UNDER	the the Resource Management Act 1991 ("RMA")
IN THE MATTER	of Proposed Waikato District Plan (Stage 1) Hearing 25 – Zone Extents

STATEMENT OF EVIDENCE OF LEO DONALD HILLS ON BEHALF OF 2SEN LTD AND TUAKAU ESTATES LIMITED

[Submission 299]

TRANSPORT

1. INTRODUCTION

1.1 My full name is Leo Donald Hills. I am a Director at the firm Commute Transportation Consultants Limited.

Experience

- 1.2 I hold a Bachelor of Engineering with Honours (1996) and a Masters of Civil Engineering (2000), both from the University of Auckland.
- 1.3 I have over 23 years' experience as a specialist traffic and transportation engineer. During that time, I have been engaged by local authorities and private companies/individuals to advise on traffic and transportation development issues covering safety, management and planning matters of many kinds.
- 1.4 I am a Chartered Member of Engineering New Zealand.

Involvement in the Proposal

1.5 I have been commissioned by 2Sen Ltd and Tuakau Estates Ltd ("the Submitters") to prepare this statement of evidence to address matters raised by the Submitters' submission on the proposed Waikato District Plan (Stage 1) ("PDP") seeking the rezoning of the balance of their properties at 48 and 52 Dominion Road, Tuakau to the General Residential Zone ("Properties" and "Rezoning Request"). In particular, I have been asked to provide an assessment of the potential transportation related effects of the Rezoning Request, and the capacity

of the surrounding transportation network to absorb development of the Properties over time for residential purposes.

Code of Conduct

1.6 I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and agree to comply with it while giving evidence. Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

Scope of Evidence

- 1.7 My evidence will address the following:
 - (a) Key elements of the Rezoning Request from a traffic/transportation perspective;
 - (b) Summary of the existing traffic environment in proximity to the site;
 - (c) Summary of the Tuakau Structure Plan Integrated Transportation Assessment prepared by AECOM;
 - (d) Assessment of the operational traffic/transportation effects from the PDP and recommended upgrades to address these;
 - (e) Assessment of the operational traffic/transportation effects from the Rezoning Request;
 - (f) Summary of and comment on submissions received relating to traffic/transportation matters; and
 - (g) Conclusions.

2. EXECUTIVE SUMMARY

2.1 From my review of the ITA relating to the Tuakau Structure Plan (precursor to the District Plan review), it does not include any traffic generation analysis, analysis on the effects on key intersections within Tuakau, or analysis on the effects of the local and wider road network as a result of the PDP rezoning. As such, no requirements for transportation upgrades have been identified relative to Dominion Road or the local road network as a result of the proposed growth and PDP rezoning.

- 2.2 Based on the modelling and assessment undertaken as part of my evidence preparation, I consider that the upgrades to the existing road network are triggered by the PDP rezoning along Dominion Road. The additional Rezoning Request does not result in a discernible change to the operation of the key intersections and therefore no further upgrades are required as a result of the Rezoning Request beyond those already triggered by the PDP rezoning along Dominion Road.
- 2.3 I consider that the PDP rezoning along Dominion Road would need to be supported by upgrades detailed in my assessment (and listed below), to maintain appropriate levels of safety and efficiency on the surrounding road network:
 - (a) A right turn bay is recommended on the southern leg of the Dominion Road / Harrisville Road intersection. It is noted that this will likely require upgrades / widening of the bridge immediately to the north of the subject intersection;
 - (b) The Park Avenue one-lane bridge is recommended to be upgraded to a two-lane bridge; and
 - A right turn bay is recommended on the eastern leg of the Park
 Avenue / Bollard Road intersection
- 2.4 Taking into account the PDP rezoning, the additional Rezoning Request does not result in a discernible change to the operation of the key intersections and therefore no further upgrades are required as a result of the Rezoning Request beyond those already triggered by the PDP rezoning along Dominion Road.
- 2.5 Accordingly, I conclude that there is no traffic engineering or transportation planning reason to preclude acceptance of Rezoning Request.

3. KEY ELEMENTS OF THE REZONING REQUEST

3.1 The subject Properties have a total area of 19.2 ha, both zoned Rural under the Waikato District Plan.

- 3.2 Stage 1 of the PDP proposes to rezone 8.3 ha of the subject land from Rural Zone to Residential Zone (already included as being zoned Residential in the Proposed District Plan (PDP).
- 3.3 The proposal intends to rezone the balance of land (10.6 ha), from RuralZone to Residential Zone through a Rezoning Request.
- 3.4 The site location and Operative District Plan zoning is shown in Figure 1 below. The site location and PDP zoning is shown in Figure 2 below.



Figure 1: Site location and Operative District Plan Zoning

Figure 2: Site location and PDP Zoning



3.5 The residential zone boundary proposed by the submitters would also enable a new road connection to Moira Drive (then Park Road/Bollard Road).

4. EXISTING ENVIRONMENT

- 4.1 Dominion Road runs generally in an east-west alignment, is classified as a non-arterial road in the PDP, and connects to Harrisville Road to the west and terminates in a dead end to the north east. Dominion Road caters for one lane in each direction with grassed shoulders provided on both sides, typical of a rural road in Tuakau.
- 4.2 In the vicinity of the site, Dominion Road provides a seal width of 6.0m with no pedestrian footpaths provided. To the west of the site, a pedestrian footpath is provided on the south side of the road. No cycle facilities are provided on Dominion Road.
- 4.3 The posted speed limit varies on Dominion Road. From the intersection with Harrisville Road to #47 Dominion Road the speed limit is 50km/h. From #47 Dominion Road to #164 Dominion Road the speed limit is 70km/h. From #164 Dominion Road to the termination to the east, the speed limit is 80km/h.
- 4.4 Waikato District Council traffic counts indicate traffic volumes of 1,640 vehicles per day near Harrisville Road in January 2020. It is noted that this is an estimated traffic count. These traffic volumes indicate Dominion Road has capacity for additional traffic.
- 4.5 A peak hour traffic survey was undertaken by Commute at the Dominion Road / Harrisville Road intersection on Thursday 24th September 2020. The survey recorded traffic volumes on Dominion Road of 201 vehicles per hour ("vph") and 169 vph in the morning and evening peak hours respectively. These traffic volumes indicate that Dominion Road has capacity for additional traffic.
- 4.6 A peak hour traffic survey was undertaken by Commute at the Park Avenue / Bollard Road intersection on Tuesday 13th October 2020. The survey recorded traffic volumes on Park Avenue of 69 vph and 71 vph in the morning and evening peak hours respectively. The survey recorded traffic volumes on Bollard Road (east) of 271 vph and 321 vph in the morning and evening peak hours respectively. These traffic volumes

indicate that Park Avenue and Bollard Road have capacity for additional traffic.

- 4.7 A search of the road safety record using the New Zealand Transport Agency Crash Analysis System (CAS) has been carried out to identify all reported crashes near the site during the five-year period from 2015 to 2019 as well as all available data in 2020. The search included the full length of Dominion Road, including the Dominion Road / Harrisville Road intersection. A total of three crashes were identified:
 - One crash involved a turning vehicle striking a pedestrian and resulted in a minor injury;
 - (b) One crash involved a turning vehicle losing control and resulted in a minor injury; and
 - (c) One crash involved a vehicle leaving the roadway and did not result in any injury.
- 4.8 This level of crashes is considered typical for a rural road such as Dominion Road. The proposal is not expected to detrimentally effect this good safety record.

5. SUMMARY OF THE AECOM ITA

- 5.1 AECOM has prepared an Integrated Transport Assessment (ITA) on the Tuakau Structure Plan (precursor to the District Plan review), dated 18 June 2014. The ITA identifies the subject sites as accommodating low density residential development (600m² to 1000m²) and large lot residential development.
- 5.2 The ITA makes the following conclusions regarding Dominion Road:

Within Tuakau the following recommendations are made with respect to the transport network:-

1) The extent of development along Dominion Road should be limited as it is difficult and is unlikely to be economical to upgrade and extend Dominion Road to Ridge Road, or to link it to Barnaby Road to provide some network connectivity. Without such connectivity it would become an inefficiently serviced cul-de-sac placing increasing pressure on the Dominion Road/Harrisville Road intersection.

- 5.3 From my review of the ITA, it does not include any traffic generation analysis, analysis on the effects on key intersections within Tuakau, or analysis on the effects of the local and wider road network as a result of the PDP rezoning.
- 5.4 As such, no requirements for transportation upgrades have been identified relative to Dominion Road or the local road network as a result of the proposed growth and PDP rezoning. This therefore makes it difficult to assess any changes in rezoning, and accordingly I have had to make a number of key assumptions in the PDP zoning (as well as the proposal).

6. ASSESSMENT OF TRAFFIC/TRANSPORTATION EFFECTS OF REZONING REQUEST

General

6.1 In my opinion, the key transport impact of the Rezoning Request relates to the operation of the Dominion Road / Harrisville Road intersection, the Park Avenue one-way bridge, and the Park Avenue / Bollard Road intersection ("**key intersections**"). I consider it important to first understand the effects on these key intersections of the PDP rezoning along Dominion Road.

Trip generation General

6.2 The RTA Guide is commonly used by traffic engineering practitioners in Australasia to assess the traffic generating potential of various land uses. In New Zealand, the RTA Guide is frequently used for assessing residential developments. The proposed size of the residential dwellings are considered to be best represented by "dwelling houses" in the RTA Guide. For these type of dwellings, the RTA predicts trip generation rates of 0.85 trips / dwelling in the peak hours.

PDP rezoning trip generation

- 6.3 To assess the effects of the PDP rezoning along Dominion Road on the key intersections identified above, I have made the following assumptions relating to the land already identified as being rezoned in the PDP:
 - (a) Only the PDP rezoning east of #46 Dominion Road (on Dominion Road) has been assessed, as the area to the west is considered to be well developed;

- (b) Existing Rural zoned land under the Operative District Plan that will be zoned Rural under the PDP is not expected to generate any significant additional trips, as this land is considered unlikely to feature intensified development;
- Residential zoned land along Dominion Road under the PDP measures approximately 76.1 ha. Village zoned land under the PDP measures approximately 128.2 ha;
- (d) Developable land within these areas is considered to be approximately 80%; and
- (e) Residential zoned land along Dominion Road under the PDP is anticipated to feature a development density of 12 dwellings / developable ha. The Future Proof Growth Strategy 2017 sets density targets¹ of 12-15 households per ha² for Tuakau greenfield development which is generally consistent with the PDP. Village zoned land under the PDP is anticipated to feature a development density of 5 dwellings / developable ha. These densities are taken from the Tuakau Structure Plan and the chapter description of the Village Zone in the PDP, respectively.
- 6.4 Using the assumptions and trip generation rates detailed above (0.85 trips / dwelling), results in a total anticipated yield of the PDP rezoning along Dominion Road of 1,244 dwellings and therefore trip generation of 1,057 vph.

Rezoning request traffic generation

6.5 To assess the effects of the Rezoning Request on the key intersections identified above, the yield of approximately 219 dwellings from the Cato Bolam indicative scheme plan ("Cato Bolam Plan") has been used for analysis³. Given the site is some 19.2ha and assuming the same 80% developable area, this translates to a yield of 14.3 dwellings per

¹ Future Proof Growth Strategy 2017, Table 2, Future Proof and RPS density targets.

² Future Proof Growth Strategy 2017, Table 2, Future Proof and RPS density targets.

³ Based on concept plans by Cato Bolam dated 5/2/21

developable ha (slightly higher than the Council PDP assumptions but consistent with the Future Proof Growth Strategy 2017 density targets. Using the assumptions and trip generation rates detailed above, results in a total trip generation for the site of 186 vph.

- 6.6 I note that the area and trip generation calculations for the PDP Rezoning as detailed in Paragraph 6.3, included 8.4ha of residential zoned land on the subject site, and therefore a total of approximately 81 dwellings. Using the assumptions and trip generation rates detailed above, results in a trip generation for the residential zoned section of the site under the PDP of 69 vph.
- 6.7 As such, the net increase in dwellings on the site as a result of the Rezoning Request is 138 dwellings, and therefore a net increase in trips of 117 vph.

Trip distribution

- 6.8 To assess the effects of the PDP rezoning along Dominion Road on the key intersections identified above, the following trip distribution assumptions have been made:
 - (a) 35% of traffic travels to / from the north via Park Avenue / Bollard
 Road / Whangarata Road / Ridge Road;
 - (b) 35% of traffic travels to / from the north via Harrisville Road / Beaver Road;
 - (c) 15% of traffic travels to / from Pukekohe via Harrisville Road;
 - (d) 15% of traffic travels to / from the south via Park Avenue / Bollard
 Road / Whangarata Road / Pokeno Road;
 - (e) Therefore 50% of the traffic travels through the Dominion Road / Harrisville Road intersection and 50% of the traffic travels through the Park Avenue one-way bridge, and the Park Avenue / Bollard Road intersection;
 - (f) Typical residential inbound / outbound splits of 20% / 80% in the morning peak hour 80% / 20% in the evening peak hour are assumed; and

- (g) Trips have been distributed at the intersections based on the turning movements proportions recorded by the peak hour traffic surveys.
- 6.9 Using the trip distribution assumptions detailed above, results in the traffic generated by the PDP rezoning along Dominion Road at the key intersections as detailed in **Appendix A.**
- 6.10 To assess the effects of the Rezoning Request on the key intersections identified above, all of the previously detailed trip distribution assumptions have been adopted, as well as the following:
 - (a) All traffic generated by the Rezoning Request will turn left out from the site onto Dominion Road and right into the site from Dominion Road; and
 - (b) Some northbound and southbound traffic will use Moira Drive and Park Avenue, however this traffic is already included within the previously detailed trip distributions.
- 6.11 Using the trip distribution assumptions detailed above, results in the traffic generated by Rezoning Request at the key intersections as detailed in Appendix A.

Intersection modelling

- 6.12 The traffic effects of the PDP rezoning along Dominion Road and the additional Rezoning Request have been assessed using the traffic modelling software SIDRA. The results presented in **Appendix B** include the Degree of Saturation, which is a measure of available capacity and the Level of Service ("LOS"), which is a generalised function of delay. LOS A and B are very good and indicative of free-flow conditions; C is good; D is acceptable; and E and F are indicative of congestion and unstable conditions.
- 6.13 Three scenarios at the key intersections were modelled:
 - (a) An existing traffic scenario to understand existing operational performance (Scenario A);

- (b) Council's PDP rezoning along Dominion Road scenario with no network improvements to understand the effects of the traffic generated by this rezoning (Scenario B1);
- (c) Council's PDP rezoning along Dominion Road scenario, including proposed mitigations at the key intersections, to understand the effects of the traffic generated by Councils suggested PDP rezoning with mitigation (Scenario B2);
- (d) The Submitters Rezoning Request scenario (development yields as per Cato Bolam Plan) to understand the additional effects of the traffic generated by this request additional to Scenario B2 (Scenario C).

Scenario A modelling

6.14 The existing traffic at the key intersections has been modelled to understand the existing operational performance. The Sidra results of Scenario A are detailed in **Appendix B**. In summary, all key intersections generally operate with LOS A in both the morning and evening peak hours, indicating free flow conditions.

Scenario B1 modelling

- 6.15 The trips generated by Council's PDP rezoning along Dominion Road have been distributed as detailed in **Appendix A** and have been added to the existing traffic surveyed on the network. It is noted that existing through volumes on Harrisville Road and Bollard Road have been factored up by 30% to represent the proposed development occurring in the wider Tuakau area.
- 6.16 The Sidra results of Scenario B1 are detailed in **Appendix B**. In summary:
 - (a) The Dominion Road / Harrisville Road intersection operates with an LOS of C in both the morning and evening peak hours, which is considered acceptable. I do however note that a 38m queue extends on the southern leg of the intersection to the rail line in the morning peak hour which I consider to be a safety issue as queue lengths extend over the rail line. As such, a right turn bay on the southern leg of the intersection is recommended to mitigate this issue. The right turn bay means right turning vehicles have their

own lane and thereby reducing queue length so it does not extend over the rail line. The traffic modelling of this intersection with the right turn bay upgrade is detailed in Scenario B2;

- (b) The Park Avenue one-lane bridge operates with an LOS of A-C and LOS A-B in the morning and evening peak hours respectively, however a 142m queue extends on the northern leg. This is due to increase in traffic volumes and the priority for northbound vehicles through the bridge. I consider that this queue length is significant, and therefore I recommend an upgrade to a two-lane bridge; and
- (c) The Park Avenue / Bollard Road intersection operates with an LOS of A-B in both the morning and evening peak hours, which is considered acceptable.

Scenario B2 modelling

- 6.17 Scenario B2 includes a right turn bay with storage for two vehicles on the southern leg of the Dominion Road / Harrisville Road intersection. This is identified as a necessary safety improvement to accommodate PDP rezoning along Dominion Road.
- 6.18 The Sidra results of Scenario B2 are detailed in **Appendix B**. The Dominion Road / Harrisville Road intersection continues to operate with an LOS of A-C in both the morning and evening peak hours, which I consider acceptable. I note that the through movement on the western leg operates at LOS D, however only one vehicle undertakes this movement in the peak hour and therefore the effects of this operation are considered negligible. The 32m queue that formed on the southern leg in Scenario B1 has been reduced to 12-13m in both the morning and evening peak hours with the introduction of the right turn bay. As such, the queue does not extend over the rail line and therefore in my opinion the proposed intersection improvements are considered suitable mitigation.

Scenario C modelling

6.19 The additional trips generated by the Rezoning Request have been distributed as detailed in **Appendix A** and have been added to the existing traffic surveyed on the network and the traffic generated by the PDP rezoning (including the previous 30% factored through volumes on

Harrisville Road and Bollard Road). I note that the proposed intersection upgrade (introduction of a right turn on the southern leg of the Dominion Road / Harrisville Road intersection) is included in the Scenario C modelling.

- 6.20 The Sidra results of Scenario C are detailed in Appendix B. In summary:
 - (a) The Dominion Road / Harrisville Road intersection continues to operate with an LOS of A-C in both the morning and evening peak hours, which I consider acceptable. The through movements on the eastern and western legs operate at LOS D, however only one vehicle undertakes this movement in the peak hour and therefore the effects of this operation are considered negligible. No discernible change to the operational efficiency of the intersection when compared to Scenario B2 is experienced as a result of the Rezoning Request. Significantly, the queue that formed on the southern leg in Scenario B1 is 13-15m in both the morning and evening peak hours with the introduction of the right turn bay and thus does not extend over the rail line;
 - (b) The Park Avenue one-lane bridge continues to operate with an LOS of A-D in both the morning and evening peak hours, however as detailed previously, a large queue extends on the northern leg and therefore an upgrade to a two-lane bridge has been recommended (regardless of the Rezoning Request); and
 - (c) The Park Avenue / Bollard Road intersection continues to operate with an LOS of A-B in both the morning and evening peak hours, which is considered acceptable No discernible change to the operational efficiency of the intersection when compared to Scenario B2 is experienced as a result of the Rezoning Request.

Modelling summary

6.21 The traffic modelling results are summarised in Table 1 below.

Intersection	Scenario	Average I	Delay	Level of S	Service	Queue Le	ength
						(worst-ca	se)
		АМ	РМ	АМ	РМ	АМ	РМ
Dominion Road /	A	2.2s	2.1s	A	A	3.8m	3.0m
Harrisville Road	B1	6.3s	5.7s	В	A-B	38.2m	30.2m
	B2	4.5s	4.4s	В	A-B	11.9m	12.5m
	С	5.2s	5.0s	В	В	14.8m	15.1m
Park Avenue	A	5.5s	5.5s	А	A	1.5m	0.9m
one-lane bridge	B1	13.4s	6.7s	A-C	A-B	142.3m	10.6m
	B2	N/A	N/A	N/A	N/A	N/A	N/A
	С	18.9s	6.9s	A-C	A-B	216.2m	12.7m
Park Avenue /	A	1.3s	1.1s	A	A	1.2m	1.5m
Bollard Road	B1	6.2s	4.5s	A-B	A-B	40.0m	18.7m
	B2	N/A	N/A	N/A	N/A	N/A	N/A
	С	7.0s	4.9s	В	A-B	52.1m	22.1m

 Table 1: Traffic modelling summary

- 6.22 Based on the modelling assessment detailed above, the following can be concluded:
 - (a) The key intersections currently operate well, featuring minimal delay conditions;
 - (b) As a result of Council's PDP rezoning along Dominion Road, a right turn bay is recommended on the southern leg of the Dominion Road / Harrisville Road intersection to mitigate the formation of queues and delays to through traffic. It is noted that this will likely require upgrades / widening of the bridge immediately to the north of the subject intersection;
 - (c) As a result of the PDP rezoning along Dominion Road, it is recommended that the Park Avenue one-lane bridge is upgraded

to a two-lane bridge to mitigate the formation of queues and delays to through traffic; and

- No discernible changes to the operation of the key intersections (including the proposed intersection upgrades detailed previously) is experienced as a result of the Rezoning Request and thus no additional mitigation is required.
- 6.23 Overall, the upgrades to the existing road network are triggered by the PDP rezoning along Dominion Road. The Rezoning Request does not result in a discernible change to the operation of the key intersections and therefore no further upgrades are required as a result of the Rezoning Request beyond those already triggered by the PDP rezoning along Dominion Road.

Other Assessment

6.24 Although the Sidra modelling does not indicate any upgrades to the Park Avenue / Bollard Road intersection are required as a result of the PDP Rezoning, Austroads turning warrants have been examined to understand required upgrades to the intersection based on the increase in traffic volumes. The Austroads turning warrant is detailed in Figure 3 below.



Figure 3: Austroads Turning Warrant

- 6.25 Under Scenario B1, taking an evening peak hour volume of 367vph on Bollard Road and a right turning volume of 246vph, results in a channelised right turning treatment being required. As such, I recommend a right turn bay at this intersection on the eastern leg for safety reasons.
- 6.26 The Rezoning Request does not result in any change to this requirement and therefore no further upgrade is required as a result of the Rezoning Request.

7. COMMENTS ON SECTION 42A REPORT

I note that the s42A framework report states that submissions on zoning need to address the Waikato Regional Policy Statement (WRPS) provisions including item c) which states "*multi-modal transport links and connectivity, both within the area of new urban development, and to neighbouring areas and existing transport infrastructure; and how the safe and efficient functioning of existing and planned transport and other regionally significant infrastructure will be protected and enhanced"*. In this regard, I consider that the Rezoning Request enables better links / connectivity to be established with the surrounding area and in particular enables a new road connection to Moira Drive which is residential, which would otherwise not occur.

8. CONCLUSION

- 8.1 From my review of the ITA relating to the Tuakau Structure Plan (precursor to the District Plan review), it does not include any traffic generation analysis, analysis on the effects on key intersections within Tuakau, or analysis on the effects of the local and wider road network as a result of the PDP rezoning. As such, no requirements for transportation upgrades have been identified relative to Dominion Road or the local road network as a result of the proposed growth and PDP rezoning.
- 8.2 Based on the modelling and assessment undertaken as part of my evidence preparation, I consider that the upgrades to the existing road network are triggered by the PDP rezoning along Dominion Road.
- 8.3 The additional Rezoning Request does not result in a discernible change to the operation of the key intersections and therefore no further upgrades are required as a result of the Rezoning Request beyond those already triggered by the PDP rezoning along Dominion Road.

- 8.4 I consider that the PDP rezoning along Dominion Road can be appropriately supported by the existing road network, subject to the upgrades detailed in my assessment (and listed below), to maintain appropriate levels of safety and efficiency on the surrounding road network:
 - (a) A right turn bay is recommended on the southern leg of the Dominion Road / Harrisville Road intersection. It is noted that this will likely require upgrades / widening of the bridge immediately to the north of the subject intersection;
 - (b) The Park Avenue one-lane bridge is recommended to be upgraded to a two-lane bridge; and
 - A right turn bay is recommended on the eastern leg of the Park
 Avenue / Bollard Road intersection
- 8.5 The additional Rezoning Request does not result in a discernible change to the operation of the key intersections and therefore no further upgrades are required as a result of the Rezoning Request beyond those already triggered by the PDP rezoning along Dominion Road.
- 8.6 Accordingly, I conclude that there is no traffic engineering or transportation planning reason to preclude acceptance of Rezoning Request.

Leo Donald Hills

17 February 2021

APPENDIX A: Traffic Volumes



Rezoning Request

AM Peak



PDP Rezoning







APPENDIX B: Sidra Output

▽ Site: 101 [Dom / George AM Existing]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles Movement Demand Flows Deg Average Level of 95% Back of Queue Prop Effective Aver No Average													
Mov ID	Turn	Demand Total veh/h	Flows HV %_	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>	
South	: George												
1	L2	8	10.0	0.197	5.9	LOS A	0.5	3.8	0.17	0.10	0.17	48.3	
2	T1	275	10.0	0.197	0.3	LOS A	0.5	3.8	0.17	0.10	0.17	49.0	
3	R2	53	10.0	0.197	6.0	LOS A	0.5	3.8	0.17	0.10	0.17	48.1	
Appro	ach	336	10.0	0.197	1.4	NA	0.5	3.8	0.17	0.10	0.17	48.8	
East:	Dominion	1											
4	L2	57	10.0	0.046	5.5	LOS A	0.2	1.4	0.33	0.55	0.33	45.7	
5	T1	1	10.0	0.113	7.1	LOS A	0.4	3.0	0.56	0.80	0.56	43.9	
6	R2	60	10.0	0.113	9.4	LOS A	0.4	3.0	0.56	0.80	0.56	43.4	
Appro	ach	118	10.0	0.113	7.5	LOS A	0.4	3.0	0.45	0.68	0.45	44.5	
North:	Harrisvil	le											
7	L2	42	10.0	0.155	4.7	LOS A	0.0	0.1	0.01	0.08	0.01	48.9	
8	T1	238	10.0	0.155	0.0	LOS A	0.0	0.1	0.01	0.08	0.01	49.5	
9	R2	1	10.0	0.155	5.9	LOS A	0.0	0.1	0.01	0.08	0.01	48.4	
Appro	ach	281	10.0	0.155	0.7	NA	0.0	0.1	0.01	0.08	0.01	49.4	
West:	Ryder												
10	L2	4	10.0	0.020	5.6	LOS A	0.1	0.5	0.48	0.64	0.48	44.6	
11	T1	1	10.0	0.020	6.9	LOS A	0.1	0.5	0.48	0.64	0.48	44.7	
12	R2	7	10.0	0.020	9.4	LOS A	0.1	0.5	0.48	0.64	0.48	44.2	
Appro	ach	13	10.0	0.020	7.9	LOS A	0.1	0.5	0.48	0.64	0.48	44.4	
All Vel	hicles	747	10.0	0.197	2.2	NA	0.5	3.8	0.16	0.19	0.16	48.2	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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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Organisation: COMMUTE TRANSPORTATION | Processed: Tuesday, 6 October 2020 9:07:39 AM Project: C:\Users\Modelling\COMMUTE TRANSPORTATON CONSULTANTS LTD\Projects 1600 - Documents\J001612 48 & 52 Dominion Road, Tuakau\surveys and sidra\Dominion George Tuakau.sip8

▽ Site: 101 [Dom / George PM Existing]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles Move Turn Demand Flows Deg Average Level of 95% Back of Queue Pron Effective Aver No Average													
Mov ID	Turn	Demand Total veh/h	Flows HV %_	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>		
South	: George													
1	L2	7	10.0	0.137	6.0	LOS A	0.4	3.0	0.21	0.12	0.21	48.1		
2	T1	178	10.0	0.137	0.5	LOS A	0.4	3.0	0.21	0.12	0.21	48.7		
3	R2	42	10.0	0.137	6.1	LOS A	0.4	3.0	0.21	0.12	0.21	47.9		
Appro	ach	227	10.0	0.137	1.7	NA	0.4	3.0	0.21	0.12	0.21	48.6		
East:	Dominion	l												
4	L2	62	10.0	0.053	5.7	LOS A	0.2	1.6	0.36	0.57	0.36	45.6		
5	T1	1	10.0	0.048	6.3	LOS A	0.2	1.3	0.52	0.72	0.52	44.4		
6	R2	27	10.0	0.048	8.5	LOS A	0.2	1.3	0.52	0.72	0.52	43.9		
Appro	ach	91	10.0	0.053	6.6	LOS A	0.2	1.6	0.41	0.61	0.41	45.1		
North:	Harrisvil	le												
7	L2	46	10.0	0.181	4.7	LOS A	0.0	0.3	0.01	0.08	0.01	48.9		
8	T1	278	10.0	0.181	0.0	LOS A	0.0	0.3	0.01	0.08	0.01	49.5		
9	R2	3	10.0	0.181	5.5	LOS A	0.0	0.3	0.01	0.08	0.01	48.4		
Appro	ach	327	10.0	0.181	0.7	NA	0.0	0.3	0.01	0.08	0.01	49.4		
West:	Ryder													
10	L2	8	10.0	0.042	5.3	LOS A	0.1	1.1	0.42	0.64	0.42	44.8		
11	T1	1	10.0	0.042	6.5	LOS A	0.1	1.1	0.42	0.64	0.42	44.8		
12	R2	19	10.0	0.042	8.8	LOS A	0.1	1.1	0.42	0.64	0.42	44.3		
Appro	ach	28	10.0	0.042	7.7	LOS A	0.1	1.1	0.42	0.64	0.42	44.5		
All Vel	hicles	674	10.0	0.181	2.1	NA	0.4	3.0	0.15	0.19	0.15	48.3		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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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▽ Site: 101 [Dom / George AM PDP (30%+ Thru)]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>		
South	: George													
1	L2	8	10.0	0.515	10.6	LOS B	5.0	38.2	0.67	0.43	1.05	44.9		
2	T1	357	10.0	0.515	4.7	LOS A	5.0	38.2	0.67	0.43	1.05	45.5		
3	R2	266	10.0	0.515	10.6	LOS B	5.0	38.2	0.67	0.43	1.05	44.7		
Appro	ach	632	10.0	0.515	7.3	NA	5.0	38.2	0.67	0.43	1.05	45.2		
East:	Dominion													
4	L2	134	10.0	0.117	6.0	LOS A	0.5	3.6	0.40	0.60	0.40	45.5		
5	T1	1	10.0	0.407	19.0	LOS C	1.6	11.8	0.87	1.02	1.13	37.4		
6	R2	94	10.0	0.407	23.8	LOS C	1.6	11.8	0.87	1.02	1.13	37.0		
Appro	ach	228	10.0	0.407	13.4	LOS B	1.6	11.8	0.60	0.78	0.70	41.6		
North:	Harrisvill	е												
7	L2	274	10.0	0.328	4.7	LOS A	0.0	0.2	0.00	0.25	0.00	47.9		
8	T1	309	10.0	0.328	0.0	LOS A	0.0	0.2	0.00	0.25	0.00	48.6		
9	R2	1	10.0	0.328	7.0	LOS A	0.0	0.2	0.00	0.25	0.00	47.5		
Appro	ach	584	10.0	0.328	2.2	NA	0.0	0.2	0.00	0.25	0.00	48.3		
West:	Ryder													
10	L2	4	10.0	0.039	6.0	LOS A	0.1	0.9	0.68	0.78	0.68	41.5		
11	T1	1	10.0	0.039	17.3	LOS C	0.1	0.9	0.68	0.78	0.68	41.6		
12	R2	7	10.0	0.039	18.1	LOS C	0.1	0.9	0.68	0.78	0.68	41.1		
Appro	ach	13	10.0	0.039	14.0	LOS B	0.1	0.9	0.68	0.78	0.68	41.3		
All Vel	hicles	1457	10.0	0.515	6.3	NA	5.0	38.2	0.39	0.41	0.57	45.7		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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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▽ Site: 101 [Dom / George PM PDP (30%+ Thru)]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>		
South	: George													
1	L2	7	10.0	0.461	10.7	LOS B	4.0	30.2	0.71	0.52	1.05	44.4		
2	T1	232	10.0	0.461	5.4	LOS A	4.0	30.2	0.71	0.52	1.05	44.9		
3	R2	256	10.0	0.461	10.8	LOS B	4.0	30.2	0.71	0.52	1.05	44.2		
Appro	ach	495	10.0	0.461	8.3	NA	4.0	30.2	0.71	0.52	1.05	44.6		
East:	Dominion	l												
4	L2	139	10.0	0.130	6.3	LOS A	0.5	4.0	0.44	0.63	0.44	45.4		
5	T1	1	10.0	0.222	13.3	LOS B	0.8	5.8	0.80	0.93	0.86	40.0		
6	R2	61	10.0	0.222	17.5	LOS C	0.8	5.8	0.80	0.93	0.86	39.6		
Appro	ach	201	10.0	0.222	9.7	LOS A	0.8	5.8	0.55	0.73	0.57	43.5		
North:	Harrisvil	le												
7	L2	278	10.0	0.360	4.7	LOS A	0.0	0.4	0.01	0.23	0.01	48.0		
8	T1	361	10.0	0.360	0.0	LOS A	0.0	0.4	0.01	0.23	0.01	48.6		
9	R2	3	10.0	0.360	6.1	LOS A	0.0	0.4	0.01	0.23	0.01	47.6		
Appro	ach	642	10.0	0.360	2.1	NA	0.0	0.4	0.01	0.23	0.01	48.4		
West:	Ryder													
10	L2	8	10.0	0.077	5.5	LOS A	0.3	1.9	0.60	0.75	0.60	42.1		
11	T1	1	10.0	0.077	15.9	LOS C	0.3	1.9	0.60	0.75	0.60	42.2		
12	R2	19	10.0	0.077	15.9	LOS C	0.3	1.9	0.60	0.75	0.60	41.7		
Appro	ach	28	10.0	0.077	12.8	LOS B	0.3	1.9	0.60	0.75	0.60	41.9		
All Vel	hicles	1366	10.0	0.461	5.7	NA	4.0	30.2	0.35	0.42	0.48	46.0		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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 [Dom / George AM PDP (30%+ Thru) w mitigation]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>		
South	: George													
1	L2	8	10.0	0.202	4.7	LOS A	0.0	0.0	0.00	0.01	0.00	49.2		
2	T1	357	10.0	0.202	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.9		
3	R2	266	10.0	0.311	8.6	LOS A	1.6	11.9	0.63	0.87	0.73	44.1		
Appro	ach	632	10.0	0.311	3.7	NA	1.6	11.9	0.27	0.37	0.31	47.3		
East:	Dominion													
4	L2	134	10.0	0.117	6.0	LOS A	0.5	3.6	0.40	0.60	0.40	45.5		
5	T1	1	10.0	0.365	24.5	LOS C	1.4	10.6	0.84	1.00	1.06	38.6		
6	R2	94	10.0	0.365	21.0	LOS C	1.4	10.6	0.84	1.00	1.06	38.1		
Appro	ach	228	10.0	0.365	12.2	LOS B	1.4	10.6	0.59	0.77	0.68	42.1		
North:	Harrisvill	е												
7	L2	274	10.0	0.328	4.7	LOS A	0.0	0.2	0.00	0.25	0.00	47.9		
8	T1	309	10.0	0.328	0.0	LOS A	0.0	0.2	0.00	0.25	0.00	48.6		
9	R2	1	10.0	0.328	7.0	LOS A	0.0	0.2	0.00	0.25	0.00	47.5		
Appro	ach	584	10.0	0.328	2.2	NA	0.0	0.2	0.00	0.25	0.00	48.3		
West:	Ryder													
10	L2	4	10.0	0.038	6.0	LOS A	0.1	0.9	0.67	0.77	0.67	41.6		
11	T1	1	10.0	0.038	26.4	LOS D	0.1	0.9	0.67	0.77	0.67	41.8		
12	R2	7	10.0	0.038	16.6	LOS C	0.1	0.9	0.67	0.77	0.67	41.4		
Appro	ach	13	10.0	0.038	13.9	LOS B	0.1	0.9	0.67	0.77	0.67	41.5		
All Ve	hicles	1457	10.0	0.365	4.5	NA	1.6	11.9	0.21	0.39	0.25	46.7		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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 [Dom / George PM PDP (30%+ Thru) w mitigation]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles Mov Turn Demand Flows Deg Average Level of 95% Back of Queue Prop Effective Aver No Average													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South	: George													
1	L2	7	10.0	0.132	4.7	LOS A	0.0	0.0	0.00	0.02	0.00	49.2		
2	T1	232	10.0	0.132	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.9		
3	R2	256	10.0	0.326	9.4	LOS A	1.7	12.5	0.66	0.89	0.79	43.7		
Appro	ach	495	10.0	0.326	4.9	NA	1.7	12.5	0.34	0.47	0.41	46.5		
East:	Dominion													
4	L2	139	10.0	0.130	6.3	LOS A	0.5	4.0	0.44	0.63	0.44	45.4		
5	T1	1	10.0	0.218	19.5	LOS C	0.8	5.7	0.79	0.93	0.85	40.3		
6	R2	61	10.0	0.218	17.1	LOS C	0.8	5.7	0.79	0.93	0.85	39.8		
Appro	ach	201	10.0	0.218	9.6	LOS A	0.8	5.7	0.55	0.73	0.57	43.5		
North:	Harrisvill	е												
7	L2	278	10.0	0.360	4.7	LOS A	0.0	0.4	0.01	0.23	0.01	48.0		
8	T1	361	10.0	0.360	0.0	LOS A	0.0	0.4	0.01	0.23	0.01	48.6		
9	R2	3	10.0	0.360	6.1	LOS A	0.0	0.4	0.01	0.23	0.01	47.6		
Appro	ach	642	10.0	0.360	2.1	NA	0.0	0.4	0.01	0.23	0.01	48.4		
West:	Ryder													
10	L2	8	10.0	0.076	5.5	LOS A	0.3	1.9	0.60	0.74	0.60	42.1		
11	T1	1	10.0	0.076	24.4	LOS C	0.3	1.9	0.60	0.74	0.60	42.3		
12	R2	19	10.0	0.076	15.3	LOS C	0.3	1.9	0.60	0.74	0.60	42.0		
Appro	ach	28	10.0	0.076	12.8	LOS B	0.3	1.9	0.60	0.74	0.60	42.0		
All Vel	hicles	1366	10.0	0.360	4.4	NA	1.7	12.5	0.22	0.40	0.25	46.8		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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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▽ Site: 101 [Dom / George AM PDP (30%+ Thru) w mitigation / add. traffic]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles Mov Turn Demand Flows Deg. Average Level of 95% Back of Queue Prop. <u>Effective Aver. No. Average</u>													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South	: George													
1	L2	8	10.0	0.291	5.3	LOS A	1.3	9.6	0.43	0.01	0.43	48.0		
2	T1	357	10.0	0.291	0.7	LOS A	1.3	9.6	0.43	0.01	0.43	48.7		
3	R2	274	10.0	0.322	8.7	LOS A	1.7	12.6	0.64	0.88	0.75	44.0		
Appro	ach	639	10.0	0.322	4.2	NA	1.7	12.6	0.52	0.38	0.57	46.5		
East:	Dominior	1												
4	L2	158	10.0	0.139	6.0	LOS A	0.6	4.3	0.41	0.61	0.41	45.5		
5	T1	1	10.0	0.470	27.0	LOS D	2.0	14.8	0.87	1.05	1.21	37.7		
6	R2	119	10.0	0.470	23.3	LOS C	2.0	14.8	0.87	1.05	1.21	37.2		
Appro	ach	278	10.0	0.470	13.5	LOS B	2.0	14.8	0.61	0.80	0.76	41.5		
North:	Harrisvil	le												
7	L2	279	10.0	0.331	4.7	LOS A	0.0	0.2	0.00	0.25	0.00	47.9		
8	T1	309	10.0	0.331	0.0	LOS A	0.0	0.2	0.00	0.25	0.00	48.5		
9	R2	1	10.0	0.331	7.0	LOS A	0.0	0.2	0.00	0.25	0.00	47.5		
Appro	ach	589	10.0	0.331	2.2	NA	0.0	0.2	0.00	0.25	0.00	48.3		
West:	Ryder													
10	L2	4	10.0	0.040	6.0	LOS A	0.1	1.0	0.68	0.78	0.68	41.4		
11	T1	1	10.0	0.040	27.0	LOS D	0.1	1.0	0.68	0.78	0.68	41.5		
12	R2	7	10.0	0.040	17.3	LOS C	0.1	1.0	0.68	0.78	0.68	41.2		
Appro	ach	13	10.0	0.040	14.4	LOS B	0.1	1.0	0.68	0.78	0.68	41.3		
All Vel	hicles	1519	10.0	0.470	5.2	NA	2.0	14.8	0.34	0.41	0.38	46.1		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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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▽ Site: 101 [Dom / George PM PDP (30%+ Thru) w mitigation / add. traffic]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles Movement Performance - Vehicles Movement Prop Effective Aver No Average Movement Prop Effective Aver No Average													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>		
South	: George													
1	L2	7	10.0	0.226	5.8	LOS A	1.0	7.8	0.48	0.01	0.49	47.9		
2	T1	232	10.0	0.226	1.1	LOS A	1.0	7.8	0.48	0.01	0.49	48.5		
3	R2	280	10.0	0.373	10.0	LOS B	2.0	15.1	0.68	0.93	0.88	43.3		
Appro	ach	519	10.0	0.373	6.0	NA	2.0	15.1	0.59	0.51	0.70	45.5		
East:	Dominion	l												
4	L2	147	10.0	0.137	6.3	LOS A	0.6	4.2	0.44	0.64	0.44	45.4		
5	T1	1	10.0	0.248	21.4	LOS C	0.9	6.6	0.81	0.95	0.90	39.6		
6	R2	65	10.0	0.248	18.5	LOS C	0.9	6.6	0.81	0.95	0.90	39.1		
Appro	ach	214	10.0	0.248	10.1	LOS B	0.9	6.6	0.56	0.73	0.59	43.3		
North:	Harrisvil	le												
7	L2	303	10.0	0.374	4.7	LOS A	0.0	0.4	0.01	0.24	0.01	48.0		
8	T1	361	10.0	0.374	0.0	LOS A	0.0	0.4	0.01	0.24	0.01	48.6		
9	R2	3	10.0	0.374	6.1	LOS A	0.0	0.4	0.01	0.24	0.01	47.5		
Appro	ach	667	10.0	0.374	2.2	NA	0.0	0.4	0.01	0.24	0.01	48.3		
West:	Ryder													
10	L2	8	10.0	0.080	5.5	LOS A	0.3	2.0	0.61	0.75	0.61	41.9		
11	T1	1	10.0	0.080	27.0	LOS D	0.3	2.0	0.61	0.75	0.61	42.0		
12	R2	19	10.0	0.080	16.1	LOS C	0.3	2.0	0.61	0.75	0.61	41.7		
Appro	ach	28	10.0	0.080	13.3	LOS B	0.3	2.0	0.61	0.75	0.61	41.8		
All Vel	hicles	1428	10.0	0.374	5.0	NA	2.0	15.1	0.31	0.42	0.36	46.3		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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 [Park / Bollard - AM Existing]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
East: I	Bollard												
5	T1	125	10.0	0.084	0.1	LOS A	0.2	1.2	0.09	0.08	0.09	49.3	
6	R2	22	10.0	0.084	5.2	LOS A	0.2	1.2	0.09	0.08	0.09	48.2	
Appro	ach	147	10.0	0.084	0.9	NA	0.2	1.2	0.09	0.08	0.09	49.1	
North: Park													
7	L2	14	10.0	0.040	5.1	LOS A	0.1	1.1	0.30	0.56	0.30	45.8	
9	R2	25	10.0	0.040	6.3	LOS A	0.1	1.1	0.30	0.56	0.30	45.3	
Appro	ach	39	10.0	0.040	5.9	LOS A	0.1	1.1	0.30	0.56	0.30	45.5	
West:	Bollard												
10	L2	12	10.0	0.075	4.7	LOS A	0.0	0.0	0.00	0.05	0.00	49.1	
11	T1	124	10.0	0.075	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.7	
Appro	ach	136	10.0	0.075	0.4	NA	0.0	0.0	0.00	0.05	0.00	49.7	
All Vel	hicles	322	10.0	0.084	1.3	NA	0.2	1.2	0.08	0.13	0.08	48.9	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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V Site: 101 [Park / Bollard - PM Existing]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
East: I	Bollard												
5	T1	164	10.0	0.109	0.1	LOS A	0.2	1.5	0.10	0.08	0.10	49.3	
6	R2	27	10.0	0.109	5.3	LOS A	0.2	1.5	0.10	0.08	0.10	48.2	
Appro	ach	192	10.0	0.109	0.9	NA	0.2	1.5	0.10	0.08	0.10	49.1	
North: Park													
7	L2	14	10.0	0.021	5.1	LOS A	0.1	0.6	0.27	0.53	0.27	45.8	
9	R2	8	10.0	0.021	6.7	LOS A	0.1	0.6	0.27	0.53	0.27	45.4	
Appro	ach	22	10.0	0.021	5.7	LOS A	0.1	0.6	0.27	0.53	0.27	45.7	
West:	Bollard												
10	L2	25	10.0	0.087	4.7	LOS A	0.0	0.0	0.00	0.09	0.00	48.9	
11	T1	133	10.0	0.087	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	49.5	
Appro	ach	158	10.0	0.087	0.8	NA	0.0	0.0	0.00	0.09	0.00	49.4	
All Vel	hicles	372	10.0	0.109	1.1	NA	0.2	1.5	0.07	0.11	0.07	49.0	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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V Site: 101 [Park / Bollard - AM PDP +30% thru]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
East: E	Bollard													
5	T1	163	10.0	0.159	0.5	LOS A	0.7	5.0	0.27	0.21	0.27	48.2		
6	R2	95	10.0	0.159	5.5	LOS A	0.7	5.0	0.27	0.21	0.27	47.1		
Approa	ach	258	10.0	0.159	2.4	NA	0.7	5.0	0.27	0.21	0.27	47.8		
North:	Park													
7	L2	171	10.0	0.602	7.6	LOS A	5.3	40.1	0.55	0.87	0.90	43.3		
9	R2	314	10.0	0.602	11.9	LOS B	5.3	40.1	0.55	0.87	0.90	42.9		
Approa	ach	484	10.0	0.602	10.4	LOS B	5.3	40.1	0.55	0.87	0.90	43.1		
West:	Bollard													
10	L2	49	10.0	0.116	4.7	LOS A	0.0	0.0	0.00	0.13	0.00	48.6		
11	T1	161	10.0	0.116	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	49.3		
Approa	ach	211	10.0	0.116	1.1	NA	0.0	0.0	0.00	0.13	0.00	49.1		
All Veh	nicles	953	10.0	0.602	6.2	NA	5.3	40.1	0.35	0.53	0.53	45.5		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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V Site: 101 [Park / Bollard - PM PDP +30% thru]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
East: E	Bollard													
5	T1	214	10.0	0.357	2.3	LOS A	2.5	18.7	0.55	0.42	0.63	46.7		
6	R2	259	10.0	0.357	7.4	LOS A	2.5	18.7	0.55	0.42	0.63	45.7		
Approa	ach	473	10.0	0.357	5.1	NA	2.5	18.7	0.55	0.42	0.63	46.2		
North:	Park													
7	L2	82	10.0	0.190	5.3	LOS A	0.7	5.4	0.39	0.62	0.39	44.5		
9	R2	51	10.0	0.190	12.9	LOS B	0.7	5.4	0.39	0.62	0.39	44.1		
Approa	ach	133	10.0	0.190	8.2	LOS A	0.7	5.4	0.39	0.62	0.39	44.3		
West:	Bollard													
10	L2	239	10.0	0.232	4.7	LOS A	0.0	0.0	0.00	0.31	0.00	47.6		
11	T1	173	10.0	0.232	0.0	LOS A	0.0	0.0	0.00	0.31	0.00	48.2		
Approa	ach	412	10.0	0.232	2.7	NA	0.0	0.0	0.00	0.31	0.00	47.9		
All Veh	nicles	1017	10.0	0.357	4.5	NA	2.5	18.7	0.31	0.40	0.34	46.6		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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V Site: 101 [Park / Bollard - AM PDP +30% thru + site]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
East: E	Bollard													
5	T1	163	10.0	0.166	0.6	LOS A	0.7	5.4	0.28	0.23	0.28	48.1		
6	R2	103	10.0	0.166	5.6	LOS A	0.7	5.4	0.28	0.23	0.28	47.0		
Approa	ach	266	10.0	0.166	2.5	NA	0.7	5.4	0.28	0.23	0.28	47.7		
North:	Park													
7	L2	187	10.0	0.671	8.5	LOS A	6.9	52.1	0.59	0.94	1.07	42.7		
9	R2	345	10.0	0.671	13.3	LOS B	6.9	52.1	0.59	0.94	1.07	42.3		
Approa	ach	533	10.0	0.671	11.6	LOS B	6.9	52.1	0.59	0.94	1.07	42.4		
West:	Bollard													
10	L2	54	10.0	0.119	4.7	LOS A	0.0	0.0	0.00	0.13	0.00	48.6		
11	T1	161	10.0	0.119	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	49.2		
Approa	ach	215	10.0	0.119	1.2	NA	0.0	0.0	0.00	0.13	0.00	49.1		
All Veh	nicles	1014	10.0	0.671	7.0	NA	6.9	52.1	0.38	0.58	0.63	45.0		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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V Site: 101 [Park / Bollard - PM PDP +30% thru + site]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
East: E	Bollard													
5	T1	214	10.0	0.389	2.8	LOS A	2.9	22.1	0.59	0.47	0.72	46.4		
6	R2	284	10.0	0.389	7.8	LOS A	2.9	22.1	0.59	0.47	0.72	45.4		
Approa	ach	498	10.0	0.389	5.7	NA	2.9	22.1	0.59	0.47	0.72	45.8		
North:	Park													
7	L2	89	10.0	0.216	5.3	LOS A	0.8	6.2	0.40	0.62	0.40	44.3		
9	R2	55	10.0	0.216	13.8	LOS B	0.8	6.2	0.40	0.62	0.40	43.9		
Approa	ach	144	10.0	0.216	8.5	LOS A	0.8	6.2	0.40	0.62	0.40	44.1		
West:	Bollard													
10	L2	263	10.0	0.246	4.7	LOS A	0.0	0.0	0.00	0.32	0.00	47.5		
11	T1	173	10.0	0.246	0.0	LOS A	0.0	0.0	0.00	0.32	0.00	48.1		
Appro	ach	436	10.0	0.246	2.8	NA	0.0	0.0	0.00	0.32	0.00	47.8		
All Vel	nicles	1078	10.0	0.389	4.9	NA	2.9	22.1	0.33	0.43	0.38	46.4		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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abla Site: 101 [One lane bridge - AM Existing]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South: RoadName														
2	T1	34	10.0	0.018	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
Appro	ach	34	10.0	0.018	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
North:	RoadNa	me												
8	T1	39	10.0	0.061	5.6	LOS A	0.2	1.5	0.09	0.46	0.09	48.8		
Appro	ach	39	10.0	0.061	5.6	LOS A	0.2	1.5	0.09	0.46	0.09	48.8		
All Vel	nicles	73	10.0	0.061	5.5	NA	0.2	1.5	0.05	0.47	0.05	49.0		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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∇ Site: 101 [One-lane bridge PM Existing]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South: RoadName														
2	T1	53	10.0	0.029	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
Appro	ach	53	10.0	0.029	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
North:	RoadNa	me												
8	T1	22	10.0	0.035	5.7	LOS A	0.1	0.9	0.12	0.46	0.12	48.8		
Appro	ach	22	10.0	0.035	5.7	LOS A	0.1	0.9	0.12	0.46	0.12	48.8		
All Vel	nicles	75	10.0	0.035	5.5	NA	0.1	0.9	0.04	0.48	0.04	49.0		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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✓ Site: 101 [One lane bridge - AM PDP]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South: RoadName														
2	T1	144	10.0	0.079	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
Approa	ach	144	10.0	0.079	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
North:	RoadNa	me												
8	T1	484	10.0	0.832	15.8	LOS C	18.7	142.3	0.74	0.85	1.09	43.4		
Appro	ach	484	10.0	0.832	15.8	LOS C	18.7	142.3	0.74	0.85	1.09	43.4		
All Vel	nicles	628	10.0	0.832	13.4	NA	18.7	142.3	0.57	0.77	0.84	44.6		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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∇ Site: 101_[One-lane bridge PM PDP]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South: RoadName														
2	T1	498	10.0	0.272	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
Approa	ach	498	10.0	0.272	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
North:	RoadNa	ame												
8	T1	133	10.0	0.324	11.4	LOS B	1.4	10.6	0.53	0.78	0.60	45.7		
Approa	ach	133	10.0	0.324	11.4	LOS B	1.4	10.6	0.53	0.78	0.60	45.7		
All Vel	nicles	631	10.0	0.324	6.7	NA	1.4	10.6	0.11	0.54	0.13	48.4		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [One lane bridge - AM PDP + site]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South: RoadName														
2	T1	157	10.0	0.086	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
Appro	ach	157	10.0	0.086	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
North:	RoadNa	ame												
8	T1	534	10.0	0.927	27.0	LOS D	33.1	251.6	1.00	1.19	1.74	38.5		
Appro	ach	534	10.0	0.927	27.0	LOS D	33.1	251.6	1.00	1.19	1.74	38.5		
All Vel	nicles	691	10.0	0.927	22.1	NA	33.1	251.6	0.77	1.03	1.35	40.5		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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∇ Site: 101 [One-lane bridge PM PDP + site]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South: RoadName														
2	T1	547	10.0	0.299	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
Appro	ach	547	10.0	0.299	5.4	LOS A	0.0	0.0	0.00	0.48	0.00	49.2		
North:	RoadNa	me												
8	T1	145	10.0	0.374	12.8	LOS B	1.8	13.4	0.57	0.83	0.71	44.9		
Appro	ach	145	10.0	0.374	12.8	LOS B	1.8	13.4	0.57	0.83	0.71	44.9		
All Vel	nicles	693	10.0	0.374	7.0	NA	1.8	13.4	0.12	0.56	0.15	48.2		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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