

# Memorandum



**Date:** Wednesday, 9 November 2022

**Pages:** 12

**To:** Imran Khan

**Copy:**

**From:** Peter Lewis

**Ref:** 21-000475

**Subject:** Drake Brockman Dr / Pro Hart Dr Intersection

## Summary

TCCS submitted a Development Application in April 2022 for a new site for the Canberra Sand and Gravel (CSG) recycling facilities proposed off Stockdill Drive. Comments were received from members of the community for which concern was raised about the safety of the existing intersection of Drake Brockman Drive and Spofforth Street when turning from Pro Hart Avenue right onto Drake Brockman Drive, particularly with proposed additional traffic that the proposed CSG facility would generate. As a result of these community concerns raised, Riverview requested Calibre to undertake an assessment of this intersection for capacity for current and projected future increase in traffic volumes.

The existing intersection was found to have capacity for current traffic volumes with the proposed CSG traffic. The existing intersection was found to exceed capacity at some point in 2023 resulting in significant queuing along Pro Hart Avenue in the AM peak by the end of 2023. The intersection capacity was found to be exceeded from the increase in occupation of dwellings in the Ginninderry development over the next 12 months. The proposed CSG development was found to exacerbating this issue and would cause the intersection to fail sooner in 2023. There is therefore concern about the existing intersection performance and safety for the next few years until the Drake Brockman Drive upgrade works are completed in 2026.

Options were investigated for temporary intersection upgrades to improve operation and safety in the interim for the next 3 to 4 years until the upgrade works are completed. Three options were considered for intersection upgrade to seek to provide an interim safer intersection arrangement than what currently exists. A tee intersection which prioritises east west traffic on Drake Brockman Drive / Pro Hart Ave with stop sign control to vehicles on Spofforth Street is recommended. The interim intersection arrangement is considered to provide improved safety for this intersection compared to the current intersection arrangement, however, does not comply with AustRoads standards for vertical sight distance requiring specific devices to be installed on Pro Hart Avenue and Drake Brockman Drive to reduce speed and therefore meet AustRoads sight distance requirements.

***This Memo is prepared in order to seek TCCS endorsement to the proposed interim intersection works of Drake Brockman Drive and Spofforth Street to provide improved vehicle safety and improved safety of other road users until the Drake Brockman Drive Stage 2 upgrade works are completed. We also seek TCCS advice as to whether a Development Application is required for these proposed interim works.***

## Development Context

The following summarises the status of the Ginninderry development to date and planned works in the next 4 years for context of consideration of traffic impacts on Drake Brockman Drive.

- The Ginninderry development has completed civil construction of the suburb of Strathnairn. The suburb of Macnamara has commenced civil construction in mid-2022.
- Riverview are preparing the EDP for Macnamara EDP2 which will include a road connection from Pro Hart Avenue to Parkwood Road. This road connection is expected to limit traffic volume increases on Pro Hart Avenue which is currently the only road connection to Ginninderry. This road connection is expected to be completed and open by end of 2025.

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- Riverview are currently preparing the DA for the Drake Brockman Drive Stage 2 upgrade works which will be submitted in 2023. The Drake Brockman Drive works are planned to commence in mid-2024 and to be completed by the end of 2026.
- The Strathnairn school is proposed to be open in 2025.
- The Riverside park DA is proposed to be submitted early 2023 with the road to the park to be completed by end 2024.
- Canberra Sand and Gravel DA was submitted mid-2022 and has been rejected by EPSDD. Subject to reconsideration, the CSG site if approved could be operational second half of 2023.

## Existing Intersection Configuration

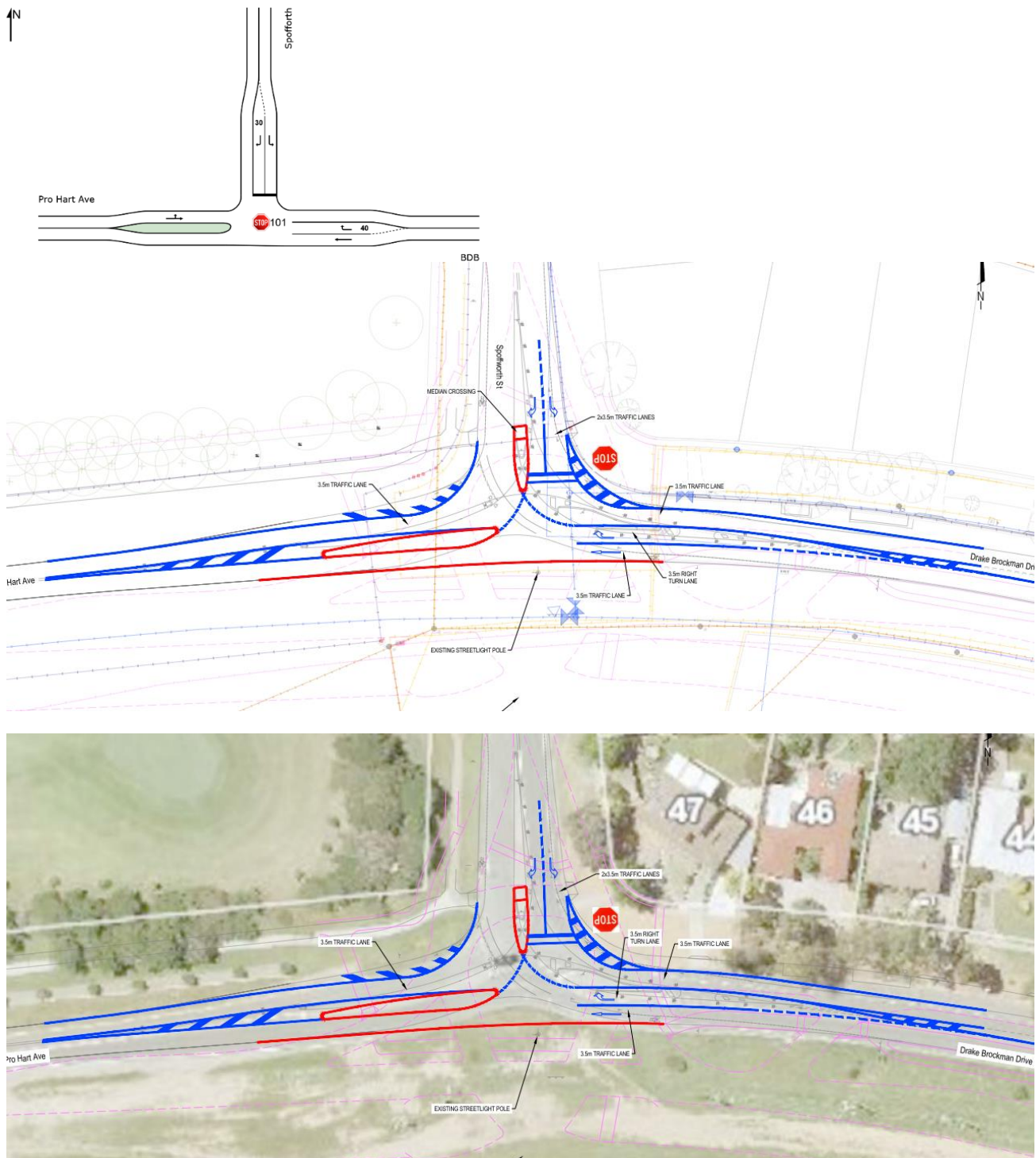
The existing intersection has Drake Brockman Drive and Spofforth Street as the priority road alignment with Pro Hart Avenue as the side street. Refer to below aerial photo.



## Intersection upgrade options

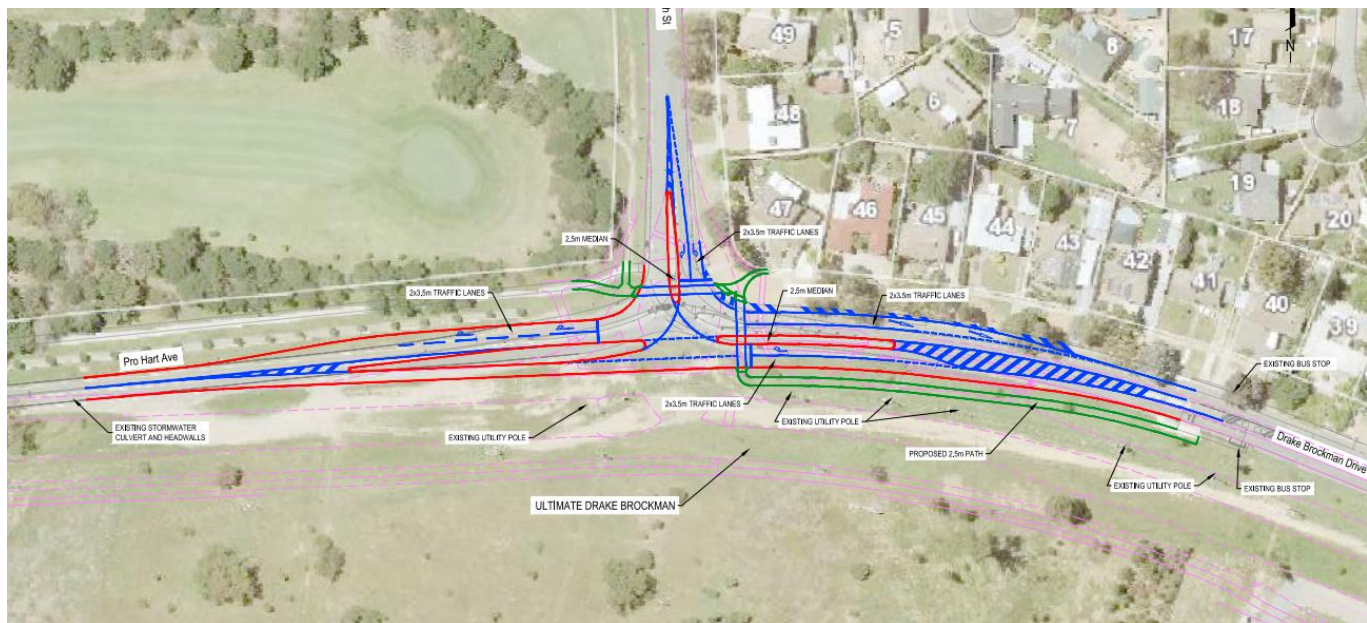
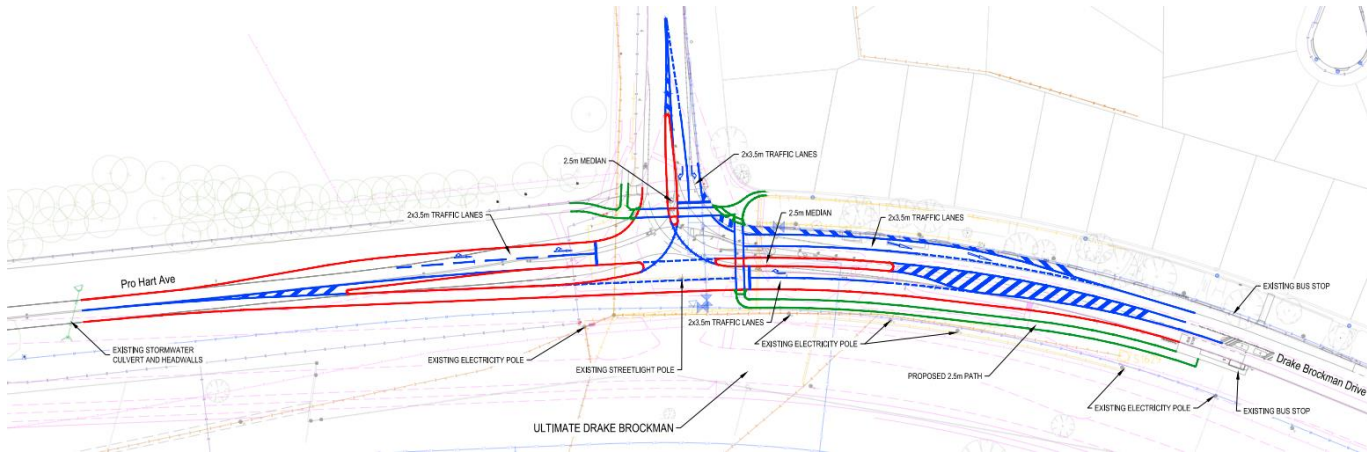
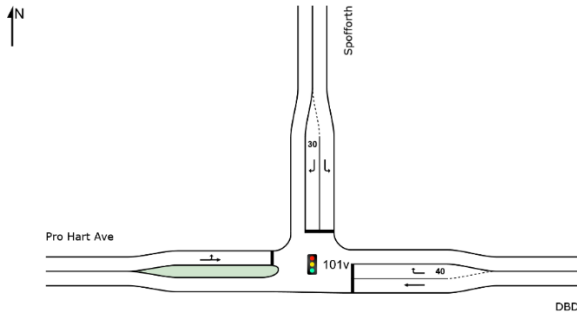
The following intersection upgrade options were investigated for footprint, physical feasibility, intersection performance and cost:

- **Option 1.** Unsignalised tee intersection. Requires intersection reconfiguration to straighten Drake Brockman Drive and Pro Hart Avenue to be the priority lane with Spofforth Street the side controlled by stop sign. The road works for this option can be constructed with most road works within the current road footprint. The footprint of this intersection is outside the Drake Brockman Drive duplication works through lanes.

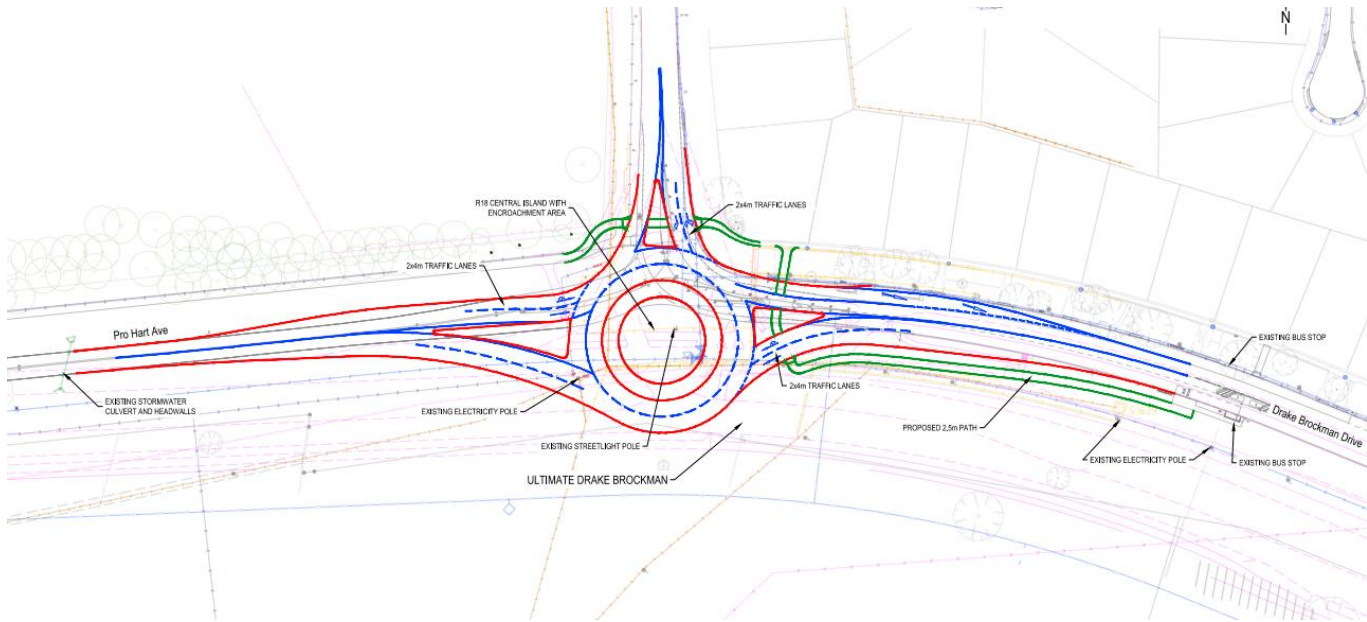
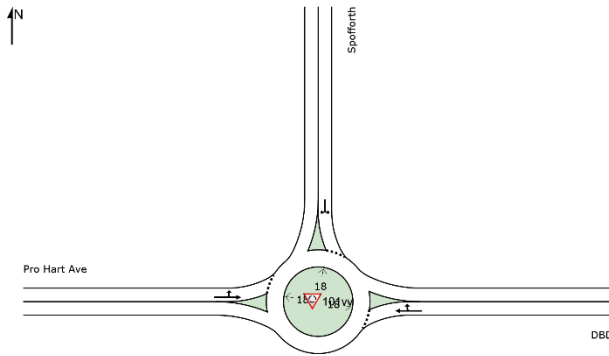


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- **Option 2.** Signalised tee intersection. Requires intersection reconfiguration to straighten Drake Brockman Drive and Pro Hart Avenue to be the priority lane with Spofforth Street the side road and utilising traffic signals to control the intersection operation. This option requires widening to the south to create an additional lanes necessary for turn lanes and through lanes. This intersection has some encroachment into the Drake Brockman Drive upgrade works through lanes.



- Option 3. Roundabout.** The Roundabout was excluded from further consideration due to the footprint of the works and associated costs and the significant footprint encroachment into the Drake Brockman Drive Duplication Works.



## Traffic Volumes – Ginninderry development

Calibre utilised recent tube count data from September 2022 for the existing roads at this intersection to derive traffic volumes and turning movements during the AM and PM Peak. This data was used for the end 2022 SIDRA modelling. Riverview provided the following table of current and anticipated dwelling occupation in Ginninderry to the end of 2026.

Population Projections					
Neighbourhood	20/09/2022	End 2023	End 2024	End 2025	End 2026
N1	1251	2117	2461	2923	3042
N2 (P1)			114	469	774
N2(P2)				23	388
<b>Total</b>	<b>1251</b>	<b>2117</b>	<b>2575</b>	<b>3415</b>	<b>4204</b>

This population increase each year was divided by the average number of people per dwelling, which was calculated using the 2016 Australian Census data. Because the number of people living in Strathairn was low during 2016 and not considered representative of current conditions, the value for the suburb of Holt of 2.2 people per dwelling was used. The

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number of additional dwellings was estimated by dividing the population increase by the average residents per dwelling. The Estate Development Code traffic generation rates range from 6 to 8vpd with an average of 7vpd adopted. An average trip generation rate of 0.7 vehicles per hour was applied to calculate the increase in peak hour traffic from the Ginninderry development for use in the SIDRA modelling.

It is noted that the Strathnairn school is expected to be open in 2025, however, it is assumed the majority of traffic to this school would be from residents in Ginninderry and would not impact peak traffic volumes at the Spofforth Street / Drake Brockman Drive intersection.

## Traffic volumes – CSG Development

The following traffic volumes were included in the CSG Traffic Impact Assessment report attached to the CSG Development Application and utilised in this analysis of the Spofforth Street intersection. The CSG site is expected to act as a landscape supplier, storing and selling landscaping materials along with accepting green waste drop offs. CSG have provided a breakdown of the vehicle numbers they experience at peak times at the existing CSG site on Parkwood Road.

- Green waste drop off 500 cars per day.
- Green waste drop off 25 trucks per day
- Landscape supplies 200 cars per day minus 20% who also do green waste drop off = 160 cars per day extra
- Landscape supplies 25 trucks per day

Total cars per day = 650 per day

Total trucks per day = 50 per day

Total vehicles per day (in + out) = **1400vpd**

To undertake a comparison and order of magnitude suitability check a trips per GFA has been reviewed. The *RTA Guide to Traffic Generating Developments* (2002) outlines various land uses. While bulk landscape supplies is not provided as a land use, the closest equivalent was seen to be warehouse. As such the CSG site area has been tested with a warehouse GFA as detailed in **Error! Reference source not found.**

RTA Traffic generation Rates for Warehouses

Development Type	Unit	Daily Rate	Peak Period Rate
Warehouse	/100m <sup>2</sup> GFA	4	0.5

Using the Traffic generation based on GFA, the total predicted trips generated by the CSG Development was calculated. The volumes for warehouse can be seen in Table **Error! No text of specified style in document..1**.

Table **Error! No text of specified style in document..1** CSG Site Trip Generation – comparison test based on guidelines.

Type	GFA (m <sup>2</sup> )	Daily		Peak Hour	
		Generation Rate	Trips	Generation Rate	Trips
Warehouse	35000	4 trips / 100m <sup>2</sup> GFA / day	1397	0.5 trips / 100m <sup>2</sup> GFA / hour	175
<b>Total</b>		-	<b>1397</b>	-	<b>175</b>

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The daily traffic volume determined from information provided by CSG (1400vpd) is essentially the same as that predicted using the RTA guidelines (1397vpd) which provides confidence in considering the CSG volumes provided for trip generation and traffic modelling purposes.

## Construction traffic

It is noted that the Ginninderry development generates construction traffic from house construction works which is captured in the traffic survey undertaken in late 2022. It is assumed that a similar volume of construction traffic will occur year on year. Construction traffic for subdivision construction works is mandated to gain site access off Parkwood Road only.

## Intersection Performance Analysis

The existing and proposed intersection upgrade options were analysed using SIDRA to identify how each intersection performed for the increase in traffic year on year in order to determine at what point in time a particular intersection option performance failed. This analysis allows comparison to the timing of the proposed growth of Ginninderry to proposed timing of Drake Brockman Drive upgrade works. This analysis was undertaken with and without the CSG site in order to determine the impact of CSG on intersection performance given this was a major comment the community had with the CSG project.

Intersection	AM Peak				PM Peak			
	DOS	Delay	LOS	Queue (m)	DOS	Delay	LOS	Queue (m)
Existing Conditions								
Base Layout (No CSG)	0.7	18s	B	51m (Pro Hart)	0.58	16s	B	32m (Pro Hart)
Base Layout (with CSG)	0.88	31s	C	96m (Pro Hart)	0.79	22s	B	72m (Pro Hart)
Updated Stop Layout (No CSG)	0.2	15s	B	4m (Spofforth)	0.17	16s	B	3m (Spofforth)
Updated Stop Layout (with CSG)	0.29	20s	B	9m (Spofforth)	0.23	19s	B	4m (Spofforth)
2023 Scenario								
Base Layout (No CSG)	1.19	202s	F	595m (Pro Hart)	0.89	34s	C	96m (Pro Hart)
Base Layout (with CSG)	1.45	428s	F	1032m (Pro Hart)	1.15	174s	F	446m (Pro Hart)
Updated Stop Layout (No CSG)	0.32	25s	B	9m (Spofforth)	0.32	25s	B	9m (Spofforth)
Updated Stop Layout (with CSG)	0.59	40s	C	19m (Spofforth)	0.43	32s	C	12m (Spofforth)
2024 Scenario								
Updated Stop Layout (No CSG)	0.5	37s	C	15m (Spofforth)	0.5	36s	C	15m (Spofforth)
Updated Stop Layout (with CSG)	0.9	94s	F	41m (Spofforth)	0.68	54s	D	22m (Spofforth)
Single lane Signals (without CSG)	0.68	42s	C	130m (Pro Hart)	0.61	30s	C	66m (Pro Hart)
Single lane Signals (with CSG)	0.73	41s	C	145m (Pro Hart)	0.59	40s	C	99m (Pro Hart)
2025 Scenario								
Updated Stop Layout (No CSG)	1.42	475s	F	180m (Spofforth)	1.23	304s	F	146m (Spofforth)
Single lane Signals (No CSG)	0.78	58s	E	232m (Pro Hart)	0.64	33s	C	84m (Pro Hart)
Single lane Signals (with CSG)	0.82	61s	E	266m (Pro Hart)	0.7	37s	C	109m (Pro Hart)
2026 Scenario								
Single lane Signals (No CSG)	0.9	70s	E	465m (Pro Hart)	0.75	37s	C	105m (Pro Hart)
Single lane Signals (with CSG)	0.94	77s	F	583m (Pro Hart)	0.74	42s	C	145m (Pro Hart)

SIDRA Outputs for the above intersection modelling options have been attached to this Memo.

The following summarises the outcomes from the SIDRA analysis:

- Existing intersection configuration has capacity for current traffic volumes plus CSG traffic which is end 2022.
- By the end of 2023 the existing intersection does not have capacity with and without CSG. The intersection is likely to fail sometime during 2023. This means that upgrade works are considered necessary to implement in early 2023 prior to capacity being exceeded.
- The stop layout has capacity up to the end of 2024 and fails by the end of 2025. It is noted that this intersection failure is from longer queuing of traffic on Spofforth Street with traffic on Drake Brockman Drive and Pro Hart Ave not expected to be delayed. Traffic travelling south on Spofforth Street have opportunity to take alternative routes such as along Southern Cross Drive which would occur for a year before the Drake Brockman Drive upgrade works are completed. It is noted that this would only be a period of a year before the Drake Brockman Drive works are completed.
- The signalised intersection has capacity until the end of 2025 and fails by the end of 2026. This queuing and delay of the period of up to a year is not considered significant in the context of the Drake Brockman Drive duplication works being underway and almost being complete.
- Both Option 1 and 2 intersections operate poorly by the end of 2026.

The above implications need to be considered in relation to the timing of the Drake Brockman Drive upgrade works which will change traffic conditions progressively as works progress. The Drake Brockman Drive works are proposed to commence in mid-2024 and to be completed by the end of 2026. The through lanes of the Drake Brockman Dr works is outside the footprint of the stop sign intersection but the signalised intersection lies partly within the Drake Brockman Dr works.

Based on the SIDRA analysis the following recommendations are proposed to be considered.

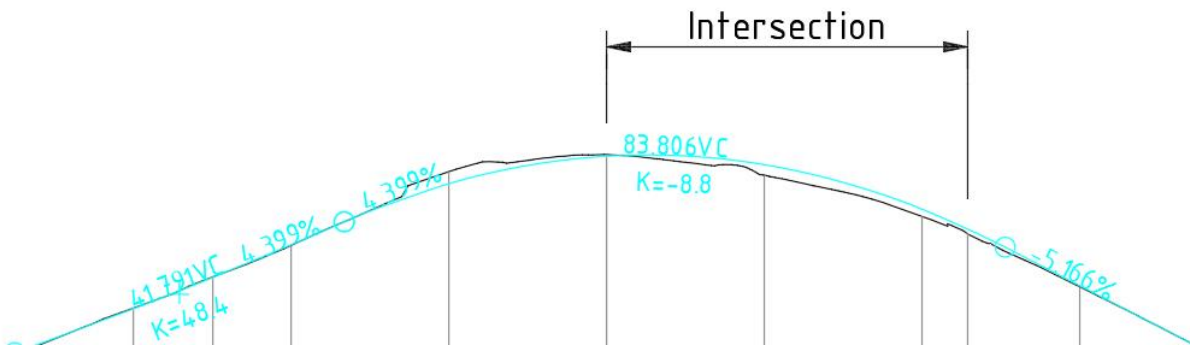
- Temporary intersection upgrade works be undertaken to provide intersection capacity for a number of years. These works should be implemented in early 2023 to be complete before the existing intersection exceeds capacity.
- Option 1 is the preferred option providing intersection performance improvement until the end of 2025 and is proposed for endorsement by TCCS and then for further investigation by Riverview and TCCS.
- Riverview consider Option 1 works footprint against the Drake Brockman Drive works to confirm that this option can allow the Drake Brockman Drive works to progress and be staged without causing significant project delays or additional project costs to the Stage 2 upgrade works. This should consider issues like services relocations, tie ins of the new road to existing road network, TTM arrangements.

## Vertical Geometry

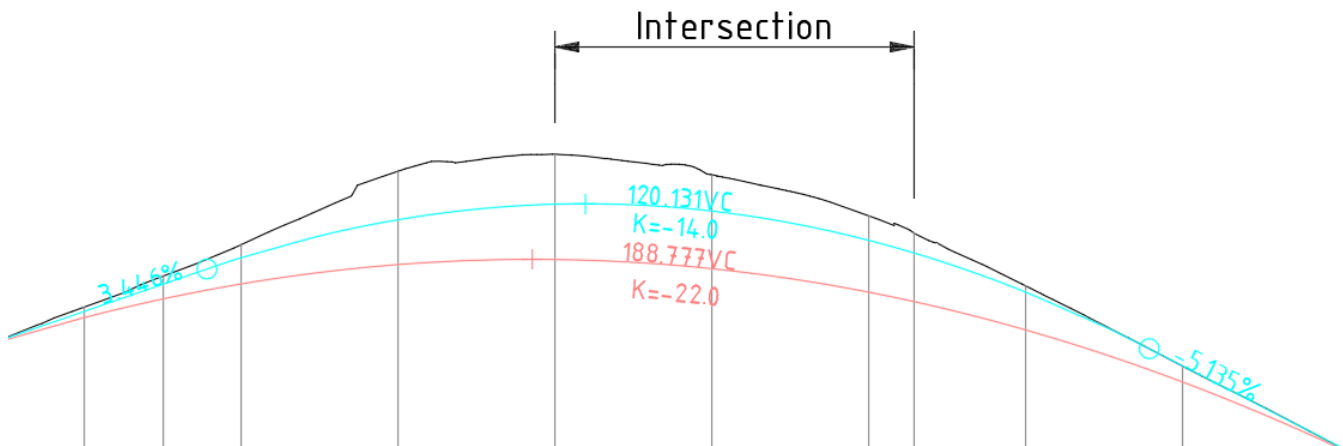
The existing vertical grading of the roads approaching this intersection have restricted sight distance due to the existing vertical grading. The following diagram shows the existing road grades along Drake Brockman Drive and Pro Hart Avenue through the existing intersection which would be applicable for a reprioritised intersection arrangement where Drake Brockman Drive and Pro Hart Ave were made the through road. Based on AustRoads Part 3 the Approach Sight Distance (ASD) (Table 3.1) K value of 8.8 for the existing intersection equates to a design speed of 40-50km/h (This situation is for the worst-case scenario i.e., traffic lights and streetlights not working). Based on AustRoads Part 3 the Safe Intersection Sight Distance (SISD) (Table 3.2) equates to 50km/h at 1.5 second reaction time (2 seconds is preferred).



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The following diagram shows how the vertical grading would need to be amended to meet AustRoads requirements for sight distance. This shows that the intersection would need to be lowered by several metres to provide compliant sight distance. This is the main reason that the Drake Brockman Drive upgrade works requires significant earthworks and road regrading to meet these AustRoads guidelines.



Safe Intersection Sight Distance (SISD) Table 3.2

K = 14, Design Speed = 60km/h, Cut = 0.5m (Cyan)  
 K = 22, Design Speed = 70km/h, Cut = 1.3m (Red)

Due to the vertical grading issues it is proposed that speed control devices such as speed cushions be placed on Drake Brockman Drive and Pro Hart Avenue on the approaches to the intersection to reduce vehicle speed to that which meets intersection sight distance requirements. Whilst this is not a preferred outcome for an intersection upgrade, this arrangement is considered to provide a safer intersection arrangement than the existing intersection once traffic volumes result in the intersection capacity being exceeded next year in 2023. It is noted that reducing vehicle speed will be a temporary arrangement for a number of years until the upgrade works are complete however, vehicles travelling east/west will have reduced delays as they will have priority through the intersection.

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It is noted that traffic signals have the advantage of being visible from a longer distance (assuming no outages) which may not require speed cushions to slow cars down.

## Bus routes

Transport Canberra regular bus route No. 44 runs along Drake Brockman Drive and Spofforth Street. This bus route will be impacted by the proposed works. During construction Option 1 will have minimal impact on existing pavement which will permit buses to continue operating during construction of Option 1. With Option 1 implemented the bus route would continue to operate well until 2025 when more significant queuing and traffic delays will occur on Spofforth Street in peak AM traffic. At all other times outside the AM peak this bus route should have minimal impact by the proposed Option 1 configuration.

The Strathnairn shuttle service 903 runs along Drake Brockman Drive and Pro Hart Avenue between Kippax and Strathnairn. This bus service would have minimal impact during construction of Option 1 and would have improved operation as Option 1 will provide priority to this bus service movement through the Spofforth Street intersection.

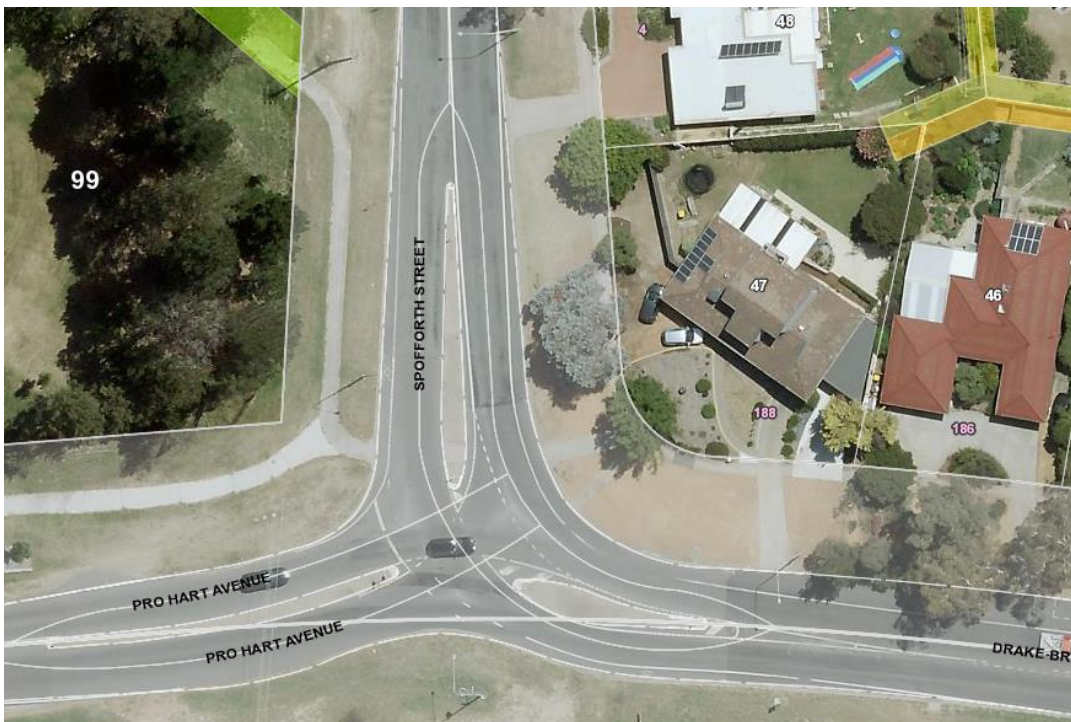
Existing bus stops are over 100m from this intersection and will not be affected by the proposed interim intersection works.

## Cyclists

Drake Brockman Drive, Pro Hart Avenue, Stockdill Drive, Spofforth Street and Britton Jones Drive are identified in Active Travel Practitioner Tool as Principle Cycle Training Routes. These roads are currently not identified as an onroad cycle route. Refer to below excerpt from Active Travel Practitioner Tool. Currently training cycle groups would utilise the road lanes and this typically occurs outside peak AM and PM times.



Drake Brockman Drive, Pro Hart Avenue and Spofforth Street do not have linemarked on road cycle lanes, with the exception of cycle lanes linemarked around the 90 degree bend between Drake Brockman Drive and Spofforth Street as shown on following photograph.



Given that onroad cycling is not provided on Brake Brockman Drive, Pro Hart Avenue or Spofforth Street it is proposed to not provide onroad cycling through the interim intersection. The proposed speed control devices on Drake Brockman Drive and Pro Hart Avenue to reduce vehicle speed on the approach to the intersection to about 40km/hr will improve cyclist safety.

## Pedestrians

The following excerpt from the Active Travel Practitioner Tool identifies no existing nominated pedestrian routes near this intersection. From the aerial photo of the existing intersection above it can be seen that the existing path in this area is along the northern verge of Drake Brockman Drive and Pro Hart Ave and both verges of Spofforth Street. The proposed interim intersection will retain these existing paths and road crossing points and not require any works to these paths.

It is noted that recreational walking occurs on the southern verge of Drake Brockman Drive. A pedestrian path crossing could be provided across the interim intersection to facilitate this crossing with median island pram ramps for safer crossing, however, this will not occur once the duplication works commence in 18 months time. The proposed speed control devices on Drake Brockman Drive and Pro Hart Avenue to reduce vehicle speed to about 40km/hr on the approach to the intersection will also improve pedestrian safety.

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## Horse access

The BNT runs along the southern verge of Drake Brockman Drive. The interim intersection works do not affect this trail.

## Construction cost

Indicative opinion of construction costs for the two options are:

- Stop sign intersection \$450,000
- Traffic Light intersection \$1,200,000

## Next Steps

- We seek TCCS endorsement to an interim intersection upgrade to be implemented in early 2023. Option 1 is proposed for this interim upgrade.
- We seek TCCS endorsement to an interim upgrade solution that does not meet AustRoads sight distance requirements, on the basis of speed control devices being utilised to reduce vehicle speed on the approach to the intersection such that sight distance requirements can be met.
- Subject to TCCS endorsement of the above, Riverview to consider Option 1 against the Drake Brockman Drive project works for consideration of staging, footprint impact, impact on project cost, timing of works and TTM's. Provide summary advice to TCCS of recommended intersection type.
- TCCS to provide advice on whether a DA is required for the interim intersection works.
- TCCS to notify key stakeholders regarding the proposed interim intersection works.
- Depending on the outcomes of the above, Riverview to then prepare detailed design of the recommended and TCCS endorsed intersection upgrade for formal Letter of Design Review by TCCS. TCCS to provide advice on any specific aspects to be incorporated into the design.

# USER REPORT FOR SITE

## All Movement Classes

 Project: DBD Options\_Sensitivity Analysis\_Rev02

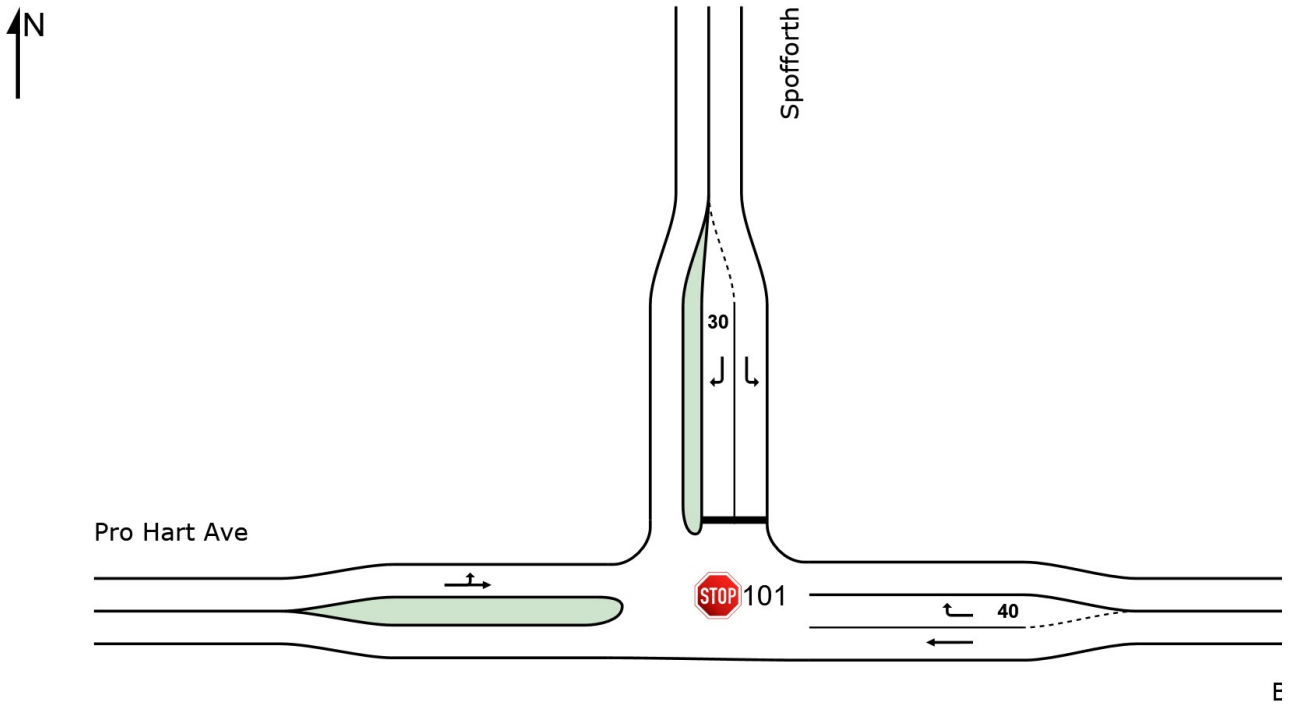
Template: Site User Report

 Site: 101 [DBD Options Stop Control - 2025 AM (Site Folder: End of 2025 Scenarios)]

New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	320	5.0	337	5.0	0.177	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	57	5.0	60	5.0	0.144	14.1	LOS A	0.5	3.7	0.79	0.91	0.79	47.4
Approach		377	5.0	397	5.0	0.177	2.2	NA	0.5	3.7	0.12	0.14	0.12	57.6
North: Spofforth														
7	L2	97	5.0	102	5.0	0.335	21.8	LOS B	1.3	9.1	0.84	1.05	1.03	44.2
9	R2	99	5.0	104	5.0	1.422	474.7	LOS F	24.6	179.7	1.00	2.38	6.92	6.6
Approach		196	5.0	206	5.0	1.422	250.6	LOS F	24.6	179.7	0.92	1.72	4.01	11.4
West: Pro Hart Ave														
10	L2	29	5.0	31	5.0	0.528	5.8	LOS A	0.0	0.0	0.00	0.02	0.00	57.6
11	T1	926	5.0	975	5.0	0.528	0.2	LOS A	0.0	0.0	0.00	0.02	0.00	59.4
Approach		955	5.0	1005	5.0	0.528	0.4	NA	0.0	0.0	0.00	0.02	0.00	59.3
All Vehicles		1528	5.0	1608	5.0	1.422	32.9	NA	24.6	179.7	0.15	0.27	0.54	38.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	337	5.0	1908	0.177	100	0.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	60	5.0	416	0.144	100	14.1	LOS A	0.5	3.7	Short	40	0.0	NA
Approach	397	5.0		0.177		2.2	NA	0.5	3.7				
North: Spofforth													
Lane 1	102	5.0	305	0.335	100	21.8	LOS B	1.3	9.1	Full	500	0.0	0.0
Lane 2	104	5.0	73	1.422	100	474.7	LOS F	24.6	179.7	Short	30	0.0	NA
Approach	206	5.0		1.422		250.6	LOS F	24.6	179.7				
West: Pro Hart Ave													
Lane 1	1005	5.0	1905	0.528	100	0.4	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	1005	5.0		0.528		0.4	NA	0.0	0.0				
Intersection	1608	5.0		1.422		32.9	NA	24.6	179.7				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

Queue Model: SIDRA Standard.

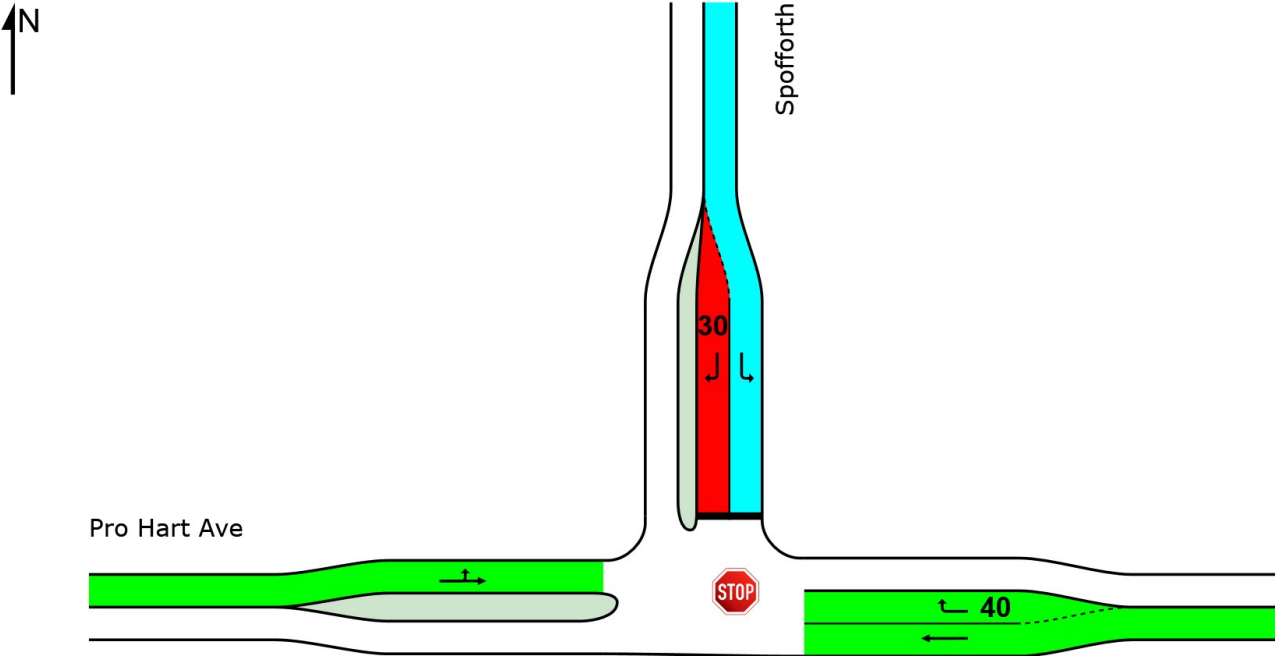
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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



## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	F	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

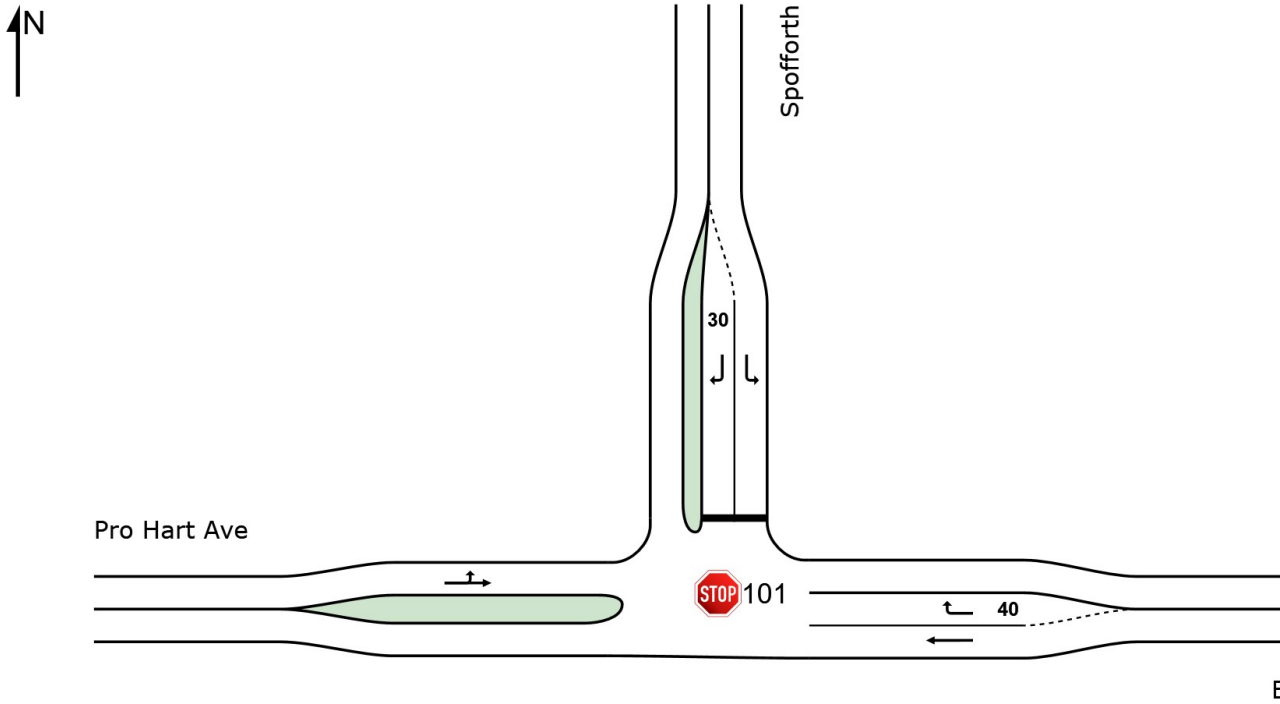


 **Site: 101 [DBD Options Stop Control - 2025 PM (Site Folder: End of 2025 Scenarios)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	695	5.0	732	5.0	0.383	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
6	R2	118	5.0	124	5.0	0.129	8.2	LOS A	0.5	4.0	0.55	0.74	0.55	51.3
Approach		813	5.0	856	5.0	0.383	1.3	NA	0.5	4.0	0.08	0.11	0.08	58.4
North: Spofforth														
7	L2	37	5.0	39	5.0	0.047	10.6	LOS A	0.2	1.3	0.49	0.90	0.49	50.5
9	R2	115	5.0	121	5.0	1.233	303.7	LOS F	20.0	146.2	1.00	2.26	6.28	9.8
Approach		152	5.0	160	5.0	1.233	232.4	LOS F	20.0	146.2	0.87	1.93	4.87	12.2
West: Pro Hart Ave														
10	L2	86	5.0	91	5.0	0.289	5.7	LOS A	0.0	0.0	0.00	0.10	0.00	57.1
11	T1	433	5.0	456	5.0	0.289	0.1	LOS A	0.0	0.0	0.00	0.10	0.00	58.9
Approach		519	5.0	546	5.0	0.289	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.6
All Vehicles		1484	5.0	1562	5.0	1.233	24.9	NA	20.0	146.2	0.13	0.29	0.54	42.1

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: BDB													
Lane 1	732	5.0	1908	0.383	100	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	124	5.0	961	0.129	100	8.2	LOS A	0.5	4.0	Short	40	0.0	NA
Approach	856	5.0		0.383		1.3	NA	0.5	4.0				
North: Spofforth													
Lane 1	39	5.0	828	0.047	100	10.6	LOS A	0.2	1.3	Full	500	0.0	0.0
Lane 2	121	5.0	98	1.233	100	303.7	LOS F	20.0	146.2	Short	30	0.0	NA
Approach	160	5.0		1.233		232.4	LOS F	20.0	146.2				
West: Pro Hart Ave													
Lane 1	546	5.0	1892	0.289	100	1.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	546	5.0		0.289		1.0	NA	0.0	0.0				
Intersection	1562	5.0		1.233		24.9	NA	20.0	146.2				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

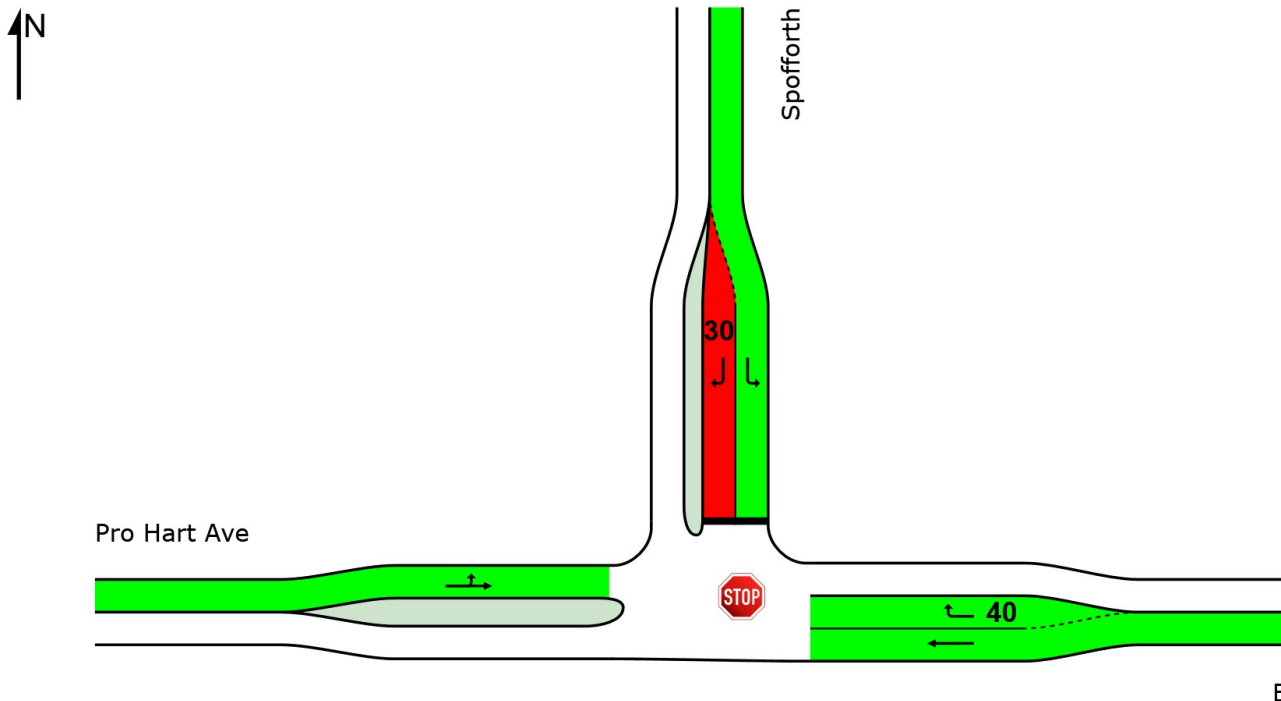
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	F	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



# USER REPORT FOR SITE

## All Movement Classes

Project: DBD Options\_Sensitivity Analysis\_Rev02

Template: Site User Report

### Site: 101v [DBD Options Signal Control Single Lane - 2025 AM (Site Folder: End of 2025 Scenarios)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 95 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

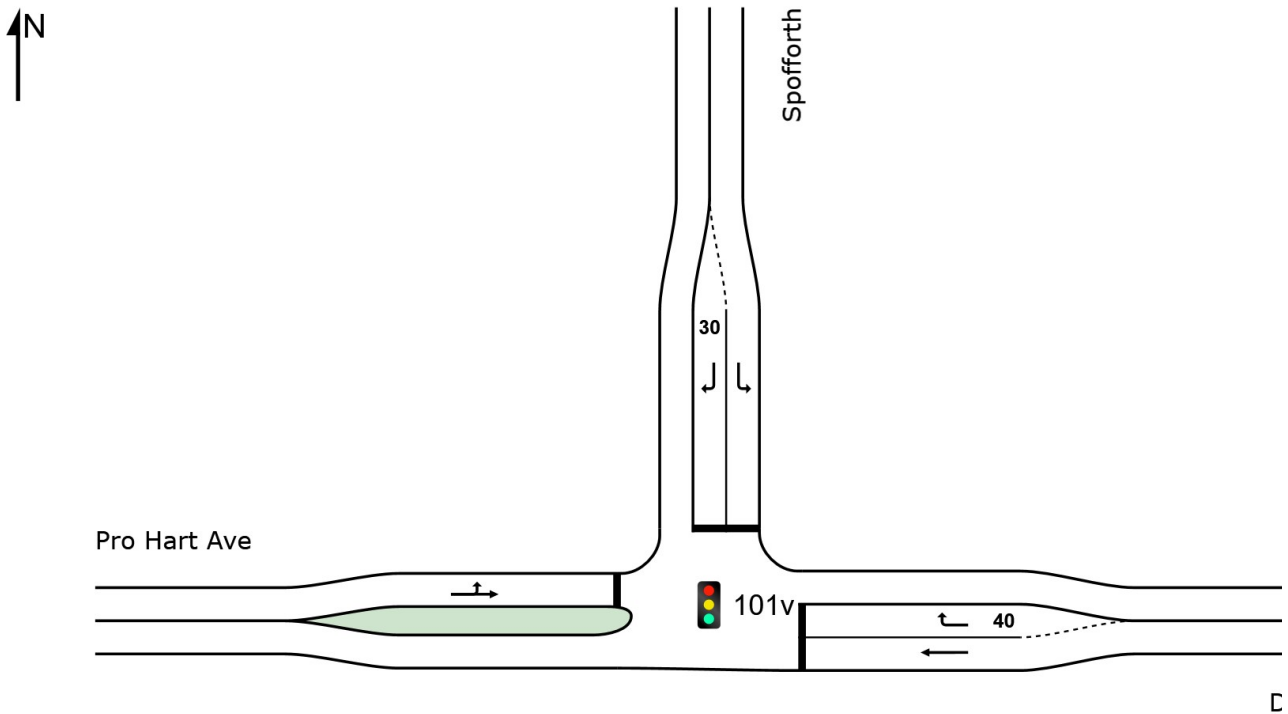
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

## Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	320	5.0	337	5.0	0.221	2.4	LOS A	3.7	27.1	0.26	0.23	0.26	57.7
6	R2	57	5.0	60	5.0	* 0.524	55.8	LOS D	2.9	21.3	1.00	0.76	1.02	30.7
Approach		377	5.0	397	5.0	0.524	10.5	LOS A	3.7	27.1	0.37	0.31	0.38	50.9
North: Spofforth														
7	L2	97	5.0	102	5.0	0.282	40.9	LOS C	4.1	29.9	0.89	0.77	0.89	35.2
9	R2	99	5.0	104	5.0	* 0.781	58.3	LOS E	5.3	38.8	1.00	0.88	1.29	30.0
Approach		196	5.0	206	5.0	0.781	49.7	LOS D	5.3	38.8	0.95	0.83	1.09	32.4
West: Pro Hart Ave														
10	L2	29	5.0	31	5.0	0.783	17.0	LOS B	31.8	232.4	0.75	0.70	0.75	49.1
11	T1	926	5.0	975	5.0	* 0.783	11.4	LOS A	31.8	232.4	0.75	0.70	0.75	50.4
Approach		955	5.0	1005	5.0	0.783	11.6	LOS A	31.8	232.4	0.75	0.70	0.75	50.4
All Vehicles		1528	5.0	1608	5.0	0.783	16.2	LOS B	31.8	232.4	0.68	0.62	0.70	47.1

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	337	5.0	1527	0.221	100	2.4	LOS A	3.7	27.1	Full	500	0.0	0.0
Lane 2	60	5.0	114	0.524	100	55.8	LOS D	2.9	21.3	Short	40	0.0	NA
Approach	397	5.0		0.524		10.5	LOS A	3.7	27.1				
North: Spofforth													
Lane 1	102	5.0	362	0.282	100	40.9	LOS C	4.1	29.9	Full	500	0.0	0.0
Lane 2	104	5.0	134	0.781	100	58.3	LOS E	5.3	38.8	Short	30	0.0	NA
Approach	206	5.0		0.781		49.7	LOS D	5.3	38.8				
West: Pro Hart Ave													
Lane 1	1005	5.0	1283	0.783	100	11.6	LOS A	31.8	232.4	Full	500	0.0	0.0
Approach	1005	5.0		0.783		11.6	LOS A	31.8	232.4				
Intersection	1608	5.0		0.783		16.2	LOS B	31.8	232.4				

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

Lane LOS values are based on average delay per lane.

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

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

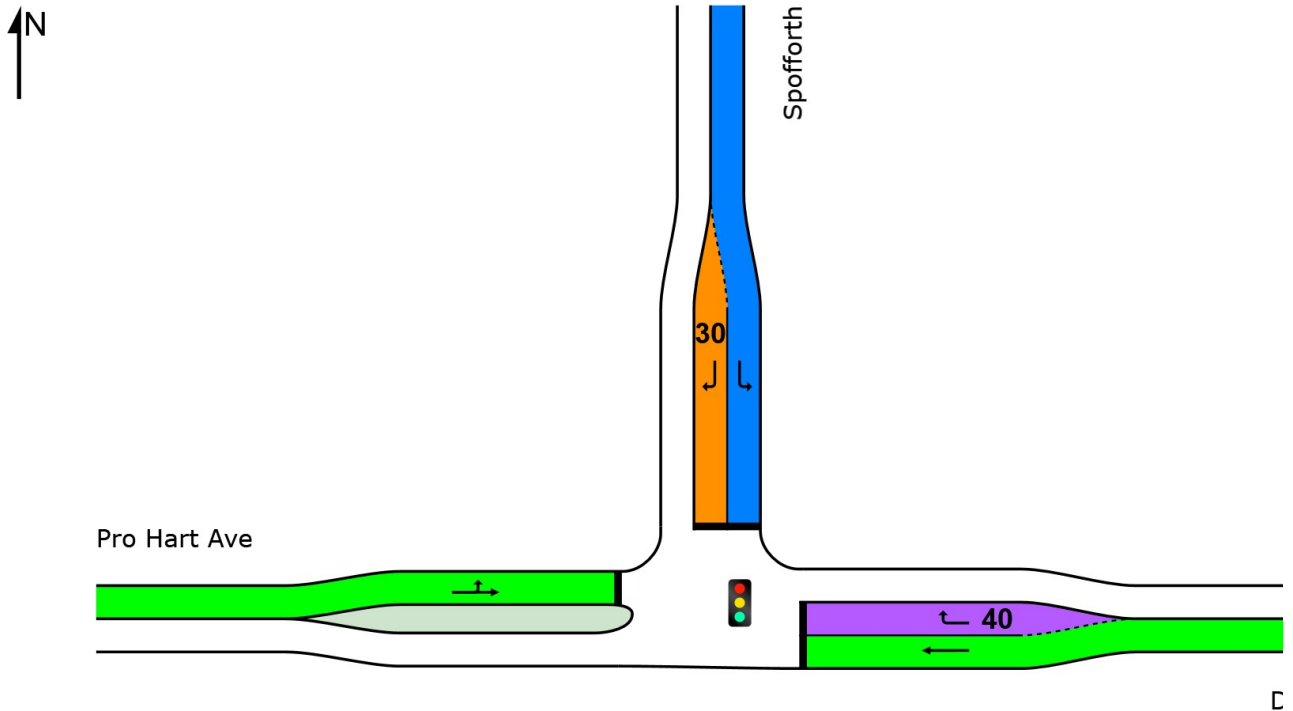
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	D	A	B



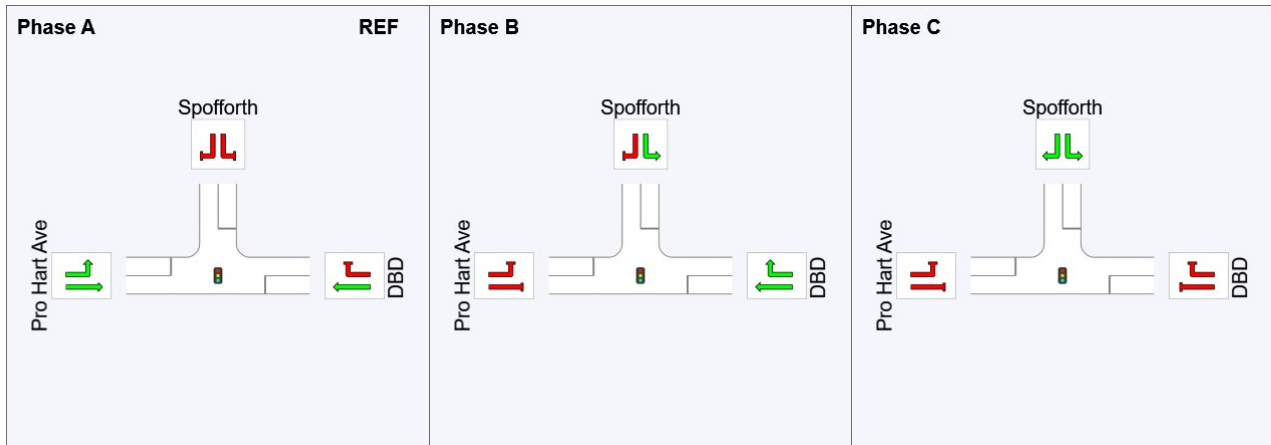
C

Colour code based on Level of Service

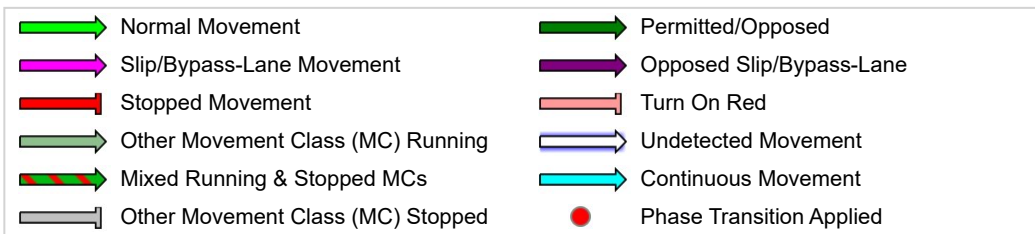


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	70	82
Green Time (sec)	64	6	7
Phase Time (sec)	70	12	13
Phase Split	74%	13%	14%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

**Site: 101v [DBD Options Signal Control Single Lane - 2025 PM (Site Folder: End of 2025 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 55 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

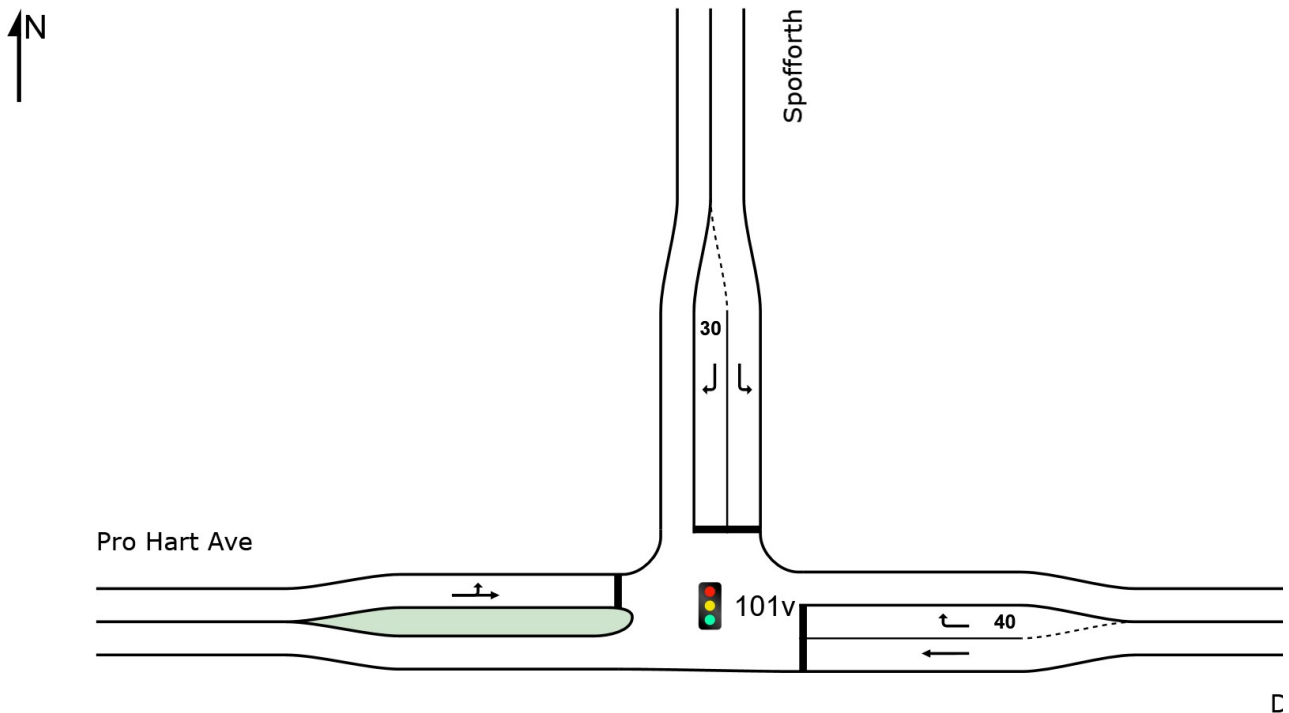
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	695	5.0	732	5.0	0.640	5.2	LOS A	10.5	76.5	0.57	0.51	0.57	55.3
6	R2	118	5.0	124	5.0	* 0.628	33.7	LOS C	3.5	25.9	1.00	0.83	1.12	37.8
Approach		813	5.0	856	5.0	0.640	9.3	LOS A	10.5	76.5	0.63	0.56	0.65	51.8
North: Spofforth														
7	L2	37	5.0	39	5.0	0.066	19.5	LOS B	0.7	5.3	0.72	0.70	0.72	44.4
9	R2	115	5.0	121	5.0	* 0.612	33.5	LOS C	3.4	25.1	1.00	0.82	1.10	37.7
Approach		152	5.0	160	5.0	0.612	30.1	LOS C	3.4	25.1	0.93	0.79	1.01	39.1
West: Pro Hart Ave														
10	L2	86	5.0	91	5.0	0.635	18.2	LOS B	11.5	83.7	0.82	0.74	0.82	47.8
11	T1	433	5.0	456	5.0	* 0.635	12.6	LOS A	11.5	83.7	0.82	0.74	0.82	49.1
Approach		519	5.0	546	5.0	0.635	13.6	LOS A	11.5	83.7	0.82	0.74	0.82	48.9
All Vehicles		1484	5.0	1562	5.0	0.640	12.9	LOS A	11.5	83.7	0.73	0.65	0.75	49.1

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	732	5.0	1143 <sup>1</sup>	0.640	100	5.2	LOS A	10.5	76.5	Full	500	0.0	0.0
Lane 2	124	5.0	198	0.628	100	33.7	LOS C	3.5	25.9	Short	40	0.0	NA
Approach	856	5.0		0.640		9.3	LOS A	10.5	76.5				
North: Spofforth													
Lane 1	39	5.0	593	0.066	100	19.5	LOS B	0.7	5.3	Full	500	0.0	0.0
Lane 2	121	5.0	198	0.612	100	33.5	LOS C	3.4	25.1	Short	30	0.0	NA
Approach	160	5.0		0.612		30.1	LOS C	3.4	25.1				
West: Pro Hart Ave													
Lane 1	546	5.0	860	0.635	100	13.6	LOS A	11.5	83.7	Full	500	0.0	0.0
Approach	546	5.0		0.635		13.6	LOS A	11.5	83.7				
Intersection	1562	5.0		0.640		12.9	LOS A	11.5	83.7				

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

Lane LOS values are based on average delay per lane.

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

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

Queue Model: SIDRA Standard.

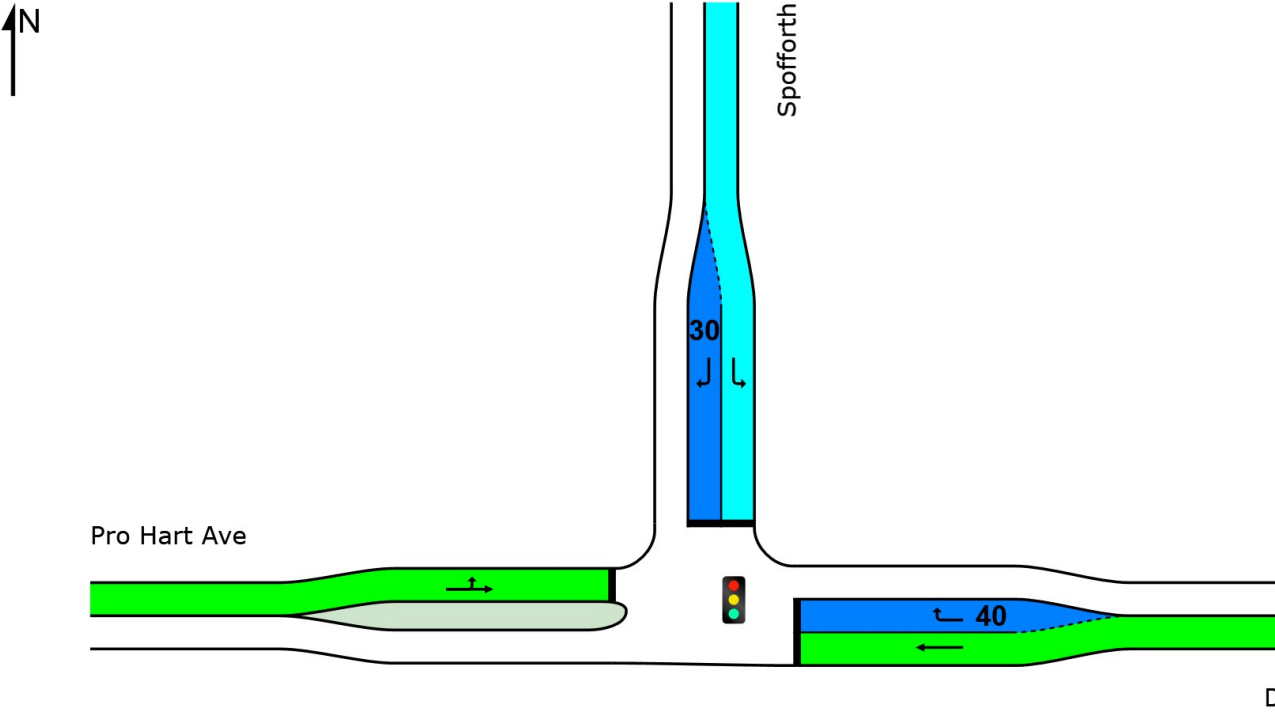
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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

<sup>1</sup> Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	C	A	A



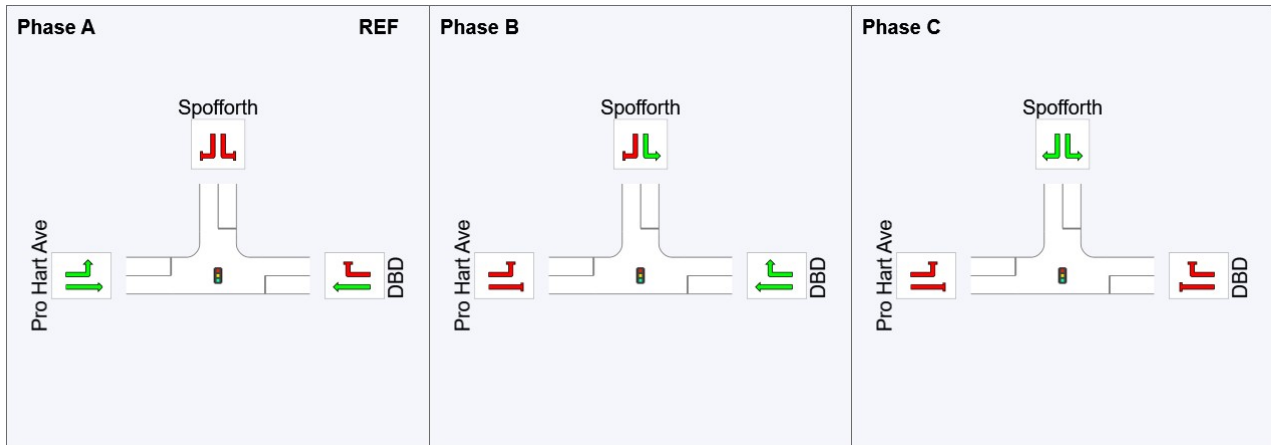
Colour code based on Level of Service



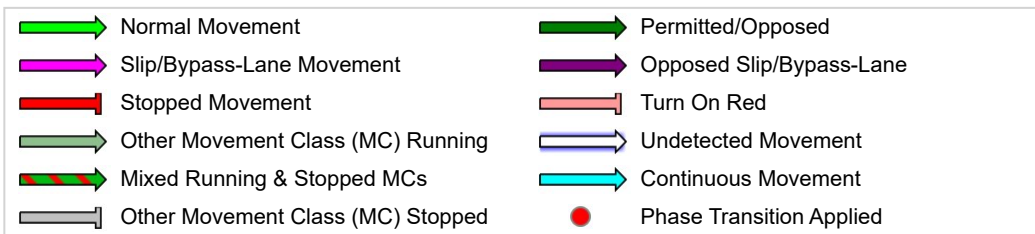
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	31	43
Green Time (sec)	25	6	6
Phase Time (sec)	31	12	12
Phase Split	56%	22%	22%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

**Site: 101v [DBD Options Signal Control Single Lane - 2025 AM + CSG (Site Folder: End of 2025 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

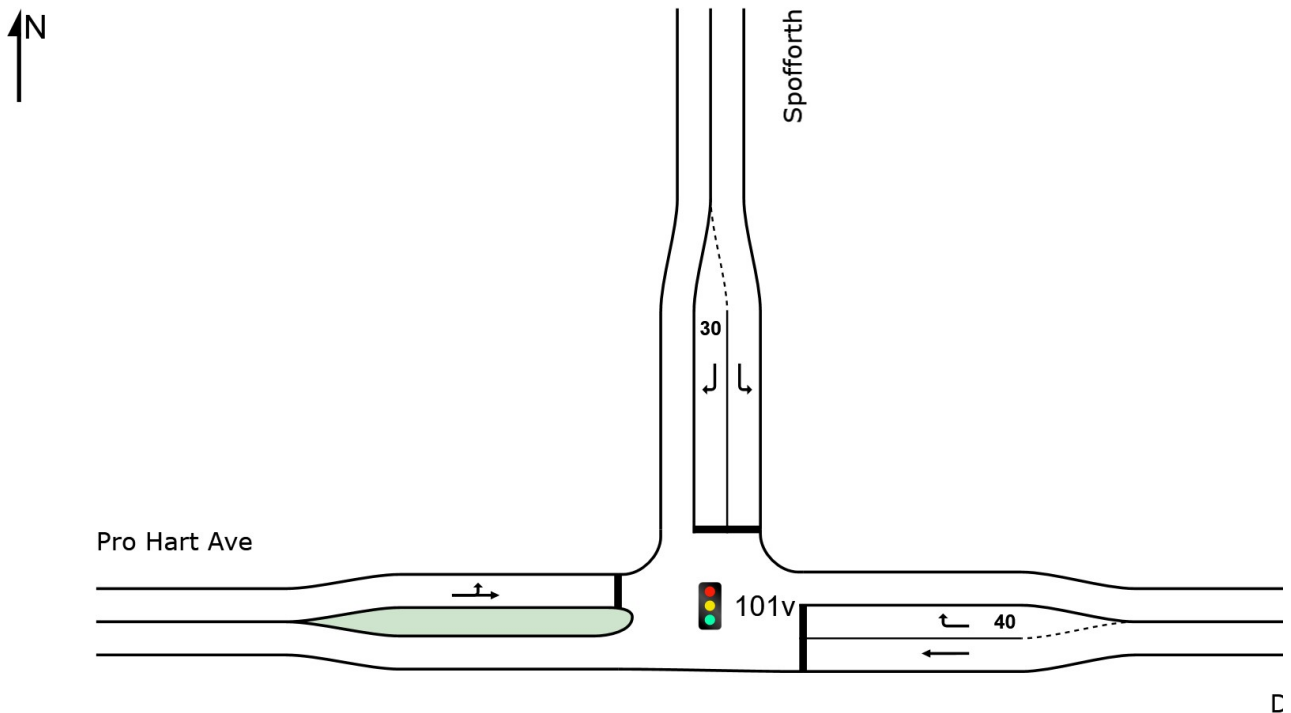
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	426	5.0	448	5.0	0.297	3.0	LOS A	5.9	42.9	0.30	0.26	0.30	57.1
6	R2	57	5.0	60	5.0	* 0.552	58.9	LOS E	3.1	22.5	1.00	0.77	1.04	30.0
Approach		483	5.0	508	5.0	0.552	9.6	LOS A	5.9	42.9	0.38	0.32	0.38	51.6
North: Spofforth														
7	L2	97	5.0	102	5.0	0.268	41.7	LOS C	4.2	30.9	0.88	0.77	0.88	35.0
9	R2	126	5.0	133	5.0	* 0.813	60.6	LOS E	7.1	52.0	1.00	0.90	1.30	29.4
Approach		223	5.0	235	5.0	0.813	52.4	LOS D	7.1	52.0	0.95	0.84	1.12	31.6
West: Pro Hart Ave														
10	L2	36	5.0	38	5.0	0.816	18.4	LOS B	36.5	266.6	0.79	0.74	0.79	48.2
11	T1	953	5.0	1003	5.0	* 0.816	12.8	LOS A	36.5	266.6	0.79	0.74	0.79	49.5
Approach		989	5.0	1041	5.0	0.816	13.0	LOS A	36.5	266.6	0.79	0.74	0.79	49.4
All Vehicles		1695	5.0	1784	5.0	0.816	17.2	LOS B	36.5	266.6	0.69	0.64	0.72	46.5

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	448	5.0	1508	0.297	100	3.0	LOS A	5.9	42.9	Full	500	0.0	0.0
Lane 2	60	5.0	109	0.552	100	58.9	LOS E	3.1	22.5	Short	40	0.0	NA
Approach	508	5.0		0.552		9.6	LOS A	5.9	42.9				
North: Spofforth													
Lane 1	102	5.0	380	0.268	100	41.7	LOS C	4.2	30.9	Full	500	0.0	0.0
Lane 2	133	5.0	163	0.813	100	60.6	LOS E	7.1	52.0	Short	30	0.0	NA
Approach	235	5.0		0.813		52.4	LOS D	7.1	52.0				
West: Pro Hart Ave													
Lane 1	1041	5.0	1276	0.816	100	13.0	LOS A	36.5	266.6	Full	500	0.0	0.0
Approach	1041	5.0		0.816		13.0	LOS A	36.5	266.6				
Intersection	1784	5.0		0.816		17.2	LOS B	36.5	266.6				

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

Lane LOS values are based on average delay per lane.

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

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

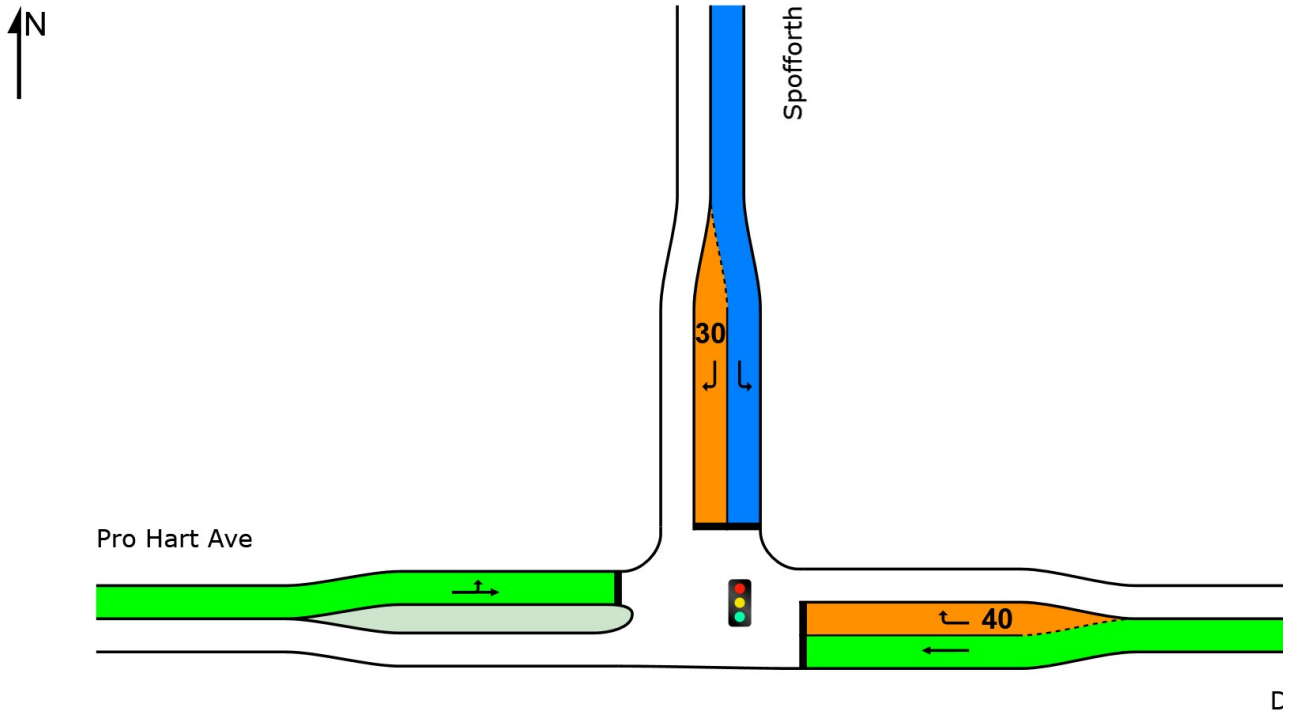
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	D	A	B

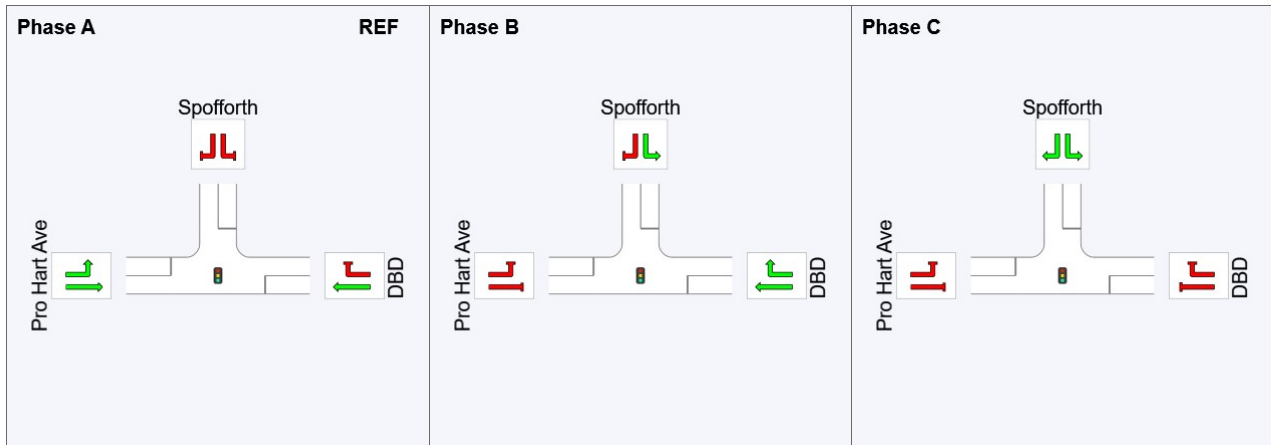


Colour code based on Level of Service

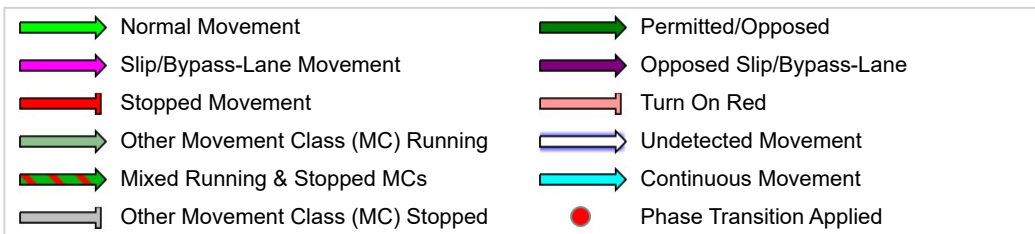


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	73	85
Green Time (sec)	67	6	9
Phase Time (sec)	73	12	15
Phase Split	73%	12%	15%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

**Site: 101v [DBD Options Signal Control Single Lane - 2025 PM + CSG (Site Folder: End of 2025 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

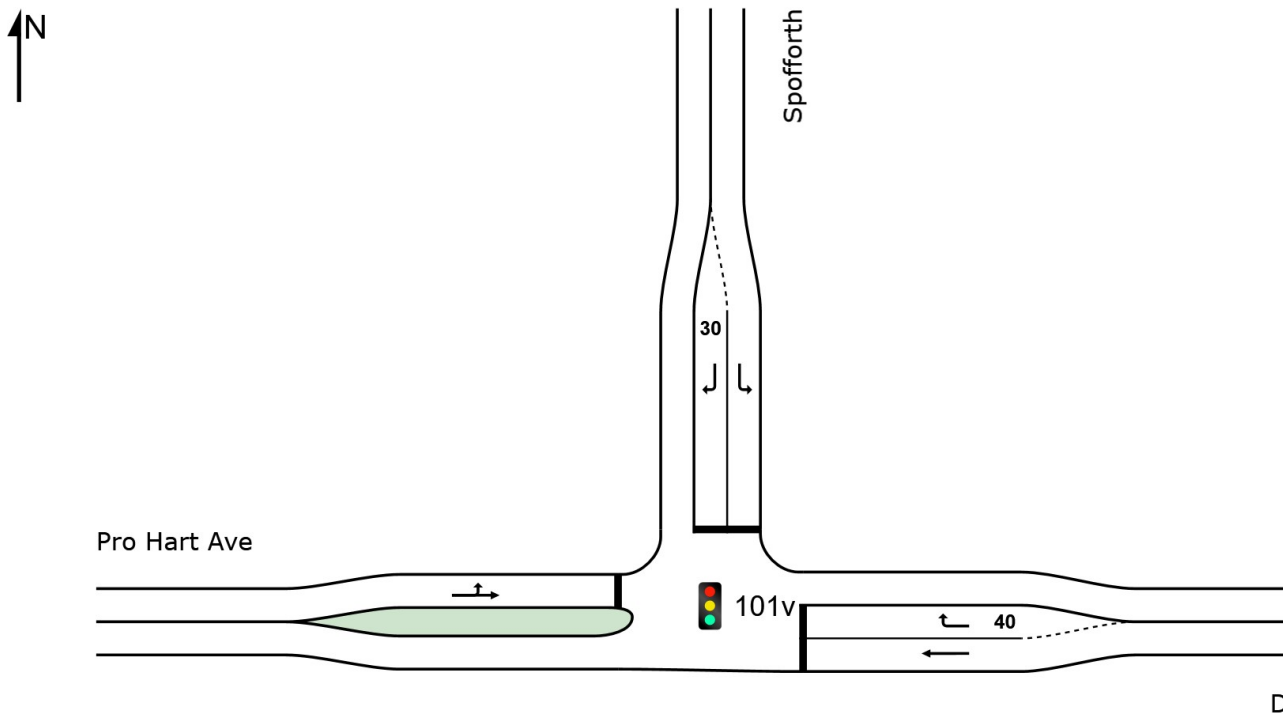
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	716	5.0	754	5.0	0.635	4.8	LOS A	10.9	79.9	0.54	0.48	0.54	55.6
6	R2	118	5.0	124	5.0	* 0.686	37.3	LOS C	3.9	28.7	1.00	0.85	1.19	36.4
Approach		834	5.0	878	5.0	0.686	9.4	LOS A	10.9	79.9	0.60	0.54	0.63	51.7
North: Spofforth														
7	L2	37	5.0	39	5.0	0.072	22.0	LOS B	0.8	6.0	0.74	0.70	0.74	43.1
9	R2	120	5.0	126	5.0	* 0.697	37.4	LOS C	4.0	29.3	1.00	0.86	1.21	36.2
Approach		157	5.0	165	5.0	0.697	33.8	LOS C	4.0	29.3	0.94	0.82	1.10	37.6
West: Pro Hart Ave														
10	L2	107	5.0	113	5.0	0.696	18.2	LOS B	15.0	109.4	0.82	0.75	0.83	47.8
11	T1	518	5.0	545	5.0	* 0.696	12.6	LOS A	15.0	109.4	0.82	0.75	0.83	49.1
Approach		625	5.0	658	5.0	0.696	13.5	LOS A	15.0	109.4	0.82	0.75	0.83	48.9
All Vehicles		1616	5.0	1701	5.0	0.697	13.4	LOS A	15.0	109.4	0.72	0.65	0.75	48.9

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

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

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

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.

\* Critical Movement (Signal Timing)



Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	754	5.0	1187 <sup>1</sup>	0.635	100	4.8	LOS A	10.9	79.9	Full	500	0.0	0.0
Lane 2	124	5.0	181	0.686	100	37.3	LOS C	3.9	28.7	Short	40	0.0	NA
Approach	878	5.0		0.686		9.4	LOS A	10.9	79.9				
North: Spofforth													
Lane 1	39	5.0	544	0.072	100	22.0	LOS B	0.8	6.0	Full	500	0.0	0.0
Lane 2	126	5.0	181	0.697	100	37.4	LOS C	4.0	29.3	Short	30	0.0	NA
Approach	165	5.0		0.697		33.8	LOS C	4.0	29.3				
West: Pro Hart Ave													
Lane 1	658	5.0	946	0.696	100	13.5	LOS A	15.0	109.4	Full	500	0.0	0.0
Approach	658	5.0		0.696		13.5	LOS A	15.0	109.4				
Intersection	1701	5.0		0.697		13.4	LOS A	15.0	109.4				

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

Lane LOS values are based on average delay per lane.

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

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

Queue Model: SIDRA Standard.

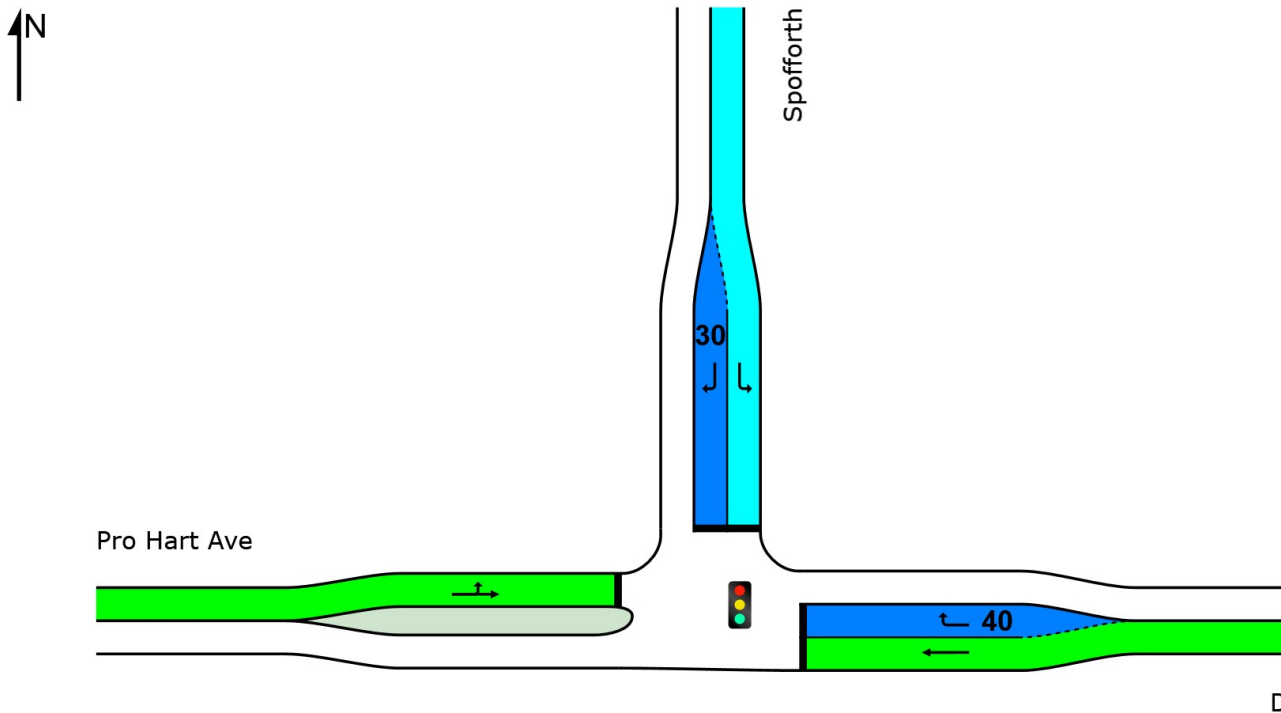
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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

- <sup>1</sup> Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	C	A	A

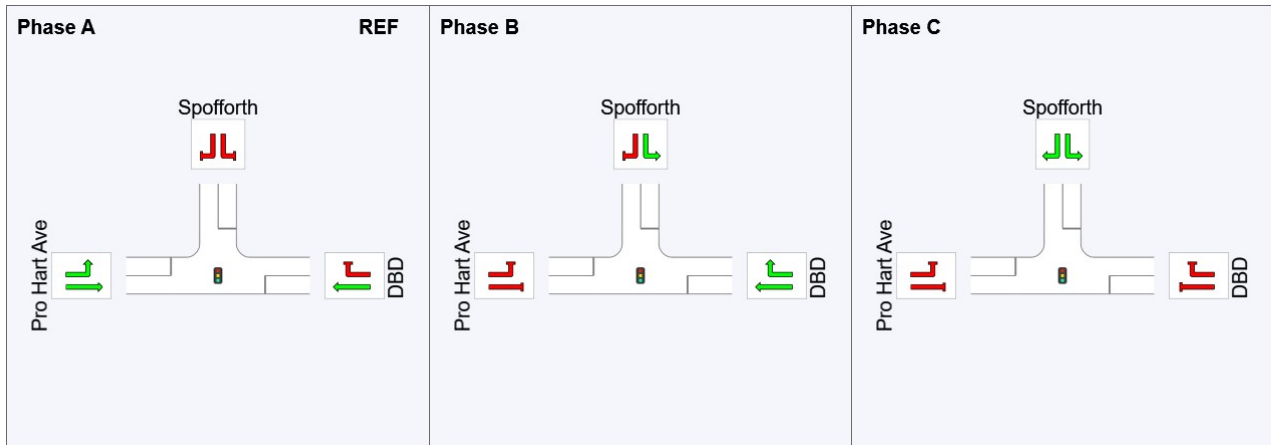


Colour code based on Level of Service

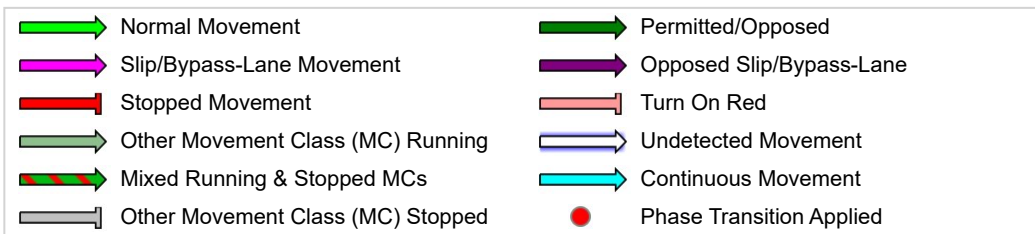


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	36	48
Green Time (sec)	30	6	6
Phase Time (sec)	36	12	12
Phase Split	60%	20%	20%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

# USER REPORT FOR SITE

## All Movement Classes

Project: DBD Options\_Sensitivity Analysis\_Rev02

Template: Site User Report

Site: 101v [DBD Options Signal Control Single Lane - 2026 AM (Site Folder: End of 2026 Scenarios)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Convert Function Default

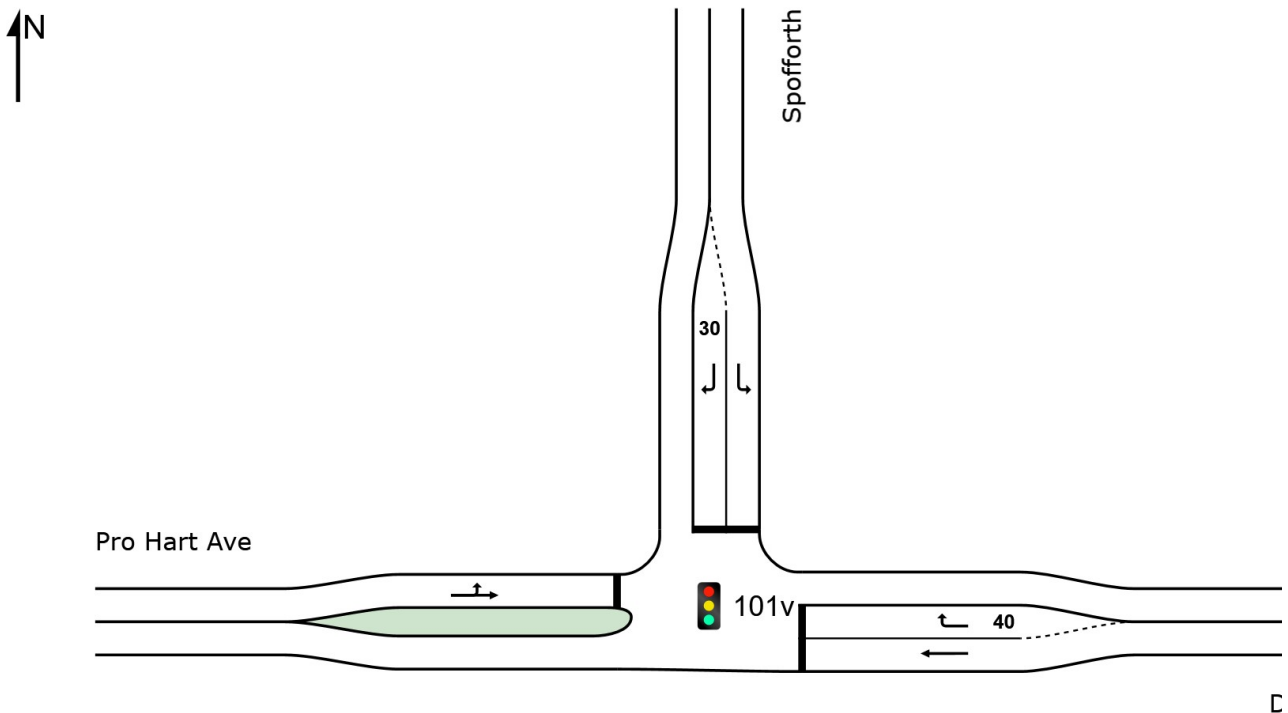
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	358	5.0	377	5.0	0.242	2.6	LOS A	4.9	35.8	0.25	0.22	0.25	57.5
6	R2	57	5.0	60	5.0	* 0.568	69.1	LOS E	3.7	26.8	1.00	0.77	1.04	27.6
Approach		415	5.0	437	5.0	0.568	11.8	LOS A	4.9	35.8	0.35	0.29	0.35	50.1
North: Spofforth														
7	L2	97	5.0	102	5.0	0.294	50.8	LOS D	5.2	37.8	0.90	0.77	0.90	32.2
9	R2	111	5.0	117	5.0	* 0.774	69.5	LOS E	7.3	53.4	1.00	0.86	1.21	27.4
Approach		208	5.0	219	5.0	0.774	60.8	LOS E	7.3	53.4	0.95	0.82	1.07	29.5
West: Pro Hart Ave														
10	L2	35	5.0	37	5.0	0.902	27.5	LOS B	63.7	464.7	0.88	0.88	0.94	43.0
11	T1	1121	5.0	1180	5.0	* 0.902	21.9	LOS B	63.7	464.7	0.88	0.88	0.94	44.0
Approach		1156	5.0	1217	5.0	0.902	22.1	LOS B	63.7	464.7	0.88	0.88	0.94	44.0
All Vehicles		1779	5.0	1873	5.0	0.902	24.2	LOS B	63.7	464.7	0.77	0.74	0.82	42.7

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	377	5.0	1558	0.242	100	2.6	LOS A	4.9	35.8	Full	500	0.0	0.0
Lane 2	60	5.0	106	0.568	100	69.1	LOS E	3.7	26.8	Short	40	0.0	NA
Approach	437	5.0		0.568		11.8	LOS A	4.9	35.8				
North: Spofforth													
Lane 1	102	5.0	347	0.294	100	50.8	LOS D	5.2	37.8	Full	500	0.0	0.0
Lane 2	117	5.0	151	0.774	100	69.5	LOS E	7.3	53.4	Short	30	0.0	NA
Approach	219	5.0		0.774		60.8	LOS E	7.3	53.4				
West: Pro Hart Ave													
Lane 1	1217	5.0	1350	0.902	100	22.1	LOS B	63.7	464.7	Full	500	0.0	0.0
Approach	1217	5.0		0.902		22.1	LOS B	63.7	464.7				
Intersection	1873	5.0		0.902		24.2	LOS B	63.7	464.7				

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

Lane LOS values are based on average delay per lane.

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

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

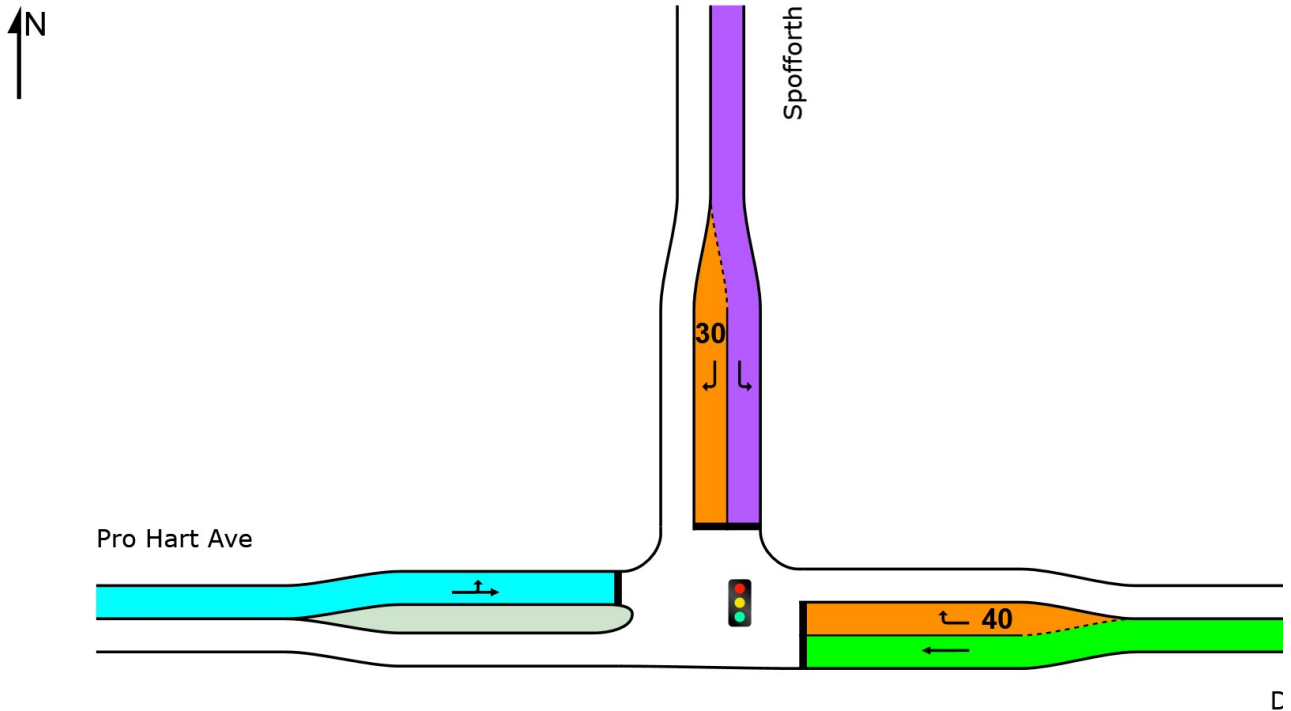
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
A	E	B	B	B

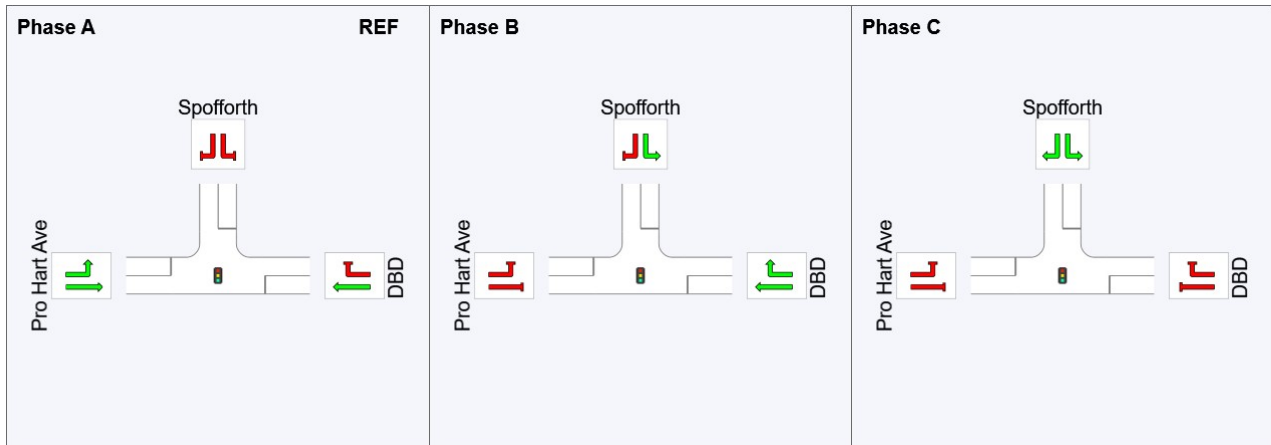


Colour code based on Level of Service

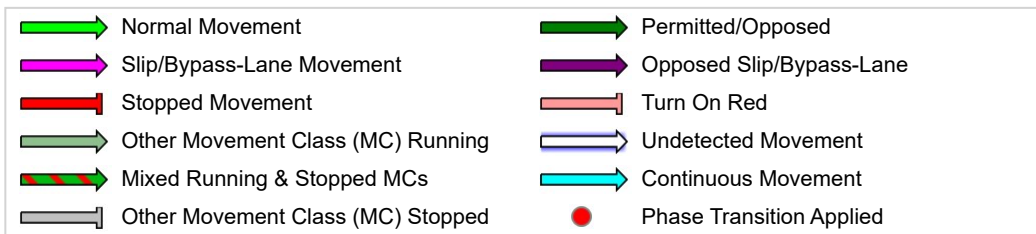


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	91	104
Green Time (sec)	85	7	10
Phase Time (sec)	91	13	16
Phase Split	76%	11%	13%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



**Site: 101v [DBD Options Signal Control Single Lane - 2026 PM (Site Folder: End of 2026 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

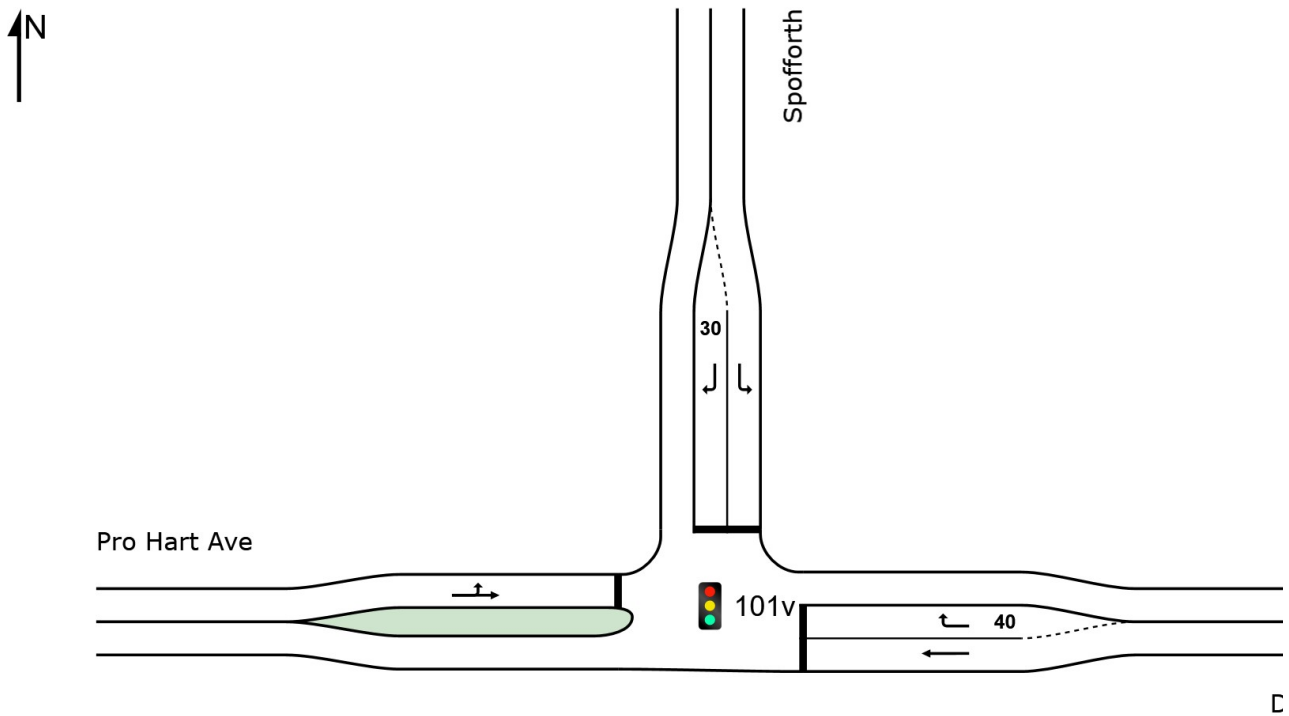
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	845	5.0	889	5.0	* 0.754	7.0	LOS A	16.3	118.8	0.64	0.61	0.67	53.8
6	R2	118	5.0	124	5.0	0.686	37.3	LOS C	3.9	28.7	1.00	0.85	1.19	36.4
Approach		963	5.0	1014	5.0	0.754	10.7	LOS A	16.3	118.8	0.69	0.64	0.73	50.8
North: Spofforth														
7	L2	37	5.0	39	5.0	0.068	21.2	LOS B	0.8	5.9	0.73	0.70	0.73	43.5
9	R2	140	5.0	147	5.0	* 0.697	36.4	LOS C	4.6	33.8	1.00	0.86	1.18	36.5
Approach		177	5.0	186	5.0	0.697	33.2	LOS C	4.6	33.8	0.94	0.83	1.09	37.8
West: Pro Hart Ave														
10	L2	99	5.0	104	5.0	0.685	18.7	LOS B	14.4	104.9	0.83	0.75	0.83	47.5
11	T1	496	5.0	522	5.0	0.685	13.1	LOS A	14.4	104.9	0.83	0.75	0.83	48.8
Approach		595	5.0	626	5.0	0.685	14.0	LOS A	14.4	104.9	0.83	0.75	0.83	48.6
All Vehicles		1735	5.0	1826	5.0	0.754	14.1	LOS A	16.3	118.8	0.76	0.70	0.80	48.4

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	889	5.0	1179 <sup>1</sup>	0.754	100	7.0	LOS A	16.3	118.8	Full	500	0.0	0.0
Lane 2	124	5.0	181	0.686	100	37.3	LOS C	3.9	28.7	Short	40	0.0	NA
Approach	1014	5.0		0.754		10.7	LOS A	16.3	118.8				
North: Spofforth													
Lane 1	39	5.0	574	0.068	100	21.2	LOS B	0.8	5.9	Full	500	0.0	0.0
Lane 2	147	5.0	211	0.697	100	36.4	LOS C	4.6	33.8	Short	30	0.0	NA
Approach	186	5.0		0.697		33.2	LOS C	4.6	33.8				
West: Pro Hart Ave													
Lane 1	626	5.0	914	0.685	100	14.0	LOS A	14.4	104.9	Full	500	0.0	0.0
Approach	626	5.0		0.685		14.0	LOS A	14.4	104.9				
Intersection	1826	5.0		0.754		14.1	LOS A	16.3	118.8				

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

Lane LOS values are based on average delay per lane.

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

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

Queue Model: SIDRA Standard.

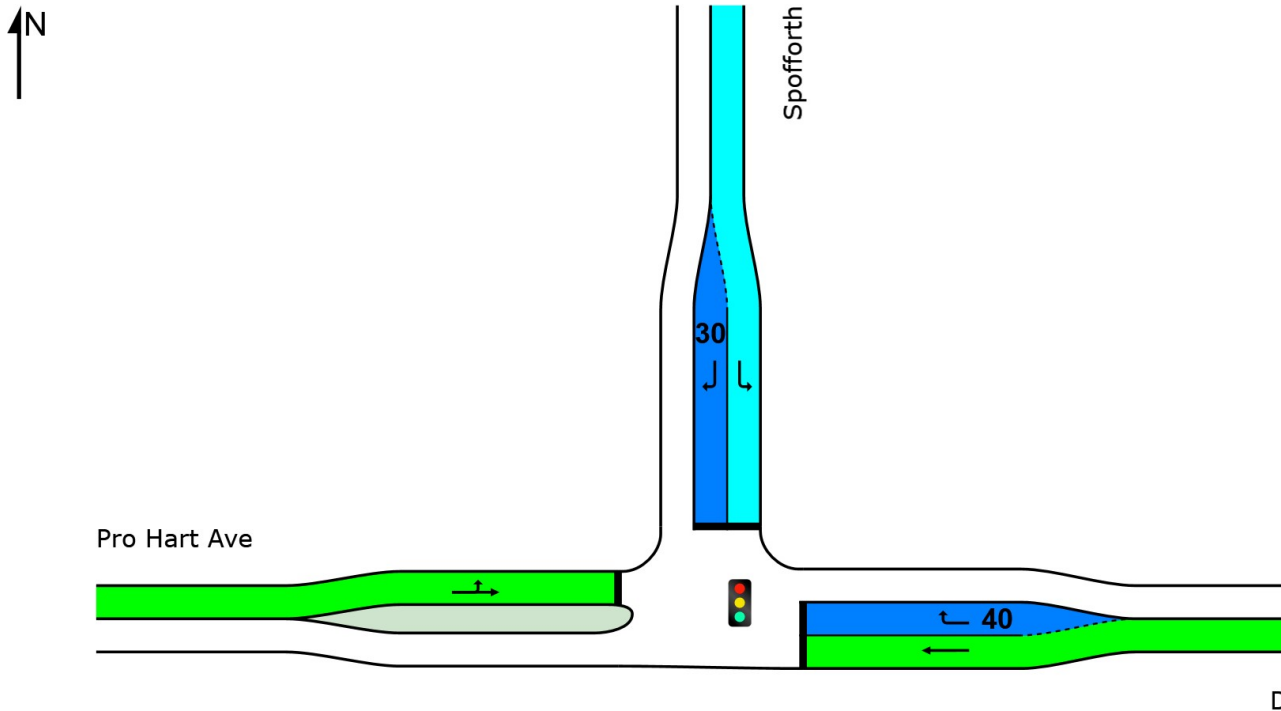
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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

- <sup>1</sup> Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	C	A	A

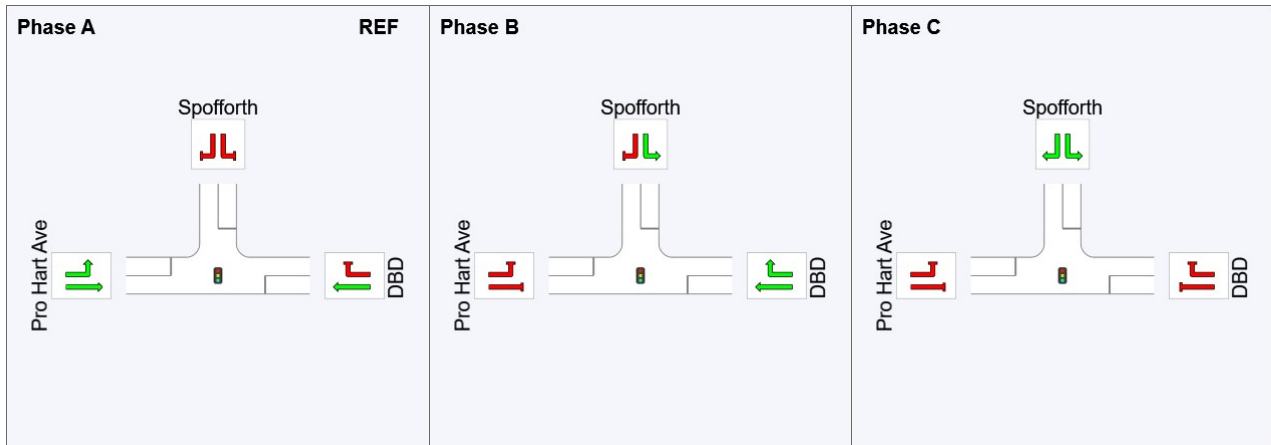


Colour code based on Level of Service

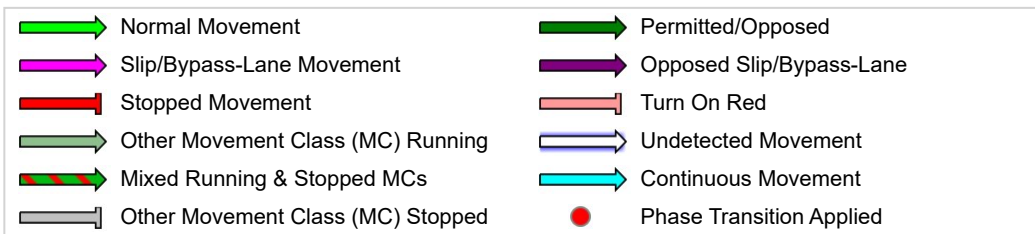


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	35	47
Green Time (sec)	29	6	7
Phase Time (sec)	35	12	13
Phase Split	58%	20%	22%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

**Site: 101v [DBD Options Signal Control Single Lane - 2026 AM + CSG (Site Folder: End of 2026 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

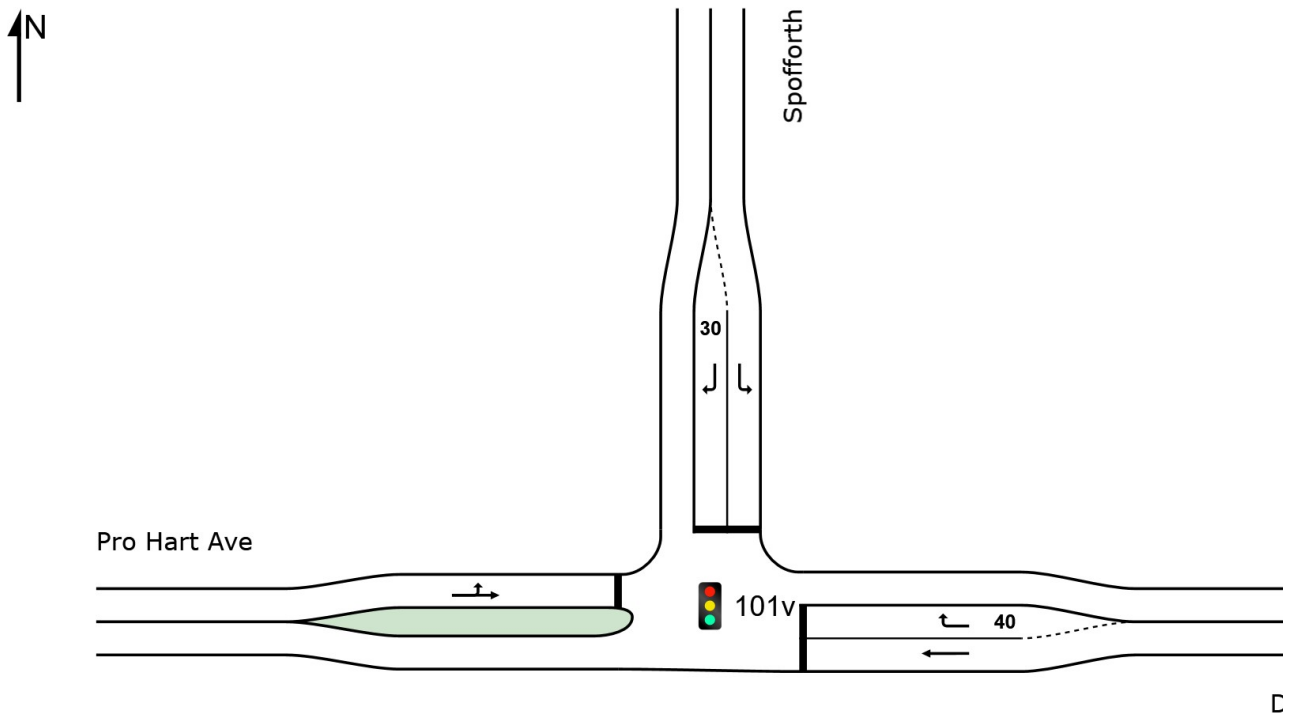
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	464	5.0	488	5.0	0.320	3.4	LOS A	7.5	54.7	0.29	0.26	0.29	56.8
6	R2	57	5.0	60	5.0	* 0.662	71.5	LOS F	3.8	27.5	1.00	0.80	1.14	27.1
Approach		521	5.0	548	5.0	0.662	10.8	LOS A	7.5	54.7	0.37	0.32	0.38	50.8
North: Spofforth														
7	L2	97	5.0	102	5.0	0.282	49.8	LOS D	5.1	37.3	0.89	0.77	0.89	32.5
9	R2	138	5.0	145	5.0	* 0.900	76.8	LOS F	9.8	71.4	1.00	0.97	1.46	26.0
Approach		235	5.0	247	5.0	0.900	65.7	LOS E	9.8	71.4	0.95	0.89	1.23	28.3
West: Pro Hart Ave														
10	L2	42	5.0	44	5.0	0.940	40.1	LOS C	79.9	583.3	0.96	1.02	1.10	37.4
11	T1	1148	5.0	1208	5.0	* 0.940	34.5	LOS C	79.9	583.3	0.96	1.02	1.10	38.2
Approach		1190	5.0	1253	5.0	0.940	34.7	LOS C	79.9	583.3	0.96	1.02	1.10	38.2
All Vehicles		1946	5.0	2048	5.0	0.940	32.1	LOS C	79.9	583.3	0.80	0.82	0.92	39.1

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	488	5.0	1527	0.320	100	3.4	LOS A	7.5	54.7	Full	500	0.0	0.0
Lane 2	60	5.0	91	0.662	100	71.5	LOS F	3.8	27.5	Short	40	0.0	NA
Approach	548	5.0		0.662		10.8	LOS A	7.5	54.7				
North: Spofforth													
Lane 1	102	5.0	362	0.282	100	49.8	LOS D	5.1	37.3	Full	500	0.0	0.0
Lane 2	145	5.0	161 <sup>1</sup>	0.900	100	76.8	LOS F	9.8	71.4	Short	30	0.0	NA
Approach	247	5.0		0.900		65.7	LOS E	9.8	71.4				
West: Pro Hart Ave													
Lane 1	1253	5.0	1333	0.940	100	34.7	LOS C	79.9	583.3	Full	500	0.0	19.0
Approach	1253	5.0		0.940		34.7	LOS C	79.9	583.3				
Intersection	2048	5.0		0.940		32.1	LOS C	79.9	583.3				

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

Lane LOS values are based on average delay per lane.

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

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

Queue Model: SIDRA Standard.

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

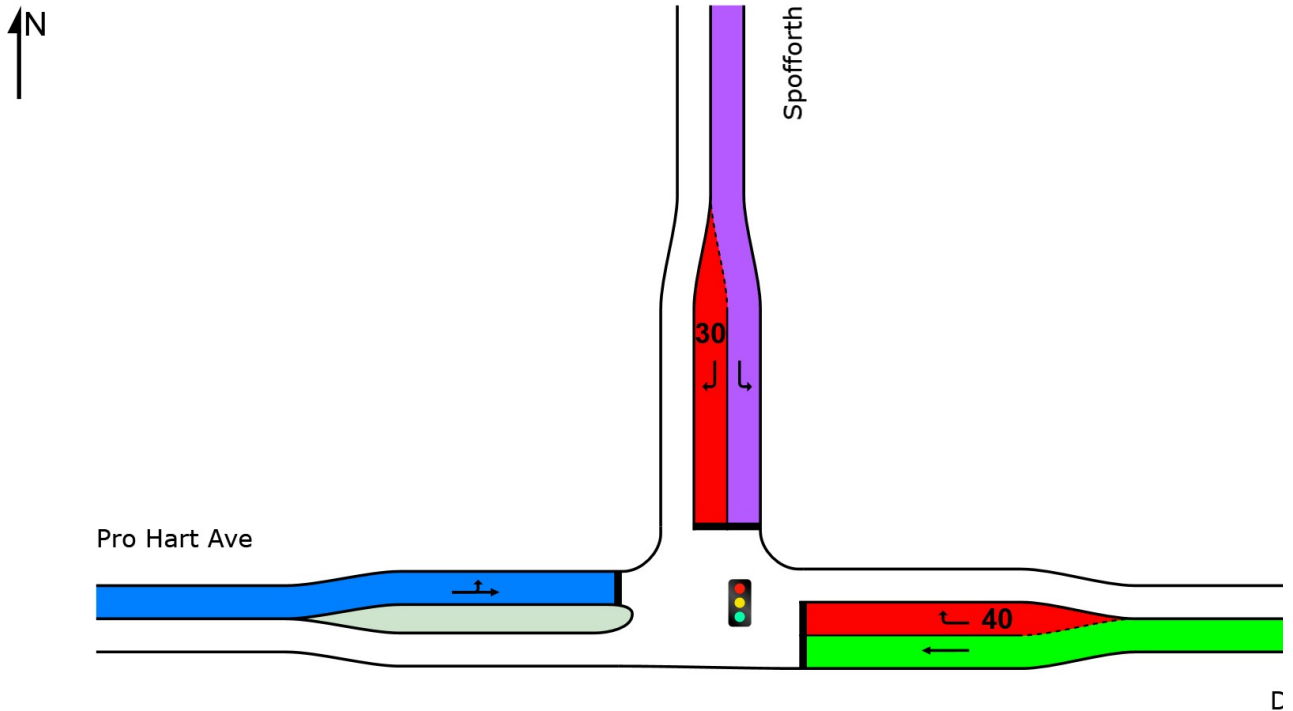
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

<sup>1</sup> Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.



## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	E	C	C

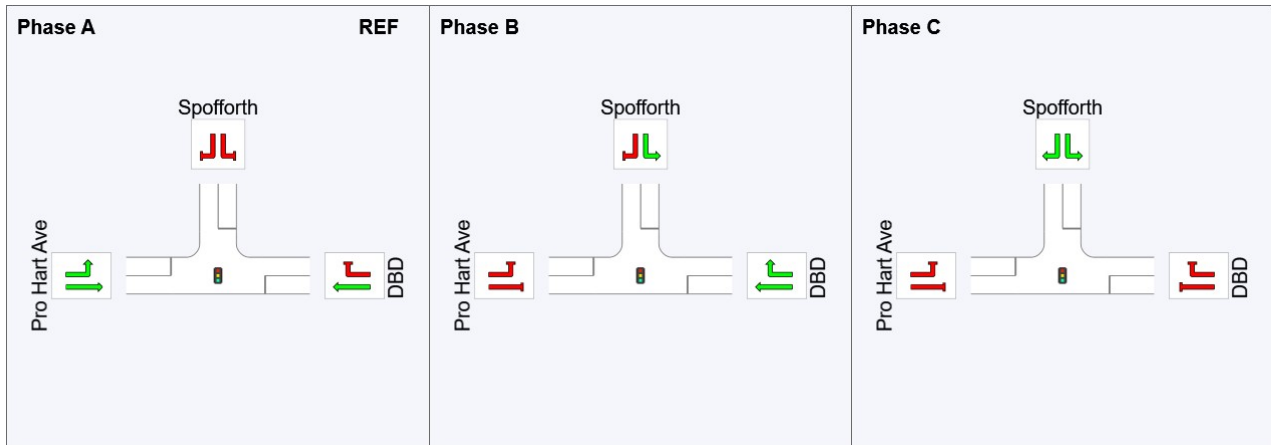


Colour code based on Level of Service

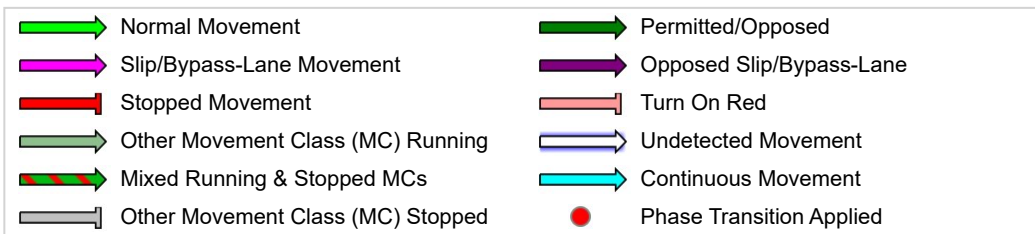


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	90	102
Green Time (sec)	84	6	12
Phase Time (sec)	90	12	18
Phase Split	75%	10%	15%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

**Site: 101v [DBD Options Signal Control Single Lane - 2026 PM + CSG (Site Folder: End of 2026 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

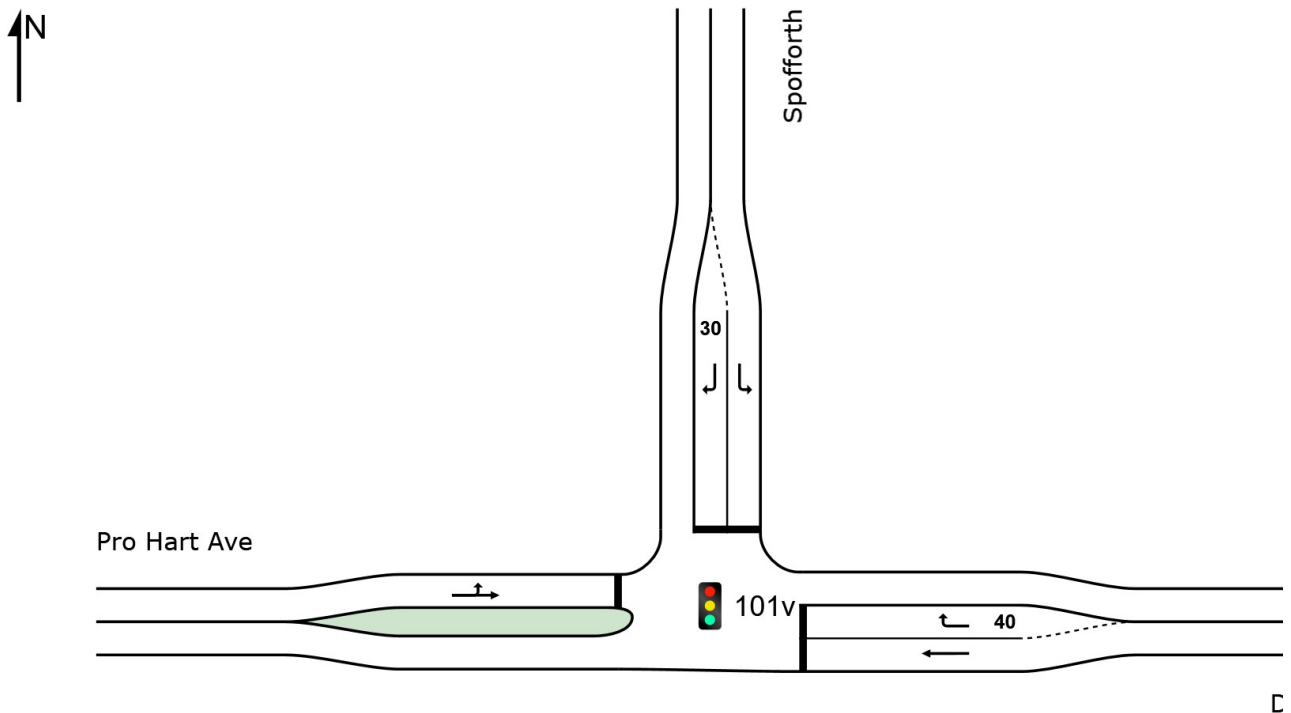
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	866	5.0	912	5.0	0.743	5.9	LOS A	17.0	123.9	0.59	0.54	0.59	54.7
6	R2	118	5.0	124	5.0	* 0.686	42.0	LOS C	4.5	33.1	1.00	0.85	1.16	34.8
Approach		984	5.0	1036	5.0	0.743	10.2	LOS A	17.0	123.9	0.64	0.58	0.66	51.2
North: Spofforth														
7	L2	37	5.0	39	5.0	0.072	24.6	LOS B	1.0	7.0	0.74	0.70	0.74	41.8
9	R2	145	5.0	153	5.0	* 0.737	42.0	LOS C	5.6	41.0	1.00	0.88	1.22	34.6
Approach		182	5.0	192	5.0	0.737	38.4	LOS C	5.6	41.0	0.95	0.84	1.12	35.9
West: Pro Hart Ave														
10	L2	120	5.0	126	5.0	0.738	19.8	LOS B	19.9	145.1	0.83	0.78	0.84	46.8
11	T1	581	5.0	612	5.0	* 0.738	14.2	LOS A	19.9	145.1	0.83	0.78	0.84	48.0
Approach		701	5.0	738	5.0	0.738	15.2	LOS B	19.9	145.1	0.83	0.78	0.84	47.8
All Vehicles		1867	5.0	1965	5.0	0.743	14.8	LOS B	19.9	145.1	0.74	0.68	0.77	47.9

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	912	5.0	1227 <sup>1</sup>	0.743	100	5.9	LOS A	17.0	123.9	Full	500	0.0	0.0
Lane 2	124	5.0	181	0.686	100	42.0	LOS C	4.5	33.1	Short	40	0.0	NA
Approach	1036	5.0		0.743		10.2	LOS A	17.0	123.9				
North: Spofforth													
Lane 1	39	5.0	544	0.072	100	24.6	LOS B	1.0	7.0	Full	500	0.0	0.0
Lane 2	153	5.0	207	0.737	100	42.0	LOS C	5.6	41.0	Short	30	0.0	NA
Approach	192	5.0		0.737		38.4	LOS C	5.6	41.0				
West: Pro Hart Ave													
Lane 1	738	5.0	1000	0.738	100	15.2	LOS B	19.9	145.1	Full	500	0.0	0.0
Approach	738	5.0		0.738		15.2	LOS B	19.9	145.1				
Intersection	1965	5.0		0.743		14.8	LOS B	19.9	145.1				

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

Lane LOS values are based on average delay per lane.

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

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

Queue Model: SIDRA Standard.

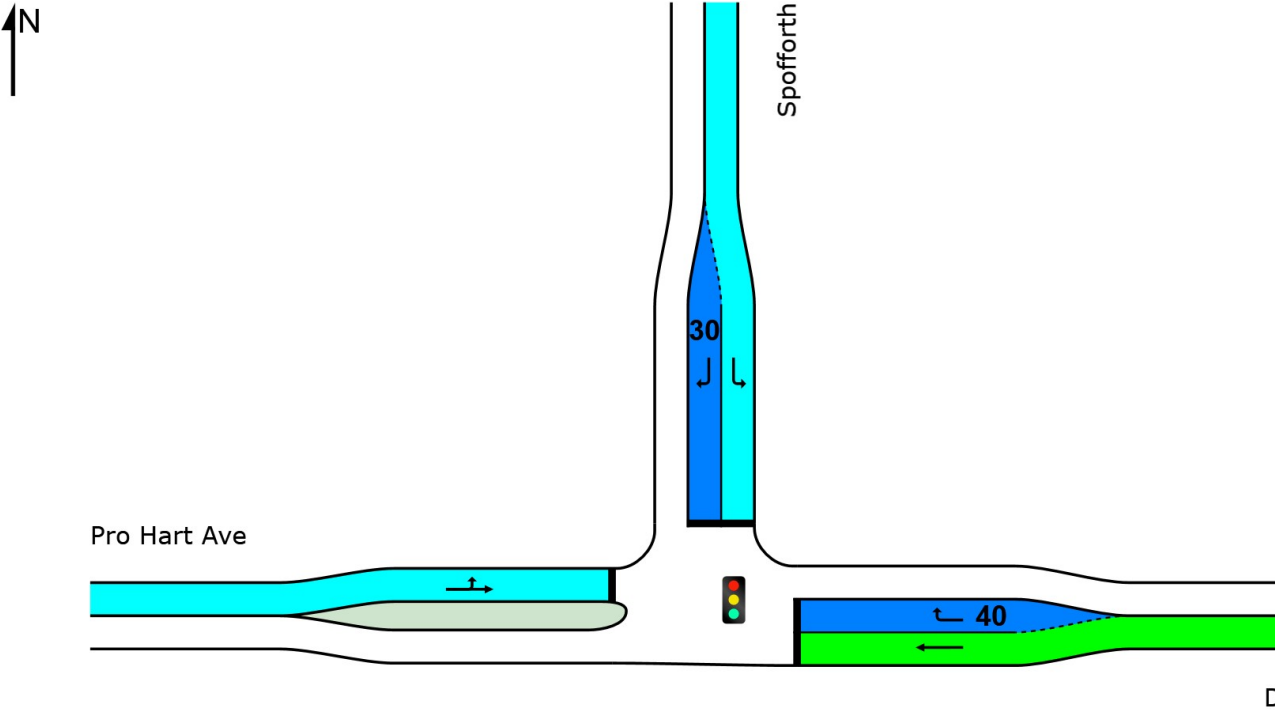
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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

<sup>1</sup> Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS A	A	C	B	B

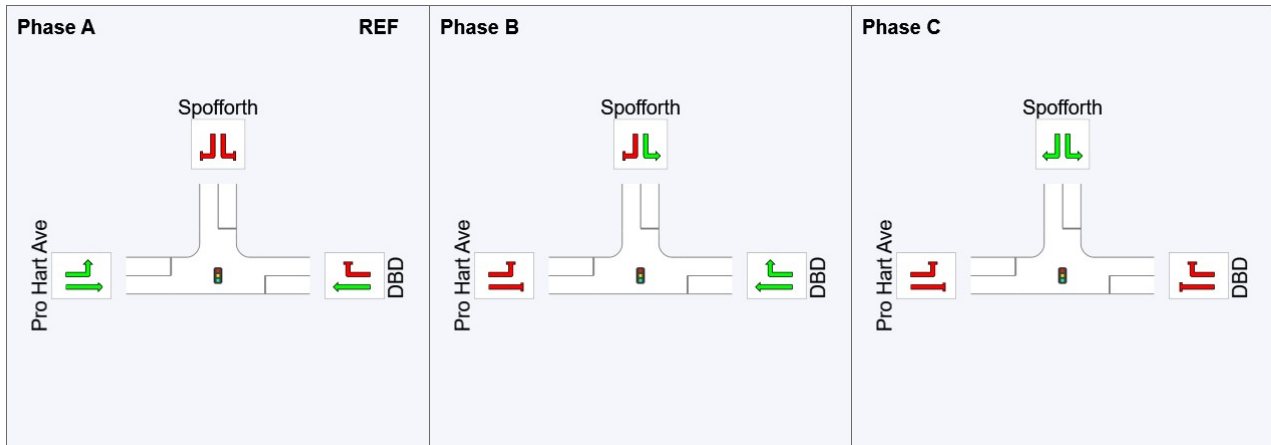


Colour code based on Level of Service

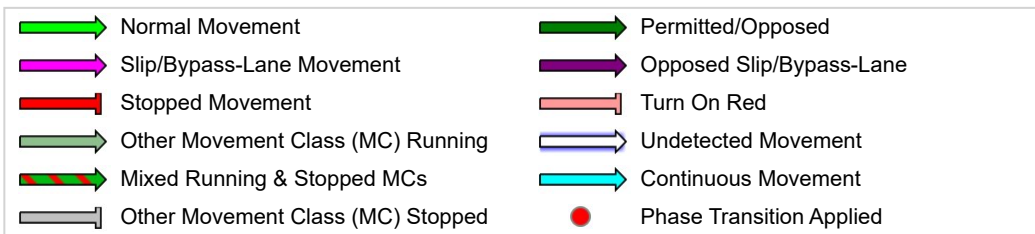


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	43	56
Green Time (sec)	37	7	8
Phase Time (sec)	43	13	14
Phase Split	61%	19%	20%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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Project: \\cbnas01\active\21\21-000475\9\_Tech\Traffic\DBD Traffic\DBD Options\_Sensitivity Analysis\_Rev02.sip9

# USER REPORT FOR SITE

## All Movement Classes

 Project: DBD Options\_Sensitivity Analysis\_Rev02

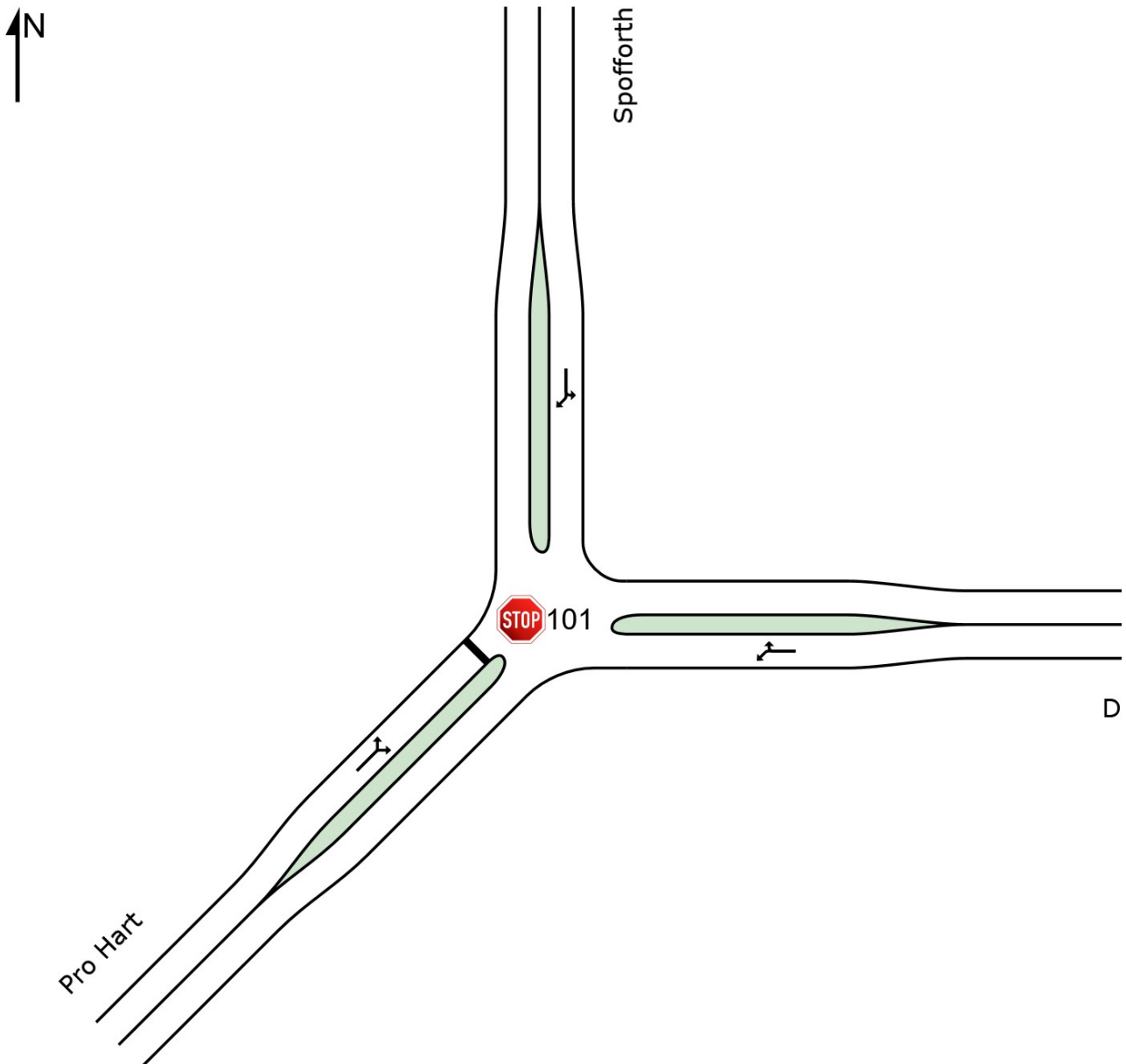
Template: Site User Report

 Site: 101 [DBD Base Sign control - Existing AM (Site Folder: Existing Year (2022))]

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	201	5.0	212	5.0	0.146	5.4	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
6	R2	57	5.0	60	5.0	0.146	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
Approach		258	5.0	272	5.0	0.146	5.4	NA	0.0	0.0	0.00	0.59	0.00	53.0
North: Spofforth														
7	L2	97	5.0	102	5.0	0.118	6.5	LOS A	0.5	3.7	0.30	0.48	0.30	52.6
9a	R1	62	5.0	65	5.0	0.118	6.4	LOS A	0.5	3.7	0.30	0.48	0.30	52.3
Approach		159	5.0	167	5.0	0.118	6.4	NA	0.5	3.7	0.30	0.48	0.30	52.5
SouthWest: Pro Hart														
30a	L1	11	5.0	12	5.0	0.703	12.3	LOS A	7.0	51.0	0.70	1.25	1.34	45.6
32a	R1	355	5.0	374	5.0	0.703	18.4	LOS B	7.0	51.0	0.70	1.25	1.34	45.8
Approach		366	5.0	385	5.0	0.703	18.2	LOS B	7.0	51.0	0.70	1.25	1.34	45.8
All Vehicles		783	5.0	824	5.0	0.703	11.6	NA	7.0	51.0	0.39	0.88	0.69	49.3

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	272	5.0	1854	0.146	100	5.4	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	272	5.0		0.146		5.4	NA	0.0	0.0				
North: Spofforth													
Lane 1	167	5.0	1422	0.118	100	6.4	LOS A	0.5	3.7	Full	500	0.0	0.0
Approach	167	5.0		0.118		6.4	NA	0.5	3.7				
SouthWest: Pro Hart													
Lane 1	385	5.0	548	0.703	100	18.2	LOS B	7.0	51.0	Full	500	0.0	0.0
Approach	385	5.0		0.703		18.2	LOS B	7.0	51.0				
Intersection	824	5.0		0.703		11.6	NA	7.0	51.0				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

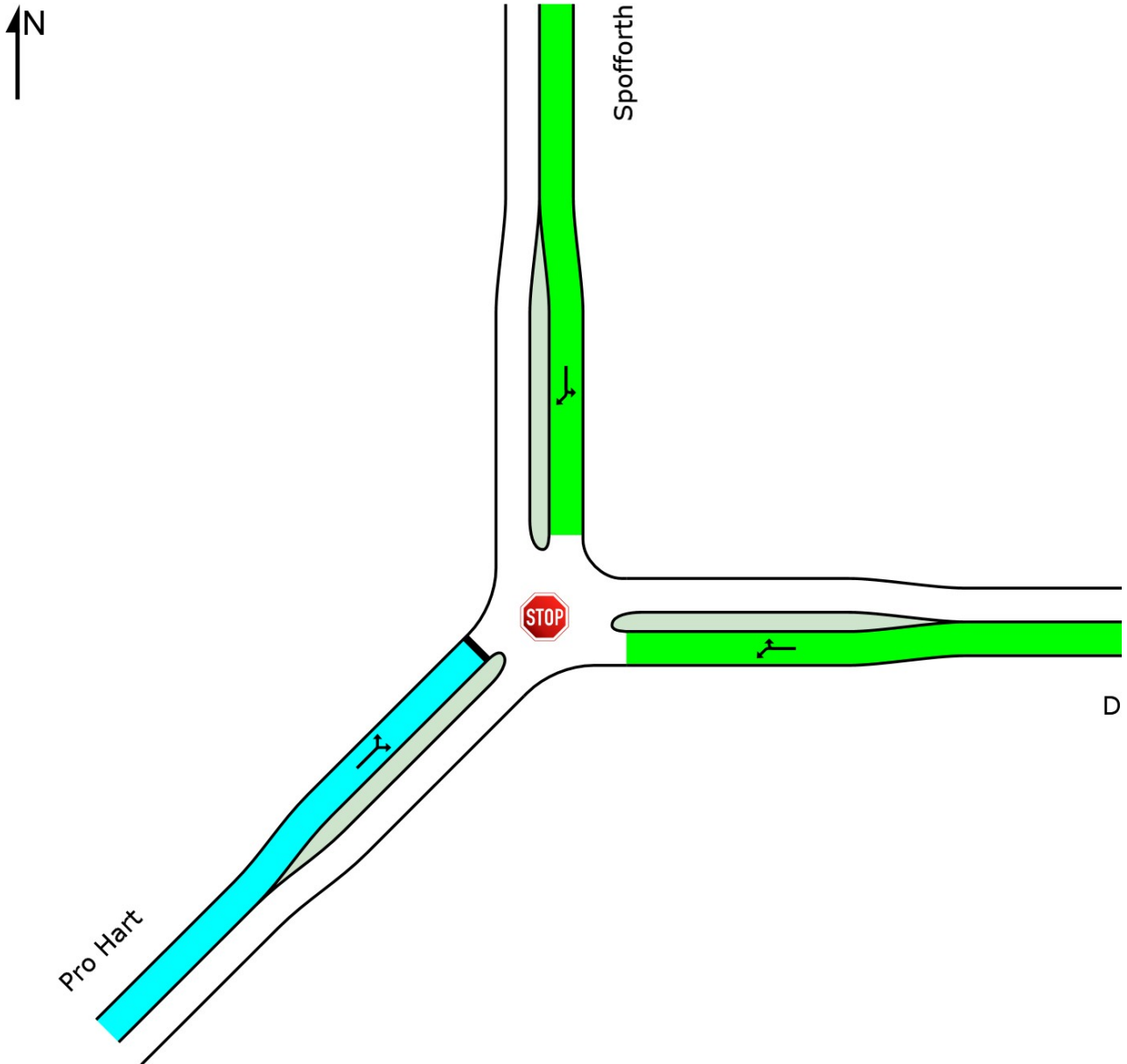
Queue Model: SIDRA Standard.

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

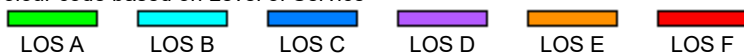
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	B	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

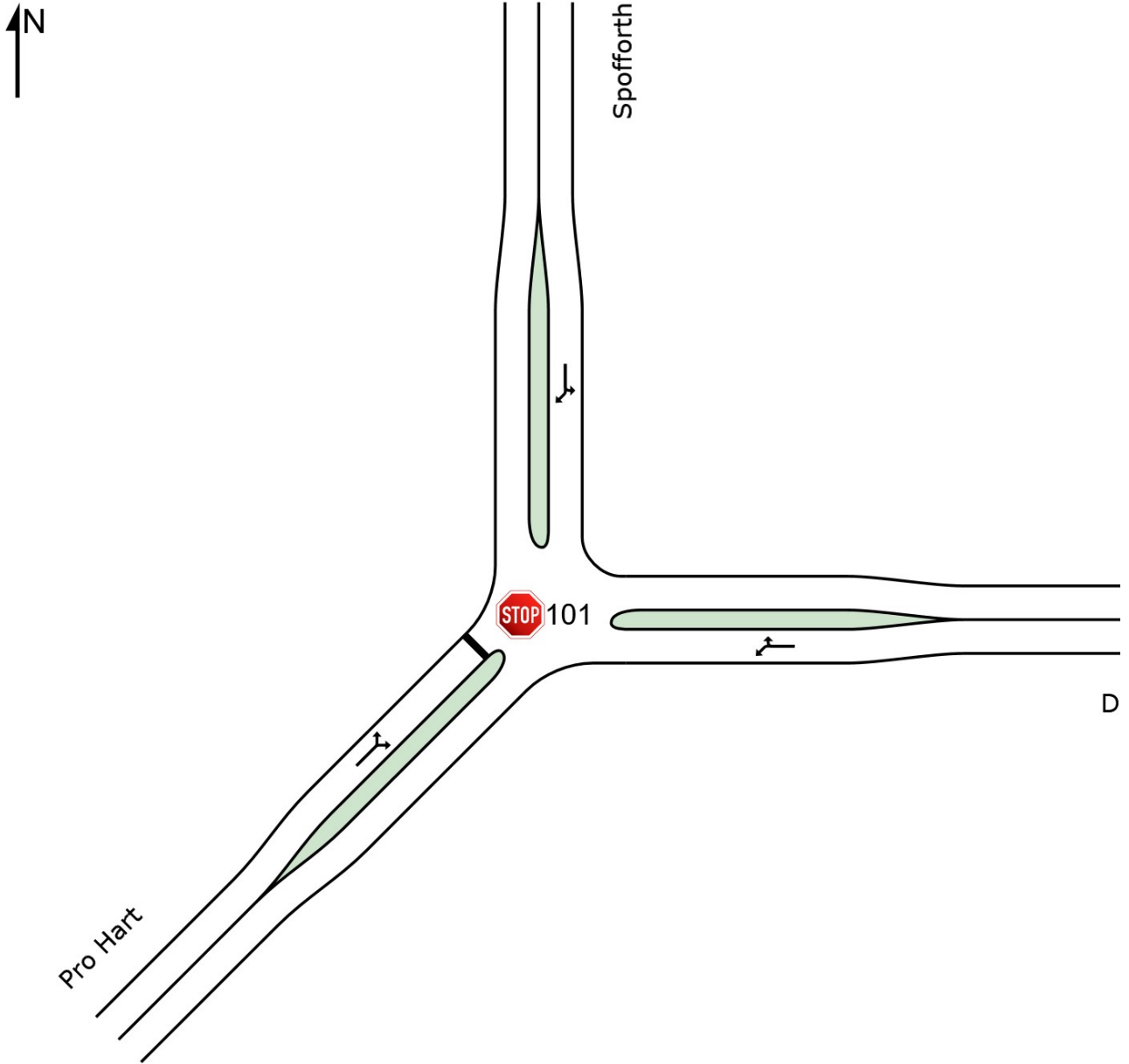


 Site: 101 [DBD Base Sign control - Existing PM (Site Folder: Existing Year (2022))]

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	271	5.0	285	5.0	0.221	5.4	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
6	R2	118	5.0	124	5.0	0.221	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
Approach		389	5.0	409	5.0	0.221	5.5	NA	0.0	0.0	0.00	0.59	0.00	52.9
North: Spofforth														
7	L2	37	5.0	39	5.0	0.075	7.5	LOS A	0.3	2.5	0.44	0.51	0.44	52.1
9a	R1	45	5.0	47	5.0	0.075	7.2	LOS A	0.3	2.5	0.44	0.51	0.44	51.8
Approach		82	5.0	86	5.0	0.075	7.3	NA	0.3	2.5	0.44	0.51	0.44	51.9
SouthWest: Pro Hart														
30a	L1	51	5.0	54	5.0	0.576	10.8	LOS A	4.3	31.5	0.59	1.12	0.94	47.2
32a	R1	257	5.0	271	5.0	0.576	16.3	LOS B	4.3	31.5	0.59	1.12	0.94	47.3
Approach		308	5.0	324	5.0	0.576	15.4	LOS B	4.3	31.5	0.59	1.12	0.94	47.3
All Vehicles		779	5.0	820	5.0	0.576	9.6	NA	4.3	31.5	0.28	0.80	0.42	50.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m		%	%	
East: DBD													
Lane 1	409	5.0	1850	0.221	100	5.5	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	409	5.0		0.221		5.5	NA	0.0	0.0				
North: Spofforth													
Lane 1	86	5.0	1154	0.075	100	7.3	LOS A	0.3	2.5	Full	500	0.0	0.0
Approach	86	5.0		0.075		7.3	NA	0.3	2.5				
SouthWest: Pro Hart													
Lane 1	324	5.0	563	0.576	100	15.4	LOS B	4.3	31.5	Full	500	0.0	0.0
Approach	324	5.0		0.576		15.4	LOS B	4.3	31.5				
Intersection	820	5.0		0.576		9.6	NA	4.3	31.5				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

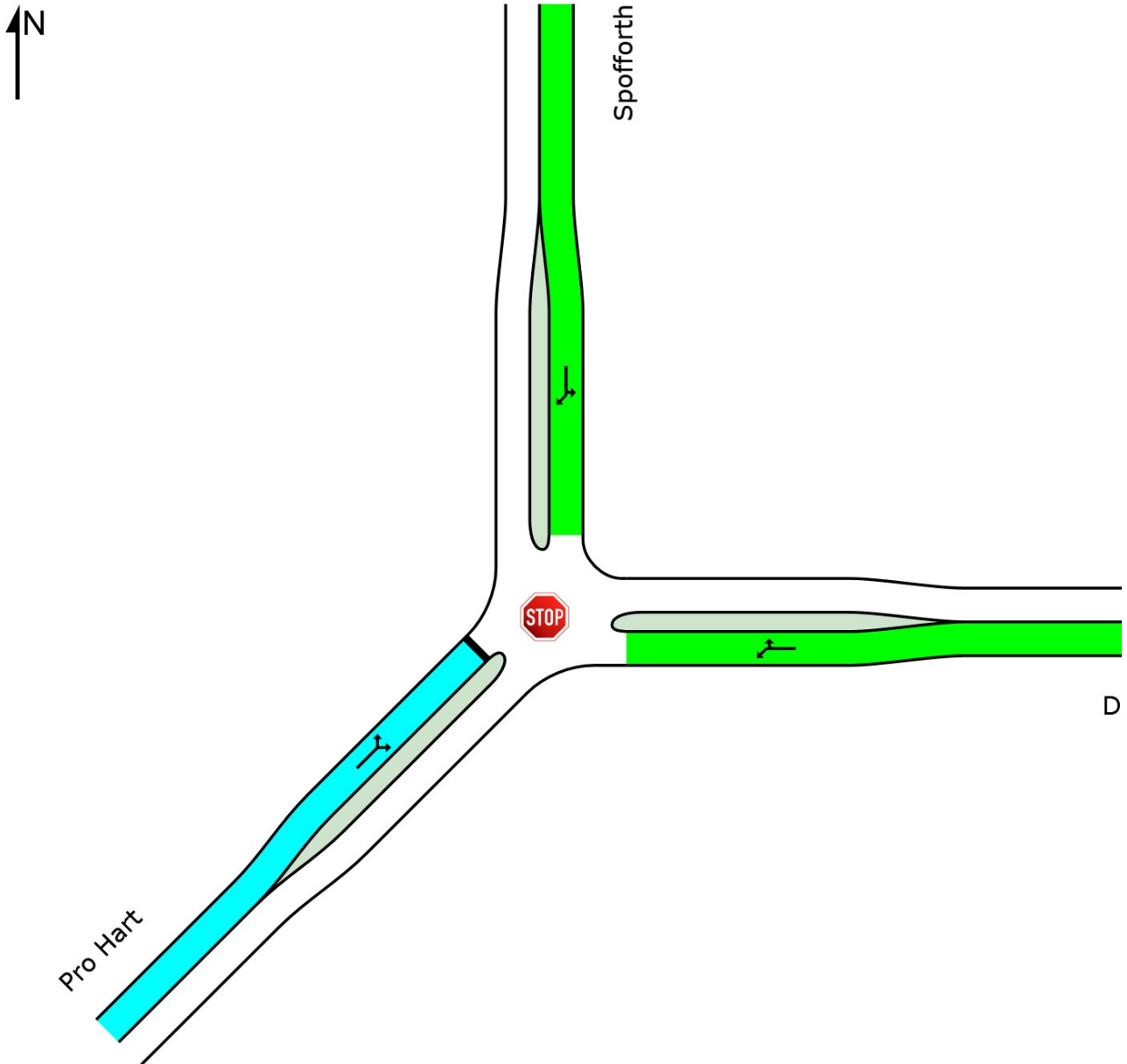
Queue Model: SIDRA Standard.

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

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

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	B	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



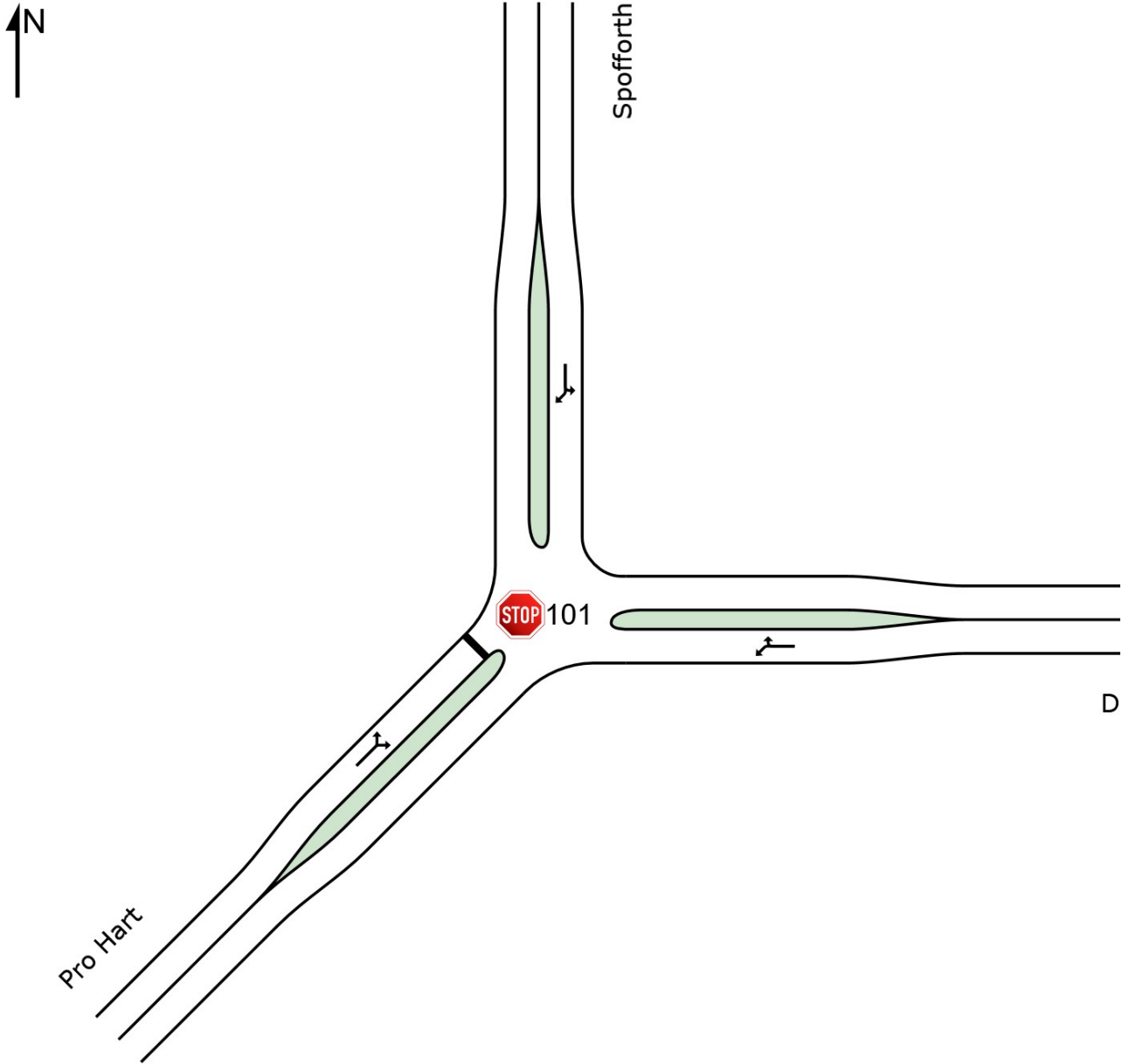


 **Site: 101 [DBD Base Sign control - Existing AM + GSG (Site Folder: Existing Year (2022))]**

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	307	5.0	323	5.0	0.206	5.4	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
6	R2	57	5.0	60	5.0	0.206	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
Approach		364	5.0	383	5.0	0.206	5.4	NA	0.0	0.0	0.00	0.59	0.00	53.0
North: Spofforth														
7	L2	97	5.0	102	5.0	0.158	7.3	LOS A	0.8	5.7	0.43	0.50	0.43	52.1
9a	R1	89	5.0	94	5.0	0.158	7.2	LOS A	0.8	5.7	0.43	0.50	0.43	51.8
Approach		186	5.0	196	5.0	0.158	7.3	NA	0.8	5.7	0.43	0.50	0.43	52.0
SouthWest: Pro Hart														
30a	L1	18	5.0	19	5.0	0.876	21.4	LOS B	13.1	95.5	0.80	1.57	2.48	39.8
32a	R1	382	5.0	402	5.0	0.876	30.5	LOS C	13.1	95.5	0.80	1.57	2.48	39.9
Approach		400	5.0	421	5.0	0.876	30.1	LOS C	13.1	95.5	0.80	1.57	2.48	39.9
All Vehicles		950	5.0	1000	5.0	0.876	16.2	NA	13.1	95.5	0.42	0.99	1.13	46.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	383	5.0	1858	0.206	100	5.4	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	383	5.0		0.206		5.4	NA	0.0	0.0				
North: Spofforth													
Lane 1	196	5.0	1239	0.158	100	7.3	LOS A	0.8	5.7	Full	500	0.0	0.0
Approach	196	5.0		0.158		7.3	NA	0.8	5.7				
SouthWest: Pro Hart													
Lane 1	421	5.0	481	0.876	100	30.1	LOS C	13.1	95.5	Full	500	0.0	0.0
Approach	421	5.0		0.876		30.1	LOS C	13.1	95.5				
Intersection	1000	5.0		0.876		16.2	NA	13.1	95.5				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

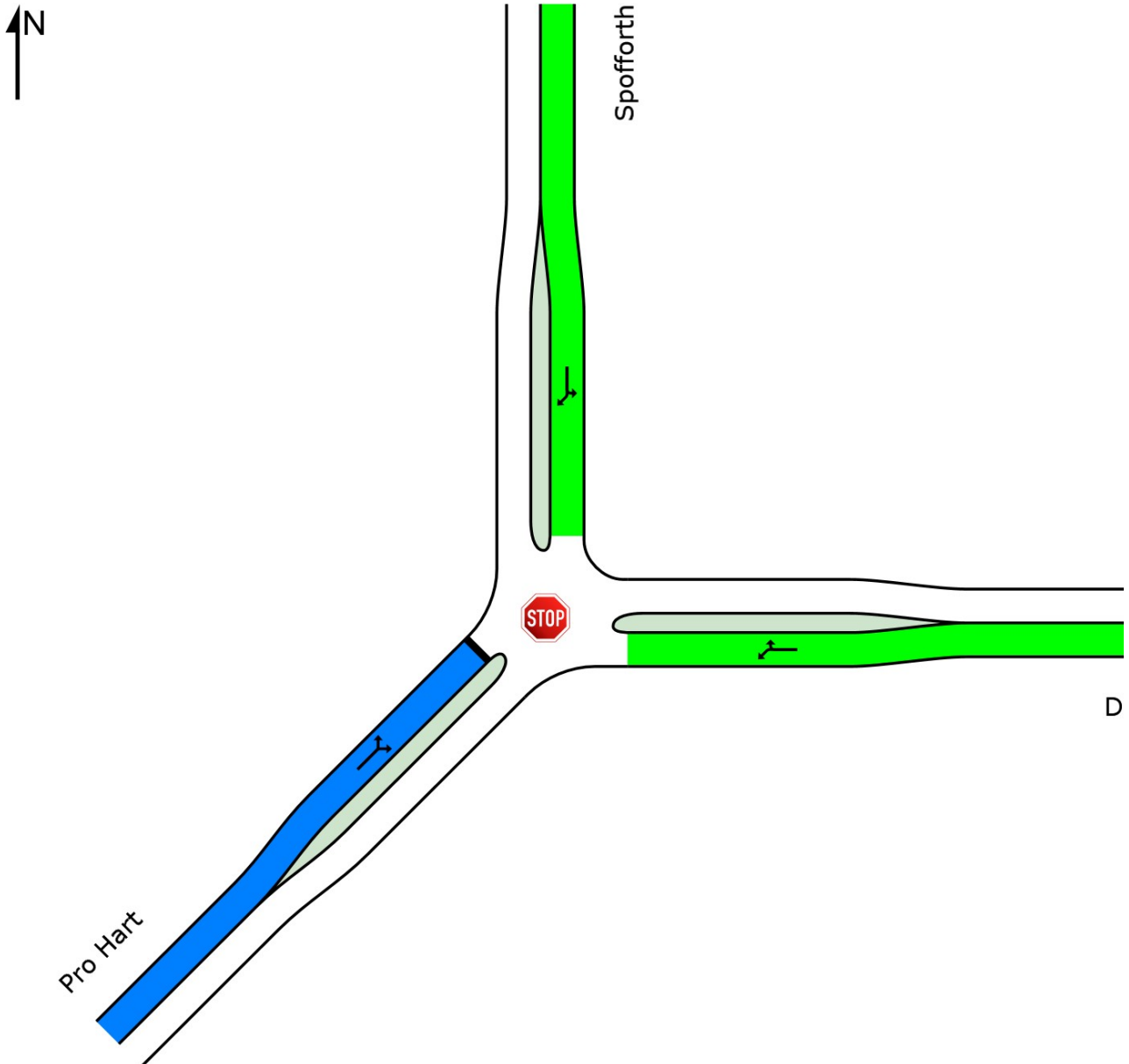
Queue Model: SIDRA Standard.

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

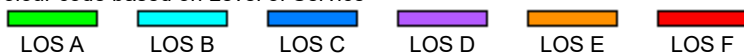
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	C	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

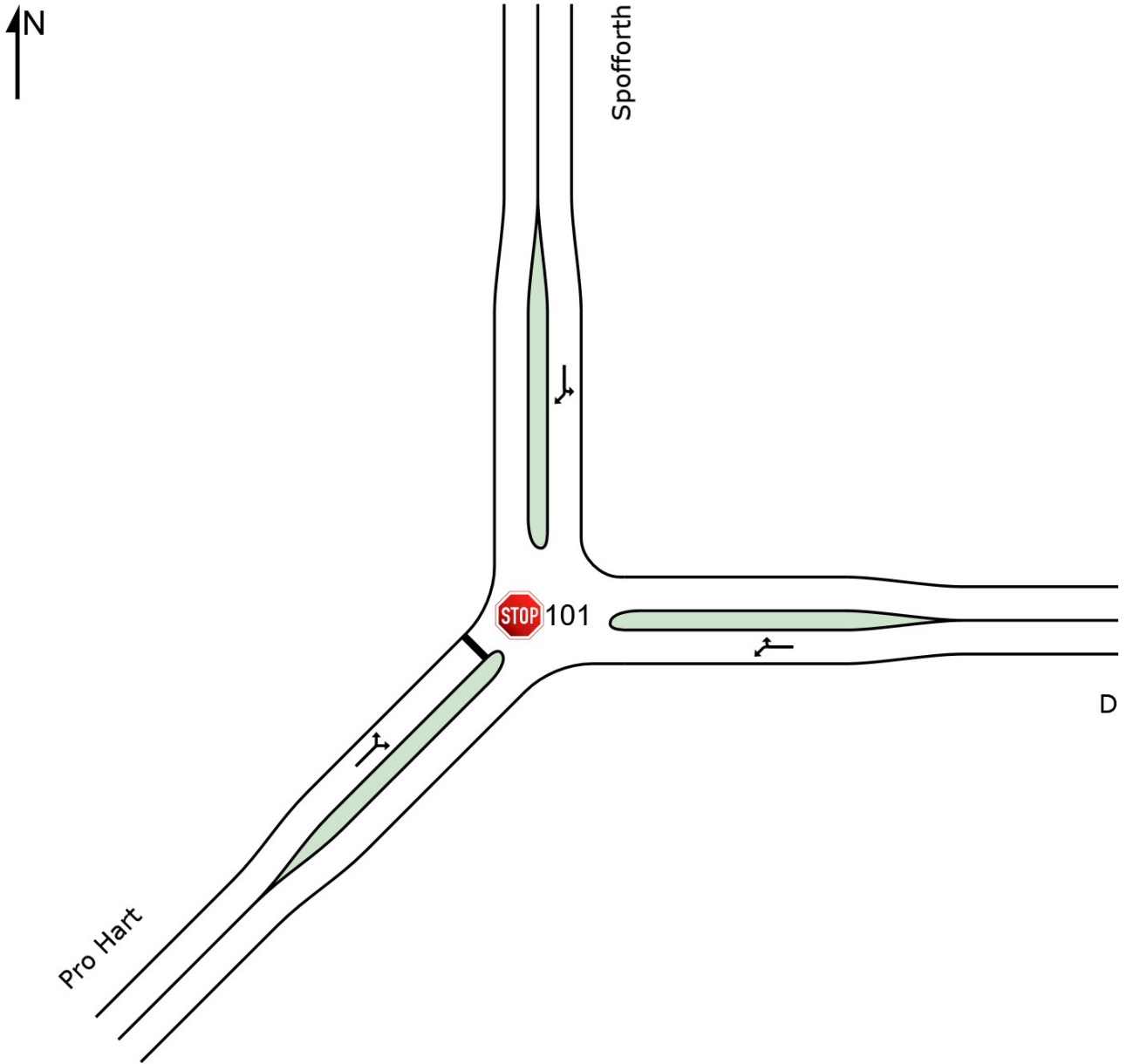


 **Site: 101 [DBD Base Sign control - Existing PM + CSG (Site Folder: Existing Year (2022))]**

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	292	5.0	307	5.0	0.233	5.4	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
6	R2	118	5.0	124	5.0	0.233	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
Approach		410	5.0	432	5.0	0.233	5.5	NA	0.0	0.0	0.00	0.59	0.00	52.9
North: Spofforth														
7	L2	37	5.0	39	5.0	0.083	7.7	LOS A	0.4	2.8	0.46	0.52	0.46	51.9
9a	R1	50	5.0	53	5.0	0.083	7.4	LOS A	0.4	2.8	0.46	0.52	0.46	51.6
Approach		87	5.0	92	5.0	0.083	7.5	NA	0.4	2.8	0.46	0.52	0.46	51.8
SouthWest: Pro Hart														
30a	L1	72	5.0	76	5.0	0.790	15.6	LOS B	9.9	72.2	0.72	1.32	1.69	43.8
32a	R1	342	5.0	360	5.0	0.790	22.9	LOS B	9.9	72.2	0.72	1.32	1.69	43.9
Approach		414	5.0	436	5.0	0.790	21.6	LOS B	9.9	72.2	0.72	1.32	1.69	43.9
All Vehicles		911	5.0	959	5.0	0.790	13.0	NA	9.9	72.2	0.37	0.92	0.81	48.3

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.



Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
East: DBD													
Lane 1	432	5.0	1850	0.233	100	5.5	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	432	5.0		0.233		5.5	NA	0.0	0.0				
North: Spofforth													
Lane 1	92	5.0	1109	0.083	100	7.5	LOS A	0.4	2.8	Full	500	0.0	0.0
Approach	92	5.0		0.083		7.5	NA	0.4	2.8				
SouthWest: Pro Hart													
Lane 1	436	5.0	551	0.790	100	21.6	LOS B	9.9	72.2	Full	500	0.0	0.0
Approach	436	5.0		0.790		21.6	LOS B	9.9	72.2				
Intersection	959	5.0		0.790		13.0	NA	9.9	72.2				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

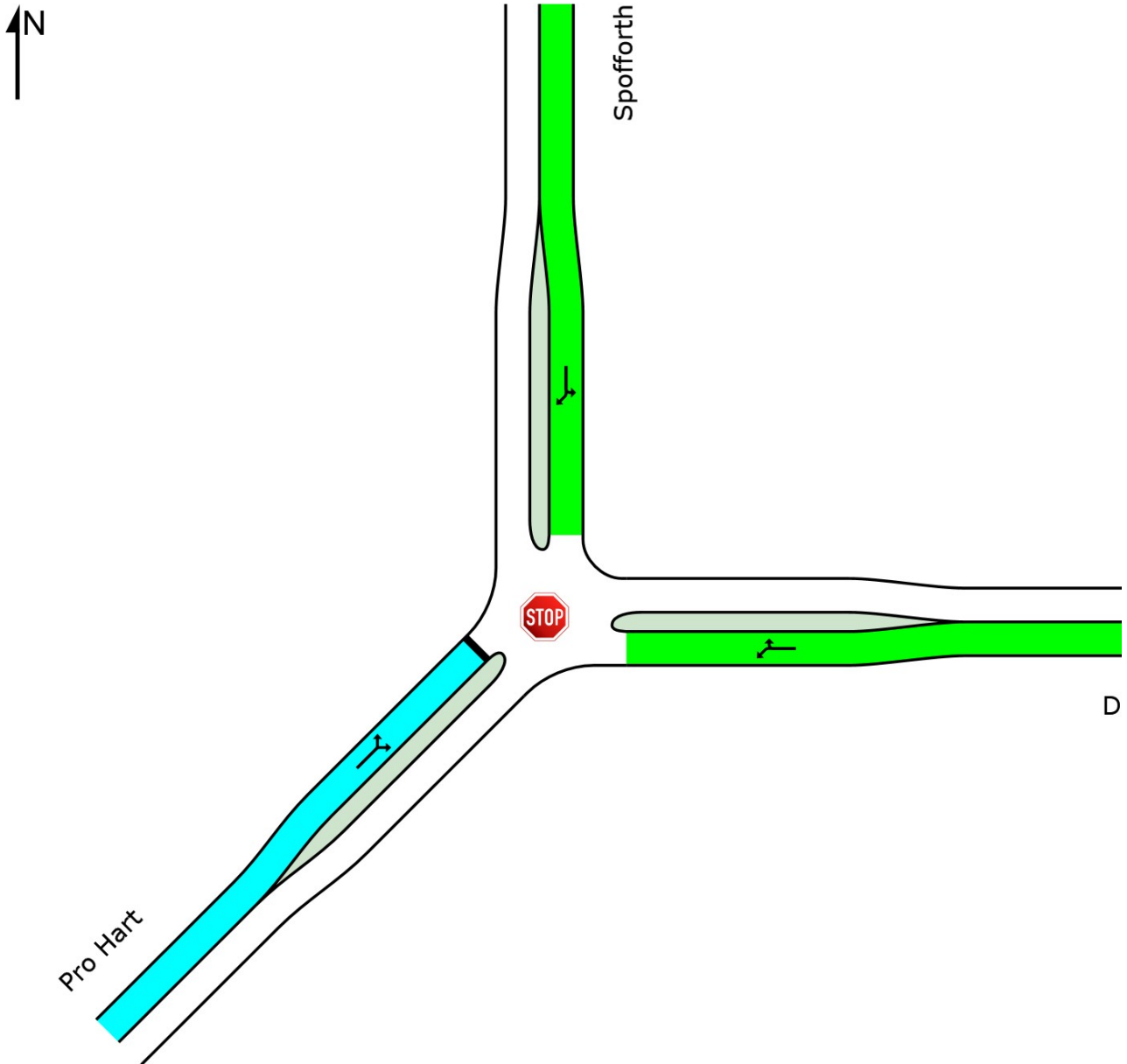
Queue Model: SIDRA Standard.

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

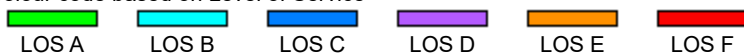
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	B	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



# USER REPORT FOR SITE

## All Movement Classes

 Project: DBD Options\_Sensitivity Analysis\_Rev02

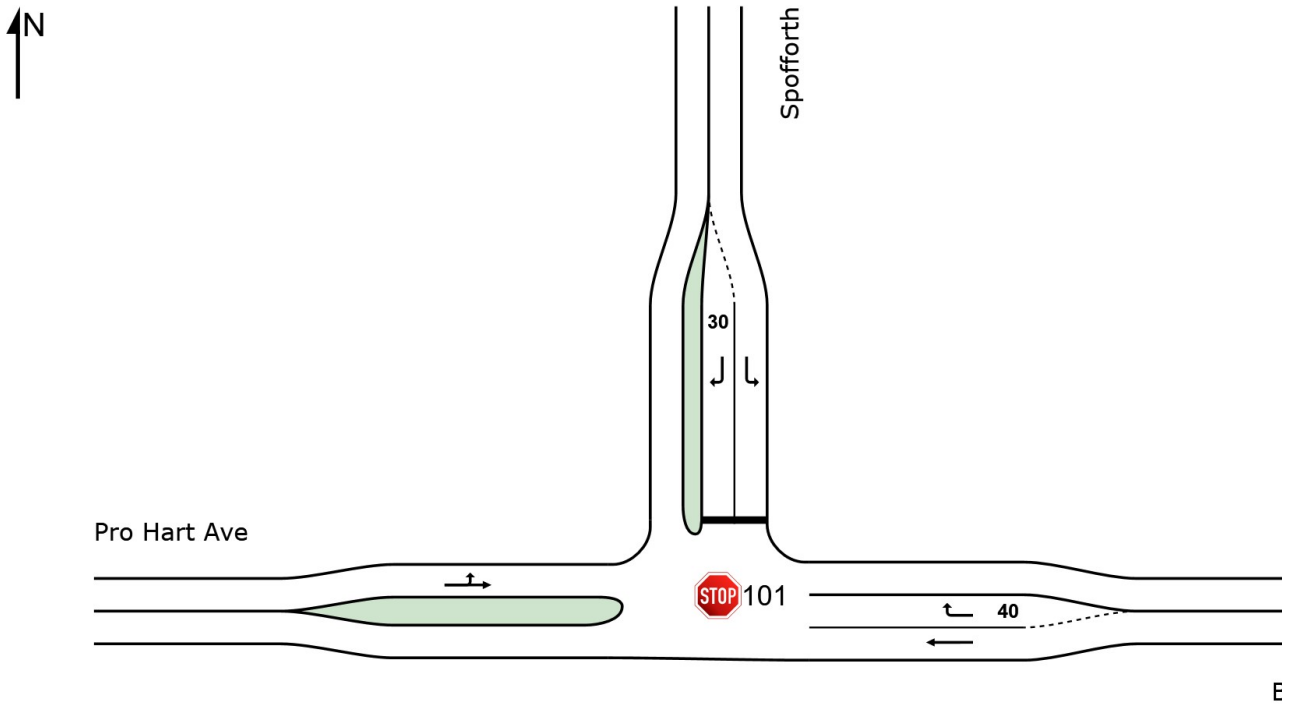
Template: Site User Report

 Site: 101 [DBD Options Stop Control - Existing AM (Site Folder: Existing Year (2022))]

New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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



E

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	201	5.0	212	5.0	0.112	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	57	5.0	60	5.0	0.051	7.1	LOS A	0.2	1.6	0.45	0.63	0.45	51.9
Approach		258	5.0	272	5.0	0.112	1.6	NA	0.2	1.6	0.10	0.14	0.10	58.0
North: Spofforth														
7	L2	97	5.0	102	5.0	0.110	10.2	LOS A	0.4	3.2	0.46	0.91	0.46	50.8
9	R2	62	5.0	65	5.0	0.158	15.1	LOS B	0.6	4.2	0.65	1.00	0.65	47.3
Approach		159	5.0	167	5.0	0.158	12.1	LOS A	0.6	4.2	0.53	0.95	0.53	49.4
West: Pro Hart Ave														
10	L2	11	5.0	12	5.0	0.202	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	57.9
11	T1	355	5.0	374	5.0	0.202	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach		366	5.0	385	5.0	0.202	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
All Vehicles		783	5.0	824	5.0	0.202	3.1	NA	0.6	4.2	0.14	0.25	0.14	56.7

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	212	5.0	1896	0.112	100	0.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	60	5.0	1184	0.051	100	7.1	LOS A	0.2	1.6	Short	40	0.0	NA
Approach	272	5.0		0.112		1.6	NA	0.2	1.6				
North: Spofforth													
Lane 1	102	5.0	926	0.110	100	10.2	LOS A	0.4	3.2	Full	500	0.0	0.0
Lane 2	65	5.0	414	0.158	100	15.1	LOS B	0.6	4.2	Short	30	0.0	NA
Approach	167	5.0		0.158		12.1	LOS A	0.6	4.2				
West: Pro Hart Ave													
Lane 1	385	5.0	1905	0.202	100	0.2	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	385	5.0		0.202		0.2	NA	0.0	0.0				
Intersection	824	5.0		0.202		3.1	NA	0.6	4.2				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

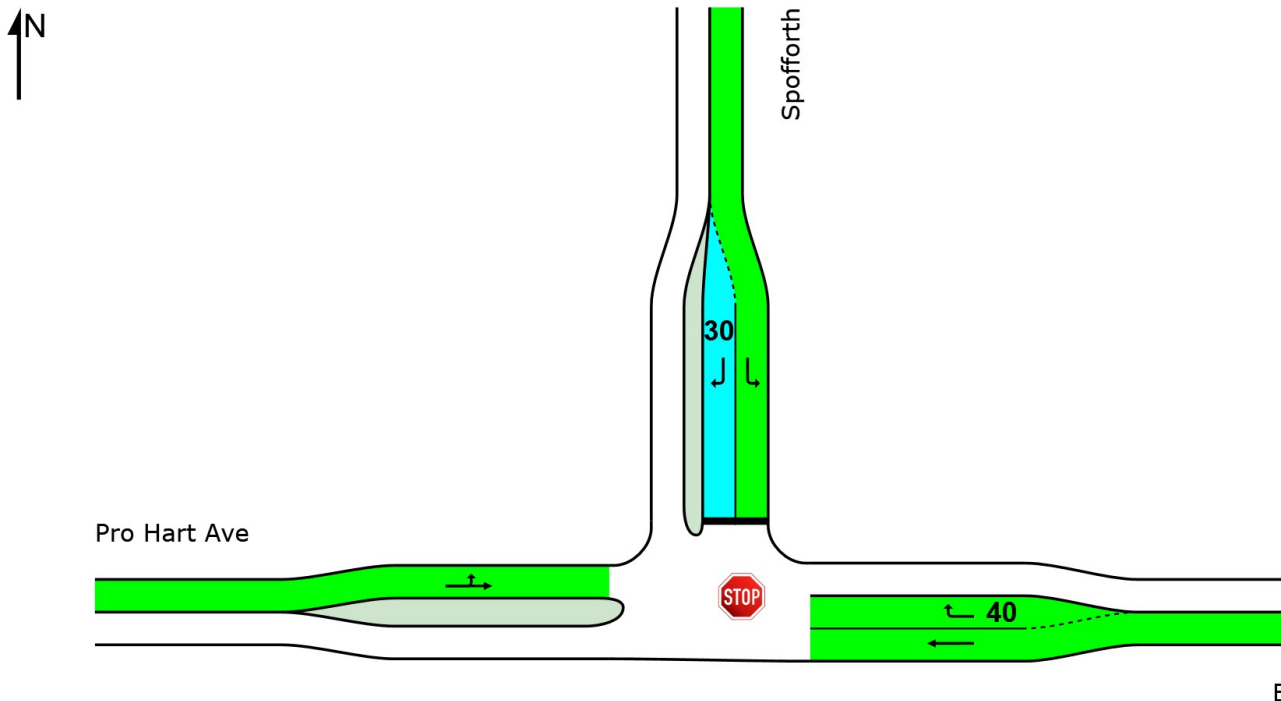
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	A	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



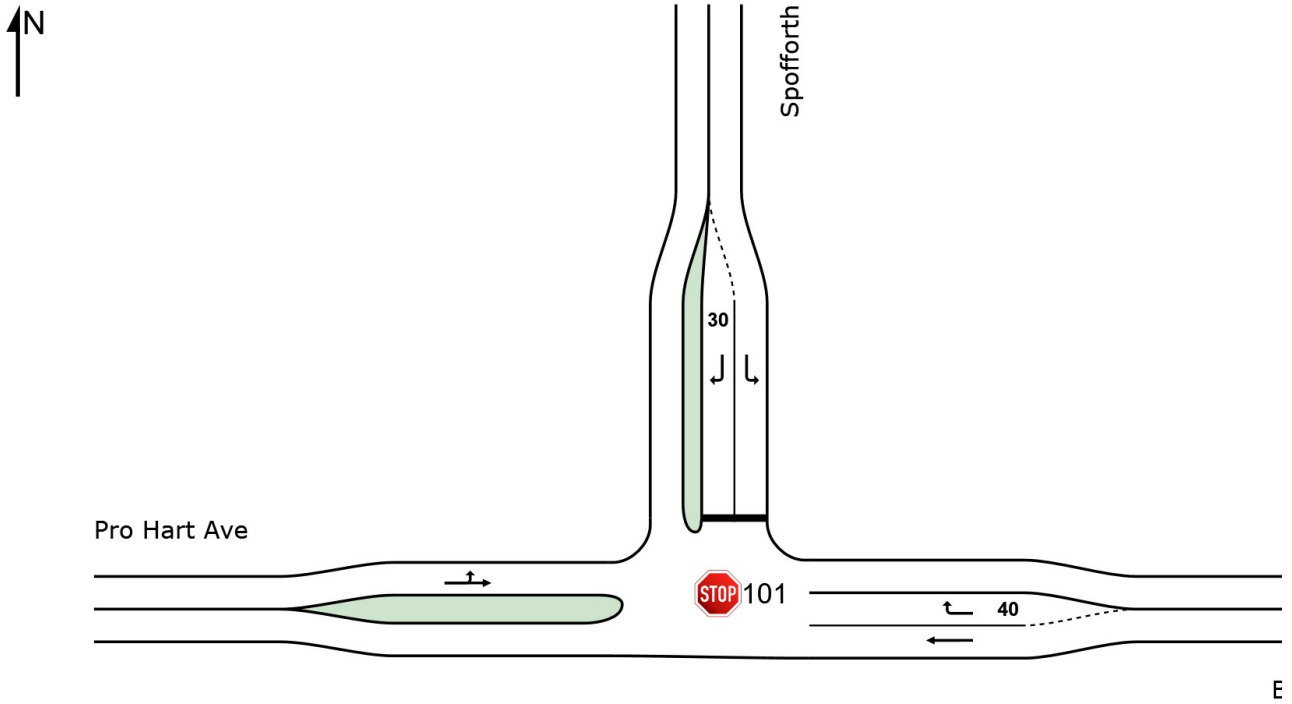


 **Site: 101 [DBD Options Stop Control - Existing PM (Site Folder: Existing Year (2022))]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



E

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	271	5.0	285	5.0	0.151	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	118	5.0	124	5.0	0.098	6.8	LOS A	0.4	3.2	0.42	0.62	0.42	52.0
Approach		389	5.0	409	5.0	0.151	2.1	NA	0.4	3.2	0.13	0.19	0.13	57.3
North: Spofforth														
7	L2	37	5.0	39	5.0	0.037	9.4	LOS A	0.1	1.0	0.37	0.87	0.37	51.2
9	R2	45	5.0	47	5.0	0.122	15.6	LOS B	0.4	3.2	0.67	1.00	0.67	47.0
Approach		82	5.0	86	5.0	0.122	12.8	LOS A	0.4	3.2	0.53	0.94	0.53	48.8
West: Pro Hart Ave														
10	L2	51	5.0	54	5.0	0.171	5.6	LOS A	0.0	0.0	0.00	0.10	0.00	57.2
11	T1	257	5.0	271	5.0	0.171	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	59.0
Approach		308	5.0	324	5.0	0.171	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.7
All Vehicles		779	5.0	820	5.0	0.171	2.8	NA	0.4	3.2	0.12	0.23	0.12	56.8

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: BDB													
Lane 1	285	5.0	1894	0.151	100	0.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	124	5.0	1271	0.098	100	6.8	LOS A	0.4	3.2	Short	40	0.0	NA
Approach	409	5.0		0.151		2.1	NA	0.4	3.2				
North: Spofforth													
Lane 1	39	5.0	1054	0.037	100	9.4	LOS A	0.1	1.0	Full	500	0.0	0.0
Lane 2	47	5.0	388	0.122	100	15.6	LOS B	0.4	3.2	Short	30	0.0	NA
Approach	86	5.0		0.122		12.8	LOS A	0.4	3.2				
West: Pro Hart Ave													
Lane 1	324	5.0	1892	0.171	100	1.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	324	5.0		0.171		1.0	NA	0.0	0.0				
Intersection	820	5.0		0.171		2.8	NA	0.4	3.2				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

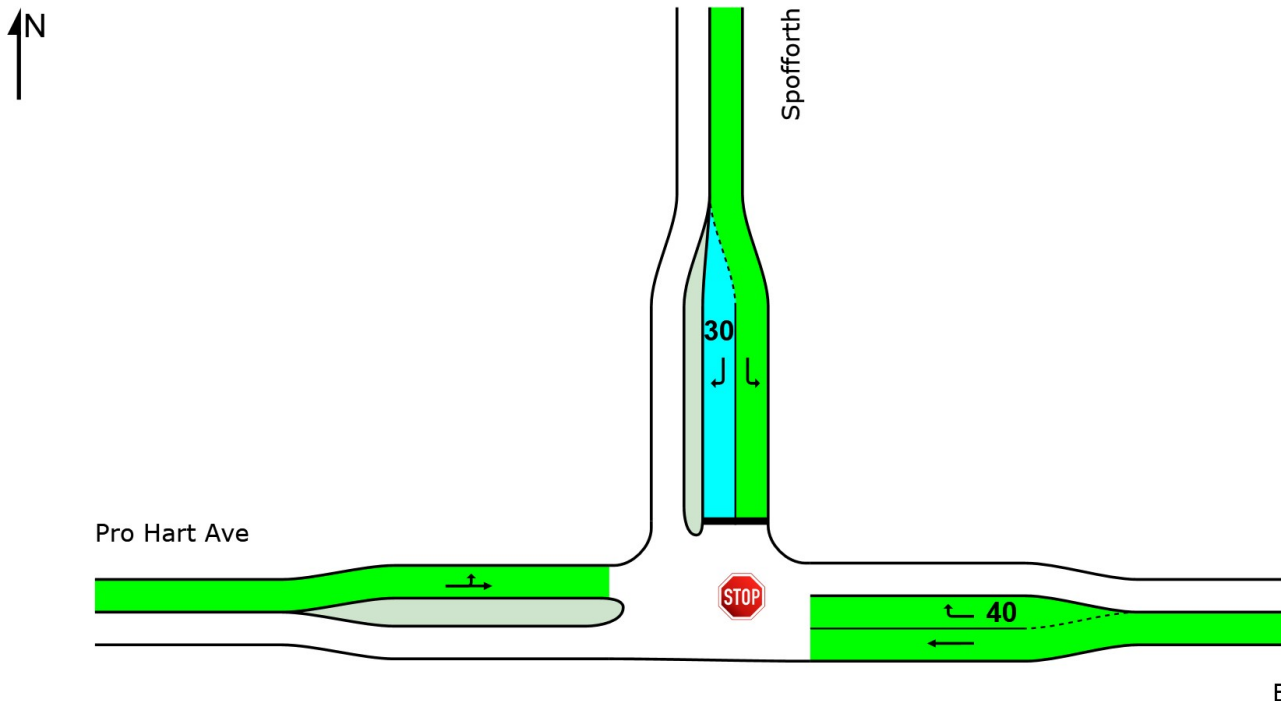
Queue Model: SIDRA Standard.

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

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

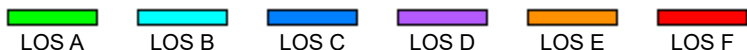
## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	A	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

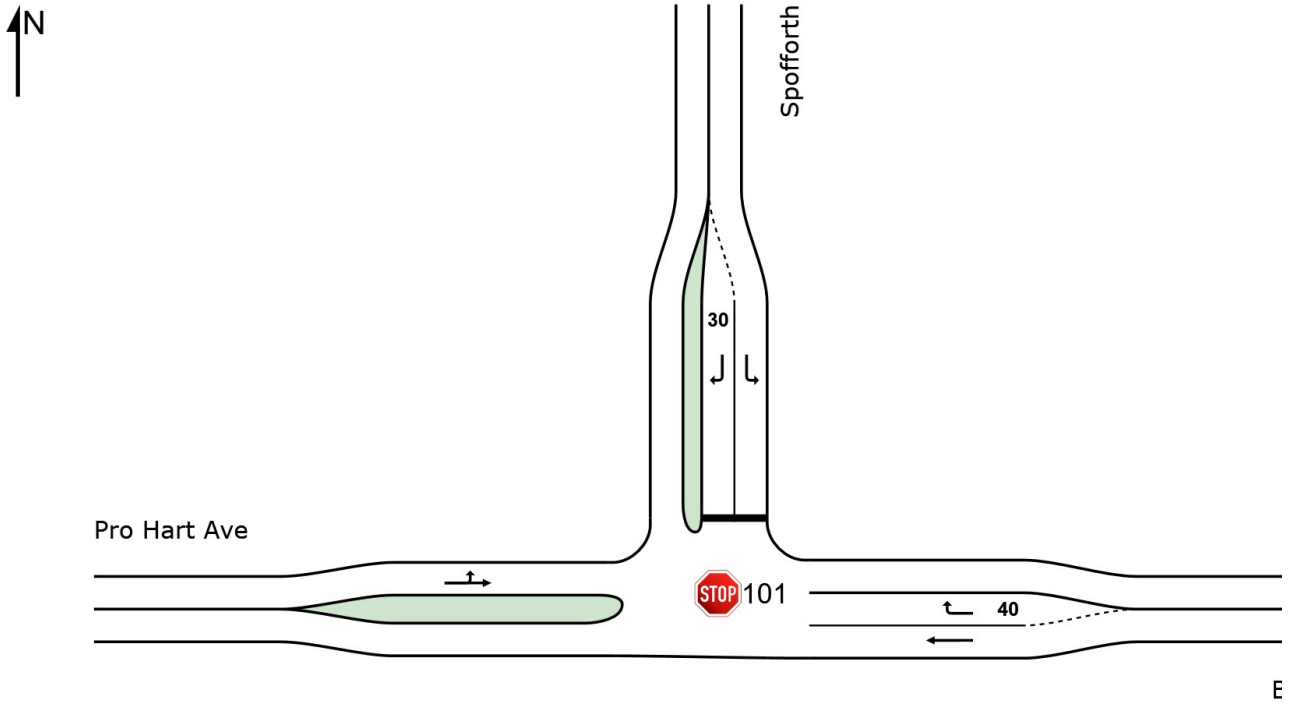


**Site: 101 [DBD Options Stop Control - Existing AM + CSG (Site Folder: Existing Year (2022))]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	307	5.0	323	5.0	0.170	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	57	5.0	60	5.0	0.053	7.2	LOS A	0.2	1.6	0.47	0.65	0.47	51.9
Approach		364	5.0	383	5.0	0.170	1.2	NA	0.2	1.6	0.07	0.10	0.07	58.5
North: Spofforth														
7	L2	97	5.0	102	5.0	0.114	10.4	LOS A	0.4	3.3	0.47	0.92	0.47	50.7
9	R2	89	5.0	94	5.0	0.288	19.6	LOS B	1.2	8.5	0.76	1.04	0.89	44.8
Approach		186	5.0	196	5.0	0.288	14.8	LOS B	1.2	8.5	0.61	0.98	0.67	47.7
West: Pro Hart Ave														
10	L2	18	5.0	19	5.0	0.221	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	57.8
11	T1	382	5.0	402	5.0	0.221	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.6
Approach		400	5.0	421	5.0	0.221	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.6
All Vehicles		950	5.0	1000	5.0	0.288	3.5	NA	1.2	8.5	0.15	0.24	0.16	56.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	323	5.0	1898	0.170	100	0.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	60	5.0	1133	0.053	100	7.2	LOS A	0.2	1.6	Short	40	0.0	NA
Approach	383	5.0		0.170		1.2	NA	0.2	1.6				
North: Spofforth													
Lane 1	102	5.0	892	0.114	100	10.4	LOS A	0.4	3.3	Full	500	0.0	0.0
Lane 2	94	5.0	325	0.288	100	19.6	LOS B	1.2	8.5	Short	30	0.0	NA
Approach	196	5.0		0.288		14.8	LOS B	1.2	8.5				
West: Pro Hart Ave													
Lane 1	421	5.0	1904	0.221	100	0.3	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	421	5.0		0.221		0.3	NA	0.0	0.0				
Intersection	1000	5.0		0.288		3.5	NA	1.2	8.5				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

Queue Model: SIDRA Standard.

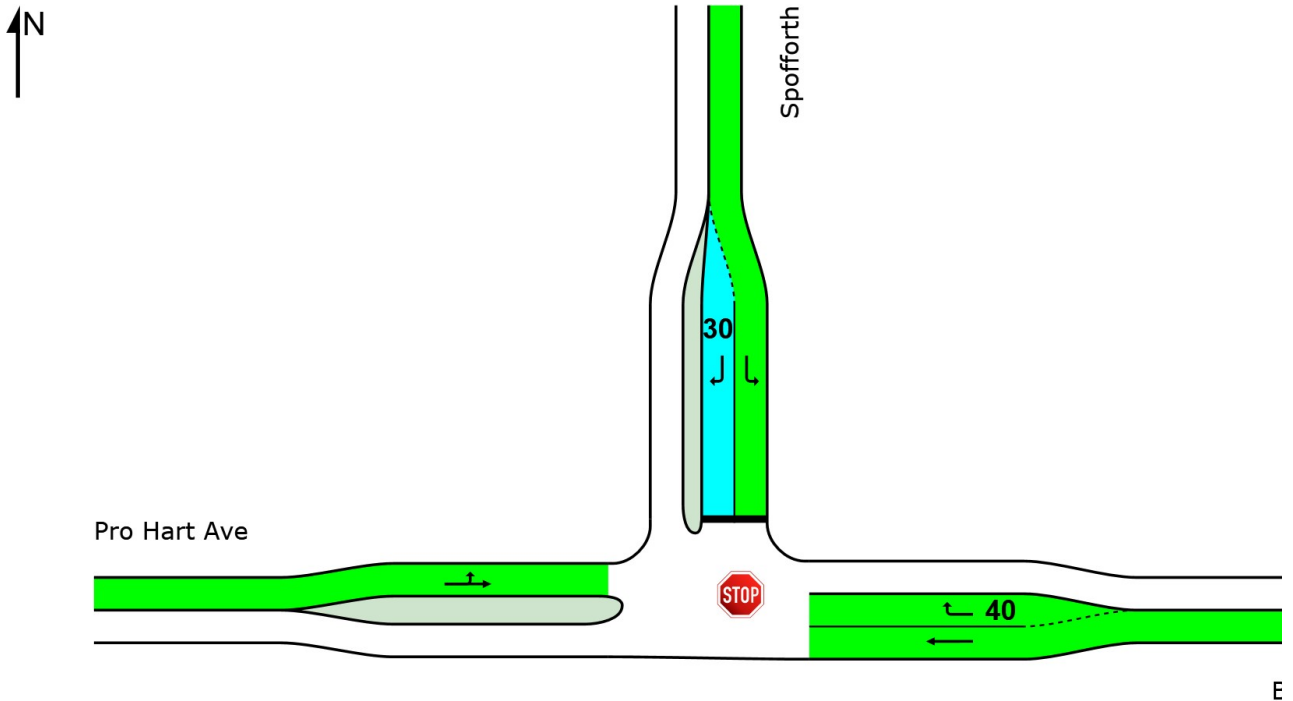
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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



## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	B	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

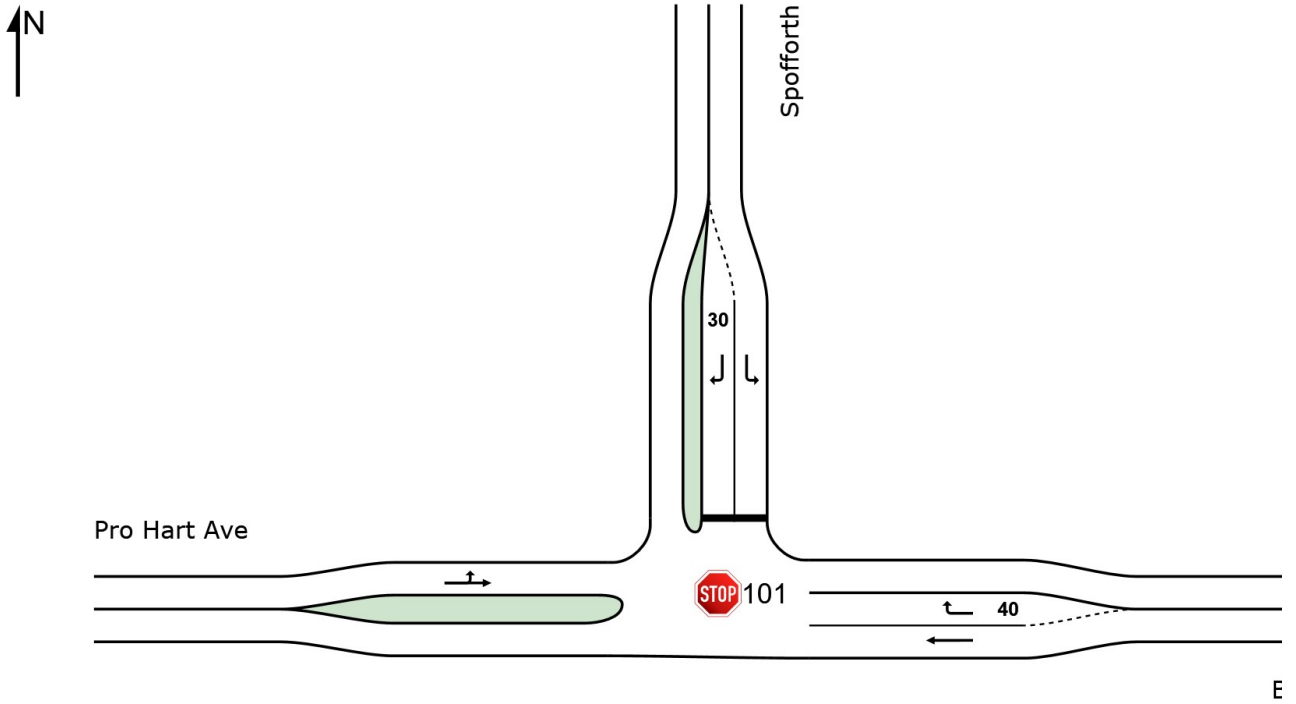


 **Site: 101 [DBD Options Stop Control - Existing PM + CSG (Site Folder: Existing Year (2022))]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	292	5.0	307	5.0	0.163	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	118	5.0	124	5.0	0.112	7.4	LOS A	0.5	3.5	0.49	0.68	0.49	51.8
Approach		410	5.0	432	5.0	0.163	2.2	NA	0.5	3.5	0.14	0.20	0.14	57.3
North: Spofforth														
7	L2	45	5.0	47	5.0	0.050	10.0	LOS A	0.2	1.4	0.43	0.88	0.43	50.9
9	R2	50	5.0	53	5.0	0.170	18.5	LOS B	0.6	4.4	0.75	1.00	0.75	45.4
Approach		95	5.0	100	5.0	0.170	14.5	LOS A	0.6	4.4	0.60	0.95	0.60	47.9
West: Pro Hart Ave														
10	L2	72	5.0	76	5.0	0.230	5.7	LOS A	0.0	0.0	0.00	0.10	0.00	57.1
11	T1	342	5.0	360	5.0	0.230	0.1	LOS A	0.0	0.0	0.00	0.10	0.00	58.9
Approach		414	5.0	436	5.0	0.230	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.6
All Vehicles		919	5.0	967	5.0	0.230	2.9	NA	0.6	4.4	0.13	0.23	0.13	56.7

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: BDB													
Lane 1	307	5.0	1890	0.163	100	0.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	124	5.0	1113	0.112	100	7.4	LOS A	0.5	3.5	Short	40	0.0	NA
Approach	432	5.0		0.163		2.2	NA	0.5	3.5				
North: Spofforth													
Lane 1	47	5.0	943	0.050	100	10.0	LOS A	0.2	1.4	Full	500	0.0	0.0
Lane 2	53	5.0	310	0.170	100	18.5	LOS B	0.6	4.4	Short	30	0.0	NA
Approach	100	5.0		0.170		14.5	LOS A	0.6	4.4				
West: Pro Hart Ave													
Lane 1	436	5.0	1891	0.230	100	1.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	436	5.0		0.230		1.0	NA	0.0	0.0				
Intersection	967	5.0		0.230		2.9	NA	0.6	4.4				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

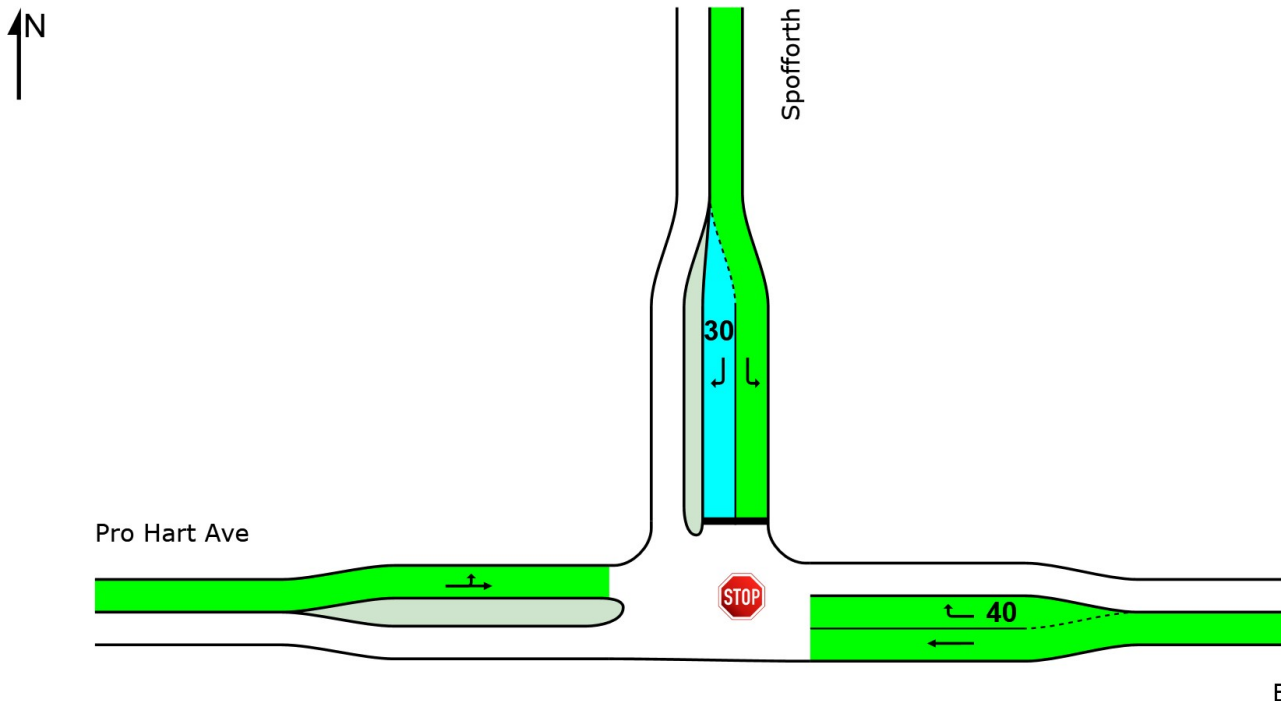
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	A	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



# USER REPORT FOR SITE

## All Movement Classes

 Project: DBD Options\_Sensitivity Analysis\_Rev02

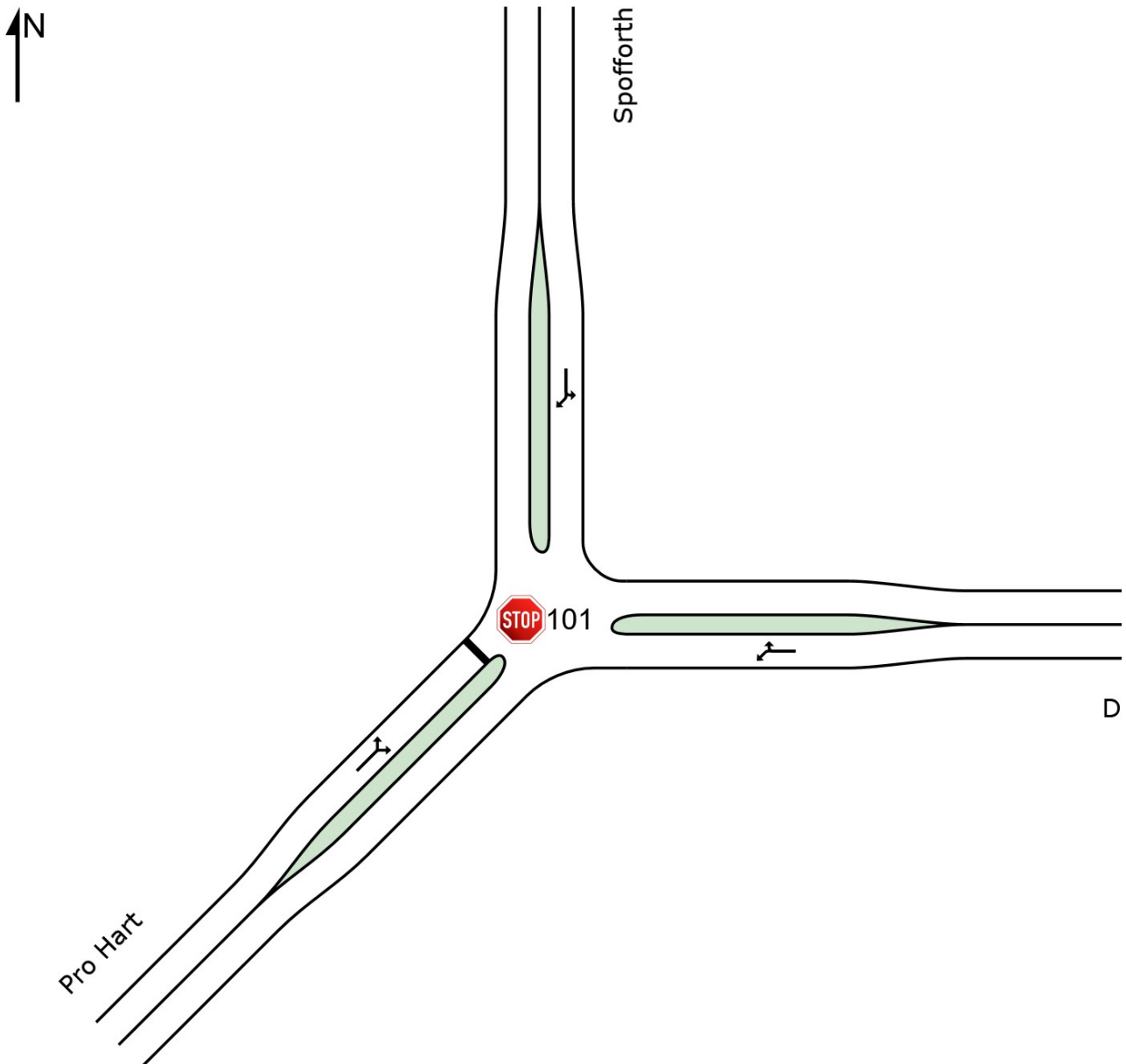
Template: Site User Report

 Site: 101 [DBD Base Sign control - 2023 AM (Site Folder: End of 2023 Scenarios)]

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	243	5.0	256	5.0	0.170	5.4	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
6	R2	57	5.0	60	5.0	0.170	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
Approach		300	5.0	316	5.0	0.170	5.4	NA	0.0	0.0	0.00	0.59	0.00	53.0
North: Spofforth														
7	L2	97	5.0	102	5.0	0.135	6.8	LOS A	0.6	4.5	0.36	0.49	0.36	52.5
9a	R1	75	5.0	79	5.0	0.135	6.7	LOS A	0.6	4.5	0.36	0.49	0.36	52.2
Approach		172	5.0	181	5.0	0.135	6.7	NA	0.6	4.5	0.36	0.49	0.36	52.4
SouthWest: Pro Hart														
30a	L1	18	5.0	19	5.0	1.194	193.4	LOS F	81.5	595.1	1.00	4.06	9.69	13.8
32a	R1	569	5.0	599	5.0	1.194	202.1	LOS F	81.5	595.1	1.00	4.06	9.69	13.8
Approach		587	5.0	618	5.0	1.194	201.8	LOS F	81.5	595.1	1.00	4.06	9.69	13.8
All Vehicles		1059	5.0	1115	5.0	1.194	114.5	NA	81.5	595.1	0.61	2.50	5.43	20.5

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	316	5.0	1856	0.170	100	5.4	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	316	5.0		0.170		5.4	NA	0.0	0.0				
North: Spofforth													
Lane 1	181	5.0	1343	0.135	100	6.7	LOS A	0.6	4.5	Full	500	0.0	0.0
Approach	181	5.0		0.135		6.7	NA	0.6	4.5				
SouthWest: Pro Hart													
Lane 1	618	5.0	518	1.194	100	201.8	LOS F	81.5	595.1	Full	500	0.0	10.4
Approach	618	5.0		1.194		201.8	LOS F	81.5	595.1				
Intersection	1115	5.0		1.194		114.5	NA	81.5	595.1				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

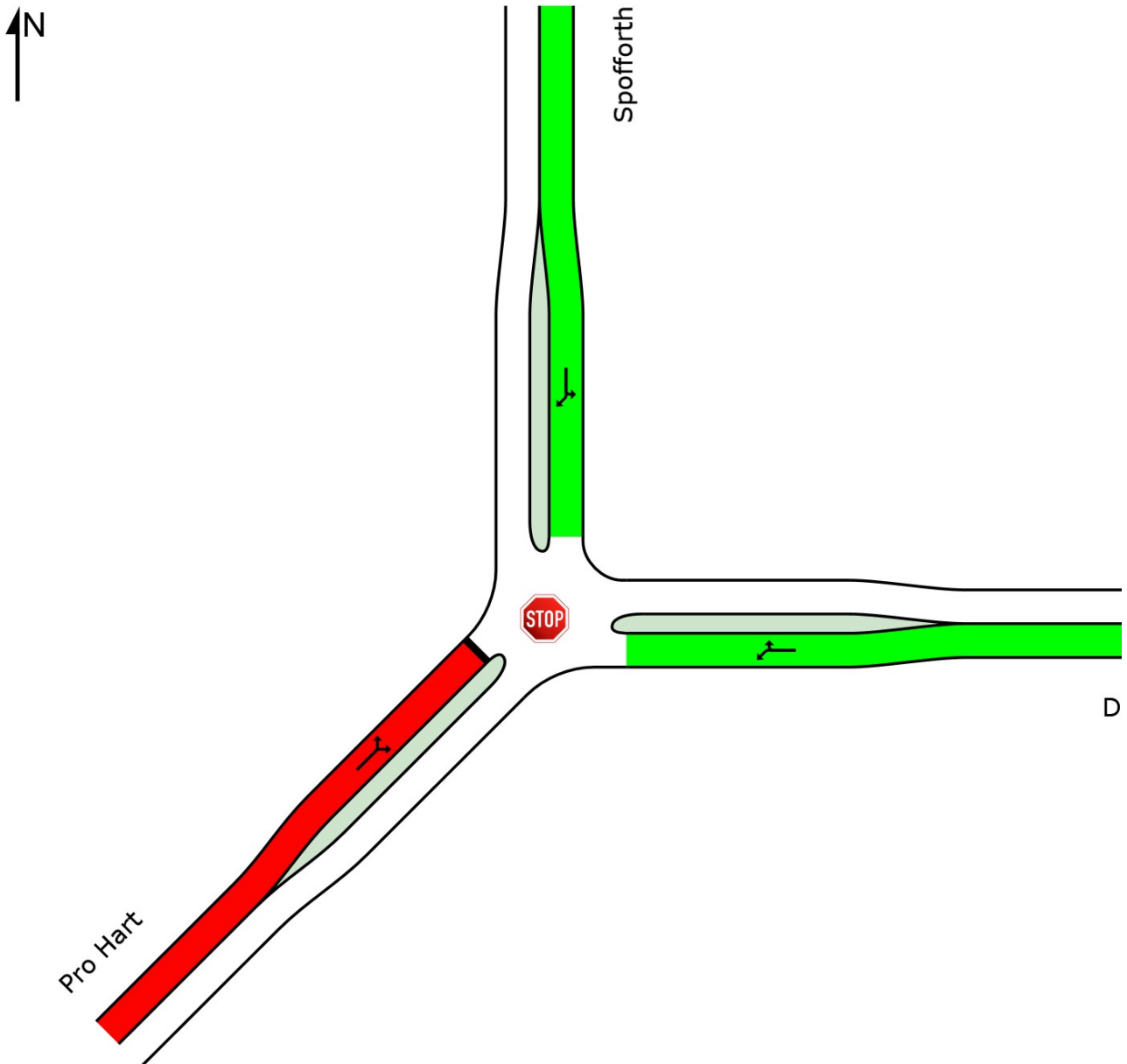
Queue Model: SIDRA Standard.

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

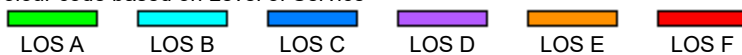
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	F	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

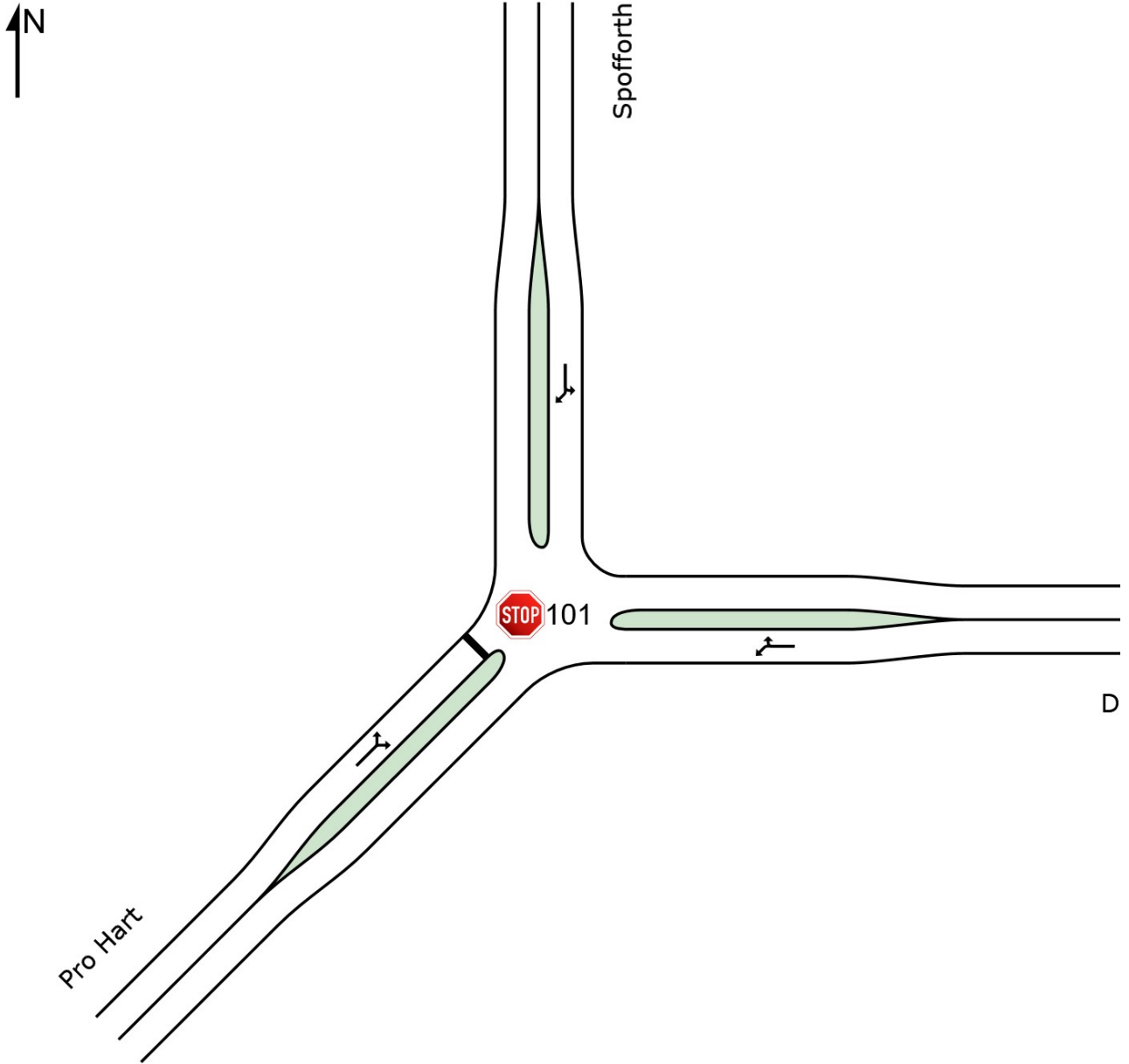


 **Site: 101 [DBD Base Sign control - 2023 PM (Site Folder: End of 2023 Scenarios)]**

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	436	5.0	459	5.0	0.314	5.5	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
6	R2	118	5.0	124	5.0	0.314	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
Approach		554	5.0	583	5.0	0.314	5.5	NA	0.0	0.0	0.00	0.59	0.00	52.9
North: Spofforth														
7	L2	37	5.0	39	5.0	0.134	9.3	LOS A	0.6	4.6	0.56	0.61	0.56	50.8
9a	R1	73	5.0	77	5.0	0.134	8.9	LOS A	0.6	4.6	0.56	0.61	0.56	50.5
Approach		110	5.0	116	5.0	0.134	9.0	NA	0.6	4.6	0.56	0.61	0.56	50.6
SouthWest: Pro Hart														
30a	L1	64	5.0	67	5.0	0.885	23.9	LOS B	13.2	96.4	0.76	1.58	2.58	38.7
32a	R1	326	5.0	343	5.0	0.885	34.2	LOS C	13.2	96.4	0.76	1.58	2.58	38.8
Approach		390	5.0	411	5.0	0.885	32.6	LOS C	13.2	96.4	0.76	1.58	2.58	38.8
All Vehicles		1054	5.0	1109	5.0	0.885	15.9	NA	13.2	96.4	0.34	0.96	1.02	46.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	583	5.0	1855	0.314	100	5.5	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	583	5.0		0.314		5.5	NA	0.0	0.0				
North: Spofforth													
Lane 1	116	5.0	866	0.134	100	9.0	LOS A	0.6	4.6	Full	500	0.0	0.0
Approach	116	5.0		0.134		9.0	NA	0.6	4.6				
SouthWest: Pro Hart													
Lane 1	411	5.0	464	0.885	100	32.6	LOS C	13.2	96.4	Full	500	0.0	0.0
Approach	411	5.0		0.885		32.6	LOS C	13.2	96.4				
Intersection	1109	5.0		0.885		15.9	NA	13.2	96.4				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

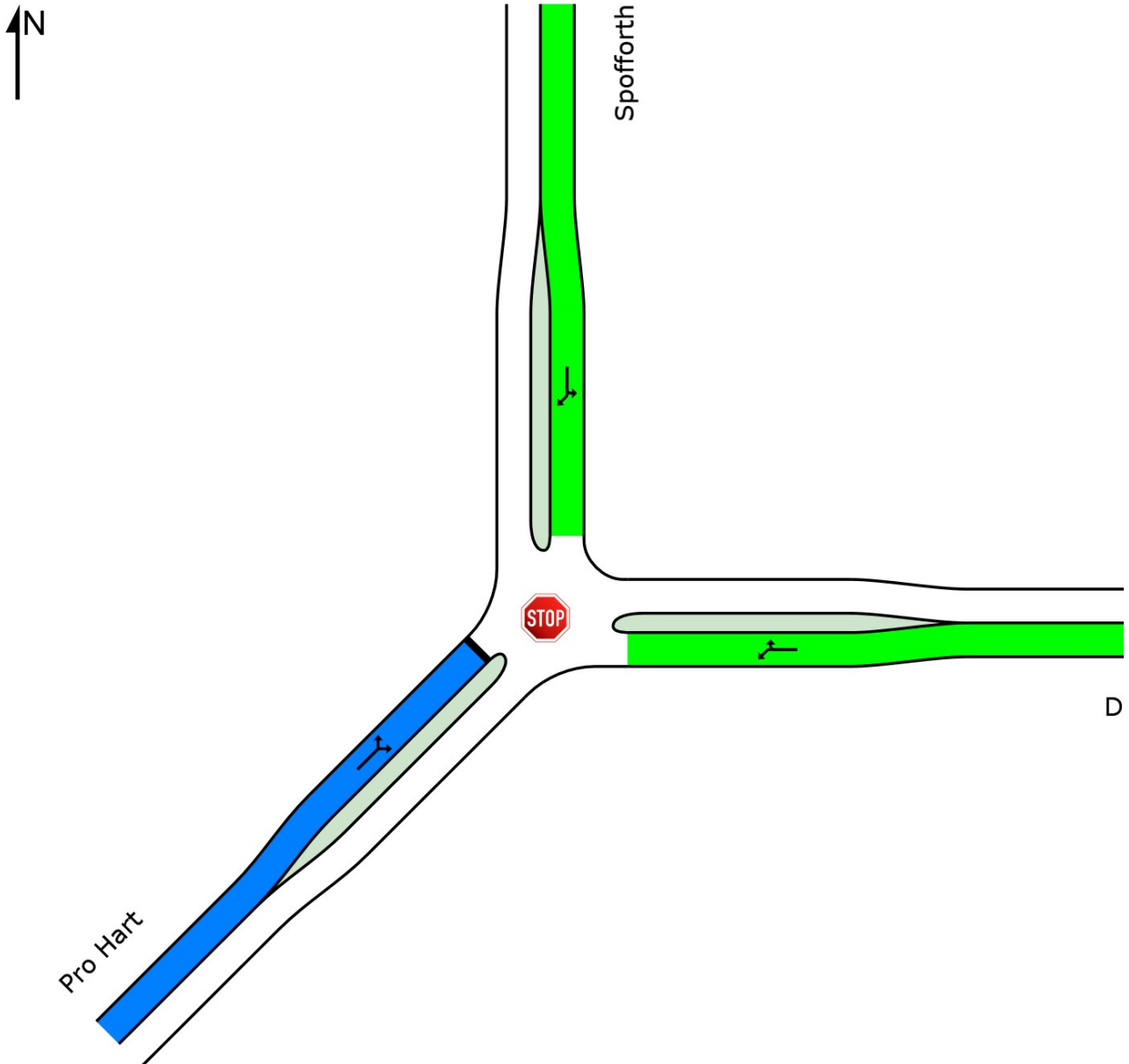
Queue Model: SIDRA Standard.

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

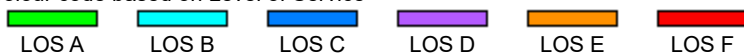
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	C	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



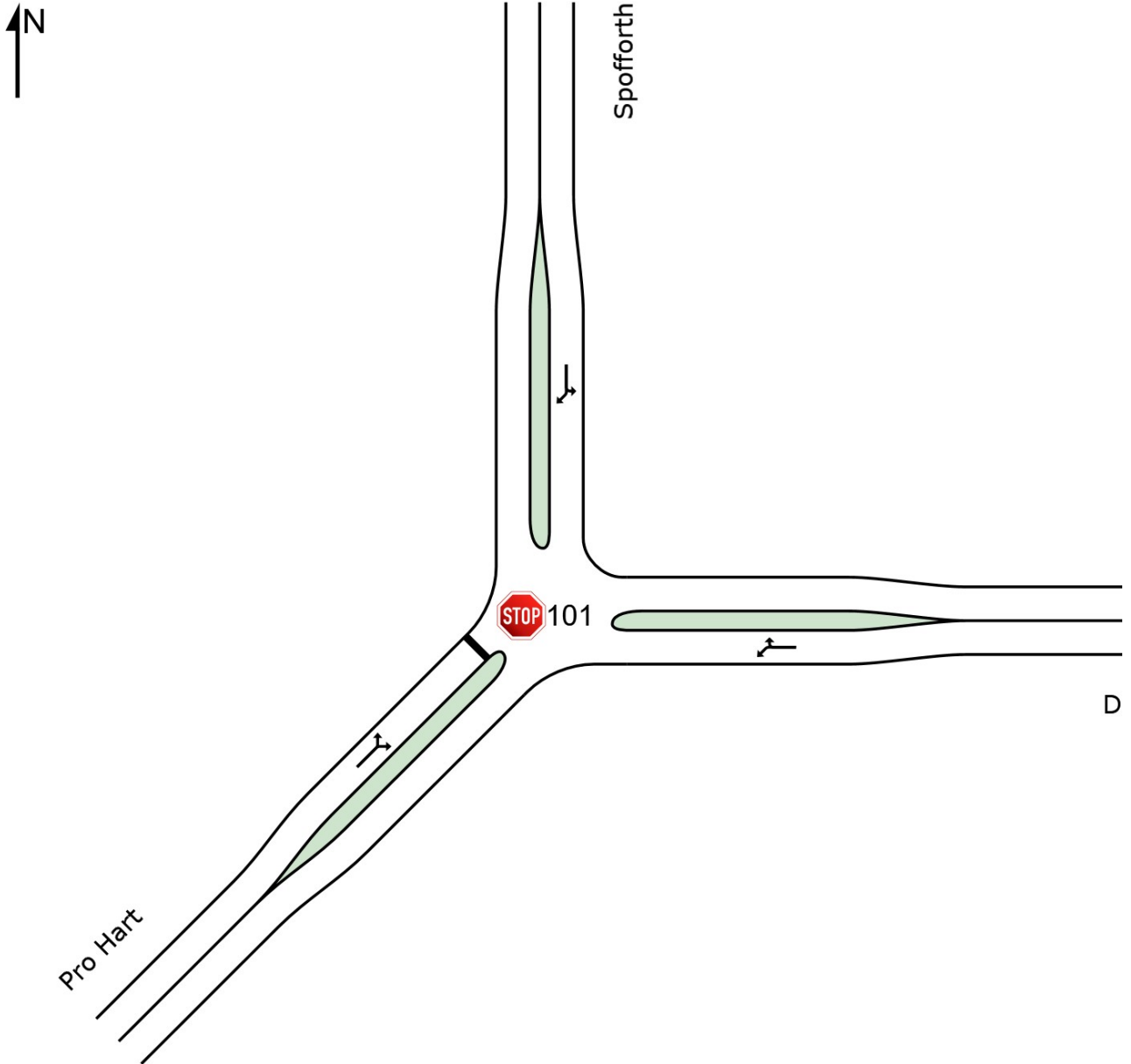


 **Site: 101 [DBD Base Sign control - 2023 AM + CSG (Site Folder: End of 2023 Scenarios)]**

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	349	5.0	367	5.0	0.230	5.4	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
6	R2	57	5.0	60	5.0	0.230	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	53.0
Approach		406	5.0	427	5.0	0.230	5.5	NA	0.0	0.0	0.00	0.59	0.00	52.9
North: Spofforth														
7	L2	97	5.0	102	5.0	0.180	7.7	LOS A	0.9	6.7	0.47	0.52	0.47	51.8
9a	R1	102	5.0	107	5.0	0.180	7.6	LOS A	0.9	6.7	0.47	0.52	0.47	51.5
Approach		199	5.0	209	5.0	0.180	7.7	NA	0.9	6.7	0.47	0.52	0.47	51.7
SouthWest: Pro Hart														
30a	L1	25	5.0	26	5.0	1.450	419.0	LOS F	141.4	1032.0	1.00	5.89	15.91	7.4
32a	R1	596	5.0	627	5.0	1.450	427.6	LOS F	141.4	1032.0	1.00	5.89	15.91	7.4
Approach		621	5.0	654	5.0	1.450	427.2	LOS F	141.4	1032.0	1.00	5.89	15.91	7.4
All Vehicles		1226	5.0	1291	5.0	1.450	219.5	NA	141.4	1032.0	0.58	3.26	8.14	12.8

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	427	5.0	1859	0.230	100	5.5	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	427	5.0		0.230		5.5	NA	0.0	0.0				
North: Spofforth													
Lane 1	209	5.0	1163	0.180	100	7.7	LOS A	0.9	6.7	Full	500	0.0	0.0
Approach	209	5.0		0.180		7.7	NA	0.9	6.7				
SouthWest: Pro Hart													
Lane 1	654	5.0	451	1.450	100	427.2	LOS F	141.4	1032.0	Full	500	0.0	34.3
Approach	654	5.0		1.450		427.2	LOS F	141.4	1032.0				
Intersection	1291	5.0		1.450		219.5	NA	141.4	1032.0				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

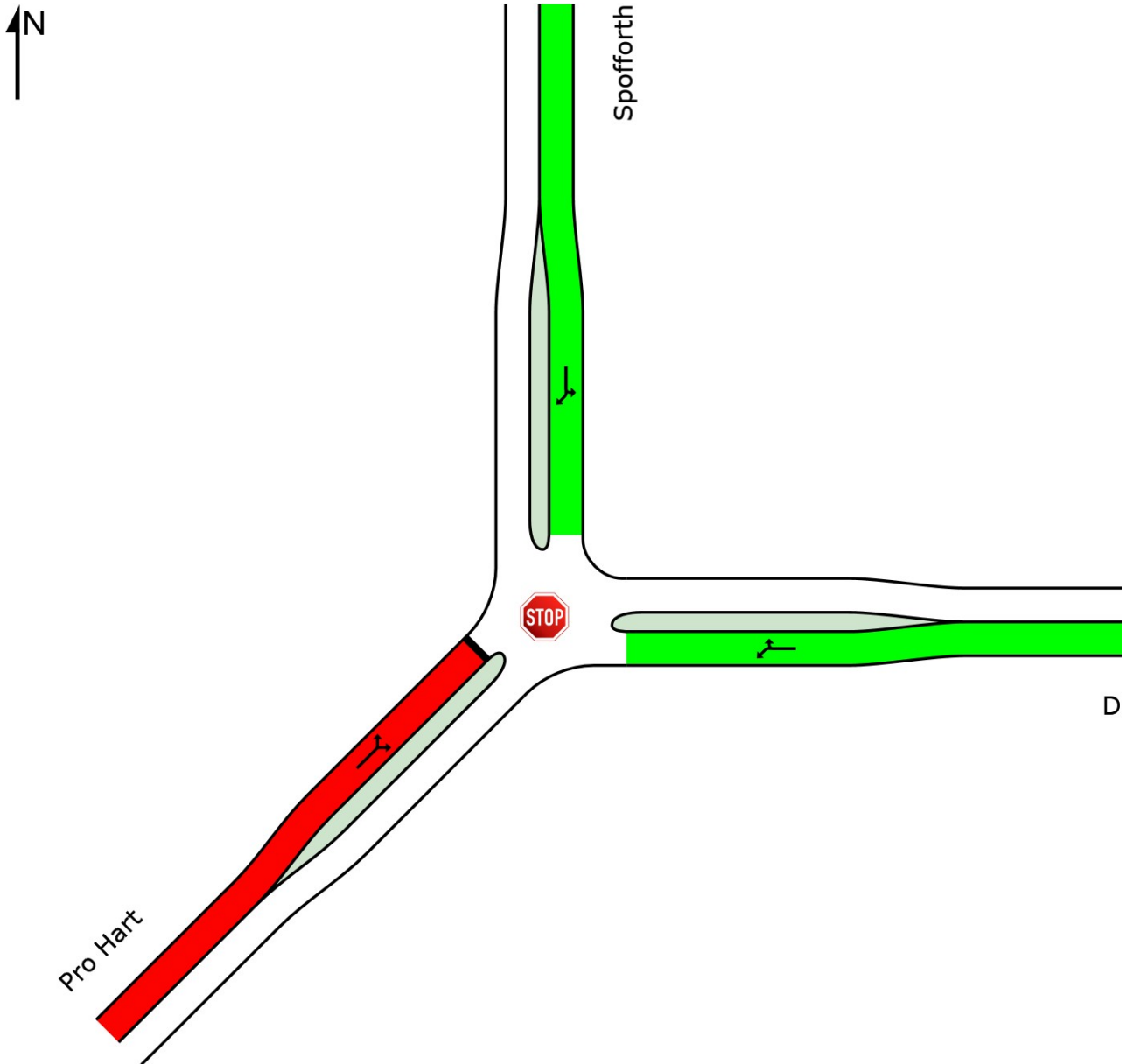
Queue Model: SIDRA Standard.

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

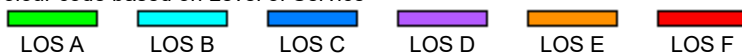
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	F	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

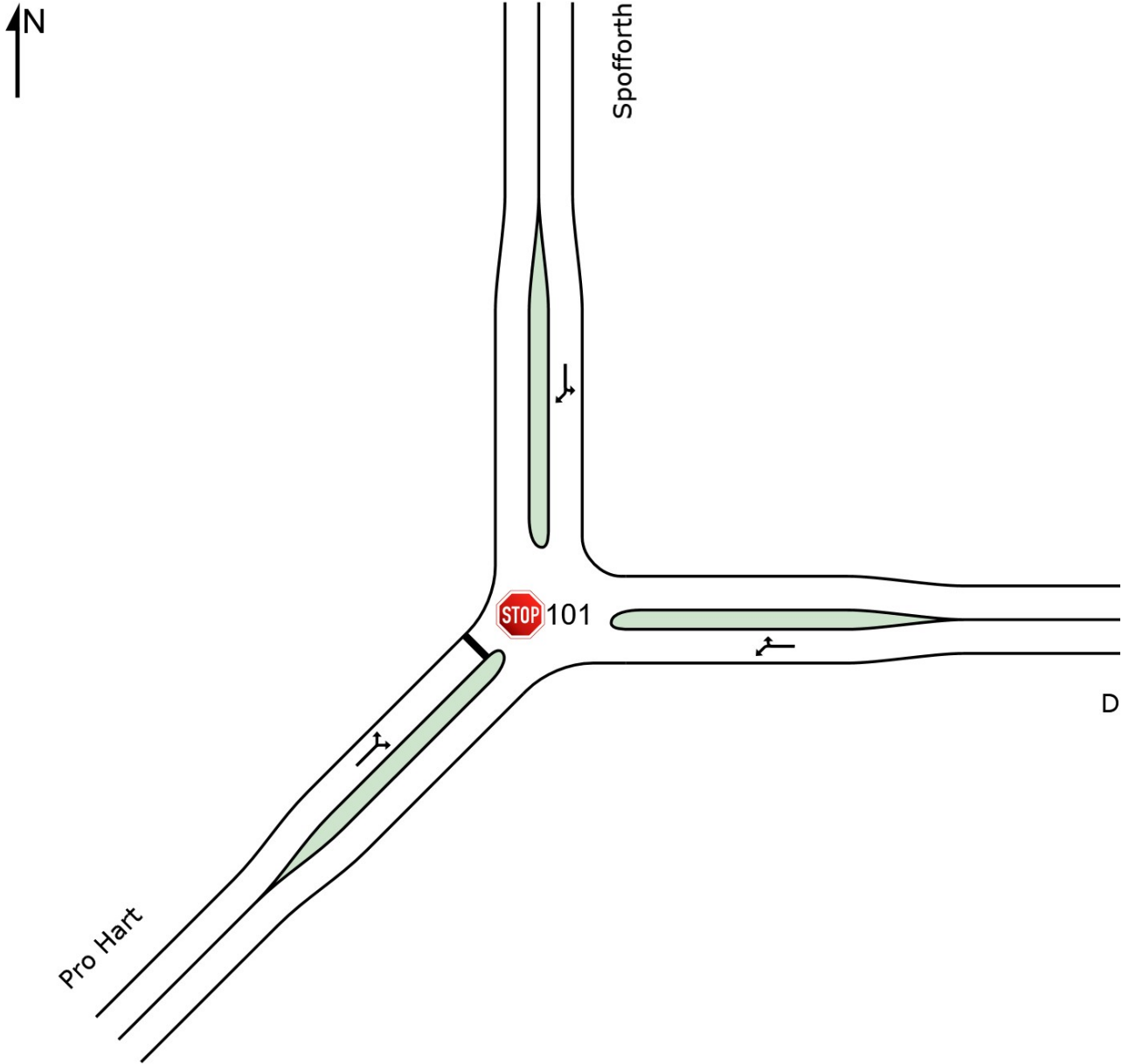


 **Site: 101 [DBD Base Sign control - 2023 PM + CSG (Site Folder: End of 2023 Scenarios)]**

Pro Hart Existing  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
4a	L1	457	5.0	481	5.0	0.326	5.5	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
6	R2	118	5.0	124	5.0	0.326	5.6	LOS A	0.0	0.0	0.00	0.59	0.00	52.9
Approach		575	5.0	605	5.0	0.326	5.5	NA	0.0	0.0	0.00	0.59	0.00	52.9
North: Spofforth														
7	L2	37	5.0	39	5.0	0.146	9.6	LOS A	0.7	5.0	0.58	0.63	0.58	50.6
9a	R1	78	5.0	82	5.0	0.146	9.2	LOS A	0.7	5.0	0.58	0.63	0.58	50.3
Approach		115	5.0	121	5.0	0.146	9.3	NA	0.7	5.0	0.58	0.63	0.58	50.4
SouthWest: Pro Hart														
30a	L1	86	5.0	91	5.0	1.153	161.4	LOS F	61.0	445.6	1.00	3.43	8.56	15.5
32a	R1	411	5.0	433	5.0	1.153	173.8	LOS F	61.0	445.6	1.00	3.43	8.56	15.5
Approach		497	5.0	523	5.0	1.153	171.7	LOS F	61.0	445.6	1.00	3.43	8.56	15.5
All Vehicles		1187	5.0	1249	5.0	1.153	75.5	NA	61.0	445.6	0.47	1.78	3.64	26.3

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.



Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	605	5.0	1855	0.326	100	5.5	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	605	5.0		0.326		5.5	NA	0.0	0.0				
North: Spofforth													
Lane 1	121	5.0	830	0.146	100	9.3	LOS A	0.7	5.0	Full	500	0.0	0.0
Approach	121	5.0		0.146		9.3	NA	0.7	5.0				
SouthWest: Pro Hart													
Lane 1	523	5.0	454	1.153	100	171.7	LOS F	61.0	445.6	Full	500	0.0	1.7
Approach	523	5.0		1.153		171.7	LOS F	61.0	445.6				
Intersection	1249	5.0		1.153		75.5	NA	61.0	445.6				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

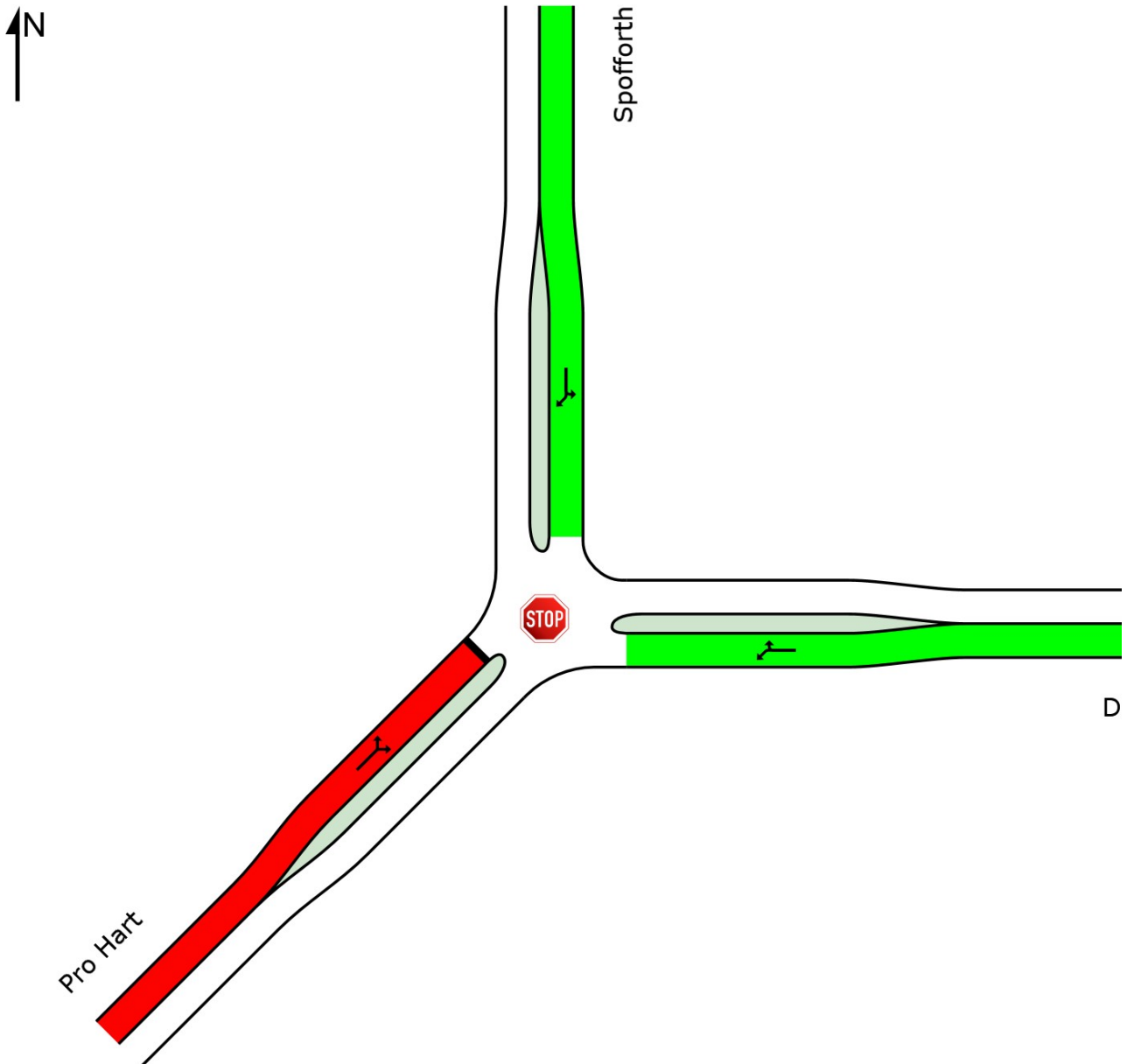
Queue Model: SIDRA Standard.

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

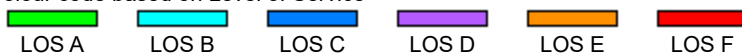
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## Level of Service

	Approaches			Intersection
	East	North	Southwest	
LOS	NA	NA	F	NA



Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



# USER REPORT FOR SITE

## All Movement Classes

 Project: DBD Options\_Sensitivity Analysis\_Rev02

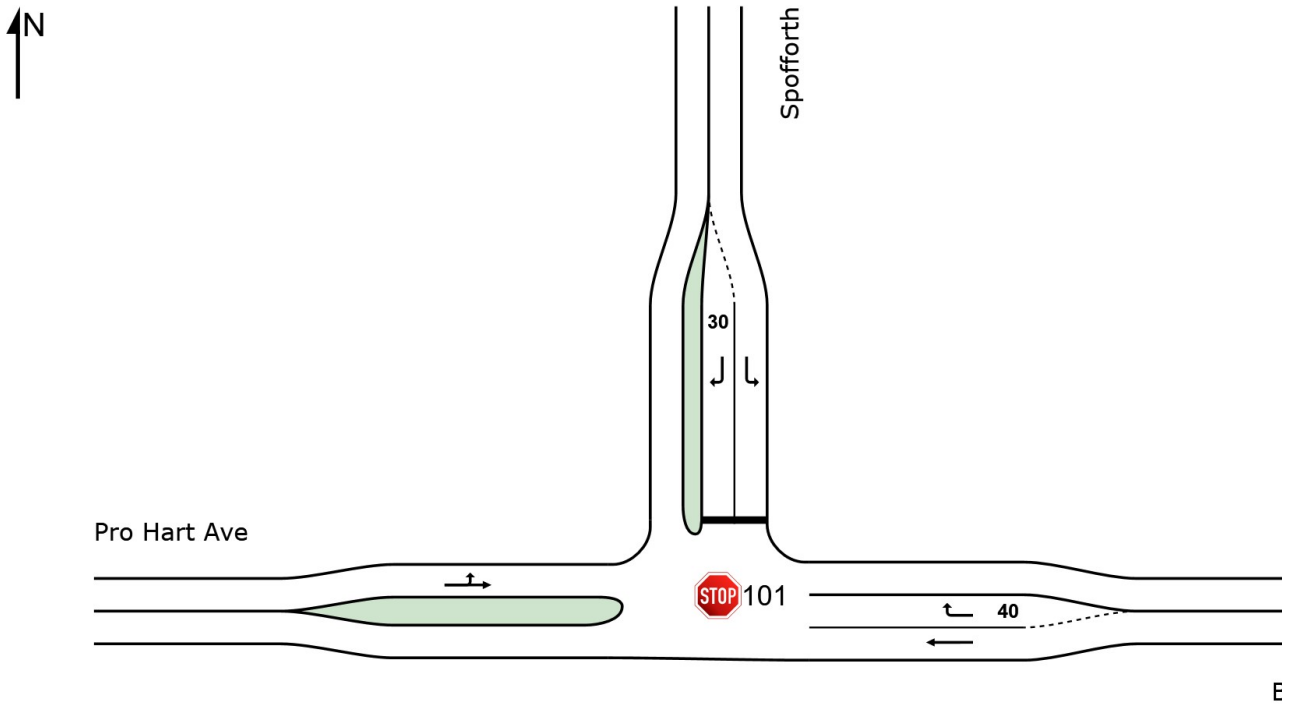
Template: Site User Report

 Site: 101 [DBD Options Stop Control - 2023 AM (Site Folder: End of 2023 Scenarios)]

New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	243	5.0	256	5.0	0.135	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	57	5.0	60	5.0	0.069	8.6	LOS A	0.3	2.0	0.57	0.74	0.57	51.0
Approach		300	5.0	316	5.0	0.135	1.7	NA	0.3	2.0	0.11	0.14	0.11	58.0
North: Spofforth														
7	L2	97	5.0	102	5.0	0.154	12.3	LOS A	0.6	4.2	0.58	1.00	0.58	49.6
9	R2	75	5.0	79	5.0	0.326	25.1	LOS B	1.3	9.2	0.83	1.05	1.01	42.0
Approach		172	5.0	181	5.0	0.326	17.9	LOS B	1.3	9.2	0.69	1.02	0.77	46.0
West: Pro Hart Ave														
10	L2	18	5.0	19	5.0	0.324	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	57.8
11	T1	569	5.0	599	5.0	0.324	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.6
Approach		587	5.0	618	5.0	0.324	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.6
All Vehicles		1059	5.0	1115	5.0	0.326	3.5	NA	1.3	9.2	0.14	0.22	0.16	56.4

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: BDB													
Lane 1	256	5.0	1898	0.135	100	0.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	60	5.0	867	0.069	100	8.6	LOS A	0.3	2.0	Short	40	0.0	NA
Approach	316	5.0		0.135		1.7	NA	0.3	2.0				
North: Spofforth													
Lane 1	102	5.0	665	0.154	100	12.3	LOS A	0.6	4.2	Full	500	0.0	0.0
Lane 2	79	5.0	242	0.326	100	25.1	LOS B	1.3	9.2	Short	30	0.0	NA
Approach	181	5.0		0.326		17.9	LOS B	1.3	9.2				
West: Pro Hart Ave													
Lane 1	618	5.0	1905	0.324	100	0.3	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	618	5.0		0.324		0.3	NA	0.0	0.0				
Intersection	1115	5.0		0.326		3.5	NA	1.3	9.2				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

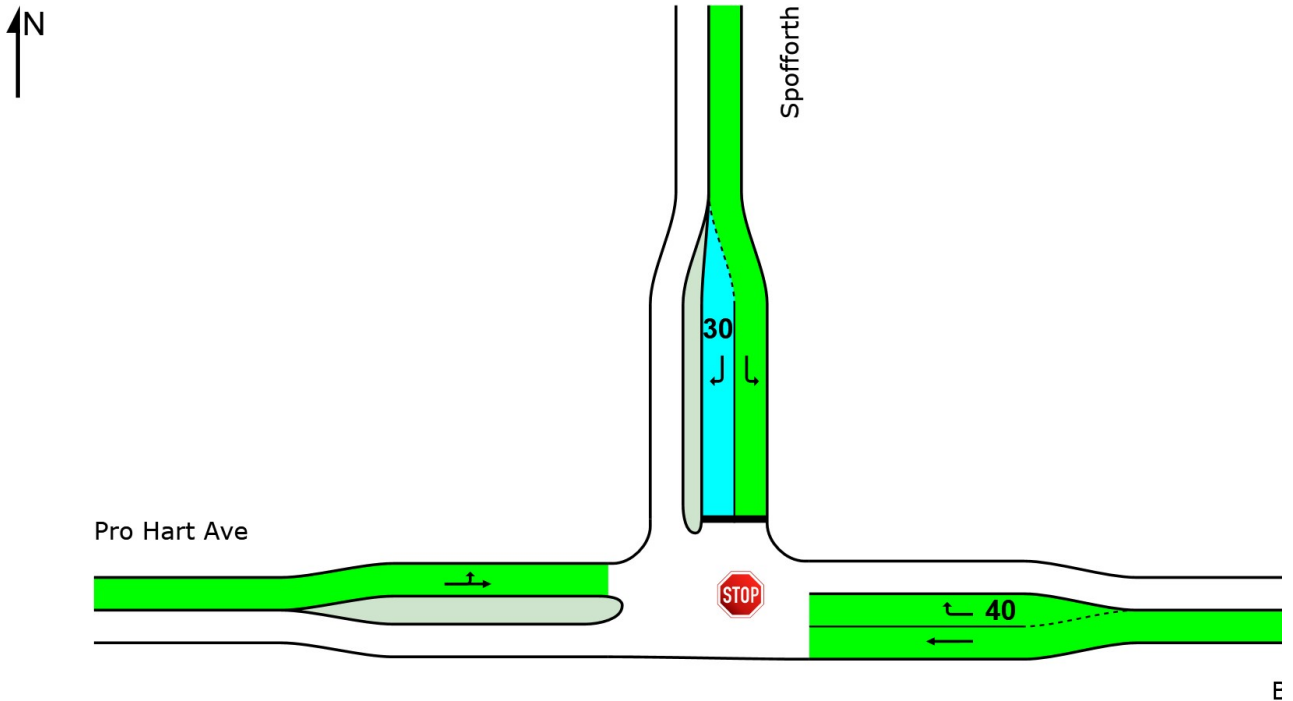
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	B	NA	NA



E

Colour code based on Level of Service



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

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

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



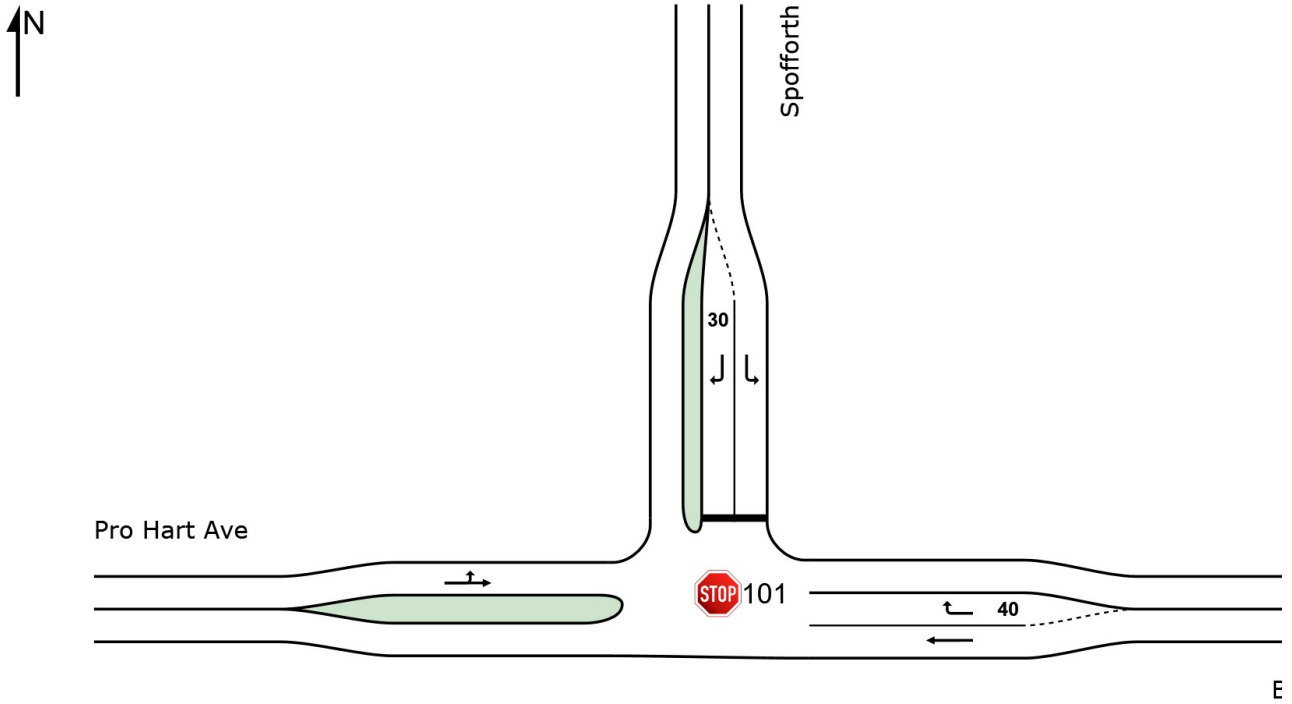


 **Site: 101 [DBD Options Stop Control - 2023 PM (Site Folder: End of 2023 Scenarios)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



E

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	436	5.0	459	5.0	0.242	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	118	5.0	124	5.0	0.108	7.3	LOS A	0.5	3.5	0.48	0.67	0.48	51.8
Approach		554	5.0	583	5.0	0.242	1.6	NA	0.5	3.5	0.10	0.14	0.10	58.0
North: Spofforth														
7	L2	37	5.0	39	5.0	0.040	9.9	LOS A	0.2	1.1	0.42	0.88	0.42	51.0
9	R2	73	5.0	77	5.0	0.317	24.9	LOS B	1.2	8.9	0.83	1.05	1.00	42.1
Approach		110	5.0	116	5.0	0.317	19.9	LOS B	1.2	8.9	0.69	0.99	0.80	44.7
West: Pro Hart Ave														
10	L2	65	5.0	68	5.0	0.218	5.6	LOS A	0.0	0.0	0.00	0.10	0.00	57.2
11	T1	326	5.0	343	5.0	0.218	0.1	LOS A	0.0	0.0	0.00	0.10	0.00	59.0
Approach		391	5.0	412	5.0	0.218	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.7
All Vehicles		1055	5.0	1111	5.0	0.317	3.3	NA	1.2	8.9	0.13	0.21	0.14	56.5

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	459	5.0	1895	0.242	100	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	124	5.0	1147	0.108	100	7.3	LOS A	0.5	3.5	Short	40	0.0	NA
Approach	583	5.0		0.242		1.6	NA	0.5	3.5				
North: Spofforth													
Lane 1	39	5.0	963	0.040	100	9.9	LOS A	0.2	1.1	Full	500	0.0	0.0
Lane 2	77	5.0	242	0.317	100	24.9	LOS B	1.2	8.9	Short	30	0.0	NA
Approach	116	5.0		0.317		19.9	LOS B	1.2	8.9				
West: Pro Hart Ave													
Lane 1	412	5.0	1892	0.218	100	1.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	412	5.0		0.218		1.0	NA	0.0	0.0				
Intersection	1111	5.0		0.317		3.3	NA	1.2	8.9				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

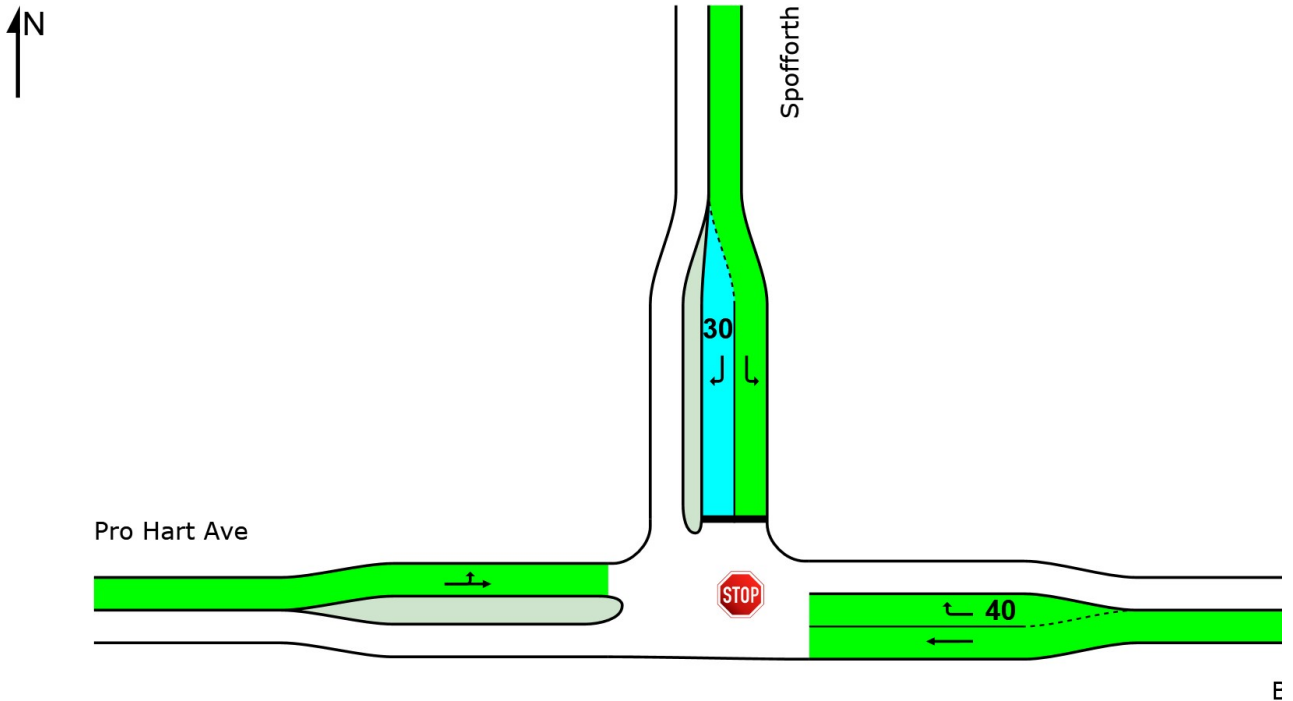
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	B	NA	NA



E

Colour code based on Level of Service



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

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

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

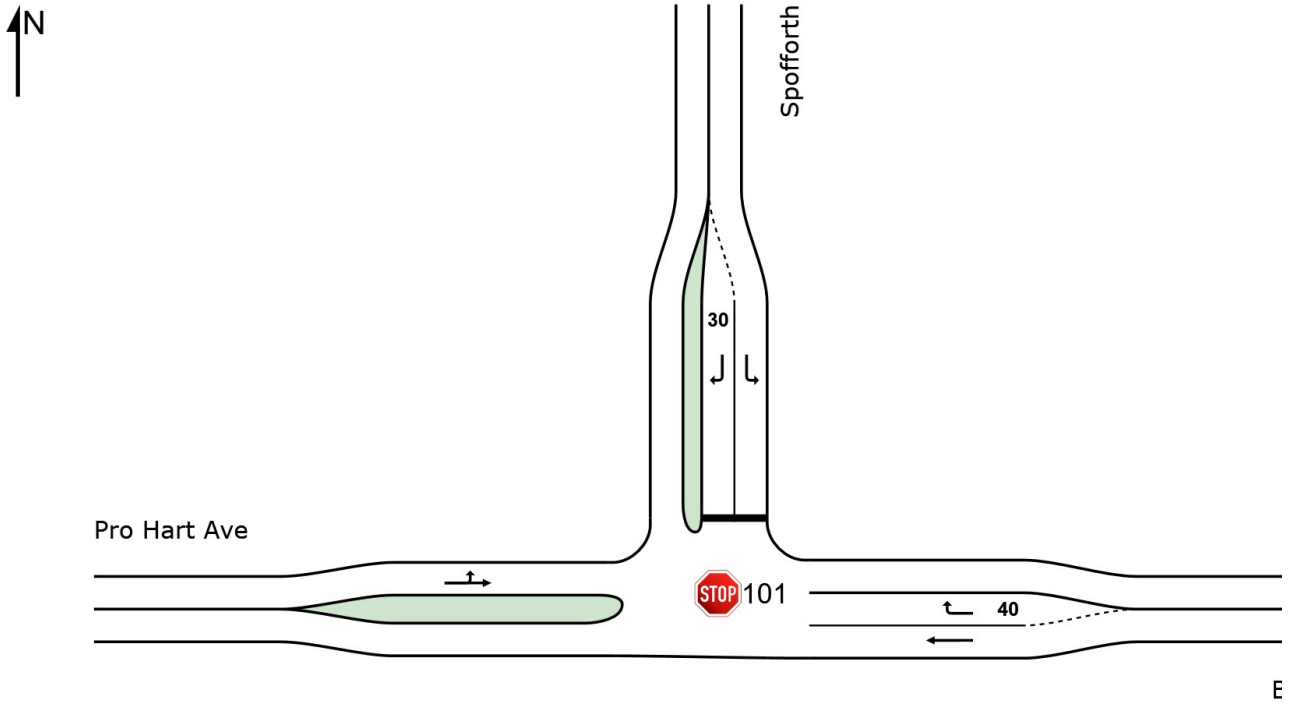


 **Site: 101 [DBD Options Stop Control - 2023 AM + CSG (Site Folder: End of 2023 Scenarios)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	349	5.0	367	5.0	0.194	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	57	5.0	60	5.0	0.073	8.9	LOS A	0.3	2.1	0.59	0.76	0.59	50.8
Approach		406	5.0	427	5.0	0.194	1.3	NA	0.3	2.1	0.08	0.11	0.08	58.4
North: Spofforth														
7	L2	97	5.0	102	5.0	0.161	12.6	LOS A	0.6	4.4	0.59	1.00	0.59	49.4
9	R2	102	5.0	107	5.0	0.589	39.5	LOS C	2.6	19.0	0.92	1.13	1.44	36.1
Approach		199	5.0	209	5.0	0.589	26.4	LOS B	2.6	19.0	0.76	1.07	1.03	41.6
West: Pro Hart Ave														
10	L2	25	5.0	26	5.0	0.343	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	57.7
11	T1	596	5.0	627	5.0	0.343	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.6
Approach		621	5.0	654	5.0	0.343	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.5
All Vehicles		1226	5.0	1291	5.0	0.589	4.9	NA	2.6	19.0	0.15	0.22	0.19	55.3

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: BDB													
Lane 1	367	5.0	1892	0.194	100	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	60	5.0	820	0.073	100	8.9	LOS A	0.3	2.1	Short	40	0.0	NA
Approach	427	5.0		0.194		1.3	NA	0.3	2.1				
North: Spofforth													
Lane 1	102	5.0	634	0.161	100	12.6	LOS A	0.6	4.4	Full	500	0.0	0.0
Lane 2	107	5.0	182	0.589	100	39.5	LOS C	2.6	19.0	Short	30	0.0	NA
Approach	209	5.0		0.589		26.4	LOS B	2.6	19.0				
West: Pro Hart Ave													
Lane 1	654	5.0	1904	0.343	100	0.3	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	654	5.0		0.343		0.3	NA	0.0	0.0				
Intersection	1291	5.0		0.589		4.9	NA	2.6	19.0				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

Queue Model: SIDRA Standard.

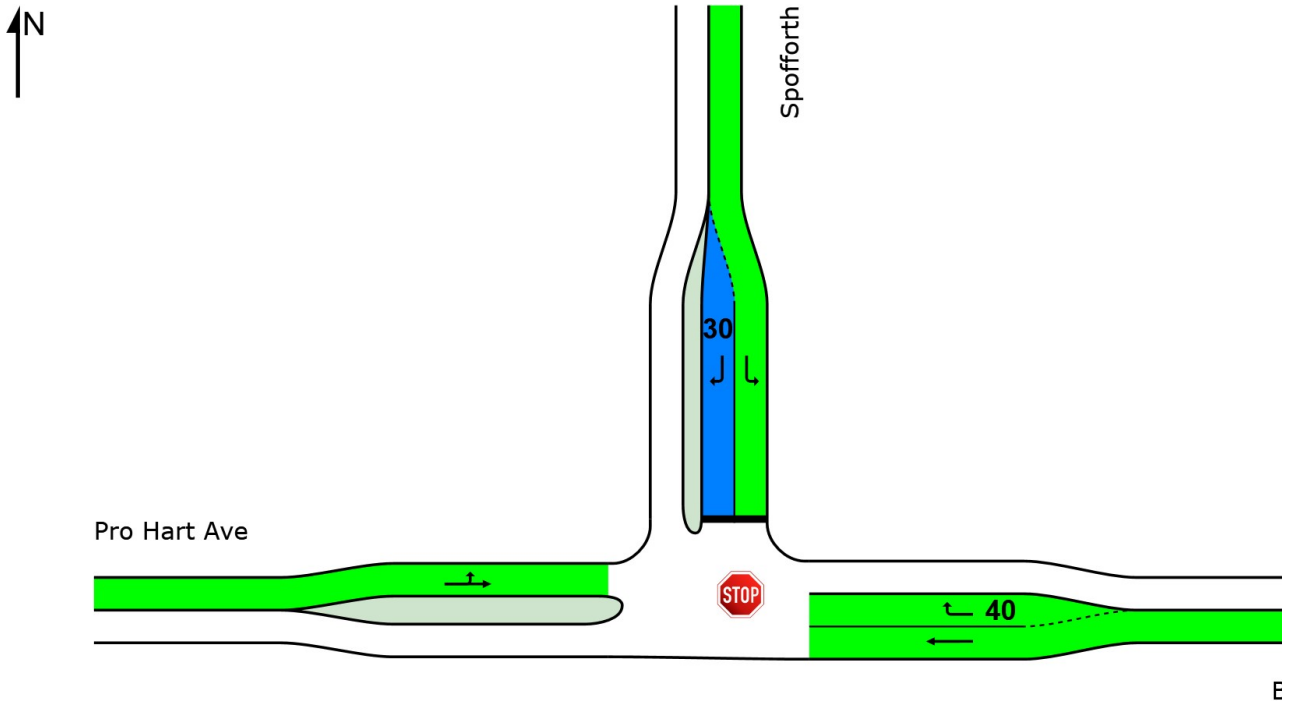
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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



## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	B	NA	NA



E

Colour code based on Level of Service



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

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

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

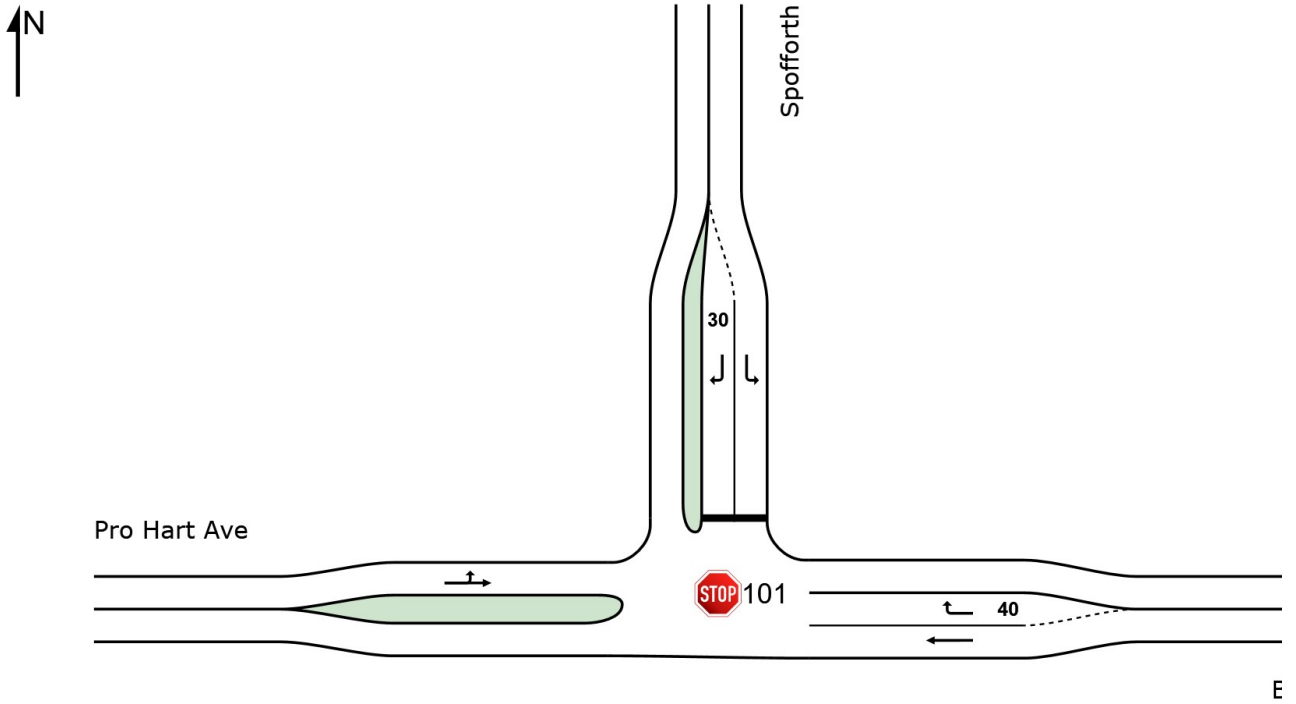


 **Site: 101 [DBD Options Stop Control - 2023 PM + CSG (Site Folder: End of 2023 Scenarios)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	457	5.0	481	5.0	0.254	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	118	5.0	124	5.0	0.125	8.0	LOS A	0.5	3.9	0.54	0.73	0.54	51.4
Approach		575	5.0	605	5.0	0.254	1.7	NA	0.5	3.9	0.11	0.15	0.11	57.9
North: Spofforth														
7	L2	37	5.0	39	5.0	0.046	10.5	LOS A	0.2	1.2	0.47	0.90	0.47	50.7
9	R2	78	5.0	82	5.0	0.425	32.4	LOS C	1.7	12.3	0.89	1.07	1.16	38.8
Approach		115	5.0	121	5.0	0.425	25.3	LOS B	1.7	12.3	0.75	1.02	0.94	42.0
West: Pro Hart Ave														
10	L2	86	5.0	91	5.0	0.277	5.7	LOS A	0.0	0.0	0.00	0.10	0.00	57.1
11	T1	411	5.0	433	5.0	0.277	0.1	LOS A	0.0	0.0	0.00	0.10	0.00	58.9
Approach		497	5.0	523	5.0	0.277	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.6
All Vehicles		1187	5.0	1249	5.0	0.425	3.7	NA	1.7	12.3	0.13	0.21	0.15	56.1

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	481	5.0	1891	0.254	100	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	124	5.0	992	0.125	100	8.0	LOS A	0.5	3.9	Short	40	0.0	NA
Approach	605	5.0		0.254		1.7	NA	0.5	3.9				
North: Spofforth													
Lane 1	39	5.0	855	0.046	100	10.5	LOS A	0.2	1.2	Full	500	0.0	0.0
Lane 2	82	5.0	193	0.425	100	32.4	LOS C	1.7	12.3	Short	30	0.0	NA
Approach	121	5.0		0.425		25.3	LOS B	1.7	12.3				
West: Pro Hart Ave													
Lane 1	523	5.0	1891	0.277	100	1.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	523	5.0		0.277		1.0	NA	0.0	0.0				
Intersection	1249	5.0		0.425		3.7	NA	1.7	12.3				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

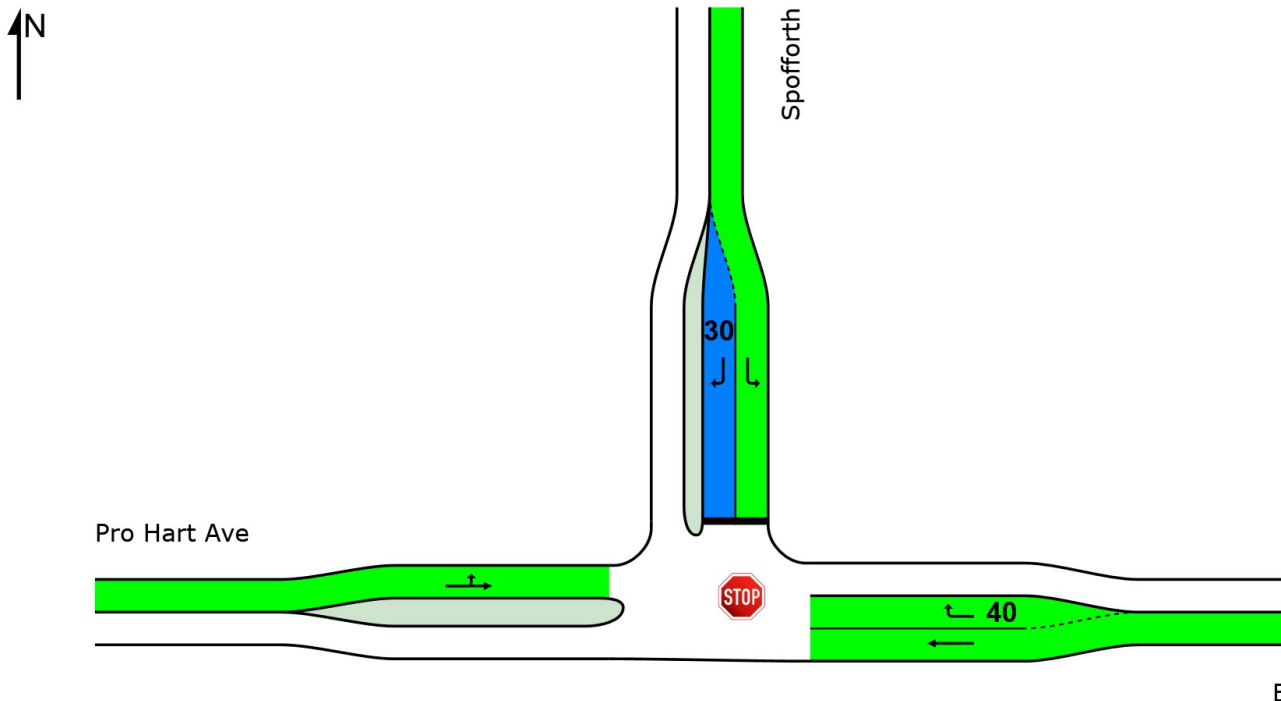
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	B	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



# USER REPORT FOR SITE

## All Movement Classes

 Project: DBD Options\_Sensitivity Analysis\_Rev02

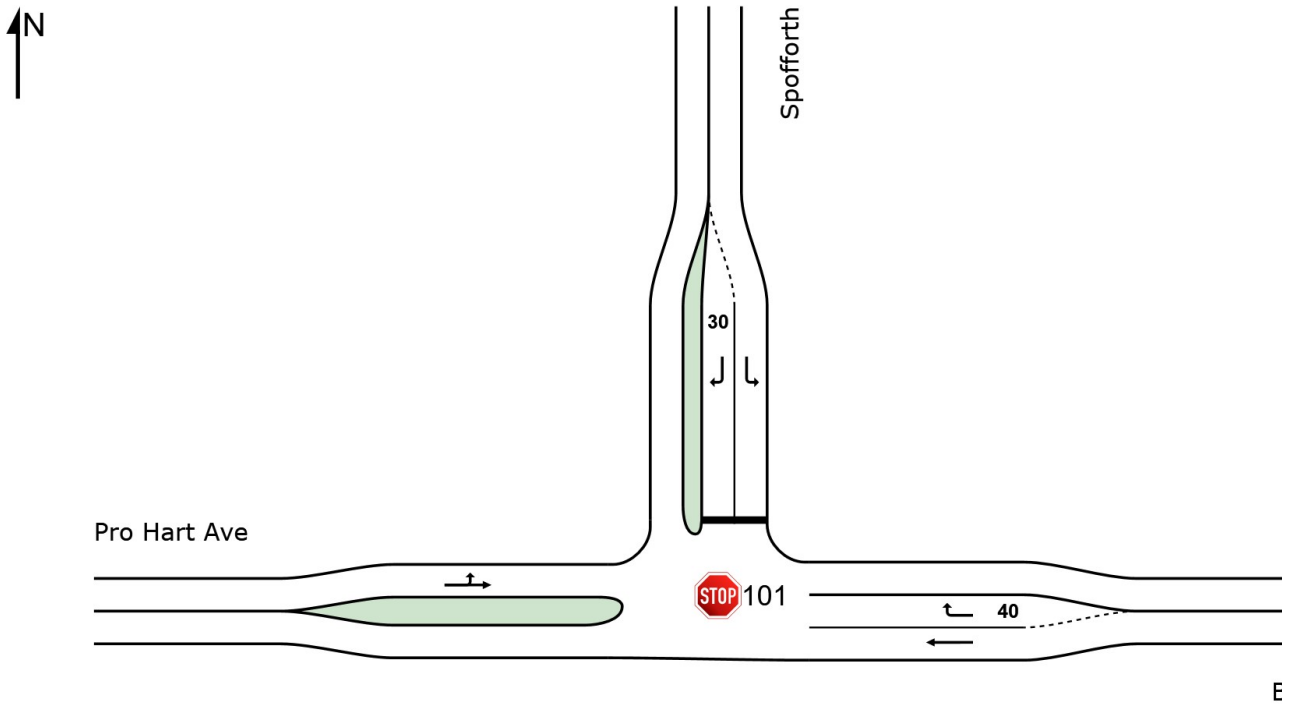
Template: Site User Report

 Site: 101 [DBD Options Stop Control - 2024 AM (Site Folder: End of 2024 Scenarios)]

New Site  
Site Category: (None)  
Stop (Two-Way)

### Site Layout

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





Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	265	5.0	279	5.0	0.147	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	57	5.0	60	5.0	0.084	9.7	LOS A	0.3	2.4	0.62	0.81	0.62	50.2
Approach		322	5.0	339	5.0	0.147	1.8	NA	0.3	2.4	0.11	0.14	0.11	57.9
North: Spofforth														
7	L2	97	5.0	102	5.0	0.189	13.9	LOS A	0.7	5.0	0.66	1.00	0.66	48.6
9	R2	82	5.0	86	5.0	0.495	37.2	LOS C	2.0	14.6	0.91	1.09	1.27	36.9
Approach		179	5.0	188	5.0	0.495	24.6	LOS B	2.0	14.6	0.78	1.04	0.94	42.5
West: Pro Hart Ave														
10	L2	21	5.0	22	5.0	0.388	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	57.7
11	T1	682	5.0	718	5.0	0.388	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.6
Approach		703	5.0	740	5.0	0.388	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.5
All Vehicles		1204	5.0	1267	5.0	0.495	4.3	NA	2.0	14.6	0.14	0.20	0.17	55.8

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: BDB													
Lane 1	279	5.0	1896	0.147	100	0.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	60	5.0	712	0.084	100	9.7	LOS A	0.3	2.4	Short	40	0.0	NA
Approach	339	5.0		0.147		1.8	NA	0.3	2.4				
North: Spofforth													
Lane 1	102	5.0	539	0.189	100	13.9	LOS A	0.7	5.0	Full	500	0.0	0.0
Lane 2	86	5.0	174	0.495	100	37.2	LOS C	2.0	14.6	Short	30	0.0	NA
Approach	188	5.0		0.495		24.6	LOS B	2.0	14.6				
West: Pro Hart Ave													
Lane 1	740	5.0	1905	0.388	100	0.3	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	740	5.0		0.388		0.3	NA	0.0	0.0				
Intersection	1267	5.0		0.495		4.3	NA	2.0	14.6				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

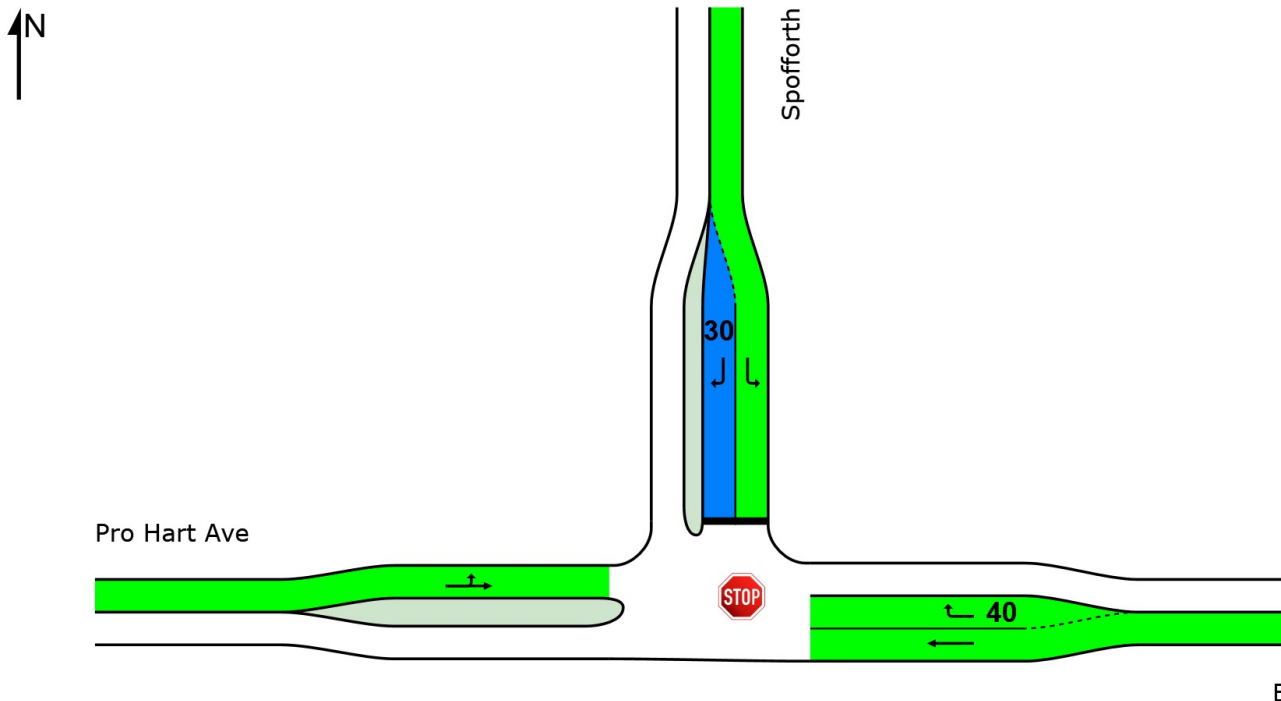
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	B	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

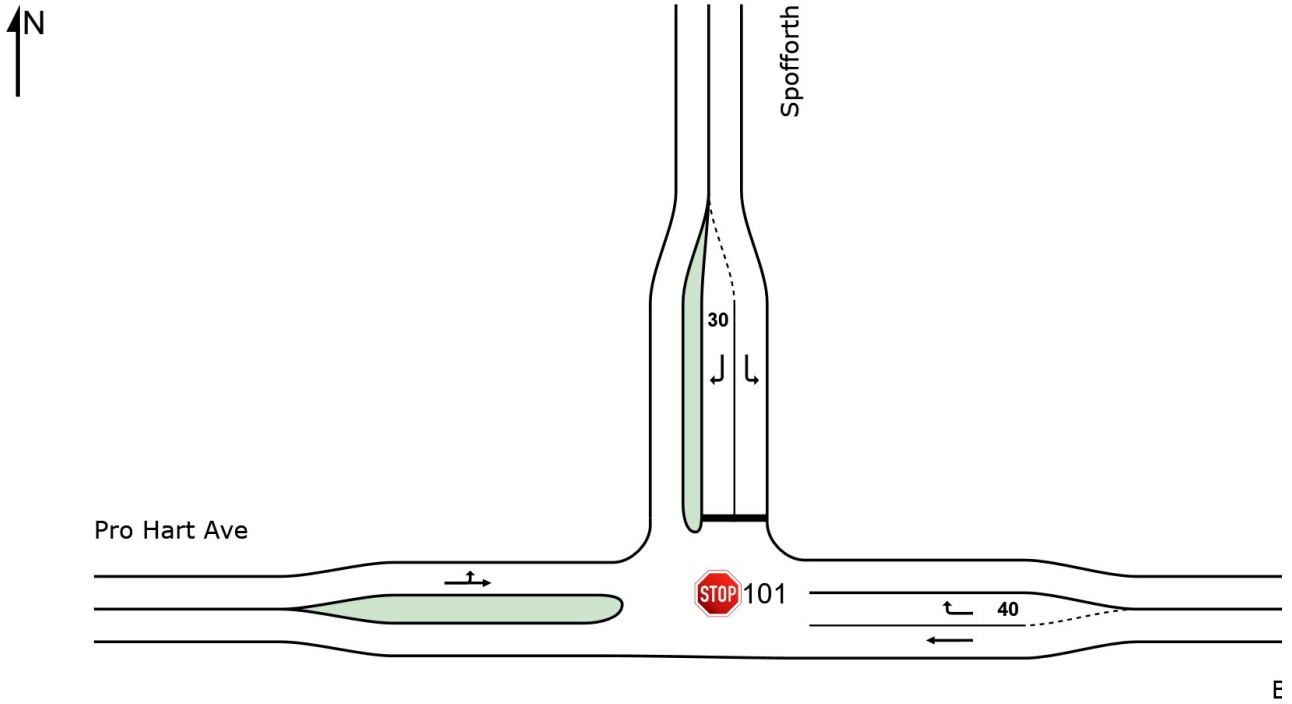


 **Site: 101 [DBD Options Stop Control - 2024 PM (Site Folder: End of 2024 Scenarios)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



E

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	524	5.0	552	5.0	0.291	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
6	R2	118	5.0	124	5.0	0.115	7.6	LOS A	0.5	3.6	0.51	0.69	0.51	51.7
Approach		642	5.0	676	5.0	0.291	1.5	NA	0.5	3.6	0.09	0.13	0.09	58.2
North: Spofforth														
7	L2	37	5.0	39	5.0	0.043	10.1	LOS A	0.2	1.2	0.44	0.88	0.44	50.9
9	R2	87	5.0	92	5.0	0.501	36.2	LOS C	2.1	15.1	0.91	1.10	1.28	37.3
Approach		124	5.0	131	5.0	0.501	28.4	LOS B	2.1	15.1	0.77	1.03	1.03	40.6
West: Pro Hart Ave														
10	L2	72	5.0	76	5.0	0.242	5.7	LOS A	0.0	0.0	0.00	0.10	0.00	57.2
11	T1	363	5.0	382	5.0	0.242	0.1	LOS A	0.0	0.0	0.00	0.10	0.00	59.0
Approach		435	5.0	458	5.0	0.242	1.0	NA	0.0	0.0	0.00	0.10	0.00	58.7
All Vehicles		1201	5.0	1264	5.0	0.501	4.1	NA	2.1	15.1	0.13	0.21	0.16	55.8

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	552	5.0	1895	0.291	100	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	124	5.0	1082	0.115	100	7.6	LOS A	0.5	3.6	Short	40	0.0	NA
Approach	676	5.0		0.291		1.5	NA	0.5	3.6				
North: Spofforth													
Lane 1	39	5.0	916	0.043	100	10.1	LOS A	0.2	1.2	Full	500	0.0	0.0
Lane 2	92	5.0	183	0.501	100	36.2	LOS C	2.1	15.1	Short	30	0.0	NA
Approach	131	5.0		0.501		28.4	LOS B	2.1	15.1				
West: Pro Hart Ave													
Lane 1	458	5.0	1892	0.242	100	1.0	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	458	5.0		0.242		1.0	NA	0.0	0.0				
Intersection	1264	5.0		0.501		4.1	NA	2.1	15.1				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

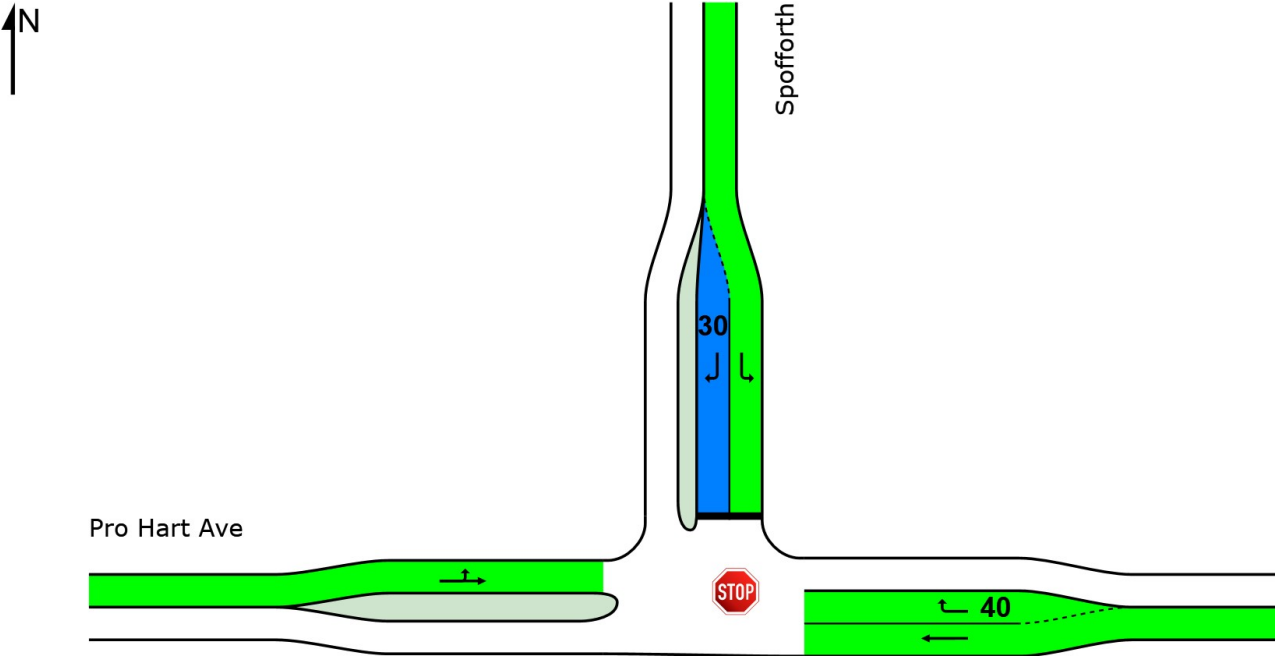
Queue Model: SIDRA Standard.

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

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

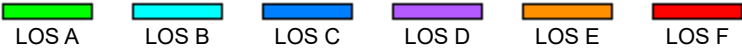
## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	B	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



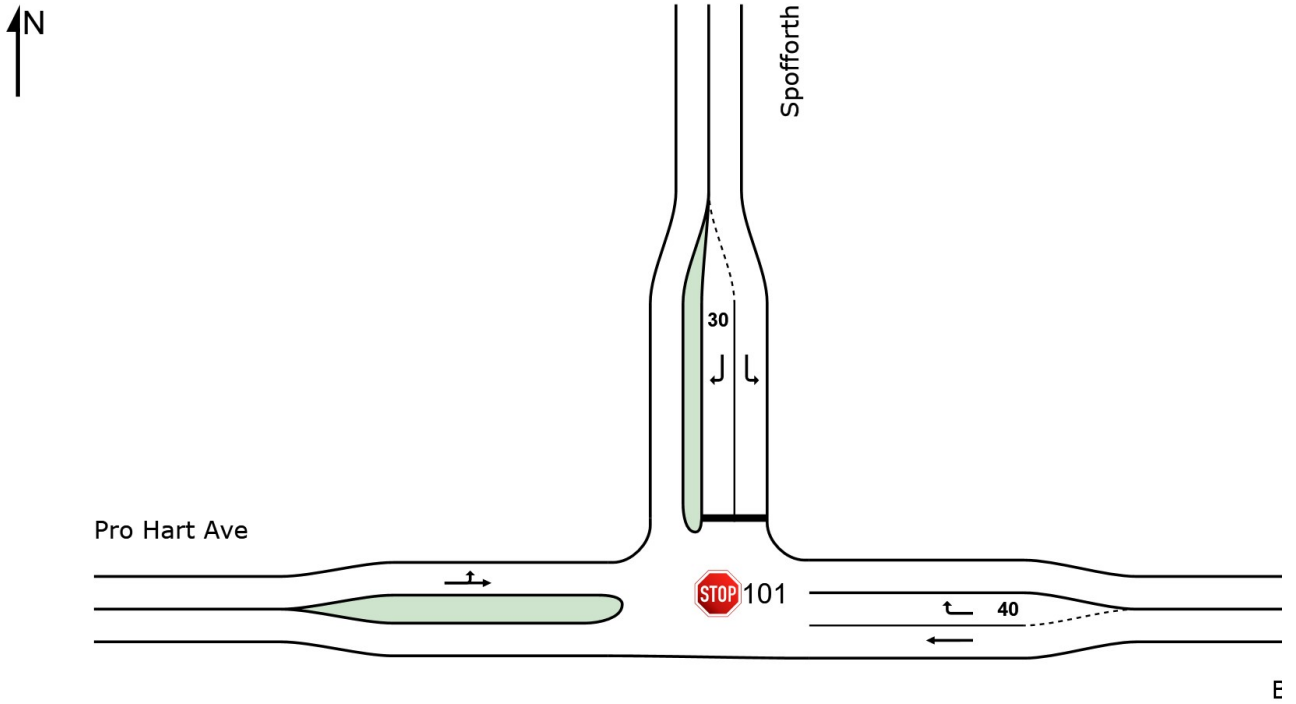


 **Site: 101 [DBD Options Stop Control - 2024 AM + CSG (Site Folder: End of 2024 Scenarios)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total veh/h ]	[ HV % ]				[ Veh. veh ]	[ Dist m ]				
East: BDB														
5	T1	371	5.0	391	5.0	0.206	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
6	R2	57	5.0	60	5.0	0.090	10.1	LOS A	0.3	2.5	0.64	0.84	0.64	49.9
Approach		428	5.0	451	5.0	0.206	1.4	NA	0.3	2.5	0.09	0.11	0.09	58.3
North: Spofforth														
7	L2	97	5.0	102	5.0	0.200	14.4	LOS A	0.7	5.3	0.69	1.01	0.70	48.3
9	R2	109	5.0	115	5.0	0.896	94.1	LOS F	5.6	41.2	0.99	1.40	2.63	23.4
Approach		206	5.0	217	5.0	0.896	56.6	LOS E	5.6	41.2	0.84	1.22	1.72	31.0
West: Pro Hart Ave														
10	L2	28	5.0	29	5.0	0.407	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	57.7
11	T1	709	5.0	746	5.0	0.407	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.5
Approach		737	5.0	776	5.0	0.407	0.4	NA	0.0	0.0	0.00	0.02	0.00	59.4
All Vehicles		1371	5.0	1443	5.0	0.896	9.1	NA	5.6	41.2	0.15	0.23	0.29	52.0

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	391	5.0	1898	0.206	100	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	60	5.0	669	0.090	100	10.1	LOS A	0.3	2.5	Short	40	0.0	NA
Approach	451	5.0		0.206		1.4	NA	0.3	2.5				
North: Spofforth													
Lane 1	102	5.0	511	0.200	100	14.4	LOS A	0.7	5.3	Full	500	0.0	0.0
Lane 2	115	5.0	128	0.896	100	94.1	LOS F	5.6	41.2	Short	30	0.0	NA
Approach	217	5.0		0.896		56.6	LOS E	5.6	41.2				
West: Pro Hart Ave													
Lane 1	776	5.0	1904	0.407	100	0.4	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	776	5.0		0.407		0.4	NA	0.0	0.0				
Intersection	1443	5.0		0.896		9.1	NA	5.6	41.2				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

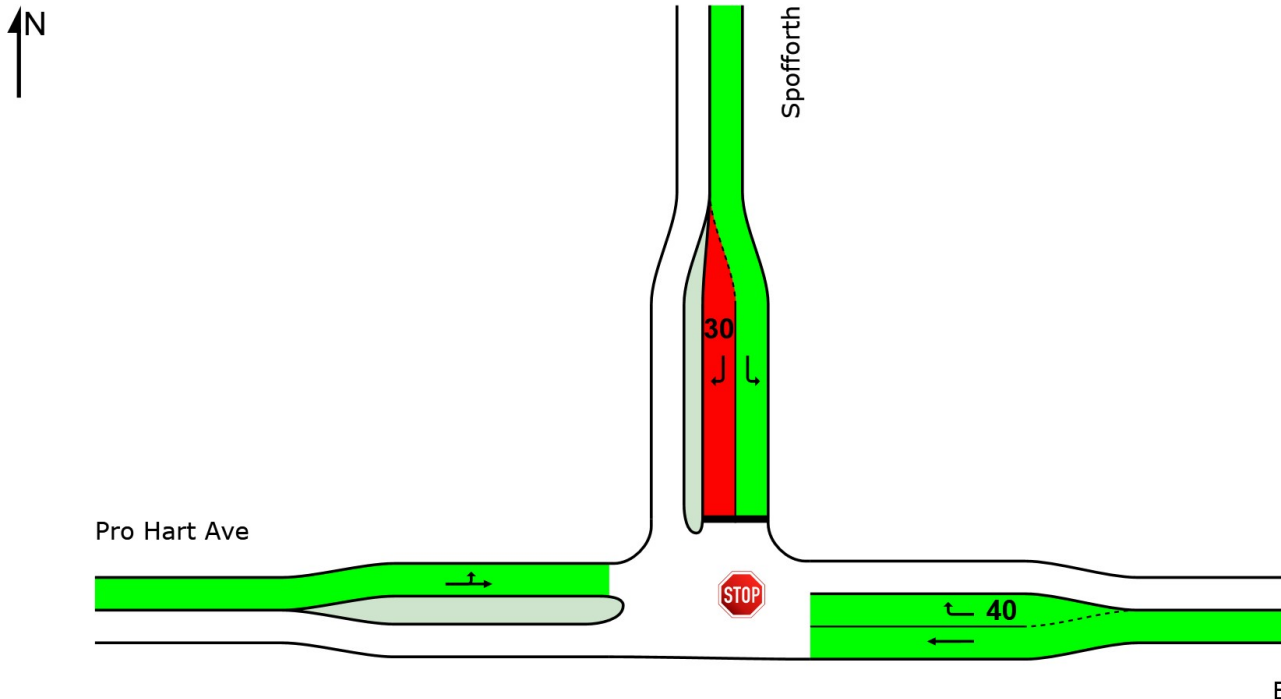
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	E	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

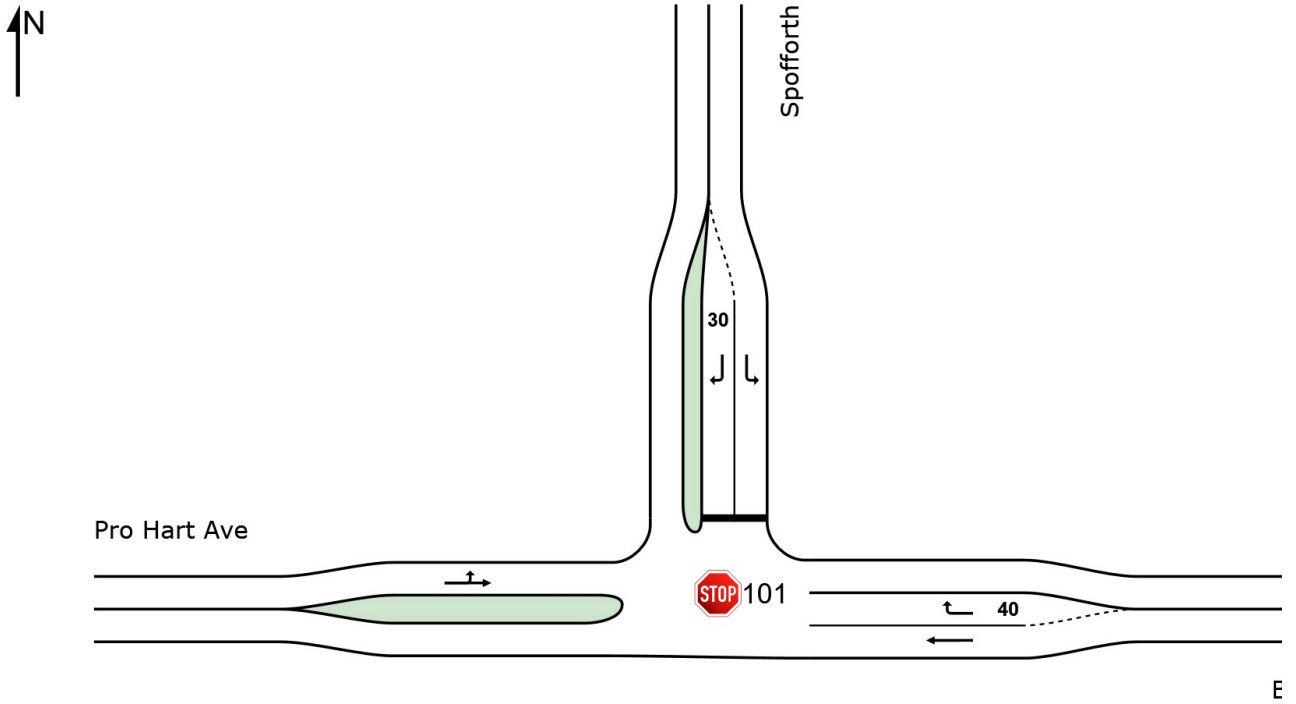


 **Site: 101 [DBD Options Stop Control - 2024 PM + CSG (Site Folder: End of 2024 Scenarios)]**

New Site  
Site Category: (None)  
Stop (Two-Way)

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: BDB														
5	T1	545	5.0	574	5.0	0.303	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
6	R2	118	5.0	124	5.0	0.134	8.3	LOS A	0.6	4.1	0.57	0.76	0.57	51.2
Approach		663	5.0	698	5.0	0.303	1.6	NA	0.6	4.1	0.10	0.13	0.10	58.1
North: Spofforth														
7	L2	37	5.0	39	5.0	0.048	10.8	LOS A	0.2	1.3	0.49	0.91	0.49	50.5
9	R2	92	5.0	97	5.0	0.676	53.9	LOS D	3.0	22.0	0.95	1.16	1.60	31.6
Approach		129	5.0	136	5.0	0.676	41.5	LOS C	3.0	22.0	0.82	1.09	1.29	35.4
West: Pro Hart Ave														
10	L2	93	5.0	98	5.0	0.301	5.7	LOS A	0.0	0.0	0.00	0.10	0.00	57.1
11	T1	448	5.0	472	5.0	0.301	0.1	LOS A	0.0	0.0	0.00	0.10	0.00	58.9
Approach		541	5.0	569	5.0	0.301	1.1	NA	0.0	0.0	0.00	0.10	0.00	58.6
All Vehicles		1333	5.0	1403	5.0	0.676	5.2	NA	3.0	22.0	0.13	0.21	0.17	54.9

Site Level of Service (LOS) Method: Delay (RTA NSW). 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.

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.



Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: BDB													
Lane 1	574	5.0	1892	0.303	100	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 2	124	5.0	930	0.134	100	8.3	LOS A	0.6	4.1	Short	40	0.0	NA
Approach	698	5.0		0.303		1.6	NA	0.6	4.1				
North: Spofforth													
Lane 1	39	5.0	809	0.048	100	10.8	LOS A	0.2	1.3	Full	500	0.0	0.0
Lane 2	97	5.0	143	0.676	100	53.9	LOS D	3.0	22.0	Short	30	0.0	NA
Approach	136	5.0		0.676		41.5	LOS C	3.0	22.0				
West: Pro Hart Ave													
Lane 1	569	5.0	1891	0.301	100	1.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	569	5.0		0.301		1.1	NA	0.0	0.0				
Intersection	1403	5.0		0.676		5.2	NA	3.0	22.0				

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

Lane LOS values are based on average delay per lane.

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

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 lanes.

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

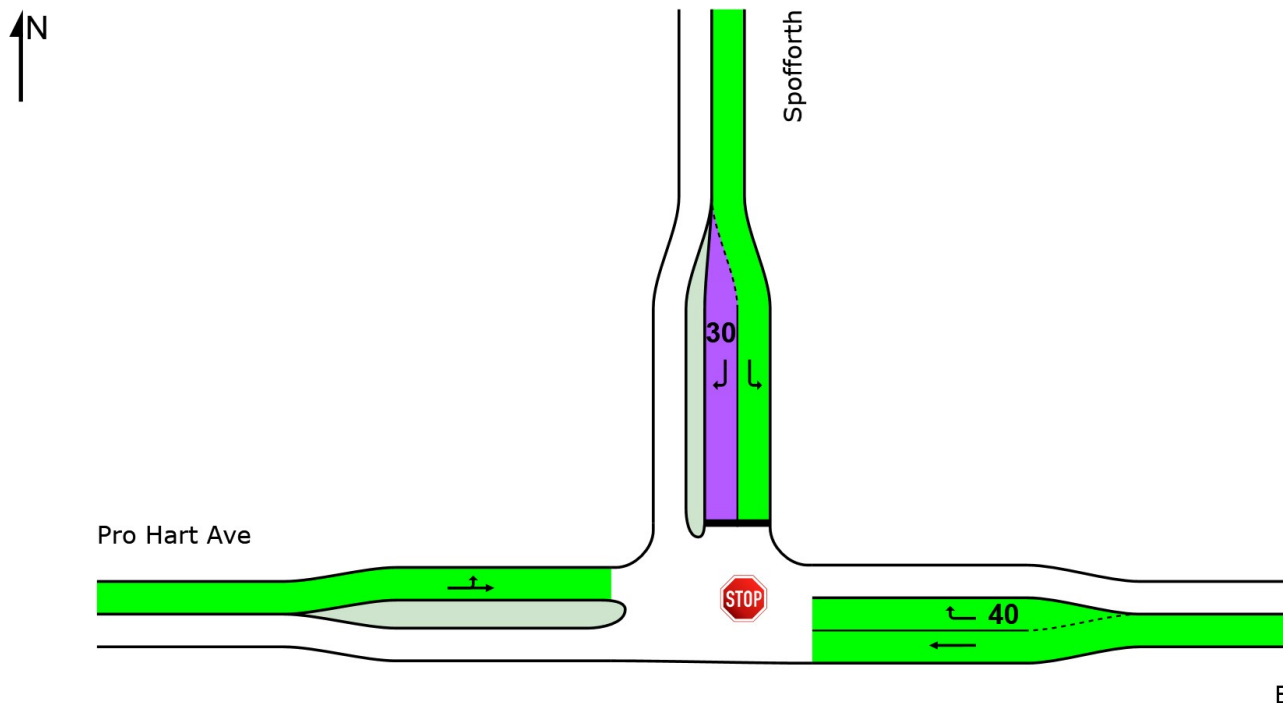
Queue Model: SIDRA Standard.

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

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

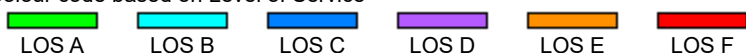
## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	NA	C	NA	NA



E

Colour code based on Level of Service



Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).



# USER REPORT FOR SITE

## All Movement Classes

Project: DBD Options\_Sensitivity Analysis\_Rev02

Template: Site User Report

### Site: 101v [DBD Options Signal Control Single Lane - 2024 AM (Site Folder: End of 2024 Scenarios)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

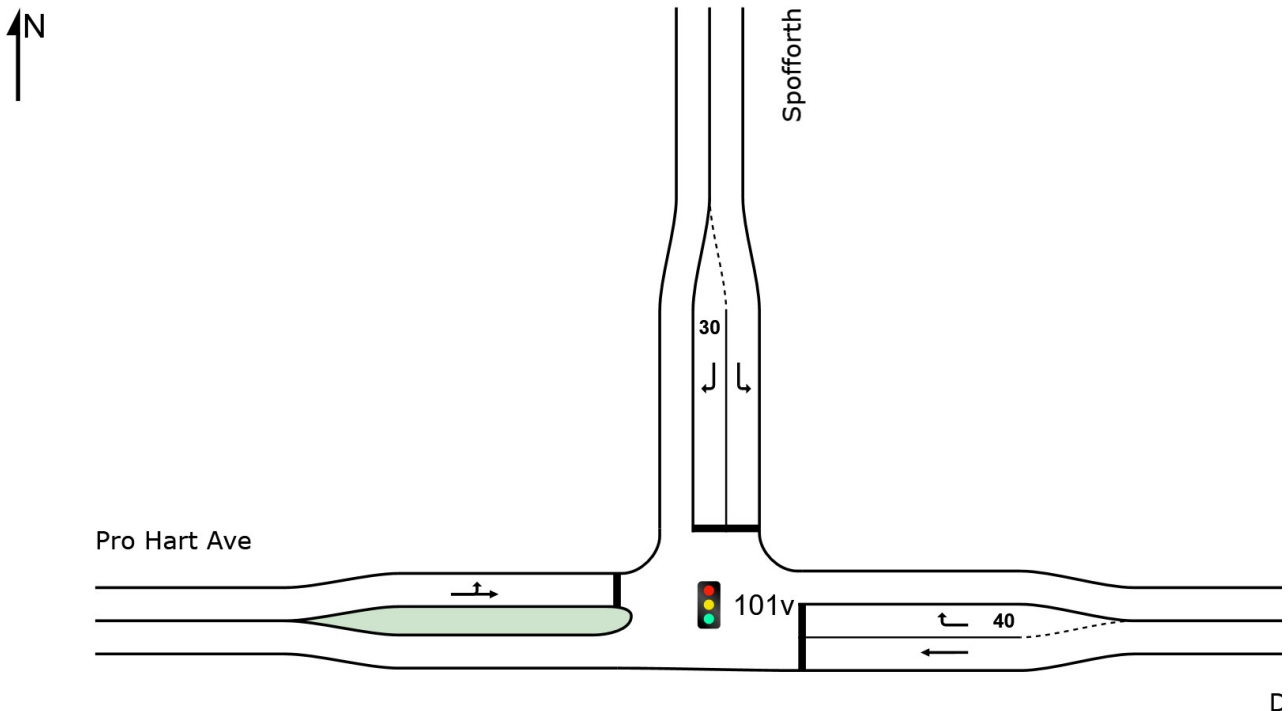
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

## Site Layout

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	265	5.0	279	5.0	0.197	2.9	LOS A	2.8	20.7	0.32	0.28	0.32	57.3
6	R2	57	5.0	60	5.0	* 0.386	40.8	LOS C	2.1	15.3	0.98	0.75	0.98	35.2
Approach		322	5.0	339	5.0	0.386	9.6	LOS A	2.8	20.7	0.44	0.36	0.44	51.6
North: Spofforth														
7	L2	97	5.0	102	5.0	0.219	28.1	LOS B	2.8	20.5	0.83	0.75	0.83	40.2
9	R2	82	5.0	86	5.0	* 0.556	41.6	LOS C	3.1	22.6	1.00	0.78	1.05	34.7
Approach		179	5.0	188	5.0	0.556	34.3	LOS C	3.1	22.6	0.91	0.77	0.93	37.5
West: Pro Hart Ave														
10	L2	21	5.0	22	5.0	0.680	16.9	LOS B	17.8	129.6	0.76	0.69	0.76	49.1
11	T1	682	5.0	718	5.0	* 0.680	11.3	LOS A	17.8	129.6	0.76	0.69	0.76	50.5
Approach		703	5.0	740	5.0	0.680	11.5	LOS A	17.8	129.6	0.76	0.69	0.76	50.4
All Vehicles		1204	5.0	1267	5.0	0.680	14.4	LOS A	17.8	129.6	0.69	0.61	0.70	48.2

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	279	5.0	1418	0.197	100	2.9	LOS A	2.8	20.7	Full	500	0.0	0.0
Lane 2	60	5.0	155	0.386	100	40.8	LOS C	2.1	15.3	Short	40	0.0	NA
Approach	339	5.0		0.386		9.6	LOS A	2.8	20.7				
North: Spofforth													
Lane 1	102	5.0	466	0.219	100	28.1	LOS B	2.8	20.5	Full	500	0.0	0.0
Lane 2	86	5.0	155	0.556	100	41.6	LOS C	3.1	22.6	Short	30	0.0	NA
Approach	188	5.0		0.556		34.3	LOS C	3.1	22.6				
West: Pro Hart Ave													
Lane 1	740	5.0	1089	0.680	100	11.5	LOS A	17.8	129.6	Full	500	0.0	0.0
Approach	740	5.0		0.680		11.5	LOS A	17.8	129.6				
Intersection	1267	5.0		0.680		14.4	LOS A	17.8	129.6				

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

Lane LOS values are based on average delay per lane.

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

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

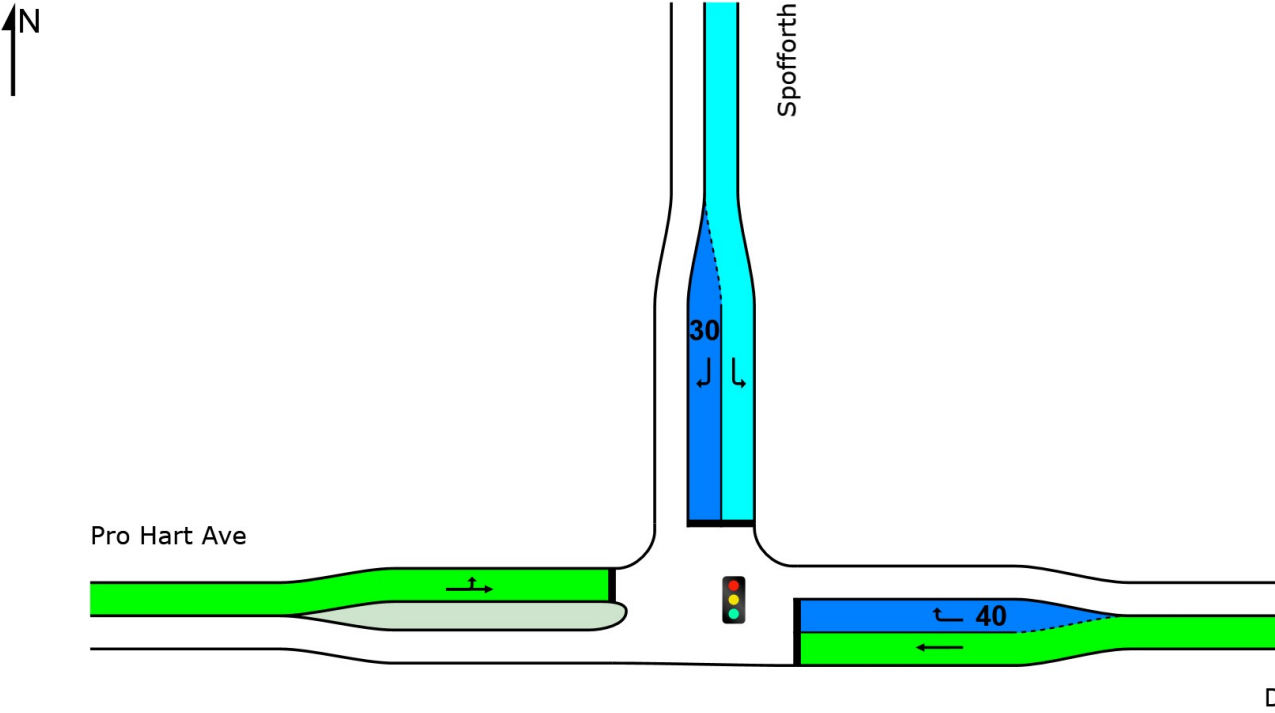
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	C	A	A

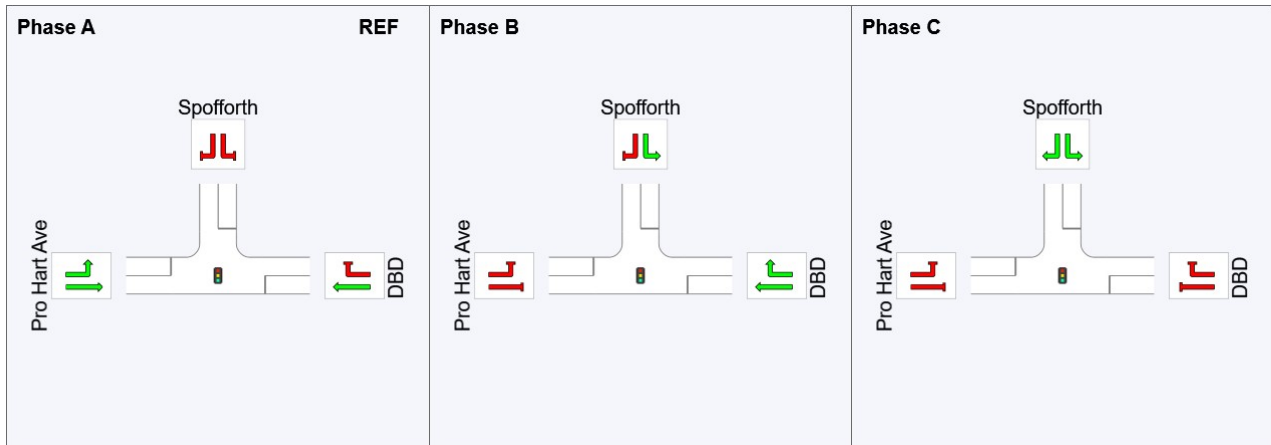


Colour code based on Level of Service

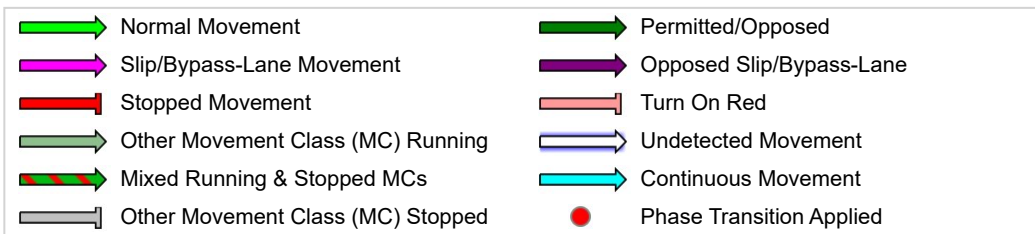
- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	46	58
Green Time (sec)	40	6	6
Phase Time (sec)	46	12	12
Phase Split	66%	17%	17%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



**Site: 101v [DBD Options Signal Control Single Lane - 2024 PM (Site Folder: End of 2024 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 50 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

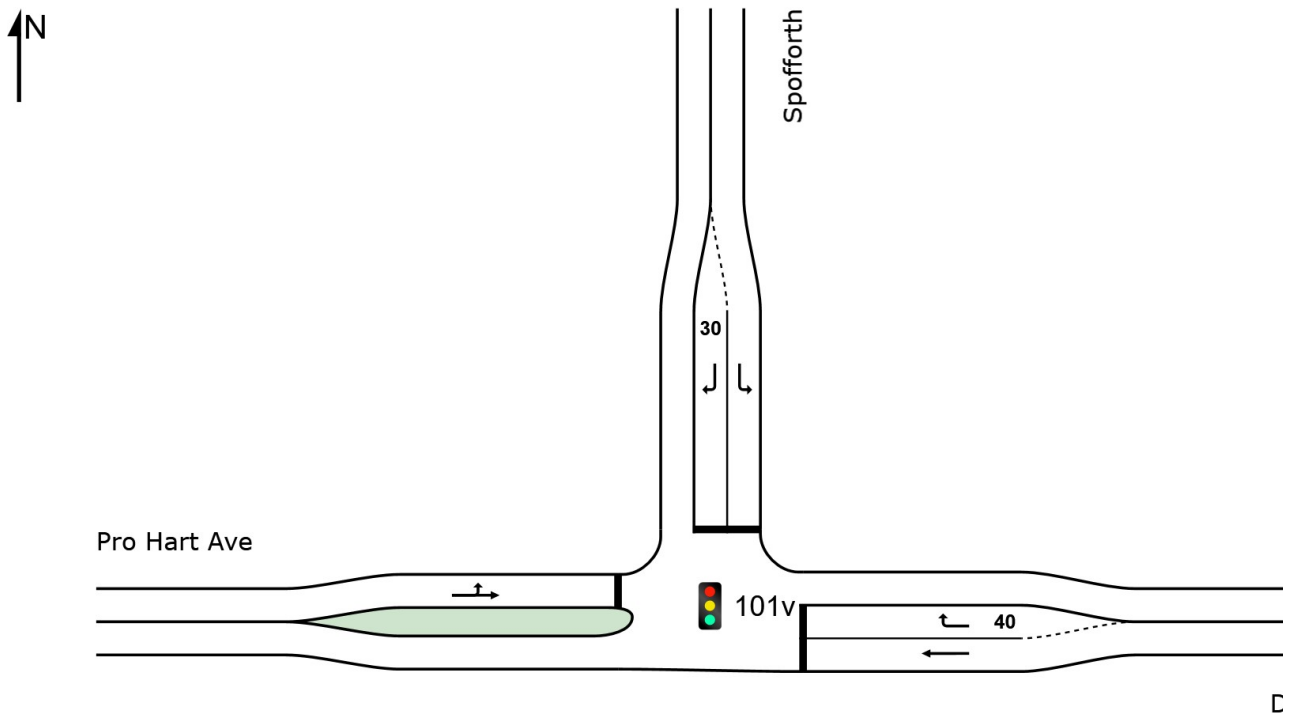
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h ]	[ HV % ]	[ Total veh/h ]	[ HV % ]				[ Veh. veh ]	[ Dist m ]				
East: DBD														
5	T1	524	5.0	552	5.0	0.452	4.9	LOS A	6.9	50.2	0.54	0.48	0.54	55.5
6	R2	118	5.0	124	5.0	* 0.571	30.3	LOS C	3.2	23.0	0.99	0.81	1.05	39.2
Approach		642	5.0	676	5.0	0.571	9.6	LOS A	6.9	50.2	0.62	0.54	0.64	51.5
North: Spofforth														
7	L2	37	5.0	39	5.0	0.060	17.0	LOS B	0.6	4.6	0.68	0.69	0.68	45.8
9	R2	87	5.0	92	5.0	* 0.421	29.4	LOS C	2.3	16.4	0.97	0.76	0.97	39.3
Approach		124	5.0	131	5.0	0.421	25.7	LOS B	2.3	16.4	0.88	0.74	0.88	41.0
West: Pro Hart Ave														
10	L2	72	5.0	76	5.0	0.605	18.7	LOS B	9.1	66.4	0.84	0.75	0.84	47.5
11	T1	363	5.0	382	5.0	* 0.605	13.1	LOS A	9.1	66.4	0.84	0.75	0.84	48.7
Approach		435	5.0	458	5.0	0.605	14.1	LOS A	9.1	66.4	0.84	0.75	0.84	48.5
All Vehicles		1201	5.0	1264	5.0	0.605	12.9	LOS A	9.1	66.4	0.73	0.64	0.74	49.1

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h ]	[ HV % ]						[ Veh ]	[ Dist ]				
	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
East: DBD													
Lane 1	552	5.0	1221	0.452	100	4.9	LOS A	6.9	50.2	Full	500	0.0	0.0
Lane 2	124	5.0	217	0.571	100	30.3	LOS C	3.2	23.0	Short	40	0.0	NA
Approach	676	5.0		0.571		9.6	LOS A	6.9	50.2				
North: Spofforth													
Lane 1	39	5.0	652	0.060	100	17.0	LOS B	0.6	4.6	Full	500	0.0	0.0
Lane 2	92	5.0	217	0.421	100	29.4	LOS C	2.3	16.4	Short	30	0.0	NA
Approach	131	5.0		0.421		25.7	LOS B	2.3	16.4				
West: Pro Hart Ave													
Lane 1	458	5.0	757	0.605	100	14.1	LOS A	9.1	66.4	Full	500	0.0	0.0
Approach	458	5.0		0.605		14.1	LOS A	9.1	66.4				
Intersection	1264	5.0		0.605		12.9	LOS A	9.1	66.4				

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

Lane LOS values are based on average delay per lane.

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

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

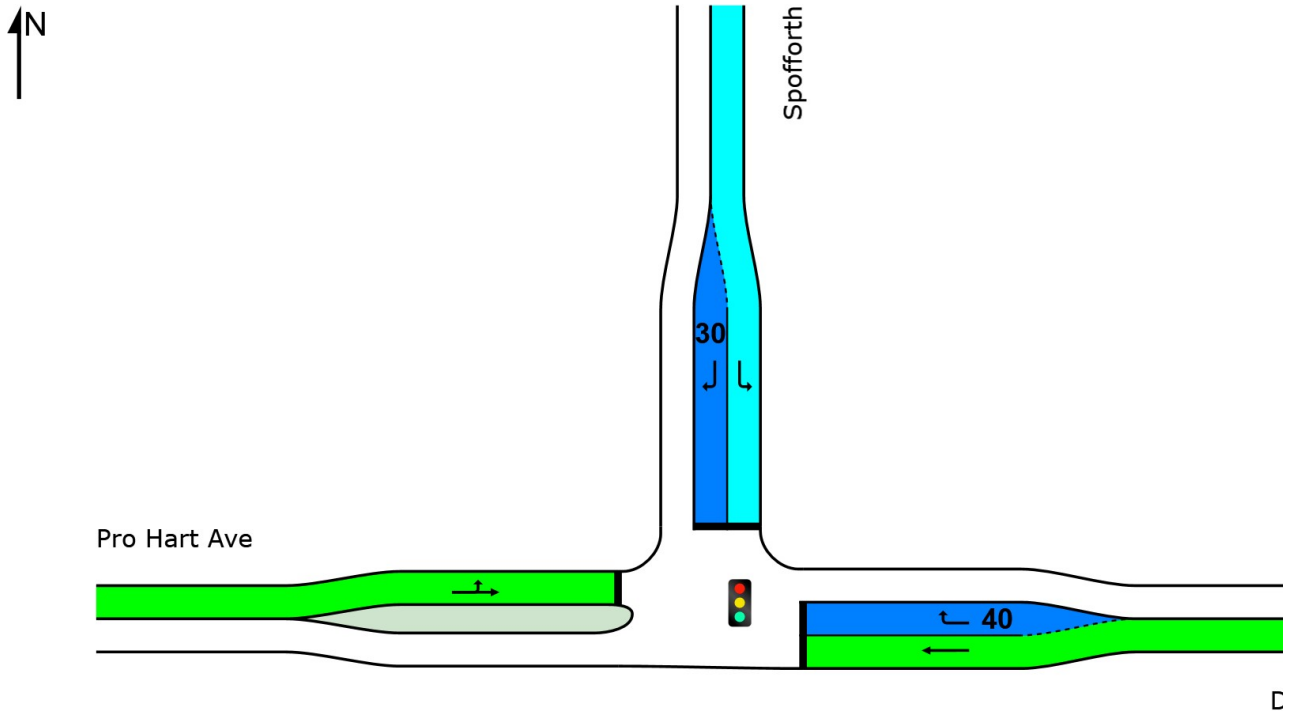
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS	A	B	A	A

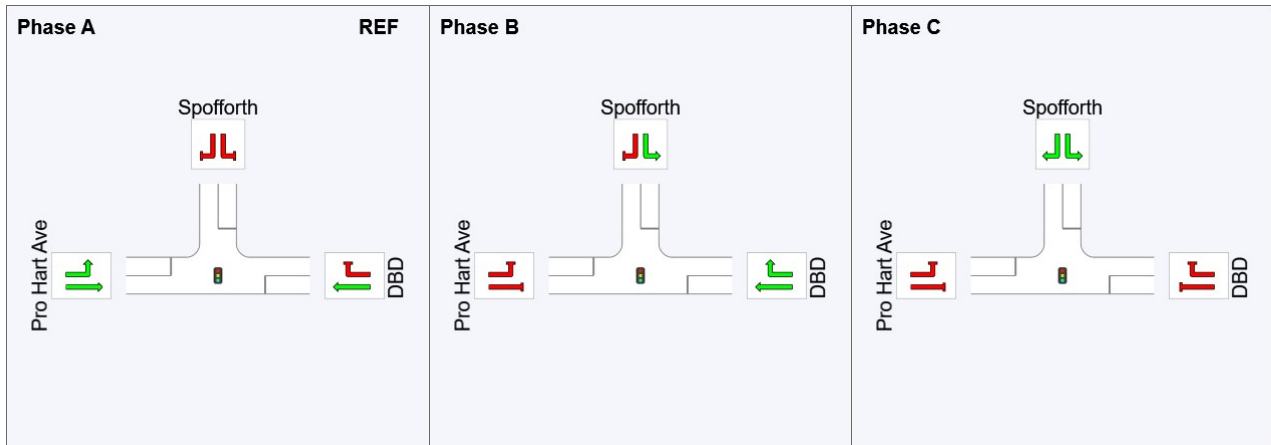


Colour code based on Level of Service

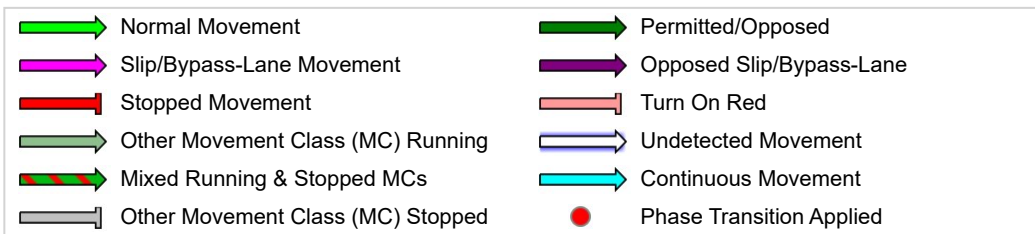


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	26	38
Green Time (sec)	20	6	6
Phase Time (sec)	26	12	12
Phase Split	52%	24%	24%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

**Site: 101v [DBD Options Signal Control Single Lane - 2024 AM + CSG (Site Folder: End of 2024 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Optimum Cycle Time - Minimum Delay)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

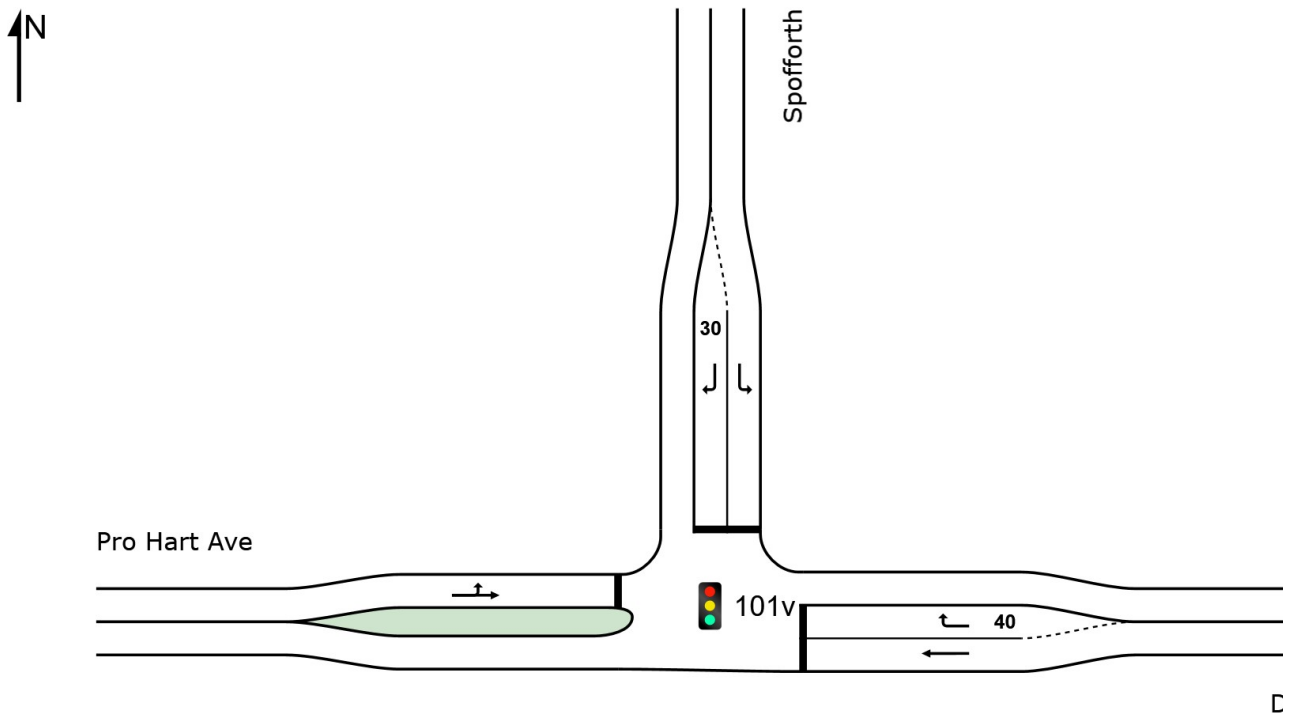
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist m				
East: DBD														
5	T1	371	5.0	391	5.0	0.281	3.5	LOS A	4.5	32.9	0.37	0.32	0.37	56.8
6	R2	57	5.0	60	5.0	* 0.386	40.8	LOS C	2.1	15.3	0.98	0.75	0.98	35.2
Approach		428	5.0	451	5.0	0.386	8.4	LOS A	4.5	32.9	0.45	0.38	0.45	52.5
North: Spofforth														
7	L2	97	5.0	102	5.0	0.208	27.2	LOS B	2.7	20.0	0.81	0.75	0.81	40.6
9	R2	109	5.0	115	5.0	* 0.633	41.3	LOS C	4.1	30.1	1.00	0.82	1.11	34.8
Approach		206	5.0	217	5.0	0.633	34.6	LOS C	4.1	30.1	0.91	0.79	0.97	37.3
West: Pro Hart Ave														
10	L2	28	5.0	29	5.0	0.731	18.1	LOS B	19.9	145.1	0.81	0.74	0.81	48.3
11	T1	709	5.0	746	5.0	* 0.731	12.5	LOS A	19.9	145.1	0.81	0.74	0.81	49.6
Approach		737	5.0	776	5.0	0.731	12.7	LOS A	19.9	145.1	0.81	0.74	0.81	49.6
All Vehicles		1371	5.0	1443	5.0	0.731	14.7	LOS B	19.9	145.1	0.71	0.63	0.72	48.0

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	391	5.0	1390	0.281	100	3.5	LOS A	4.5	32.9	Full	500	0.0	0.0
Lane 2	60	5.0	155	0.386	100	40.8	LOS C	2.1	15.3	Short	40	0.0	NA
Approach	451	5.0		0.386		8.4	LOS A	4.5	32.9				
North: Spofforth													
Lane 1	102	5.0	492	0.208	100	27.2	LOS B	2.7	20.0	Full	500	0.0	0.0
Lane 2	115	5.0	181	0.633	100	41.3	LOS C	4.1	30.1	Short	30	0.0	NA
Approach	217	5.0		0.633		34.6	LOS C	4.1	30.1				
West: Pro Hart Ave													
Lane 1	776	5.0	1061	0.731	100	12.7	LOS A	19.9	145.1	Full	500	0.0	0.0
Approach	776	5.0		0.731		12.7	LOS A	19.9	145.1				
Intersection	1443	5.0		0.731		14.7	LOS B	19.9	145.1				

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

Lane LOS values are based on average delay per lane.

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

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

Queue Model: SIDRA Standard.

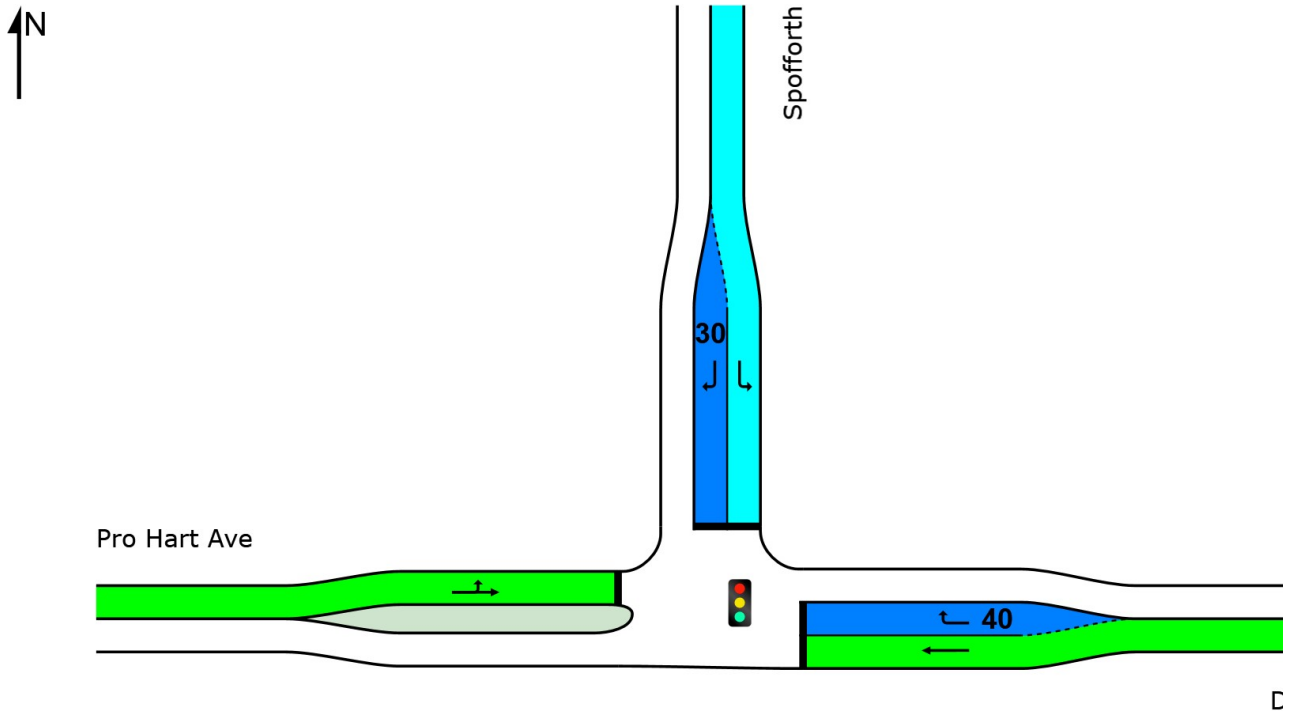
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

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



## Level of Service

LOS	Approaches			Intersection
	East	North	West	
	A	C	A	B



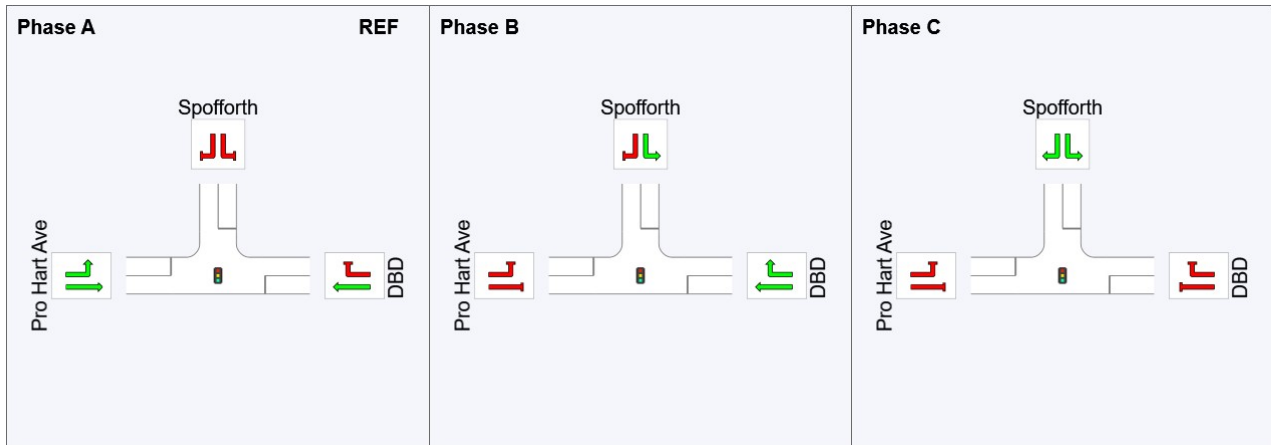
C

Colour code based on Level of Service

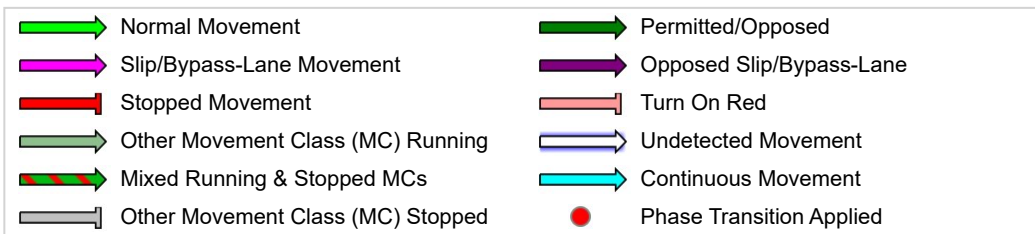


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	45	57
Green Time (sec)	39	6	7
Phase Time (sec)	45	12	13
Phase Split	64%	17%	19%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

**Site: 101v [DBD Options Signal Control Single Lane - 2024 PM + CSG (Site Folder: End of 2024 Scenarios)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Convert Function Default

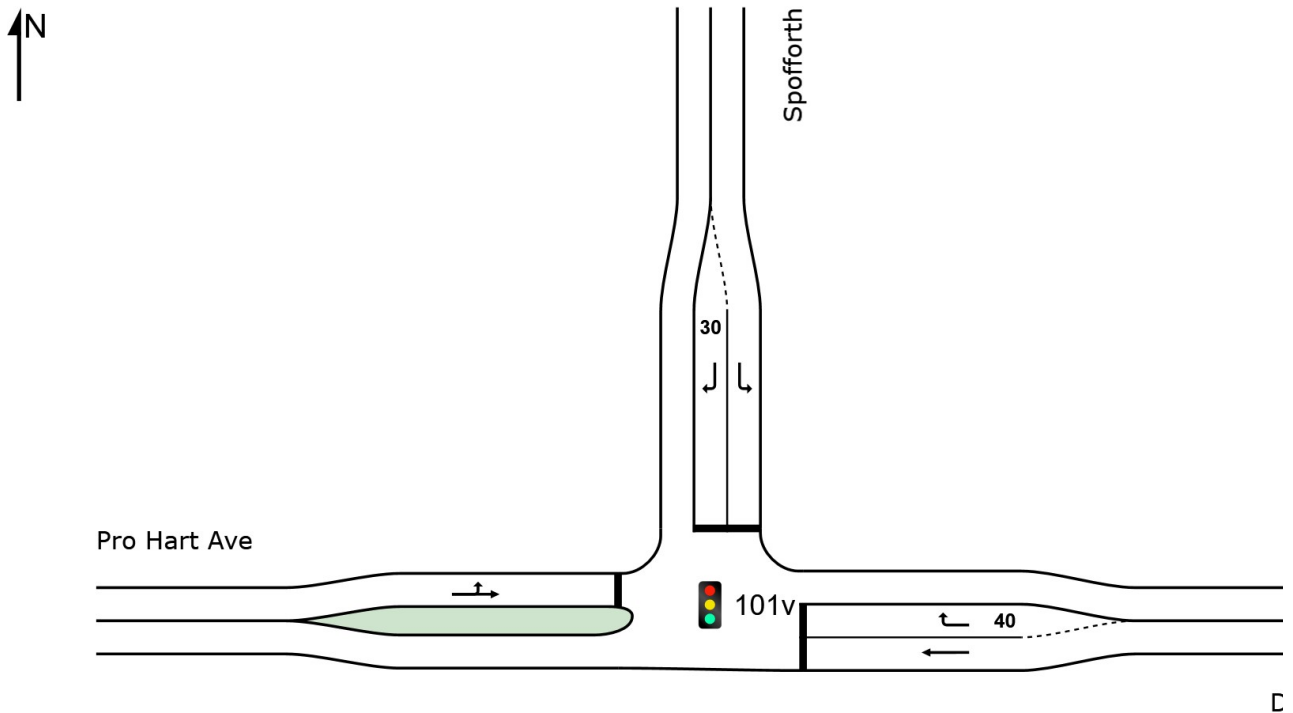
Reference Phase: Phase A

Input Phase Sequence: A, B, C

Output Phase Sequence: A, B, C

**Site Layout**

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



Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
		[ Total veh/h	HV ] %	[ Total veh/h	HV ] %				[ Veh. veh	Dist ] m				
East: DBD														
5	T1	545	5.0	574	5.0	0.413	3.9	LOS A	7.5	55.1	0.42	0.37	0.42	56.4
6	R2	118	5.0	124	5.0	* 0.533	38.2	LOS C	4.2	30.8	0.98	0.79	0.98	36.1
Approach		663	5.0	698	5.0	0.533	10.0	LOS A	7.5	55.1	0.52	0.45	0.52	51.2
North: Spofforth														
7	L2	37	5.0	39	5.0	0.068	23.8	LOS B	0.9	6.8	0.73	0.70	0.73	42.2
9	R2	92	5.0	97	5.0	* 0.534	40.3	LOS C	3.4	24.8	0.99	0.78	1.01	35.2
Approach		129	5.0	136	5.0	0.534	35.6	LOS C	3.4	24.8	0.92	0.76	0.93	36.9
West: Pro Hart Ave														
10	L2	93	5.0	98	5.0	0.586	18.4	LOS B	13.6	99.2	0.75	0.69	0.75	47.7
11	T1	448	5.0	472	5.0	* 0.586	12.8	LOS A	13.6	99.2	0.75	0.69	0.75	49.0
Approach		541	5.0	569	5.0	0.586	13.7	LOS A	13.6	99.2	0.75	0.69	0.75	48.7
All Vehicles		1333	5.0	1403	5.0	0.586	14.0	LOS A	13.6	99.2	0.65	0.58	0.65	48.4

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

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

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

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.

\* Critical Movement (Signal Timing)

Lane Use and Performance													
	DEMAND FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[ Total veh/h	HV %						[ Veh	Dist ] m				
East: DBD													
Lane 1	574	5.0	1390	0.413	100	3.9	LOS A	7.5	55.1	Full	500	0.0	0.0
Lane 2	124	5.0	233	0.533	100	38.2	LOS C	4.2	30.8	Short	40	0.0	NA
Approach	698	5.0		0.533		10.0	LOS A	7.5	55.1				
North: Spofforth													
Lane 1	39	5.0	569	0.068	100	23.8	LOS B	0.9	6.8	Full	500	0.0	0.0
Lane 2	97	5.0	181	0.534	100	40.3	LOS C	3.4	24.8	Short	30	0.0	NA
Approach	136	5.0		0.534		35.6	LOS C	3.4	24.8				
West: Pro Hart Ave													
Lane 1	569	5.0	972	0.586	100	13.7	LOS A	13.6	99.2	Full	500	0.0	0.0
Approach	569	5.0		0.586		13.7	LOS A	13.6	99.2				
Intersection	1403	5.0		0.586		14.0	LOS A	13.6	99.2				

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

Lane LOS values are based on average delay per lane.

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

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

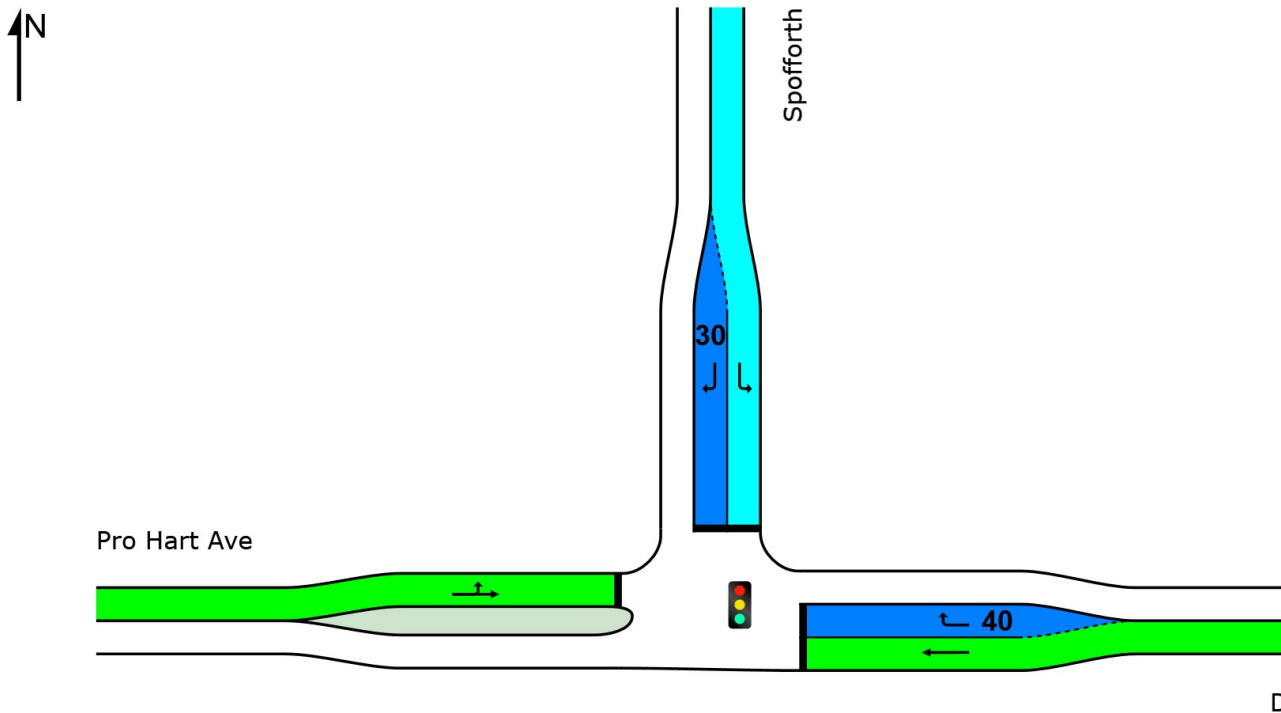
Queue Model: SIDRA Standard.

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

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

## Level of Service

LOS	Approaches			Intersection
	East	North	West	
LOS A	A	C	A	A

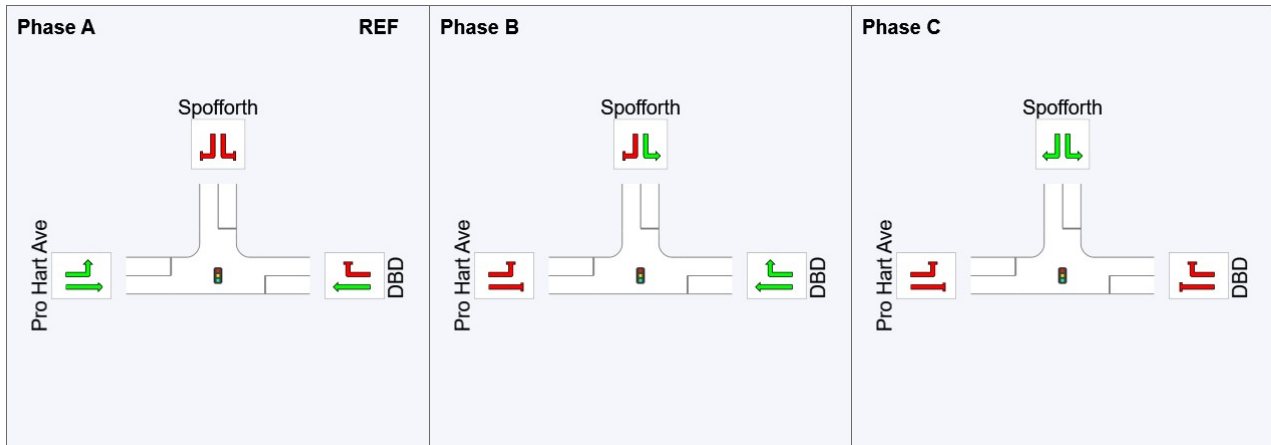


Colour code based on Level of Service

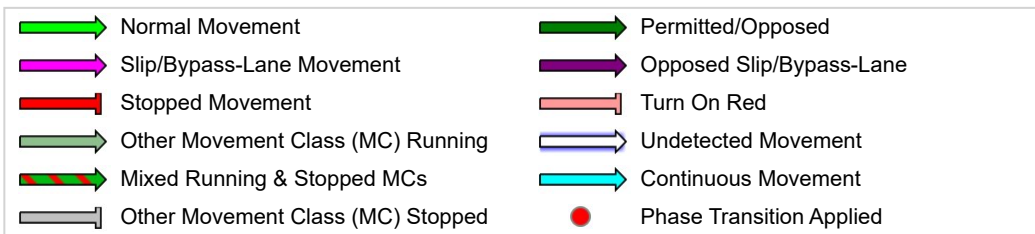


Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).  
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
 Delay Model: SIDRA Standard (Geometric Delay is included).

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase



## Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	42	57
Green Time (sec)	36	9	7
Phase Time (sec)	42	15	13
Phase Split	60%	21%	19%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.