

**LAND AT OLDLANDS FARM (PHASE 2)
BOGNOR REGIS
WEST SUSSEX**

ADDENDUM TO TRANSPORT ASSESSMENT

HANBURY PROPERTIES LTD

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1 Introduction

1.1 General

- 1.1.1 A Transport Assessment (TA) was produced by MJA to accompany the planning application submitted by Hanbury Properties Ltd (Hanbury) in relation to the Phase 2 development of the Land at Oldlands Farm, Bognor Regis for a mix of employment uses.
- 1.1.2 The MJA TA used information in respect of committed development and traffic flows from the 'Enterprise Bognor Regis – Highway Infrastructure Viability Study' (HIVS) report dated 13/10/14 and produced by Systra. The HIVS report considered the effects of the Local Development Order (LDO) to support delivery of the EBR.
- 1.1.3 Subsequent to the Oldlands Farm Ph2 planning application submission the HIVS report was superseded by another Systra report. West Sussex County Council (WSCC) has requested that the TA is amended, in line with the latest Systra report 'EBR – Local Development Order – Transport Assessment' dated 11/06/15 (EBR TA).
- 1.1.4 This Addendum to Transport Assessment should be read in conjunction with the original MJA TA, and sets out subsequent discussions/agreements with WSCC and the revised junction capacity assessments resulting from the WSCC request. It also considers the mitigation measures proposed in the Systra TA, with the inclusion of the Oldlands Farm Phase 2 scheme.
- 1.1.5 The Oldlands Farm site lies within the enterprise@BognorRegis area which has been identified as a significant and deliverable growth opportunity involving the following four sites:
- Saltbox;
 - Rowan Park;
 - Oldlands Farm; and
 - LEC airfield

1.1.6 A mix of employment uses will be provided at the site which accords with the Arun District Council (ADC) Local Plan. Oldlands Farm straddles two policy areas (Policy Site 5 and Site 6), where Site 5 has a commercial allocation (11.2ha) and Site 6 has employment allocation (11.25ha).

1.1.7 The Oldlands Farm Phase 1 development (App.Ref.**BE/61/13**) was granted planning consent in March 2014 for the following mix of uses:

- B1 office, B2 Industrial, B8 Warehousing (total of 25,034sqm);
- Retail (4,366sqm);
- B8 trade counter (1,856sqm); and
- Sui generis (1,856sqm).

1.1.8 A portion of the Oldlands Farm site has since been taken up by Rolls Royce and in order to accommodate their requirements a new planning application (app. Ref. **BE/73/14/PL**) was submitted. Subsequently planning consent was granted for 38,099sqm B2/B8 use in August 2014. It is understood that the primary function of the Rolls Royce site will be for B8 uses.

2 Discussions with WSCC and review of reports

2.1 General

2.1.1 In their comments to the MJA TA dated 30/07/15 WSCC requested that MJA apply the trip rates used in the EBR TA to the Oldlands Farm Ph2 proposals. In addition the trip distribution/assignment and LDO scenarios set out in the EBR TA were also required to be taken into account.

2.1.2 Following a review of the EBR TA a number of issues were revealed. Consequently it was considered that the use of the EBR TA would not be fully appropriate to apply to the Oldlands Farm Ph2 development. This was relayed to WSCC during discussions on 26/08/15. The reasons are explained in the following paragraphs.

2.1.3 The EBR TA considers only B1 and B2 uses for the enterprise@BognorRegis area developments and provides corresponding trip rates. These have been applied to all developments within the LDO including Oldlands Farm. It is also noted that the trip rates for the B2 uses are unusually high and are similar to the B1 use, suggesting that an industrial development generates the same level of traffic during the peak hours as an office site.

2.1.4 The Oldlands Farm Ph2 proposals are set out in the MJA TA:

*“Phase 2 masterplan options are contained at **Appendix A**, which illustrates the site layout and building arrangements. Option 1 considers a mix of B2 and B8 uses, where the total GFA will be 20,590sqm within no.8 buildings. Option 2 incorporates a total GFA of 17,820sqm within no.12 buildings, all for B2 uses. Both options have evolved from an initial scheme to provide 21,300sqm GFA of employment B2 use class within Phase 2.*

For Option 1 it is anticipated that no.6 buildings will be for B2, and the remaining no.2 buildings will cater for B8 uses. B1 uses are envisaged to be ancillary to the B2 and B8 functions and will occupy no more than 10% of the overall floor space of the buildings. The 20,590sqm GFA employment uses will comprise of the following:

- B2 Industrial – 6,940sqm GFA; and
- B8 Warehousing/Storage – 13,650sqm GFA.

*The no.12 buildings proposed for Option 2 will be of varying size for the B2 uses, as shown at **Appendix A**.”*

- 2.1.5 It can be seen that the proposals comprise of either B2 or B8 uses in the main, whilst less than 10% would be ancillary B1 and associated with the B2 or B8 uses.
- 2.1.6 The Oldlands Farm Ph1 consented scheme was approved for a mixed use site, consequently a variety of different trip rates (including B1, B2 and B8) were used to determine the trip generation of the site. These trip rates have been accepted by WSCC (see App.Ref.**BE/61/13**).
- 2.1.7 In light of the above WSCC has agreed that the original Oldlands Farm trip rates will be appropriate also for the latest Oldlands Farm Ph2 development.
- 2.1.8 The review also revealed that the principles of the scenarios used in the EBR TA are significantly different to those within the original HIVS report.
- 2.1.9 Whilst the EBR TA suggests that all schemes within the LDO including Oldlands Farm Ph1 were considered for the Do Minimum scenario, the traffic flows shown do not indicate this is the case.
- 2.1.10 The EBR TA recognises that the LEC site to the east of the railway line is currently unfeasible consequently it has been removed from the latest modelling scenarios. Previously the HIVS report assessed the LDO including the LEC site (scenario DS2), where the BNRR would provide a connection to the site. Scenario DS1 within the EBR TA assesses the LDO without the LEC site, however traffic flows appear to be significantly higher along the BNRR route.
- 2.1.11 The EBR TA has assumed that the Oldlands Farm site will be developed with identical uses and building sizes. In addition significantly higher trip rates have been applied to the Oldlands Farm schemes, as previously mentioned.

3 Trip Generation and Distribution

3.1 General

- 3.1.1 The proposals at the Oldlands Ph 2 site will provide B2 and B8 use types. The latest options will provide either a total of 20,590sqm (B2 & B8) or 17,820sqm (B2 only). The original floor areas have been utilised to determine the trip generation, in addition a worst-case scenario (all B2) has been assumed. It is considered this will provide a very robust assessment of the trip generation for the Phase 2 scheme.
- 3.1.2 The TRICS database was interrogated with the purpose of establishing relevant and suitable trip rates to represent the current proposals.

3.2 Development trip rates

- 3.2.1 The B2 Industrial and B8 Warehousing trip rates within the MJA TA as agreed with WSCC are reproduced in in **Table 3.1** below.

Table 3.1: Industrial Estate (B2) trip rates						
	Weekday AM peak			Weekday PM peak		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Trip rate	0.484	0.206	0.690	0.110	0.403	0.513
Warehousing – commercial (B8) trip rates						
	Weekday AM peak			Weekday PM peak		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Trip rate	0.275	0.089	0.364	0.089	0.240	0.329

- 3.2.2 By applying the above trip rates to the building GFAs provides the trip generation for Oldlands Farm Phase 2 as summarised below in **Table 3.2**.

Table 3.2: Typical trip generation - Oldlands Farm Phase 2 (6,940sqm B2 & 13,650sqm B8)						
Uses	Weekday AM peak			Weekday PM peak		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
B2	34	14	48	7	28	36
B8	38	12	50	12	33	45
Total	71	26	98	20	61	89

Note: rounding errors occur

3.2.3 A worst-case scenario assumed that the entire site will provide B2 uses. By applying the trip rates shown in **Table 3.1** to the total GFA (21,300sqm rather than 17,820sqm) will provide the worst-case scenario for Phase 2, as shown in **Table 3.3** below.

Table 3.3: Worst-case Trip generation (all B2 uses) - Oldlands Farm Phase 2						
All B2	Weekday AM peak			Weekday PM peak		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
Total	103	44	147	23	86	109

Note: rounding errors occur

3.2.4 By comparing the trip generations in **Tables 3.2** with **3.3** it can be seen that ***the assumption that only B2 uses are provided will forecast that the Phase 2 proposals will generate additional 49 and 20 two-way trips during the AM and PM peaks respectively.***

3.3 Trip Distribution

3.3.1 The EBR TA identifies the traffic distribution for the local area, which is based on the West Sussex County Traffic Model (WSCTM). However it is noted that significant adjustments have been applied, particularly at the A29/Shripney Road roundabout. It has also been assumed that the AM and PM peaks have the same distributions and are as follows:

- 25-29% to/from north (via A29);
- 2-5% to/from south (via A29);
- 55-56% to/from east (via BNRR); and
- 14% to/from west (via Rowan Way).

As requested by WSCC, the distribution of the Phase 2 development trips have also been assigned to the local highway network in accordance with the distribution contained within the EBR TA (see **Appendix A**).

4 Traffic Flows and Committed Developments

4.1 General

- 4.1.1 The original MJA TA utilised the scenarios contained within the HIVS report, which assessed for the future year of 2031 to align with the local plan period. This incorporated traffic data from: a number of traffic surveys, the West Sussex County Traffic Model (WSCTM), and the Arun Transport Study for Strategic Development Report.
- 4.1.2 WSCC has requested that the transport assessment should now use the planning scenarios set out in the EBR TA, in order to provide a consistent approach to the traffic modelling.

4.2 Traffic Flows

- 4.2.1 Generally traffic assessment periods consider a base year which coincides with the application submission and a future year of 5 years post application. The Oldlands Farm Phase 2 planning application has been submitted in 2015, resulting in a future assessment year of 2020.
- 4.2.2 The HIVS report has utilised a period up to 2031 which aligns with the local plan period, consequently the forecast period is significantly greater and applies higher levels of traffic growth than ordinarily required. Nonetheless, the same assessment periods were utilised to assess the Oldlands Farm Phase 2 proposals.
- 4.2.3 The HIVS report undertook assessments of the following scenarios:
- 2031 Do Minimum (DM);
 - 2031 Do Something 1 (DS1);
 - 2031 Do Something 2 (DS2); and
 - 2031 Do Something 3 (DS3.)
- 4.2.4 DM considered only Oldlands Farm Phase 1 site (App.Ref.**BE/61/13** & **BE/73/14/PL**) and the completion of the BNRR. Given the schemes that were included it was

considered appropriate to equate this to a 'Base scenario' for Oldlands Farm Phase 2 albeit with 11 years additional traffic growth.

4.2.5 DS1 assessed [DM + Saltbox + Rowan Park], along with their associated highway infrastructure. This scenario included additional potential schemes and was considered as the 'Base + Committed Development scenarios' for Oldlands Phase 2.

4.2.6 DS2 was similar to DS1, with the addition of the LEC site and a link road along the eastern side of the railway line. DS3 considered the same sites as DS2, but the link road crossed the railway and into Oldlands Farm.

4.2.7 The latest EBR TA assesses the following scenarios:

- 2031 Do Minimum (DM);
- 2031 Do Something 1 (DS1); and
- 2031 Do Something 2 (DS2).

4.2.8 It should be noted that whilst similar titles are used, each scenario is significantly different to those shown in the HIVS report, also that the LEC scheme has not been included within the study.

4.2.9 The Systra DM scenario only includes App.Ref.**BE/73/14/PL**, assuming that that the consented Oldlands Farm Ph1 (App.Ref.**BE/61/13**) does not form a part of the LDO. Consequently, within this Addendum the Oldlands Farm Ph1 trips have been added to this scenario in order to equate to a 'Base scenario' for Oldlands Farm Phase 2 albeit with 11 years additional traffic growth. This also allows for a consistent approach to the HIVS assessment.

4.2.10 DS1 assessed [DM + Saltbox + Rowan Park + Oldlands Farm Ph 2], where it is assumed that both Rowan Park and Saltbox will be accessed from a new 5th arm on the A29/BNRR/Oldlands Farm roundabout. As previously mentioned, incorrect GFAs and inappropriate trip rates were associated with the Oldlands Farm schemes, consequently these were removed and replaced with trip generations shown in section 3.2 above. This scenario included additional potential schemes and was

considered as the 'Base + Committed Development scenarios' for Oldlands Phase 2 assessment.

4.2.11 DS2 was similar to DS1, while assuming that Rowan Park is accessed from a new junction on Rowan Way. The same adjustments described for DS1 have been applied in order to appropriately represent Oldlands Farm Ph2 proposals.

4.2.12 Extracts (Figures B1 - B10) of the traffic flows from the EBR TA are contained at **Appendix A**. These show the forecast 2031 traffic flows on the local highway network for the DM, DS1, and DS2 scenarios.

4.3 Committed Development

4.3.1 It is recognised that the development schemes described above are allocated within the local plan, however with the exception of the Oldlands Farm Phase 1 scheme, the above projects assessed for EBR currently have not been granted planning consent or have planning applications submitted. ***Nonetheless, for the purpose of this Addendum the Saltbox and Rowan Park proposals have been considered as committed developments. This approach will provide a robust traffic assessment.***

4.3.2 It should also be recognised that due to the extended assessment period the magnitude of committed development included is greater than would normally be considered. ***The inclusion of this level of development and associated traffic will result in a very robust assessment.***

Oldlands Farm Phase 1

4.3.3 Oldlands Farm Phase 1 received outline planning consent in March 2014 for a mix of uses totalling 31,116sqm GFA including A1, sui generis, B1, B2 and B8. The TA supporting the application forecast that the scheme would generate the following trips during the peak periods shown in **Table 4.1**.

Table 4.1: Extant Oldlands Farm Phase 1 development trips						
	AM peak			PM peak		
	Arr	Dep	2-way	Arr	Dep	2-way
All uses	247	136	383	216	298	516

4.3.4 The traffic assessment for the Phase 1 scheme demonstrated that the local highway network could satisfactorily accommodate the trips generated in **Table 4.1**.

Rolls Royce

4.3.5 The eastern portion of the Phase 1 land (totalling 16.02Ha) is under construction for Rolls Royce. The full planning application (App.Ref.**BE/73/14/PL**) was submitted for a total of 38,100sqm B2/B8 use and planning consent was granted in August 2014. The TA (produced by Hydrock) accompanying the application demonstrated that the total Oldlands Farm Phase 1 site would generate less traffic, due largely to the changes in proposed GFA for B8 and B2 uses.

4.3.6 **Table 4.2** contains the trip generation from the Hydrock TA for Rolls Royce, where either all B8 or B2 uses are constructed. The table also shows the effect of each Rolls Royce scenario and the associated change in trip generation
e.g. Extant trips minus B8 scenario minus commercial (247 – 40 - 113 = 94)

Table 4.2: Comparison of consented Oldlands Farm trips with Rolls Royce						
	AM peak			PM peak		
	Arr	Dep	2-way	Arr	Dep	2-way
Rolls Royce B8 (1)	113	45	158	27	86	113
Rolls Royce B2 (2)	227	106	333	59	170	229
Extant - Table 4.1	247	136	383	216	298	514
Commercial trips	40	18	58	54	66	120
change (1)	-94	-73	-167	-135	-146	-283
change (2)	+20	-12	-109	-81	-80	-165

4.3.7 It is understood that the majority of the Rolls Royce site will be utilised for B8 uses rather than B2. Nonetheless, it can be seen that if only B2 uses were provided then there would still be a reduction in trips during both peak periods, when compared to the consented trip generation for Oldlands Farm. As set out above, ***if B8 uses are provided then further trip reductions will occur at the site.***



4.3.8 The traffic flow diagrams for the 2031 Base, 2031 Base + Com, and 2031 Base + Com + Dev scenarios are contained at **Appendix B**.

5 Junction Capacity Modelling

5.1 General

5.1.1 Junction capacity modelling has been undertaken by MJA at key junctions on the highway network for the Oldlands Farm Phase 2 proposals. The latest modelling software (junctions9) was utilised for the assessments at the following junctions:

- A29 Shripney Road/BNRR/Site Access priority controlled roundabout; and
- A29 Shripney Road/Steining Way/Rowan Way priority controlled roundabout.

5.1.2 The following scenarios have been considered for the above junctions:

- 2031 Base (AM and PM peaks);
- 2031 Base + Committed (AM and PM peaks); and
- 2031 Base + Committed + Development (AM and PM peaks).

5.2 2031 Base Scenario Assessment

5.2.1 Whilst construction of the A29 Shripney Road / BNRR / Oldlands site access junction has been completed, no traffic currently routes along the BNRR or into Oldlands Farm. This junction has 4 arms and a 60 metre Inscribed Circle Diameter (ICD). It is anticipated that the BNRR will open in 2016 and before construction of the Phase 2 scheme. The 2031 DM scenario traffic flow information within the EBR TA has been utilised for the 2031 Base assessment and include adjustments set out in para 4.2.9. A summary of the ARCADY results for the 2031 Base scenario is given below in **Table 5.1**.

Table 5.1: Summary of ARCADY results for BNRR roundabout				
2031 Base [DM]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.48	0.9	0.59	1.4
(B) BNRR	0.74	2.9	0.91	9.5
(C) Site Access	0.16	0.2	0.43	0.8
(D) A29 Shripney Road (S)	0.74	2.8	0.55	1.2
(E) Saltbox Access	-	-	-	-

5.2.2 It can be seen from the results above that the junction is forecast to operate satisfactorily during both peak periods. However, the BNRR approach is predicted to

experience RFC of 0.91 during the PM peak hour. The queues at the roundabout are minimal for all arms and during both peak hours.

5.2.3 The A29 Shripney Road / Steyning Way / Rowan Way roundabout also has 4 arms, and a 74 metre ICD. It serves the Southern Cross Industrial Estate via Steyning Way, and Bognor Regis Retail Park via Rowan Way.

5.2.4 A summary of the ARCADY results for the Rowan Way roundabout is given in **Table 5.1a** below, whilst the full Junctions9 outputs are contained at **Appendix C**.

Table 5.1a: Summary of ARCADY results for Rowan Way roundabout				
2031 Base [DM]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.53	1.1	0.75	3.0
(B) Steyning Way	0.17	0.2	0.58	1.4
(C) A29 Shripney Road (S)	0.72	2.5	0.65	1.9
(D) Rowan Way	0.89	7.5	0.77	3.3

5.2.5 The results in the above table reveal that the Rowan Way roundabout is forecast to operate satisfactorily in 2031 during both peaks with minimal queuing. Whilst the maximum RFC value is forecast at 0.89, minimal queuing along Rowan Way during the AM peak. The maximum RFC value of 0.77 and minimal queues predicted for the A29(n) arm during the PM peak.

5.3 2031 Base + Committed Scenario (DS1) Assessment

5.3.1 When the traffic associated with the committed developments is added to the highway network the capacity of the junctions were analysed, which includes a fifth arm (Saltbox and Rowan Park access). A summary of the Base + Committed results are shown in **Table 5.2**.

Table 5.2: Summary of ARCADY results for BNRR roundabout				
2031 Base + Committed [DS1]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.61	1.6	0.74	2.8
(B) BNRR	0.88	7.3	0.92	10.1
(C) Site Access	0.20	0.2	0.59	1.4
(D) A29 Shripney Road (S)	0.84	5.1	0.56	1.3
(E) Saltbox Access	0.11	0.1	0.41	0.7

5.3.2 It can be seen from the results above that the BNRR junction is forecast to approach its capacity limits, with the addition of committed development traffic. During the AM peak the maximum RFC value of 0.88 is forecast for the BNRR approach, however queuing remains minimal. In the PM peak the BNRR approach has a RFC maximum value of 0.92.

5.3.3 Generally, a RFC value of 0.85 indicates that the approach arm is close to its operational capacity. The value of 0.85 allows for a margin of error and scope for some spare capacity. In addition to the RFC value, the level of queuing and vehicle delays should be reviewed in order to fully understand the operation of the junction. WSCC guidelines suggest that at junctions where RFC values of 1.0 or above are forecast the delay should be further considered in order to assess for material impact. The values stated above are below WSCC thresholds for further investigation and hence considered acceptable.

5.3.4 The Rowan Way roundabout has also been assessed with the committed trips on the network. A summary of the capacity modelling is shown in **Table 5.2a**.

Table 5.2a: Summary of ARCADY results for Rowan Way roundabout				
2031 Base + Committed [DS1]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.52	1.1	0.75	3.0
(B) Steyning Way	0.17	0.2	0.58	1.4
(C) A29 Shripney Road (S)	0.71	2.4	0.65	1.9
(D) Rowan Way	0.92	10.9	0.82	4.5

5.3.5 The results contained at **Table 5.2a** above demonstrates that the Rowan Way roundabout will operate within operational thresholds during the 2031 Base +

Committed scenario. However, the Rowan Way arm is forecast to experience further loss in capacity and maximum RFC value of 0.92 with minimal queuing during the AM peak. The maximum RFC value forecast during the PM peak will be 0.82 for the Rowan Way arm where minimal queues are also expected.

5.4 2031 Base + Committed Scenario (DS2) Assessment

5.4.1 The DS2 scenario is similar to DS1 but considers an access for Rowan Park onto Rowan Way, rather than via the A29/BNRR/Oldlands roundabout. A summary of the Base + Committed results are shown in **Table 5.3**.

Table 5.3: Summary of ARCADY results for BNRR roundabout				
2031 Base + Committed [DS2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.61	1.6	0.76	3.1
(B) BNRR	0.89	7.6	1.01	49.4
(C) Site Access	0.20	0.2	0.65	1.8
(D) A29 Shripney Road (S)	0.81	4.2	0.60	1.5
(E) Saltbox Access	0.10	0.1	0.31	0.4

5.4.2 It can be seen from the results above that the BNRR approach is forecast to exceed it capacity thresholds, with queues of 49 pcus and RFC value of 1.01 during the PM peak. During the AM peak the maximum RFC value of 0.89 is forecast for the BNRR approach, the level of queuing is 8 pcus and considered acceptable.

5.4.3 The Rowan Way roundabout has also been assessed for this scenario. A summary of the capacity modelling is shown in **Table 5.3a**.

Table 5.3a: Summary of ARCADY results for Rowan Way roundabout				
2031 Base + Committed [DS2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.56	1.3	0.80	4.0
(B) Steyning Way	0.18	0.2	0.67	2.0
(C) A29 Shripney Road (S)	0.73	2.7	0.69	2.2
(D) Rowan Way	0.91	10.0	0.87	6.6

5.4.4 The results above are similar to **Table 5.2a** above and demonstrates that the Rowan Way roundabout will operate within operational thresholds during the 2031 Base +

Committed scenario. During both peaks the Rowan Way arm is forecast to experience maximum RFC values that exceed 0.85, with minimal queuing.

5.5 2031 Base + Committed (DS1) + Development Scenario Assessment

5.5.1 The A29/BNRR roundabout has been assessed when the worst-case Oldlands Farm Phase 2 traffic (see **Table 3.3**) is applied to the network. A summary of the ARCADY results for the Base + Committed + Development scenarios is shown in **Table 5.4** below.

Table 5.4: Summary of ARCADY results for BNRR roundabout				
2031 Base + Committed + Development [DS1 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.64	1.8	0.76	3.1
(B) BNRR	0.95	16.6	0.93	12.5
(C) Site Access	0.26	0.4	0.75	2.9
(D) A29 Shripney Road (S)	0.86	5.9	0.58	1.4
(E) Saltbox Access	0.12	0.1	0.43	0.8

5.5.2 A comparison with **Table 5.2** reveals that the addition of Oldlands Ph2 traffic has minimal effect on the operation of the roundabout. As expected minor increases in queues and RFC values can be seen during both peak periods. Overall the greatest change occurs at the BNRR approach during the AM peak where the RFC increases by a value of 0.07 and the level of queuing increases by 9 pcus. During the PM the RFC value increases by 0.01 and queues by 2pcus.

5.5.3 A summary of the ARCADY results is shown at **Table 6.3a** for the Rowan Way roundabout when the Phase 2 trips are applied to the network.

Table 5.4a: Summary of ARCADY results for Rowan Way roundabout				
2031 Base + Committed + Development [DS1 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.52	1.1	0.76	3.1
(B) Steyning Way	0.17	0.2	0.59	1.4
(C) A29 Shripney Road (S)	0.71	2.4	0.66	1.9
(D) Rowan Way	0.93	12.6	0.83	4.6

5.5.4 Again it can be seen that the effect of the development trips is negligible on the roundabout (comparing results in **Table 5.2a**). The Rowan Way arm will experience increased RFC value of 0.01 and queues of 2 pcus in the AM peak. During the PM peak all arms will experience increased RFC value of 0.01 and queues of less than 1 pcu.

5.6 2031 Base + Committed (DS2) + Development Scenario Assessment

5.6.1 The A29/BNRR roundabout has again been assessed for the worst-case Oldlands Farm Phase 2 traffic (see **Table 3.3**) is applied. A summary of the ARCADY results for the Base + Committed + Development scenarios is shown in **Table 5.5** below.

Table 5.5: Summary of ARCADY results for BNRR roundabout				
2031 Base + Committed + Development [DS2 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.63	1.7	0.78	3.4
(B) BNRR	0.90	8.7	1.03	68.9
(C) Site Access	0.33	0.5	0.82	4.3
(D) A29 Shripney Road (S)	0.83	4.8	0.61	1.6
(E) Saltbox Access	0.11	0.1	0.33	0.5

5.6.2 A comparison with **Table 5.3** reveals that the addition of Oldlands Ph2 traffic has minimal effect on the operation of the roundabout. As expected minor increases in queues and RFC values can be seen during both peak periods. The BNRR arm has the least spare capacity for the Base + Committed scenario (see **Table 5.3**). The junction operates within acceptable capacity thresholds, with the exception of the BNRR arm where it can be seen that the RFC value increases by 0.02 during both peak periods. The queues in the PM peak increase significantly, which is due to the arm already being over capacity.

5.6.3 A summary of the ARCADY results is shown at **Table 5.5a** for the Rowan Way roundabout when the Phase 2 trips are applied to the network.

Table 5.5a: Summary of ARCADY results for Rowan Way roundabout				
2031 Base + Committed + Development [DS2 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.56	1.3	0.81	4.2
(B) Steyning Way	0.18	0.2	0.69	2.2
(C) A29 Shripney Road (S)	0.73	2.7	0.69	2.2
(D) Rowan Way	0.93	11.4	0.87	6.7

5.6.4 Again it can be seen that the effect of the development trips is negligible on the roundabout (comparing results in **Table 5.3a**). The Rowan Way arm will experience increased RFC value of 0.02 and queues of 1 pcus in the AM peak. During the PM peak all arms will experience negligible affects.

5.7 Mitigation for the 2031 Base + Committed + Development Scenario Assessment

- 5.7.1 WSCC guidelines indicate that at junctions where RFC values of 1.0 or above are forecast the delay should be further considered in order to assess for material impact.
- 5.7.2 Minor adjustments could be made to the A29/BNRR/Oldlands Farm roundabout in order to improve the efficiency of the junction and to accommodate the forecast traffic movements. The results shown in **Tables 5.3 & 5.5** suggest that the BNRR arm requires some attention. It is considered that increasing the entry width and effective flare length of the BNRR approach will yield the most efficient improvement and will mitigate for the LDO schemes and the Oldlands Farm Ph2 proposals.
- 5.7.3 The EBR TA has already identified a scheme to mitigate for the LDO sites, where minor alterations to the BNRR, A29(s) and Saltbox approach arms are made. It is proposed to further widen the BNRR approach marginally to provide an entry width of 9.0m, as shown on **Dwg.No.5130:T01** (see **Appendix D**).

- 5.7.4 For the A29 / Rowan Way / Steyning Way roundabout **Figure 7 Rev 1** (see **Appendix D**) of the EBR TA shows mitigation in the form of spiral markings and lane widening. No further improvements are proposed for the Oldlands Farm Ph2 development.

DS1 Scenario

- 5.7.5 The improved junctions have been tested for the 2031 Base + Committed + Development traffic flows. A summary of the results are shown in **Table 5.6** below, whilst the full Junctions9 outputs are contained at **Appendix E**.

Table 5.6: Summary of ARCADY results for BNRR roundabout (improved)				
2031 Base + Committed + Development [DS1 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.64	1.8	0.76	3.1
(B) BNRR	0.77	3.3	0.75	3.0
(C) Site Access	0.26	0.4	0.75	3.0
(D) A29 Shripney Road (S)	0.86	5.9	0.58	1.4
(E) Saltbox Access	0.12	0.1	0.43	0.8

- 5.7.6 It can be seen that the mitigation results in the improved performance of the BNRR approach during both peak periods (compared with **Table 5.4**). In the AM peak the RFC value is reduced by 0.18 and queues by 14 pcus, whilst the PM results also show a reduction of 0.18 for the RFC value and queues reduced by 10pcus.
- 5.7.7 A summary of the junction capacity assessment for the Rowan Way roundabout is shown below in **Table 5.6a**.

Table 5.6a: Summary of ARCADY results for Rowan Way roundabout (improved)				
2031 Base + Committed + Development [DS1 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.53	1.1	0.77	3.3
(B) Steyning Way	0.18	0.2	0.61	1.6
(C) A29 Shripney Road (S)	0.72	2.5	0.67	2.0
(D) Rowan Way	0.92	10.9	0.82	4.4

- 5.7.8 Comparing the results in **Table 5.6a** with **Table 5.4a** reveals that overall the roundabout will perform better. It is noted that for the Rowan Way arm there will be a reduction in the RFC value of 0.01 during both peak hours. Minor reductions in queues are also forecast.

DS2 Scenario

5.7.9 The improved junctions have been tested for the 2031 Base + Committed + Development traffic flows. A summary of the results are shown in **Table 5.7** below.

Table 5.7: Summary of ARCADY results for BNRR roundabout (improved)				
2031 Base + Committed + Development [DS2 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.63	1.7	0.78	3.4
(B) BNRR	0.73	2.7	0.82	4.6
(C) Site Access	0.33	0.5	0.85	5.2
(D) A29 Shripney Road (S)	0.83	4.8	0.62	1.6
(E) Saltbox Access	0.11	0.1	0.33	0.5

5.7.10 The results shown in **Table 5.7** above demonstrates that the roundabout will operate within generally accepted thresholds during both the AM and PM peaks. A comparison with **Table 5.5** reveals that for the BNRR approach there will be a reduction in the RFC value of 0.17 and queue reduction of 6pcus in the AM peak, whilst for the PM peak a reduction in the RFC value of 0.21 and a significant queue reduction of 64pcus is forecast.

5.7.11 A summary of the junction capacity assessment for the Rowan Way roundabout is shown below in **Table 5.7a**.

Table 5.7a: Summary of ARCADY results for Rowan Way roundabout (improved)				
2031 Base + Committed + Development [DS2 + Phase 2]	0800-0900		1700-1800	
	RFC	Queue	RFC	Queue
(A) A29 Shripney Road (N)	0.57	1.3	0.82	4.6
(B) Steyning Way	0.19	0.2	0.71	2.4
(C) A29 Shripney Road (S)	0.74	2.8	0.70	2.3
(D) Rowan Way	0.91	9.8	0.86	6.2

5.7.12 The results of the junction capacity assessment forecast that generally the roundabout will have slightly more capacity when the improvement works are carried out. It is noted that for the Rowan Way arm there will be a reduction in the RFC value of 0.01 during both peak hours. Minor reductions in queues are also forecast.

5.8 Junction Capacity Assessment Summary

- 5.8.1 Junction capacity assessments have been carried out for key junctions on the highway network in order to understand the traffic effects of the Oldlands Farm Phase 2 proposals.
- 5.8.2 The analysis has built upon the assessment work undertaken for the latest Systra EBR TA which uses an assessment period of 2031. Adjustments to the flows have been carried out in order to correctly reflect the Oldlands Farm Ph2 trip generation and to provide consistency with the previous Systra HIVS report.
- 5.8.3 The worst-case development trip generation has been applied to the network for the purpose of the capacity analysis. It is considered that the future year is significantly greater than normally required (2020), as is the level of committed development. Consequently a very robust assessment has been undertaken.
- 5.8.4 For the 2031 Base (DM) scenario the A29/BNRR/Oldlands Farm roundabout is forecast to operate satisfactorily with minimal queuing in both peaks. The A29 / Rowan Way / Steyning Way roundabout is also forecast to operate satisfactorily during both peak periods.
- 5.8.5 When the LDO schemes are added to the network in the 2031 Base + Com (DS1) scenario the A29/BNRR/Oldlands Farm roundabout is forecast to approach its capacity during the peaks, however the results are within WSCC's acceptable thresholds. The A29 / Rowan Way / Steyning Way roundabout also approaches its capacity on the Rowan Way arm during the AM peak.
- 5.8.6 For the 2031 Base + Com (DS2) scenario similar results to the DS1 scenario are forecast. However the BNRR arm exceeds operational capacity during the PM peak and significant queues are predicted.
- 5.8.7 The assessment considers the addition of the Oldlands Farm Ph2 traffic on the network. The results of the modelling forecasts (2031 Base + Com (DS1) + Dev scenario) that minimal affects to the roundabouts will occur during both AM and PM

peaks. However, the BNRR arm is forecast to increase in RFC of 0.07 and queues by 10 pcus during the AM peak. The A29 / Rowan Way / Steyning Way roundabout is forecast to have insignificant changes due to the Oldlands Farm Ph2 development.

5.8.8 For the 2031 Base + Com (DS2) + Dev scenario, the modelling results forecast that minimal affects will occur due to the Oldlands Farm Ph2 development at the A29/BNRR/Oldlands Farm roundabout. Again insignificant changes due to the development are forecast at the A29 / Rowan Way / Steyning Way roundabout.

5.8.9 The mitigation proposals have also been modelled for the 2031 Base + Com (DS1) + Dev and 2031 Base + Com (DS1) + Dev scenarios. This demonstrates that the BNRR arm will have improved capacity and reduced queues. The greatest improvement will be for the DS2 scenario during the PM peak where it is forecast that the queues will significantly decrease.

5.8.10 When the mitigation scheme for the A29 / Rowan Way / Steyning Way roundabout proposed by Systra is modelled for the 2031 Base + Com (DS1) + Dev and 2031 Base + Com (DS1) + Dev scenarios, the results show minor capacity and queue improvements for both the AM and PM peaks.

5.8.11 It is concluded that the development proposals for Oldlands Phase 2 will not have a detrimental effect in terms of traffic on the local highway network.

6 Summary and Conclusion

6.1 Summary

- 6.1.1 This Addendum to Transport Assessment relates to the Oldlands Farm Ph2 scheme in Bognor Regis. It has been produced following WSCC comments for the original Transport Assessment (TA) for a mix of employment uses. The TA relied on information contained within the Systra 'Highway Infrastructure Viability Study' (HIVS) report. This assesses the enterprise@BognorRegis area, which Oldlands Farm is part of.
- 6.1.2 Subsequent to the submission of the TA Systra produced the 'EBR – Local Development Order Transport Assessment' (EBR TA). A number of significant changes are included within this document compared with the HIVS report.
- 6.1.3 As requested by WSCC this Addendum generally follows the methodology contained within the EBR TA. It was agreed that the previous Oldlands Farm trip rates should be utilised rather than those shown in the EBR TA.
- 6.1.4 Junction capacity modelling has been carried out for the Oldlands Farm Ph2 development using worst-case scenarios to ensure a robust assessment. Whilst a future year of 2020 is required to be assessed, the EBR TA utilises a future year of 2031 (to align with the local plan period) and considers all the committed development up to this period. There is some ambiguity as to whether the Oldlands Farm Ph1 traffic has been included within the EBR TA. Nonetheless this Addendum has incorporated these flows within the modelling. Therefore it is possible that some double counting may have occurred. Consequently, for the reasons above it is deemed that the capacity modelling is extremely robust.
- 6.1.5 Further analysis concluded that a minor increase to the entry width of the BNRR, would improve capacity and reduce the predicted queue significantly. It should be noted that the Oldlands Farm Ph2 development will have minimal impact on the operation of the off-site junctions. Whilst mitigation measures are proposed it is

considered that these are not necessary for Oldlands Farm Ph2, however they assist to increase the capacity of the arms forecast to exceed operational thresholds when committed development is added to the network. It is therefore deemed that mitigation measures on the highway network should be provided on the basis of the proportion of highway impact and by way of financial contribution due to the number of schemes considered.

- 6.1.6 The latest proposals will result in a positive impact on the local highway network, where the trip generation will be significantly less than that already consented for the site. This highway benefit will occur not only during the peak hours, but also throughout the day.

6.2 Conclusion

- 6.2.1 This Addendum has re-assessed the traffic generation of the Oldlands Farm Ph2 scheme and undertaken capacity modelling in line with the latest Systra EBR TA methodology. The junction capacity assessments demonstrate that the local highway network will experience delays and operational issues without the proposals. The traffic impact of the proposals will be minimal and proposed mitigation measures will satisfactorily accommodate the LDO developments and Oldlands Farm.
- 6.2.2 The traffic impact can be deemed to be positive and the proposals can be regarded as providing a highway benefit due to the reduction in traffic generated over that already accepted.
- 6.2.3 For these reasons it is considered that there should be no highway objections to the Phase 2 employment proposals.

Appendix A

Extracts from SYSTRA EBR TA (Figures B1 – B10)

Figure B1 - 2014 AM Peak Traffic Movements (PCUS)

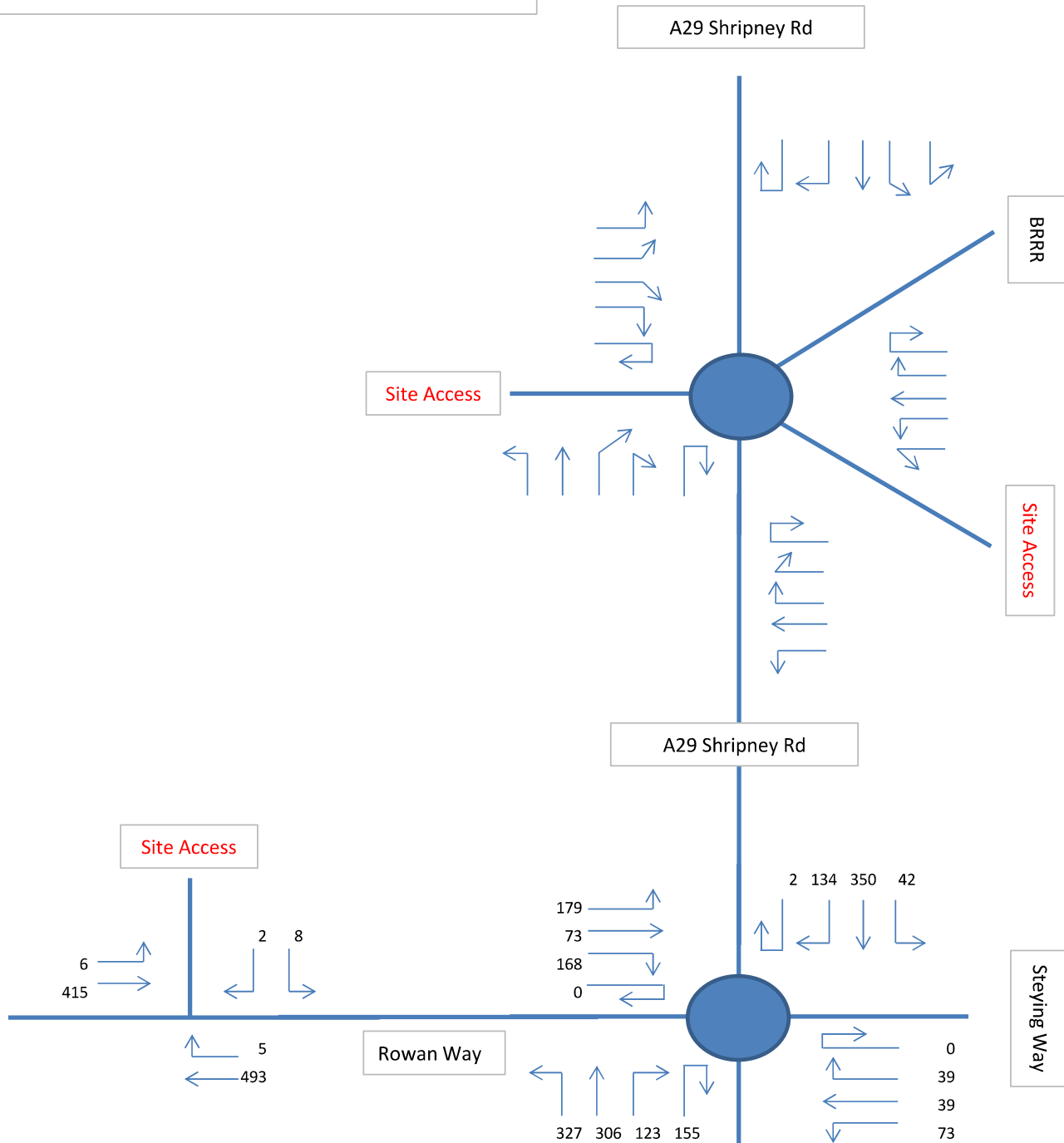


Figure B2 - 2014 PM Peak Traffic Movements (PCUS)

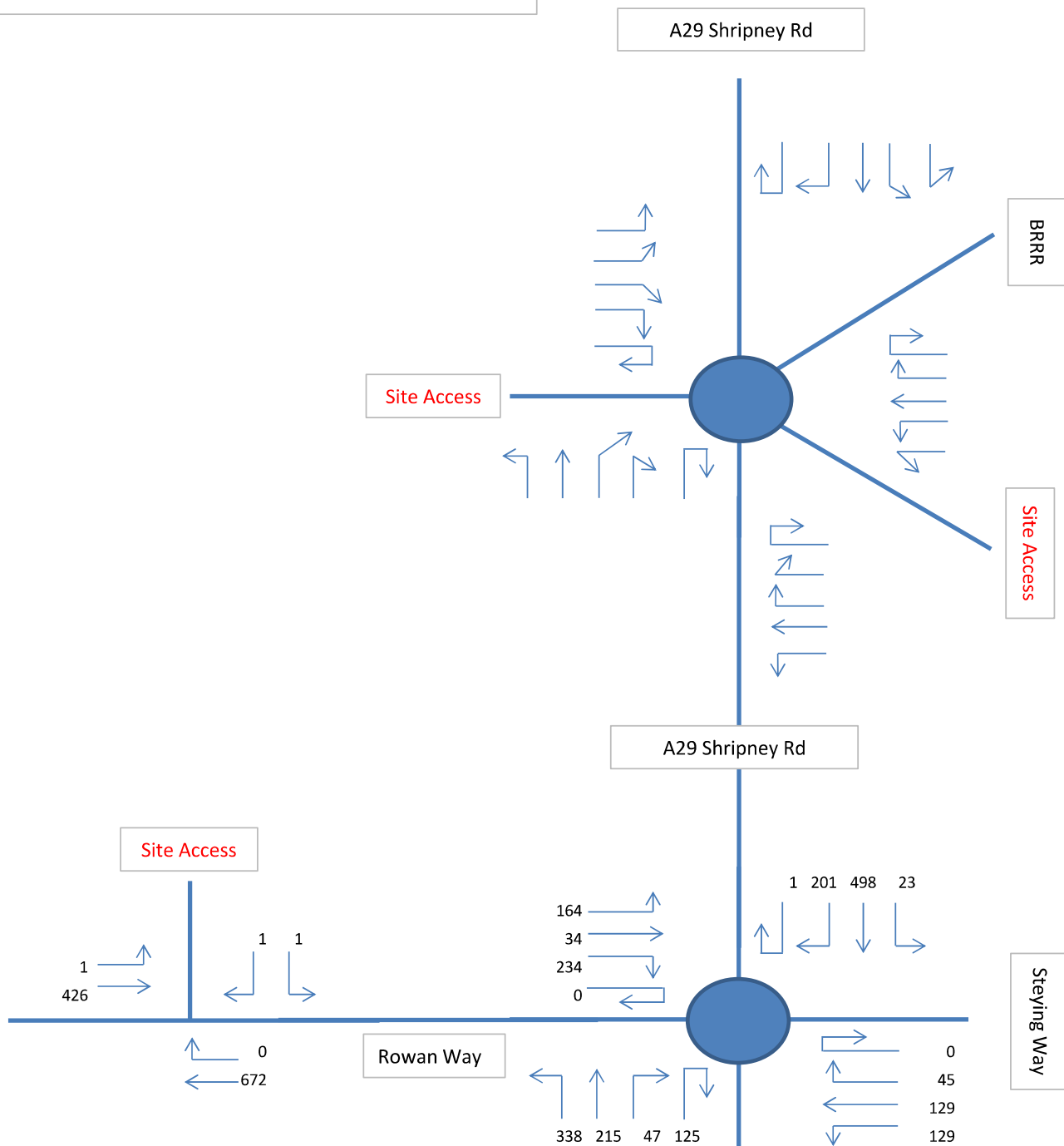


Figure B3 - Base Year WSCTM Traffic Flows

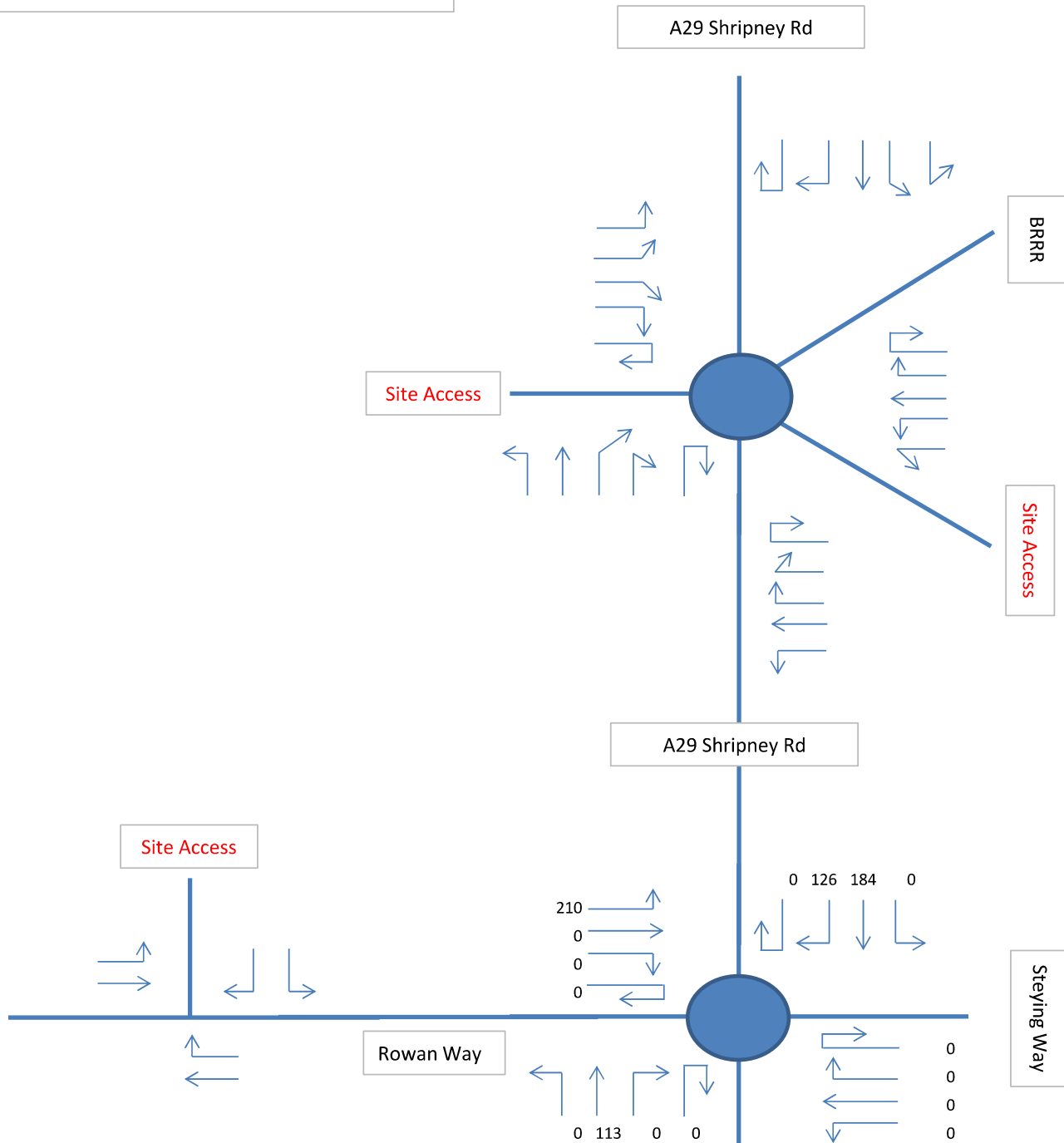


Figure B4 - WSCTM Traffic Flows 'Manual Adjustments'

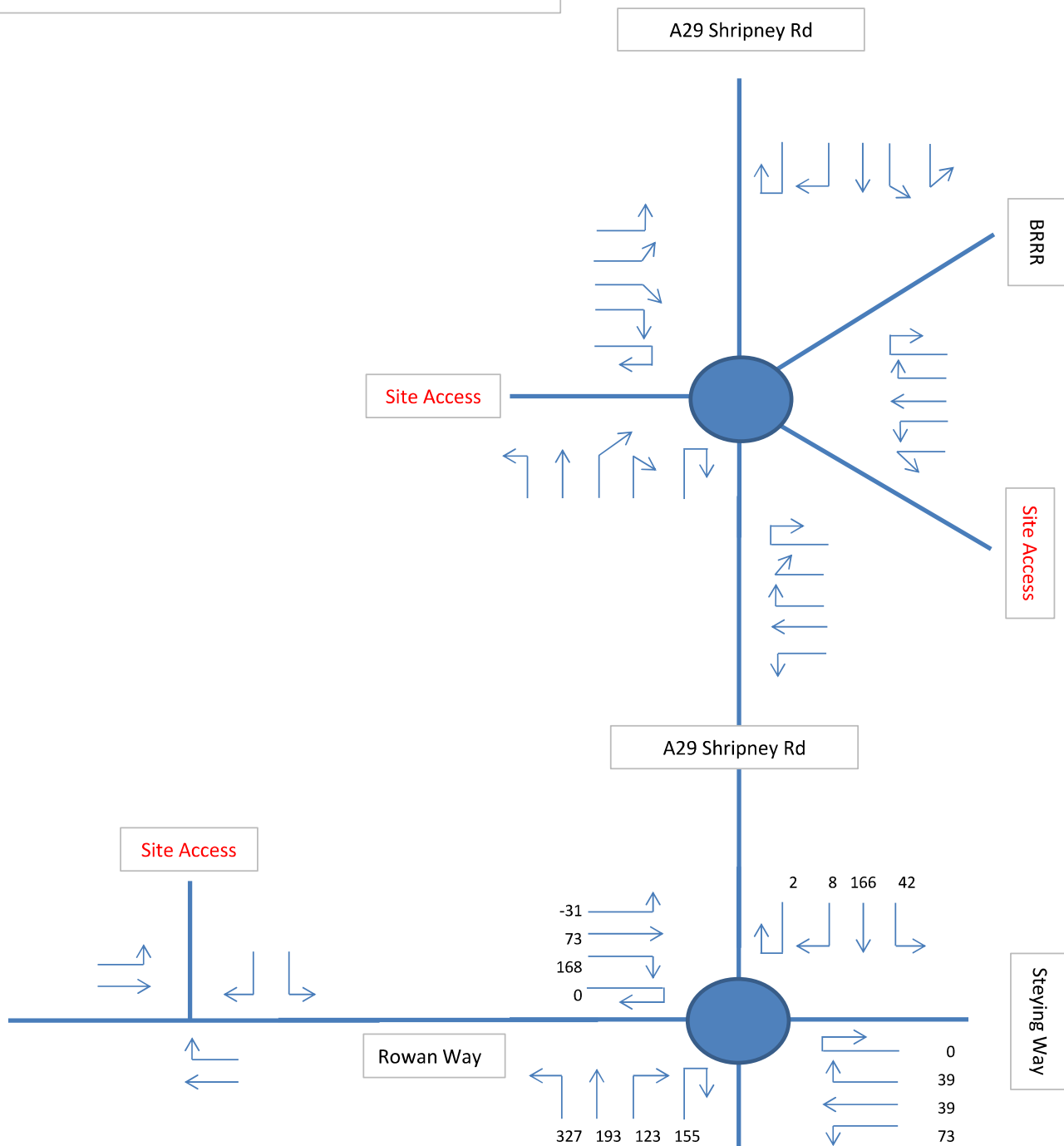


Figure B5 - 2031 AM Peak (Do Minimum)

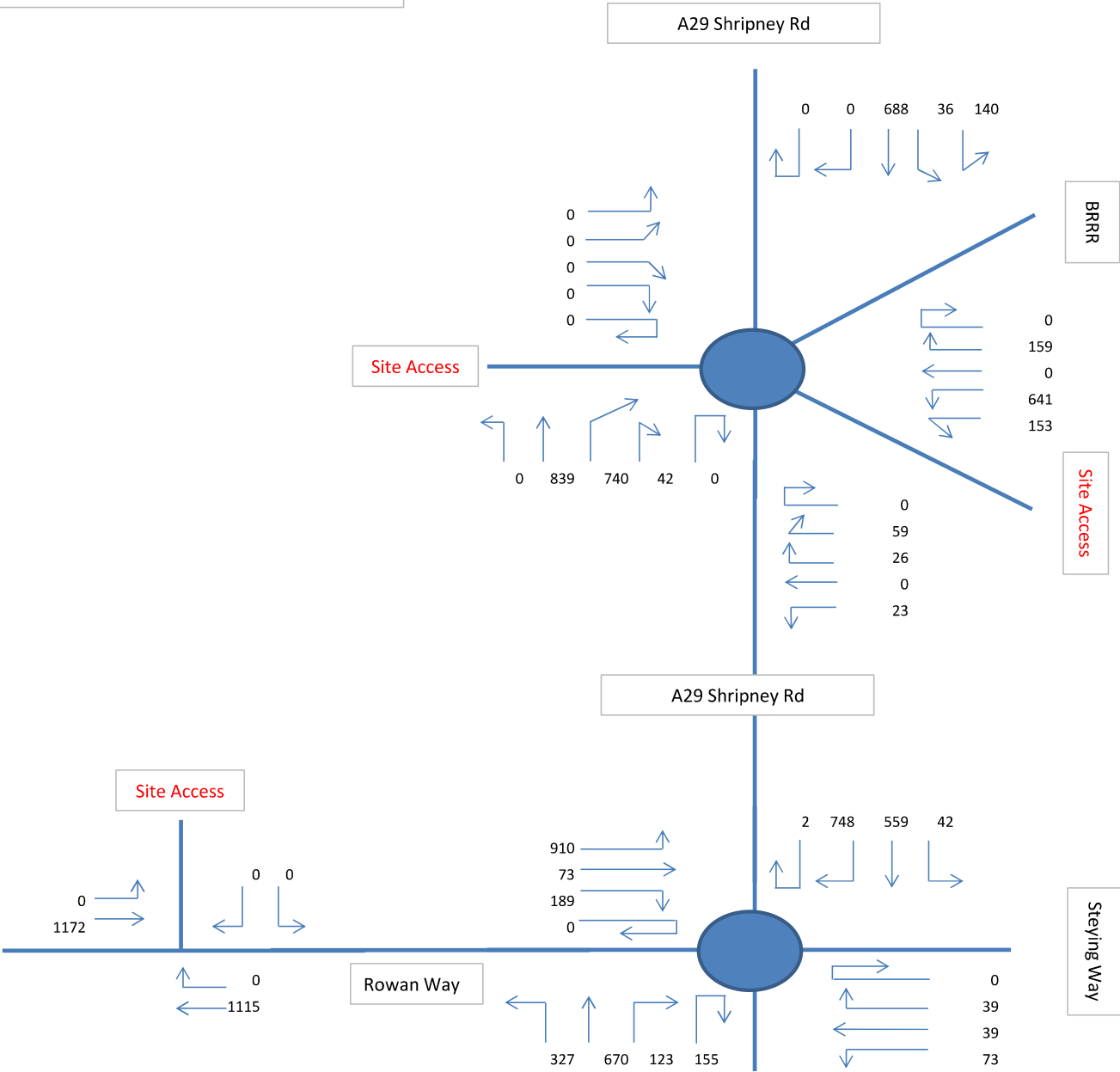


Figure B6 - 2031 PM Peak (Do Minimum)

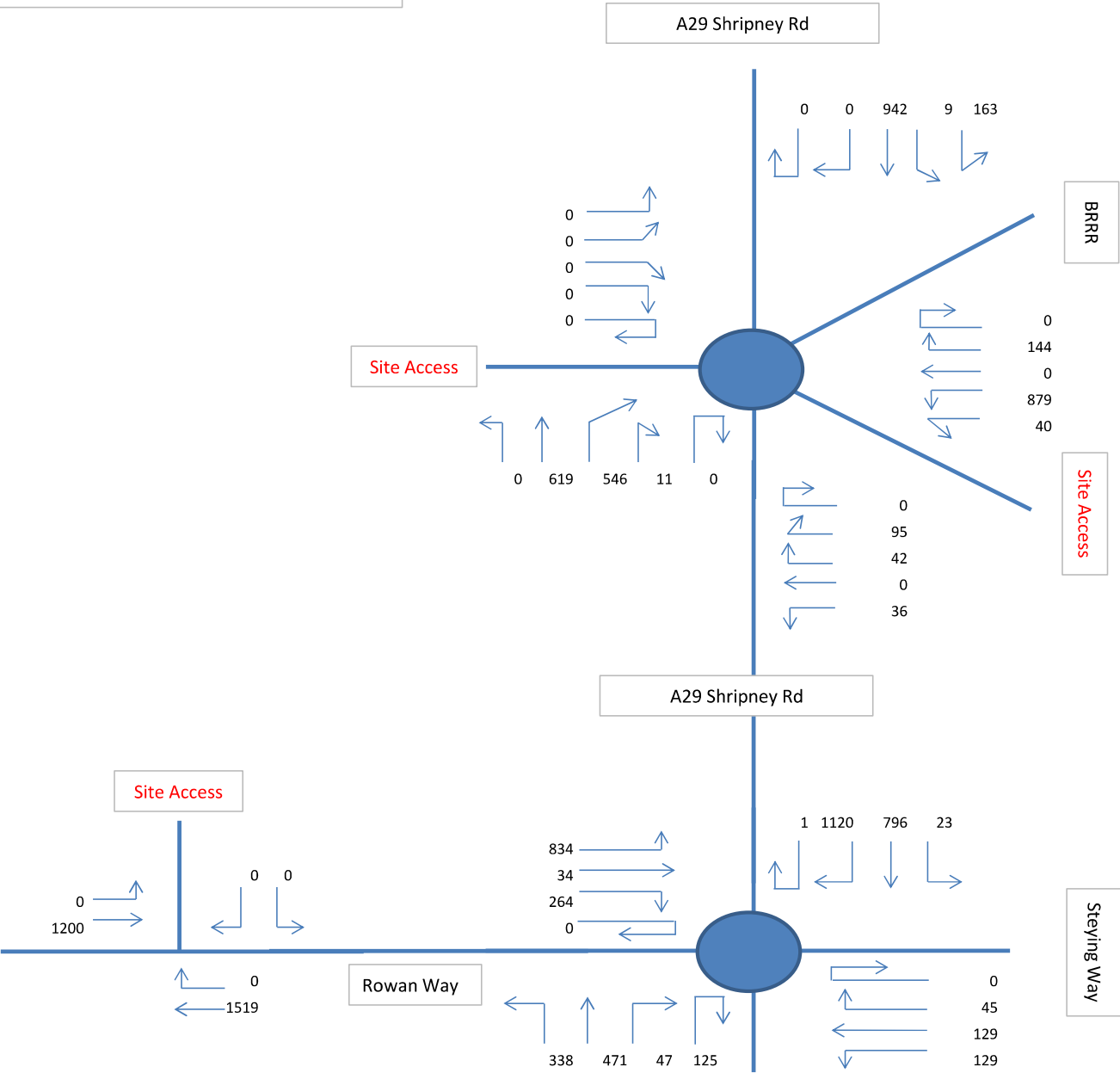


Figure B7 - 2031 AM Peak (Do Something 1)

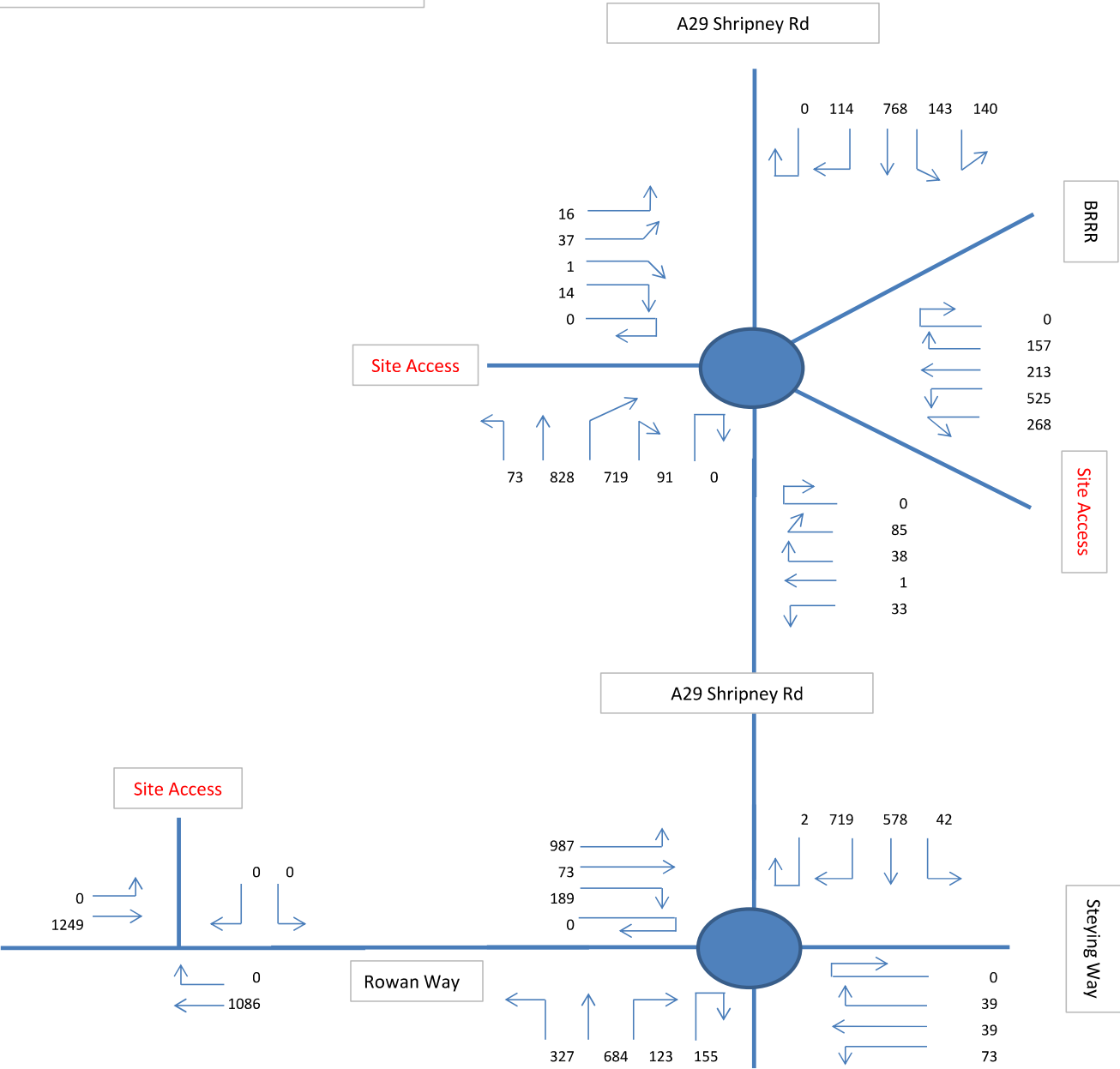


Figure B8 - 2031 PM Peak (Do Something 1)

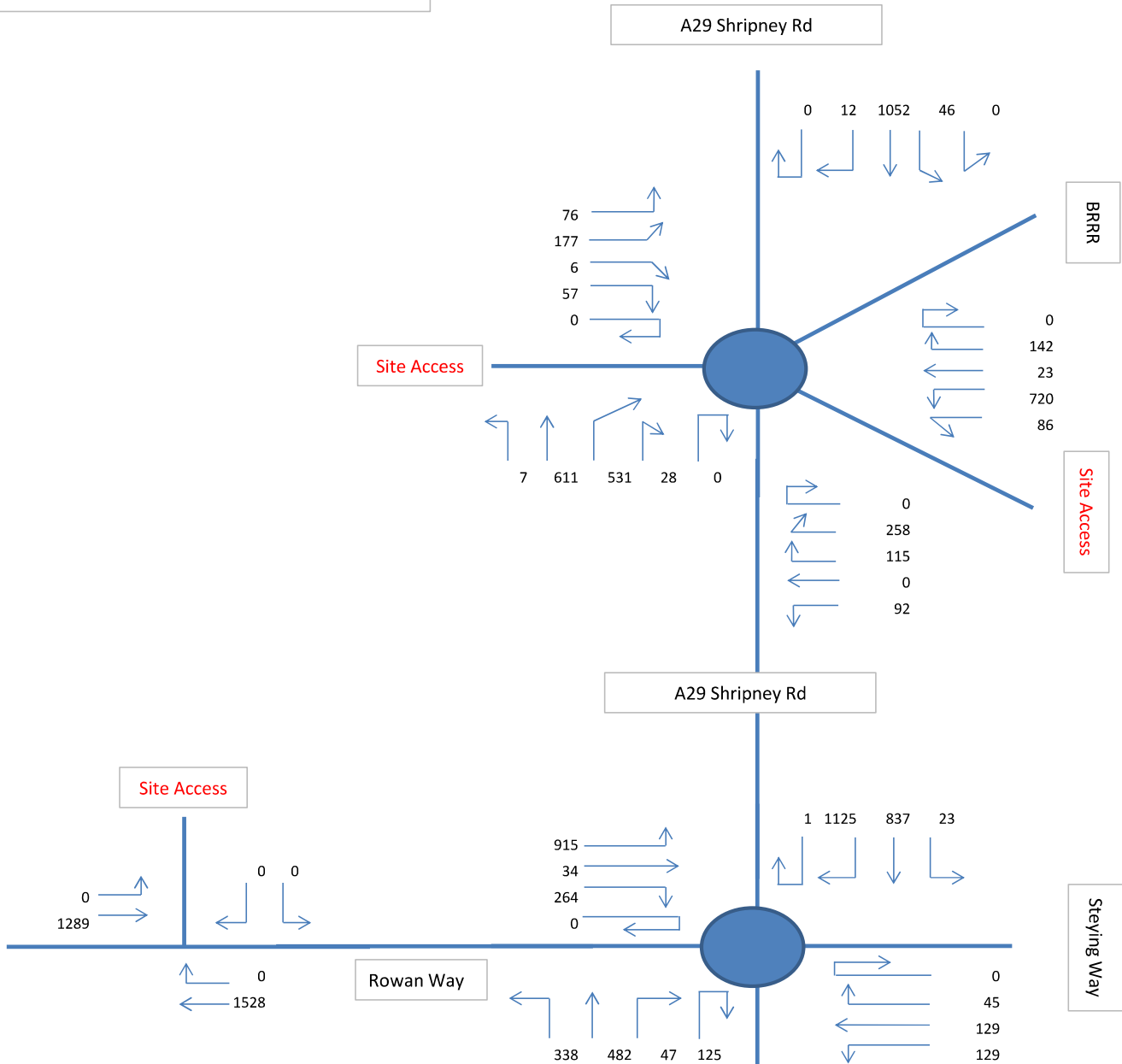


Figure B9 - 2031 AM Peak (Do Something 2)

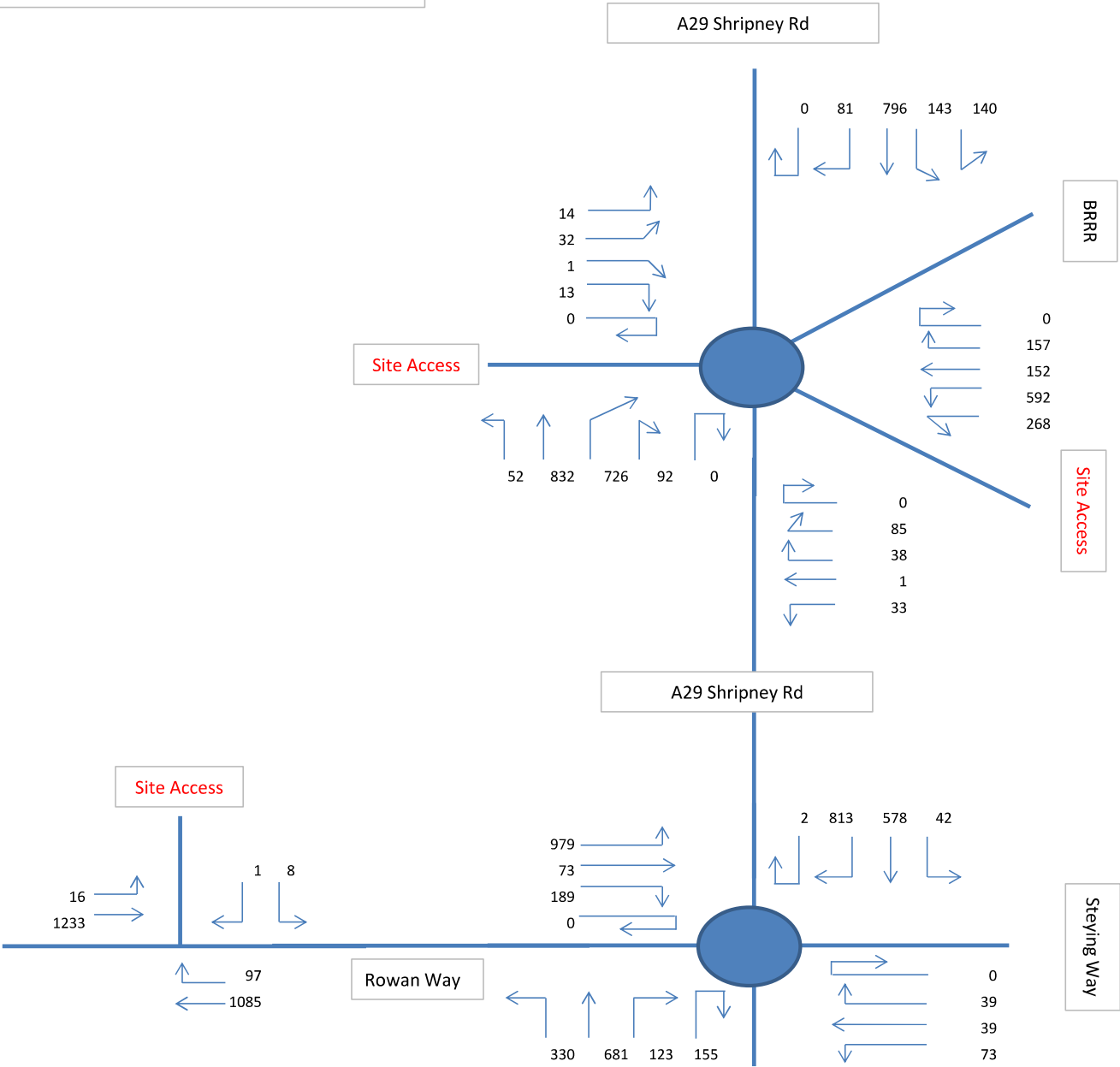
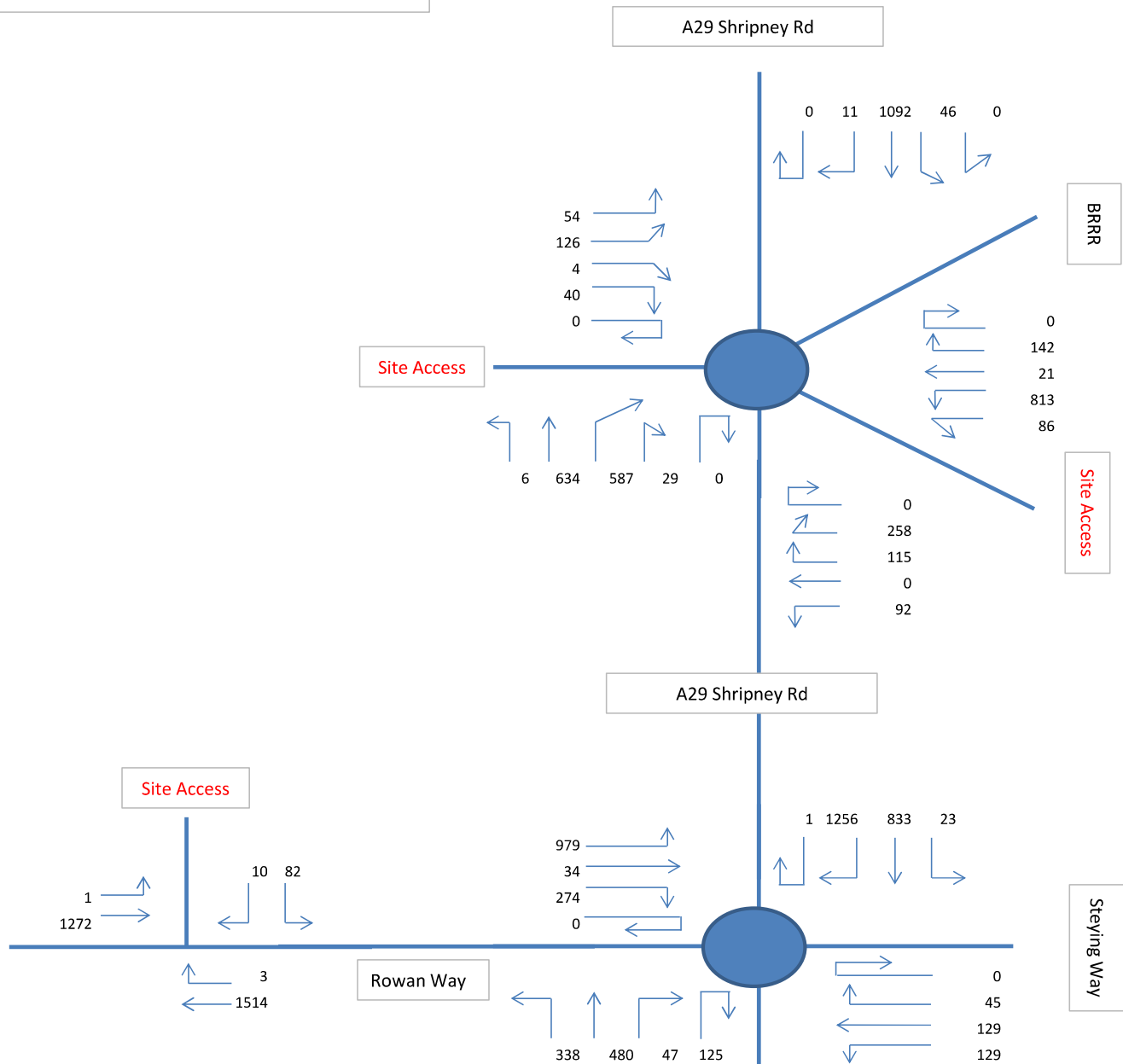


Figure B10 - 2031 PM Peak (Do Something 2)



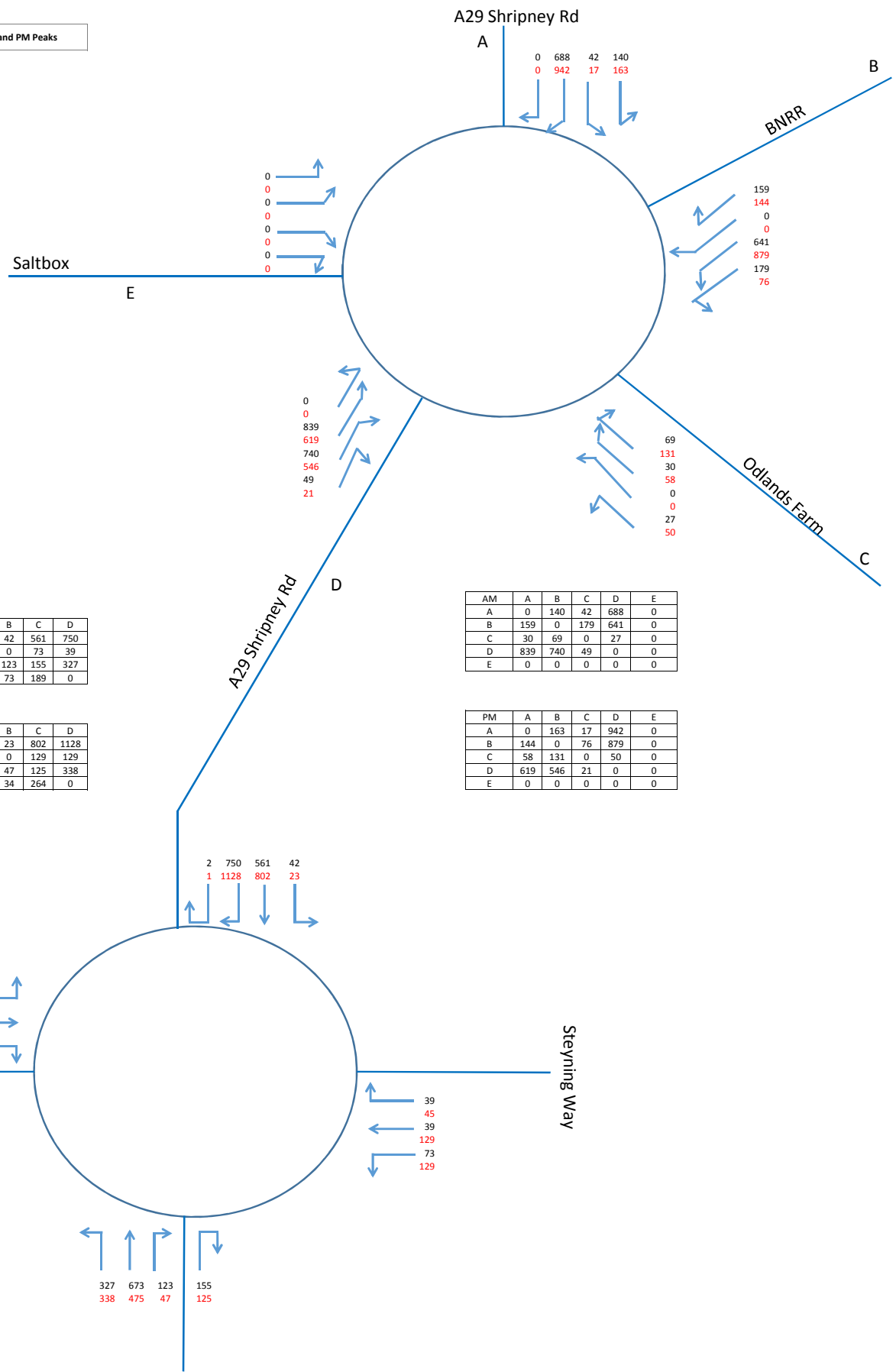


Appendix B

Traffic Flows

Traffic Flow 2031 Base [DM] AM and PM Peaks

AM
PM



AM	A	B	C	D
A	2	42	561	750
B	39	0	73	39
C	673	123	155	327
D	914	73	189	0

PM	A	B	C	D
A	1	23	802	1128
B	45	0	129	129
C	475	47	125	338
D	840	34	264	0

AM	A	B	C	D	E
A	0	140	42	688	0
B	159	0	179	641	0
C	30	69	0	27	0
D	839	740	49	0	0
E	0	0	0	0	0

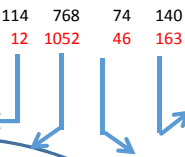
PM	A	B	C	D	E
A	0	163	17	942	0
B	144	0	76	879	0
C	58	131	0	50	0
D	619	546	21	0	0
E	0	0	0	0	0

Traffic Flow 2031 Base + Committed [DS1] AM and PM Peaks

AM
PM

A29 Shripney Rd

A



B

BNRR



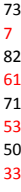
C

Odlands Farm



D

A29 Shripney Rd



E

Saltbox

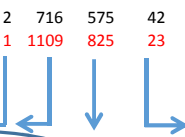


AM	A	B	C	D
A	2	42	575	716
B	38	0	73	39
C	668	123	155	327
D	963	73	189	0

PM	A	B	C	D
A	1	23	825	1109
B	45	0	129	129
C	484	47	125	338
D	918	34	264	0

AM	A	B	C	D	E
A	0	140	74	768	114
B	157	0	153	525	213
C	31	69	0	27	1
D	828	719	50	0	73
E	16	37	0	14	0

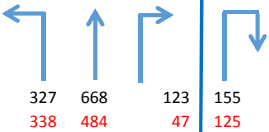
PM	A	B	C	D	E
A	0	163	46	1052	12
B	142	0	106	720	23
C	78	174	0	63	0
D	611	531	33	0	7
E	76	177	5	57	0



Rowan Way

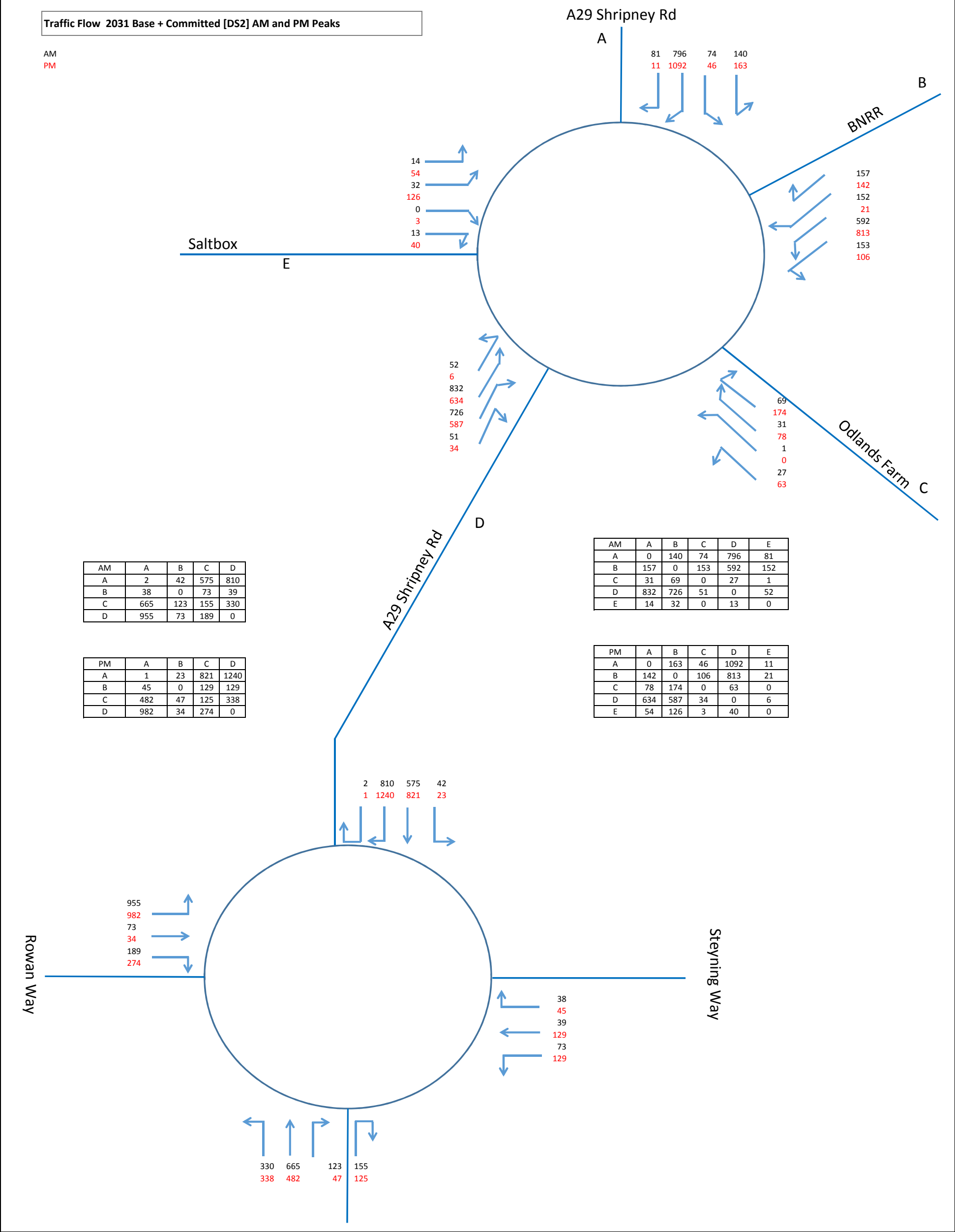


Steyning Way



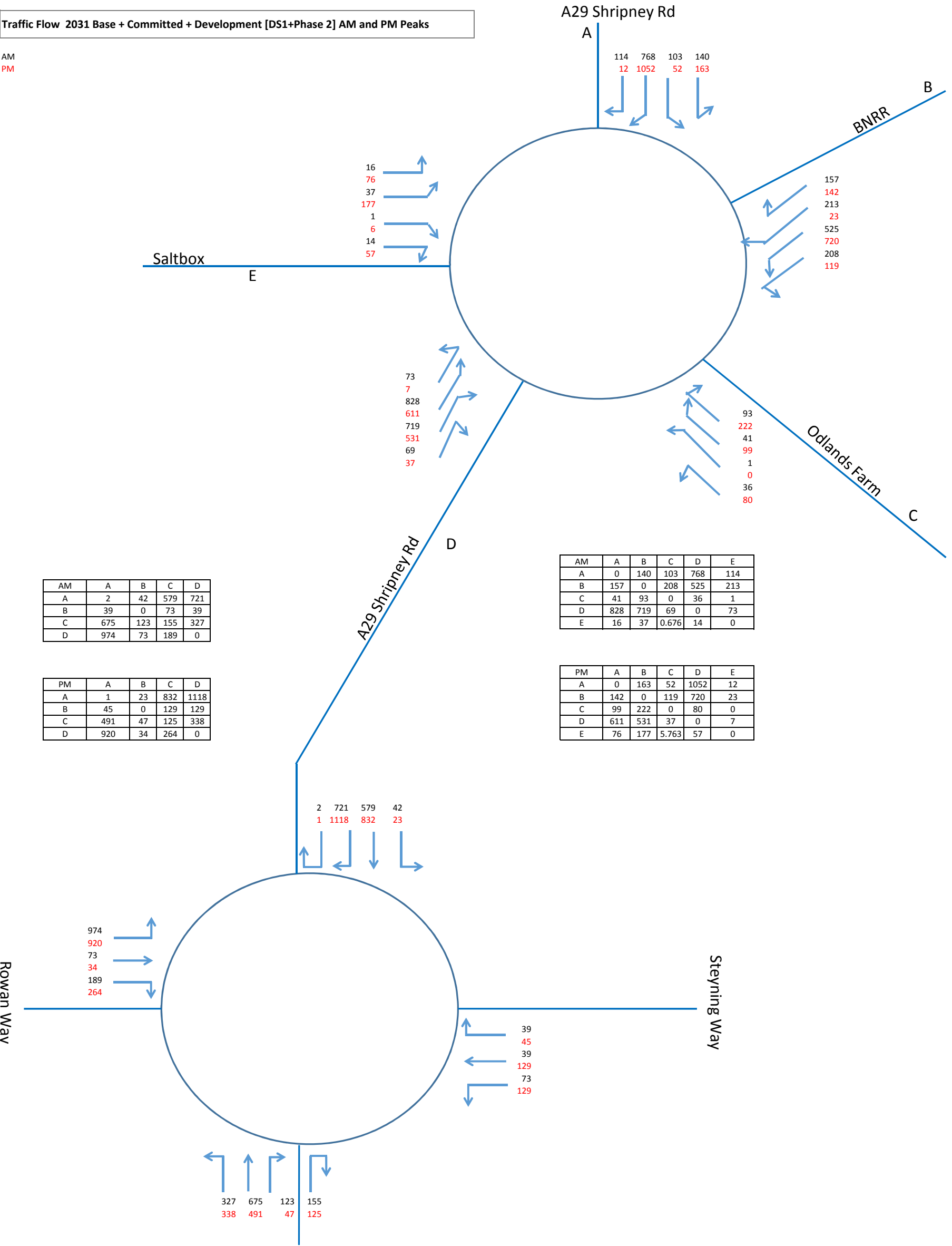
Traffic Flow 2031 Base + Committed [DS2] AM and PM Peaks

AM
PM



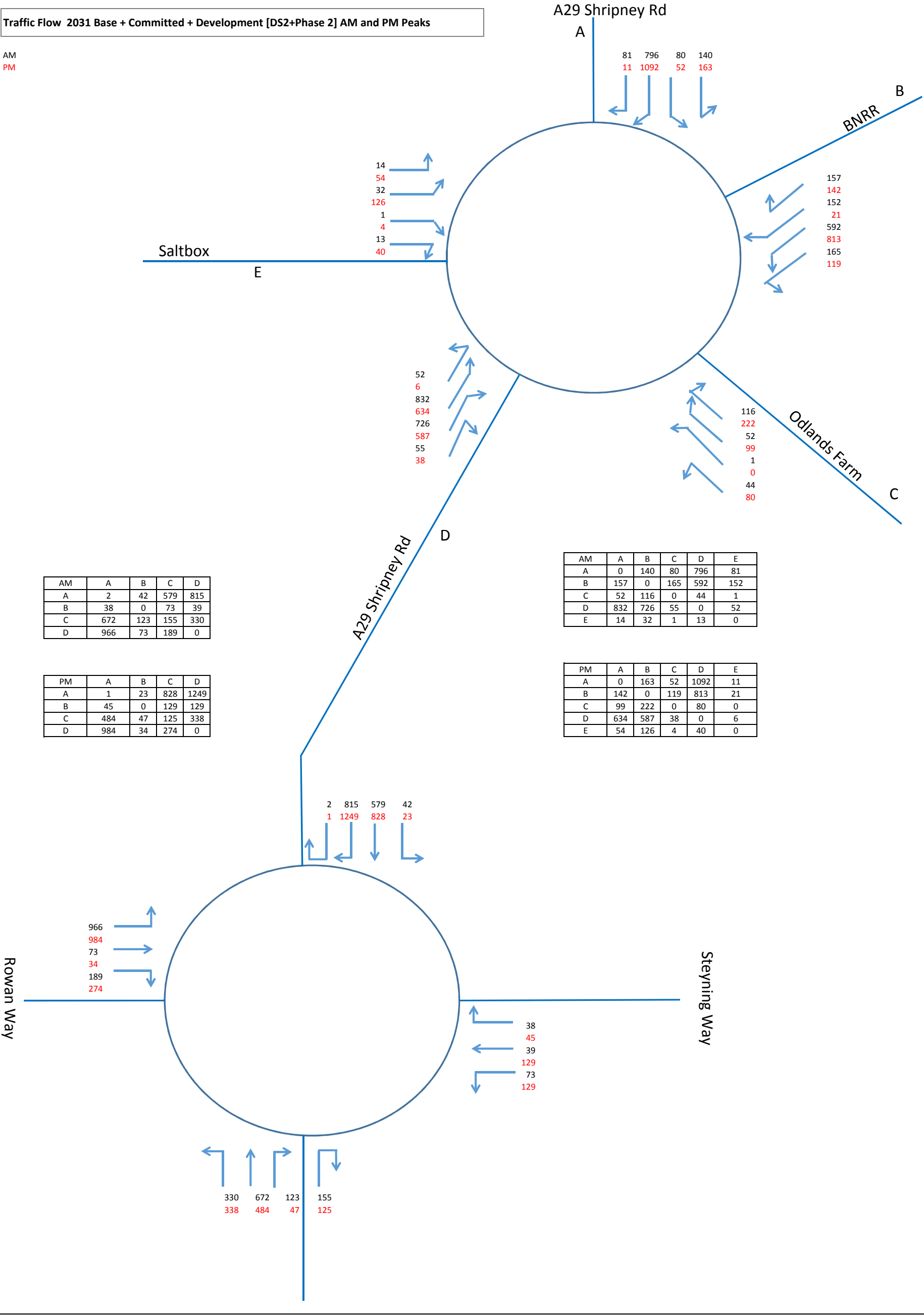
Traffic Flow 2031 Base + Committed + Development [DS1+Phase 2] AM and PM Peaks

AM
PM



Traffic Flow 2031 Base + Committed + Development [DS2+Phase 2] AM and PM Peaks

AM
PM





Appendix C

Junctions9 (Arcady) results

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2015
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: BNRR 5 arm Systra 15.09.14.j9

Path: P:\Projects\Hanbury Properties\5130 - Phase 2 Oldlands Farm, Bognor Regis\Traffic\Junction Modelling\BNRR

Report generation date: 17/09/2015 11:50:21

»(Default Analysis Set) - 2031 DM (Base), AM
»(Default Analysis Set) - 2031 DM (Base), PM
»(Default Analysis Set) - 2031 DS1 (Base+Com), AM
»(Default Analysis Set) - 2031 DS1 (Base+Com), PM
»(Default Analysis Set) - 2031 DS2 (Base+Com), AM
»(Default Analysis Set) - 2031 DS2 (Base+Com), PM
»(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM
»(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM
»(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM
»(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
	A1 - 2031 DM (Base)											
1 - A29 (n)	0.9	3.84	0.48	A	6.75	A	1.4	4.54	0.59	A	13.06	B
2 - BNRR	2.9	10.56	0.74	B			9.5	32.25	0.91	D		
3 - Site Access	0.2	5.26	0.16	A			0.8	11.38	0.43	B		
4 - A29 (s)	2.8	6.14	0.74	A			1.2	3.68	0.55	A		
5 - Saltbox	0.0	0.00	0.00	A			0.0	0.00	0.00	A		
	A1 - 2031 DS1 (Base+Com)											
1 - A29 (n)	1.6	5.21	0.61	A	13.16	B	2.8	7.92	0.74	A	14.76	B
2 - BNRR	7.3	25.91	0.88	D			10.1	38.10	0.92	E		
3 - Site Access	0.2	6.92	0.20	A			1.4	16.46	0.59	C		
4 - A29 (s)	5.1	11.12	0.84	B			1.3	3.93	0.56	A		
5 - Saltbox	0.1	6.57	0.11	A			0.7	7.96	0.41	A		
	A1 - 2031 DS2 (Base+Com)											
1 - A29 (n)	1.6	5.18	0.61	A	12.51	B	3.1	8.49	0.76	A	48.81	E
2 - BNRR	7.6	26.50	0.89	D			49.4	166.18	1.01	F		
3 - Site Access	0.2	6.92	0.20	A			1.8	21.38	0.65	C		
4 - A29 (s)	4.2	9.09	0.81	A			1.5	4.28	0.60	A		
5 - Saltbox	0.1	6.55	0.10	A			0.4	7.16	0.31	A		
	A1 - 2031 DS1+Old (Base+Com+Dev)											
1 - A29 (n)	1.8	5.70	0.64	A	22.18	C	3.1	8.72	0.76	A	18.27	C
2 - BNRR	16.6	56.65	0.95	F			12.5	46.64	0.93	E		
3 - Site Access	0.4	7.53	0.26	A			2.9	26.99	0.75	D		
4 - A29 (s)	5.9	12.74	0.86	B			1.4	4.16	0.58	A		
5 - Saltbox	0.1	6.94	0.12	A			0.8	8.74	0.43	A		
	A1 - 2031 DS2+Old (Base+Com+Dev)											
1 - A29 (n)	1.7	5.51	0.63	A	14.13	B	3.4	9.41	0.78	A	65.97	F
2 - BNRR	8.7	30.40	0.90	D			68.9	226.51	1.03	F		
3 - Site Access	0.5	8.27	0.33	A			4.3	39.80	0.82	E		
4 - A29 (s)	4.8	10.39	0.83	B			1.6	4.54	0.61	A		
5 - Saltbox	0.1	7.06	0.11	A			0.5	7.76	0.33	A		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	A29 / BNRR roundabout
Location	Shripney
Site number	1
Date	05/06/2013
Version	preliminary
Status	(new file)
Identifier	
Client	Hanbury Properties
Jobnumber	5130
Enumerator	MJA"wingl
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
2031 DM (Base)	AM	Systra DM scenario + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓
2031 DM (Base)	PM	Systra DM scenario + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓
2031 DS1 (Base+Com)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓
2031 DS1 (Base+Com)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓
2031 DS2 (Base+Com)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓
2031 DS2 (Base+Com)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓
2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

(Default Analysis Set) - 2031 DM (Base), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	6.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 (n)	
2	BNRR	BNRR
3	Site Access	Site Access
4	A29 (s)	A29 Shripney Road (s)
5	Saltbox	Saltbox Access

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - A29 (n)	0.00	99999.00		0.00
2 - BNRR	0.00	99999.00		0.00
3 - Site Access	0.00	99999.00		0.00
4 - A29 (s)	0.00	99999.00		0.00
5 - Saltbox	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A29 (n)	6.85	9.04	6.5	35.0	60.0	37.0	
2 - BNRR	4.22	6.50	23.5	16.0	60.0	34.5	
3 - Site Access	4.83	6.13	3.5	14.0	60.0	30.5	
4 - A29 (s)	7.30	8.30	5.0	20.0	60.0	31.0	
5 - Saltbox	4.83	6.13	3.5	14.0	60.0	30.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29 (n)	0.675	2386.876
2 - BNRR	0.559	1755.556
3 - Site Access	0.535	1606.177
4 - A29 (s)	0.675	2388.340
5 - Saltbox	0.535	1606.177

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D11	2031 DM (Base)	AM	Systra DM scenario + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	870.00	100.000
2 - BNRR		FLAT	✓	979.00	100.000
3 - Site Access		FLAT	✓	126.00	100.000
4 - A29 (s)		FLAT	✓	1628.00	100.000
5 - Saltbox		FLAT	✓	0.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	140.000	42.000	688.000	0.000
	2 - BNRR	159.000	0.000	179.000	641.000	0.000
	3 - Site Access	30.000	69.000	0.000	27.000	0.000
	4 - A29 (s)	839.000	740.000	49.000	0.000	0.000
	5 - Saltbox	0.000	0.000	0.000	0.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.16	0.05	0.79	0.00
	2 - BNRR	0.16	0.00	0.18	0.65	0.00
	3 - Site Access	0.24	0.55	0.00	0.21	0.00
	4 - A29 (s)	0.52	0.45	0.03	0.00	0.00
	5 - Saltbox	0.20	0.20	0.20	0.20	0.20

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.48	3.84	0.9	A	870.00	1305.00
2 - BNRR	0.74	10.56	2.9	B	979.00	1468.50
3 - Site Access	0.16	5.26	0.2	A	126.00	189.00
4 - A29 (s)	0.74	6.14	2.8	A	1628.00	2442.00
5 - Saltbox	0.00	0.00	0.0	A	0.00	0.00

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	870.00	217.50	852.36	1811.37	0.480	866.33	1020.48	0.0	0.9	3.796	A
2 - BNRR	979.00	244.75	775.60	1321.71	0.741	968.05	943.10	0.0	2.7	9.896	A
3 - Site Access	126.00	31.50	1476.15	816.67	0.154	125.28	267.50	0.0	0.2	5.201	A
4 - A29 (s)	1628.00	407.00	255.65	2215.67	0.735	1617.19	1345.78	0.0	2.7	5.914	A
5 - Saltbox	0.00	0.00	1872.84	604.50	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	870.00	217.50	857.92	1807.62	0.481	869.97	1027.87	0.9	0.9	3.838	A
2 - BNRR	979.00	244.75	778.97	1319.82	0.742	978.72	948.92	2.7	2.8	10.533	B
3 - Site Access	126.00	31.50	1487.75	810.47	0.155	125.99	269.94	0.2	0.2	5.259	A
4 - A29 (s)	1628.00	407.00	257.95	2214.12	0.735	1627.85	1355.80	2.7	2.7	6.136	A
5 - Saltbox	0.00	0.00	1885.79	597.58	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	870.00	217.50	857.97	1807.58	0.481	869.99	1027.96	0.9	0.9	3.838	A
2 - BNRR	979.00	244.75	778.99	1319.81	0.742	978.91	948.98	2.8	2.8	10.548	B
3 - Site Access	126.00	31.50	1487.92	810.38	0.155	126.00	269.98	0.2	0.2	5.259	A
4 - A29 (s)	1628.00	407.00	257.98	2214.09	0.735	1627.95	1355.94	2.7	2.8	6.139	A
5 - Saltbox	0.00	0.00	1885.93	597.50	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	870.00	217.50	857.99	1807.57	0.481	870.00	1027.98	0.9	0.9	3.838	A
2 - BNRR	979.00	244.75	779.00	1319.81	0.742	978.96	948.99	2.8	2.8	10.554	B
3 - Site Access	126.00	31.50	1487.96	810.36	0.155	126.00	269.99	0.2	0.2	5.259	A
4 - A29 (s)	1628.00	407.00	257.99	2214.09	0.735	1627.98	1355.97	2.8	2.8	6.141	A
5 - Saltbox	0.00	0.00	1885.97	597.49	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	870.00	217.50	857.99	1807.57	0.481	870.00	1027.99	0.9	0.9	3.838	A
2 - BNRR	979.00	244.75	779.00	1319.81	0.742	978.97	948.99	2.8	2.8	10.556	B
3 - Site Access	126.00	31.50	1487.98	810.35	0.155	126.00	269.99	0.2	0.2	5.259	A
4 - A29 (s)	1628.00	407.00	258.00	2214.09	0.735	1627.99	1355.98	2.8	2.8	6.141	A
5 - Saltbox	0.00	0.00	1885.98	597.48	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	870.00	217.50	858.00	1807.57	0.481	870.00	1027.99	0.9	0.9	3.838	A
2 - BNRR	979.00	244.75	779.00	1319.81	0.742	978.98	949.00	2.8	2.9	10.558	B
3 - Site Access	126.00	31.50	1487.98	810.34	0.155	126.00	270.00	0.2	0.2	5.259	A
4 - A29 (s)	1628.00	407.00	258.00	2214.09	0.735	1627.99	1355.99	2.8	2.8	6.141	A
5 - Saltbox	0.00	0.00	1885.99	597.48	0.000	0.00	0.00	0.0	0.0	0.000	A

(Default Analysis Set) - 2031 DM (Base), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	13.06	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D12	2031 DM (Base)	PM	Systra DM scenario + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1122.00	100.000
2 - BNRR		FLAT	✓	1099.00	100.000
3 - Site Access		FLAT	✓	239.00	100.000
4 - A29 (s)		FLAT	✓	1186.00	100.000
5 - Saltbox		FLAT	✓	0.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	163.000	17.000	942.000	0.000
	2 - BNRR	144.000	0.000	76.000	879.000	0.000
	3 - Site Access	58.000	131.000	0.000	50.000	0.000
	4 - A29 (s)	619.000	546.000	21.000	0.000	0.000
	5 - Saltbox	0.000	0.000	0.000	0.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.15	0.02	0.84	0.00
	2 - BNRR	0.13	0.00	0.07	0.80	0.00
	3 - Site Access	0.24	0.55	0.00	0.21	0.00
	4 - A29 (s)	0.52	0.46	0.02	0.00	0.00
	5 - Saltbox	0.20	0.20	0.20	0.20	0.20

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.59	4.54	1.4	A	1122.00	1683.00
2 - BNRR	0.91	32.25	9.5	D	1099.00	1648.50
3 - Site Access	0.43	11.38	0.8	B	239.00	358.50
4 - A29 (s)	0.55	3.68	1.2	A	1186.00	1779.00
5 - Saltbox	0.00	0.00	0.0	A	0.00	0.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1122.00	280.50	694.17	1918.18	0.585	1116.43	813.86	0.0	1.4	4.461	A
2 - BNRR	1099.00	274.75	975.15	1210.08	0.908	1068.75	835.45	0.0	7.6	22.139	C
3 - Site Access	239.00	59.75	1932.17	572.78	0.417	236.19	111.74	0.0	0.7	10.610	B
4 - A29 (s)	1186.00	296.50	326.82	2167.60	0.547	1181.21	1841.54	0.0	1.2	3.632	A
5 - Saltbox	0.00	0.00	1508.03	799.62	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1122.00	280.50	697.90	1915.66	0.586	1121.95	820.42	1.4	1.4	4.535	A
2 - BNRR	1099.00	274.75	979.96	1207.40	0.910	1094.97	839.90	7.6	8.6	29.941	D
3 - Site Access	239.00	59.75	1961.21	557.24	0.429	238.85	113.72	0.7	0.7	11.298	B
4 - A29 (s)	1186.00	296.50	332.36	2163.86	0.548	1185.96	1867.71	1.2	1.2	3.680	A
5 - Saltbox	0.00	0.00	1518.32	794.12	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1122.00	280.50	697.98	1915.61	0.586	1121.99	820.76	1.4	1.4	4.535	A
2 - BNRR	1099.00	274.75	979.99	1207.38	0.910	1097.26	839.98	8.6	9.0	31.175	D
3 - Site Access	239.00	59.75	1963.37	556.09	0.430	238.97	113.88	0.7	0.7	11.350	B
4 - A29 (s)	1186.00	296.50	332.75	2163.60	0.548	1185.99	1869.59	1.2	1.2	3.681	A
5 - Saltbox	0.00	0.00	1518.74	793.89	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1122.00	280.50	697.99	1915.60	0.586	1121.99	820.87	1.4	1.4	4.535	A
2 - BNRR	1099.00	274.75	979.99	1207.38	0.910	1098.02	839.99	9.0	9.2	31.726	D
3 - Site Access	239.00	59.75	1964.08	555.71	0.430	238.99	113.93	0.7	0.7	11.364	B
4 - A29 (s)	1186.00	296.50	332.86	2163.52	0.548	1186.00	1870.21	1.2	1.2	3.681	A
5 - Saltbox	0.00	0.00	1518.86	793.83	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1122.00	280.50	698.00	1915.60	0.586	1122.00	820.91	1.4	1.4	4.535	A
2 - BNRR	1099.00	274.75	980.00	1207.38	0.910	1098.37	839.99	9.2	9.4	32.043	D
3 - Site Access	239.00	59.75	1964.41	555.53	0.430	238.99	113.96	0.7	0.8	11.372	B
4 - A29 (s)	1186.00	296.50	332.91	2163.49	0.548	1186.00	1870.49	1.2	1.2	3.681	A
5 - Saltbox	0.00	0.00	1518.91	793.80	0.000	0.00	0.00	0.0	0.0	0.000	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1122.00	280.50	698.00	1915.60	0.586	1122.00	820.94	1.4	1.4	4.535	A
2 - BNRR	1099.00	274.75	980.00	1207.37	0.910	1098.56	840.00	9.4	9.5	32.247	D
3 - Site Access	239.00	59.75	1964.59	555.44	0.430	239.00	113.97	0.8	0.8	11.376	B
4 - A29 (s)	1186.00	296.50	332.94	2163.47	0.548	1186.00	1870.64	1.2	1.2	3.682	A
5 - Saltbox	0.00	0.00	1518.94	793.79	0.000	0.00	0.00	0.0	0.0	0.000	A

(Default Analysis Set) - 2031 DS1 (Base+Com), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	13.16	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D13	2031 DS1 (Base+Com)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1096.00	100.000
2 - BNRR		FLAT	✓	1048.00	100.000
3 - Site Access		FLAT	✓	128.00	100.000
4 - A29 (s)		FLAT	✓	1670.00	100.000
5 - Saltbox		FLAT	✓	67.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	140.000	74.000	768.000	114.000
	2 - BNRR	157.000	0.000	153.000	525.000	213.000
	3 - Site Access	31.000	69.000	0.000	27.000	1.000
	4 - A29 (s)	828.000	719.000	50.000	0.000	73.000
	5 - Saltbox	16.000	37.000	0.000	14.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.13	0.07	0.70	0.10
	2 - BNRR	0.15	0.00	0.15	0.50	0.20
	3 - Site Access	0.24	0.54	0.00	0.21	0.01
	4 - A29 (s)	0.50	0.43	0.03	0.00	0.04
	5 - Saltbox	0.24	0.55	0.00	0.21	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.61	5.21	1.6	A	1096.00	1644.00
2 - BNRR	0.88	25.91	7.3	D	1048.00	1572.00
3 - Site Access	0.20	6.92	0.2	A	128.00	192.00
4 - A29 (s)	0.84	11.12	5.1	B	1670.00	2505.00
5 - Saltbox	0.11	6.57	0.1	A	67.00	100.50

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1096.00	274.00	879.41	1793.11	0.611	1089.80	1018.56	0.0	1.5	5.074	A
2 - BNRR	1048.00	262.00	1013.93	1188.40	0.882	1023.22	955.29	0.0	6.2	19.561	C
3 - Site Access	128.00	32.00	1764.75	662.32	0.193	127.05	272.40	0.0	0.2	6.715	A
4 - A29 (s)	1670.00	417.50	574.86	2000.08	0.835	1651.08	1316.94	0.0	4.7	9.840	A
5 - Saltbox	67.00	16.75	1831.45	626.64	0.107	66.52	394.48	0.0	0.1	6.421	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1096.00	274.00	888.57	1786.92	0.613	1095.91	1031.17	1.5	1.6	5.207	A
2 - BNRR	1048.00	262.00	1019.89	1185.06	0.884	1045.48	964.59	6.2	6.8	24.841	C
3 - Site Access	128.00	32.00	1788.77	649.47	0.197	127.97	276.60	0.2	0.2	6.902	A
4 - A29 (s)	1670.00	417.50	584.08	1993.85	0.838	1669.11	1332.67	4.7	5.0	11.015	B
5 - Saltbox	67.00	16.75	1852.75	615.25	0.109	66.99	400.44	0.1	0.1	6.565	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1096.00	274.00	888.86	1786.73	0.613	1095.98	1031.71	1.6	1.6	5.211	A
2 - BNRR	1048.00	262.00	1019.97	1185.01	0.884	1047.01	964.87	6.8	7.1	25.452	D
3 - Site Access	128.00	32.00	1790.13	648.74	0.197	128.00	276.84	0.2	0.2	6.912	A
4 - A29 (s)	1670.00	417.50	584.64	1993.47	0.838	1669.71	1333.49	5.0	5.0	11.081	B
5 - Saltbox	67.00	16.75	1853.57	614.81	0.109	67.00	400.78	0.1	0.1	6.570	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1096.00	274.00	888.93	1786.68	0.613	1095.99	1031.85	1.6	1.6	5.211	A
2 - BNRR	1048.00	262.00	1019.99	1185.01	0.884	1047.47	964.94	7.1	7.2	25.698	D
3 - Site Access	128.00	32.00	1790.54	648.53	0.197	128.00	276.92	0.2	0.2	6.915	A
4 - A29 (s)	1670.00	417.50	584.81	1993.35	0.838	1669.86	1333.73	5.0	5.1	11.100	B
5 - Saltbox	67.00	16.75	1853.78	614.70	0.109	67.00	400.88	0.1	0.1	6.572	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1096.00	274.00	888.96	1786.66	0.613	1095.99	1031.91	1.6	1.6	5.211	A
2 - BNRR	1048.00	262.00	1019.99	1185.00	0.884	1047.67	964.96	7.2	7.3	25.829	D
3 - Site Access	128.00	32.00	1790.71	648.43	0.197	128.00	276.95	0.2	0.2	6.916	A
4 - A29 (s)	1670.00	417.50	584.88	1993.31	0.838	1669.91	1333.83	5.1	5.1	11.110	B
5 - Saltbox	67.00	16.75	1853.87	614.65	0.109	67.00	400.93	0.1	0.1	6.572	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1096.00	274.00	888.97	1786.65	0.613	1096.00	1031.94	1.6	1.6	5.211	A
2 - BNRR	1048.00	262.00	1019.99	1185.00	0.884	1047.77	964.97	7.3	7.3	25.911	D
3 - Site Access	128.00	32.00	1790.80	648.38	0.197	128.00	276.96	0.2	0.2	6.917	A
4 - A29 (s)	1670.00	417.50	584.92	1993.28	0.838	1669.94	1333.88	5.1	5.1	11.115	B
5 - Saltbox	67.00	16.75	1853.91	614.63	0.109	67.00	400.95	0.1	0.1	6.572	A

(Default Analysis Set) - 2031 DS1 (Base+Com), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	14.76	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D14	2031 DS1 (Base+Com)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1273.00	100.000
2 - BNRR		FLAT	✓	991.00	100.000
3 - Site Access		FLAT	✓	315.00	100.000
4 - A29 (s)		FLAT	✓	1182.00	100.000
5 - Saltbox		FLAT	✓	315.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	163.000	46.000	1052.000	12.000
	2 - BNRR	142.000	0.000	106.000	720.000	23.000
	3 - Site Access	78.000	174.000	0.000	63.000	0.000
	4 - A29 (s)	611.000	531.000	33.000	0.000	7.000
	5 - Saltbox	76.000	177.000	5.000	57.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.13	0.04	0.83	0.01
	2 - BNRR	0.14	0.00	0.11	0.73	0.02
	3 - Site Access	0.25	0.55	0.00	0.20	0.00
	4 - A29 (s)	0.52	0.45	0.03	0.00	0.01
	5 - Saltbox	0.24	0.56	0.02	0.18	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.74	7.92	2.8	A	1273.00	1909.50
2 - BNRR	0.92	38.10	10.1	E	991.00	1486.50
3 - Site Access	0.59	16.46	1.4	C	315.00	472.50
4 - A29 (s)	0.56	3.93	1.3	A	1182.00	1773.00
5 - Saltbox	0.41	7.96	0.7	A	315.00	472.50

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1273.00	318.25	969.71	1732.14	0.735	1262.25	898.11	0.0	2.7	7.500	A
2 - BNRR	991.00	247.75	1194.96	1087.13	0.912	960.63	1037.01	0.0	7.6	24.453	C
3 - Site Access	315.00	78.75	1969.40	552.86	0.570	309.90	186.18	0.0	1.3	14.533	B
4 - A29 (s)	1182.00	295.50	419.76	2104.83	0.562	1176.93	1859.54	0.0	1.3	3.859	A
5 - Saltbox	315.00	78.75	1555.52	774.22	0.407	312.30	41.16	0.0	0.7	7.750	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1273.00	318.25	976.70	1727.42	0.737	1272.75	906.13	2.7	2.7	7.908	A
2 - BNRR	991.00	247.75	1204.77	1081.65	0.916	985.93	1044.68	7.6	8.9	34.412	D
3 - Site Access	315.00	78.75	2001.25	535.83	0.588	314.57	189.45	1.3	1.4	16.220	C
4 - A29 (s)	1182.00	295.50	427.81	2099.39	0.563	1181.95	1888.01	1.3	1.3	3.923	A
5 - Saltbox	315.00	78.75	1567.88	767.61	0.410	314.95	41.88	0.7	0.7	7.952	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1273.00	318.25	976.93	1727.26	0.737	1272.92	906.64	2.7	2.8	7.918	A
2 - BNRR	991.00	247.75	1204.93	1081.55	0.916	988.75	1044.92	8.9	9.4	36.354	E
3 - Site Access	315.00	78.75	2003.93	534.40	0.589	314.90	189.76	1.4	1.4	16.379	C
4 - A29 (s)	1182.00	295.50	428.55	2098.89	0.563	1181.99	1890.28	1.3	1.3	3.926	A
5 - Saltbox	315.00	78.75	1568.59	767.23	0.411	314.99	41.95	0.7	0.7	7.960	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1273.00	318.25	976.97	1727.24	0.737	1272.96	906.80	2.8	2.8	7.922	A
2 - BNRR	991.00	247.75	1204.97	1081.53	0.916	989.72	1044.97	9.4	9.7	37.245	E
3 - Site Access	315.00	78.75	2004.82	533.92	0.590	314.96	189.86	1.4	1.4	16.426	C
4 - A29 (s)	1182.00	295.50	428.75	2098.76	0.563	1181.99	1891.03	1.3	1.3	3.926	A
5 - Saltbox	315.00	78.75	1568.78	767.13	0.411	314.99	41.97	0.7	0.7	7.961	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1273.00	318.25	976.98	1727.23	0.737	1272.98	906.87	2.8	2.8	7.922	A
2 - BNRR	991.00	247.75	1204.98	1081.53	0.916	990.17	1044.98	9.7	10.0	37.765	E
3 - Site Access	315.00	78.75	2005.24	533.70	0.590	314.98	189.91	1.4	1.4	16.449	C
4 - A29 (s)	1182.00	295.50	428.84	2098.70	0.563	1182.00	1891.37	1.3	1.3	3.926	A
5 - Saltbox	315.00	78.75	1568.86	767.09	0.411	315.00	41.98	0.7	0.7	7.962	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1273.00	318.25	976.99	1727.22	0.737	1272.99	906.91	2.8	2.8	7.923	A
2 - BNRR	991.00	247.75	1204.99	1081.52	0.916	990.41	1044.99	10.0	10.1	38.104	E
3 - Site Access	315.00	78.75	2005.46	533.57	0.590	314.98	189.94	1.4	1.4	16.459	C
4 - A29 (s)	1182.00	295.50	428.89	2098.66	0.563	1182.00	1891.56	1.3	1.3	3.927	A
5 - Saltbox	315.00	78.75	1568.90	767.07	0.411	315.00	41.99	0.7	0.7	7.963	A

(Default Analysis Set) - 2031 DS2 (Base+Com), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	12.51	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D15	2031 DS2 (Base+Com)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1091.00	100.000
2 - BNRR		FLAT	✓	1054.00	100.000
3 - Site Access		FLAT	✓	128.00	100.000
4 - A29 (s)		FLAT	✓	1661.00	100.000
5 - Saltbox		FLAT	✓	59.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	140.000	74.000	796.000	81.000
	2 - BNRR	157.000	0.000	153.000	592.000	152.000
	3 - Site Access	31.000	69.000	0.000	27.000	1.000
	4 - A29 (s)	832.000	726.000	51.000	0.000	52.000
	5 - Saltbox	14.000	32.000	0.000	13.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.13	0.07	0.73	0.07
	2 - BNRR	0.15	0.00	0.15	0.56	0.14
	3 - Site Access	0.24	0.54	0.00	0.21	0.01
	4 - A29 (s)	0.50	0.44	0.03	0.00	0.03
	5 - Saltbox	0.24	0.54	0.00	0.22	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.61	5.18	1.6	A	1091.00	1636.50
2 - BNRR	0.89	26.50	7.6	D	1054.00	1581.00
3 - Site Access	0.20	6.92	0.2	A	128.00	192.00
4 - A29 (s)	0.81	9.09	4.2	A	1661.00	2491.50
5 - Saltbox	0.10	6.55	0.1	A	59.00	88.50

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1091.00	272.75	882.79	1790.82	0.609	1084.85	1022.00	0.0	1.5	5.057	A
2 - BNRR	1054.00	263.50	1009.07	1191.12	0.885	1028.67	958.58	0.0	6.3	19.826	C
3 - Site Access	128.00	32.00	1764.31	662.55	0.193	127.05	273.42	0.0	0.2	6.712	A
4 - A29 (s)	1661.00	415.25	482.37	2062.54	0.805	1645.23	1409.00	0.0	3.9	8.338	A
5 - Saltbox	59.00	14.75	1846.21	618.75	0.095	58.58	281.39	0.0	0.1	6.423	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1091.00	272.75	890.73	1785.46	0.611	1090.92	1033.33	1.5	1.6	5.183	A
2 - BNRR	1054.00	263.50	1014.91	1187.85	0.887	1051.35	966.74	6.3	7.0	25.340	D
3 - Site Access	128.00	32.00	1788.67	649.53	0.197	127.97	277.59	0.2	0.2	6.901	A
4 - A29 (s)	1661.00	415.25	490.20	2057.26	0.807	1660.47	1426.44	3.9	4.1	9.043	A
5 - Saltbox	59.00	14.75	1865.07	608.66	0.097	58.99	285.59	0.1	0.1	6.548	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1091.00	272.75	890.92	1785.34	0.611	1090.98	1033.76	1.6	1.6	5.184	A
2 - BNRR	1054.00	263.50	1014.98	1187.81	0.887	1052.95	966.92	7.0	7.3	25.999	D
3 - Site Access	128.00	32.00	1790.08	648.77	0.197	128.00	277.84	0.2	0.2	6.912	A
4 - A29 (s)	1661.00	415.25	490.69	2056.93	0.808	1660.83	1427.39	4.1	4.1	9.072	A
5 - Saltbox	59.00	14.75	1865.68	608.34	0.097	59.00	285.84	0.1	0.1	6.552	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1091.00	272.75	890.96	1785.31	0.611	1090.99	1033.87	1.6	1.6	5.184	A
2 - BNRR	1054.00	263.50	1014.99	1187.80	0.887	1053.43	966.96	7.3	7.4	26.266	D
3 - Site Access	128.00	32.00	1790.51	648.54	0.197	128.00	277.91	0.2	0.2	6.915	A
4 - A29 (s)	1661.00	415.25	490.83	2056.83	0.808	1660.92	1427.67	4.1	4.1	9.082	A
5 - Saltbox	59.00	14.75	1865.83	608.25	0.097	59.00	285.91	0.1	0.1	6.553	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1091.00	272.75	890.98	1785.30	0.611	1090.99	1033.92	1.6	1.6	5.184	A
2 - BNRR	1054.00	263.50	1014.99	1187.80	0.887	1053.64	966.98	7.4	7.5	26.411	D
3 - Site Access	128.00	32.00	1790.69	648.44	0.197	128.00	277.95	0.2	0.2	6.916	A
4 - A29 (s)	1661.00	415.25	490.89	2056.78	0.808	1660.95	1427.80	4.1	4.2	9.086	A
5 - Saltbox	59.00	14.75	1865.90	608.22	0.097	59.00	285.95	0.1	0.1	6.553	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1091.00	272.75	890.98	1785.29	0.611	1091.00	1033.95	1.6	1.6	5.184	A
2 - BNRR	1054.00	263.50	1015.00	1187.80	0.887	1053.76	966.99	7.5	7.6	26.503	D
3 - Site Access	128.00	32.00	1790.79	648.39	0.197	128.00	277.96	0.2	0.2	6.917	A
4 - A29 (s)	1661.00	415.25	490.93	2056.76	0.808	1660.97	1427.86	4.2	4.2	9.088	A
5 - Saltbox	59.00	14.75	1865.93	608.20	0.097	59.00	285.96	0.1	0.1	6.554	A

(Default Analysis Set) - 2031 DS2 (Base+Com), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	48.81	E

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D16	2031 DS2 (Base+Com)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1312.00	100.000
2 - BNRR		FLAT	✓	1082.00	100.000
3 - Site Access		FLAT	✓	315.00	100.000
4 - A29 (s)		FLAT	✓	1261.00	100.000
5 - Saltbox		FLAT	✓	223.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	163.000	46.000	1092.000	11.000
	2 - BNRR	142.000	0.000	106.000	813.000	21.000
	3 - Site Access	78.000	174.000	0.000	63.000	0.000
	4 - A29 (s)	634.000	587.000	34.000	0.000	6.000
	5 - Saltbox	54.000	126.000	3.000	40.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.12	0.04	0.83	0.01
	2 - BNRR	0.13	0.00	0.10	0.75	0.02
	3 - Site Access	0.25	0.55	0.00	0.20	0.00
	4 - A29 (s)	0.50	0.47	0.03	0.00	0.00
	5 - Saltbox	0.24	0.57	0.01	0.18	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.76	8.49	3.1	A	1312.00	1968.00
2 - BNRR	1.01	166.18	49.4	F	1082.00	1623.00
3 - Site Access	0.65	21.38	1.8	C	315.00	472.50
4 - A29 (s)	0.60	4.28	1.5	A	1261.00	1891.50
5 - Saltbox	0.31	7.16	0.4	A	223.00	334.50

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1312.00	328.00	956.42	1741.11	0.754	1300.20	894.34	0.0	2.9	7.966	A
2 - BNRR	1082.00	270.50	1215.18	1075.82	1.006	1015.11	1041.45	0.0	16.7	41.893	E
3 - Site Access	315.00	78.75	2048.44	510.59	0.617	308.87	181.85	0.0	1.5	17.366	C
4 - A29 (s)	1261.00	315.25	410.92	2110.80	0.597	1255.13	1946.39	0.0	1.5	4.179	A
5 - Saltbox	223.00	55.75	1629.48	734.66	0.304	221.28	36.58	0.0	0.4	6.991	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1312.00	328.00	963.52	1736.32	0.756	1311.69	903.25	2.9	3.0	8.464	A
2 - BNRR	1082.00	270.50	1225.72	1069.93	1.011	1047.54	1049.49	16.7	25.3	82.959	F
3 - Site Access	315.00	78.75	2087.64	489.62	0.643	314.23	185.61	1.5	1.7	20.390	C
4 - A29 (s)	1261.00	315.25	420.19	2104.54	0.599	1260.93	1981.69	1.5	1.5	4.267	A
5 - Saltbox	223.00	55.75	1643.80	727.01	0.307	222.97	37.33	0.4	0.4	7.141	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1312.00	328.00	963.86	1736.09	0.756	1311.90	904.26	3.0	3.1	8.481	A
2 - BNRR	1082.00	270.50	1225.91	1069.82	1.011	1054.06	1049.85	25.3	32.3	107.800	F
3 - Site Access	315.00	78.75	2093.71	486.38	0.648	314.78	186.26	1.7	1.8	20.907	C
4 - A29 (s)	1261.00	315.25	421.61	2103.58	0.599	1260.98	1986.88	1.5	1.5	4.272	A
5 - Saltbox	223.00	55.75	1645.13	726.29	0.307	222.99	37.46	0.4	0.4	7.151	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1312.00	328.00	963.93	1736.04	0.756	1311.95	904.73	3.1	3.1	8.484	A
2 - BNRR	1082.00	270.50	1225.96	1069.79	1.011	1057.33	1049.92	32.3	38.5	129.012	F
3 - Site Access	315.00	78.75	2096.71	484.77	0.650	314.88	186.58	1.8	1.8	21.137	C
4 - A29 (s)	1261.00	315.25	422.19	2103.19	0.600	1260.99	1989.40	1.5	1.5	4.274	A
5 - Saltbox	223.00	55.75	1645.66	726.01	0.307	223.00	37.52	0.4	0.4	7.155	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1312.00	328.00	963.95	1736.02	0.756	1311.97	905.01	3.1	3.1	8.486	A
2 - BNRR	1082.00	270.50	1225.98	1069.78	1.011	1059.38	1049.95	38.5	44.1	148.248	F
3 - Site Access	315.00	78.75	2098.57	483.78	0.651	314.93	186.78	1.8	1.8	21.279	C
4 - A29 (s)	1261.00	315.25	422.53	2102.96	0.600	1260.99	1990.96	1.5	1.5	4.275	A
5 - Saltbox	223.00	55.75	1645.97	725.85	0.307	223.00	37.56	0.4	0.4	7.158	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1312.00	328.00	963.97	1736.01	0.756	1311.98	905.20	3.1	3.1	8.486	A
2 - BNRR	1082.00	270.50	1225.98	1069.78	1.011	1060.81	1049.97	44.1	49.4	166.178	F
3 - Site Access	315.00	78.75	2099.87	483.08	0.652	314.95	186.92	1.8	1.8	21.375	C
4 - A29 (s)	1261.00	315.25	422.77	2102.80	0.600	1261.00	1992.05	1.5	1.5	4.276	A
5 - Saltbox	223.00	55.75	1646.17	725.74	0.307	223.00	37.59	0.4	0.4	7.159	A

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	22.18	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D17	2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1125.00	100.000
2 - BNRR		FLAT	✓	1103.00	100.000
3 - Site Access		FLAT	✓	171.00	100.000
4 - A29 (s)		FLAT	✓	1689.00	100.000
5 - Saltbox		FLAT	✓	68.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	140.000	103.000	768.000	114.000
	2 - BNRR	157.000	0.000	208.000	525.000	213.000
	3 - Site Access	41.000	93.000	0.000	36.000	1.000
	4 - A29 (s)	828.000	719.000	69.000	0.000	73.000
	5 - Saltbox	16.000	37.000	1.000	14.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.12	0.09	0.68	0.10
	2 - BNRR	0.14	0.00	0.19	0.48	0.19
	3 - Site Access	0.24	0.54	0.00	0.21	0.01
	4 - A29 (s)	0.49	0.43	0.04	0.00	0.04
	5 - Saltbox	0.24	0.54	0.01	0.21	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.64	5.70	1.8	A	1125.00	1687.50
2 - BNRR	0.95	56.65	16.6	F	1103.00	1654.50
3 - Site Access	0.26	7.53	0.4	A	171.00	256.50
4 - A29 (s)	0.86	12.74	5.9	B	1689.00	2533.50
5 - Saltbox	0.12	6.94	0.1	A	68.00	102.00

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	921.94	1764.39	0.638	1118.08	1025.12	0.0	1.7	5.513	A
2 - BNRR	1103.00	275.75	1061.96	1161.53	0.950	1060.85	978.06	0.0	10.5	28.820	D
3 - Site Access	171.00	42.75	1751.27	669.53	0.255	169.64	371.54	0.0	0.3	7.183	A
4 - A29 (s)	1689.00	422.25	603.09	1981.01	0.853	1667.71	1317.82	0.0	5.3	10.851	B
5 - Saltbox	68.00	17.00	1879.56	600.91	0.113	67.49	391.23	0.0	0.1	6.743	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.35	1757.36	0.640	1124.88	1039.87	1.7	1.8	5.690	A
2 - BNRR	1103.00	275.75	1068.84	1157.68	0.953	1092.66	988.39	10.5	13.1	45.427	E
3 - Site Access	171.00	42.75	1782.51	652.82	0.262	170.95	378.99	0.3	0.4	7.470	A
4 - A29 (s)	1689.00	422.25	615.48	1972.64	0.856	1687.68	1337.98	5.3	5.7	12.505	B
5 - Saltbox	68.00	17.00	1904.23	587.72	0.116	67.99	398.93	0.1	0.1	6.925	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.78	1757.07	0.640	1124.97	1040.97	1.8	1.8	5.694	A
2 - BNRR	1103.00	275.75	1068.95	1157.62	0.953	1097.36	988.79	13.1	14.5	50.435	F
3 - Site Access	171.00	42.75	1786.40	650.74	0.263	170.99	379.91	0.4	0.4	7.503	A
4 - A29 (s)	1689.00	422.25	617.10	1971.55	0.857	1688.54	1340.29	5.7	5.8	12.643	B
5 - Saltbox	68.00	17.00	1905.75	586.91	0.116	68.00	399.89	0.1	0.1	6.936	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.89	1757.00	0.640	1124.99	1041.36	1.8	1.8	5.695	A
2 - BNRR	1103.00	275.75	1068.98	1157.60	0.953	1099.33	988.89	14.5	15.4	53.321	F
3 - Site Access	171.00	42.75	1788.01	649.87	0.263	171.00	380.30	0.4	0.4	7.516	A
4 - A29 (s)	1689.00	422.25	617.77	1971.09	0.857	1688.76	1341.24	5.8	5.8	12.696	B
5 - Saltbox	68.00	17.00	1906.25	586.64	0.116	68.00	400.28	0.1	0.1	6.940	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.93	1756.97	0.640	1124.99	1041.56	1.8	1.8	5.695	A
2 - BNRR	1103.00	275.75	1068.99	1157.60	0.953	1100.40	988.94	15.4	16.1	55.255	F
3 - Site Access	171.00	42.75	1788.88	649.41	0.263	171.00	380.50	0.4	0.4	7.523	A
4 - A29 (s)	1689.00	422.25	618.12	1970.85	0.857	1688.86	1341.75	5.8	5.9	12.724	B
5 - Saltbox	68.00	17.00	1906.49	586.51	0.116	68.00	400.49	0.1	0.1	6.942	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.95	1756.95	0.640	1124.99	1041.67	1.8	1.8	5.696	A
2 - BNRR	1103.00	275.75	1068.99	1157.59	0.953	1101.04	988.96	16.1	16.6	56.655	F
3 - Site Access	171.00	42.75	1789.41	649.13	0.263	171.00	380.63	0.4	0.4	7.528	A
4 - A29 (s)	1689.00	422.25	618.34	1970.71	0.857	1688.90	1342.06	5.9	5.9	12.738	B
5 - Saltbox	68.00	17.00	1906.63	586.44	0.116	68.00	400.62	0.1	0.1	6.943	A

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	18.27	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D18	2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1279.00	100.000
2 - BNRR		FLAT	✓	1004.00	100.000
3 - Site Access		FLAT	✓	401.00	100.000
4 - A29 (s)		FLAT	✓	1186.00	100.000
5 - Saltbox		FLAT	✓	316.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	163.000	52.000	1052.000	12.000
	2 - BNRR	142.000	0.000	119.000	720.000	23.000
	3 - Site Access	99.000	222.000	0.000	80.000	0.000
	4 - A29 (s)	611.000	531.000	37.000	0.000	7.000
	5 - Saltbox	76.000	177.000	6.000	57.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.13	0.04	0.82	0.01
	2 - BNRR	0.14	0.00	0.12	0.72	0.02
	3 - Site Access	0.25	0.55	0.00	0.20	0.00
	4 - A29 (s)	0.52	0.45	0.03	0.00	0.01
	5 - Saltbox	0.24	0.56	0.02	0.18	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.76	8.72	3.1	A	1279.00	1918.50
2 - BNRR	0.93	46.64	12.5	E	1004.00	1506.00
3 - Site Access	0.75	26.99	2.9	D	401.00	601.50
4 - A29 (s)	0.58	4.16	1.4	A	1186.00	1779.00
5 - Saltbox	0.43	8.74	0.8	A	316.00	474.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1019.89	1698.25	0.753	1267.24	917.27	0.0	2.9	8.145	A
2 - BNRR	1004.00	251.00	1204.98	1081.52	0.928	969.41	1082.15	0.0	8.6	26.852	D
3 - Site Access	401.00	100.25	1965.20	555.11	0.722	391.43	209.20	0.0	2.4	20.938	C
4 - A29 (s)	1186.00	296.50	484.55	2061.07	0.575	1180.64	1872.08	0.0	1.3	4.065	A
5 - Saltbox	316.00	79.00	1624.12	737.53	0.428	313.05	41.07	0.0	0.7	8.424	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.14	1692.01	0.756	1278.65	926.58	2.9	3.0	8.692	A
2 - BNRR	1004.00	251.00	1215.68	1075.54	0.933	996.79	1092.11	8.6	10.4	40.006	E
3 - Site Access	401.00	100.25	1999.34	536.85	0.747	399.61	213.13	2.4	2.7	25.805	D
4 - A29 (s)	1186.00	296.50	495.70	2053.54	0.578	1185.93	1903.25	1.3	1.4	4.149	A
5 - Saltbox	316.00	79.00	1639.80	729.15	0.433	315.93	41.83	0.7	0.8	8.709	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.75	1691.60	0.756	1278.89	927.39	3.0	3.1	8.714	A
2 - BNRR	1004.00	251.00	1215.90	1075.42	0.934	1000.51	1092.74	10.4	11.3	43.261	E
3 - Site Access	401.00	100.25	2002.83	534.98	0.750	400.58	213.58	2.7	2.8	26.545	D
4 - A29 (s)	1186.00	296.50	497.09	2052.60	0.578	1185.98	1906.32	1.4	1.4	4.153	A
5 - Saltbox	316.00	79.00	1641.15	728.42	0.434	315.98	41.92	0.8	0.8	8.728	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.88	1691.51	0.756	1278.95	927.65	3.1	3.1	8.719	A
2 - BNRR	1004.00	251.00	1215.95	1075.39	0.934	1001.89	1092.87	11.3	11.8	44.918	E
3 - Site Access	401.00	100.25	2004.10	534.30	0.751	400.80	213.75	2.8	2.9	26.794	D
4 - A29 (s)	1186.00	296.50	497.49	2052.33	0.578	1185.99	1907.41	1.4	1.4	4.155	A
5 - Saltbox	316.00	79.00	1641.53	728.22	0.434	315.99	41.95	0.8	0.8	8.732	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.93	1691.48	0.756	1278.97	927.77	3.1	3.1	8.722	A
2 - BNRR	1004.00	251.00	1215.97	1075.38	0.934	1002.58	1092.93	11.8	12.2	45.938	E
3 - Site Access	401.00	100.25	2004.72	533.97	0.751	400.88	213.83	2.9	2.9	26.917	D
4 - A29 (s)	1186.00	296.50	497.67	2052.21	0.578	1186.00	1907.93	1.4	1.4	4.155	A
5 - Saltbox	316.00	79.00	1641.70	728.13	0.434	316.00	41.97	0.8	0.8	8.734	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.95	1691.46	0.756	1278.98	927.83	3.1	3.1	8.724	A
2 - BNRR	1004.00	251.00	1215.98	1075.37	0.934	1002.98	1092.95	12.2	12.5	46.637	E
3 - Site Access	401.00	100.25	2005.08	533.78	0.751	400.92	213.88	2.9	2.9	26.990	D
4 - A29 (s)	1186.00	296.50	497.77	2052.14	0.578	1186.00	1908.23	1.4	1.4	4.156	A
5 - Saltbox	316.00	79.00	1641.79	728.08	0.434	316.00	41.98	0.8	0.8	8.735	A

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	14.13	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D19	2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1097.00	100.000
2 - BNRR		FLAT	✓	1066.00	100.000
3 - Site Access		FLAT	✓	213.00	100.000
4 - A29 (s)		FLAT	✓	1665.00	100.000
5 - Saltbox		FLAT	✓	60.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	140.000	80.000	796.000	81.000
	2 - BNRR	157.000	0.000	165.000	592.000	152.000
	3 - Site Access	52.000	116.000	0.000	44.000	1.000
	4 - A29 (s)	832.000	726.000	55.000	0.000	52.000
	5 - Saltbox	14.000	32.000	1.000	13.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.13	0.07	0.73	0.07
	2 - BNRR	0.15	0.00	0.15	0.56	0.14
	3 - Site Access	0.24	0.54	0.00	0.21	0.00
	4 - A29 (s)	0.50	0.44	0.03	0.00	0.03
	5 - Saltbox	0.23	0.53	0.02	0.22	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.63	5.51	1.7	A	1097.00	1645.50
2 - BNRR	0.90	30.40	8.7	D	1066.00	1599.00
3 - Site Access	0.33	8.27	0.5	A	213.00	319.50
4 - A29 (s)	0.83	10.39	4.8	B	1665.00	2497.50
5 - Saltbox	0.11	7.06	0.1	A	60.00	90.00

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	933.29	1756.73	0.624	1090.45	1041.40	0.0	1.6	5.351	A
2 - BNRR	1066.00	266.50	1019.59	1185.23	0.899	1037.83	1004.15	0.0	7.0	21.459	C
3 - Site Access	213.00	53.25	1761.86	663.86	0.321	211.13	295.57	0.0	0.5	7.920	A
4 - A29 (s)	1665.00	416.25	548.87	2017.63	0.825	1647.21	1424.12	0.0	4.4	9.317	A
5 - Saltbox	60.00	15.00	1915.15	581.88	0.103	59.54	280.94	0.0	0.1	6.886	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.60	1750.44	0.627	1096.90	1054.08	1.6	1.7	5.506	A
2 - BNRR	1066.00	266.50	1025.88	1181.71	0.902	1062.46	1013.62	7.0	7.9	28.514	D
3 - Site Access	213.00	53.25	1787.92	649.92	0.328	212.94	300.42	0.5	0.5	8.238	A
4 - A29 (s)	1665.00	416.25	557.92	2011.52	0.828	1664.25	1442.94	4.4	4.6	10.313	B
5 - Saltbox	60.00	15.00	1936.70	570.35	0.105	59.99	285.46	0.1	0.1	7.053	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.88	1750.25	0.627	1096.97	1054.66	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.97	1181.66	0.902	1064.52	1013.88	7.9	8.3	29.547	D
3 - Site Access	213.00	53.25	1789.73	648.96	0.328	212.99	300.76	0.5	0.5	8.257	A
4 - A29 (s)	1665.00	416.25	558.56	2011.08	0.828	1664.75	1444.16	4.6	4.7	10.365	B
5 - Saltbox	60.00	15.00	1937.53	569.91	0.105	60.00	285.78	0.1	0.1	7.059	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.94	1750.21	0.627	1096.99	1054.82	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.99	1181.65	0.902	1065.18	1013.94	8.3	8.5	29.991	D
3 - Site Access	213.00	53.25	1790.30	648.65	0.328	213.00	300.87	0.5	0.5	8.263	A
4 - A29 (s)	1665.00	416.25	558.76	2010.95	0.828	1664.88	1444.54	4.7	4.7	10.381	B
5 - Saltbox	60.00	15.00	1937.76	569.79	0.105	60.00	285.88	0.1	0.1	7.060	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.96	1750.20	0.627	1096.99	1054.89	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.99	1181.65	0.902	1065.48	1013.97	8.5	8.6	30.239	D
3 - Site Access	213.00	53.25	1790.56	648.52	0.328	213.00	300.92	0.5	0.5	8.265	A
4 - A29 (s)	1665.00	416.25	558.85	2010.89	0.828	1664.93	1444.71	4.7	4.7	10.391	B
5 - Saltbox	60.00	15.00	1937.85	569.74	0.105	60.00	285.92	0.1	0.1	7.061	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.98	1750.19	0.627	1097.00	1054.92	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.99	1181.65	0.902	1065.64	1013.98	8.6	8.7	30.399	D
3 - Site Access	213.00	53.25	1790.69	648.44	0.328	213.00	300.94	0.5	0.5	8.267	A
4 - A29 (s)	1665.00	416.25	558.89	2010.86	0.828	1664.95	1444.80	4.7	4.8	10.394	B
5 - Saltbox	60.00	15.00	1937.90	569.71	0.105	60.00	285.95	0.1	0.1	7.061	A

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	65.97	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D20	2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1318.00	100.000
2 - BNRR		FLAT	✓	1095.00	100.000
3 - Site Access		FLAT	✓	401.00	100.000
4 - A29 (s)		FLAT	✓	1265.00	100.000
5 - Saltbox		FLAT	✓	224.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	163.000	52.000	1092.000	11.000
	2 - BNRR	142.000	0.000	119.000	813.000	21.000
	3 - Site Access	99.000	222.000	0.000	80.000	0.000
	4 - A29 (s)	634.000	587.000	38.000	0.000	6.000
	5 - Saltbox	54.000	126.000	4.000	40.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.12	0.04	0.83	0.01
	2 - BNRR	0.13	0.00	0.11	0.74	0.02
	3 - Site Access	0.25	0.55	0.00	0.20	0.00
	4 - A29 (s)	0.50	0.46	0.03	0.00	0.00
	5 - Saltbox	0.24	0.56	0.02	0.18	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.78	9.41	3.4	A	1318.00	1977.00
2 - BNRR	1.03	226.51	68.9	F	1095.00	1642.50
3 - Site Access	0.82	39.80	4.3	E	401.00	601.50
4 - A29 (s)	0.61	4.54	1.6	A	1265.00	1897.50
5 - Saltbox	0.33	7.76	0.5	A	224.00	336.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1005.73	1707.82	0.772	1305.04	912.38	0.0	3.2	8.681	A
2 - BNRR	1095.00	273.75	1225.09	1070.28	1.023	1017.65	1085.68	0.0	19.3	46.403	E
3 - Site Access	401.00	100.25	2038.88	515.70	0.778	388.75	203.86	0.0	3.1	26.306	D
4 - A29 (s)	1265.00	316.25	473.57	2068.48	0.612	1258.78	1954.06	0.0	1.6	4.413	A
5 - Saltbox	224.00	56.00	1695.98	699.10	0.320	222.14	36.38	0.0	0.5	7.520	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1015.44	1701.26	0.775	1317.56	922.22	3.2	3.4	9.357	A
2 - BNRR	1095.00	273.75	1236.60	1063.84	1.029	1048.29	1096.39	19.3	31.0	97.605	F
3 - Site Access	401.00	100.25	2076.99	495.32	0.810	398.32	207.90	3.1	3.7	35.629	E
4 - A29 (s)	1265.00	316.25	485.90	2060.16	0.614	1264.91	1989.41	1.6	1.6	4.527	A
5 - Saltbox	224.00	56.00	1713.70	689.62	0.325	223.96	37.10	0.5	0.5	7.729	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.42	1700.60	0.775	1317.86	923.42	3.4	3.4	9.392	A
2 - BNRR	1095.00	273.75	1236.87	1063.69	1.029	1054.00	1097.40	31.0	41.3	133.049	F
3 - Site Access	401.00	100.25	2082.34	492.46	0.814	399.98	208.54	3.7	4.0	37.876	E
4 - A29 (s)	1265.00	316.25	488.08	2058.68	0.614	1264.97	1994.24	1.6	1.6	4.535	A
5 - Saltbox	224.00	56.00	1715.84	688.48	0.325	223.99	37.21	0.5	0.5	7.750	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.68	1700.42	0.775	1317.93	923.89	3.4	3.4	9.404	A
2 - BNRR	1095.00	273.75	1236.94	1063.65	1.029	1056.70	1097.67	41.3	50.8	165.511	F
3 - Site Access	401.00	100.25	2084.81	491.14	0.816	400.44	208.84	4.0	4.1	38.856	E
4 - A29 (s)	1265.00	316.25	488.85	2058.16	0.615	1264.99	1996.40	1.6	1.6	4.538	A
5 - Saltbox	224.00	56.00	1716.57	688.08	0.326	224.00	37.26	0.5	0.5	7.756	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.80	1700.35	0.775	1317.96	924.15	3.4	3.4	9.407	A
2 - BNRR	1095.00	273.75	1236.96	1063.64	1.029	1058.30	1097.79	50.8	60.0	196.473	F
3 - Site Access	401.00	100.25	2086.25	490.37	0.818	400.64	209.01	4.1	4.2	39.423	E
4 - A29 (s)	1265.00	316.25	489.25	2057.90	0.615	1264.99	1997.64	1.6	1.6	4.539	A
5 - Saltbox	224.00	56.00	1716.95	687.88	0.326	224.00	37.30	0.5	0.5	7.760	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.86	1700.30	0.775	1317.97	924.31	3.4	3.4	9.410	A
2 - BNRR	1095.00	273.75	1236.98	1063.63	1.030	1059.35	1097.86	60.0	68.9	226.507	F
3 - Site Access	401.00	100.25	2087.20	489.86	0.819	400.75	209.12	4.2	4.3	39.796	E
4 - A29 (s)	1265.00	316.25	489.49	2057.73	0.615	1265.00	1998.46	1.6	1.6	4.540	A
5 - Saltbox	224.00	56.00	1717.17	687.76	0.326	224.00	37.32	0.5	0.5	7.762	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2015
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Filename: Import of Rowan Way 15.09.14.j9

Path: P:\Projects\Hanbury Properties\5130 - Phase 2 Oldlands Farm, Bognor Regis\Traffic\Junction Modelling\BNRR

Report generation date: 17/09/2015 11:42:01

»(Default Analysis Set) - 2031 DM (Base), AM
»(Default Analysis Set) - 2031 DM (Base), PM
»(Default Analysis Set) - 2031 DS1 (Base+Com), AM
»(Default Analysis Set) - 2031 DS1 (Base+Com), PM
»(Default Analysis Set) - 2031 DS2 (Base+Com), AM
»(Default Analysis Set) - 2031 DS2 (Base+Com), PM
»(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM
»(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM
»(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM
»(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
	A1 - 2031 DM (Base)											
1 - A29(n)	1.1	2.98	0.53	A	10.53	B	3.0	5.49	0.75	A	7.82	A
2 - Steyning Way	0.2	5.05	0.17	A			1.4	16.41	0.58	C		
3 - A29(s)	2.5	7.11	0.72	A			1.9	6.84	0.65	A		
4 - Rowan Way	7.5	23.65	0.89	C			3.3	10.37	0.77	B		
	A1 - 2031 DS1 (Base+Com)											
1 - A29(n)	1.1	2.93	0.52	A	13.53	B	3.0	5.52	0.75	A	8.76	A
2 - Steyning Way	0.2	4.97	0.17	A			1.4	16.56	0.58	C		
3 - A29(s)	2.4	6.77	0.71	A			1.9	6.81	0.65	A		
4 - Rowan Way	10.9	33.16	0.92	D			4.5	13.61	0.82	B		
	A1 - 2031 DS2 (Base+Com)											
1 - A29(n)	1.3	3.18	0.56	A	12.83	B	4.0	6.95	0.80	A	11.54	B
2 - Steyning Way	0.2	5.33	0.18	A			2.0	24.49	0.67	C		
3 - A29(s)	2.7	7.54	0.73	A			2.2	7.91	0.69	A		
4 - Rowan Way	10.0	30.62	0.91	D			6.6	18.71	0.87	C		
	A1 - 2031 DS1+Old (Base+Com+Dev)											
1 - A29(n)	1.1	2.96	0.52	A	15.11	C	3.1	5.66	0.76	A	8.96	A
2 - Steyning Way	0.2	5.01	0.17	A			1.4	17.21	0.59	C		
3 - A29(s)	2.4	6.91	0.71	A			1.9	6.97	0.66	A		
4 - Rowan Way	12.6	38.05	0.93	E			4.6	13.90	0.83	B		
	A1 - 2031 DS2+Old (Base+Com+Dev)											
1 - A29(n)	1.3	3.20	0.56	A	14.12	B	4.2	7.17	0.81	A	11.83	B
2 - Steyning Way	0.2	5.36	0.18	A			2.2	25.93	0.69	D		
3 - A29(s)	2.7	7.70	0.73	A			2.2	8.04	0.69	A		
4 - Rowan Way	11.4	34.67	0.93	D			6.7	19.01	0.87	C		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	Rowan Way roundabout
Location	Shripney
Site number	
Date	09/03/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MJA"wingl
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
2031 DM (Base)	AM	Systra DM scenario + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓
2031 DM (Base)	PM	Systra DM scenario + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓
2031 DS1 (Base+Com)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓
2031 DS1 (Base+Com)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓
2031 DS2 (Base+Com)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓
2031 DS2 (Base+Com)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓
2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B2/B8 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

(Default Analysis Set) - 2031 DM (Base), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	10.53	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29(n)	A29(n)
2	Steyning Way	Steyning Way
3	A29(s)	A29(s)
4	Rowan Way	Rown Way

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - A29(n)	0.00	99999.00		0.00
2 - Steyning Way	0.00	99999.00		0.00
3 - A29(s)	0.00	99999.00		0.00
4 - Rowan Way	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A29(n)	6.70	10.50	23.5	17.5	74.0	13.0	
2 - Steyning Way	3.50	6.80	10.7	48.0	74.0	10.0	
3 - A29(s)	6.75	8.50	3.5	25.0	74.0	31.0	
4 - Rowan Way	3.25	7.70	17.3	24.0	74.0	11.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29(n)	0.690	2933.908
2 - Steyning Way	0.515	1716.872
3 - A29(s)	0.577	2263.385
4 - Rowan Way	0.530	1852.072

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D17	2031 DM (Base)	AM	Systra DM scenario + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1355.00	100.000
2 - Steyning Way		FLAT	✓	151.00	100.000
3 - A29(s)		FLAT	✓	1278.00	100.000
4 - Rowan Way		FLAT	✓	1176.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	2.000	42.000	561.000	750.000
	2 - Steyning Way	39.000	0.000	73.000	39.000
	3 - A29(s)	673.000	123.000	155.000	327.000
	4 - Rowan Way	914.000	73.000	189.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.03	0.41	0.55
	2 - Steyning Way	0.26	0.00	0.48	0.26
	3 - A29(s)	0.53	0.10	0.12	0.26
	4 - Rowan Way	0.78	0.06	0.16	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.53	2.98	1.1	A	1355.00	2032.50
2 - Steyning Way	0.17	5.05	0.2	A	151.00	226.50
3 - A29(s)	0.72	7.11	2.5	A	1278.00	1917.00
4 - Rowan Way	0.89	23.65	7.5	C	1176.00	1764.00

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1355.00	338.75	532.17	2566.88	0.528	1350.56	1602.74	0.0	1.1	2.949	A
2 - Steyning Way	151.00	37.75	1647.40	868.64	0.174	150.16	235.33	0.0	0.2	5.006	A
3 - A29(s)	1278.00	319.50	827.10	1786.15	0.716	1268.21	970.46	0.0	2.4	6.828	A
4 - Rowan Way	1176.00	294.00	984.49	1330.31	0.884	1150.42	1110.82	0.0	6.4	18.034	C

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1355.00	338.75	539.41	2561.89	0.529	1354.97	1625.96	1.1	1.1	2.982	A
2 - Steyning Way	151.00	37.75	1656.55	863.93	0.175	150.99	237.83	0.2	0.2	5.049	A
3 - A29(s)	1278.00	319.50	829.98	1784.49	0.716	1277.85	977.56	2.4	2.5	7.101	A
4 - Rowan Way	1176.00	294.00	991.88	1326.39	0.887	1173.49	1115.94	6.4	7.0	22.746	C

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1355.00	338.75	539.77	2561.64	0.529	1354.99	1627.22	1.1	1.1	2.982	A
2 - Steyning Way	151.00	37.75	1656.83	863.79	0.175	151.00	237.93	0.2	0.2	5.050	A
3 - A29(s)	1278.00	319.50	829.99	1784.49	0.716	1277.95	977.83	2.5	2.5	7.104	A
4 - Rowan Way	1176.00	294.00	991.96	1326.35	0.887	1175.03	1115.98	7.0	7.3	23.265	C

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1355.00	338.75	539.88	2561.56	0.529	1355.00	1627.58	1.1	1.1	2.983	A
2 - Steyning Way	151.00	37.75	1656.91	863.75	0.175	151.00	237.97	0.2	0.2	5.050	A
3 - A29(s)	1278.00	319.50	830.00	1784.48	0.716	1277.98	977.91	2.5	2.5	7.106	A
4 - Rowan Way	1176.00	294.00	991.98	1326.34	0.887	1175.48	1115.99	7.3	7.4	23.470	C

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1355.00	338.75	539.93	2561.53	0.529	1355.00	1627.74	1.1	1.1	2.983	A
2 - Steyning Way	151.00	37.75	1656.94	863.73	0.175	151.00	237.98	0.2	0.2	5.050	A
3 - A29(s)	1278.00	319.50	830.00	1784.48	0.716	1277.99	977.95	2.5	2.5	7.106	A
4 - Rowan Way	1176.00	294.00	991.99	1326.34	0.887	1175.68	1116.00	7.4	7.5	23.580	C

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1355.00	338.75	539.95	2561.52	0.529	1355.00	1627.82	1.1	1.1	2.983	A
2 - Steyning Way	151.00	37.75	1656.96	863.72	0.175	151.00	237.99	0.2	0.2	5.050	A
3 - A29(s)	1278.00	319.50	830.00	1784.48	0.716	1277.99	977.96	2.5	2.5	7.106	A
4 - Rowan Way	1176.00	294.00	991.99	1326.34	0.887	1175.78	1116.00	7.5	7.5	23.648	C

(Default Analysis Set) - 2031 DM (Base), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	7.82	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D18	2031 DM (Base)	PM	Systra DM scenario + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1954.00	100.000
2 - Steyning Way		FLAT	✓	303.00	100.000
3 - A29(s)		FLAT	✓	985.00	100.000
4 - Rowan Way		FLAT	✓	1138.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	23.000	802.000	1128.000
	2 - Steyning Way	45.000	0.000	129.000	129.000
	3 - A29(s)	475.000	47.000	125.000	338.000
	4 - Rowan Way	840.000	34.000	264.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.01	0.41	0.58
	2 - Steyning Way	0.15	0.00	0.43	0.43
	3 - A29(s)	0.48	0.05	0.13	0.34
	4 - Rowan Way	0.74	0.03	0.23	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.75	5.49	3.0	A	1954.00	2931.00
2 - Steyning Way	0.58	16.41	1.4	C	303.00	454.50
3 - A29(s)	0.65	6.84	1.9	A	985.00	1477.50
4 - Rowan Way	0.77	10.37	3.3	B	1138.00	1707.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1954.00	488.50	465.48	2612.88	0.748	1942.41	1347.56	0.0	2.9	5.281	A
2 - Steyning Way	303.00	75.75	2304.74	530.18	0.572	297.87	103.15	0.0	1.3	15.185	C
3 - A29(s)	985.00	246.25	1293.36	1517.13	0.649	977.75	1309.26	0.0	1.8	6.590	A
4 - Rowan Way	1138.00	284.50	687.47	1487.73	0.765	1125.57	1583.64	0.0	3.1	9.637	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1954.00	488.50	469.88	2609.84	0.749	1953.82	1360.64	2.9	2.9	5.484	A
2 - Steyning Way	303.00	75.75	2319.73	522.47	0.580	302.76	103.98	1.3	1.3	16.350	C
3 - A29(s)	985.00	246.25	1302.76	1511.71	0.652	984.87	1319.72	1.8	1.8	6.828	A
4 - Rowan Way	1138.00	284.50	692.88	1484.86	0.766	1137.64	1594.75	3.1	3.2	10.341	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1954.00	488.50	469.96	2609.78	0.749	1953.95	1360.89	2.9	3.0	5.486	A
2 - Steyning Way	303.00	75.75	2319.92	522.37	0.580	302.94	103.99	1.3	1.4	16.391	C
3 - A29(s)	985.00	246.25	1302.94	1511.60	0.652	984.96	1319.92	1.8	1.9	6.835	A
4 - Rowan Way	1138.00	284.50	692.97	1484.81	0.766	1137.89	1594.93	3.2	3.2	10.361	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1954.00	488.50	469.98	2609.77	0.749	1953.97	1360.95	3.0	3.0	5.489	A
2 - Steyning Way	303.00	75.75	2319.96	522.35	0.580	302.97	104.00	1.4	1.4	16.393	C
3 - A29(s)	985.00	246.25	1302.97	1511.58	0.652	984.98	1319.96	1.9	1.9	6.835	A
4 - Rowan Way	1138.00	284.50	692.99	1484.80	0.766	1137.94	1594.97	3.2	3.2	10.369	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1954.00	488.50	469.99	2609.77	0.749	1953.98	1360.97	3.0	3.0	5.489	A
2 - Steyning Way	303.00	75.75	2319.98	522.34	0.580	302.99	104.00	1.4	1.4	16.404	C
3 - A29(s)	985.00	246.25	1302.98	1511.58	0.652	984.99	1319.98	1.9	1.9	6.835	A
4 - Rowan Way	1138.00	284.50	692.99	1484.80	0.766	1137.97	1594.98	3.2	3.2	10.371	B

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1954.00	488.50	469.99	2609.76	0.749	1953.99	1360.98	3.0	3.0	5.489	A
2 - Steyning Way	303.00	75.75	2319.98	522.34	0.580	302.99	104.00	1.4	1.4	16.406	C
3 - A29(s)	985.00	246.25	1302.99	1511.57	0.652	984.99	1319.99	1.9	1.9	6.835	A
4 - Rowan Way	1138.00	284.50	692.99	1484.80	0.766	1137.98	1594.99	3.2	3.3	10.374	B

(Default Analysis Set) - 2031 DS1 (Base+Com), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	13.53	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D19	2031 DS1 (Base+Com)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1335.00	100.000
2 - Steyning Way		FLAT	✓	150.00	100.000
3 - A29(s)		FLAT	✓	1273.00	100.000
4 - Rowan Way		FLAT	✓	1225.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	2.000	42.000	575.000	716.000
	2 - Steyning Way	38.000	0.000	73.000	39.000
	3 - A29(s)	668.000	123.000	155.000	327.000
	4 - Rowan Way	963.000	73.000	189.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.03	0.43	0.54
	2 - Steyning Way	0.25	0.00	0.49	0.26
	3 - A29(s)	0.52	0.10	0.12	0.26
	4 - Rowan Way	0.79	0.06	0.15	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.52	2.93	1.1	A	1335.00	2002.50
2 - Steyning Way	0.17	4.97	0.2	A	150.00	225.00
3 - A29(s)	0.71	6.77	2.4	A	1273.00	1909.50
4 - Rowan Way	0.92	33.16	10.9	D	1225.00	1837.50

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1335.00	333.75	530.78	2567.84	0.520	1330.70	1639.49	0.0	1.1	2.901	A
2 - Steyning Way	150.00	37.50	1626.52	879.39	0.171	149.18	234.96	0.0	0.2	4.925	A
3 - A29(s)	1273.00	318.25	792.27	1806.25	0.705	1263.68	983.43	0.0	2.3	6.528	A
4 - Rowan Way	1225.00	306.25	978.86	1333.29	0.919	1191.41	1077.09	0.0	8.4	21.825	C

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1335.00	333.75	538.89	2562.24	0.521	1334.97	1666.97	1.1	1.1	2.932	A
2 - Steyning Way	150.00	37.50	1636.18	874.42	0.172	149.99	237.69	0.2	0.2	4.969	A
3 - A29(s)	1273.00	318.25	794.98	1804.69	0.705	1272.87	991.19	2.3	2.4	6.764	A
4 - Rowan Way	1225.00	306.25	985.90	1329.57	0.921	1219.97	1081.95	8.4	9.7	30.285	D

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1335.00	333.75	539.51	2561.82	0.521	1334.99	1669.22	1.1	1.1	2.933	A
2 - Steyning Way	150.00	37.50	1636.64	874.18	0.172	150.00	237.86	0.2	0.2	4.970	A
3 - A29(s)	1273.00	318.25	794.99	1804.68	0.705	1272.96	991.65	2.4	2.4	6.767	A
4 - Rowan Way	1225.00	306.25	985.97	1329.53	0.921	1222.77	1081.98	9.7	10.2	31.794	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1335.00	333.75	539.72	2561.67	0.521	1335.00	1669.99	1.1	1.1	2.934	A
2 - Steyning Way	150.00	37.50	1636.80	874.10	0.172	150.00	237.92	0.2	0.2	4.971	A
3 - A29(s)	1273.00	318.25	795.00	1804.68	0.705	1272.98	991.80	2.4	2.4	6.770	A
4 - Rowan Way	1225.00	306.25	985.98	1329.52	0.921	1223.73	1081.99	10.2	10.5	32.488	D

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1335.00	333.75	539.82	2561.60	0.521	1335.00	1670.34	1.1	1.1	2.934	A
2 - Steyning Way	150.00	37.50	1636.87	874.06	0.172	150.00	237.95	0.2	0.2	4.971	A
3 - A29(s)	1273.00	318.25	795.00	1804.68	0.705	1272.99	991.87	2.4	2.4	6.770	A
4 - Rowan Way	1225.00	306.25	985.99	1329.52	0.921	1224.17	1082.00	10.5	10.7	32.891	D

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1335.00	333.75	539.87	2561.57	0.521	1335.00	1670.54	1.1	1.1	2.934	A
2 - Steyning Way	150.00	37.50	1636.91	874.04	0.172	150.00	237.96	0.2	0.2	4.971	A
3 - A29(s)	1273.00	318.25	795.00	1804.68	0.705	1272.99	991.91	2.4	2.4	6.770	A
4 - Rowan Way	1225.00	306.25	985.99	1329.51	0.921	1224.42	1082.00	10.7	10.9	33.156	D

(Default Analysis Set) - 2031 DS1 (Base+Com), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	8.76	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D20	2031 DS1 (Base+Com)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1958.00	100.000
2 - Steyning Way		FLAT	✓	303.00	100.000
3 - A29(s)		FLAT	✓	994.00	100.000
4 - Rowan Way		FLAT	✓	1216.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	23.000	825.000	1109.000
	2 - Steyning Way	45.000	0.000	129.000	129.000
	3 - A29(s)	484.000	47.000	125.000	338.000
	4 - Rowan Way	918.000	34.000	264.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.01	0.42	0.57
	2 - Steyning Way	0.15	0.00	0.43	0.43
	3 - A29(s)	0.49	0.05	0.13	0.34
	4 - Rowan Way	0.75	0.03	0.22	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.75	5.52	3.0	A	1958.00	2937.00
2 - Steyning Way	0.58	16.56	1.4	C	303.00	454.50
3 - A29(s)	0.65	6.81	1.9	A	994.00	1491.00
4 - Rowan Way	0.82	13.61	4.5	B	1216.00	1824.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1958.00	489.50	464.60	2613.48	0.749	1946.33	1430.92	0.0	2.9	5.307	A
2 - Steyning Way	303.00	75.75	2307.88	528.57	0.573	297.84	103.05	0.0	1.3	15.286	C
3 - A29(s)	994.00	248.50	1274.42	1528.06	0.651	986.71	1331.30	0.0	1.8	6.566	A
4 - Rowan Way	1216.00	304.00	696.42	1482.99	0.820	1199.10	1564.71	0.0	4.2	12.053	B

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1958.00	489.50	469.79	2609.90	0.750	1957.81	1447.33	2.9	3.0	5.517	A
2 - Steyning Way	303.00	75.75	2323.64	520.45	0.582	302.74	103.97	1.3	1.4	16.498	C
3 - A29(s)	994.00	248.50	1283.75	1522.68	0.653	993.87	1342.63	1.8	1.9	6.803	A
4 - Rowan Way	1216.00	304.00	701.87	1480.09	0.822	1215.25	1575.74	4.2	4.4	13.497	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1958.00	489.50	469.93	2609.81	0.750	1957.94	1447.78	3.0	3.0	5.520	A
2 - Steyning Way	303.00	75.75	2323.88	520.33	0.582	302.94	103.99	1.4	1.4	16.543	C
3 - A29(s)	994.00	248.50	1283.93	1522.57	0.653	993.96	1342.89	1.9	1.9	6.810	A
4 - Rowan Way	1216.00	304.00	701.97	1480.04	0.822	1215.74	1575.93	4.4	4.5	13.566	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1958.00	489.50	469.97	2609.78	0.750	1957.97	1447.89	3.0	3.0	5.522	A
2 - Steyning Way	303.00	75.75	2323.94	520.30	0.582	302.97	104.00	1.4	1.4	16.553	C
3 - A29(s)	994.00	248.50	1283.97	1522.55	0.653	993.98	1342.95	1.9	1.9	6.810	A
4 - Rowan Way	1216.00	304.00	701.98	1480.03	0.822	1215.87	1575.97	4.5	4.5	13.588	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1958.00	489.50	469.98	2609.77	0.750	1957.98	1447.93	3.0	3.0	5.522	A
2 - Steyning Way	303.00	75.75	2323.97	520.28	0.582	302.98	104.00	1.4	1.4	16.557	C
3 - A29(s)	994.00	248.50	1283.98	1522.54	0.653	993.99	1342.97	1.9	1.9	6.810	A
4 - Rowan Way	1216.00	304.00	701.99	1480.03	0.822	1215.92	1575.98	4.5	4.5	13.602	B

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1958.00	489.50	469.99	2609.77	0.750	1957.99	1447.96	3.0	3.0	5.522	A
2 - Steyning Way	303.00	75.75	2323.98	520.28	0.582	302.99	104.00	1.4	1.4	16.561	C
3 - A29(s)	994.00	248.50	1283.99	1522.54	0.653	993.99	1342.98	1.9	1.9	6.810	A
4 - Rowan Way	1216.00	304.00	701.99	1480.03	0.822	1215.95	1575.99	4.5	4.5	13.607	B

(Default Analysis Set) - 2031 DS2 (Base+Com), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	12.83	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D21	2031 DS2 (Base+Com)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1429.00	100.000
2 - Steyning Way		FLAT	✓	150.00	100.000
3 - A29(s)		FLAT	✓	1273.00	100.000
4 - Rowan Way		FLAT	✓	1217.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	2.000	42.000	575.000	810.000
	2 - Steyning Way	38.000	0.000	73.000	39.000
	3 - A29(s)	665.000	123.000	155.000	330.000
	4 - Rowan Way	955.000	73.000	189.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.03	0.40	0.57
	2 - Steyning Way	0.25	0.00	0.49	0.26
	3 - A29(s)	0.52	0.10	0.12	0.26
	4 - Rowan Way	0.78	0.06	0.16	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.56	3.18	1.3	A	1429.00	2143.50
2 - Steyning Way	0.18	5.33	0.2	A	150.00	225.00
3 - A29(s)	0.73	7.54	2.7	A	1273.00	1909.50
4 - Rowan Way	0.91	30.62	10.0	D	1217.00	1825.50

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1429.00	357.25	530.94	2567.73	0.557	1424.02	1629.56	0.0	1.2	3.133	A
2 - Steyning Way	150.00	37.50	1720.00	831.26	0.180	149.13	234.96	0.0	0.2	5.271	A
3 - A29(s)	1273.00	318.25	885.72	1752.33	0.726	1262.68	983.40	0.0	2.6	7.210	A
4 - Rowan Way	1217.00	304.25	975.13	1335.27	0.911	1185.37	1173.28	0.0	7.9	20.895	C

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1429.00	357.25	539.02	2562.16	0.558	1428.96	1656.48	1.2	1.3	3.176	A
2 - Steyning Way	150.00	37.50	1730.26	825.98	0.182	149.99	237.72	0.2	0.2	5.325	A
3 - A29(s)	1273.00	318.25	888.97	1750.46	0.727	1272.82	991.28	2.6	2.6	7.530	A
4 - Rowan Way	1217.00	304.25	982.86	1331.17	0.914	1212.64	1178.93	7.9	9.0	28.379	D

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1429.00	357.25	539.59	2561.77	0.558	1428.99	1658.51	1.3	1.3	3.177	A
2 - Steyning Way	150.00	37.50	1730.69	825.76	0.182	150.00	237.88	0.2	0.2	5.326	A
3 - A29(s)	1273.00	318.25	888.99	1750.44	0.727	1272.94	991.70	2.6	2.6	7.536	A
4 - Rowan Way	1217.00	304.25	982.96	1331.12	0.914	1215.14	1178.98	9.0	9.5	29.589	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1429.00	357.25	539.77	2561.64	0.558	1429.00	1659.16	1.3	1.3	3.177	A
2 - Steyning Way	150.00	37.50	1730.83	825.68	0.182	150.00	237.93	0.2	0.2	5.327	A
3 - A29(s)	1273.00	318.25	889.00	1750.44	0.727	1272.97	991.83	2.6	2.6	7.536	A
4 - Rowan Way	1217.00	304.25	982.98	1331.11	0.914	1215.96	1178.99	9.5	9.7	30.124	D

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1429.00	357.25	539.85	2561.58	0.558	1429.00	1659.47	1.3	1.3	3.177	A
2 - Steyning Way	150.00	37.50	1730.89	825.65	0.182	150.00	237.96	0.2	0.2	5.327	A
3 - A29(s)	1273.00	318.25	889.00	1750.44	0.727	1272.98	991.89	2.6	2.6	7.539	A
4 - Rowan Way	1217.00	304.25	982.99	1331.11	0.914	1216.33	1178.99	9.7	9.9	30.428	D

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1429.00	357.25	539.90	2561.55	0.558	1429.00	1659.63	1.3	1.3	3.177	A
2 - Steyning Way	150.00	37.50	1730.92	825.64	0.182	150.00	237.97	0.2	0.2	5.327	A
3 - A29(s)	1273.00	318.25	889.00	1750.44	0.727	1272.99	991.93	2.6	2.7	7.539	A
4 - Rowan Way	1217.00	304.25	982.99	1331.11	0.914	1216.53	1179.00	9.9	10.0	30.625	D

(Default Analysis Set) - 2031 DS2 (Base+Com), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	11.54	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D22	2031 DS2 (Base+Com)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	2085.00	100.000
2 - Steyning Way		FLAT	✓	303.00	100.000
3 - A29(s)		FLAT	✓	992.00	100.000
4 - Rowan Way		FLAT	✓	1290.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	23.000	821.000	1240.000
	2 - Steyning Way	45.000	0.000	129.000	129.000
	3 - A29(s)	482.000	47.000	125.000	338.000
	4 - Rowan Way	982.000	34.000	274.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.01	0.39	0.59
	2 - Steyning Way	0.15	0.00	0.43	0.43
	3 - A29(s)	0.49	0.05	0.13	0.34
	4 - Rowan Way	0.76	0.03	0.21	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.80	6.95	4.0	A	2085.00	3127.50
2 - Steyning Way	0.67	24.49	2.0	C	303.00	454.50
3 - A29(s)	0.69	7.91	2.2	A	992.00	1488.00
4 - Rowan Way	0.87	18.71	6.6	C	1290.00	1935.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2085.00	521.25	473.00	2607.69	0.800	2069.61	1487.16	0.0	3.8	6.518	A
2 - Steyning Way	303.00	75.75	2439.79	460.65	0.658	295.82	102.82	0.0	1.8	21.031	C
3 - A29(s)	992.00	248.00	1401.72	1454.61	0.682	983.65	1333.89	0.0	2.1	7.517	A
4 - Rowan Way	1290.00	322.50	693.42	1484.57	0.869	1266.74	1691.95	0.0	5.8	15.207	C

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2085.00	521.25	479.55	2603.17	0.801	2084.62	1508.49	3.8	3.9	6.930	A
2 - Steyning Way	303.00	75.75	2460.23	450.12	0.673	302.36	103.94	1.8	2.0	24.170	C
3 - A29(s)	992.00	248.00	1414.41	1447.29	0.685	991.78	1348.18	2.1	2.1	7.896	A
4 - Rowan Way	1290.00	322.50	699.76	1481.21	0.871	1288.28	1706.43	5.8	6.2	18.286	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2085.00	521.25	479.84	2602.97	0.801	2084.88	1509.46	3.9	4.0	6.941	A
2 - Steyning Way	303.00	75.75	2460.74	449.86	0.674	302.83	103.98	2.0	2.0	24.390	C
3 - A29(s)	992.00	248.00	1414.83	1447.04	0.686	991.94	1348.74	2.1	2.2	7.906	A
4 - Rowan Way	1290.00	322.50	699.94	1481.12	0.871	1289.36	1706.84	6.2	6.4	18.539	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2085.00	521.25	479.92	2602.92	0.801	2084.94	1509.72	4.0	4.0	6.944	A
2 - Steyning Way	303.00	75.75	2460.87	449.79	0.674	302.92	103.99	2.0	2.0	24.486	C
3 - A29(s)	992.00	248.00	1414.92	1446.99	0.686	991.97	1348.87	2.2	2.2	7.911	A
4 - Rowan Way	1290.00	322.50	699.97	1481.10	0.871	1289.67	1706.92	6.4	6.5	18.635	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2085.00	521.25	479.95	2602.90	0.801	2084.97	1509.83	4.0	4.0	6.947	A
2 - Steyning Way	303.00	75.75	2460.92	449.77	0.674	302.96	103.99	2.0	2.0	24.472	C
3 - A29(s)	992.00	248.00	1414.96	1446.97	0.686	991.99	1348.92	2.2	2.2	7.910	A
4 - Rowan Way	1290.00	322.50	699.98	1481.09	0.871	1289.80	1706.96	6.5	6.5	18.683	C

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2085.00	521.25	479.97	2602.89	0.801	2084.98	1509.89	4.0	4.0	6.947	A
2 - Steyning Way	303.00	75.75	2460.95	449.75	0.674	302.97	104.00	2.0	2.0	24.486	C
3 - A29(s)	992.00	248.00	1414.97	1446.96	0.686	991.99	1348.95	2.2	2.2	7.910	A
4 - Rowan Way	1290.00	322.50	699.99	1481.09	0.871	1289.86	1706.97	6.5	6.6	18.713	C

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	15.11	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D23	2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1344.00	100.000
2 - Steyning Way		FLAT	✓	151.00	100.000
3 - A29(s)		FLAT	✓	1280.00	100.000
4 - Rowan Way		FLAT	✓	1236.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	2.000	42.000	579.000	721.000
	2 - Steyning Way	39.000	0.000	73.000	39.000
	3 - A29(s)	675.000	123.000	155.000	327.000
	4 - Rowan Way	974.000	73.000	189.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.03	0.43	0.54
	2 - Steyning Way	0.26	0.00	0.48	0.26
	3 - A29(s)	0.53	0.10	0.12	0.26
	4 - Rowan Way	0.79	0.06	0.15	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.52	2.96	1.1	A	1344.00	2016.00
2 - Steyning Way	0.17	5.01	0.2	A	151.00	226.50
3 - A29(s)	0.71	6.91	2.4	A	1280.00	1920.00
4 - Rowan Way	0.93	38.05	12.6	E	1236.00	1854.00

Main Results for each time segment

Main results: (07:45-08:00)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	530.11	2568.30	0.523	1339.64	1655.68	0.0	1.1	2.921	A
2 - Steyning Way	151.00	37.75	1634.98	875.04	0.173	150.17	234.77	0.0	0.2	4.961	A
3 - A29(s)	1280.00	320.00	798.23	1802.82	0.710	1270.45	986.92	0.0	2.4	6.648	A
4 - Rowan Way	1236.00	309.00	986.67	1329.16	0.930	1199.12	1082.01	0.0	9.2	23.356	C

Main results: (08:00-08:15)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	538.60	2562.45	0.525	1343.97	1684.83	1.1	1.1	2.953	A
2 - Steyning Way	151.00	37.75	1644.96	869.90	0.174	150.99	237.60	0.2	0.2	5.007	A
3 - A29(s)	1280.00	320.00	800.98	1801.23	0.711	1279.86	994.98	2.4	2.4	6.900	A
4 - Rowan Way	1236.00	309.00	993.89	1325.33	0.933	1229.54	1086.94	9.2	10.8	33.701	D

Main results: (08:15-08:30)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.35	2561.93	0.525	1343.99	1687.58	1.1	1.1	2.955	A
2 - Steyning Way	151.00	37.75	1645.52	869.61	0.174	151.00	237.82	0.2	0.2	5.009	A
3 - A29(s)	1280.00	320.00	800.99	1801.22	0.711	1279.95	995.53	2.4	2.4	6.903	A
4 - Rowan Way	1236.00	309.00	993.97	1325.29	0.933	1232.96	1086.98	10.8	11.6	35.891	E

Main results: (08:30-08:45)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.61	2561.75	0.525	1344.00	1688.57	1.1	1.1	2.955	A
2 - Steyning Way	151.00	37.75	1645.72	869.51	0.174	151.00	237.89	0.2	0.2	5.009	A
3 - A29(s)	1280.00	320.00	801.00	1801.22	0.711	1279.98	995.72	2.4	2.4	6.906	A
4 - Rowan Way	1236.00	309.00	993.98	1325.28	0.933	1234.21	1086.99	11.6	12.0	36.966	E

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.74	2561.66	0.525	1344.00	1689.05	1.1	1.1	2.955	A
2 - Steyning Way	151.00	37.75	1645.81	869.46	0.174	151.00	237.93	0.2	0.2	5.010	A
3 - A29(s)	1280.00	320.00	801.00	1801.22	0.711	1279.99	995.82	2.4	2.4	6.906	A
4 - Rowan Way	1236.00	309.00	993.99	1325.28	0.933	1234.81	1087.00	12.0	12.3	37.615	E

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.82	2561.61	0.525	1344.00	1689.32	1.1	1.1	2.955	A
2 - Steyning Way	151.00	37.75	1645.87	869.43	0.174	151.00	237.95	0.2	0.2	5.010	A
3 - A29(s)	1280.00	320.00	801.00	1801.22	0.711	1279.99	995.87	2.4	2.4	6.906	A
4 - Rowan Way	1236.00	309.00	993.99	1325.28	0.933	1235.15	1087.00	12.3	12.6	38.052	E

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	8.96	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D24	2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1974.00	100.000
2 - Steyning Way		FLAT	✓	303.00	100.000
3 - A29(s)		FLAT	✓	1001.00	100.000
4 - Rowan Way		FLAT	✓	1218.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	23.000	832.000	1118.000
	2 - Steyning Way	45.000	0.000	129.000	129.000
	3 - A29(s)	491.000	47.000	125.000	338.000
	4 - Rowan Way	920.000	34.000	264.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.01	0.42	0.57
	2 - Steyning Way	0.15	0.00	0.43	0.43
	3 - A29(s)	0.49	0.05	0.12	0.34
	4 - Rowan Way	0.76	0.03	0.22	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.76	5.66	3.1	A	1974.00	2961.00
2 - Steyning Way	0.59	17.21	1.4	C	303.00	454.50
3 - A29(s)	0.66	6.97	1.9	A	1001.00	1501.50
4 - Rowan Way	0.83	13.90	4.6	B	1218.00	1827.00

Main Results for each time segment

Main results: (16:45-17:00)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	464.49	2613.56	0.755	1961.96	1439.50	0.0	3.0	5.430	A
2 - Steyning Way	303.00	75.75	2323.42	520.56	0.582	297.66	103.03	0.0	1.3	15.802	C
3 - A29(s)	1001.00	250.25	1283.11	1523.05	0.657	993.50	1337.98	0.0	1.9	6.706	A
4 - Rowan Way	1218.00	304.50	703.23	1479.37	0.823	1200.76	1573.37	0.0	4.3	12.257	B

Main results: (17:00-17:15)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.78	2609.91	0.756	1973.80	1456.29	3.0	3.1	5.656	A
2 - Steyning Way	303.00	75.75	2339.61	512.23	0.592	302.72	103.97	1.3	1.4	17.138	C
3 - A29(s)	1001.00	250.25	1292.72	1517.50	0.660	1000.86	1349.60	1.9	1.9	6.963	A
4 - Rowan Way	1218.00	304.50	708.86	1476.39	0.825	1217.20	1584.72	4.3	4.5	13.787	B

Main results: (17:15-17:30)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.93	2609.81	0.756	1973.94	1456.77	3.1	3.1	5.659	A
2 - Steyning Way	303.00	75.75	2339.88	512.09	0.592	302.93	103.99	1.4	1.4	17.191	C
3 - A29(s)	1001.00	250.25	1292.93	1517.38	0.660	1000.96	1349.88	1.9	1.9	6.970	A
4 - Rowan Way	1218.00	304.50	708.96	1476.34	0.825	1217.73	1584.92	4.5	4.6	13.861	B

Main results: (17:30-17:45)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.96	2609.78	0.756	1973.97	1456.88	3.1	3.1	5.661	A
2 - Steyning Way	303.00	75.75	2339.94	512.06	0.592	302.97	103.99	1.4	1.4	17.204	C
3 - A29(s)	1001.00	250.25	1292.97	1517.36	0.660	1000.98	1349.94	1.9	1.9	6.971	A
4 - Rowan Way	1218.00	304.50	708.98	1476.32	0.825	1217.86	1584.96	4.6	4.6	13.886	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.98	2609.77	0.756	1973.98	1456.93	3.1	3.1	5.661	A
2 - Steyning Way	303.00	75.75	2339.96	512.05	0.592	302.98	104.00	1.4	1.4	17.210	C
3 - A29(s)	1001.00	250.25	1292.98	1517.35	0.660	1000.99	1349.97	1.9	1.9	6.971	A
4 - Rowan Way	1218.00	304.50	708.99	1476.32	0.825	1217.92	1584.98	4.6	4.6	13.899	B

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.99	2609.77	0.756	1973.99	1456.95	3.1	3.1	5.661	A
2 - Steyning Way	303.00	75.75	2339.98	512.04	0.592	302.99	104.00	1.4	1.4	17.212	C
3 - A29(s)	1001.00	250.25	1292.99	1517.34	0.660	1000.99	1349.98	1.9	1.9	6.971	A
4 - Rowan Way	1218.00	304.50	708.99	1476.32	0.825	1217.94	1584.99	4.6	4.6	13.905	B

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	14.12	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D25	2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1+ Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1438.00	100.000
2 - Steyning Way		FLAT	✓	150.00	100.000
3 - A29(s)		FLAT	✓	1280.00	100.000
4 - Rowan Way		FLAT	✓	1228.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	2.000	42.000	579.000	815.000
	2 - Steyning Way	38.000	0.000	73.000	39.000
	3 - A29(s)	672.000	123.000	155.000	330.000
	4 - Rowan Way	966.000	73.000	189.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.03	0.40	0.57
	2 - Steyning Way	0.25	0.00	0.49	0.26
	3 - A29(s)	0.53	0.10	0.12	0.26
	4 - Rowan Way	0.79	0.06	0.15	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.56	3.20	1.3	A	1438.00	2157.00
2 - Steyning Way	0.18	5.36	0.2	A	150.00	225.00
3 - A29(s)	0.73	7.70	2.7	A	1280.00	1920.00
4 - Rowan Way	0.93	34.67	11.4	D	1228.00	1842.00

Main Results for each time segment

Main results: (07:45-08:00)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1438.00	359.50	530.33	2568.15	0.560	1432.95	1645.05	0.0	1.3	3.157	A
2 - Steyning Way	150.00	37.50	1728.50	826.88	0.181	149.12	234.78	0.0	0.2	5.305	A
3 - A29(s)	1280.00	320.00	890.68	1749.47	0.732	1269.42	986.94	0.0	2.6	7.346	A
4 - Rowan Way	1228.00	307.00	981.92	1331.67	0.922	1193.46	1178.18	0.0	8.6	22.277	C

Main results: (08:00-08:15)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1438.00	359.50	538.78	2562.32	0.561	1437.96	1673.56	1.3	1.3	3.201	A
2 - Steyning Way	150.00	37.50	1739.09	821.43	0.183	149.99	237.65	0.2	0.2	5.361	A
3 - A29(s)	1280.00	320.00	893.97	1747.57	0.732	1279.81	995.11	2.6	2.7	7.688	A
4 - Rowan Way	1228.00	307.00	989.85	1327.47	0.925	1222.49	1183.92	8.6	10.0	31.344	D

Main results: (08:15-08:30)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1438.00	359.50	539.46	2561.86	0.561	1437.99	1676.01	1.3	1.3	3.202	A
2 - Steyning Way	150.00	37.50	1739.60	821.17	0.183	150.00	237.85	0.2	0.2	5.363	A
3 - A29(s)	1280.00	320.00	893.99	1747.56	0.732	1279.94	995.61	2.7	2.7	7.694	A
4 - Rowan Way	1228.00	307.00	989.95	1327.42	0.925	1225.52	1183.98	10.0	10.6	33.070	D

Main results: (08:30-08:45)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1438.00	359.50	539.69	2561.70	0.561	1437.99	1676.86	1.3	1.3	3.202	A
2 - Steyning Way	150.00	37.50	1739.77	821.08	0.183	150.00	237.91	0.2	0.2	5.363	A
3 - A29(s)	1280.00	320.00	894.00	1747.56	0.732	1279.97	995.77	2.7	2.7	7.696	A
4 - Rowan Way	1228.00	307.00	989.98	1327.40	0.925	1226.57	1183.99	10.6	11.0	33.877	D

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1438.00	359.50	539.80	2561.62	0.561	1438.00	1677.25	1.3	1.3	3.203	A
2 - Steyning Way	150.00	37.50	1739.85	821.04	0.183	150.00	237.94	0.2	0.2	5.364	A
3 - A29(s)	1280.00	320.00	894.00	1747.56	0.732	1279.98	995.85	2.7	2.7	7.697	A
4 - Rowan Way	1228.00	307.00	989.99	1327.40	0.925	1227.06	1183.99	11.0	11.2	34.353	D

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1438.00	359.50	539.86	2561.58	0.561	1438.00	1677.47	1.3	1.3	3.203	A
2 - Steyning Way	150.00	37.50	1739.90	821.02	0.183	150.00	237.96	0.2	0.2	5.364	A
3 - A29(s)	1280.00	320.00	894.00	1747.56	0.732	1279.99	995.90	2.7	2.7	7.697	A
4 - Rowan Way	1228.00	307.00	989.99	1327.40	0.925	1227.34	1184.00	11.2	11.4	34.667	D

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	11.83	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D26	2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B2/B8 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	2101.00	100.000
2 - Steyning Way		FLAT	✓	303.00	100.000
3 - A29(s)		FLAT	✓	994.00	100.000
4 - Rowan Way		FLAT	✓	1292.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	23.000	828.000	1249.000
	2 - Steyning Way	45.000	0.000	129.000	129.000
	3 - A29(s)	484.000	47.000	125.000	338.000
	4 - Rowan Way	984.000	34.000	274.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.01	0.39	0.59
	2 - Steyning Way	0.15	0.00	0.43	0.43
	3 - A29(s)	0.49	0.05	0.13	0.34
	4 - Rowan Way	0.76	0.03	0.21	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.81	7.17	4.2	A	2101.00	3151.50
2 - Steyning Way	0.69	25.93	2.2	D	303.00	454.50
3 - A29(s)	0.69	8.04	2.2	A	994.00	1491.00
4 - Rowan Way	0.87	19.01	6.7	C	1292.00	1938.00

Main Results for each time segment

Main results: (16:45-17:00)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	472.91	2607.75	0.806	2085.04	1490.78	0.0	4.0	6.698	A
2 - Steyning Way	303.00	75.75	2455.15	452.74	0.669	295.48	102.80	0.0	1.9	21.972	C
3 - A29(s)	994.00	248.50	1410.19	1449.72	0.686	985.51	1340.44	0.0	2.1	7.623	A
4 - Rowan Way	1292.00	323.00	695.27	1483.59	0.871	1268.42	1700.43	0.0	5.9	15.367	C

Main results: (17:00-17:15)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.53	2603.18	0.807	2100.59	1512.42	4.0	4.1	7.148	A
2 - Steyning Way	303.00	75.75	2476.18	441.91	0.686	302.27	103.94	1.9	2.1	25.540	D
3 - A29(s)	994.00	248.50	1423.34	1442.13	0.689	993.77	1355.12	2.1	2.2	8.020	A
4 - Rowan Way	1292.00	323.00	701.74	1480.16	0.873	1290.21	1715.37	5.9	6.3	18.554	C

Main results: (17:15-17:30)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.83	2602.98	0.807	2100.87	1513.44	4.1	4.1	7.162	A
2 - Steyning Way	303.00	75.75	2476.72	441.63	0.686	302.81	103.98	2.1	2.1	25.812	D
3 - A29(s)	994.00	248.50	1423.81	1441.86	0.689	993.94	1355.72	2.2	2.2	8.033	A
4 - Rowan Way	1292.00	323.00	701.93	1480.06	0.873	1291.33	1715.82	6.3	6.5	18.824	C

Main results: (17:30-17:45)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.91	2602.92	0.807	2100.94	1513.71	4.1	4.1	7.165	A
2 - Steyning Way	303.00	75.75	2476.86	441.56	0.686	302.91	103.99	2.1	2.1	25.884	D
3 - A29(s)	994.00	248.50	1423.91	1441.80	0.689	993.97	1355.86	2.2	2.2	8.035	A
4 - Rowan Way	1292.00	323.00	701.97	1480.04	0.873	1291.65	1715.92	6.5	6.6	18.925	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.95	2602.90	0.807	2100.96	1513.82	4.1	4.2	7.169	A
2 - Steyning Way	303.00	75.75	2476.92	441.53	0.686	302.95	103.99	2.1	2.1	25.914	D
3 - A29(s)	994.00	248.50	1423.95	1441.78	0.689	993.98	1355.92	2.2	2.2	8.037	A
4 - Rowan Way	1292.00	323.00	701.98	1480.04	0.873	1291.79	1715.95	6.6	6.6	18.978	C

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.96	2602.89	0.807	2100.98	1513.88	4.2	4.2	7.169	A
2 - Steyning Way	303.00	75.75	2476.94	441.52	0.686	302.97	104.00	2.1	2.2	25.932	D
3 - A29(s)	994.00	248.50	1423.97	1441.77	0.689	993.99	1355.94	2.2	2.2	8.037	A
4 - Rowan Way	1292.00	323.00	701.99	1480.03	0.873	1291.86	1715.97	6.6	6.7	19.010	C

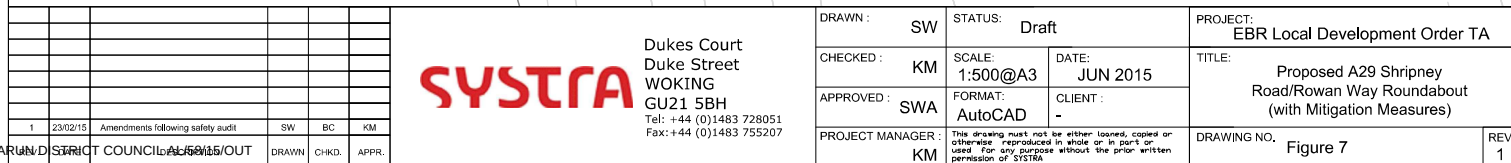
Appendix D

Mitigation schemes

(Dwg.No.5130:T01 & Figure 7 Rev 1)



REV. No.	DATE	DESCRIPTION	INITIALS
Client		MJA CONSULTING CIVIL AND STRUCTURAL ENGINEERS Monarch House, Barton Lane, Abingdon, Oxon, OX14 3NB Tel: 01235 555173 Fax: 01235 523226	
Project		MJA	
Title		Scale 1:500 Checked WL Date Sep 2015 Drawn KS	Drawing No. 5130:T01 Rev —
Hanbury Properties		Oldlands Farm A259 BNRR Mitigation Measures	





Appendix E

Junctions9 (Arcady) results (Mitigation)

Junctions 9												
ARCADY 9 - Roundabout Module												
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2015												
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk												
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution												

Filename: BNRR 5 arm 15.09.17 Mitigation.j9

Path: P:\Projects\Hanbury Properties\5130 - Phase 2 Oldlands Farm, Bognor Regis\Traffic\Junction Modelling\BNRR

Report generation date: 17/09/2015 11:56:25

»(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM
 »(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM
 »(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM
 »(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
	A1 - 2031 DS1+Old (Base+Com+Dev)											
1 - A29 (n)	1.8	5.70	0.64	A	10.06	B	3.1	8.72	0.76	A	9.66	A
2 - BNRR	3.3	10.94	0.77	B			3.0	10.67	0.75	B		
3 - Site Access	0.4	7.54	0.26	A			3.0	27.10	0.75	D		
4 - A29 (s)	5.9	12.76	0.86	B			1.4	4.16	0.58	A		
5 - Saltbox	0.1	6.94	0.12	A			0.8	8.74	0.43	A		
	A1 - 2031 DS2+Old (Base+Com+Dev)											
1 - A29 (n)	1.7	5.51	0.63	A	8.61	A	3.4	9.41	0.78	A	13.10	B
2 - BNRR	2.7	9.17	0.73	A			4.6	15.40	0.82	C		
3 - Site Access	0.5	8.27	0.33	A			5.2	48.81	0.85	E		
4 - A29 (s)	4.8	10.40	0.83	B			1.6	4.56	0.62	A		
5 - Saltbox	0.1	7.06	0.11	A			0.5	7.80	0.33	A		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	Mitigation
Location	A29 / BNRR roundabout
Site number	
Date	05/06/2013
Version	preliminary
Status	(new file)
Identifier	
Client	Hanbury Properties
Jobnumber	5130
Enumerator	MJA"wingl
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	10.06	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 (n)	
2	BNRR	BNRR
3	Site Access	Site Access
4	A29 (s)	A29 Shripney Road (s)
5	Saltbox	Saltbox Access

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - A29 (n)	0.00	99999.00		0.00
2 - BNRR	0.00	99999.00		0.00
3 - Site Access	0.00	99999.00		0.00
4 - A29 (s)	0.00	99999.00		0.00
5 - Saltbox	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A29 (n)	6.85	9.04	6.5	35.0	60.0	37.0	
2 - BNRR	4.60	9.00	19.0	15.0	60.0	34.5	
3 - Site Access	4.83	6.13	3.5	14.0	60.0	30.5	
4 - A29 (s)	7.30	8.30	5.0	20.0	60.0	31.0	
5 - Saltbox	4.83	6.13	3.5	14.0	60.0	30.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29 (n)	0.675	2386.876
2 - BNRR	0.616	2090.622
3 - Site Access	0.535	1606.177
4 - A29 (s)	0.675	2388.340
5 - Saltbox	0.535	1606.177

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D1	2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1125.00	100.000
2 - BNRR		FLAT	✓	1103.00	100.000
3 - Site Access		FLAT	✓	171.00	100.000
4 - A29 (s)		FLAT	✓	1689.00	100.000
5 - Saltbox		FLAT	✓	68.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	140.000	103.000	768.000	114.000
	2 - BNRR	157.000	0.000	208.000	525.000	213.000
	3 - Site Access	41.000	93.000	0.000	36.000	1.000
	4 - A29 (s)	828.000	719.000	69.000	0.000	73.000
	5 - Saltbox	16.000	37.000	1.000	14.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.12	0.09	0.68	0.10
	2 - BNRR	0.14	0.00	0.19	0.48	0.19
	3 - Site Access	0.24	0.54	0.00	0.21	0.01
	4 - A29 (s)	0.49	0.43	0.04	0.00	0.04
	5 - Saltbox	0.24	0.54	0.01	0.21	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.64	5.70	1.8	A	1125.00	1687.50
2 - BNRR	0.77	10.94	3.3	B	1103.00	1654.50
3 - Site Access	0.26	7.54	0.4	A	171.00	256.50
4 - A29 (s)	0.86	12.76	5.9	B	1689.00	2533.50
5 - Saltbox	0.12	6.94	0.1	A	68.00	102.00

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	921.72	1764.54	0.638	1118.08	1029.10	0.0	1.7	5.511	A
2 - BNRR	1103.00	275.75	1061.94	1436.08	0.768	1090.38	977.86	0.0	3.2	10.077	B
3 - Site Access	171.00	42.75	1775.23	656.71	0.260	169.61	377.09	0.0	0.3	7.370	A
4 - A29 (s)	1689.00	422.25	612.97	1974.34	0.855	1667.28	1331.87	0.0	5.4	11.048	B
5 - Saltbox	68.00	17.00	1883.33	598.90	0.114	67.49	396.92	0.0	0.1	6.769	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.45	1757.29	0.640	1124.88	1041.38	1.7	1.8	5.690	A
2 - BNRR	1103.00	275.75	1068.84	1431.83	0.770	1102.58	988.48	3.2	3.3	10.900	B
3 - Site Access	171.00	42.75	1790.56	648.51	0.264	170.97	380.86	0.3	0.4	7.538	A
4 - A29 (s)	1689.00	422.25	618.82	1970.38	0.857	1687.88	1342.71	5.4	5.7	12.623	B
5 - Saltbox	68.00	17.00	1905.84	586.86	0.116	67.99	400.86	0.1	0.1	6.937	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.82	1757.05	0.640	1124.97	1041.79	1.8	1.8	5.695	A
2 - BNRR	1103.00	275.75	1068.96	1431.76	0.770	1102.87	988.83	3.3	3.3	10.928	B
3 - Site Access	171.00	42.75	1790.87	648.35	0.264	170.99	380.96	0.4	0.4	7.540	A
4 - A29 (s)	1689.00	422.25	618.95	1970.30	0.857	1688.61	1342.91	5.7	5.8	12.709	B
5 - Saltbox	68.00	17.00	1906.61	586.45	0.116	68.00	400.95	0.1	0.1	6.942	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.91	1756.99	0.640	1124.99	1041.89	1.8	1.8	5.695	A
2 - BNRR	1103.00	275.75	1068.98	1431.75	0.770	1102.94	988.91	3.3	3.3	10.937	B
3 - Site Access	171.00	42.75	1790.94	648.31	0.264	171.00	380.98	0.4	0.4	7.541	A
4 - A29 (s)	1689.00	422.25	618.98	1970.28	0.857	1688.80	1342.96	5.8	5.9	12.740	B
5 - Saltbox	68.00	17.00	1906.80	586.34	0.116	68.00	400.98	0.1	0.1	6.944	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.94	1756.96	0.640	1124.99	1041.94	1.8	1.8	5.695	A
2 - BNRR	1103.00	275.75	1068.99	1431.74	0.770	1102.96	988.95	3.3	3.3	10.939	B
3 - Site Access	171.00	42.75	1790.96	648.30	0.264	171.00	380.99	0.4	0.4	7.541	A
4 - A29 (s)	1689.00	422.25	618.99	1970.27	0.857	1688.88	1342.98	5.9	5.9	12.755	B
5 - Saltbox	68.00	17.00	1906.88	586.30	0.116	68.00	400.99	0.1	0.1	6.944	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1125.00	281.25	932.96	1756.95	0.640	1124.99	1041.96	1.8	1.8	5.696	A
2 - BNRR	1103.00	275.75	1068.99	1431.74	0.770	1102.98	988.97	3.3	3.3	10.941	B
3 - Site Access	171.00	42.75	1790.98	648.29	0.264	171.00	380.99	0.4	0.4	7.541	A
4 - A29 (s)	1689.00	422.25	618.99	1970.27	0.857	1688.92	1342.98	5.9	5.9	12.763	B
5 - Saltbox	68.00	17.00	1906.92	586.28	0.116	68.00	400.99	0.1	0.1	6.945	A

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	9.66	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D2	2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1279.00	100.000
2 - BNRR		FLAT	✓	1004.00	100.000
3 - Site Access		FLAT	✓	401.00	100.000
4 - A29 (s)		FLAT	✓	1186.00	100.000
5 - Saltbox		FLAT	✓	316.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	163.000	52.000	1052.000	12.000
	2 - BNRR	142.000	0.000	119.000	720.000	23.000
	3 - Site Access	99.000	222.000	0.000	80.000	0.000
	4 - A29 (s)	611.000	531.000	37.000	0.000	7.000
	5 - Saltbox	76.000	177.000	6.000	57.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.13	0.04	0.82	0.01
	2 - BNRR	0.14	0.00	0.12	0.72	0.02
	3 - Site Access	0.25	0.55	0.00	0.20	0.00
	4 - A29 (s)	0.52	0.45	0.03	0.00	0.01
	5 - Saltbox	0.24	0.56	0.02	0.18	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.76	8.72	3.1	A	1279.00	1918.50
2 - BNRR	0.75	10.67	3.0	B	1004.00	1506.00
3 - Site Access	0.75	27.10	3.0	D	401.00	601.50
4 - A29 (s)	0.58	4.16	1.4	A	1186.00	1779.00
5 - Saltbox	0.43	8.74	0.8	A	316.00	474.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1019.53	1698.50	0.753	1267.25	920.42	0.0	2.9	8.140	A
2 - BNRR	1004.00	251.00	1204.99	1347.92	0.745	992.82	1081.79	0.0	2.8	9.851	A
3 - Site Access	401.00	100.25	1985.83	544.08	0.737	390.80	211.97	0.0	2.5	22.229	C
4 - A29 (s)	1186.00	296.50	487.89	2058.82	0.576	1180.62	1888.74	0.0	1.3	4.075	A
5 - Saltbox	316.00	79.00	1626.91	736.04	0.429	313.04	41.60	0.0	0.7	8.452	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.33	1691.89	0.756	1278.64	927.63	2.9	3.0	8.694	A
2 - BNRR	1004.00	251.00	1215.67	1341.33	0.749	1003.59	1092.30	2.8	2.9	10.631	B
3 - Site Access	401.00	100.25	2005.33	533.65	0.751	399.93	213.93	2.5	2.8	26.529	D
4 - A29 (s)	1186.00	296.50	497.07	2052.61	0.578	1185.94	1908.19	1.3	1.4	4.153	A
5 - Saltbox	316.00	79.00	1641.03	728.49	0.434	315.93	41.99	0.7	0.8	8.723	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.81	1691.56	0.756	1278.89	927.90	3.0	3.1	8.715	A
2 - BNRR	1004.00	251.00	1215.90	1341.19	0.749	1003.88	1092.80	2.9	2.9	10.659	B
3 - Site Access	401.00	100.25	2005.81	533.39	0.752	400.69	213.98	2.8	2.9	26.915	D
4 - A29 (s)	1186.00	296.50	497.73	2052.17	0.578	1185.98	1908.77	1.4	1.4	4.155	A
5 - Saltbox	316.00	79.00	1641.72	728.12	0.434	315.98	42.00	0.8	0.8	8.734	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.91	1691.49	0.756	1278.95	927.95	3.1	3.1	8.720	A
2 - BNRR	1004.00	251.00	1215.96	1341.16	0.749	1003.95	1092.91	2.9	2.9	10.666	B
3 - Site Access	401.00	100.25	2005.91	533.34	0.752	400.85	213.99	2.9	2.9	27.024	D
4 - A29 (s)	1186.00	296.50	497.87	2052.07	0.578	1185.99	1908.89	1.4	1.4	4.156	A
5 - Saltbox	316.00	79.00	1641.87	728.04	0.434	315.99	42.00	0.8	0.8	8.736	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.95	1691.46	0.756	1278.97	927.97	3.1	3.1	8.722	A
2 - BNRR	1004.00	251.00	1215.97	1341.14	0.749	1003.97	1092.95	2.9	2.9	10.669	B
3 - Site Access	401.00	100.25	2005.95	533.32	0.752	400.92	213.99	2.9	3.0	27.076	D
4 - A29 (s)	1186.00	296.50	497.93	2052.04	0.578	1186.00	1908.94	1.4	1.4	4.156	A
5 - Saltbox	316.00	79.00	1641.92	728.01	0.434	316.00	42.00	0.8	0.8	8.737	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1279.00	319.75	1029.97	1691.45	0.756	1278.98	927.98	3.1	3.1	8.724	A
2 - BNRR	1004.00	251.00	1215.98	1341.14	0.749	1003.98	1092.96	2.9	3.0	10.671	B
3 - Site Access	401.00	100.25	2005.97	533.31	0.752	400.94	214.00	3.0	3.0	27.105	D
4 - A29 (s)	1186.00	296.50	497.95	2052.02	0.578	1186.00	1908.96	1.4	1.4	4.156	A
5 - Saltbox	316.00	79.00	1641.95	728.00	0.434	316.00	42.00	0.8	0.8	8.737	A

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	8.61	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D3	2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1097.00	100.000
2 - BNRR		FLAT	✓	1066.00	100.000
3 - Site Access		FLAT	✓	213.00	100.000
4 - A29 (s)		FLAT	✓	1665.00	100.000
5 - Saltbox		FLAT	✓	60.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	140.000	80.000	796.000	81.000
	2 - BNRR	157.000	0.000	165.000	592.000	152.000
	3 - Site Access	52.000	116.000	0.000	44.000	1.000
	4 - A29 (s)	832.000	726.000	55.000	0.000	52.000
	5 - Saltbox	14.000	32.000	1.000	13.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.13	0.07	0.73	0.07
	2 - BNRR	0.15	0.00	0.15	0.56	0.14
	3 - Site Access	0.24	0.54	0.00	0.21	0.00
	4 - A29 (s)	0.50	0.44	0.03	0.00	0.03
	5 - Saltbox	0.23	0.53	0.02	0.22	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.63	5.51	1.7	A	1097.00	1645.50
2 - BNRR	0.73	9.17	2.7	A	1066.00	1599.00
3 - Site Access	0.33	8.27	0.5	A	213.00	319.50
4 - A29 (s)	0.83	10.40	4.8	B	1665.00	2497.50
5 - Saltbox	0.11	7.06	0.1	A	60.00	90.00

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	933.20	1756.79	0.624	1090.45	1043.93	0.0	1.6	5.351	A
2 - BNRR	1066.00	266.50	1019.59	1462.19	0.729	1055.61	1004.06	0.0	2.6	8.647	A
3 - Site Access	213.00	53.25	1776.89	655.82	0.325	211.10	298.31	0.0	0.5	8.062	A
4 - A29 (s)	1665.00	416.25	554.00	2014.16	0.827	1647.05	1433.99	0.0	4.5	9.395	A
5 - Saltbox	60.00	15.00	1917.59	580.57	0.103	59.54	283.47	0.0	0.1	6.903	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.66	1750.40	0.627	1096.90	1054.62	1.6	1.7	5.506	A
2 - BNRR	1066.00	266.50	1025.89	1458.31	0.731	1065.74	1013.67	2.6	2.7	9.156	A
3 - Site Access	213.00	53.25	1790.69	648.44	0.328	212.96	300.93	0.5	0.5	8.265	A
4 - A29 (s)	1665.00	416.25	558.89	2010.86	0.828	1664.34	1444.77	4.5	4.7	10.342	B
5 - Saltbox	60.00	15.00	1937.29	570.04	0.105	59.99	285.93	0.1	0.1	7.057	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.89	1750.24	0.627	1096.97	1054.88	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.97	1458.26	0.731	1065.92	1013.90	2.7	2.7	9.168	A
3 - Site Access	213.00	53.25	1790.91	648.33	0.329	212.99	300.98	0.5	0.5	8.269	A
4 - A29 (s)	1665.00	416.25	558.97	2010.81	0.828	1664.78	1444.94	4.7	4.7	10.375	B
5 - Saltbox	60.00	15.00	1937.77	569.78	0.105	60.00	285.98	0.1	0.1	7.060	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.95	1750.21	0.627	1096.99	1054.94	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.99	1458.25	0.731	1065.96	1013.95	2.7	2.7	9.172	A
3 - Site Access	213.00	53.25	1790.96	648.30	0.329	213.00	300.99	0.5	0.5	8.269	A
4 - A29 (s)	1665.00	416.25	558.99	2010.80	0.828	1664.89	1444.97	4.7	4.7	10.387	B
5 - Saltbox	60.00	15.00	1937.89	569.72	0.105	60.00	285.99	0.1	0.1	7.061	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.97	1750.19	0.627	1096.99	1054.96	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.99	1458.24	0.731	1065.98	1013.97	2.7	2.7	9.174	A
3 - Site Access	213.00	53.25	1790.98	648.29	0.329	213.00	300.99	0.5	0.5	8.270	A
4 - A29 (s)	1665.00	416.25	558.99	2010.79	0.828	1664.93	1444.98	4.7	4.7	10.394	B
5 - Saltbox	60.00	15.00	1937.93	569.69	0.105	60.00	285.99	0.1	0.1	7.062	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1097.00	274.25	942.98	1750.19	0.627	1097.00	1054.98	1.7	1.7	5.510	A
2 - BNRR	1066.00	266.50	1025.99	1458.24	0.731	1065.99	1013.98	2.7	2.7	9.174	A
3 - Site Access	213.00	53.25	1790.98	648.29	0.329	213.00	301.00	0.5	0.5	8.270	A
4 - A29 (s)	1665.00	416.25	558.99	2010.79	0.828	1664.96	1444.99	4.7	4.8	10.398	B
5 - Saltbox	60.00	15.00	1937.95	569.68	0.105	60.00	286.00	0.1	0.1	7.062	A

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - BNRR	BNRR	Standard Roundabout	1,2,3,4,5	13.10	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D4	2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29 (n)		FLAT	✓	1318.00	100.000
2 - BNRR		FLAT	✓	1095.00	100.000
3 - Site Access		FLAT	✓	401.00	100.000
4 - A29 (s)		FLAT	✓	1265.00	100.000
5 - Saltbox		FLAT	✓	224.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.000	163.000	52.000	1092.000	11.000
	2 - BNRR	142.000	0.000	119.000	813.000	21.000
	3 - Site Access	99.000	222.000	0.000	80.000	0.000
	4 - A29 (s)	634.000	587.000	38.000	0.000	6.000
	5 - Saltbox	54.000	126.000	4.000	40.000	0.000

Proportions

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0.00	0.12	0.04	0.83	0.01
	2 - BNRR	0.13	0.00	0.11	0.74	0.02
	3 - Site Access	0.25	0.55	0.00	0.20	0.00
	4 - A29 (s)	0.50	0.46	0.03	0.00	0.00
	5 - Saltbox	0.24	0.56	0.02	0.18	0.00

Vehicle Mix

Heavy Vehicle proportion

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	0	0	0	0	0
	2 - BNRR	0	0	0	0	0
	3 - Site Access	0	0	0	0	0
	4 - A29 (s)	0	0	0	0	0
	5 - Saltbox	0	0	0	0	0

Average PCU Per Veh

	To					
		1 - A29 (n)	2 - BNRR	3 - Site Access	4 - A29 (s)	5 - Saltbox
From	1 - A29 (n)	1.000	1.000	1.000	1.000	1.000
	2 - BNRR	1.000	1.000	1.000	1.000	1.000
	3 - Site Access	1.000	1.000	1.000	1.000	1.000
	4 - A29 (s)	1.000	1.000	1.000	1.000	1.000
	5 - Saltbox	1.000	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (n)	0.78	9.41	3.4	A	1318.00	1977.00
2 - BNRR	0.82	15.40	4.6	C	1095.00	1642.50
3 - Site Access	0.85	48.81	5.2	E	401.00	601.50
4 - A29 (s)	0.62	4.56	1.6	A	1265.00	1897.50
5 - Saltbox	0.33	7.80	0.5	A	224.00	336.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1004.04	1708.96	0.771	1305.07	919.47	0.0	3.2	8.657	A
2 - BNRR	1095.00	273.75	1225.12	1335.51	0.820	1078.24	1083.99	0.0	4.2	13.245	B
3 - Site Access	401.00	100.25	2092.91	486.81	0.824	385.73	210.45	0.0	3.8	32.016	D
4 - A29 (s)	1265.00	316.25	480.18	2064.02	0.613	1258.75	1998.46	0.0	1.6	4.438	A
5 - Saltbox	224.00	56.00	1701.38	696.21	0.322	222.13	37.54	0.0	0.5	7.566	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1015.13	1701.47	0.775	1317.54	928.01	3.2	3.3	9.350	A
2 - BNRR	1095.00	273.75	1236.58	1328.44	0.824	1093.95	1096.08	4.2	4.5	15.204	C
3 - Site Access	401.00	100.25	2117.67	473.56	0.847	397.76	212.86	3.8	4.6	44.513	E
4 - A29 (s)	1265.00	316.25	492.25	2055.87	0.615	1264.91	2023.19	1.6	1.6	4.551	A
5 - Saltbox	224.00	56.00	1719.18	686.69	0.326	223.96	37.98	0.5	0.5	7.778	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.31	1700.67	0.775	1317.85	928.64	3.3	3.4	9.390	A
2 - BNRR	1095.00	273.75	1236.87	1328.27	0.824	1094.67	1097.30	4.5	4.5	15.327	C
3 - Site Access	401.00	100.25	2118.58	473.08	0.848	399.80	212.96	4.6	4.9	47.044	E
4 - A29 (s)	1265.00	316.25	493.99	2054.70	0.616	1264.97	2024.39	1.6	1.6	4.558	A
5 - Saltbox	224.00	56.00	1720.97	685.73	0.327	223.99	37.99	0.5	0.5	7.796	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.64	1700.45	0.775	1317.93	928.82	3.4	3.4	9.401	A
2 - BNRR	1095.00	273.75	1236.94	1328.22	0.824	1094.84	1097.64	4.5	4.6	15.366	C
3 - Site Access	401.00	100.25	2118.79	472.96	0.848	400.37	212.98	4.9	5.1	47.999	E
4 - A29 (s)	1265.00	316.25	494.47	2054.37	0.616	1264.99	2024.69	1.6	1.6	4.560	A
5 - Saltbox	224.00	56.00	1721.46	685.47	0.327	224.00	38.00	0.5	0.5	7.800	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.78	1700.36	0.775	1317.96	928.89	3.4	3.4	9.407	A
2 - BNRR	1095.00	273.75	1236.96	1328.21	0.824	1094.90	1097.78	4.6	4.6	15.385	C
3 - Site Access	401.00	100.25	2118.88	472.92	0.848	400.61	212.99	5.1	5.2	48.501	E
4 - A29 (s)	1265.00	316.25	494.68	2054.23	0.616	1264.99	2024.82	1.6	1.6	4.561	A
5 - Saltbox	224.00	56.00	1721.67	685.36	0.327	224.00	38.00	0.5	0.5	7.802	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (n)	1318.00	329.50	1016.85	1700.31	0.775	1317.97	928.92	3.4	3.4	9.410	A
2 - BNRR	1095.00	273.75	1236.98	1328.20	0.824	1094.94	1097.85	4.6	4.6	15.396	C
3 - Site Access	401.00	100.25	2118.92	472.89	0.848	400.74	212.99	5.2	5.2	48.811	E
4 - A29 (s)	1265.00	316.25	494.78	2054.16	0.616	1265.00	2024.88	1.6	1.6	4.561	A
5 - Saltbox	224.00	56.00	1721.78	685.30	0.327	224.00	38.00	0.5	0.5	7.803	A

Junctions 9											
ARCADY 9 - Roundabout Module											
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2015											
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Filename: Rowan Way 15.09.17 Systra Mitigation.j9

Path: P:\Projects\Hanbury Properties\5130 - Phase 2 Oldlands Farm, Bognor Regis\Traffic\Junction Modelling\BNRR

Report generation date: 17/09/2015 11:19:48

- »(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM
 »(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM
 »(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM
 »(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
	A1 - 2031 DS1+Old (Base+Com+Dev)											
1 - A29(n)	1.1	3.07	0.53	A	13.61	B	3.3	6.11	0.77	A	9.14	A
2 - Steyning Way	0.2	5.24	0.18	A			1.6	18.83	0.61	C		
3 - A29(s)	2.5	7.16	0.72	A			2.0	7.25	0.67	A		
4 - Rowan Way	10.9	32.79	0.92	D			4.4	13.18	0.82	B		
	A1 - 2031 DS2+Old (Base+Com+Dev)											
1 - A29(n)	1.3	3.36	0.57	A	12.73	B	4.6	7.90	0.82	A	12.08	B
2 - Steyning Way	0.2	5.64	0.19	A			2.4	29.17	0.71	D		
3 - A29(s)	2.8	7.97	0.74	A			2.3	8.42	0.70	A		
4 - Rowan Way	9.8	29.57	0.91	D			6.2	17.70	0.86	C		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	Mitigation (Systra)
Location	Rowan Way roundabout
Site number	
Date	09/03/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MJA"wingl
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓
2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B2/B8 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	13.61	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29(n)	A29(n)
2	Steyning Way	Steyning Way
3	A29(s)	A29(s)
4	Rowan Way	Rown Way

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - A29(n)	0.00	99999.00		0.00
2 - Steyning Way	0.00	99999.00		0.00
3 - A29(s)	0.00	99999.00		0.00
4 - Rowan Way	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A29(n)	6.60	10.50	23.5	17.0	74.0	16.0	
2 - Steyning Way	3.50	7.10	9.9	38.1	74.0	20.0	
3 - A29(s)	7.20	7.20	0.0	19.6	74.0	21.0	
4 - Rowan Way	4.00	8.00	12.0	20.0	74.0	20.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29(n)	0.679	2882.344
2 - Steyning Way	0.496	1655.293
3 - A29(s)	0.580	2247.554
4 - Rowan Way	0.522	1860.858

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D1	2031 DS1+Old (Base+Com+Dev)	AM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1344.00	100.000
2 - Steyning Way		FLAT	✓	151.00	100.000
3 - A29(s)		FLAT	✓	1280.00	100.000
4 - Rowan Way		FLAT	✓	1236.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	2.000	42.000	579.000	721.000
	2 - Steyning Way	39.000	0.000	73.000	39.000
	3 - A29(s)	675.000	123.000	155.000	327.000
	4 - Rowan Way	974.000	73.000	189.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.03	0.43	0.54
	2 - Steyning Way	0.26	0.00	0.48	0.26
	3 - A29(s)	0.53	0.10	0.12	0.26
	4 - Rowan Way	0.79	0.06	0.15	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.53	3.07	1.1	A	1344.00	2016.00
2 - Steyning Way	0.18	5.24	0.2	A	151.00	226.50
3 - A29(s)	0.72	7.16	2.5	A	1280.00	1920.00
4 - Rowan Way	0.92	32.79	10.9	D	1236.00	1854.00

Main Results for each time segment

Main results: (07:45-08:00)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	530.74	2521.95	0.533	1339.47	1658.11	0.0	1.1	3.033	A
2 - Steyning Way	151.00	37.75	1635.28	843.73	0.179	150.13	234.93	0.0	0.2	5.184	A
3 - A29(s)	1280.00	320.00	798.12	1784.57	0.717	1270.12	987.30	0.0	2.5	6.871	A
4 - Rowan Way	1236.00	309.00	986.42	1345.72	0.918	1202.43	1081.82	0.0	8.4	21.634	C

Main results: (08:00-08:15)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	538.90	2516.41	0.534	1343.97	1685.97	1.1	1.1	3.069	A
2 - Steyning Way	151.00	37.75	1645.18	838.82	0.180	150.99	237.69	0.2	0.2	5.233	A
3 - A29(s)	1280.00	320.00	800.98	1782.91	0.718	1279.84	995.20	2.5	2.5	7.151	A
4 - Rowan Way	1236.00	309.00	993.88	1341.82	0.921	1230.99	1086.94	8.4	9.6	29.980	D

Main results: (08:15-08:30)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.52	2515.99	0.534	1343.99	1688.23	1.1	1.1	3.071	A
2 - Steyning Way	151.00	37.75	1645.65	838.59	0.180	151.00	237.86	0.2	0.2	5.235	A
3 - A29(s)	1280.00	320.00	800.99	1782.90	0.718	1279.95	995.65	2.5	2.5	7.154	A
4 - Rowan Way	1236.00	309.00	993.96	1341.78	0.921	1233.79	1086.98	9.6	10.2	31.459	D

Main results: (08:30-08:45)

Am	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.73	2515.85	0.534	1344.00	1688.99	1.1	1.1	3.071	A
2 - Steyning Way	151.00	37.75	1645.80	838.51	0.180	151.00	237.92	0.2	0.2	5.235	A
3 - A29(s)	1280.00	320.00	801.00	1782.90	0.718	1279.98	995.80	2.5	2.5	7.157	A
4 - Rowan Way	1236.00	309.00	993.98	1341.77	0.921	1234.74	1086.99	10.2	10.5	32.137	D

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.82	2515.78	0.534	1344.00	1689.35	1.1	1.1	3.071	A
2 - Steyning Way	151.00	37.75	1645.87	838.48	0.180	151.00	237.95	0.2	0.2	5.235	A
3 - A29(s)	1280.00	320.00	801.00	1782.89	0.718	1279.99	995.87	2.5	2.5	7.157	A
4 - Rowan Way	1236.00	309.00	993.99	1341.77	0.921	1235.18	1086.99	10.5	10.7	32.530	D

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1344.00	336.00	539.88	2515.75	0.534	1344.00	1689.54	1.1	1.1	3.071	A
2 - Steyning Way	151.00	37.75	1645.91	838.46	0.180	151.00	237.97	0.2	0.2	5.236	A
3 - A29(s)	1280.00	320.00	801.00	1782.89	0.718	1279.99	995.91	2.5	2.5	7.157	A
4 - Rowan Way	1236.00	309.00	993.99	1341.77	0.921	1235.43	1087.00	10.7	10.9	32.789	D

(Default Analysis Set) - 2031 DS1+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	9.14	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D2	2031 DS1+Old (Base+Com+Dev)	PM	Systra DS1 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1974.00	100.000
2 - Steyning Way		FLAT	✓	303.00	100.000
3 - A29(s)		FLAT	✓	1001.00	100.000
4 - Rowan Way		FLAT	✓	1218.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	23.000	832.000	1118.000
	2 - Steyning Way	45.000	0.000	129.000	129.000
	3 - A29(s)	491.000	47.000	125.000	338.000
	4 - Rowan Way	920.000	34.000	264.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.01	0.42	0.57
	2 - Steyning Way	0.15	0.00	0.43	0.43
	3 - A29(s)	0.49	0.05	0.12	0.34
	4 - Rowan Way	0.76	0.03	0.22	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.77	6.11	3.3	A	1974.00	2961.00
2 - Steyning Way	0.61	18.83	1.6	C	303.00	454.50
3 - A29(s)	0.67	7.25	2.0	A	1001.00	1501.50
4 - Rowan Way	0.82	13.18	4.4	B	1218.00	1827.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	464.64	2566.84	0.769	1961.05	1439.89	0.0	3.2	5.825	A
2 - Steyning Way	303.00	75.75	2322.66	502.60	0.603	297.21	103.02	0.0	1.4	17.088	C
3 - A29(s)	1001.00	250.25	1282.34	1503.67	0.666	993.22	1337.54	0.0	1.9	6.951	A
4 - Rowan Way	1218.00	304.50	702.98	1493.74	0.815	1201.55	1572.57	0.0	4.1	11.739	B

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.80	2563.33	0.770	1973.76	1456.34	3.2	3.3	6.100	A
2 - Steyning Way	303.00	75.75	2339.59	494.20	0.613	302.66	103.97	1.4	1.5	18.732	C
3 - A29(s)	1001.00	250.25	1292.67	1497.68	0.668	1000.84	1349.58	1.9	2.0	7.241	A
4 - Rowan Way	1218.00	304.50	708.84	1490.68	0.817	1217.29	1584.66	4.1	4.3	13.085	B

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.93	2563.24	0.770	1973.93	1456.79	3.3	3.3	6.106	A
2 - Steyning Way	303.00	75.75	2339.87	494.06	0.613	302.92	103.99	1.5	1.6	18.804	C
3 - A29(s)	1001.00	250.25	1292.91	1497.54	0.668	1000.96	1349.88	2.0	2.0	7.246	A
4 - Rowan Way	1218.00	304.50	708.96	1490.62	0.817	1217.76	1584.91	4.3	4.3	13.145	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.97	2563.22	0.770	1973.96	1456.89	3.3	3.3	6.106	A
2 - Steyning Way	303.00	75.75	2339.94	494.03	0.613	302.96	104.00	1.6	1.6	18.822	C
3 - A29(s)	1001.00	250.25	1292.96	1497.51	0.668	1000.98	1349.94	2.0	2.0	7.249	A
4 - Rowan Way	1218.00	304.50	708.98	1490.61	0.817	1217.88	1584.96	4.3	4.4	13.166	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.98	2563.21	0.770	1973.98	1456.94	3.3	3.3	6.109	A
2 - Steyning Way	303.00	75.75	2339.96	494.02	0.613	302.98	104.00	1.6	1.6	18.829	C
3 - A29(s)	1001.00	250.25	1292.98	1497.50	0.668	1000.99	1349.97	2.0	2.0	7.249	A
4 - Rowan Way	1218.00	304.50	708.99	1490.60	0.817	1217.93	1584.98	4.4	4.4	13.176	B

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1974.00	493.50	469.99	2563.20	0.770	1973.99	1456.96	3.3	3.3	6.109	A
2 - Steyning Way	303.00	75.75	2339.97	494.01	0.613	302.99	104.00	1.6	1.6	18.833	C
3 - A29(s)	1001.00	250.25	1292.98	1497.49	0.668	1000.99	1349.98	2.0	2.0	7.249	A
4 - Rowan Way	1218.00	304.50	708.99	1490.60	0.817	1217.95	1584.98	4.4	4.4	13.182	B

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	12.73	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D3	2031 DS2+Old (Base+Com+Dev)	AM	Systra DS2 scenario - Oldlands B1/B2 + Oldlands Ph1 + Oldlands Ph2	FLAT	07:45	09:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	1445.00	100.000
2 - Steyning Way		FLAT	✓	150.00	100.000
3 - A29(s)		FLAT	✓	1275.00	100.000
4 - Rowan Way		FLAT	✓	1228.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	2.000	42.000	582.000	819.000
	2 - Steyning Way	38.000	0.000	73.000	39.000
	3 - A29(s)	667.000	123.000	155.000	330.000
	4 - Rowan Way	966.000	73.000	189.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.03	0.40	0.57
	2 - Steyning Way	0.25	0.00	0.49	0.26
	3 - A29(s)	0.52	0.10	0.12	0.26
	4 - Rowan Way	0.79	0.06	0.15	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.57	3.36	1.3	A	1445.00	2167.50
2 - Steyning Way	0.19	5.64	0.2	A	150.00	225.00
3 - A29(s)	0.74	7.97	2.8	A	1275.00	1912.50
4 - Rowan Way	0.91	29.57	9.8	D	1228.00	1842.00

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1445.00	361.25	530.99	2521.78	0.573	1439.68	1642.59	0.0	1.3	3.311	A
2 - Steyning Way	150.00	37.50	1735.72	793.89	0.189	149.08	234.95	0.0	0.2	5.575	A
3 - A29(s)	1275.00	318.75	894.50	1728.65	0.738	1264.12	990.30	0.0	2.7	7.583	A
4 - Rowan Way	1228.00	307.00	976.69	1350.80	0.909	1196.89	1181.93	0.0	7.8	20.437	C

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1445.00	361.25	539.07	2516.30	0.574	1444.96	1669.62	1.3	1.3	3.359	A
2 - Steyning Way	150.00	37.50	1746.29	788.64	0.190	149.99	237.73	0.2	0.2	5.636	A
3 - A29(s)	1275.00	318.75	897.97	1726.64	0.738	1274.79	998.31	2.7	2.8	7.958	A
4 - Rowan Way	1228.00	307.00	984.84	1346.54	0.912	1223.84	1187.92	7.8	8.8	27.538	D

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1445.00	361.25	539.61	2515.93	0.574	1444.99	1671.58	1.3	1.3	3.360	A
2 - Steyning Way	150.00	37.50	1746.71	788.44	0.190	150.00	237.89	0.2	0.2	5.638	A
3 - A29(s)	1275.00	318.75	897.99	1726.63	0.738	1274.93	998.72	2.8	2.8	7.964	A
4 - Rowan Way	1228.00	307.00	984.95	1346.49	0.912	1226.25	1187.98	8.8	9.3	28.646	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1445.00	361.25	539.78	2515.81	0.574	1444.99	1672.21	1.3	1.3	3.361	A
2 - Steyning Way	150.00	37.50	1746.84	788.37	0.190	150.00	237.94	0.2	0.2	5.638	A
3 - A29(s)	1275.00	318.75	898.00	1726.63	0.738	1274.97	998.84	2.8	2.8	7.967	A
4 - Rowan Way	1228.00	307.00	984.98	1346.47	0.912	1227.02	1187.99	9.3	9.5	29.127	D

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1445.00	361.25	539.86	2515.76	0.574	1445.00	1672.50	1.3	1.3	3.361	A
2 - Steyning Way	150.00	37.50	1746.90	788.34	0.190	150.00	237.96	0.2	0.2	5.639	A
3 - A29(s)	1275.00	318.75	898.00	1726.63	0.738	1274.98	998.90	2.8	2.8	7.967	A
4 - Rowan Way	1228.00	307.00	984.99	1346.47	0.912	1227.38	1187.99	9.5	9.7	29.401	D

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	1445.00	361.25	539.90	2515.73	0.574	1445.00	1672.65	1.3	1.3	3.361	A
2 - Steyning Way	150.00	37.50	1746.93	788.33	0.190	150.00	237.97	0.2	0.2	5.639	A
3 - A29(s)	1275.00	318.75	898.00	1726.63	0.738	1274.99	998.93	2.8	2.8	7.969	A
4 - Rowan Way	1228.00	307.00	984.99	1346.47	0.912	1227.57	1188.00	9.7	9.8	29.574	D

(Default Analysis Set) - 2031 DS2+Old (Base+Com+Dev), PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	12.08	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D4	2031 DS2+Old (Base+Com+Dev)	PM	Systra DS2 scenario - Oldlands B2/B8 + Oldlands Ph1 + Oldlands Ph2	FLAT	16:45	18:15	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	PCU Factors	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A29(n)		FLAT	✓	2101.00	100.000
2 - Steyning Way		FLAT	✓	303.00	100.000
3 - A29(s)		FLAT	✓	994.00	100.000
4 - Rowan Way		FLAT	✓	1292.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	23.000	828.000	1249.000
	2 - Steyning Way	45.000	0.000	129.000	129.000
	3 - A29(s)	484.000	47.000	125.000	338.000
	4 - Rowan Way	984.000	34.000	274.000	0.000

Proportions

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0.00	0.01	0.39	0.59
	2 - Steyning Way	0.15	0.00	0.43	0.43
	3 - A29(s)	0.49	0.05	0.13	0.34
	4 - Rowan Way	0.76	0.03	0.21	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	0	0	0	0
	2 - Steyning Way	0	0	0	0
	3 - A29(s)	0	0	0	0
	4 - Rowan Way	0	0	0	0

Average PCU Per Veh

	To				
		1 - A29 (n)	2 - Steyning Way	3 - A29 (s)	4 - Rowan Way
From	1 - A29(n)	1.000	1.000	1.000	1.000
	2 - Steyning Way	1.000	1.000	1.000	1.000
	3 - A29(s)	1.000	1.000	1.000	1.000
	4 - Rowan Way	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29(n)	0.82	7.90	4.6	A	2101.00	3151.50
2 - Steyning Way	0.71	29.17	2.4	D	303.00	454.50
3 - A29(s)	0.70	8.42	2.3	A	994.00	1491.00
4 - Rowan Way	0.86	17.70	6.2	C	1292.00	1938.00

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	473.16	2561.05	0.820	2083.55	1491.50	0.0	4.4	7.294	A
2 - Steyning Way	303.00	75.75	2453.90	437.47	0.693	294.74	102.80	0.0	2.1	24.028	C
3 - A29(s)	994.00	248.50	1408.87	1430.27	0.695	985.15	1339.77	0.0	2.2	7.938	A
4 - Rowan Way	1292.00	323.00	694.92	1497.95	0.863	1269.74	1699.10	0.0	5.6	14.601	B

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.59	2556.68	0.822	2100.48	1512.56	4.4	4.5	7.869	A
2 - Steyning Way	303.00	75.75	2476.13	426.44	0.711	302.08	103.94	2.1	2.3	28.573	D
3 - A29(s)	994.00	248.50	1423.17	1421.98	0.699	993.74	1355.05	2.2	2.3	8.396	A
4 - Rowan Way	1292.00	323.00	701.69	1494.41	0.865	1290.46	1715.21	5.6	5.9	17.348	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.85	2556.50	0.822	2100.83	1513.50	4.5	4.5	7.889	A
2 - Steyning Way	303.00	75.75	2476.71	426.15	0.711	302.75	103.98	2.3	2.4	28.977	D
3 - A29(s)	994.00	248.50	1423.76	1421.63	0.699	993.93	1355.70	2.3	2.3	8.411	A
4 - Rowan Way	1292.00	323.00	701.92	1494.30	0.865	1291.44	1715.77	5.9	6.1	17.560	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.93	2556.46	0.822	2100.92	1513.75	4.5	4.6	7.894	A
2 - Steyning Way	303.00	75.75	2476.85	426.08	0.711	302.88	103.99	2.4	2.4	29.088	D
3 - A29(s)	994.00	248.50	1423.88	1421.56	0.699	993.97	1355.85	2.3	2.3	8.416	A
4 - Rowan Way	1292.00	323.00	701.96	1494.27	0.865	1291.71	1715.89	6.1	6.2	17.637	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.95	2556.44	0.822	2100.95	1513.85	4.6	4.6	7.898	A
2 - Steyning Way	303.00	75.75	2476.91	426.05	0.711	302.93	103.99	2.4	2.4	29.138	D
3 - A29(s)	994.00	248.50	1423.93	1421.53	0.699	993.98	1355.91	2.3	2.3	8.418	A
4 - Rowan Way	1292.00	323.00	701.98	1494.26	0.865	1291.82	1715.94	6.2	6.2	17.676	C

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29(n)	2101.00	525.25	479.97	2556.43	0.822	2100.97	1513.90	4.6	4.6	7.899	A
2 - Steyning Way	303.00	75.75	2476.94	426.04	0.711	302.96	104.00	2.4	2.4	29.167	D
3 - A29(s)	994.00	248.50	1423.96	1421.52	0.699	993.99	1355.94	2.3	2.3	8.418	A
4 - Rowan Way	1292.00	323.00	701.99	1494.26	0.865	1291.88	1715.96	6.2	6.2	17.701	C

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