_FY_Dev [HAR_HOOD_CAMP_33_AM_Dev (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_FY with Dev_AM- Existing layout (Network Folder: FY with Dev_Weekday AM)]

Hood St/ Harbour Drive Interection
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	137	0.0	137	0.0	0.100	6.0	LOS A	0.4	3.1	0.48	0.64	0.48	42.2
8	T1	All MCs	2	0.0	2	0.0	0.170	18.7	LOS B	0.5	3.8	0.87	0.93	0.88	35.2
9	R2	All MCs	26	0.0	26	0.0	0.170	26.8	LOS B	0.5	3.8	0.87	0.93	0.88	29.5
Approach			165	0.0	165	0.0	0.170	9.5	LOS A	0.5	3.8	0.55	0.69	0.55	39.8
East: Harbour Drive															
10	L2	All MCs	53	0.0	53	0.0	0.490	4.0	LOS A	3.7	26.1	0.32	0.17	0.32	38.2
11	T1	All MCs	491	0.6	491	0.6	0.490	0.8	LOS A	3.7	26.1	0.32	0.17	0.32	37.7
12	R2	All MCs	11	0.0	11	0.0	0.490	6.3	LOS A	3.7	26.1	0.32	0.17	0.32	37.9
Approach			554	0.6	554	0.6	0.490	1.2	NA	3.7	26.1	0.32	0.17	0.32	37.8
North: Hood Street															
1	L2	All MCs	6	0.0	6	0.0	0.072	6.0	LOS A	0.2	1.6	0.78	0.90	0.78	30.0
2	T1	All MCs	1	0.0	1	0.0	0.072	19.0	LOS B	0.2	1.6	0.78	0.90	0.78	38.0
3	R2	All MCs	9	0.0	9	0.0	0.072	28.0	LOS B	0.2	1.6	0.78	0.90	0.78	32.0
Approach			17	0.0	17	0.0	0.072	19.2	LOS B	0.2	1.6	0.78	0.90	0.78	32.0
West: Harbour Drive															
4	L2	All MCs	8	0.0	8	0.0	0.414	4.1	LOS A	2.9	20.3	0.29	0.13	0.29	37.9
5	T1	All MCs	449	1.9	449	1.9	0.414	0.7	LOS A	2.9	20.3	0.29	0.13	0.29	35.7
6	R2	All MCs	120	0.0	120	0.0	0.083	4.8	LOS A	0.4	2.9	0.54	0.59	0.54	36.0
Approach			578	1.5	578	1.5	0.414	1.6	NA	2.9	20.3	0.34	0.23	0.34	35.9
All Vehicles			1314	0.9	1314	0.9	0.490	2.6	NA	3.7	26.1	0.36	0.27	0.36	37.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

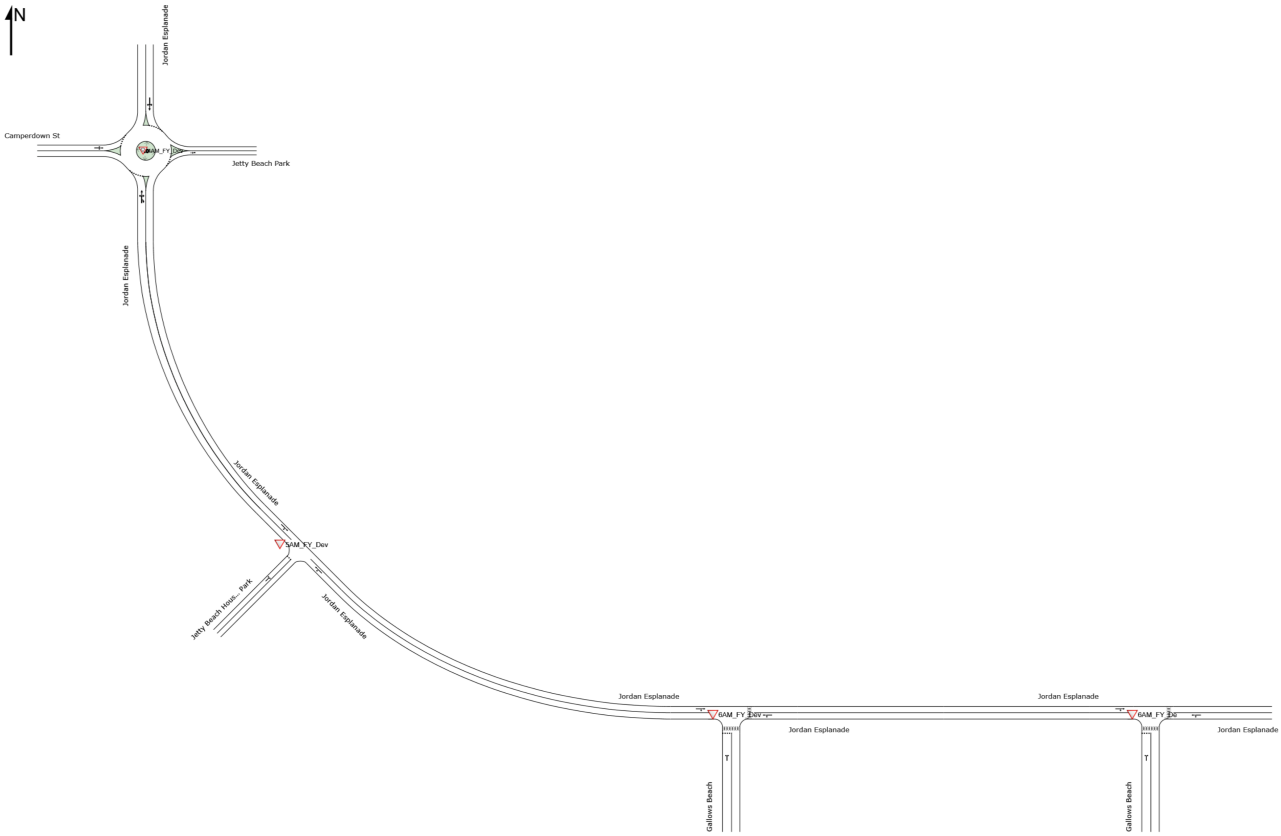
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N102 [South_FY with Dev_AM (Network Folder: FY with Dev_Weekday AM)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
4AM_FY_Dev	NA	JOR_CAM_33_AM_Dev - Conversion
5AM_FY_Dev	NA	JOR_JET_33_AM_Dev
6AM_FY_Dev	NA	JOR_GAL_33_AM_Dev_6a
6AM_FY_De	NA	JOR_GAL_33_AM_Dev_6b

MOVEMENT SUMMARY

Site: 4AM_FY_Dev [JOR_CAM_33_AM_Dev - Conversion (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_FY with Dev_AM (Network Folder: FY with Dev_Weekday AM)]

Camperdown St Interection
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	107	0.0	107	0.0	0.199	3.8	LOS A	1.1	7.5	0.17	0.42	0.17	45.8
2	T1	All MCs	167	1.3	167	1.3	0.199	3.8	LOS A	1.1	7.5	0.17	0.42	0.17	46.1
3	R2	All MCs	1	0.0	1	0.0	0.199	7.1	LOS A	1.1	7.5	0.17	0.42	0.17	28.3
3u	U	All MCs	1	0.0	1	0.0	0.199	10.0	LOS A	1.1	7.5	0.17	0.42	0.17	43.4
Approach			277	0.8	277	0.8	0.199	3.9	LOS A	1.1	7.5	0.17	0.42	0.17	45.9
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.005	4.3	LOS A	0.0	0.2	0.56	0.54	0.56	19.0
5	T1	All MCs	1	0.0	1	0.0	0.005	4.7	LOS A	0.0	0.2	0.56	0.54	0.56	42.2
6	R2	All MCs	1	0.0	1	0.0	0.005	7.5	LOS A	0.0	0.2	0.56	0.54	0.56	41.4
6u	U	All MCs	1	0.0	1	0.0	0.005	9.6	LOS A	0.0	0.2	0.56	0.54	0.56	7.7
Approach			4	0.0	4	0.0	0.005	6.5	LOS A	0.0	0.2	0.56	0.54	0.56	31.3
North: Jordan Esplanade															
7	L2	All MCs	1	0.0	1	0.0	0.193	4.1	LOS A	1.1	8.0	0.29	0.46	0.29	30.5
8	T1	All MCs	198	0.5	198	0.5	0.193	4.1	LOS A	1.1	8.0	0.29	0.46	0.29	43.6
9	R2	All MCs	45	0.0	45	0.0	0.193	7.4	LOS A	1.1	8.0	0.29	0.46	0.29	45.3
Approach			244	0.4	244	0.4	0.193	4.7	LOS A	1.1	8.0	0.29	0.46	0.29	44.0
West: Camperdown St															
10	L2	All MCs	49	0.0	49	0.0	0.130	4.7	LOS A	0.8	5.6	0.42	0.57	0.42	44.7
11	T1	All MCs	1	0.0	1	0.0	0.130	4.9	LOS A	0.8	5.6	0.42	0.57	0.42	30.4
12	R2	All MCs	91	1.2	91	1.2	0.130	8.2	LOS A	0.8	5.6	0.42	0.57	0.42	42.0
Approach			141	0.7	141	0.7	0.130	6.9	LOS A	0.8	5.6	0.42	0.57	0.42	43.3
All Vehicles			666	0.6	666	0.6	0.199	4.8	LOS A	1.1	8.0	0.27	0.47	0.27	44.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5AM_FY_Dev [JOR_JET_33_AM_Dev (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_FY with Dev_AM (Network Folder: FY with Dev_Weekday AM)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	2	0.0	2	0.0	0.137	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	44.0
22	T1	All MCs	261	0.8	261	0.8	0.137	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.7
Approach			263	0.8	263	0.8	0.137	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
NorthWest: Jordan Esplanade															
28	T1	All MCs	280	0.8	280	0.8	0.151	0.0	LOS A	0.1	0.4	0.02	0.02	0.02	49.6
29	R2	All MCs	7	14.3	7	14.3	0.151	5.4	LOS A	0.1	0.4	0.02	0.02	0.02	45.8
Approach			287	1.1	287	1.1	0.151	0.2	NA	0.1	0.4	0.02	0.02	0.02	49.5
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	6	16.7	6	16.7	0.005	5.4	LOS A	0.0	0.2	0.33	0.51	0.33	29.2
32	R2	All MCs	1	0.0	1	0.0	0.005	5.5	LOS A	0.0	0.2	0.33	0.51	0.33	29.2
Approach			7	14.3	7	14.3	0.005	5.4	LOS A	0.0	0.2	0.33	0.51	0.33	29.2
All Vehicles			558	1.1	558	1.1	0.151	0.2	NA	0.1	0.4	0.02	0.02	0.02	49.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6AM_FY_Dev [JOR_GAL_33_AM_Dev_6a (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_FY with Dev_AM (Network Folder: FY with Dev_Weekday AM)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	41	0.0	41	0.0	0.021	2.8	LOS A	0.1	0.7	0.15	0.46	0.15	23.6
3	R2	All MCs	1	0.0	1	0.0	0.021	2.9	LOS A	0.1	0.7	0.15	0.46	0.15	23.6
Approach			42	0.0	42	0.0	0.021	2.8	LOS A	0.1	0.7	0.15	0.46	0.15	23.6
East: Jordan Esplanade															
4	L2	All MCs	2	50.0	2	50.0	0.036	5.0	LOS A	0.0	0.0	0.00	0.02	0.00	45.6
5	T1	All MCs	67	0.0	67	0.0	0.036	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.8
Approach			69	1.5	69	1.5	0.036	0.2	NA	0.0	0.0	0.00	0.02	0.00	49.6
West: Jordan Esplanade															
11	T1	All MCs	137	0.0	137	0.0	0.089	0.1	LOS A	0.2	1.5	0.08	0.14	0.08	41.7
12	R2	All MCs	41	0.0	41	0.0	0.089	4.7	LOS A	0.2	1.5	0.08	0.14	0.08	37.4
Approach			178	0.0	178	0.0	0.089	1.1	NA	0.2	1.5	0.08	0.14	0.08	40.4
All Vehicles			289	0.4	289	0.4	0.089	1.1	NA	0.2	1.5	0.07	0.16	0.07	42.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6AM_FY_De [JOR_GAL_33_AM_Dev_6b (Site Folder: Weekday AM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N102 [South_FY with Dev_AM (Network Folder: FY with Dev_Weekday AM)]

Gallows Beach Carpark
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	19	0.0	19	0.0	0.017	3.4	LOS A	0.1	0.4	0.13	0.48	0.13	25.1
3	R2	All MCs	12	0.0	12	0.0	0.017	3.5	LOS A	0.1	0.4	0.13	0.48	0.13	43.7
Approach			31	0.0	31	0.0	0.017	3.4	LOS A	0.1	0.4	0.13	0.48	0.13	39.8
East: Jordan Esplanade															
4	L2	All MCs	35	0.0	35	0.0	0.044	4.6	LOS A	0.0	0.0	0.00	0.22	0.00	45.8
5	T1	All MCs	49	2.1	49	2.1	0.044	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	47.5
Approach			84	1.3	84	1.3	0.044	1.9	NA	0.0	0.0	0.00	0.22	0.00	46.8
West: Jordan Esplanade															
11	T1	All MCs	84	0.0	84	0.0	0.067	0.1	LOS A	0.2	1.7	0.13	0.22	0.13	47.9
12	R2	All MCs	53	0.0	53	0.0	0.067	4.8	LOS A	0.2	1.7	0.13	0.22	0.13	40.7
Approach			137	0.0	137	0.0	0.067	1.9	NA	0.2	1.7	0.13	0.22	0.13	46.4
All Vehicles			252	0.4	252	0.4	0.067	2.1	NA	0.2	1.7	0.09	0.25	0.09	46.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

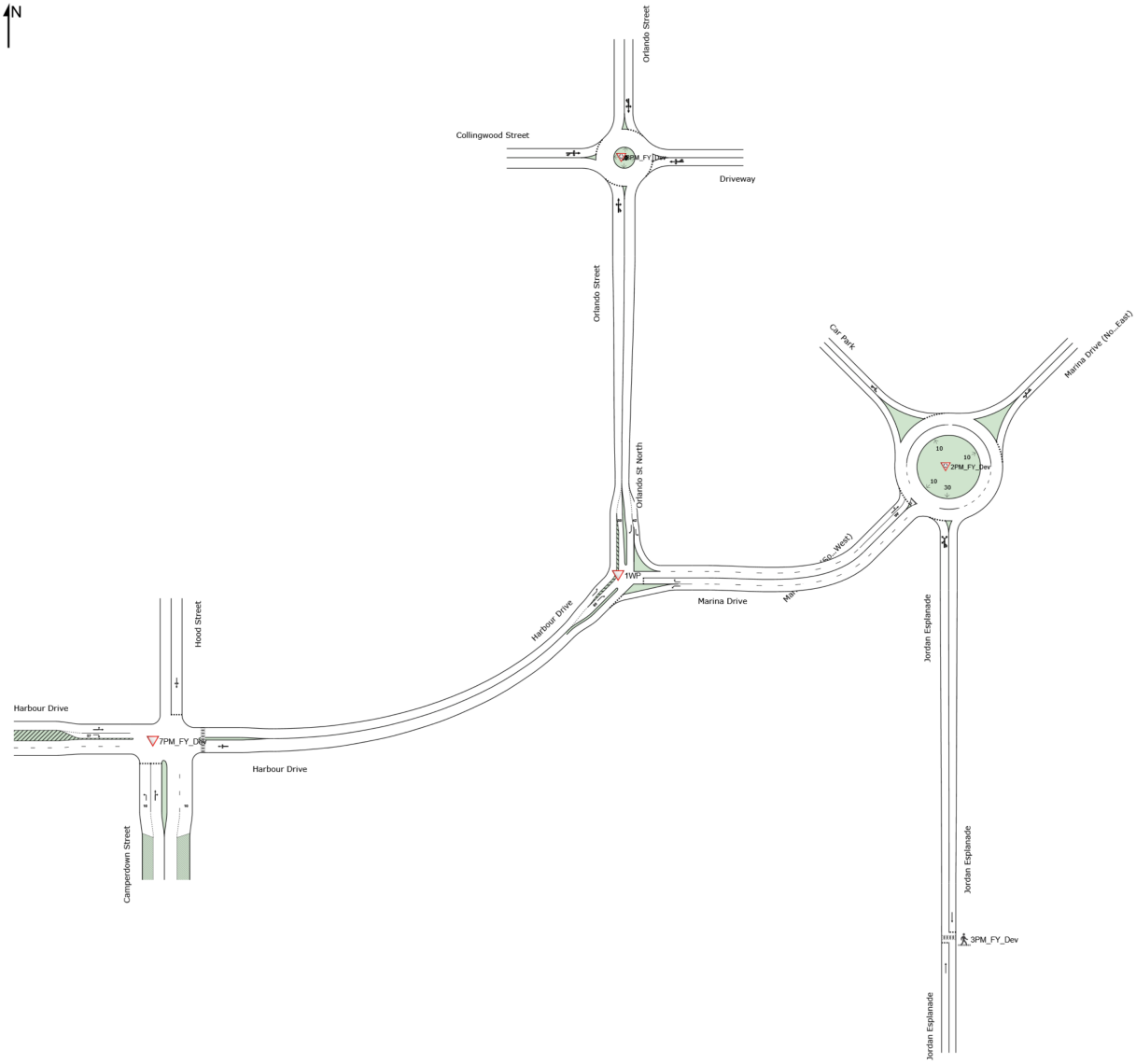
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [North_2033_PM_FY DEV- Existing layout (Network Folder: FY with Dev_PM Peak)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8PM_FY_Dev	NA	ORL_COLL_33_PM_Dev
1WP	NA	ORL_MAR_HAR_33_PM_Exiting layout
2PM_FY_Dev	NA	MAR_JOR_33_PM_Dev
3PM_FY_Dev	NA	JOR_PED_33_PM_Dev
7PM_FY_Dev	NA	HAR_HOOD_CAMP_33_PM_Dev

MOVEMENT SUMMARY

Site: 8PM_FY_Dev [ORL_COLL_33_PM_Dev (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_FY DEV-Existing layout (Network Folder: FY with Dev_PM Peak)]

NA
Site Category: 2033 with Dev
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	28	25.9	28	25.9	0.299	4.0	LOS A	0.6	4.0	0.20	0.42	0.20	43.0
2	T1	All MCs	365	0.0	365	0.0	0.299	3.7	LOS A	0.6	4.0	0.20	0.42	0.20	44.0
3	R2	All MCs	1	0.0	1	0.0	0.299	7.1	LOS A	0.6	4.0	0.20	0.42	0.20	28.3
3u	U	All MCs	14	0.0	14	0.0	0.299	8.7	LOS A	0.6	4.0	0.20	0.42	0.20	29.1
Approach			408	1.8	408	1.8	0.299	3.9	LOS A	0.6	4.0	0.20	0.42	0.20	43.8
East: Driveway															
4	L2	All MCs	4	0.0	4	0.0	0.013	6.0	LOS A	0.0	0.2	0.71	0.63	0.71	13.4
5	T1	All MCs	1	0.0	1	0.0	0.013	6.4	LOS A	0.0	0.2	0.71	0.63	0.71	41.0
6	R2	All MCs	2	0.0	2	0.0	0.013	9.1	LOS A	0.0	0.2	0.71	0.63	0.71	40.2
6u	U	All MCs	1	0.0	1	0.0	0.013	10.7	LOS A	0.0	0.2	0.71	0.63	0.71	15.5
Approach			8	0.0	8	0.0	0.013	7.4	LOS A	0.0	0.2	0.71	0.63	0.71	33.3
North: Orlando Street															
7	L2	All MCs	6	0.0	6	0.0	0.485	4.4	LOS A	1.6	11.2	0.43	0.47	0.43	42.4
8	T1	All MCs	547	0.0	547	0.0	0.485	4.5	LOS A	1.6	11.2	0.43	0.47	0.43	43.1
9	R2	All MCs	56	7.5	56	7.5	0.485	7.9	LOS A	1.6	11.2	0.43	0.47	0.43	44.9
9u	U	All MCs	12	0.0	12	0.0	0.485	9.3	LOS A	1.6	11.2	0.43	0.47	0.43	45.1
Approach			621	0.7	621	0.7	0.485	4.9	LOS A	1.6	11.2	0.43	0.47	0.43	43.4
West: Collingwood Street															
10	L2	All MCs	72	0.0	72	0.0	0.181	5.7	LOS A	0.4	2.6	0.52	0.64	0.52	44.4
11	T1	All MCs	1	0.0	1	0.0	0.181	5.7	LOS A	0.4	2.6	0.52	0.64	0.52	41.2
12	R2	All MCs	101	0.0	101	0.0	0.181	9.0	LOS A	0.4	2.6	0.52	0.64	0.52	41.6
12u	U	All MCs	1	0.0	1	0.0	0.181	10.5	LOS A	0.4	2.6	0.52	0.64	0.52	44.2
Approach			175	0.0	175	0.0	0.181	7.6	LOS A	0.4	2.6	0.52	0.64	0.52	43.2
All Vehicles			1213	1.0	1213	1.0	0.485	5.0	LOS A	1.6	11.2	0.37	0.48	0.37	43.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1WP [ORL_MAR_HAR_33_PM_Exiting layout (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_FY DEV-Existing layout (Network Folder: FY with Dev_PM Peak)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	252	0.0	252	0.0	0.199	5.9	LOS A	0.3	2.4	0.39	0.61	0.39	38.5
6	R2	All MCs	323	1.0	323	1.0	0.444	9.8	LOS A	0.9	6.1	0.63	0.92	0.89	29.7
Approach			575	0.5	575	0.5	0.444	8.1	LOS A	0.9	6.1	0.53	0.79	0.67	32.9
North: Orlando St North															
7	L2	All MCs	359	0.3	359	0.3	0.201	4.3	LOS A	0.0	0.0	0.00	0.47	0.00	31.0
9a	R1	All MCs	282	1.5	282	1.5	0.217	5.0	LOS A	0.4	3.0	0.45	0.62	0.45	28.5
Approach			641	0.8	641	0.8	0.217	4.6	NA	0.4	3.0	0.20	0.53	0.20	30.0
SouthWest: Harbour Drive															
30a	L1	All MCs	156	2.7	156	2.7	0.083	3.8	LOS A	0.0	0.0	0.00	0.50	0.00	40.6
32a	R1	All MCs	332	0.6	332	0.6	0.334	8.0	LOS A	0.7	5.2	0.62	0.79	0.71	37.8
Approach			487	1.3	487	1.3	0.334	6.6	NA	0.7	5.2	0.42	0.70	0.49	38.6
All Vehicles			1703	0.9	1703	0.9	0.444	6.4	NA	0.9	6.1	0.37	0.67	0.44	34.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2PM_FY_Dev [MAR_JOR_33_PM_Dev (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_FY DEV-Existing layout (Network Folder: FY with Dev_PM Peak)]

NA
Site Category: 2033 with Dev
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	284	1.1	284	1.1	0.323	4.0	LOS A	0.7	5.3	0.50	0.54	0.50	31.6
1a	L1	All MCs	2	0.0	2	0.0	0.323	4.0	LOS A	0.7	5.3	0.50	0.54	0.50	36.5
3a	R1	All MCs	46	0.0	46	0.0	0.323	7.8	LOS A	0.7	5.3	0.50	0.54	0.50	36.9
3u	U	All MCs	1	0.0	1	0.0	0.323	10.4	LOS A	0.7	5.3	0.50	0.54	0.50	31.6
Approach			333	0.9	333	0.9	0.323	4.5	LOS A	0.7	5.3	0.50	0.54	0.50	32.9
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	75	0.0	75	0.0	0.421	5.2	LOS A	1.1	7.4	0.64	0.54	0.64	30.0
25	T1	All MCs	262	0.0	262	0.0	0.421	4.4	LOS A	1.1	7.4	0.64	0.54	0.64	30.0
26	R2	All MCs	2	0.0	2	0.0	0.421	8.7	LOS A	1.1	7.4	0.64	0.54	0.64	31.7
26u	U	All MCs	6	0.0	6	0.0	0.421	10.1	LOS A	1.1	7.4	0.64	0.54	0.64	32.8
Approach			346	0.0	346	0.0	0.421	4.7	LOS A	1.1	7.4	0.64	0.54	0.64	30.1
NorthWest: Car Park															
27	L2	All MCs	3	0.0	3	0.0	0.041	7.2	LOS A	0.1	0.5	0.60	0.74	0.60	31.0
29a	R1	All MCs	7	0.0	7	0.0	0.041	9.8	LOS A	0.1	0.5	0.60	0.74	0.60	23.4
29	R2	All MCs	15	0.0	15	0.0	0.041	10.9	LOS A	0.1	0.5	0.60	0.74	0.60	23.4
29u	U	All MCs	1	0.0	1	0.0	0.041	12.6	LOS A	0.1	0.5	0.60	0.74	0.60	23.2
Approach			27	0.0	27	0.0	0.041	10.2	LOS A	0.1	0.5	0.60	0.74	0.60	24.7
SouthWest: Marina Drive (South West)															
30	L2	All MCs	32	3.2	32	3.2	0.229	3.0	LOS A	0.7	5.1	0.26	0.32	0.26	34.0
31	T1	All MCs	318	0.0	318	0.0	0.229	2.6	LOS A	0.7	5.1	0.26	0.32	0.26	35.3
32b	R3	All MCs	331	1.0	331	1.0	0.247	6.6	LOS A	0.8	5.5	0.28	0.54	0.28	29.1
32u	U	All MCs	8	0.0	8	0.0	0.247	7.3	LOS A	0.8	5.5	0.28	0.54	0.28	29.1
Approach			689	0.6	689	0.6	0.247	4.6	LOS A	0.8	5.5	0.27	0.43	0.27	32.6
All Vehicles			1395	0.5	1395	0.5	0.421	4.7	LOS A	1.1	7.4	0.43	0.49	0.43	32.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3PM_FY_Dev [JOR_PED_33_PM_Dev (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_FY DEV-Existing layout (Network Folder: FY with Dev_PM Peak)]

Jordan Esplanade Crossing
Site Category: Base Year
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	318	1.0	318	1.0	0.182	3.3	LOS A	0.3	1.9	0.10	0.45	0.10	45.6
Approach			318	1.0	318	1.0	0.182	3.3	LOS A	0.3	1.9	0.10	0.45	0.10	45.6
North: Jordan Esplanade															
8	T1	All MCs	371	0.6	371	0.6	0.240	3.3	LOS A	0.4	3.1	0.13	0.44	0.13	44.9
Approach			371	0.6	371	0.6	0.240	3.3	LOS A	0.4	3.1	0.13	0.44	0.13	44.9
All Vehicles			688	0.8	688	0.8	0.240	3.3	NA	0.4	3.1	0.12	0.45	0.12	45.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 7PM_FY_Dev [HAR_HOOD_CAMP_33_PM_Dev (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_PM_FY DEV-Existing layout (Network Folder: FY with Dev_PM Peak)]

Hood St/ Harbour Drive Interection
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	142	0.0	142	0.0	0.111	6.3	LOS A	0.2	1.4	0.51	0.67	0.51	42.1
8	T1	All MCs	1	0.0	1	0.0	0.301	26.8	LOS B	0.4	2.9	0.91	0.99	1.04	31.5
9	R2	All MCs	38	0.0	38	0.0	0.301	37.4	LOS C	0.4	2.9	0.91	0.99	1.04	25.3
Approach			181	0.0	181	0.0	0.301	12.9	LOS A	0.4	2.9	0.60	0.74	0.63	37.5
East: Harbour Drive															
10	L2	All MCs	35	0.0	35	0.0	0.533	5.3	LOS A	1.7	12.2	0.34	0.18	0.34	46.5
11	T1	All MCs	547	0.6	547	0.6	0.533	0.8	LOS A	1.7	12.2	0.34	0.18	0.34	46.2
12	R2	All MCs	17	0.0	17	0.0	0.533	7.9	LOS A	1.7	12.2	0.34	0.18	0.34	46.0
Approach			599	0.5	599	0.5	0.533	1.3	NA	1.7	12.2	0.34	0.18	0.34	46.2
North: Hood Street															
1	L2	All MCs	5	0.0	5	0.0	0.140	6.1	LOS A	0.2	1.2	0.87	0.94	0.87	25.3
2	T1	All MCs	1	0.0	1	0.0	0.140	23.1	LOS B	0.2	1.2	0.87	0.94	0.87	34.3
3	R2	All MCs	15	0.0	15	0.0	0.140	36.6	LOS C	0.2	1.2	0.87	0.94	0.87	27.7
Approach			21	0.0	21	0.0	0.140	28.3	LOS B	0.2	1.2	0.87	0.94	0.87	27.7
West: Harbour Drive															
4	L2	All MCs	11	0.0	11	0.0	0.430	5.3	LOS A	1.2	8.7	0.29	0.14	0.29	45.8
5	T1	All MCs	468	1.1	468	1.1	0.430	0.7	LOS A	1.2	8.7	0.29	0.14	0.29	43.3
6	R2	All MCs	165	0.0	165	0.0	0.120	6.4	LOS A	0.2	1.7	0.57	0.66	0.57	42.2
Approach			644	0.8	644	0.8	0.430	2.2	NA	1.2	8.7	0.36	0.27	0.36	42.7
All Vehicles			1445	0.6	1445	0.6	0.533	3.5	NA	1.7	12.2	0.39	0.30	0.40	42.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

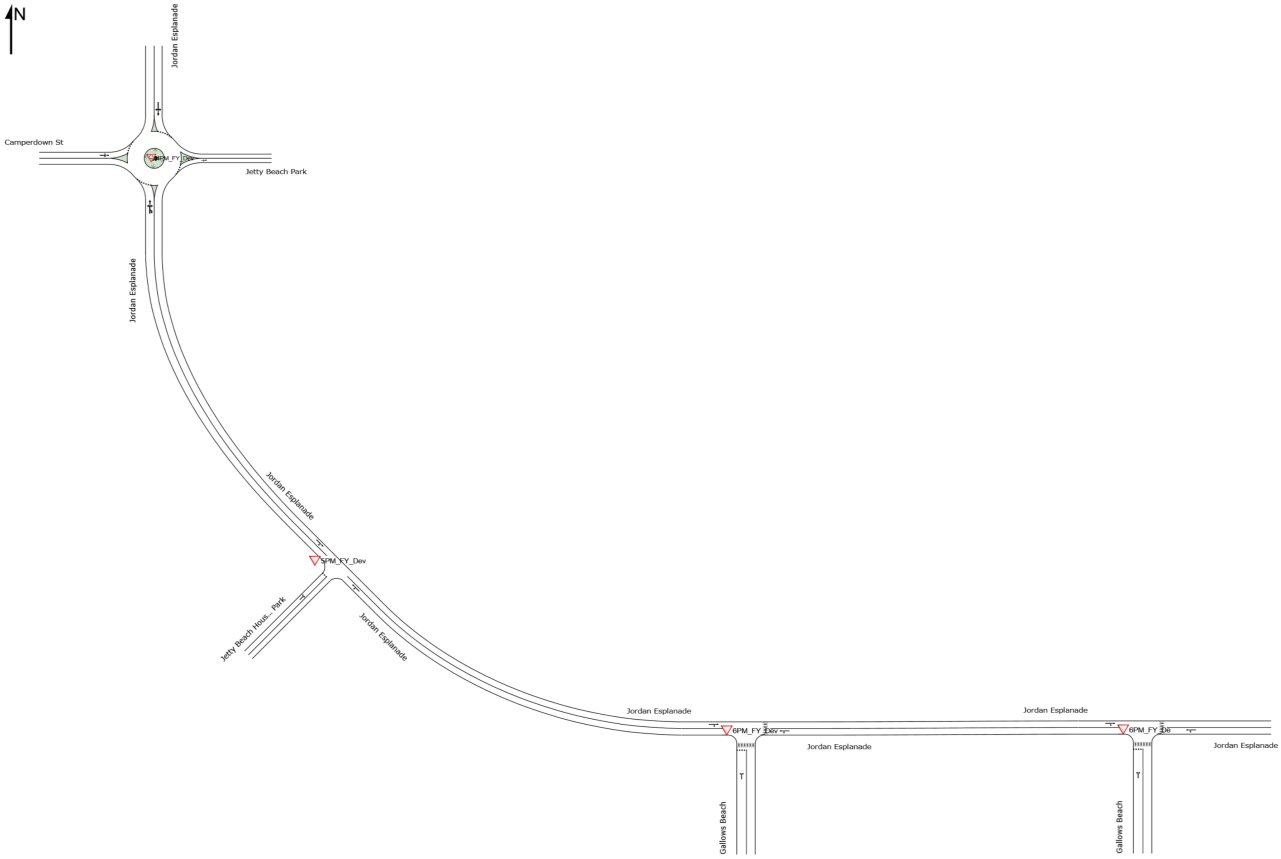
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [South_2033_PM_FY DEV (Network Folder: FY with Dev_PM Peak)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
4PM_FY_Dev	NA	JOR_CAM_33_PM_Dev - Conversion
5PM_FY_Dev	NA	JOR_JET_33_PM_Dev
6PM_FY_Dev	NA	JOR_GAL_33_PM_Dev_6a
6PM_FY_De	NA	JOR_GAL_33_PM_Dev_6b

MOVEMENT SUMMARY

Site: 4PM_FY_Dev [JOR_CAM_33_PM_Dev - Conversion (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_FY DEV (Network Folder: FY with Dev_PM Peak)]

Camperdown St Interection
Site Category: Base Year
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	114	2.8	114	2.8	0.220	3.9	LOS A	0.5	3.4	0.19	0.42	0.19	45.7
2	T1	All MCs	187	0.0	187	0.0	0.220	3.8	LOS A	0.5	3.4	0.19	0.42	0.19	46.0
3	R2	All MCs	1	0.0	1	0.0	0.220	7.1	LOS A	0.5	3.4	0.19	0.42	0.19	28.3
3u	U	All MCs	1	0.0	1	0.0	0.220	10.0	LOS A	0.5	3.4	0.19	0.42	0.19	43.3
Approach			303	1.0	303	1.0	0.220	3.9	LOS A	0.5	3.4	0.19	0.42	0.19	45.8
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.005	4.3	LOS A	0.0	0.1	0.57	0.54	0.57	18.9
5	T1	All MCs	1	0.0	1	0.0	0.005	4.7	LOS A	0.0	0.1	0.57	0.54	0.57	42.1
6	R2	All MCs	1	0.0	1	0.0	0.005	7.6	LOS A	0.0	0.1	0.57	0.54	0.57	41.3
6u	U	All MCs	1	0.0	1	0.0	0.005	9.6	LOS A	0.0	0.1	0.57	0.54	0.57	7.7
Approach			4	0.0	4	0.0	0.005	6.6	LOS A	0.0	0.1	0.57	0.54	0.57	31.2
North: Jordan Esplanade															
7	L2	All MCs	2	0.0	2	0.0	0.197	4.1	LOS A	0.5	3.3	0.30	0.46	0.30	28.1
8	T1	All MCs	193	0.0	193	0.0	0.197	4.2	LOS A	0.5	3.3	0.30	0.46	0.30	43.5
9	R2	All MCs	51	4.2	51	4.2	0.197	7.5	LOS A	0.5	3.3	0.30	0.46	0.30	45.2
Approach			245	0.9	245	0.9	0.197	4.8	LOS A	0.5	3.3	0.30	0.46	0.30	43.9
West: Camperdown St															
10	L2	All MCs	64	0.0	64	0.0	0.152	4.9	LOS A	0.4	2.7	0.45	0.58	0.45	44.8
11	T1	All MCs	1	0.0	1	0.0	0.152	5.0	LOS A	0.4	2.7	0.45	0.58	0.45	27.9
12	R2	All MCs	98	0.0	98	0.0	0.152	8.3	LOS A	0.4	2.7	0.45	0.58	0.45	42.1
Approach			163	0.0	163	0.0	0.152	7.0	LOS A	0.4	2.7	0.45	0.58	0.45	43.4
All Vehicles			715	0.7	715	0.7	0.220	4.9	LOS A	0.5	3.4	0.29	0.47	0.29	44.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5PM_FY_Dev [JOR_JET_33_PM_Dev (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_FY DEV (Network Folder: FY with Dev_PM Peak)]

Jetty Beach House Car Park
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	5	40.0	5	40.0	0.162	4.8	LOS A	0.0	0.0	0.00	0.01	0.00	38.9
22	T1	All MCs	305	0.0	305	0.0	0.162	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.6
Approach			311	0.7	311	0.7	0.162	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.1
NorthWest: Jordan Esplanade															
28	T1	All MCs	306	0.0	306	0.0	0.165	0.0	LOS A	0.0	0.2	0.03	0.03	0.03	49.6
29	R2	All MCs	8	25.0	8	25.0	0.165	6.0	LOS A	0.0	0.2	0.03	0.03	0.03	45.1
Approach			315	0.7	315	0.7	0.165	0.2	NA	0.0	0.2	0.03	0.03	0.03	49.5
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	11	10.0	11	10.0	0.008	5.5	LOS A	0.0	0.1	0.36	0.52	0.36	29.0
32	R2	All MCs	1	0.0	1	0.0	0.008	5.7	LOS A	0.0	0.1	0.36	0.52	0.36	29.0
Approach			12	9.1	12	9.1	0.008	5.5	LOS A	0.0	0.1	0.36	0.52	0.36	29.0
All Vehicles			637	0.8	637	0.8	0.165	0.2	NA	0.0	0.2	0.02	0.03	0.02	49.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6PM_FY_Dev [JOR_GAL_33_PM_Dev_6a (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_FY DEV (Network Folder: FY with Dev_PM Peak)]

Gallows Beach Carpark
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	49	0.0	49	0.0	0.026	2.8	LOS A	0.0	0.3	0.17	0.46	0.17	23.3
3	R2	All MCs	1	0.0	1	0.0	0.026	2.9	LOS A	0.0	0.3	0.17	0.46	0.17	23.3
Approach			51	0.0	51	0.0	0.026	2.8	LOS A	0.0	0.3	0.17	0.46	0.17	23.3
East: Jordan Esplanade															
4	L2	All MCs	1	0.0	1	0.0	0.043	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	46.2
5	T1	All MCs	83	0.0	83	0.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
Approach			84	0.0	84	0.0	0.043	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.7
West: Jordan Esplanade															
11	T1	All MCs	135	0.0	135	0.0	0.095	0.1	LOS A	0.1	0.8	0.11	0.18	0.11	39.6
12	R2	All MCs	57	0.0	57	0.0	0.095	4.8	LOS A	0.1	0.8	0.11	0.18	0.11	36.0
Approach			192	0.0	192	0.0	0.095	1.5	NA	0.1	0.8	0.11	0.18	0.11	38.3
All Vehicles			326	0.0	326	0.0	0.095	1.3	NA	0.1	0.8	0.09	0.18	0.09	41.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6PM_FY_De [JOR_GAL_33_PM_Dev_6b (Site Folder: Weekday PM Peak FY with Dev)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_PM_FY DEV (Network Folder: FY with Dev_PM Peak)]

Gallows Beach Carpark
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	22	0.0	22	0.0	0.019	3.4	LOS A	0.0	0.2	0.14	0.48	0.14	25.0
3	R2	All MCs	12	0.0	12	0.0	0.019	3.5	LOS A	0.0	0.2	0.14	0.48	0.14	43.7
Approach			34	0.0	34	0.0	0.019	3.5	LOS A	0.0	0.2	0.14	0.48	0.14	39.2
East: Jordan Esplanade															
4	L2	All MCs	32	0.0	32	0.0	0.048	4.6	LOS A	0.0	0.0	0.00	0.19	0.00	46.2
5	T1	All MCs	61	0.0	61	0.0	0.048	0.0	LOS A	0.0	0.0	0.00	0.19	0.00	48.0
Approach			93	0.0	93	0.0	0.048	1.6	NA	0.0	0.0	0.00	0.19	0.00	47.3
West: Jordan Esplanade															
11	T1	All MCs	82	1.3	82	1.3	0.067	0.1	LOS A	0.1	0.7	0.14	0.23	0.14	47.8
12	R2	All MCs	53	0.0	53	0.0	0.067	4.8	LOS A	0.1	0.7	0.14	0.23	0.14	40.5
Approach			135	0.8	135	0.8	0.067	1.9	NA	0.1	0.7	0.14	0.23	0.14	46.3
All Vehicles			261	0.4	261	0.4	0.067	2.0	NA	0.1	0.7	0.09	0.25	0.09	46.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

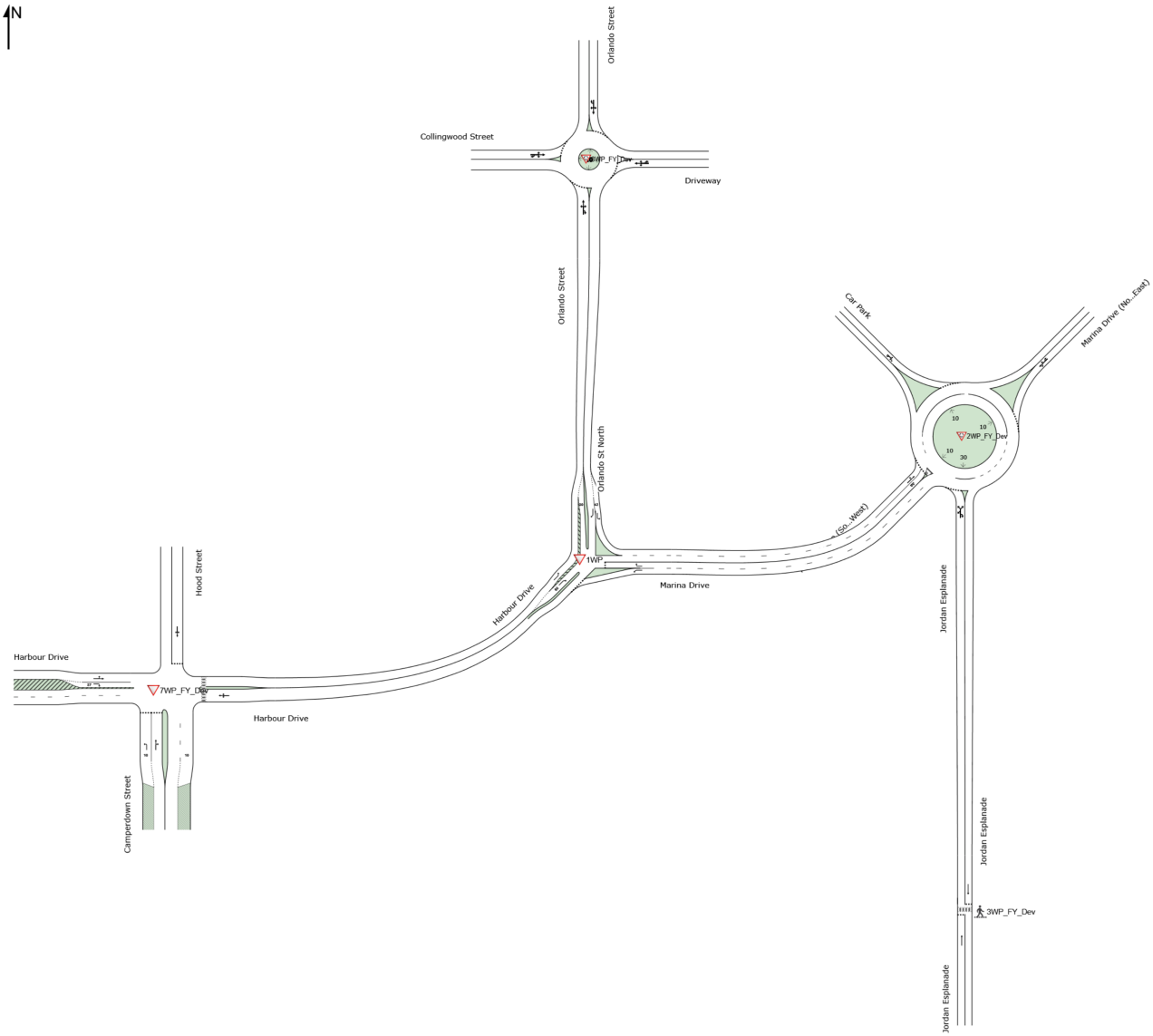
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [North_2033_Weekend_Dev 100% - Existing layout (Network Folder: FY with Dev_WKend)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
8WP_FY_Dev	NA	ORL_COLL_33_WP_Dev
1WP	NA	ORL_MAR_HAR_33_WP_Exiting layout
2WP_FY_Dev	NA	MAR_JOR_33_WP_Dev
3WP_FY_Dev	NA	JOR_PED_33_WP_Dev
7WP_FY_Dev	NA	HAR_HOOD_CAMP_33_WP_Dev

MOVEMENT SUMMARY

Site: 8WP_FY_Dev [ORL_COLL_33_WP_Dev (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Dev 100% - Existing layout (Network Folder: FY with Dev_WKend)]

Orlando Street/ Collingwood Street intersection
Site Category: 2033 with Dev
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Orlando Street															
1	L2	All MCs	37	0.0	37	0.0	0.442	4.0	LOS A	2.6	18.4	0.23	0.42	0.23	43.4
2	T1	All MCs	572	0.0	570	0.0	0.442	3.8	LOS A	2.6	18.4	0.23	0.42	0.23	43.9
3	R2	All MCs	2	0.0	2	0.0	0.442	7.2	LOS A	2.6	18.4	0.23	0.42	0.23	27.9
3u	U	All MCs	19	0.0	19	0.0	0.442	8.7	LOS A	2.6	18.4	0.23	0.42	0.23	28.6
Approach			629	0.0	628	0.0	0.442	3.9	LOS A	2.6	18.4	0.23	0.42	0.23	43.7
East: Driveway															
4	L2	All MCs	4	0.0	4	0.0	0.019	10.5	LOS A	0.1	0.9	0.88	0.72	0.88	9.3
5	T1	All MCs	1	0.0	1	0.0	0.019	10.9	LOS A	0.1	0.9	0.88	0.72	0.88	37.4
6	R2	All MCs	2	0.0	2	0.0	0.019	13.6	LOS A	0.1	0.9	0.88	0.72	0.88	36.8
6u	U	All MCs	1	0.0	1	0.0	0.019	15.2	LOS B	0.1	0.9	0.88	0.72	0.88	11.4
Approach			8	0.0	8	0.0	0.019	11.9	LOS A	0.1	0.9	0.88	0.72	0.88	28.1
North: Orlando Street															
7	L2	All MCs	2	0.0	2	0.0	0.708	4.6	LOS A	8.7	60.9	0.56	0.46	0.56	41.8
8	T1	All MCs	898	0.0	898	0.0	0.708	4.7	LOS A	8.7	60.9	0.56	0.46	0.56	42.5
9	R2	All MCs	39	0.0	39	0.0	0.708	8.0	LOS A	8.7	60.9	0.56	0.46	0.56	44.7
9u	U	All MCs	26	0.0	26	0.0	0.708	9.5	LOS A	8.7	60.9	0.56	0.46	0.56	44.7
Approach			965	0.0	965	0.0	0.708	4.9	LOS A	8.7	60.9	0.56	0.46	0.56	42.8
West: Collingwood Street															
10	L2	All MCs	85	0.0	85	0.0	0.198	7.2	LOS A	1.1	7.7	0.65	0.70	0.65	43.8
11	T1	All MCs	1	0.0	1	0.0	0.198	7.2	LOS A	1.1	7.7	0.65	0.70	0.65	40.2
12	R2	All MCs	73	0.0	73	0.0	0.198	10.5	LOS A	1.1	7.7	0.65	0.70	0.65	40.5
12u	U	All MCs	1	0.0	1	0.0	0.198	12.1	LOS A	1.1	7.7	0.65	0.70	0.65	43.6
Approach			160	0.0	160	0.0	0.198	8.8	LOS A	1.1	7.7	0.65	0.70	0.65	42.8
All Vehicles			1763	0.0	1762	0.0	0.708	5.0	LOS A	8.7	60.9	0.46	0.47	0.46	43.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1WP [ORL_MAR_HAR_33_WP_Exiting layout (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Dev 100% - Existing layout (Network Folder: FY with Dev_WKend)]

Orlando Marina Intersection
Site Category: Base Year
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Marina Drive															
4a	L1	All MCs	602	0.5	602	0.5	0.490	7.1	LOS A	3.7	25.7	0.52	0.71	0.64	36.7
6	R2	All MCs	425	0.0	425	0.0	0.818	20.2	LOS B	6.3	44.3	0.91	1.43	2.39	20.6
Approach			1027	0.3	1027	0.3	0.818	12.5	LOS A	6.3	44.3	0.68	1.01	1.37	27.6
North: Orlando St North															
7	L2	All MCs	684	0.0	684	0.0	0.382	4.3	LOS A	0.0	0.0	0.00	0.47	0.00	31.0
9a	R1	All MCs	311	0.3	311	0.3	0.280	5.9	LOS A	1.3	9.3	0.56	0.70	0.56	26.3
Approach			995	0.1	995	0.1	0.382	4.8	NA	1.3	9.3	0.17	0.54	0.17	29.6
SouthWest: Harbour Drive															
30a	L1	All MCs	201	0.0	200	0.0	0.105	3.8	LOS A	0.0	0.0	0.00	0.50	0.00	40.6
32a	R1	All MCs	480	0.0	477	0.0	0.558	11.1	LOS A	4.3	29.9	0.73	1.03	1.21	33.0
Approach			681	0.0	677	0.0	0.558	8.9	NA	4.3	29.9	0.52	0.87	0.86	35.0
All Vehicles			2703	0.2	2699	0.2	0.818	8.8	NA	6.3	44.3	0.45	0.80	0.80	30.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 2WP_FY_Dev [MAR_JOR_33_WP_Dev (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Dev 100% - Existing layout (Network Folder: FY with Dev_WKend)]

Marina Drive and Jordan Esplanade
Site Category: 2033 with Dev
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1b	L3	All MCs	568	0.2	568	0.2	0.735	9.4	LOS A	8.6	60.0	0.90	0.88	1.17	23.1
1a	L1	All MCs	6	0.0	6	0.0	0.735	9.4	LOS A	8.6	60.0	0.90	0.88	1.17	29.3
3a	R1	All MCs	63	0.0	63	0.0	0.735	13.2	LOS A	8.6	60.0	0.90	0.88	1.17	30.8
3u	U	All MCs	2	0.0	2	0.0	0.735	15.7	LOS B	8.6	60.0	0.90	0.88	1.17	23.1
Approach			640	0.2	640	0.2	0.735	9.8	LOS A	8.6	60.0	0.90	0.88	1.17	24.3
NorthEast: Marina Drive (North East)															
24a	L1	All MCs	137	0.0	137	0.0	0.872	28.6	LOS C	14.5	102.0	1.00	1.51	2.18	14.1
25	T1	All MCs	348	0.3	348	0.3	0.872	27.8	LOS B	14.5	102.0	1.00	1.51	2.18	14.1
26	R2	All MCs	15	0.0	15	0.0	0.872	32.1	LOS C	14.5	102.0	1.00	1.51	2.18	17.8
26u	U	All MCs	8	0.0	8	0.0	0.872	33.5	LOS C	14.5	102.0	1.00	1.51	2.18	19.6
Approach			508	0.2	508	0.2	0.872	28.2	LOS B	14.5	102.0	1.00	1.51	2.18	14.4
NorthWest: Car Park															
27	L2	All MCs	14	15.4	14	15.4	0.285	11.3	LOS A	1.3	9.5	0.76	0.86	0.76	27.5
29a	R1	All MCs	25	0.0	25	0.0	0.285	12.4	LOS A	1.3	9.5	0.76	0.86	0.76	20.7
29	R2	All MCs	98	0.0	98	0.0	0.285	13.5	LOS A	1.3	9.5	0.76	0.86	0.76	20.7
29u	U	All MCs	1	0.0	1	0.0	0.285	15.1	LOS B	1.3	9.5	0.76	0.86	0.76	21.5
Approach			138	1.5	138	1.5	0.285	13.1	LOS A	1.3	9.5	0.76	0.86	0.76	21.7
SouthWest: Marina Drive (South West)															
30	L2	All MCs	147	0.7	147	0.7	0.442	3.6	LOS A	4.4	31.0	0.47	0.38	0.47	32.9
31	T1	All MCs	432	0.0	430	0.0	0.442	3.1	LOS A	4.4	31.0	0.47	0.38	0.47	34.3
32b	R3	All MCs	579	0.0	577	0.0	0.404	6.9	LOS A	3.9	27.6	0.43	0.53	0.43	28.5
32u	U	All MCs	12	0.0	12	0.0	0.404	7.6	LOS A	3.9	27.6	0.43	0.53	0.43	28.5
Approach			1169	0.1	1166	0.1	0.442	5.1	LOS A	4.4	31.0	0.45	0.46	0.45	31.5
All Vehicles			2456	0.2	2453	0.2	0.872	11.5	LOS A	14.5	102.0	0.70	0.81	1.01	24.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 3WP_FY_Dev [JOR_PED_33_WP_Dev (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Dev 100% - Existing layout (Network Folder: FY with Dev_WKend)]

Jordan Esplanade Crossing
Site Category: 2033 with Dev
Pedestrian Crossing (Unsignalised)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
2	T1	All MCs	586	0.2	586	0.2	0.386	3.9	LOS A	1.7	12.2	0.37	0.52	0.37	44.5
Approach			586	0.2	586	0.2	0.386	3.9	LOS A	1.7	12.2	0.37	0.52	0.37	44.5
North: Jordan Esplanade															
8	T1	All MCs	591	0.0	589	0.0	0.459	4.8	LOS A	3.1	21.6	0.48	0.59	0.54	43.8
Approach			591	0.0	589	0.0	0.459	4.8	LOS A	3.1	21.6	0.48	0.59	0.54	43.8
All Vehicles			1177	0.1	1176	0.1	0.459	4.3	NA	3.1	21.6	0.42	0.56	0.45	44.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Akçelik M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 7WP_FY_Dev [HAR_HOOD_CAMP_33_WP_Dev (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [North_2033_Weekend_Dev 100% - Existing layout (Network Folder: FY with Dev_WKend)]

Hood St/ Harbour Drive Interection
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Camperdown Street															
7	L2	All MCs	288	0.0	288	0.0	0.317	8.7	LOS A	1.6	10.9	0.66	0.89	0.79	40.6
8	T1	All MCs	7	0.0	7	0.0	1.135	304.9	LOS F	7.0	48.8	1.00	1.47	2.85	8.0
9	R2	All MCs	36	0.0	36	0.0	1.135	349.5	LOS F	7.0	48.8	1.00	1.47	2.85	5.0
Approach			332	0.0	332	0.0	1.135	52.0	LOS D	7.0	48.8	0.71	0.96	1.06	22.9
East: Harbour Drive															
10	L2	All MCs	53	0.0	53	0.0	0.808	6.7	LOS A	19.4	136.6	0.64	0.39	0.73	37.0
11	T1	All MCs	814	0.5	814	0.5	0.808	3.7	LOS A	19.4	136.6	0.64	0.39	0.73	35.3
12	R2	All MCs	39	0.0	39	0.0	0.808	15.7	LOS B	19.4	136.6	0.64	0.39	0.73	36.5
Approach			905	0.5	905	0.5	0.808	4.4	NA	19.4	136.6	0.64	0.39	0.73	35.5
North: Hood Street															
1	L2	All MCs	9	0.0	9	0.0	0.334	18.0	LOS B	0.9	6.6	0.96	1.02	1.07	13.4
2	T1	All MCs	2	0.0	2	0.0	0.334	76.4	LOS F	0.9	6.6	0.96	1.02	1.07	22.3
3	R2	All MCs	6	0.0	6	0.0	0.334	172.2	LOS F	0.9	6.6	0.96	1.02	1.07	15.8
Approach			18	0.0	18	0.0	0.334	79.3	LOS F	0.9	6.6	0.96	1.02	1.07	15.5
West: Harbour Drive															
4	L2	All MCs	8	0.0	8	0.0	0.579	4.3	LOS A	5.2	36.2	0.37	0.17	0.37	37.6
5	T1	All MCs	637	0.2	637	0.2	0.579	0.9	LOS A	5.2	36.2	0.37	0.17	0.37	34.7
6	R2	All MCs	188	0.0	188	0.0	0.204	7.0	LOS A	0.9	6.4	0.68	0.79	0.68	35.3
Approach			834	0.1	834	0.1	0.579	2.3	NA	5.2	36.2	0.44	0.31	0.44	35.1
All Vehicles			2088	0.3	2088	0.3	1.135	11.8	NA	19.4	136.6	0.57	0.45	0.67	30.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

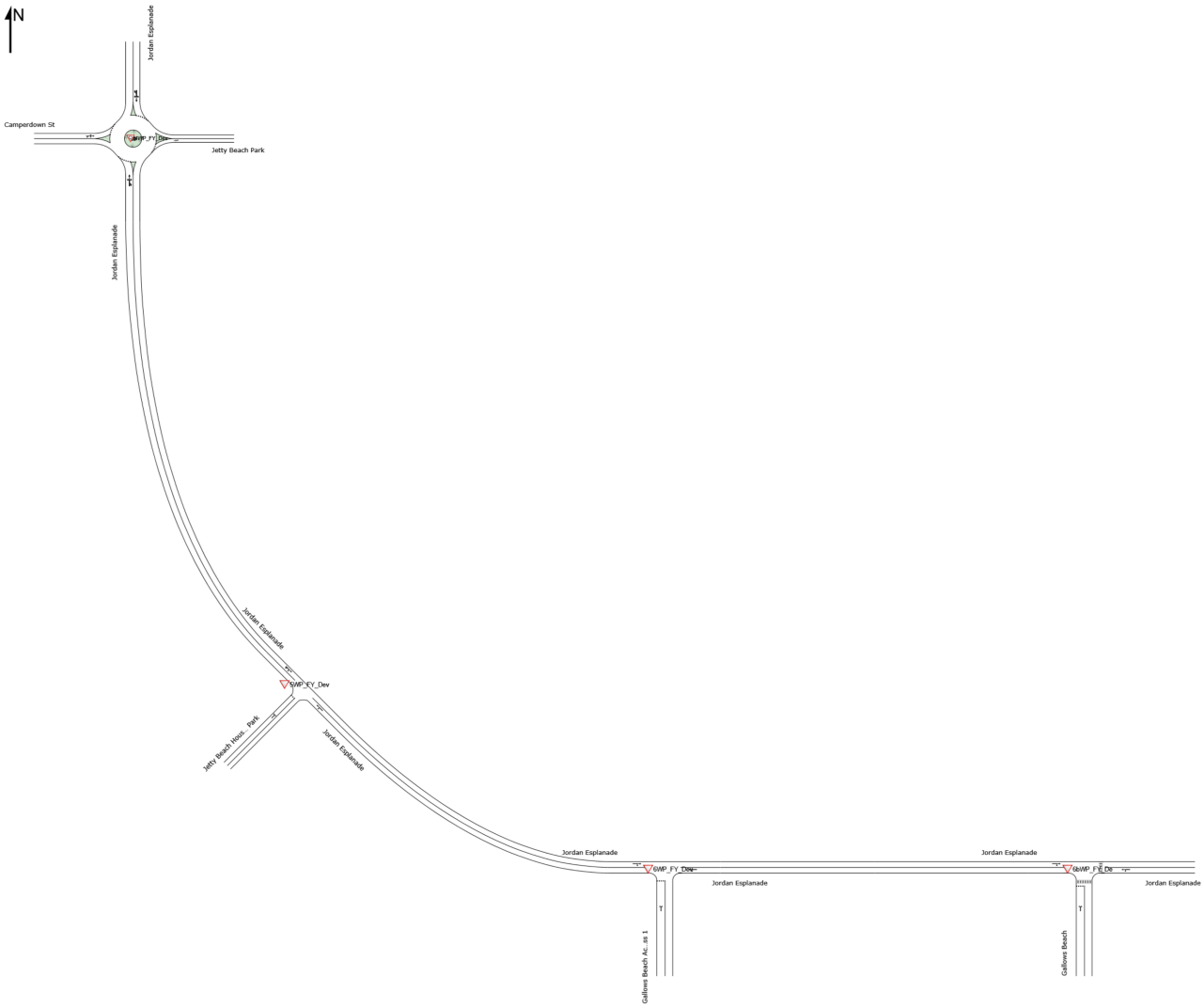
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

NETWORK LAYOUT

Network: N101 [South_2033_Weekend_Dev (Network Folder: FY with Dev_WKend)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
4WP_FY_Dev	NA	JOR_CAM_33_WP_Dev - Conversion
5WP_FY_Dev	NA	JOR_JET_33_WP_Dev
6WP_FY_Dev	NA	JOR_GAL_33_WP_Dev_6a
6bWP_FY_De	NA	JOR_GAL_33_WP_Dev_6b

MOVEMENT SUMMARY

Site: 4WP_FY_Dev [JOR_CAM_33_WP_Dev - Conversion (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Dev (Network Folder: FY with Dev_WKend)]

Camperdown St Interection
Site Category: 2033 with Dev
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Jordan Esplanade															
1	L2	All MCs	256	0.0	256	0.0	0.446	4.5	LOS A	3.3	22.8	0.43	0.48	0.43	45.0
2	T1	All MCs	294	0.4	294	0.4	0.446	4.5	LOS A	3.3	22.8	0.43	0.48	0.43	45.3
3	R2	All MCs	3	0.0	3	0.0	0.446	7.8	LOS A	3.3	22.8	0.43	0.48	0.43	27.7
3u	U	All MCs	1	0.0	1	0.0	0.446	10.7	LOS A	3.3	22.8	0.43	0.48	0.43	41.9
Approach			554	0.2	554	0.2	0.446	4.6	LOS A	3.3	22.8	0.43	0.48	0.43	45.1
East: Jetty Beach Park															
4	L2	All MCs	1	0.0	1	0.0	0.007	7.8	LOS A	0.0	0.3	0.78	0.62	0.78	14.1
5	T1	All MCs	1	0.0	1	0.0	0.007	8.2	LOS A	0.0	0.3	0.78	0.62	0.78	39.2
6	R2	All MCs	1	0.0	1	0.0	0.007	11.1	LOS A	0.0	0.3	0.78	0.62	0.78	38.5
6u	U	All MCs	1	0.0	1	0.0	0.007	13.1	LOS A	0.0	0.3	0.78	0.62	0.78	7.0
Approach			4	0.0	4	0.0	0.007	10.1	LOS A	0.0	0.3	0.78	0.62	0.78	28.4
North: Jordan Esplanade															
7	L2	All MCs	1	0.0	1	0.0	0.460	4.7	LOS A	3.7	25.7	0.50	0.51	0.50	27.7
8	T1	All MCs	413	0.0	413	0.0	0.460	4.7	LOS A	3.7	25.7	0.50	0.51	0.50	42.5
9	R2	All MCs	139	0.0	139	0.0	0.460	8.0	LOS A	3.7	25.7	0.50	0.51	0.50	44.7
9u	U	All MCs	1	0.0	1	0.0	0.460	9.6	LOS A	3.7	25.7	0.50	0.51	0.50	44.7
Approach			554	0.0	554	0.0	0.460	5.6	LOS A	3.7	25.7	0.50	0.51	0.50	43.3
West: Camperdown St															
10	L2	All MCs	91	0.0	91	0.0	0.258	5.9	LOS A	1.8	12.4	0.61	0.62	0.61	44.2
11	T1	All MCs	1	0.0	1	0.0	0.258	6.1	LOS A	1.8	12.4	0.61	0.62	0.61	27.5
12	R2	All MCs	149	0.0	149	0.0	0.258	9.4	LOS A	1.8	12.4	0.61	0.62	0.61	41.2
12u	U	All MCs	1	0.0	1	0.0	0.258	10.9	LOS A	1.8	12.4	0.61	0.62	0.61	44.0
Approach			242	0.0	242	0.0	0.258	8.1	LOS A	1.8	12.4	0.61	0.62	0.61	42.7
All Vehicles			1354	0.1	1354	0.1	0.460	5.6	LOS A	3.7	25.7	0.49	0.52	0.49	44.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 5WP_FY_Dev [JOR_JET_33_WP_Dev (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Dev (Network Folder: FY with Dev_WKend)]

Jetty Beach House Car Park
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Jordan Esplanade															
21	L2	All MCs	3	0.0	3	0.0	0.282	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	44.0
22	T1	All MCs	541	0.2	541	0.2	0.282	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.7
Approach			544	0.2	544	0.2	0.282	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.6
NorthWest: Jordan Esplanade															
28	T1	All MCs	556	0.0	556	0.0	0.305	0.2	LOS A	0.2	1.5	0.05	0.06	0.05	49.3
29	R2	All MCs	9	0.0	9	0.0	0.305	6.7	LOS A	0.2	1.5	0.05	0.06	0.05	46.5
29u	U	All MCs	5	0.0	5	0.0	0.305	11.7	LOS A	0.2	1.5	0.05	0.06	0.05	49.3
Approach			571	0.0	571	0.0	0.305	0.4	NA	0.2	1.5	0.05	0.06	0.05	49.3
SouthWest: Jetty Beach House Car Park															
30	L2	All MCs	8	0.0	8	0.0	0.008	6.1	LOS A	0.0	0.2	0.48	0.58	0.48	28.0
32	R2	All MCs	1	0.0	1	0.0	0.008	7.1	LOS A	0.0	0.2	0.48	0.58	0.48	28.0
Approach			9	0.0	9	0.0	0.008	6.2	LOS A	0.0	0.2	0.48	0.58	0.48	28.0
All Vehicles			1124	0.1	1124	0.1	0.305	0.3	NA	0.2	1.5	0.03	0.04	0.03	49.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6WP_FY_Dev [JOR_GAL_33_WP_Dev_6a (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Dev (Network Folder: FY with Dev_WKend)]

Gallows Beach Carpark
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach Access 1															
1	L2	All MCs	100	0.0	100	0.0	0.072	2.9	LOS A	0.3	2.1	0.21	0.48	0.21	22.7
3	R2	All MCs	24	0.0	24	0.0	0.072	3.5	LOS A	0.3	2.1	0.21	0.48	0.21	22.7
Approach			124	0.0	124	0.0	0.072	3.0	LOS A	0.3	2.1	0.21	0.48	0.21	22.7
East: Jordan Esplanade															
4	L2	All MCs	97	0.0	97	0.0	0.109	4.6	LOS A	0.0	0.0	0.00	0.25	0.00	41.5
5	T1	All MCs	111	1.0	111	1.0	0.109	0.0	LOS A	0.0	0.0	0.00	0.25	0.00	43.9
Approach			207	0.5	207	0.5	0.109	2.1	NA	0.0	0.0	0.00	0.25	0.00	42.7
West: Jordan Esplanade															
11	T1	All MCs	183	0.6	183	0.6	0.190	0.4	LOS A	1.0	6.7	0.29	0.34	0.29	33.1
12	R2	All MCs	189	0.0	189	0.0	0.190	5.1	LOS A	1.0	6.7	0.29	0.34	0.29	31.5
Approach			373	0.3	373	0.3	0.190	2.8	NA	1.0	6.7	0.29	0.34	0.29	32.2
All Vehicles			704	0.3	704	0.3	0.190	2.7	NA	1.0	6.7	0.19	0.34	0.19	36.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 6bWP_FY_De [JOR_GAL_33_WP_Dev_6b (Site Folder: Weekend Peak FY with Dev 100%)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [South_2033_Weekend_Dev (Network Folder: FY with Dev_WKend)]

Gallows Beach Carpark
Site Category: 2033 with Dev
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Gallows Beach															
1	L2	All MCs	40	0.0	40	0.0	0.040	3.5	LOS A	0.1	1.0	0.21	0.50	0.21	24.2
3	R2	All MCs	24	0.0	24	0.0	0.040	4.0	LOS A	0.1	1.0	0.21	0.50	0.21	43.4
Approach			64	0.0	64	0.0	0.040	3.7	LOS A	0.1	1.0	0.21	0.50	0.21	39.3
East: Jordan Esplanade															
4	L2	All MCs	97	0.0	97	0.0	0.109	4.6	LOS A	0.0	0.0	0.00	0.25	0.00	45.6
5	T1	All MCs	111	1.0	111	1.0	0.109	0.0	LOS A	0.0	0.0	0.00	0.25	0.00	47.2
Approach			207	0.5	207	0.5	0.109	2.2	NA	0.0	0.0	0.00	0.25	0.00	46.4
West: Jordan Esplanade															
11	T1	All MCs	183	0.6	183	0.6	0.160	0.3	LOS A	0.7	4.8	0.25	0.29	0.25	47.3
12	R2	All MCs	128	0.0	128	0.0	0.160	5.1	LOS A	0.7	4.8	0.25	0.29	0.25	39.6
Approach			312	0.3	312	0.3	0.160	2.3	NA	0.7	4.8	0.25	0.29	0.25	45.6
All Vehicles			583	0.4	583	0.4	0.160	2.4	NA	0.7	4.8	0.16	0.30	0.16	45.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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