



Northern Beaches Council

Traffic and Parking Impact Assessment Report

North Narrabeen Surf Life Saving Club

2 Malcolm Street, Narrabeen

2 May 2024

ENGINEERING PLANNING SURVEYING CERTIFICATION PROJECT MANAGEMENT



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1 Introduction

Barker Ryan Stewart have been engaged by Northern Beaches Council to prepare a Traffic and Parking Impact Assessment in accordance with the requirements of Warringah Development Control Plan 2011 and the NSW Government's 'Guide to Traffic Generating Developments' to accompany a Development Application for alterations and additions to the existing North Narrabeen Surf Lifesaving Club (SLSC).

The purpose of this report is to assess and address traffic, access, car parking, cycling and pedestrian impacts generated by the proposed development. This can be briefly outlined as follows:

- The expected traffic generation to/from the proposed development.
- The impact of the proposed development on the road network.
- Intersection analysis based on traffic counts.
- Vehicle parking provisions.
- Provision for pedestrians and cyclists.
- Availability of public transport.

This Traffic and Parking Impact Assessment Report concludes that the subject site is suitable for the proposed development in relation to traffic impact, car parking provision, vehicle, bicycle and pedestrian access and safety considerations.

2 **Existing Conditions**

2.1 Site Location

The North Narrabeen SLSC site is located at 225-229 Ocean Street, Narrabeen and 2 Malcolm Street, North Narrabeen and comprises of the following lots:

- Lot 1, DP122234
- Lot 3 and Lot 6, Section 63 DP5748
- Lot A and B, DP 376822
- Lot 1, DP178553
- Lot 1-2, DP339162
- Lot 4, DP331508

The site has existing vehicular access from Malcolm Street.

It is surrounded by the beach in the north and east and low-density residential developments in the south and west. An aerial of the site location is shown in Figure 2.1.



Figure 2.1: Site Location (Source: Nearmap, July 2023)

2.2 Existing Development

The existing development is the operational North Narrabeen SLSC. The existing development is described below:

- Club/ Gym (66.5m²):
 - Open 6:30AM 8:30PM daily
 - Bar (19m²):
 - Friday: Open 4:00PM 9:00PM
 - o Saturday: Open 3:00PM 9:00PM
 - Sunday: Open 3:00PM 9:00PM (off-peak), 11:00AM 9:00PM (on-peak)
- Café (154m²):
 - Open 6:30AM 2:30PM

- Nippers (Children's Beach Program) (34.5m²):
 8:45AM 12:00PM
- Balcony Seats: 88 (70% occupancy during busiest period)
- Internal Seats: 54 (60% occupancy during busiest period, including café patrons)

There also exists some programs associated with Boardriders, a surfing association with events held at the premises.

Currently there are 129 spaces surrounding the site which includes 71 spaces at the top carpark, 49 spaces at the bottom carpark, 7 spaces within the driveway and 2 spaces in Malcolm Street including 4 accessible spaces. This is shown in Figure 2.2.



Figure 2.2: Car Park Aerial (Source: Nearmap, July 2023)

2.3 Existing Road Conditions

A schedule of the roads relevant to the site are outlined in Table 2.1.

Street Name	Classification	Direction	Speed Limit	No. of Lanes	Parking Permission
Ocean Street	Collector Road	N-S	50km/h	2	Not permitted
Malcolm Street	Local Road	E-W	50km/h	2	Permitted

. .

2.4 Public Transport, Pedestrians and Cyclists

The area is serviced with bilateral bus stops outside the site's frontage. These stops service Route 155 – Bayview Garden Village to Narrabeen every 30 minutes.

2.5 Pedestrian and Active Transport

Footpaths are available on both sides of Ocean Street, and on the southern side of Malcolm Street.

Existing bicycle facilities in the vicinity of the site are shown in Figure 2.. it is noted that the nearest bicycle parking 1.2km from the site.



Figure 2.3: Bicycle Map (Source: Northern Beaches Council, July 2023)

3 Proposed Development

3.1 Development Description

The proposal includes alterations and additions to the existing club and includes the expansion of ground and upper floor areas, namely:

- The addition of 30m² for board riders use.
- The conversion of 152m² existing outdoor area for café/dining to be enclosed for indoor café/dining.

Extracts of the proposed ground floor and first floor plans are shown in Figure 3.1 and Figure 3.2.



Figure 3.1: Proposed Ground Floor (Northern Beaches Council, September 2023)



Figure 3.2: Proposed First Floor (Northern Beaches Council, September 2023)

3.2 Access, parking and service vehicles

The existing car parking areas as shown in Section 2 Figure 2.2 of this report will be retained as part of the development.

The existing ambulance bay has been relocated to the No Parking area adjacent to the parallel parking spaces. The dimension of the ambulance bay is proposed to be 6200mm x 2400mm together with details of proposed signposting for "No Parking Ambulance Excepted" are shown in the site plan in Appendix A. The ingress and egress swept path of the ambulance is shown in Figure 3.3 below.



Figure 3.3 – Ambulance Swept Turning Paths

Currently Council's waste truck, which is a 9.7m long Heavy Rigid Vehicle (HRV), reverses back into the waste collection area from the carpark and then leaves the site in a forward direction. The largest service vehicle capable of entering and leaving the site in forward direction is a Small Rigid Vehicle (SRV). The SRV uses the turning area at the end of the driveway to reverse back into the waste collection area before leaving in a forward direction. However, for this to occur the proposed ambulance bay would need to be relocated and the proposed roof over the waste collection area would need to be removed.

3.3 Bicycle Parking

As part of the proposed alterations and additions, the only increase in the floor area is the addition of 30m² floor area for board riders use. In the Warringah DCP 2011 the 'boardriders' use does not have a direct correlative rate. However, as part of the proposed redevelopment new bicycle parking racks have been proposed at the south-eastern corner of the existing playground as shown in the extract of the site plan shown in Figure 4.2 below which can accommodate 12 bicycle parking spaces. This is considered to be a sufficient amount of bicycle parking spaces to cater for the SLSC.

4 Car Parking Assessment

4.1 Parking Requirements

The proposed access and car parking provision has been assessed against the requirements of the Warringah DCP 2011. However, it is understood that the land's expected use will significantly deviate from rates outlined in the DCP due to external contexts and general behaviours.

4.1.1 Warringah DCP 2011

The Warringah DCP requires the following parking provisions:

- Gym: 4.5 spaces per 100m²
- Bar & Café (considered 'Restaurant'): greater of 15 spaces per 100m² or 1 space per 3 seats
- Nippers (considered 'Childcare'): 1 space for every 4 children

No rates are provided for general lifeguard uses. The 'boardriders' use also does not have a direct correlative rate.

4.1.2 Site Context Discussion

The site generally provides parking close to the beach front, and North Narrabeen beach will be the primary trip attractor during the peak summer beach season. This also correlates to the largest demand and is consistent with all water-front usages such as marinas and other beachfronts. Additional land use for restaurants would not generate as much traffic as normal restaurants as the restaurant facilities are often an ancillary use to the primary use of the beach. Additionally, increases to the 'boardrider' space would generally generate traffic outside of the peak time-of-day, as surfers generally surf early in the morning or later in the afternoon, and the peak demands for parking generally start around 10AM on weekends.

4.2 Existing Parking Utilisation

In order to get a better understanding of the existing parking utilisation in the vicinity of the site, a parking survey was undertaken on Sunday the 21st of April 2024, Sunday being the busiest day at the club.

A summary of the findings is presented in Table 4.1 below:

Parking				Sunda	y 21 Apr	il 2024							
Occupancy Survey	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm				
Car Park 1 = 7 including 4 ac	Car Park 1 = 78 spaces (71 spaces at the top carpark + 7 spaces within the driveway including 4 accessible spaces)												
Occupied	19	38	71	74	75	78	73	78	67				
Vacant Spaces	59	40	7	4	3	0	5	0	11				
% Occupied	24%	49%	91%	95%	96%	100%	94%	100%	86%				
Car Park 2 =	51 space	es (49 sp	aces at	the botto St)	om carp	ark + 2 s	paces w	vithin Ma	lcolm				
Occupied	13	19	23	17	30	24	52	45	28				
Vacant Spaces	39	33	29	35	22	28	0	7	24				
% Occupied	25%	37%	44%	33%	58%	46%	100%	87%	54%				
Total Vacant Spaces (Carpark1+2)	98	73	36	39	25	28	5	7	35				

Table 4.1: Car park survey

The parking utilisation survey above indicated that between 7:00am-12:30pm and 1:30pm to 3:00pm there was spare capacity in the car parking area. Note that the top car park was at or near capacity between 11:00am and 2:00pm whilst the bottom car park was at or near capacity only between 1:00-2:00pm. Overall a minimum 25 spaces were vacant within the carpark areas surveyed between 7:00am-12:00pm and 3pm onwards.

4.3 Parking Provision

Although no net increase in floor areas has been proposed for the restaurant as part of the redevelopment, as the existing 152m2 of outdoor seating area is being converted to indoor seating area. To consider the worst-case scenario, theoretically this additional indoor restaurant floor area would generate demand for additional (152/100*15 = 22.8) 23 parking spaces.

From a google review it appears that the busiest day and time the SLSC operates is on Sundays between 9am and 12pm. (See extracts shown in Figure 4.1 below). During this period, there were a minimum of 25 spaces available surrounding the site as revealed in the parking utilisation survey above.

North Na Club 4.4 ***** 174 Surf lifesaving club	Google reviews	Popular Times MON TUE WED THU FRI SAT SUN 2. 11 am: Usually as busy as it gets
S Website	Oirections Save Call	6am 9am 12pm 3pm 6pm 9pm
Address: 2 Malcol	n St, Narrabeen NSW 2101	Popular Times
Hours: Thursday		
manual manualy	6:30 am–2:30 pm	MON TUE WED THU FRI SAT SUN
Friday	6:30 am–2:30 pm 6:30 am–2:30 pm	MON TUE WED THU FRI SAT SUN
Friday Saturday	6:30 am–2:30 pm 6:30 am–2:30 pm 6:30 am–2:30 pm	MON TUE WED THU FRI SAT SUN
Friday Saturday Sunday	6:30 am–2:30 pm 6:30 am–2:30 pm 6:30 am–2:30 pm 6:30 am–2:30 pm	MON TUE WED THU FRI SAT SUN
Friday Saturday Sunday Monday	6:30 am-2:30 pm 6:30 am-2:30 pm 6:30 am-2:30 pm 6:30 am-2:30 pm 6:30 am-2:30 pm	MON TUE WED THU FRI SAT SUN
Friday Saturday Sunday Monday Tuesday	6:30 am-2:30 pm 6:30 am-2:30 pm 6:30 am-2:30 pm 6:30 am-2:30 pm 6:30 am-2:30 pm 6:30 am-2:30 pm	MON TUE WED THU FRI SAT SUN 10 am: Usually as busy as it gets

Figure 4.1: Google review showing peak use of the SLSC

it is considered that the existing 129 spaces surrounding the site which includes 71 spaces at the top carpark, 49 spaces at the bottom carpark, 7 spaces within the driveway and 2 spaces in Malcolm Street including 4 accessible spaces are sufficient for the development as the parking's peak demand generation is not the café, and the 'boardriders' club will operate outside of parking peak hours.

Therefore, the proposed development is unlikely to increase existing parking demand surrounding the site, as such no additional off-street parking would be required to cater for the proposed alterations and additions.

North Narrabeen Surf Life Saving Club



Figure 4.2: Proposed Bicycle Parking

5 Traffic Assessment

5.1 Trip Generation

5.1.1 Existing Development

The existing development traffic has been captured in the traffic survey for the site dated 21/07/2023 (weekday) and 21/4/2024 (weekend day).

5.1.2 Proposed Development

As noted in Section 4, the primary trip generator/ attractor will continue to be North Narrabeen beach. Hence, it is expected that trip generation arising from the proposed alterations and additions to the café and board riders' area will not be significant. However, trip generation for the café has been calculated according to the rates provided in TfNSW's Guide to Traffic Generating Developments (GTGD) 2002 and the boardriders' group has been assessed on first principles estimates.

The TfNSW GTGD 2002 rate for restaurants is as follows:

• 5 trips per 100m² GFA in the PM peak

Considering the opening times of the café, this trip generation has instead been allocated to the AM peak, and the PM would generate no additional trips. Hence some 8 trips would be added as part of the café development.

As an estimate of the boardriders' usage, 5 trips would be added as part of both AM and PM peak.

Hence the development is conservatively estimated to generate:

- 13 trips in the AM peak and
- 5 trips in the PM peak

5.1.3 Trip Distribution

The following Figures 5.1 and 5.2 represents the existing traffic counts/ distribution of traffic at the roundabout of Ocean Street and Malcolm Street both in the morning and afternoon peak periods on both a weekday and a weekend day.



Figure 5.1 – Existing Traffic Counts intersection of Ocean St/Malcolm St AM and PM Peak (Weekday)



Figure 5.2 – Existing Traffic Counts intersection of Ocean St/ Malcolm St AM and PM Peak (Weekend Day)

It is assumed that the development traffic will follow the existing distribution pattern to and from Malcolm Street East approach at the roundabout of Ocean Street and Malcolm Street. The following Figures 5.3 and 5.5 show the existing traffic distribution pattern to and from Malcolm Street East approach during a typical weekday. Figures 5.4 and 5.6 show the development traffic distribution at the roundabout of Ocean Street and Malcolm Street during a typical weekend day.



Figure 5.3 – Existing distribution of Malcolm St East traffic at the intersection of Ocean St/ Malcolm St AM and PM Peak (Weekday)



Figure 5.4 – Development traffic distribution from Malcolm St East at the intersection of Ocean St/ Malcolm St AM and PM Peak (Weekday)



Figure 5.5 – Existing distribution of Malcolm St East traffic at the intersection of Ocean St/ Malcolm St AM and PM Peak (Weekend Day)



Figure 5.6 – Development traffic distribution from Malcolm St East at the intersection of Ocean St/ Malcolm St AM and PM Peak (Weekend Day)

A growth rate of 1.7% per annum has been applied to the surveyed traffic to obtain the 10-year growth volumes as a worst-case scenario. The peak hour development trips have been assigned based on the trip distribution pattern and assumptions made. The resultant intersection turning movements due to the proposed development in the full development year and for 10-year growth scenarios are shown in Figures 5.7 to 5.10 below.



Figure 5.7– Traffic assignment and distribution (existing + development) Ocean St/ Malcolm St AM and PM Peak (Weekday 2023)



Figure 5.8– Traffic assignment and distribution (existing + development) Ocean St/ Malcolm St AM and PM Peak (Weekend Day 2024)



Figure 5.9– Traffic assignment and distribution (existing + development) Ocean St/ Malcolm St AM and PM Peak (Weekday 2034)



Figure 5.10 – Traffic assignment and distribution (existing + development) Ocean St/ Malcolm St AM and PM Peak (Weekend Day 2034)

5.2 Development Impact

The intersections of Ocean Street and Malcolm Street have been assessed for the full development stage and 10-year growth scenarios for AM and PM peak periods during weekday and on a weekend day scenario.

Intersection performance has been assessed using the SIDRA modelling software which uses the level of service (delay) model adopted by the Transport for NSW (TfNSW) to assess intersection performance. Average delay is used to determine the level of service (LOS), which ranges from 'A' which is excellent service to 'F', with a LOS of 'D' being the minimum ideal performance.

The differences in intersection performance between the existing, post full development and 10-year growth scenarios are summarised in the tables 5.1 and 5.2 below. SIDRA output reports are available in **Appendix B**.

Table 5.1: Ocean Street/ Malcolm Street SIDRA Modelling Summary (Weekday Scenario)

Ocean St/ Malcolm St		Full develop (Interso	oment Stage ection)	10-year growth scenario (Intersection)				
		Existing Conditions	Post Development Condition	Existing Conditions	Post Development Condition			
АМ	Delay (s)	5.8	5.9	6.0	6.1			
AM	LOS	A	A	A	A			
DAA	Delay (s)	5.4	5.4	5.5	5.5			
PM	LOS	А	А	А	А			

Table 5.2: Ocean Street/ Malcolm Street SIDRA Modelling Summary (Weekend Day Scenario)

Ocean St/ Malcolm St		Full develop (Interse	oment stage ection)	10-year growth scenario (Intersection)				
		Existing Conditions	Post Development Condition	Existing Conditions	Post Development Condition			
	Delay (s)	6.1	5.9	6.2	6.1			
AM	LOS	А	А	А	А			
DAA	Delay (s)	5.7	5.7	5.8	5.8			
PM	LOS	А	А	А	А			

As shown in the tables above, the roundabout of Ocean Street and Malcolm Street is operating at a good level of service during current, post-development and 10-year growth period scenarios on both a typical weekday and also on a weekend day. The additional development generated traffic is expected to have only a negligible impact on the queueing and delays experienced by motorists at this roundabout in the existing and future scenarios. Therefore, no modifications or improvements are warranted or required to the existing configuration of this intersection due to the proposed development.

6 Conclusion/Recommendations

This Traffic and Parking Impact Assessment has been prepared in accordance with the requirements of Warringah DCP 2011 and the NSW Government's 'Guide to Traffic Generating Developments' to accompany a Development Application for alterations and additions to the North Narrabeen SLSC.

The proposal includes alterations and additions to the existing café and boardriders club facilities to the order of some 152m² and 30m² respectively.

The existing ambulance bay has been relocated to the No Parking area adjacent to the parallel parking spaces. The dimension of the ambulance bay is proposed to be 6200mm x 2400mm which is considered satisfactory.

Currently Council's waste truck, which is a 9.7m long Heavy Rigid Vehicle (HRV), reverses back into the waste collection area from the carpark and then leaves the site in a forward direction. The largest service vehicle capable of entering and leaving the site in forward direction is a Small Rigid Vehicle (SRV). The SRV uses the turning area at the end of the driveway to reverse back into the waste collection area before leaving in a forward direction. However, for this to occur the proposed ambulance bay would need to be relocated and the proposed roof over the waste collection area would need to be removed.

As part of the proposed redevelopment new bicycle parking racks have been proposed at the southeastern corner of the existing playground which can accommodate 12 bicycle parking spaces. This is considered to be a sufficient amount of bicycle parking spaces to cater for the SLSC.

It is proposed that the existing 129 parking spaces including 4 accessible spaces surrounding the site will be retained. Due to the nature of the specific development, it is understood that small increases in the boardriders use facility will not significantly impact on parking demand, and the existing parking primarily services the users of North Narrabeen beach. There is ample off-street parking spaces available in the vicinity of the site to cater for any additional parking demand that may generate from the proposed additions and modifications to the North Narrabeen SLSC.

The proposed additional facilities are not expected to generate a significant increase in traffic demand, as the primary trip generator for the stie will continue to be North Narrabeen beach, particularly during peak season. Conservatively, this assessment has assumed a generation of 13 trips in the AM peak and 5 trips in the PM peak. The estimated generation will not significantly affect the intersection of Ocean Street and Malcolm Street, which operates without significant delay in both the AM and PM peak.

The Traffic and Parking Impact Assessment concludes that the subject site is suitable for the proposed development in relation to the impact of traffic, car parking provision, access and safety considerations.

7 References

Roads and Maritime Services, 'Guide to Traffic Generating Developments' Version 2.2 dated October 2002.

Warringah DCP 2011

Appendix A - Site Plan



Appendix B – SIDRA Outputs

W Site: 101 [Existing Weekday 2023 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehicle Movement Performance														
Mov	Turn	INP	UT	DEM		Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
טו		VOLU [Total		FLU [Total	vv5 ц\/1	Sath	Delay	Service		EUE Diet 1	Que	Stop	NO.	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Nate	Cycles	km/h
South: Oce		an St S												
1	L2	9	2.0	9	2.0	0.401	5.1	LOS A	3.1	21.8	0.28	0.49	0.28	52.7
2	T1	466	2.0	491	2.0	0.401	5.2	LOS A	3.1	21.8	0.28	0.49	0.28	53.7
3	R2	50	2.0	53	2.0	0.401	8.4	LOS A	3.1	21.8	0.28	0.49	0.28	53.3
Appro	oach	525	2.0	553	2.0	0.401	5.5	LOS A	3.1	21.8	0.28	0.49	0.28	53.7
East:	Malco	lm St E												
4	L2	43	2.0	45	2.0	0.110	7.2	LOS A	0.6	4.2	0.56	0.70	0.56	51.0
5	T1	3	2.0	3	2.0	0.110	7.4	LOS A	0.6	4.2	0.56	0.70	0.56	51.9
6	R2	46	2.0	48	2.0	0.110	10.5	LOS B	0.6	4.2	0.56	0.70	0.56	51.5
Appro	oach	92	2.0	97	2.0	0.110	8.9	LOS A	0.6	4.2	0.56	0.70	0.56	51.2
North	n: Ocea	an St N												
7	L2	50	2.0	53	2.0	0.358	5.1	LOS A	2.4	17.1	0.27	0.49	0.27	53.0
8	T1	401	2.0	422	2.0	0.358	5.2	LOS A	2.4	17.1	0.27	0.49	0.27	53.9
9	R2	10	2.0	11	2.0	0.358	8.4	LOS A	2.4	17.1	0.27	0.49	0.27	53.5
Appro	oach	461	2.0	485	2.0	0.358	5.3	LOS A	2.4	17.1	0.27	0.49	0.27	53.8
West	: Malco	olm St W												
10	L2	28	2.0	29	2.0	0.058	8.1	LOS A	0.3	2.2	0.62	0.70	0.62	50.8
11	T1	3	2.0	3	2.0	0.058	8.3	LOS A	0.3	2.2	0.62	0.70	0.62	51.7
12	R2	12	2.0	13	2.0	0.058	11.4	LOS B	0.3	2.2	0.62	0.70	0.62	51.3
Appro	oach	43	2.0	45	2.0	0.058	9.1	LOS A	0.3	2.2	0.62	0.70	0.62	51.0
All Vehic	les	1121	2.0	1180	2.0	0.401	5.8	LOS A	3.1	21.8	0.31	0.51	0.31	53.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing Weekday 2034 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout Design Life Analysis (Final Year): Results for 11 years

Vehicle Movement Performance														
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA	ACK OF	Prop.	Effective	Aver.	Aver.
ID		VOLU		FLO	WS	Satn	Delay	Service			Que	Stop	No.	Speed
		veh/h	пvј %	veh/h	пvј %	v/c	sec		ven. veh	m Dist		Nale	Cycles	km/h
South	n: Oce	an St S												
1	L2	9	2.0	11	2.0	0.482	5.2	LOS A	4.1	29.4	0.35	0.50	0.35	52.5
2	T1	466	2.0	582	2.0	0.482	5.3	LOS A	4.1	29.4	0.35	0.50	0.35	53.5
3	R2	50	2.0	62	2.0	0.482	8.5	LOS A	4.1	29.4	0.35	0.50	0.35	53.1
Appro	bach	525	2.0	656	2.0	0.482	5.6	LOS A	4.1	29.4	0.35	0.50	0.35	53.4
East:	Malco	olm St E												
4	L2	43	2.0	54	2.0	0.142	7.9	LOS A	0.8	5.6	0.62	0.74	0.62	50.5
5	T1	3	2.0	4	2.0	0.142	8.0	LOS A	0.8	5.6	0.62	0.74	0.62	51.4
6	R2	46	2.0	57	2.0	0.142	11.2	LOS B	0.8	5.6	0.62	0.74	0.62	51.0
Appro	bach	92	2.0	115	2.0	0.142	9.5	LOS A	0.8	5.6	0.62	0.74	0.62	50.8
North	: Ocea	an St N												
7	L2	50	2.0	62	2.0	0.430	5.3	LOS A	3.2	22.7	0.32	0.50	0.32	52.8
8	T1	401	2.0	501	2.0	0.430	5.4	LOS A	3.2	22.7	0.32	0.50	0.32	53.7
9	R2	10	2.0	12	2.0	0.430	8.5	LOS A	3.2	22.7	0.32	0.50	0.32	53.3
Appro	bach	461	2.0	576	2.0	0.430	5.4	LOS A	3.2	22.7	0.32	0.50	0.32	53.6
West	: Malco	olm St W												
10	L2	28	2.0	35	2.0	0.078	9.2	LOS A	0.4	3.1	0.69	0.74	0.69	50.1
11	T1	3	2.0	4	2.0	0.078	9.3	LOS A	0.4	3.1	0.69	0.74	0.69	51.0
12	R2	12	2.0	15	2.0	0.078	12.4	LOS B	0.4	3.1	0.69	0.74	0.69	50.6
Appro	bach	43	2.0	54	2.0	0.078	10.1	LOS B	0.4	3.1	0.69	0.74	0.69	50.3
All Vehic	les	1121	2.0	1401	2.0	0.482	6.0	LOS A	4.1	29.4	0.38	0.53	0.38	53.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing Weekday 2023 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	Vehicle Movement Performance													
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
JD		VOLU [Total		FLO [Total	vvS ц\/1	Sath	Delay	Service		EUE Diet 1	Que	Stop	NO.	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Trate	Cycles	km/h
South: Oce		an St S												
1	L2	11	2.0	12	2.0	0.267	4.9	LOS A	1.6	11.4	0.17	0.48	0.17	53.2
2	T1	327	2.0	344	2.0	0.267	5.0	LOS A	1.6	11.4	0.17	0.48	0.17	54.2
3	R2	24	2.0	25	2.0	0.267	8.2	LOS A	1.6	11.4	0.17	0.48	0.17	53.8
Appr	oach	362	2.0	381	2.0	0.267	5.2	LOS A	1.6	11.4	0.17	0.48	0.17	54.2
East	Malco	lm St E												
4	L2	19	2.0	20	2.0	0.035	6.6	LOS A	0.2	1.2	0.48	0.63	0.48	51.7
5	T1	1	2.0	1	2.0	0.035	6.8	LOS A	0.2	1.2	0.48	0.63	0.48	52.6
6	R2	11	2.0	12	2.0	0.035	9.9	LOS A	0.2	1.2	0.48	0.63	0.48	52.2
Appr	oach	31	2.0	33	2.0	0.035	7.8	LOS A	0.2	1.2	0.48	0.63	0.48	51.9
North	n: Ocea	an St N												
7	L2	25	2.0	26	2.0	0.275	4.9	LOS A	1.7	11.8	0.16	0.48	0.16	53.3
8	T1	329	2.0	346	2.0	0.275	5.0	LOS A	1.7	11.8	0.16	0.48	0.16	54.3
9	R2	24	2.0	25	2.0	0.275	8.1	LOS A	1.7	11.8	0.16	0.48	0.16	53.9
Appr	oach	378	2.0	398	2.0	0.275	5.2	LOS A	1.7	11.8	0.16	0.48	0.16	54.2
West	: Malc	olm St W												
10	L2	21	2.0	22	2.0	0.034	6.7	LOS A	0.2	1.2	0.49	0.61	0.49	52.0
11	T1	3	2.0	3	2.0	0.034	6.8	LOS A	0.2	1.2	0.49	0.61	0.49	53.0
12	R2	6	2.0	6	2.0	0.034	9.9	LOS A	0.2	1.2	0.49	0.61	0.49	52.6
Appr	oach	30	2.0	32	2.0	0.034	7.3	LOS A	0.2	1.2	0.49	0.61	0.49	52.2
All Vehio	cles	801	2.0	843	2.0	0.275	5.4	LOS A	1.7	11.8	0.19	0.49	0.19	54.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing Weekday 2034 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout Design Life Analysis (Final Year): Results for 11 years

Vehicle Movement Performance														
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA	ACK OF	Prop.	Effective	Aver.	Aver.
ID		VOLU	MES	FLO	WS	Satn	Delay	Service	QUE	EUE	Que	Stop	No.	Speed
		veh/h	нvј %	veh/h	нvј %	v/c	sec		ven. veh	Dist j m		Rale	Cycles	km/h
South: Oce		an St S												
1	L2	11	2.0	14	2.0	0.319	4.9	LOS A	2.0	14.5	0.20	0.48	0.20	53.1
2	T1	327	2.0	409	2.0	0.319	5.1	LOS A	2.0	14.5	0.20	0.48	0.20	54.1
3	R2	24	2.0	30	2.0	0.319	8.2	LOS A	2.0	14.5	0.20	0.48	0.20	53.7
Appro	bach	362	2.0	452	2.0	0.319	5.3	LOS A	2.0	14.5	0.20	0.48	0.20	54.0
East:	Malco	olm St E												
4	L2	19	2.0	24	2.0	0.044	7.1	LOS A	0.2	1.6	0.53	0.65	0.53	51.4
5	T1	1	2.0	1	2.0	0.044	7.2	LOS A	0.2	1.6	0.53	0.65	0.53	52.3
6	R2	11	2.0	14	2.0	0.044	10.4	LOS B	0.2	1.6	0.53	0.65	0.53	51.9
Appro	bach	31	2.0	39	2.0	0.044	8.3	LOS A	0.2	1.6	0.53	0.65	0.53	51.6
North	: Ocea	an St N												
7	L2	25	2.0	31	2.0	0.329	4.9	LOS A	2.1	15.0	0.19	0.48	0.19	53.2
8	T1	329	2.0	411	2.0	0.329	5.0	LOS A	2.1	15.0	0.19	0.48	0.19	54.2
9	R2	24	2.0	30	2.0	0.329	8.2	LOS A	2.1	15.0	0.19	0.48	0.19	53.7
Appro	bach	378	2.0	472	2.0	0.329	5.2	LOS A	2.1	15.0	0.19	0.48	0.19	54.1
West	: Malco	olm St W												
10	L2	21	2.0	26	2.0	0.043	7.1	LOS A	0.2	1.5	0.53	0.64	0.53	51.7
11	T1	3	2.0	4	2.0	0.043	7.2	LOS A	0.2	1.5	0.53	0.64	0.53	52.6
12	R2	6	2.0	7	2.0	0.043	10.4	LOS B	0.2	1.5	0.53	0.64	0.53	52.2
Appro	bach	30	2.0	37	2.0	0.043	7.8	LOS A	0.2	1.5	0.53	0.64	0.53	51.9
All Vehic	les	801	2.0	1001	2.0	0.329	5.5	LOS A	2.1	15.0	0.22	0.49	0.22	53.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing+Dev Weekday 2023 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP		DEM		Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
טו		VULU [Total		FLU [Total	vv5 H\/1	Sam	Delay	Service	QUI [\/eh	EUE Dist 1	Que	Siop Rate	INO. Cycles	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Trate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	9	2.0	9	2.0	0.406	5.1	LOS A	3.1	22.2	0.30	0.49	0.30	52.7
2	T1	466	2.0	491	2.0	0.406	5.2	LOS A	3.1	22.2	0.30	0.49	0.30	53.7
3	R2	53	2.0	56	2.0	0.406	8.4	LOS A	3.1	22.2	0.30	0.49	0.30	53.3
Appr	oach	528	2.0	556	2.0	0.406	5.5	LOS A	3.1	22.2	0.30	0.49	0.30	53.6
East	Malco	lm St E												
4	L2	46	2.0	48	2.0	0.118	7.3	LOS A	0.6	4.5	0.56	0.70	0.56	50.9
5	T1	3	2.0	3	2.0	0.118	7.4	LOS A	0.6	4.5	0.56	0.70	0.56	51.8
6	R2	49	2.0	52	2.0	0.118	10.5	LOS B	0.6	4.5	0.56	0.70	0.56	51.5
Appr	oach	98	2.0	103	2.0	0.118	8.9	LOS A	0.6	4.5	0.56	0.70	0.56	51.2
North	n: Ocea	an St N												
7	L2	53	2.0	56	2.0	0.362	5.1	LOS A	2.5	17.4	0.28	0.49	0.28	52.9
8	T1	401	2.0	422	2.0	0.362	5.2	LOS A	2.5	17.4	0.28	0.49	0.28	53.9
9	R2	10	2.0	11	2.0	0.362	8.4	LOS A	2.5	17.4	0.28	0.49	0.28	53.5
Appr	oach	464	2.0	488	2.0	0.362	5.3	LOS A	2.5	17.4	0.28	0.49	0.28	53.8
West	: Malco	olm St W												
10	L2	28	2.0	29	2.0	0.059	8.2	LOS A	0.3	2.2	0.63	0.70	0.63	50.8
11	T1	3	2.0	3	2.0	0.059	8.3	LOS A	0.3	2.2	0.63	0.70	0.63	51.7
12	R2	12	2.0	13	2.0	0.059	11.5	LOS B	0.3	2.2	0.63	0.70	0.63	51.3
Appr	oach	43	2.0	45	2.0	0.059	9.1	LOS A	0.3	2.2	0.63	0.70	0.63	51.0
All Vehio	cles	1133	2.0	1193	2.0	0.406	5.9	LOS A	3.1	22.2	0.32	0.52	0.32	53.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing+Dev Weekday 2023 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
ח ו		VULU [Total		FLU [Total	vvS ц\/1	Sath	Delay	Service	QUI [\/eh	EUE Diet 1	Que	Stop	NO. Cycles	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Trate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	11	2.0	12	2.0	0.270	4.9	LOS A	1.6	11.6	0.18	0.48	0.18	53.2
2	T1	327	2.0	344	2.0	0.270	5.0	LOS A	1.6	11.6	0.18	0.48	0.18	54.2
3	R2	25	2.0	26	2.0	0.270	8.2	LOS A	1.6	11.6	0.18	0.48	0.18	53.8
Appr	oach	363	2.0	382	2.0	0.270	5.2	LOS A	1.6	11.6	0.18	0.48	0.18	54.1
East	Malco	lm St E												
4	L2	20	2.0	21	2.0	0.037	6.7	LOS A	0.2	1.3	0.49	0.63	0.49	51.7
5	T1	1	2.0	1	2.0	0.037	6.8	LOS A	0.2	1.3	0.49	0.63	0.49	52.6
6	R2	12	2.0	13	2.0	0.037	9.9	LOS A	0.2	1.3	0.49	0.63	0.49	52.2
Appr	oach	33	2.0	35	2.0	0.037	7.9	LOS A	0.2	1.3	0.49	0.63	0.49	51.9
North	n: Ocea	an St N												
7	L2	24	2.0	25	2.0	0.277	4.9	LOS A	1.7	11.9	0.16	0.48	0.16	53.2
8	T1	329	2.0	346	2.0	0.277	5.0	LOS A	1.7	11.9	0.16	0.48	0.16	54.2
9	R2	27	2.0	28	2.0	0.277	8.1	LOS A	1.7	11.9	0.16	0.48	0.16	53.8
Appr	oach	380	2.0	400	2.0	0.277	5.2	LOS A	1.7	11.9	0.16	0.48	0.16	54.1
West	: Malco	olm St W												
10	L2	21	2.0	22	2.0	0.034	6.7	LOS A	0.2	1.2	0.49	0.61	0.49	52.0
11	T1	3	2.0	3	2.0	0.034	6.8	LOS A	0.2	1.2	0.49	0.61	0.49	53.0
12	R2	6	2.0	6	2.0	0.034	9.9	LOS A	0.2	1.2	0.49	0.61	0.49	52.6
Appr	oach	30	2.0	32	2.0	0.034	7.3	LOS A	0.2	1.2	0.49	0.61	0.49	52.2
All Vehio	cles	806	2.0	848	2.0	0.277	5.4	LOS A	1.7	11.9	0.20	0.49	0.20	54.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing+Dev Weekday 2034 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP		DEM		Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
טו		VULU [Total		FLU [Total	илэ H\/1	Sam	Delay	Service	QUt [\/eh	EUE Dist 1	Que	Siop Rate	INO. Cvcles	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Tuto	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	11	2.0	12	2.0	0.489	5.3	LOS A	4.2	30.1	0.36	0.50	0.36	52.4
2	T1	553	2.0	582	2.0	0.489	5.4	LOS A	4.2	30.1	0.36	0.50	0.36	53.4
3	R2	63	2.0	66	2.0	0.489	8.5	LOS A	4.2	30.1	0.36	0.50	0.36	53.0
Appr	oach	627	2.0	660	2.0	0.489	5.7	LOS A	4.2	30.1	0.36	0.50	0.36	53.4
East	Malco	lm St E												
4	L2	54	2.0	57	2.0	0.151	7.9	LOS A	0.8	6.0	0.63	0.74	0.63	50.5
5	T1	4	2.0	4	2.0	0.151	8.0	LOS A	0.8	6.0	0.63	0.74	0.63	51.4
6	R2	58	2.0	61	2.0	0.151	11.2	LOS B	0.8	6.0	0.63	0.74	0.63	51.0
Appr	oach	116	2.0	122	2.0	0.151	9.6	LOS A	0.8	6.0	0.63	0.74	0.63	50.8
North	n: Ocea	an St N												
7	L2	63	2.0	66	2.0	0.436	5.3	LOS A	3.3	23.3	0.34	0.50	0.34	52.7
8	T1	476	2.0	501	2.0	0.436	5.4	LOS A	3.3	23.3	0.34	0.50	0.34	53.7
9	R2	12	2.0	13	2.0	0.436	8.6	LOS A	3.3	23.3	0.34	0.50	0.34	53.3
Appr	oach	551	2.0	580	2.0	0.436	5.5	LOS A	3.3	23.3	0.34	0.50	0.34	53.6
West	: Malco	olm St W												
10	L2	33	2.0	35	2.0	0.078	9.2	LOS A	0.4	3.2	0.70	0.75	0.70	50.1
11	T1	4	2.0	4	2.0	0.078	9.3	LOS A	0.4	3.2	0.70	0.75	0.70	50.9
12	R2	14	2.0	15	2.0	0.078	12.5	LOS B	0.4	3.2	0.70	0.75	0.70	50.6
Appr	oach	51	2.0	54	2.0	0.078	10.1	LOS B	0.4	3.2	0.70	0.75	0.70	50.3
All Vehio	cles	1345	2.0	1416	2.0	0.489	6.1	LOS A	4.2	30.1	0.39	0.53	0.39	53.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing+Dev Weekday 2034 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
ח ו		VULU [Total		FLU [Total]	vvS ы\/ 1	Sath	Delay	Service	QUI [\/eh	EUE Diet 1	Que	Stop	INO. Cycles	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Trate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	13	2.0	14	2.0	0.320	4.9	LOS A	2.1	14.6	0.20	0.48	0.20	53.1
2	T1	388	2.0	408	2.0	0.320	5.1	LOS A	2.1	14.6	0.20	0.48	0.20	54.1
3	R2	30	2.0	32	2.0	0.320	8.2	LOS A	2.1	14.6	0.20	0.48	0.20	53.7
Appr	oach	431	2.0	454	2.0	0.320	5.3	LOS A	2.1	14.6	0.20	0.48	0.20	54.0
East	Malco	olm St E												
4	L2	24	2.0	25	2.0	0.046	7.1	LOS A	0.2	1.7	0.53	0.65	0.53	51.4
5	T1	1	2.0	1	2.0	0.046	7.2	LOS A	0.2	1.7	0.53	0.65	0.53	52.3
6	R2	14	2.0	15	2.0	0.046	10.4	LOS B	0.2	1.7	0.53	0.65	0.53	51.9
Appr	oach	39	2.0	41	2.0	0.046	8.3	LOS A	0.2	1.7	0.53	0.65	0.53	51.6
North	n: Ocea	an St N												
7	L2	31	2.0	33	2.0	0.331	4.9	LOS A	2.1	15.2	0.19	0.48	0.19	53.2
8	T1	391	2.0	412	2.0	0.331	5.0	LOS A	2.1	15.2	0.19	0.48	0.19	54.1
9	R2	28	2.0	29	2.0	0.331	8.2	LOS A	2.1	15.2	0.19	0.48	0.19	53.7
Appr	oach	450	2.0	474	2.0	0.331	5.2	LOS A	2.1	15.2	0.19	0.48	0.19	54.0
West	: Malc	olm St W												
10	L2	25	2.0	26	2.0	0.043	7.1	LOS A	0.2	1.5	0.54	0.64	0.54	51.7
11	T1	4	2.0	4	2.0	0.043	7.2	LOS A	0.2	1.5	0.54	0.64	0.54	52.6
12	R2	7	2.0	7	2.0	0.043	10.4	LOS B	0.2	1.5	0.54	0.64	0.54	52.2
Appr	oach	36	2.0	38	2.0	0.043	7.8	LOS A	0.2	1.5	0.54	0.64	0.54	51.9
All Vehio	cles	956	2.0	1006	2.0	0.331	5.5	LOS A	2.1	15.2	0.22	0.49	0.22	53.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing Weekend day 2024 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA	ACK OF	Prop. E	Iffective	Aver.	Aver.
JD		VOLU [Total		FLO [Total	WS ЦV1	Sath	Delay	Service		EUE Diet 1	Que	Stop	NO.	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Trate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	7	1.0	7	1.0	0.252	5.2	LOS A	1.5	10.5	0.29	0.53	0.29	52.6
2	T1	235	1.0	247	1.0	0.252	5.3	LOS A	1.5	10.5	0.29	0.53	0.29	53.5
3	R2	63	1.0	66	1.0	0.252	8.5	LOS A	1.5	10.5	0.29	0.53	0.29	53.1
Appr	oach	305	1.0	321	1.0	0.252	6.0	LOS A	1.5	10.5	0.29	0.53	0.29	53.4
East	Malco	olm St E												
4	L2	28	1.0	29	1.0	0.076	6.2	LOS A	0.4	2.7	0.44	0.63	0.44	51.6
5	T1	8	1.0	8	1.0	0.076	6.3	LOS A	0.4	2.7	0.44	0.63	0.44	52.6
6	R2	37	1.0	39	1.0	0.076	9.4	LOS A	0.4	2.7	0.44	0.63	0.44	52.2
Appr	oach	73	1.0	77	1.0	0.076	7.8	LOS A	0.4	2.7	0.44	0.63	0.44	52.0
North	n: Ocea	an St N												
7	L2	44	1.0	46	1.0	0.248	5.1	LOS A	1.5	10.4	0.26	0.51	0.26	52.8
8	T1	221	1.0	233	1.0	0.248	5.2	LOS A	1.5	10.4	0.26	0.51	0.26	53.8
9	R2	44	1.0	46	1.0	0.248	8.4	LOS A	1.5	10.4	0.26	0.51	0.26	53.4
Appr	oach	309	1.0	325	1.0	0.248	5.6	LOS A	1.5	10.4	0.26	0.51	0.26	53.6
West	: Malc	olm St W												
10	L2	25	1.0	26	1.0	0.038	6.5	LOS A	0.2	1.4	0.48	0.60	0.48	52.3
11	T1	5	1.0	5	1.0	0.038	6.6	LOS A	0.2	1.4	0.48	0.60	0.48	53.2
12	R2	5	1.0	5	1.0	0.038	9.7	LOS A	0.2	1.4	0.48	0.60	0.48	52.9
Appr	oach	35	1.0	37	1.0	0.038	7.0	LOS A	0.2	1.4	0.48	0.60	0.48	52.5
All Vehio	cles	722	1.0	760	1.0	0.252	6.1	LOS A	1.5	10.5	0.30	0.54	0.30	53.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing Weekend day 2034 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout Design Life Analysis (Final Year): Results for 10 years

Vehi														
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA	ACK OF	Prop.	Effective	Aver.	Aver.
ID		VOLU		FLO	WS	Satn	Delay	Service			Que	Stop	No.	Speed
		veh/h	⊓vj %	veh/h	⊓vj %	v/c	sec		veh	m Dist j		Nale	Cycles	km/h
South	n: Ocea	an St S												
1	L2	7	1.0	9	1.0	0.299	5.3	LOS A	1.9	13.2	0.33	0.54	0.33	52.4
2	T1	235	1.0	289	1.0	0.299	5.5	LOS A	1.9	13.2	0.33	0.54	0.33	53.4
3	R2	63	1.0	78	1.0	0.299	8.6	LOS A	1.9	13.2	0.33	0.54	0.33	53.0
Appro	bach	305	1.0	376	1.0	0.299	6.1	LOS A	1.9	13.2	0.33	0.54	0.33	53.3
East:	Malco	olm St E												
4	L2	28	1.0	34	1.0	0.093	6.5	LOS A	0.5	3.4	0.48	0.65	0.48	51.5
5	T1	8	1.0	10	1.0	0.093	6.6	LOS A	0.5	3.4	0.48	0.65	0.48	52.4
6	R2	37	1.0	46	1.0	0.093	9.7	LOS A	0.5	3.4	0.48	0.65	0.48	52.0
Appro	bach	73	1.0	90	1.0	0.093	8.1	LOS A	0.5	3.4	0.48	0.65	0.48	51.8
North	: Ocea	an St N												
7	L2	44	1.0	54	1.0	0.294	5.2	LOS A	1.9	13.1	0.30	0.52	0.30	52.7
8	T1	221	1.0	272	1.0	0.294	5.3	LOS A	1.9	13.1	0.30	0.52	0.30	53.7
9	R2	44	1.0	54	1.0	0.294	8.5	LOS A	1.9	13.1	0.30	0.52	0.30	53.3
Appro	bach	309	1.0	381	1.0	0.294	5.8	LOS A	1.9	13.1	0.30	0.52	0.30	53.5
West	: Malco	olm St W												
10	L2	25	1.0	31	1.0	0.047	6.8	LOS A	0.2	1.7	0.52	0.63	0.52	52.0
11	T1	5	1.0	6	1.0	0.047	7.0	LOS A	0.2	1.7	0.52	0.63	0.52	53.0
12	R2	5	1.0	6	1.0	0.047	10.1	LOS B	0.2	1.7	0.52	0.63	0.52	52.6
Appro	bach	35	1.0	43	1.0	0.047	7.3	LOS A	0.2	1.7	0.52	0.63	0.52	52.2
All Vehic	les	722	1.0	889	1.0	0.299	6.2	LOS A	1.9	13.2	0.34	0.55	0.34	53.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing Weekend day 2024 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	icle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
ח ו		VOLU [Total		FLU [Total	vv5 ц\/1	Sath	Delay	Service		EUE Diet 1	Que	Stop	INO.	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Trate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	10	1.0	11	1.0	0.218	4.9	LOS A	1.3	9.0	0.20	0.50	0.20	53.0
2	T1	235	1.0	247	1.0	0.218	5.1	LOS A	1.3	9.0	0.20	0.50	0.20	54.0
3	R2	39	1.0	41	1.0	0.218	8.2	LOS A	1.3	9.0	0.20	0.50	0.20	53.6
Appr	oach	284	1.0	299	1.0	0.218	5.5	LOS A	1.3	9.0	0.20	0.50	0.20	53.9
East	Malco	olm St E												
4	L2	44	1.0	46	1.0	0.074	6.0	LOS A	0.4	2.6	0.41	0.61	0.41	52.1
5	T1	5	1.0	5	1.0	0.074	6.1	LOS A	0.4	2.6	0.41	0.61	0.41	53.1
6	R2	25	1.0	26	1.0	0.074	9.2	LOS A	0.4	2.6	0.41	0.61	0.41	52.7
Appr	oach	74	1.0	78	1.0	0.074	7.1	LOS A	0.4	2.6	0.41	0.61	0.41	52.4
North	n: Ocea	an St N												
7	L2	19	1.0	20	1.0	0.191	4.9	LOS A	1.1	7.4	0.19	0.49	0.19	53.2
8	T1	209	1.0	220	1.0	0.191	5.0	LOS A	1.1	7.4	0.19	0.49	0.19	54.2
9	R2	19	1.0	20	1.0	0.191	8.2	LOS A	1.1	7.4	0.19	0.49	0.19	53.8
Appr	oach	247	1.0	260	1.0	0.191	5.3	LOS A	1.1	7.4	0.19	0.49	0.19	54.1
West	t: Malc	olm St W												
10	L2	24	1.0	25	1.0	0.036	6.3	LOS A	0.2	1.2	0.44	0.59	0.44	52.3
11	T1	4	1.0	4	1.0	0.036	6.4	LOS A	0.2	1.2	0.44	0.59	0.44	53.3
12	R2	6	1.0	6	1.0	0.036	9.5	LOS A	0.2	1.2	0.44	0.59	0.44	52.9
Appr	oach	34	1.0	36	1.0	0.036	6.8	LOS A	0.2	1.2	0.44	0.59	0.44	52.6
All Vehio	cles	639	1.0	673	1.0	0.218	5.7	LOS A	1.3	9.0	0.23	0.51	0.23	53.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing Weekend day 2034 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout Design Life Analysis (Final Year): Results for 10 years

Vehicle Movement Performance														
Mov	Turn	INP	DT	DEM.	AND	Deg.	Aver.	Level of	95% BA	ACK OF	Prop.	Effective	Aver.	Aver.
ID		VOLU		FLO	WS	Satn	Delay	Service		EUE	Que	Stop	No.	Speed
		veh/h	⊓vj %	veh/h	пvј %	v/c	sec		ven. veh	m Dist		Rale	Cycles	km/h
South	n: Oce	an St S												
1	L2	10	1.0	12	1.0	0.257	5.0	LOS A	1.6	11.1	0.23	0.50	0.23	52.9
2	T1	235	1.0	289	1.0	0.257	5.1	LOS A	1.6	11.1	0.23	0.50	0.23	53.9
3	R2	39	1.0	48	1.0	0.257	8.3	LOS A	1.6	11.1	0.23	0.50	0.23	53.5
Appro	oach	284	1.0	350	1.0	0.257	5.5	LOS A	1.6	11.1	0.23	0.50	0.23	53.8
East:	Malco	olm St E												
4	L2	44	1.0	54	1.0	0.090	6.2	LOS A	0.5	3.2	0.44	0.63	0.44	52.0
5	T1	5	1.0	6	1.0	0.090	6.3	LOS A	0.5	3.2	0.44	0.63	0.44	53.0
6	R2	25	1.0	31	1.0	0.090	9.5	LOS A	0.5	3.2	0.44	0.63	0.44	52.6
Appro	oach	74	1.0	91	1.0	0.090	7.3	LOS A	0.5	3.2	0.44	0.63	0.44	52.3
North	: Ocea	an St N												
7	L2	19	1.0	23	1.0	0.226	5.0	LOS A	1.3	9.1	0.21	0.49	0.21	53.1
8	T1	209	1.0	257	1.0	0.226	5.1	LOS A	1.3	9.1	0.21	0.49	0.21	54.1
9	R2	19	1.0	23	1.0	0.226	8.3	LOS A	1.3	9.1	0.21	0.49	0.21	53.7
Appro	oach	247	1.0	304	1.0	0.226	5.3	LOS A	1.3	9.1	0.21	0.49	0.21	54.0
West	: Malco	olm St W												
10	L2	24	1.0	30	1.0	0.044	6.6	LOS A	0.2	1.5	0.48	0.61	0.48	52.2
11	T1	4	1.0	5	1.0	0.044	6.7	LOS A	0.2	1.5	0.48	0.61	0.48	53.1
12	R2	6	1.0	7	1.0	0.044	9.8	LOS A	0.2	1.5	0.48	0.61	0.48	52.7
Appro	oach	34	1.0	42	1.0	0.044	7.2	LOS A	0.2	1.5	0.48	0.61	0.48	52.4
All Vehic	les	639	1.0	787	1.0	0.257	5.8	LOS A	1.6	11.1	0.26	0.52	0.26	53.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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V Site: 101 [Existing+Dev Weekend day 2024 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	icle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA	ACK OF	Prop. E	Effective	Aver.	Aver.
ID		VOLU [Total		FLO [Total	vvS ц\/1	Sath	Delay	Service		EUE Diet 1	Que	Stop	NO.	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Trate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	7	2.0	7	2.0	0.246	5.1	LOS A	1.5	10.6	0.25	0.52	0.25	52.7
2	T1	235	2.0	247	2.0	0.246	5.2	LOS A	1.5	10.6	0.25	0.52	0.25	53.6
3	R2	67	2.0	71	2.0	0.246	8.3	LOS A	1.5	10.6	0.25	0.52	0.25	53.2
Appr	oach	309	2.0	325	2.0	0.246	5.9	LOS A	1.5	10.6	0.25	0.52	0.25	53.5
East	Malco	olm St E												
4	L2	30	2.0	32	2.0	0.081	6.0	LOS A	0.4	2.9	0.42	0.63	0.42	51.7
5	T1	9	2.0	9	2.0	0.081	6.2	LOS A	0.4	2.9	0.42	0.63	0.42	52.6
6	R2	40	2.0	42	2.0	0.081	9.3	LOS A	0.4	2.9	0.42	0.63	0.42	52.2
Appr	oach	79	2.0	83	2.0	0.081	7.7	LOS A	0.4	2.9	0.42	0.63	0.42	52.1
North	n: Ocea	an St N												
7	L2	47	2.0	49	2.0	0.232	5.1	LOS A	1.3	9.5	0.26	0.50	0.26	53.0
8	T1	221	2.0	233	2.0	0.232	5.3	LOS A	1.3	9.5	0.26	0.50	0.26	53.9
9	R2	16	2.0	17	2.0	0.232	8.4	LOS A	1.3	9.5	0.26	0.50	0.26	53.5
Appr	oach	284	2.0	299	2.0	0.232	5.4	LOS A	1.3	9.5	0.26	0.50	0.26	53.7
West	t: Malc	olm St W												
10	L2	25	2.0	26	2.0	0.039	6.5	LOS A	0.2	1.4	0.48	0.61	0.48	52.2
11	T1	5	2.0	5	2.0	0.039	6.7	LOS A	0.2	1.4	0.48	0.61	0.48	53.2
12	R2	5	2.0	5	2.0	0.039	9.8	LOS A	0.2	1.4	0.48	0.61	0.48	52.8
Appr	oach	35	2.0	37	2.0	0.039	7.0	LOS A	0.2	1.4	0.48	0.61	0.48	52.4
All Vehio	cles	707	2.0	744	2.0	0.246	5.9	LOS A	1.5	10.6	0.28	0.53	0.28	53.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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V Site: 101 [Existing+Dev Weekend day 2024 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA	ACK OF	Prop. E	ffective	Aver.	Aver.
D		VOLU		FLU Tatal		Sath	Delay	Service	QUI [Vab	EUE	Que	Stop	NO.	Speed
		veh/h	⊓vj %	veh/h	пvј %	v/c	sec		ven. veh	m Dist j		Rate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	10	2.0	11	2.0	0.221	5.0	LOS A	1.3	9.2	0.20	0.50	0.20	53.0
2	T1	235	2.0	247	2.0	0.221	5.1	LOS A	1.3	9.2	0.20	0.50	0.20	53.9
3	R2	40	2.0	42	2.0	0.221	8.2	LOS A	1.3	9.2	0.20	0.50	0.20	53.5
Appr	oach	285	2.0	300	2.0	0.221	5.5	LOS A	1.3	9.2	0.20	0.50	0.20	53.8
East:	Malco	olm St E												
4	L2	46	2.0	48	2.0	0.078	6.0	LOS A	0.4	2.8	0.41	0.61	0.41	52.1
5	T1	5	2.0	5	2.0	0.078	6.1	LOS A	0.4	2.8	0.41	0.61	0.41	53.0
6	R2	26	2.0	27	2.0	0.078	9.3	LOS A	0.4	2.8	0.41	0.61	0.41	52.7
Appr	oach	77	2.0	81	2.0	0.078	7.1	LOS A	0.4	2.8	0.41	0.61	0.41	52.3
North	n: Ocea	an St N												
7	L2	20	2.0	21	2.0	0.194	5.0	LOS A	1.1	7.6	0.19	0.49	0.19	53.1
8	T1	209	2.0	220	2.0	0.194	5.1	LOS A	1.1	7.6	0.19	0.49	0.19	54.1
9	R2	19	2.0	20	2.0	0.194	8.2	LOS A	1.1	7.6	0.19	0.49	0.19	53.7
Appr	oach	248	2.0	261	2.0	0.194	5.3	LOS A	1.1	7.6	0.19	0.49	0.19	54.0
West	: Malc	olm St W												
10	L2	24	2.0	25	2.0	0.036	6.3	LOS A	0.2	1.3	0.45	0.60	0.45	52.3
11	T1	4	2.0	4	2.0	0.036	6.4	LOS A	0.2	1.3	0.45	0.60	0.45	53.3
12	R2	6	2.0	6	2.0	0.036	9.6	LOS A	0.2	1.3	0.45	0.60	0.45	52.9
Appr	oach	34	2.0	36	2.0	0.036	6.9	LOS A	0.2	1.3	0.45	0.60	0.45	52.5
All Vehio	cles	644	2.0	678	2.0	0.221	5.7	LOS A	1.3	9.2	0.24	0.51	0.24	53.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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V Site: 101 [Existing+Dev Weekend day 2034 AM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM		Deg.	Aver.	Level of	95% BA		Prop. E	Effective	Aver.	Aver.
שו		VULU [Total	лиез н\/ 1	FLU [Total	vv5 н\/1	Sath	Delay	Service	QUI [\/eh	EUE Diet 1	Que	Siop	INO. Cycles	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		nato	Cycles	km/h
Sout	n: Oce	an St S												
1	L2	8	2.0	8	2.0	0.290	5.2	LOS A	1.9	13.3	0.28	0.52	0.28	52.5
2	T1	275	2.0	289	2.0	0.290	5.3	LOS A	1.9	13.3	0.28	0.52	0.28	53.5
3	R2	78	2.0	82	2.0	0.290	8.4	LOS A	1.9	13.3	0.28	0.52	0.28	53.1
Appr	oach	361	2.0	380	2.0	0.290	5.9	LOS A	1.9	13.3	0.28	0.52	0.28	53.4
East:	Malco	olm St E												
4	L2	35	2.0	37	2.0	0.097	6.3	LOS A	0.5	3.6	0.46	0.65	0.46	51.5
5	T1	10	2.0	11	2.0	0.097	6.4	LOS A	0.5	3.6	0.46	0.65	0.46	52.5
6	R2	46	2.0	48	2.0	0.097	9.6	LOS A	0.5	3.6	0.46	0.65	0.46	52.1
Appr	oach	91	2.0	96	2.0	0.097	8.0	LOS A	0.5	3.6	0.46	0.65	0.46	51.9
North	n: Ocea	an St N												
7	L2	55	2.0	58	2.0	0.276	5.3	LOS A	1.7	12.0	0.30	0.51	0.30	52.8
8	T1	259	2.0	273	2.0	0.276	5.4	LOS A	1.7	12.0	0.30	0.51	0.30	53.8
9	R2	19	2.0	20	2.0	0.276	8.5	LOS A	1.7	12.0	0.30	0.51	0.30	53.4
Appr	oach	333	2.0	351	2.0	0.276	5.5	LOS A	1.7	12.0	0.30	0.51	0.30	53.6
West	: Malco	olm St W												
10	L2	29	2.0	31	2.0	0.048	6.9	LOS A	0.2	1.7	0.52	0.63	0.52	51.9
11	T1	6	2.0	6	2.0	0.048	7.0	LOS A	0.2	1.7	0.52	0.63	0.52	52.9
12	R2	6	2.0	6	2.0	0.048	10.2	LOS B	0.2	1.7	0.52	0.63	0.52	52.5
Appr	oach	41	2.0	43	2.0	0.048	7.4	LOS A	0.2	1.7	0.52	0.63	0.52	52.1
All Vehic	les	826	2.0	869	2.0	0.290	6.1	LOS A	1.9	13.3	0.32	0.54	0.32	53.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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W Site: 101 [Existing+Dev Weekend day 2034 PM Peak (Site Folder: Ocean St/Malcolm St)]

New Site Site Category: (None) Roundabout

Vehi	cle M	ovemen	t Perfo	rmance										
Mov	Turn	INP	UT	DEM	AND	Deg.	Aver.	Level of	95% BA		Prop. E	ffective	Aver.	Aver.
ח ו		VULU [Total		FLU [Total]	vvS ц\/1	Sath	Delay	Service	QUI [\/oh	EUE Diet 1	Que	Stop	NO. Cycles	Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m		Nate	Cycles	km/h
Sout	h: Oce	an St S												
1	L2	12	2.0	13	2.0	0.260	5.0	LOS A	1.6	11.3	0.23	0.50	0.23	52.9
2	T1	275	2.0	289	2.0	0.260	5.1	LOS A	1.6	11.3	0.23	0.50	0.23	53.8
3	R2	47	2.0	49	2.0	0.260	8.3	LOS A	1.6	11.3	0.23	0.50	0.23	53.4
Appr	oach	334	2.0	352	2.0	0.260	5.6	LOS A	1.6	11.3	0.23	0.50	0.23	53.7
East	Malco	lm St E												
4	L2	53	2.0	56	2.0	0.093	6.3	LOS A	0.5	3.4	0.45	0.63	0.45	52.0
5	T1	6	2.0	6	2.0	0.093	6.4	LOS A	0.5	3.4	0.45	0.63	0.45	52.9
6	R2	30	2.0	32	2.0	0.093	9.5	LOS A	0.5	3.4	0.45	0.63	0.45	52.5
Appr	oach	89	2.0	94	2.0	0.093	7.4	LOS A	0.5	3.4	0.45	0.63	0.45	52.2
North	n: Ocea	an St N												
7	L2	23	2.0	24	2.0	0.228	5.0	LOS A	1.3	9.3	0.22	0.49	0.22	53.0
8	T1	245	2.0	258	2.0	0.228	5.1	LOS A	1.3	9.3	0.22	0.49	0.22	54.0
9	R2	22	2.0	23	2.0	0.228	8.3	LOS A	1.3	9.3	0.22	0.49	0.22	53.6
Appr	oach	290	2.0	305	2.0	0.228	5.4	LOS A	1.3	9.3	0.22	0.49	0.22	53.9
West	: Malco	olm St W												
10	L2	28	2.0	29	2.0	0.045	6.6	LOS A	0.2	1.6	0.49	0.62	0.49	52.1
11	T1	5	2.0	5	2.0	0.045	6.7	LOS A	0.2	1.6	0.49	0.62	0.49	53.0
12	R2	7	2.0	7	2.0	0.045	9.9	LOS A	0.2	1.6	0.49	0.62	0.49	52.6
Appr	oach	40	2.0	42	2.0	0.045	7.2	LOS A	0.2	1.6	0.49	0.62	0.49	52.3
All Vehio	cles	753	2.0	793	2.0	0.260	5.8	LOS A	1.6	11.3	0.27	0.52	0.27	53.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

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