

ANSTY GARDEN COMMUNITY,

WEST SUSSEX

DESIGNERS RESPONSE

REPORT REF NO. 2207280-R30

PROJECT NO. 2207280

MAY 2025

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Document Control Sheet

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Draft for M&S Approval	SG	JS	Draft	05/02/2025
-	2 nd draft for WSCC Agreement	DH	KM	DH	02/05/2025
-	Final	DH	JS 	DH 	14/05/2025

Distribution

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1.0 INTRODUCTION

- 1.1 Ardent Consulting Engineers (ACE) has been appointed by Fairfax Acquisitions Ltd to advise on the transport aspects of the proposed development at Land Adjoining Ansty, West Sussex.
- 1.2 The proposed development comprises a residential-led, mixed-use development comprising up to 1,450 homes, a local centre, two schools and other community uses such as sports pitches.
- 1.3 This report addresses matters originally raised in the Stage 1 Road Safety Audit (RSA) undertaken by M & S Traffic (M&S), dated January 2025. The Audit is attached at **Appendix A**.
- 1.4 The Audit was undertaken on the proposed A272 Northern Access roundabout junction, which is located on the northern boundary of the proposed development site. The works involve the construction of a new roundabout junction with pedestrian/cycle infrastructure improvements to include new crossing facilities.
- 1.5 In advance of submission of this Designers' Response to WSCC as the overseeing organisation, a draft was issued to M&S in order to seek their feedback on the proposed responses and obtain their in-principle approval. The responses incorporated within this Designers Response incorporate M&S recommendations/acceptance as attached at **Appendix B**.
- 1.6 The Arcady outputs for the roundabout are provided at **Appendix C**.
- 1.7 The following drawing have been prepared to incorporate the findings of the RSA:
- **ACE Drawing 2207280-016C** – Proposed Mitigation Works
Tylers Green Roundabout

2.0 DESIGNERS RESPONSE TO STAGE 1 ROAD SAFETY AUDIT**Table 2.1 Project Details**

Report title:	Designers Response to Stage 1 Road Safety Audit – Tylers Green Roundabout
Date:	May 2025
Document reference and revision:	2207280-R30
Prepared by:	Ardent Consulting Engineers
On behalf of:	Fairfax Acquisitions Ltd

Table 2.2 Authorisation Sheet

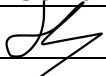

Project:	Ansty Garden Community
Report title:	Designers Response to Stage 1 Road Safety Audit – Tylers Green Roundabout, Haywards Heath
Prepared by	
Name:	Jamie Symington
Position:	Senior Transport Planner
Signed:	
Organisation:	Ardent Consulting Engineers
Date:	14/05/2025
Approved by	
Name:	David Howson
Position:	Associate Director
Signed:	
Organisation:	Ardent Consulting Engineers
Date:	14/05/2025

Table 2.3 Key Personnel

Overseeing Organisation:	WSCC Highways– Mr S. Gee
RSA team:	M&S - Mr B. Shawyer & Mr M. Morris
Design organisation:	Ardent – Mr D. Vallance, Mr K. Markey, Mr D. Howson & Mr J. Symington

Table 2.4 Road Safety Audit Decision Log

RSA problem	RSA recommendation	Design Organisation response	Overseeing Organisation response	Agreed RSA action
<p>3.1.1 Inappropriate surfacing could lead to overshoot collisions or rear end shunts.</p> <p>Kerblines are proposed to be altered, where the proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) to be used on the approaches to the roundabout. Surfacing with an insufficient PSV could lead to overshoot or rear end shunt collisions. Further, vehicles approaching the roundabout may be straddling two different surface types and may experience differential braking, which under sudden severe braking conditions could lead to loss of control collisions.</p>	<p>It is recommended high friction surfacing or surfacing with a high PSV be provided on all the approaches to the roundabout.</p>	<p>Details of PSV values and surfacing materials will be provided for Stage 2 Audit.</p>	<p>High friction surfacing should be provided and details of PSV values to be provided at detailed design stage.</p>	<p>High friction surfacing to be provided and details of PSV values to be provided at detailed design stage.</p>

<p>3.1.2 Surface water on carriageway could lead to loss of control collisions.</p> <p>Kerblines are proposed to be altered, where at this early stage no details of the drainage proposals or carriageway profiles have been provided for assessment. Low or flat areas may cause ponding of surface water. This could be detrimental to road safety and could lead to loss of control collisions.</p>	<p>It is recommended drainage details, cross sections and vertical profiles should be provided at Safety Audit Stage 2.</p>	<p>Agree. Drainage details, cross sections and vertical profiles will be provided for Stage 2 Audit.</p>	<p>Drainage details to be provided at detailed design.</p>	<p>Drainage details to be provided at detailed design.</p>
<p>3.2.1 Lack of forward visibility may increase the risk of junction related or shunt type collisions at the roundabout.</p> <p>Stopping Sight Distances have been provided for assessment, where there is concern that the forward visibility splay on the east and westbound approaches pass over non-highway land. Vegetation or trees in these splays could restrict visibility, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.</p>	<p>It is recommended that the forward visibility splays be within the adoptable highway, or that a suitable covenant be arranged to ensure that the splay is not obstructed by vegetation.</p>	<p>Agree. Visibility splays are within highway land, as denoted by the yellow shading. Vegetation will be maintained within the visibility splay to ensure vegetation does not obstruct splay.</p>	<p>Visibility splays to be provided within Highway Land and maintained to ensure vegetation does not obstruct the visibility splays.</p>	<p>Visibility splays to be suitably maintained and kept clear.</p>

<p>3.2.2 Length of right turn lane could increase the risk of rear end shunts or side swipe collisions.</p> <p>On the eastbound approach to the roundabout there is a short right turn lane, where predicted movements are unknown. Should the number of vehicles exceed the length of the proposed right turn lane, this could lead to queuing vehicles straddling the offside straight-ahead lane. This could increase the risk of rear end shunts, or sudden lane changes into the nearside straight-ahead lane and side swipe collisions.</p>	<p>It is recommended that length of the right turn lane be comparable with predicted turning movements.</p>	<p>Disagree. As shown on ACE Drawing 2207280-016C, both lane 2 and lane 3 can be utilised by vehicles turning right.</p> <p>In the future year scenario 474 vehicles would turn right and 1,042 vehicles would go straight ahead in the AM peak hour, whilst 356 vehicles would turn right and 731 vehicles would go straight ahead in the PM peak hour.</p> <p>As such, use of the right turn lane is comparable to the lower use of the right turn, whilst the arrangements shown will help comparative use of lanes to be appropriately more equal to reflect demand and ensure efficient operation of the roundabout and approach lanes.</p>	<p>Right turning vehicles will be able to utilise both the middle and right hand lanes. When the length of the both opportunities are compared to those afforded to straight ahead vehicles (left and middle lanes) the provision would appear appropriate.</p>	<p>No further action at this stage.</p>
<p>3.3.1 Insufficient capacity may lead to rear end shunts or side impact collisions.</p> <p>Modelling results were provided for assessment, where Arms 1 has an RFC value of 0.85 or more in 2039. Excessive queuing at</p>	<p>It is recommended that the roundabout should operate without excessive queuing or that an alternative junction arrangement be considered.</p>	<p>Disagree. The roundabout offers improved capacity compared to the existing arrangement.</p> <p>Traffic is dynamic, people will alter their travel behaviours to avoid delay, either by rerouting, or staggering travel times.</p>	<p>The modelling results would indicate junction offers a suitable level of mitigation when compared to the do nothing scenario.</p>	<p>No further action at this stage.</p>

<p>the roundabout could lead to driver frustration and the use of inappropriate gaps, which may lead to rear end shunts or side impact collisions. However, it is recognised that the proposed mitigation works improve the capacity of the roundabout from existing.</p>				
<p>3.3.2 Insufficient carriageway space could lead to side swipe collisions or head on collisions.</p> <p>A three-lane circulatory carriageway is proposed at the roundabout; however, no swept path information has been provided for assessment. Insufficient carriageway space may lead to vehicles entering adjacent running lanes which could increase the risk of side swipe collisions.</p>	<p>It is recommended that swept paths be provided for assessment.</p>	<p>Agree. ACE Drawing 2207280-D016C shows the vehicle tracking for the roundabout.</p> <p>A 16.5m Artic can manoeuvre through the junction without encroachment on the adjacent lane(s) when on the roundabout for all left (1st exit) turns through the junction. For right turns (2nd exit) there is similar encroachment as is currently seen at the junction and so no significant change in overrun for what does make up only a small (4% AM peak hour and 1% PM peak hour) of turning movements through the junction.</p> <p>It should be further noted that where encroachment into the adjacent lane is required for HGVs, that this takes place where there are x2 lane of traffic using a total</p>	<p>Swept path tracking has been provided for all moves at the junction. The tracking show that a max length HGV would encroach in adjoining lanes.</p> <p>The encroachment would be similar to the existing junction layout.</p>	<p>No further action at this stage.</p>

		<p>of x3 lanes of road space, meaning there is appropriate space for overrun to take place when on the junction. Where there are only x2 lanes being used by x2 streams of traffic, there is no encroachment required at all.</p> <p>Circulatory lane widths are drawn to the standard 1-1.2 x the entry width in accordance with DMRB guidance.</p>		
<p>3.3.3 High entry path radius may increase the risk of loss of control or junction related collisions on the roundabout.</p> <p>The northbound approach (Issacs Lane) to the roundabout has a proposed entry path radius (EPR) of 141.74m, though it is recognised that this is an improvement on the existing EPR of 203.68m. This may lead to high entry speeds from this direction, consequently increasing the risk of loss of control type collisions from the south, or junction fail to give way type collisions with vehicles that have entered from the Issacs Lane.</p>	<p>It is recommended that entry path radius is checked with current design standards and adjusted if necessary.</p>	<p>Disagree. Land ownership constraints are such that the ability to alter the approach geometry of the southern arm to reduce the entry path radius to below 100m is hindered.</p> <p>The proposed arrangements are an improvement on the existing arrangements where the current entry path radius is 203m but the proposed design accommodates a 141m entry path radius.</p> <p>As such, this is an acceptable junction design since it offers an improvement over the current design.</p>	<p>The entry path radius is an improvement on the existing junction layout. A Departure from Standard form should be submitted for consideration.</p>	<p>Departure from Standard form has been completed and issued to WSCC.</p>


<p>3.3.4 Junction arrangement could increase the risk of rear end shunts or side impact collisions.</p> <p>On the westbound exit from the roundabout there is a merge from two lanes to one that is located at the Tylers Green junction with Tylers Green spur road. Vehicle movements at the junction are likely to be low and there is concern that westbound traffic will not be expecting a vehicle waiting to turn right, which could increase the risk of rear end shunts. Similarly, westbound traffic may not expect traffic to emerge from this junction and undertake a right turn manoeuvre, particularly as there is a nearby roundabout that should ease turning movements. This could increase the risk of side impact collisions.</p>	<p>It is recommended that the junction be a left in / left out arrangement.</p>	<p>Disagree. Vehicles exiting the roundabout will be travelling at low speeds, leading to an increased reaction distance and so potential for rear end shunts is negligible.</p> <p>Any right turning queuing vehicle will be queuing against vehicles queuing at the roundabout entrance where there is just one lane of traffic. It is prevalent for queuing vehicles to allow vehicles to cross into a side junction when their own path is queuing.</p> <p>Furthermore, the additional time taken to u-turn should a left in/left out be proposed would likely lead to some drivers turning right in/out which in itself would be a safety concern and there would be limited opportunity to enforce the left in/out arrangements.</p>	<p>The number of movements would be very low and no recorded accidents are detailed with the existing all moves arrangement from the side road.</p> <p>Vehicles are unlikely to travel to the nearest roundabout to the west to U turn and could undertake inappropriate movements in driveways of number of properties with direct access to the A272 between the roundabouts.</p>	<p>No amendments to the design necessary. No further action at this stage.</p>

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Table 2.5 Design Organisation Statement

On behalf of the design organisation I certify that:	
1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.	
Name:	David Howson
Signed	<i>DH</i>
Position:	Associate Director
Organisation:	Ardent Consulting Engineers
Date:	14/05/2025

Table 2.6 Overseeing Organisation Statement

On behalf of the Overseeing Organisation I certify that:	
1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and	
2) the agreed RSA actions will be progressed.	
Name:	Stephen Gee
Signed:	
Position:	Principal Transport Planner
Organisation:	West Sussex County Council Highways
Date:	14/05/2025

Drawings

SEE DRAWING 2207280-SK05 & SK05.1 FOR CYCLE ROUTE IMPROVEMENT PLAN

ARCADY GEOMETRY:	(ARM 1) B2272 BUTLERS GREEN RD	(ARM 2) ISAACS LANE	(ARM 3) A272 TYLERS GREEN
APPROACH ROAD HALF WIDTH	3.61m	6.80m	4.30m
ENTRY WIDTH	10.50m	9.00m	9.00m
EFFECTIVE FLARE LENGTH	22.30m	17.30m	4.40m
ENTRY RADIUS	40.00m	20.00m	20.00m
INSCRIBED CIRCLE DIAMETER	50.00m	50.00m	50.00m
CONFLICT ANGLE	37.80°	45.50m	45.70°

NOTES:
 ROUNDABOUT DESIGNED WITH REFERENCE TO CD116 AND SUBJECT TO STAGE 1 RSA, DETAIL DESIGN AND HIGHWAY AUTHORITY APPROVAL.
 VISIBILITY SPLAYS SUBJECT TO VERTICAL CHECKS AND BASED ON POSTED SPEEDS OF 30mph & 40mph

- KEY:**
- HIGHWAY BOUNDARY TRANSCRIBED FROM WSCC RECORDS
 - DEFLECTION
 - EXISTING DEFLECTION
 - 90m FORWARD VISIBILITY TO GIVE WAY LINE (30mph)
 - 120m FORWARD VISIBILITY TO GIVE WAY LINE (40mph)
 - PROPOSED KERB
 - PROPOSED FOOT/CYCLEWAY
 - EXISTING ROAD MARKINGS
 - PROPOSED ROAD MARKINGS

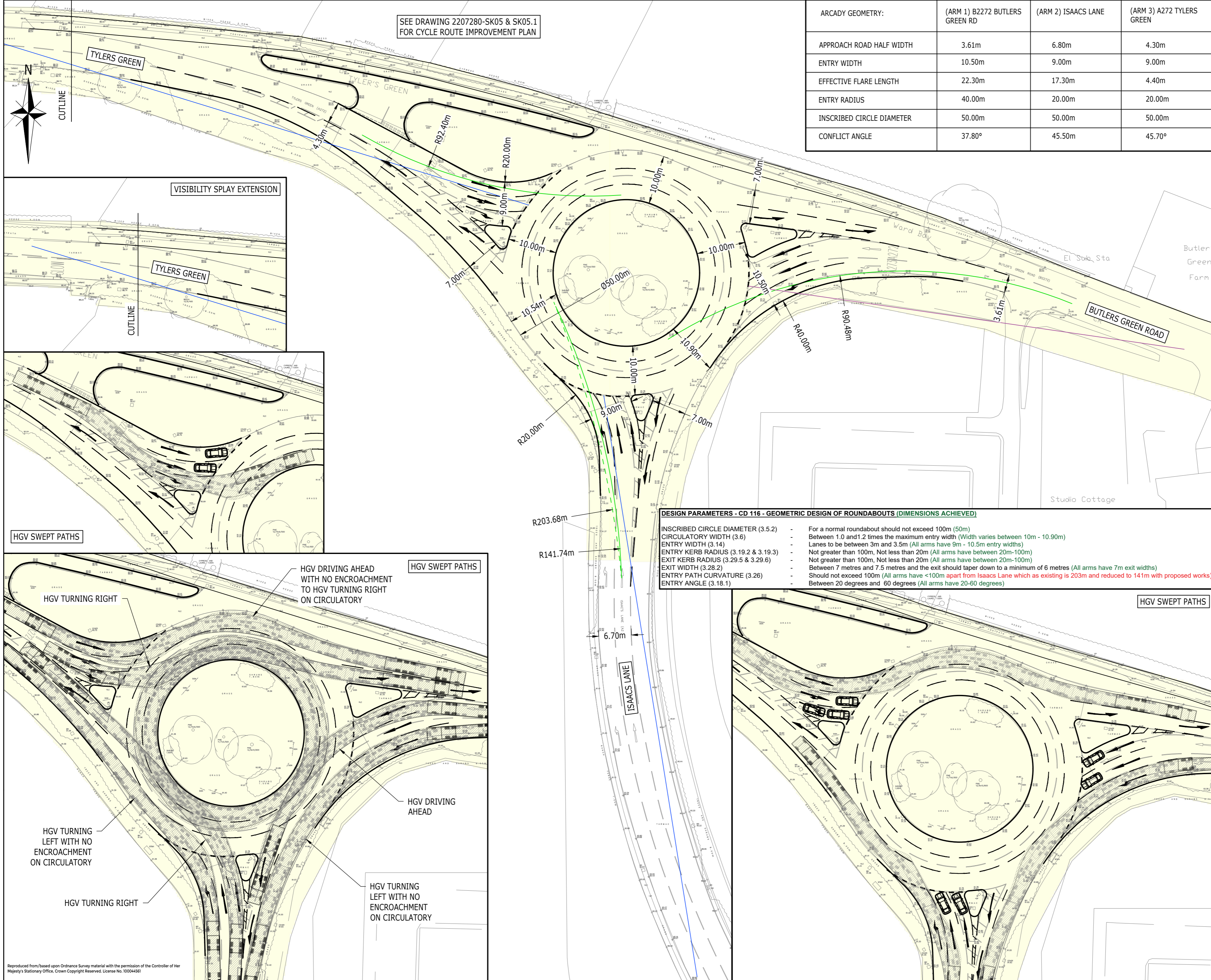
VEHICLE SPECIFICATION:

Max Legal Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.500m
Overall Body Height	3.532m
Min Body Ground Clearance	0.396m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.870m

DESIGN PARAMETERS - CD 116 - GEOMETRIC DESIGN OF ROUNDABOUTS (DIMENSIONS ACHIEVED)

INSCRIBED CIRCLE DIAMETER (3.5.2)	• For a normal roundabout should not exceed 100m (50m)
CIRCULATORY WIDTH (3.6)	• Between 1.0 and 1.2 times the maximum entry width (Width varies between 10m - 10.90m)
ENTRY WIDTH (3.14)	• Lanes to be between 3m and 3.5m (All arms have 9m - 10.5m entry widths)
ENTRY KERB RADIUS (3.19.2 & 3.19.3)	• Not greater than 100m, Not less than 20m (All arms have between 20m-100m)
EXIT KERB RADIUS (3.29.5 & 3.29.6)	• Not greater than 100m, Not less than 20m (All arms have between 20m-100m)
EXIT WIDTH (3.28.2)	• Between 7 metres and 7.5 metres and the exit should taper down to a minimum of 6 metres (All arms have 7m exit widths)
ENTRY PATH CURVATURE (3.26)	• Should not exceed 100m (All arms have <100m apart from Isaacs Lane which as existing is 203m and reduced to 141m with proposed works)
ENTRY ANGLE (3.18.1)	• Between 20 degrees and 60 degrees (All arms have 20-60 degrees)



DRAFT

C	UPDATED FOLLOWING WSCC COMMENTS 25.04.25	DV	DV	DH	12-05-25
B	WHITE LINING AMENDED	SC	JS	DH	11-02-25
A	ADDITION OF VEHICLE TRACKING	DV	JS	DH	09-01-25
Rev	Description	Drn	Chk	App	Date

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SSIP
 SAFETY SCHEDULED INDEPENDENT PROVIDER

Client: **FAIRFAX ACQUISITIONS LTD**

Project Title: **LAND AT ANSTY FARM, MID SUSSEX**

Drawing Title: **PROPOSED MITIGATION WORKS TYLERS GREEN ROUNDABOUT**

A2 Scale	Date	Designed by
1:500	25.11.24	DV
Drawn by	Checked by	Approved by
DV	DV	DH
Drawing Number	2207280-016	
		Rev C

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Appendices

Appendix A



M & S Traffic

Road Safety Audit Stage 1

Land at Ansty Farm, Mid Sussex

Tylers Green Roundabout

Tylers Green

Haywards Heath

West Sussex

Date: January 2025

Report produced for: **Ardent Consulting Engineers**


Report produced by: M & S Traffic

DOCUMENT CONTROL SHEET

M&S Traffic has prepared this report in accordance with the instructions from Ardent Consulting Engineers. M&S Traffic shall not be liable for the use of any information contained herein for any purpose other than the sole and specific use for which it was prepared.

Report Title:	Land At Ansty Farm, Mid Sussex (Tylers Green Roundabout) Road Safety Audit Stage 1
Document reference:	ARD/25/2207280/TYL/1/BS
Prepared by:	M & S Traffic
On behalf of:	West Sussex County Council

Record of Issue

Revision	Prepared by: (Name)	Checked by: (Name)	Approved by (Signature)	Date Approved
1	Bryan Shawyer	Martin Morris		29 th January 2025

Distribution

Organisation	Contact	Copies
Ardent Consulting Engineers	Jamie Symington	-
Ardent Consulting Engineers	David Howson	-
Ardent Consulting Engineers	Kevin Markey	-

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Appendix A..... List of drawings

Appendix B..... Comment location drawing

1 INTRODUCTION

1.1 This report describes a Stage 1 Road Safety Audit carried out on proposed access arrangements associated with a development known as 'Land at Ansty Farm, Mid Sussex', Ansty, as below:

- Proposed mitigation works at Tylers Green Roundabout at the Tylers Green junction with Issacs Lane and Butlers Green Road, Haywards Heath.

The Audit was requested by the design organisation, Ardent Consulting Engineers, Unit 2.2a, Temple Studios, Temple Gate, Bristol BS1 6QA, on behalf of West Sussex County Council as the Overseeing Organisation.

1.2 The Audit Team membership was as follows:

Bryan Shawyer B.Eng. (Hons), MSc, MCIHT, MSoRSA – Audit Team Leader
National Highways Approved RSA Certificate of Competency (July 2012)

Martin Morris, PGD, MCIHT, MSoRSA – Audit Team Member
National Highways Approved RSA Certificate of Competency (April 2012)

1.3 The audit was undertaken following the principles of GG119, The Design Manual for Roads and Bridges. The documents available at the time of the report are detailed in Appendix A.

1.4 The Audit took place at the Gillingham offices of M&S Traffic during January 2025 and comprised an examination of the documents provided as listed in Appendix A. A joint site visit and inspection was undertaken on the 28th January 2025 between 13:00 and 17:00 hours. Weather conditions at the time were fine and the road surfaces were damp. Traffic flows were high and free flow speeds were moderate. There low pedestrian flow and no cyclists' movements observed.

1.5 The report has been compiled, only with regards to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any "Technical Check function on these proposals. It is assumed that the Project Sponsor is satisfied that such a Technical Check" has been successfully completed prior to requesting this safety audit.

1.6 The auditors have not been informed of any Departures from Standards in this scheme construction.

1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief, Appendix B.

2 ITEMS RAISED BY PREVIOUS AUDITS

2.1 No previous safety audits were submitted for assessment.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 PROBLEM

Location: Approaches to the roundabout.

Summary: Inappropriate surfacing could lead to overshoot collisions or rear end shunts.

Kerblines are proposed to be altered, where the proposals do not include the introduction of anti-skid surfacing or detail the Polished Stone Value (PSV) to be used on the approaches to the roundabout. Surfacing with an insufficient PSV could lead to overshoot or rear end shunt collisions. Further, vehicles approaching the roundabout may be straddling two different surface types and may experience differential braking, which under sudden severe braking conditions could lead to loss of control collisions.

RECOMMENDATION

It is recommended high friction surfacing or surfacing with a high PSV be provided on all the approaches to the roundabout.

3.1.2 PROBLEM

Location: Approaches to the roundabout.

Summary: Surface water on carriageway could lead to loss of control collisions.

Kerblines are proposed to be altered, where at this early stage no details of the drainage proposals or carriageway profiles have been provided for assessment. Low or flat areas may cause ponding of surface water. This could be detrimental to road safety and could lead to loss of control collisions.

RECOMMENDATION

It is recommended drainage details, cross sections and vertical profiles should be provided at Safety Audit Stage 2.

3.2 Local Alignment

3.2.1 PROBLEM

Location: East and westbound approaches to roundabout.

Summary: Lack of forward visibility may increase the risk of junction related or shunt type collisions at the roundabout.

Stopping Sight Distances have been provided for assessment, where there is concern that the forward visibility splay on the east and westbound approaches pass over non-highway land. Vegetation or trees in these splays could restrict visibility, where insufficient visibility may increase the risk of junction related or shunt type collisions at the roundabout.

RECOMMENDATION

It is recommended that the forward visibility splays be within the adoptable highway, or that a suitable covenant be arranged to ensure that the splay is not obstructed by vegetation.

3.2.2 PROBLEM

Location: Eastbound approach to roundabout.

Summary: Length of right turn lane could increase the risk of rear end shunts or side swipe collisions.

On the eastbound approach to the roundabout there is a short right turn lane, where predicted movements are unknown. Should the number of vehicles exceed the length of the proposed right turn lane, this could lead to queuing vehicles straddling the offside straight-ahead lane. This could increase the risk of rear end shunts, or sudden lane changes into the nearside straight-ahead lane and side swipe collisions.

RECOMMENDATION

It is recommended that length of the right turn lane be comparable with predicted turning movements.

3.3 **Junctions**

3.3.1 **PROBLEM**

Location: Proposed roundabout.

Summary: Insufficient capacity may lead to rear end shunts or side impact collisions.

Modelling results were provided for assessment, where Arms 1 has an RFC value of 0.85 or more in 2039. Excessive queuing at the roundabout could lead to driver frustration and the use of inappropriate gaps, which may lead to rear end shunts or side impact collisions. However, it is recognised that the proposed mitigation works improve the capacity of the roundabout from existing.

RECOMMENDATION

It is recommended that the roundabout should operate without excessive queuing or that an alternative junction arrangement be considered.

3.3.2 **PROBLEM**

Location: Proposed roundabout.

Summary: Insufficient carriageway space could lead to side swipe collisions or head on collisions.

A three-lane circulatory carriageway is proposed at the roundabout; however, no swept path information has been provided for assessment. Insufficient carriageway space may lead to vehicles entering adjacent running lanes which could increase the risk of side swipe collisions.

RECOMMENDATION

It is recommended that swept paths be provided for assessment.

3.3.3 **PROBLEM**

Location: Northbound approach to roundabout.

Summary: High entry path radius may increase the risk of loss of control or junction related collisions on the roundabout.

The northbound approach (Issacs Lane) to the roundabout has a proposed entry path radius (EPR) of 141.74m, though it is recognised that this is an improvement on the existing EPR of 203.68m. This may lead to high entry speeds from this direction, consequently increasing the risk of loss of control type collisions from the south, or junction fail to give way type collisions with vehicles that have entered from the Issacs Lane.

RECOMMENDATION

It is recommended that entry path radius is checked with current design standards and adjusted if necessary.

3.3.4 PROBLEM

Location: Tylers Green junction with Tylers Green spur road.

Summary: Junction arrangement could increase the risk of rear end shunts or side impact collisions.

On the westbound exit from the roundabout there is a merge from two lanes to one that is located at the Tylers Green junction with Tylers Green spur road. Vehicle movements at the junction are likely to be low and there is concern that westbound traffic will not be expecting a vehicle waiting to turn right, which could increase the risk of rear end shunts. Similarly, westbound traffic may not expect traffic to emerge from this junction and undertake a right turn manoeuvre, particularly as there is a nearby roundabout that should ease turning movements. This could increase the risk of side impact collisions.

RECOMMENDATION

It is recommended that the junction be a left in / left out arrangement.

3.4 Non-Motorised User (NMU) Provision

3.4.1 No Problems were identified in this category at this Stage 1 Road Safety Audit.

3.5 Road Signs, Carriageway Markings and Lighting

3.5.1 No Problems were identified in this category at this Stage 1 Road Safety Audit.

4 ISSUES IDENTIFIED DURING THE ROAD SAFETY AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

4.1 Safety issues identified during the audit and site inspection that are outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in this section. It is to be understood that, in raising these issues, the Audit Team in no way warrant that a full review of the highway environment has been undertaken beyond that necessary to undertake the Audit as commissioned.

4.2 The Audit Team had no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out following the principles of GG 119.

Audit Team Leader

Bryan Shawyer
BEng (Hons), MSc, MCIHT, MSoRSA
National Highways Approved RSA Certificate of Competency

Signed:  Date: 29/01/2025

Audit Team Member

Martin Morris
PGD, MCIHT, MSoRSA
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Signed:  Date: 29/01/2025

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APPENDIX A

List of Drawings and other information submitted for auditing:

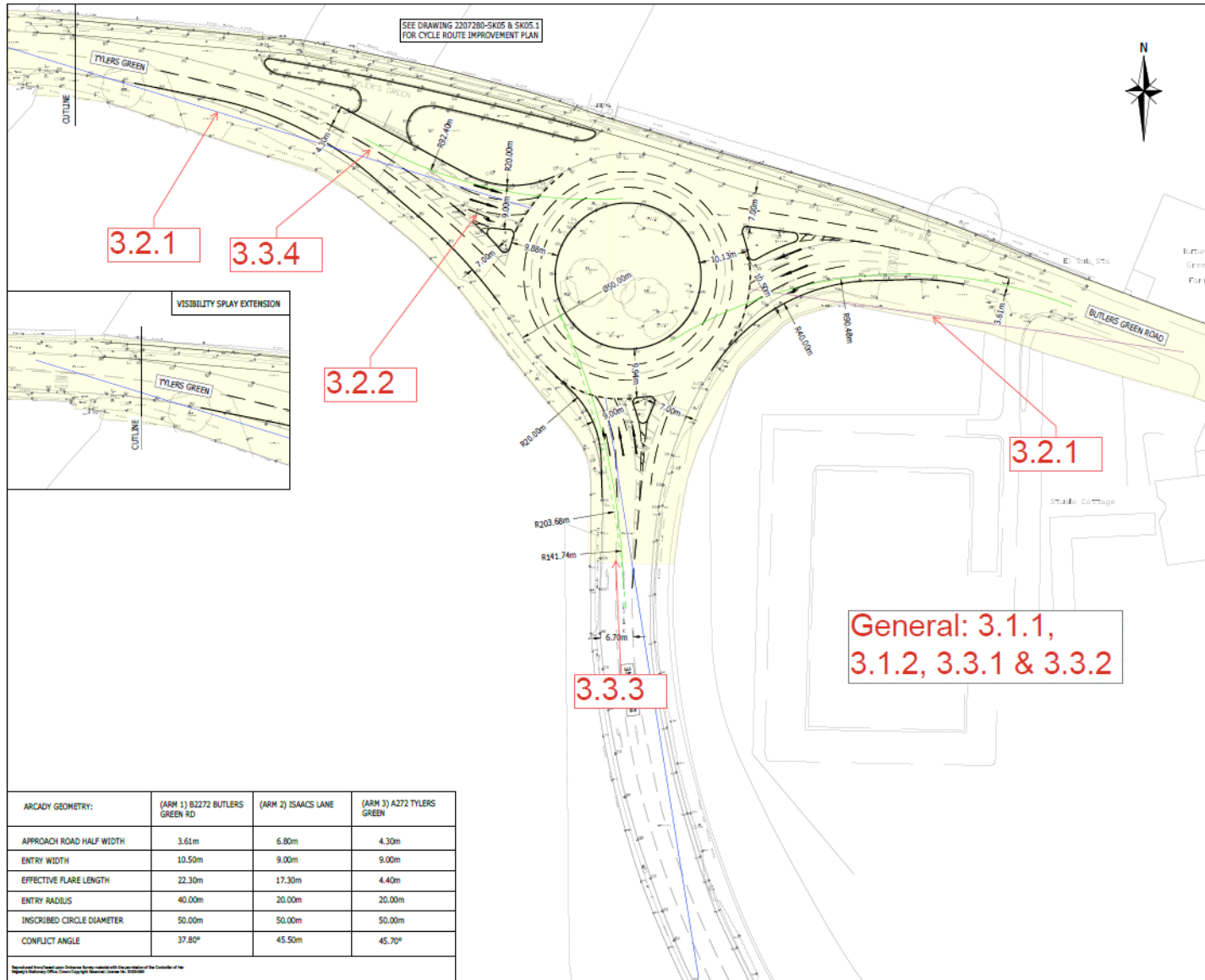
Drawing Number	Title
2207280-016	PROPOSED MITIGATION WORKS TYLERS GREEN ROUNDABOUT

Supporting documentation:

- ARCADY run, Existing Geometries, Ardent Consulting Engineers, November 2024.
- ARCADY run, Mitigation, Ardent Consulting Engineers, November 2024.
- Covering emails, Ardent Consulting Engineers.

APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).



NOTES:

ROUNDABOUT DESIGNED WITH REFERENCE TO CD116 AND SUBJECT TO STAGE 1 RSA, DETAIL DESIGN AND HIGHWAY AUTHORITY APPROVAL.

VISIBILITY SPLAYS SUBJECT TO VERTICAL CHECKS AND BASED ON POSTED SPEEDS OF 30mph & 40mph

KEY:

- HIGHWAY BOUNDARY TRANSCRIBED FROM WSCC RECORDS
- DEFLECTION
- EXISTING DEFLECTION
- 90m FORWARD VISIBILITY TO GIVE WAY LINE (30mph)
- 120m FORWARD VISIBILITY TO GIVE WAY LINE (40mph)
- PROPOSED KERB
- PROPOSED FOOT/CYCLEWAY
- EXISTING ROAD MARKINGS
- PROPOSED ROAD MARKINGS

DRAFT

Rev	Description	Dim	Cha	App	Date	
ARDENT CONSULTING ENGINEERS <small>Third Floor The Indirect Building 22-24 Leadenhall Street London EC3A 5SR Tel: 020 7690 4048 Web: www.ardent-ice.co.uk E-mail: enquiry@ardent-ice.co.uk</small>						
FAIRFAX ACQUISITIONS LTD						
Project Title: LAND AT ANTSY FARM, MID SUSSEX						
Drawing Title: PROPOSED MITIGATION WORKS TYLERS GREEN ROUNDABOUT						
A2 Scale	1:500	Date	25.11.24	Designed by	DV	
Drawn by	DV	Checked by	DV	Approved by	DH	
Drawing Number	2207280-016				Rev	-

ARCADY GEOMETRY:	(ARM 1) B2272 BUTLERS GREEN RD	(ARM 2) ISAACS LANE	(ARM 3) A272 TYLERS GREEN
APPROACH ROAD HALF WIDTH	3.61m	6.80m	4.30m
ENTRY WIDTH	10.50m	9.00m	9.00m
EFFECTIVE FLARE LENGTH	22.30m	17.30m	4.40m
ENTRY RADIUS	40.00m	20.00m	20.00m
INSCRIBED CIRCLE DIAMETER	50.00m	50.00m	50.00m
CONFLICT ANGLE	37.80°	45.50m	45.70°

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Appendix B

Jamie Symington

From: bryan.shawyer <bryan.shawyer@mstraffic.co.uk>
Sent: 11 February 2025 14:12
To: David Howson
Cc: Jamie Symington; martin.morris
Subject: RE: Ansty RSA1 - DR - Tylers Green roundabout

EXTERNAL EMAIL: Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Hi David,

Thank you for your email below, we comment as below, as there appears to be no specific location to respond in the report:

3.1.1 – Noted and accepted.
3.1.1 – Noted and accepted.
3.2.1 – Noted and accepted.
3.2.2 – Noted and accepted.
3.3.1 – Noted and accepted.
3.3.2 – Noted and accepted.
3.3.3 – Noted.
3.3.4 – Noted.

Kind regards

Bryan

Bryan Shawyer
Director

M&S Traffic Ltd
Aeolus House, 32 Hamelin Road, Gillingham, Kent ME7 3EX

M: 07891 596289 T: 01634 307498

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From: David Howson <dhowson@ardent-ce.co.uk>
Sent: 11 February 2025 11:03
To: bryan.shawyer <bryan.shawyer@mstraffic.co.uk>; martin.morris <martin.morris@mstraffic.co.uk>
Cc: Jamie Symington <jsymington@ardent-ce.co.uk>
Subject: Ansty RSA1 - DR - Tylers Green roundabout

Hi Bryan,

Thanks again for the RSA1 of the Tylers Green roundabout improvements.

Please find attached our draft Designer's Response for your review.

Kind regards
David

David Howson
Associate Director

ARDENT

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T | 01473 407321 **E** | dhowson@ardent-ce.co.uk

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Appendix C

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
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: Jct H - Tylers Green Roundabout.j10
Path: Y:\ARDENT PROJECTS\2207280 - Land at Ansty Farm, Mid Sussex\Transport\ARCADY
Report generation date: 26/11/2024 13:42:15

- »2019 Baseline, AM
- »2019 Baseline, PM
- »2039 Do Minimum, AM
- »2039 Do Minimum, PM

Summary of junction performance

	AM			PM		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2019 Baseline						
1 - B2272 Butler's Green Road	1.0	3.96	0.50	1.7	5.40	0.62
2 - A272 Isaac's Lane (S)	2.2	6.30	0.69	0.8	3.62	0.46
3 - A272 Tylers Green (NW)	3.9	14.00	0.80	2.7	8.97	0.74
2039 Do Minimum						
1 - B2272 Butler's Green Road	1.9	5.61	0.66	74.8	121.10	1.07
2 - A272 Isaac's Lane (S)	6.0	14.71	0.86	0.9	4.25	0.47
3 - A272 Tylers Green (NW)	362.7	1031.38	1.51	3.4	10.76	0.78

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

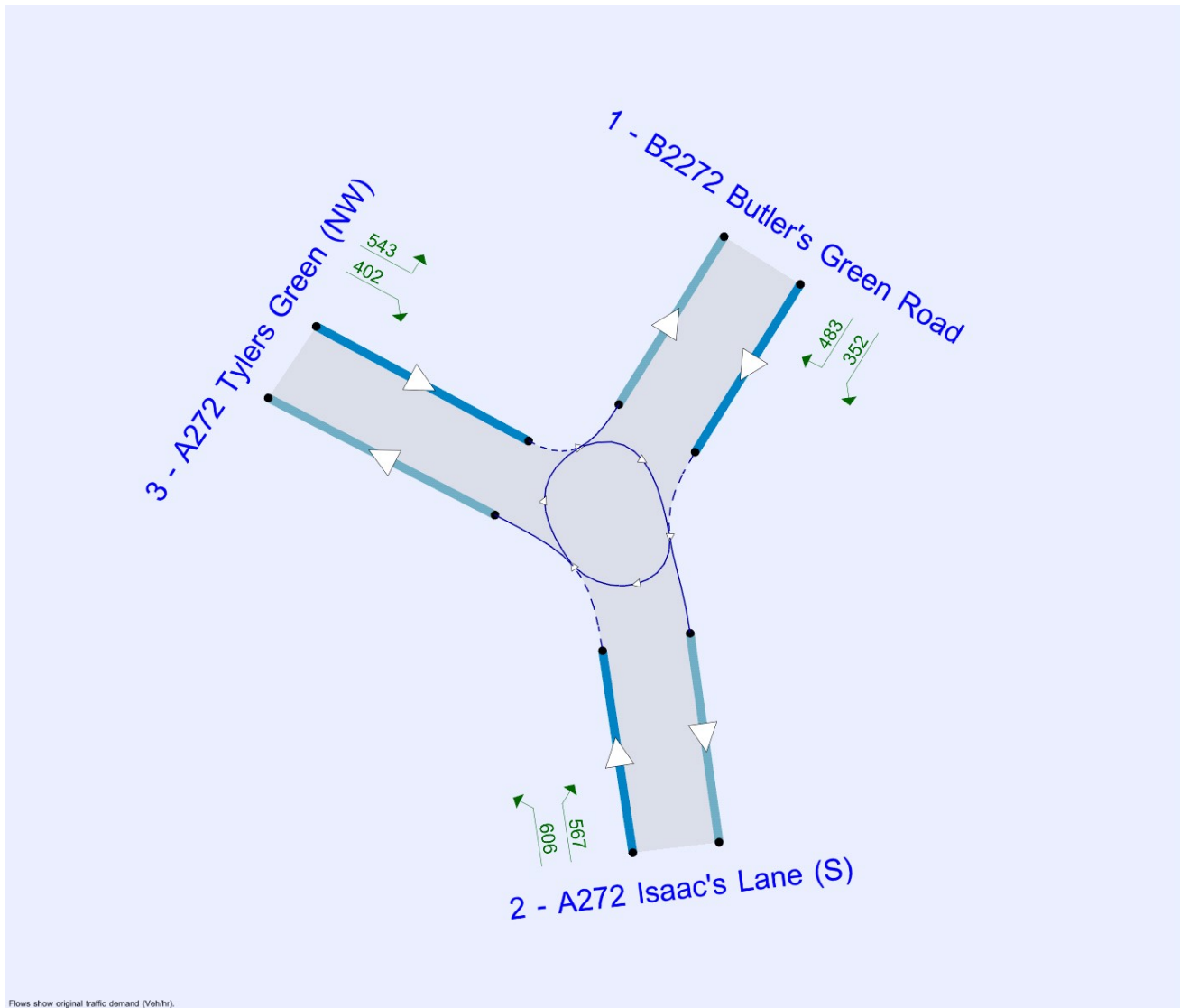
File summary

File Description

Title	A272 / B2272 Roundabout
Location	
Site number	
Date	06/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ARDENTCE\jsymington
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D3	2039 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D4	2039 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tylers Green Roundabout	Standard Roundabout		1, 2, 3	8.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.18	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B2272 Butler's Green Road		
2	A272 Isaac's Lane (S)		
3	A272 Tylers Green (NW)		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
1 - B2272 Butler's Green Road	4.00	8.00	24.9	31.0	50.0	12.0		
2 - A272 Isaac's Lane (S)	6.80	7.80	11.8	36.0	50.0	38.0		
3 - A272 Tylers Green (NW)	3.50	7.30	23.7	20.0	50.0	42.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B2272 Butler's Green Road	0.721	2173
2 - A272 Isaac's Lane (S)	0.718	2285
3 - A272 Tylers Green (NW)	0.605	1746

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - B2272 Butler's Green Road		ONE HOUR	✓	835	100.000
2 - A272 Isaac's Lane (S)		ONE HOUR	✓	1173	100.000
3 - A272 Tylers Green (NW)		ONE HOUR	✓	945	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	352	483
	2 - A272 Isaac's Lane (S)	567	0	606
	3 - A272 Tylers Green (NW)	543	402	0

Vehicle Mix

HV %s

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	0	1
	2 - A272 Isaac's Lane (S)	2	0	2
	3 - A272 Tylers Green (NW)	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2272 Butler's Green Road	0.50	3.96	1.0	A	766	1149
2 - A272 Isaac's Lane (S)	0.69	6.30	2.2	A	1076	1615
3 - A272 Tylers Green (NW)	0.80	14.00	3.9	B	867	1301

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	629	157	301	1934	0.325	627	832	0.0	0.5	2.750	A
2 - A272 Isaac's Lane (S)	883	221	363	1983	0.445	880	565	0.0	0.8	3.255	A
3 - A272 Tylers Green (NW)	711	178	425	1412	0.504	707	817	0.0	1.0	5.078	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	751	188	360	1889	0.397	750	996	0.5	0.7	3.158	A
2 - A272 Isaac's Lane (S)	1055	264	434	1932	0.546	1053	676	0.8	1.2	4.088	A
3 - A272 Tylers Green (NW)	850	212	509	1363	0.623	847	978	1.0	1.6	6.941	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	919	230	439	1830	0.502	918	1215	0.7	1.0	3.941	A
2 - A272 Isaac's Lane (S)	1291	323	531	1863	0.693	1287	826	1.2	2.2	6.211	A
3 - A272 Tylers Green (NW)	1040	260	622	1297	0.802	1032	1196	1.6	3.8	13.180	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	919	230	442	1828	0.503	919	1222	1.0	1.0	3.963	A
2 - A272 Isaac's Lane (S)	1291	323	532	1862	0.694	1291	830	2.2	2.2	6.303	A
3 - A272 Tylers Green (NW)	1040	260	624	1295	0.803	1040	1199	3.8	3.9	14.005	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	751	188	365	1886	0.398	752	1005	1.0	0.7	3.178	A
2 - A272 Isaac's Lane (S)	1055	264	435	1931	0.546	1059	682	2.2	1.2	4.146	A
3 - A272 Tylers Green (NW)	850	212	512	1362	0.624	858	982	3.9	1.7	7.275	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	629	157	304	1932	0.325	629	838	0.7	0.5	2.764	A
2 - A272 Isaac's Lane (S)	883	221	364	1981	0.446	885	569	1.2	0.8	3.286	A
3 - A272 Tylers Green (NW)	711	178	428	1411	0.504	714	821	1.7	1.0	5.184	A

2019 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tylers Green Roundabout	Standard Roundabout		1, 2, 3	6.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.21	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - B2272 Butler's Green Road		ONE HOUR	✓	1009	100.000
2 - A272 Isaac's Lane (S)		ONE HOUR	✓	761	100.000
3 - A272 Tylers Green (NW)		ONE HOUR	✓	1016	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	468	541
	2 - A272 Isaac's Lane (S)	317	0	444
	3 - A272 Tylers Green (NW)	535	481	0

Vehicle Mix

HV %s

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	0	1
	2 - A272 Isaac's Lane (S)	0	0	2
	3 - A272 Tylers Green (NW)	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2272 Butler's Green Road	0.62	5.40	1.7	A	926	1389
2 - A272 Isaac's Lane (S)	0.46	3.62	0.8	A	698	1047
3 - A272 Tylers Green (NW)	0.74	8.97	2.7	A	932	1398

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	760	190	360	1901	0.400	757	639	0.0	0.7	3.142	A
2 - A272 Isaac's Lane (S)	573	143	406	1968	0.291	571	711	0.0	0.4	2.576	A
3 - A272 Tylers Green (NW)	765	191	238	1586	0.482	761	739	0.0	0.9	4.347	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	907	227	432	1849	0.491	906	765	0.7	1.0	3.812	A
2 - A272 Isaac's Lane (S)	684	171	486	1911	0.358	684	852	0.4	0.6	2.932	A
3 - A272 Tylers Green (NW)	913	228	285	1558	0.586	911	885	0.9	1.4	5.553	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1111	278	527	1780	0.624	1108	935	1.0	1.6	5.340	A
2 - A272 Isaac's Lane (S)	838	209	594	1833	0.457	837	1041	0.6	0.8	3.611	A
3 - A272 Tylers Green (NW)	1119	280	349	1519	0.736	1113	1082	1.4	2.7	8.754	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1111	278	530	1778	0.625	1111	938	1.6	1.7	5.396	A
2 - A272 Isaac's Lane (S)	838	209	596	1832	0.457	838	1045	0.8	0.8	3.620	A
3 - A272 Tylers Green (NW)	1119	280	349	1519	0.736	1118	1084	2.7	2.7	8.971	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	907	227	435	1847	0.491	910	769	1.7	1.0	3.853	A
2 - A272 Isaac's Lane (S)	684	171	488	1909	0.358	685	857	0.8	0.6	2.945	A
3 - A272 Tylers Green (NW)	913	228	285	1557	0.587	919	888	2.7	1.4	5.682	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	760	190	363	1899	0.400	761	643	1.0	0.7	3.169	A
2 - A272 Isaac's Lane (S)	573	143	408	1966	0.291	574	716	0.6	0.4	2.587	A
3 - A272 Tylers Green (NW)	765	191	239	1585	0.483	767	743	1.4	0.9	4.411	A

2039 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tylers Green Roundabout	Standard Roundabout		1, 2, 3	398.92	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	398.92	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2039 Do Minimum	AM	ONE HOUR	07:45	09:15	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - B2272 Butler's Green Road		ONE HOUR	✓	1123	100.000
2 - A272 Isaac's Lane (S)		ONE HOUR	✓	1382	100.000
3 - A272 Tylers Green (NW)		ONE HOUR	✓	1500	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	526	597
	2 - A272 Isaac's Lane (S)	877	0	505
	3 - A272 Tylers Green (NW)	1051	449	0

Vehicle Mix

HV %s

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	3	2
	2 - A272 Isaac's Lane (S)	2	0	3
	3 - A272 Tylers Green (NW)	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2272 Butler's Green Road	0.66	5.61	1.9	A	1030	1546
2 - A272 Isaac's Lane (S)	0.86	14.71	6.0	B	1268	1902
3 - A272 Tylers Green (NW)	1.51	1031.38	362.7	F	1376	2065

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	845	211	330	1877	0.451	842	1431	0.0	0.8	3.470	A
2 - A272 Isaac's Lane (S)	1040	260	448	1912	0.544	1036	725	0.0	1.2	4.086	A
3 - A272 Tylers Green (NW)	1129	282	657	1276	0.885	1104	826	0.0	6.4	18.754	C

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1010	252	355	1858	0.543	1008	1618	0.8	1.2	4.227	A
2 - A272 Isaac's Lane (S)	1242	311	536	1849	0.672	1239	827	1.2	2.0	5.871	A
3 - A272 Tylers Green (NW)	1348	337	786	1200	1.124	1186	989	6.4	46.9	93.397	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1236	309	329	1878	0.659	1234	1727	1.2	1.9	5.566	A
2 - A272 Isaac's Lane (S)	1522	380	656	1763	0.863	1507	907	2.0	5.7	13.340	B
3 - A272 Tylers Green (NW)	1652	413	956	1100	1.501	1100	1206	46.9	184.8	386.658	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1236	309	328	1879	0.658	1236	1732	1.9	1.9	5.605	A
2 - A272 Isaac's Lane (S)	1522	380	657	1762	0.863	1520	907	5.7	6.0	14.712	B
3 - A272 Tylers Green (NW)	1652	413	965	1095	1.508	1095	1213	184.8	323.9	806.357	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1010	252	357	1857	0.544	1012	1634	1.9	1.2	4.278	A
2 - A272 Isaac's Lane (S)	1242	311	538	1847	0.673	1258	831	6.0	2.1	6.261	A
3 - A272 Tylers Green (NW)	1348	337	798	1193	1.130	1193	998	323.9	362.7	1031.381	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	845	211	380	1840	0.459	847	1552	1.2	0.9	3.628	A
2 - A272 Isaac's Lane (S)	1040	260	450	1910	0.545	1044	777	2.1	1.2	4.172	A
3 - A272 Tylers Green (NW)	1129	282	663	1273	0.887	1269	832	362.7	327.7	979.176	F

2039 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tylers Green Roundabout	Standard Roundabout		1, 2, 3	65.57	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	65.57	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2039 Do Minimum	PM	ONE HOUR	16:45	18:15	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - B2272 Butler's Green Road		ONE HOUR	✓	1800	100.000
2 - A272 Isaac's Lane (S)		ONE HOUR	✓	694	100.000
3 - A272 Tylers Green (NW)		ONE HOUR	✓	1044	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	928	872
	2 - A272 Isaac's Lane (S)	372	0	322
	3 - A272 Tylers Green (NW)	676	368	0

Vehicle Mix

HV %s

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	1	1
	2 - A272 Isaac's Lane (S)	0	0	3
	3 - A272 Tylers Green (NW)	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2272 Butler's Green Road	1.07	121.10	74.8	F	1652	2478
2 - A272 Isaac's Lane (S)	0.47	4.25	0.9	A	637	955
3 - A272 Tylers Green (NW)	0.78	10.76	3.4	B	958	1437

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1355	339	276	1953	0.694	1346	786	0.0	2.2	5.852	A
2 - A272 Isaac's Lane (S)	522	131	652	1787	0.292	521	970	0.0	0.4	2.838	A
3 - A272 Tylers Green (NW)	786	196	279	1561	0.504	782	894	0.0	1.0	4.599	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1618	405	330	1914	0.846	1607	940	2.2	5.1	11.325	B
2 - A272 Isaac's Lane (S)	624	156	778	1697	0.368	623	1158	0.4	0.6	3.350	A
3 - A272 Tylers Green (NW)	939	235	334	1528	0.614	936	1068	1.0	1.6	6.059	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1982	495	403	1861	1.065	1831	1149	5.1	42.7	56.355	F
2 - A272 Isaac's Lane (S)	764	191	887	1619	0.472	763	1347	0.6	0.9	4.196	A
3 - A272 Tylers Green (NW)	1149	287	409	1483	0.775	1143	1241	1.6	3.3	10.362	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1982	495	405	1860	1.066	1854	1154	42.7	74.8	121.097	F
2 - A272 Isaac's Lane (S)	764	191	898	1612	0.474	764	1361	0.9	0.9	4.247	A
3 - A272 Tylers Green (NW)	1149	287	410	1483	0.775	1149	1253	3.3	3.4	10.757	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1618	405	333	1911	0.847	1884	947	74.8	8.3	83.805	F
2 - A272 Isaac's Lane (S)	624	156	913	1601	0.390	625	1305	0.9	0.6	3.693	A
3 - A272 Tylers Green (NW)	939	235	335	1528	0.614	945	1203	3.4	1.6	6.257	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B2272 Butler's Green Road	1355	339	278	1951	0.695	1379	791	8.3	2.3	6.549	A
2 - A272 Isaac's Lane (S)	522	131	668	1776	0.294	523	989	0.6	0.4	2.875	A
3 - A272 Tylers Green (NW)	786	196	281	1560	0.504	788	911	1.6	1.0	4.679	A

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
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Filename: Jct H - Tylers Green Roundabout (Mitigation).j10
Path: Y:\ARDENT PROJECTS\2207280 - Land at Ansty Farm, Mid Sussex\Transport\ARCADY
Report generation date: 26/11/2024 13:43:56

- »2039 Do Something, AM
- »2039 Do Something, PM

Summary of junction performance

	AM			PM		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2039 Do Something						
1 - B2272 Butler's Green Road	2.7	7.81	0.73	75.1	122.55	1.07
2 - A272 Isaac's Lane (S)	4.7	11.22	0.83	0.9	3.86	0.46
3 - A272 Tylers Green (NW)	1.2	8.73	0.56	0.4	3.97	0.30

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle.

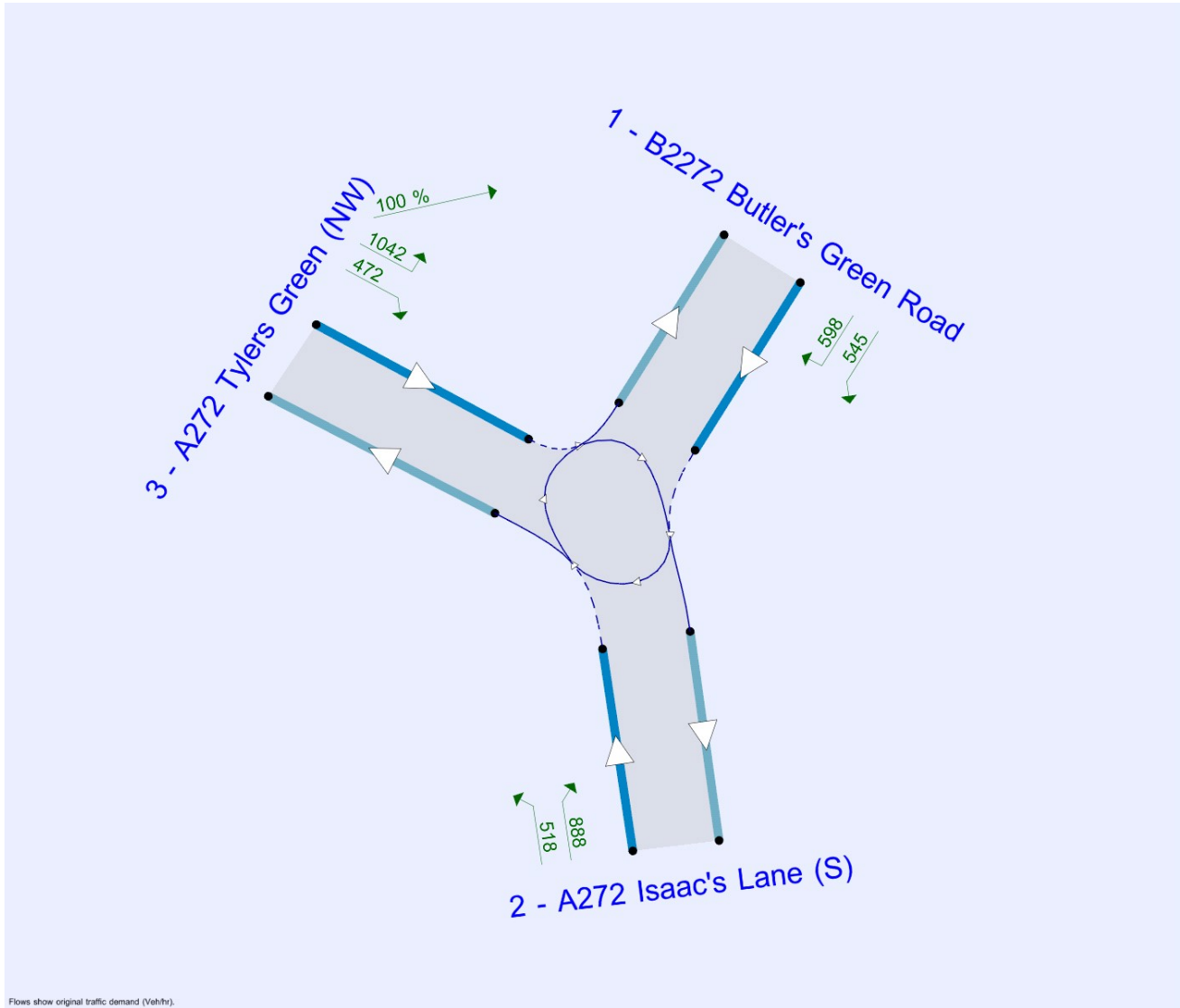
File summary

File Description

Title	A272 / B2272 Roundabout
Location	
Site number	
Date	06/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ARDENTCE\jsymington
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2039 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D6	2039 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2039 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tylers Green Roundabout	Standard Roundabout		1, 2, 3	9.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.33	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B2272 Butler's Green Road		
2	A272 Isaac's Lane (S)		
3	A272 Tylers Green (NW)		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
1 - B2272 Butler's Green Road	3.61	10.50	22.3	40.0	50.0	37.8		
2 - A272 Isaac's Lane (S)	6.80	9.00	17.3	20.0	50.0	45.5		
3 - A272 Tylers Green (NW)	4.30	9.00	4.4	20.0	50.0	45.7		

Bypass

Arm	Arm has bypass	Bypass Util (%)
1 - B2272 Butler's Green Road		
2 - A272 Isaac's Lane (S)		
3 - A272 Tylers Green (NW)	✓	100

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B2272 Butler's Green Road	0.691	2138
2 - A272 Isaac's Lane (S)	0.725	2398
3 - A272 Tylers Green (NW)	0.563	1539

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2039 Do Something	AM	ONE HOUR	07:45	09:15	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - B2272 Butler's Green Road		ONE HOUR	✓	1143	100.000
2 - A272 Isaac's Lane (S)		ONE HOUR	✓	1406	100.000
3 - A272 Tylers Green (NW)		ONE HOUR	✓	1514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	545	598
	2 - A272 Isaac's Lane (S)	888	0	518
	3 - A272 Tylers Green (NW)	1042	472	0

Vehicle Mix

HV %s

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	3	2
	2 - A272 Isaac's Lane (S)	2	0	3
	3 - A272 Tylers Green (NW)	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2272 Butler's Green Road	0.73	7.81	2.7	A	1049	1573
2 - A272 Isaac's Lane (S)	0.83	11.22	4.7	B	1290	1935
3 - A272 Tylers Green (NW)	0.56	8.73	1.2	A	1389	650

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	861	861	215	0	784	353	1836	0.469	857	666	0.0	0.9	3.66
2 - A272 Isaac's Lane (S)	1059	1059	265	0	0	448	2018	0.525	1054	762	0.0	1.1	3.71
3 - A272 Tylers Green (NW)	1140	355	89	784	0	666	1102	0.322	353	837	0.0	0.5	4.79

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1028	1028	257	0	937	423	1787	0.575	1026	797	0.9	1.3	4.71
2 - A272 Isaac's Lane (S)	1264	1264	316	0	0	537	1954	0.647	1261	913	1.1	1.8	5.17
3 - A272 Tylers Green (NW)	1361	424	106	937	0	797	1031	0.412	423	1001	0.5	0.7	5.91

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1258	1258	315	0	1147	518	1720	0.732	1253	971	1.3	2.6	7.62
2 - A272 Isaac's Lane (S)	1548	1548	387	0	0	656	1868	0.829	1537	1115	1.8	4.5	10.5
3 - A272 Tylers Green (NW)	1667	520	130	1147	0	971	936	0.556	518	1222	0.7	1.2	8.56

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1258	1258	315	0	1147	520	1719	0.732	1258	977	2.6	2.7	7.81
2 - A272 Isaac's Lane (S)	1548	1548	387	0	0	658	1866	0.829	1547	1120	4.5	4.7	11.2
3 - A272 Tylers Green (NW)	1667	520	130	1147	0	977	932	0.558	520	1228	1.2	1.2	8.72

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1028	1028	257	0	937	426	1785	0.576	1033	805	2.7	1.4	4.82
2 - A272 Isaac's Lane (S)	1264	1264	316	0	0	540	1952	0.648	1275	919	4.7	1.9	5.40
3 - A272 Tylers Green (NW)	1361	424	106	937	0	805	1026	0.414	426	1010	1.2	0.7	6.02

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	861	861	215	0	784	356	1834	0.469	862	670	1.4	0.9	3.71
2 - A272 Isaac's Lane (S)	1059	1059	265	0	0	451	2016	0.525	1062	768	1.9	1.1	3.78
3 - A272 Tylers Green (NW)	1140	355	89	784	0	670	1100	0.323	356	842	0.7	0.5	4.84

2039 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tylers Green Roundabout	Standard Roundabout		1, 2, 3	62.64	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	62.64	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2039 Do Something	PM	ONE HOUR	16:45	18:15	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	Av. Demand (Veh/hr)	Scaling Factor (%)
1 - B2272 Butler's Green Road		ONE HOUR	✓	1788	100.000
2 - A272 Isaac's Lane (S)		ONE HOUR	✓	734	100.000
3 - A272 Tylers Green (NW)		ONE HOUR	✓	1087	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	950	838
	2 - A272 Isaac's Lane (S)	369	0	365
	3 - A272 Tylers Green (NW)	731	356	0

Vehicle Mix

HV %s

		To		
		1 - B2272 Butler's Green Road	2 - A272 Isaac's Lane (S)	3 - A272 Tylers Green (NW)
From	1 - B2272 Butler's Green Road	0	1	1
	2 - A272 Isaac's Lane (S)	0	0	3
	3 - A272 Tylers Green (NW)	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	Av. Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B2272 Butler's Green Road	1.07	122.55	75.1	F	1641	2461
2 - A272 Isaac's Lane (S)	0.46	3.86	0.9	A	674	1010
3 - A272 Tylers Green (NW)	0.30	3.97	0.4	A	997	490

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1346	1346	337	0	550	267	1932	0.697	1337	277	0.0	2.2	5.96
2 - A272 Isaac's Lane (S)	553	553	138	0	0	627	1910	0.289	551	977	0.0	0.4	2.64
3 - A272 Tylers Green (NW)	818	268	67	550	0	277	1370	0.196	267	901	0.0	0.2	3.26

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1607	1607	402	0	657	320	1896	0.848	1596	331	2.2	5.1	11.5
2 - A272 Isaac's Lane (S)	660	660	165	0	0	748	1823	0.362	659	1168	0.4	0.6	3.09
3 - A272 Tylers Green (NW)	977	320	80	657	0	331	1339	0.239	320	1076	0.2	0.3	3.53

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1969	1969	492	0	805	391	1846	1.066	1817	406	5.1	43.0	57.1
2 - A272 Isaac's Lane (S)	808	808	202	0	0	852	1748	0.462	807	1357	0.6	0.9	3.82
3 - A272 Tylers Green (NW)	1197	392	98	805	0	406	1298	0.302	391	1253	0.3	0.4	3.96

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1969	1969	492	0	805	392	1846	1.066	1840	406	43.0	75.1	122.2
2 - A272 Isaac's Lane (S)	808	808	202	0	0	863	1740	0.464	808	1370	0.9	0.9	3.8
3 - A272 Tylers Green (NW)	1197	392	98	805	0	406	1298	0.302	392	1264	0.4	0.4	3.9

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1607	1607	402	0	657	320	1895	0.848	1872	332	75.1	9.0	86.0
2 - A272 Isaac's Lane (S)	660	660	165	0	0	877	1729	0.382	661	1315	0.9	0.6	3.37
3 - A272 Tylers Green (NW)	977	320	80	657	0	332	1339	0.239	320	1206	0.4	0.3	3.53

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Bypass exit flow (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - B2272 Butler's Green Road	1346	1346	337	0	550	268	1932	0.697	1373	278	9.0	2.4	6.73
2 - A272 Isaac's Lane (S)	553	553	138	0	0	643	1898	0.291	553	998	0.6	0.4	2.68
3 - A272 Tylers Green (NW)	818	268	67	550	0	278	1369	0.196	268	919	0.3	0.2	3.27

