CD 2.02

AUGUST 2017

Transport Response

Dover Road, Walmer, Kent

ICENI PROJECTS LIMITED ON BEHALF OF GLADMAN DEVELOPMENTS

Iceni Projects Limited on behalf
of Gladman Developments

August 2017

Iceni Projects Ltd
Flitcroft House 114-116 Charing Cross Rd, London WC2H 0JR
T 020 3640 8508 **F** 020 3435 4228 **W** iceniprojects.com

Transport Response
DOVER ROAD, WALMER, KENT

THIS PAGE IS INTENTIONALLY LEFT BLANK

CONTENTS

APPENDICES

1. RESPONSE TO 13TH JULY 2017 HIGHWAY COMMENTS

GENERAL COMMENTS

Comment 1

Manual for Streets Table 10.1 indicates the use of higher values for reaction time and deceleration rate where speeds are in excess of 60kph (approx. 37 mph). The visibility to the north of the access would therefore need to be greater than 67 metres. I note that 90 metres is available and it appears this may be sufficient but I would ask you to confirm this.

1.1 90 metres is achievable in both directions.

Comment 2

It appears a refuse vehicle turning right out of the access will overrun and overhang the proposed island and associated waiting point for pedestrians in the existing footway, so the island or access point will presumably need to be relocated to resolve this. The swept path diagram is also not based on the proposed highway layout including the footway widening.

1.2 At the time of writing the Transport Assessment (TA), a 4 axle refuse truck was used to track entering and exiting the site, with only a small amount of body overhang. However, it was established that from the permitted development on Station Road that a 9.8 metre 3 axle refuse truck was used, the relevant sketch from the TA of the application DOV/14/00361 is shown in **Appendix A1**. As this scheme access and internal layout has been approved at the planning committee there is the precedent to use this vehicle for our assessment. Re-tracking of the access has been conducted using the approved vehicle with the drawing demonstrating the vehicle is able to manoeuvre in and out of the site with the proposed widening of the footway on the north side of Dover Road to 1.8 metres. **Appendix A2** of this note shows that the 9.8 metre refuse truck is acceptable and shows no overhang on the pedestrian island.

Comment 3

The proposed realignment of the carriageway still does not provide a uniform and smooth transition, particularly in the northern section. It appears it may be possible to retain the existing island (which would be preferable), albeit relocated to maintain existing lane widths, and realign the eastern kerbline to a greater extent further to the north and through

the site frontage. It should be noted that the existing lane widths should be maintained in this initial realignment and 3.5 metre running lanes should be provided through the right turn lane junction. Where there is no footway a minimum 0.5 metre margin is required between the realigned carriageway and adjacent boundaries. Plans at 1:200 scale with dimensions of the altered sections of highway should be submitted (swept path drawings should also be submitted at 1:200 scale).

1.3 The right turn lane and pedestrian refuge island will act as a traffic calming feature in its own right, and has been relocated to the south. The island will provide the same speed calming effect as the existing traffic island. Given the request for the increase of the footway to 1.8 metres along the western side of Dover Road, it is not possible to provide this on the eastern side of Dover Road as this land is outside the control of the applicant. To overcome this we have had to reduce the footway width on the western side to 1.2 metres for a localised section of 10 metres, this is an improvement on the existing situation. The existing lane widths have been maintained as existing, at 3 metres wide, as stated in the Kent Design Guidance. Plans have been submitted at 1:200 scale with dimensions, with an updated plan been shown at **Appendix A3**.

Comment 4

The swept path drawing for the existing access between numbers 441 and 443 Dover Road shows a van making the manoeuvres but it is not clear that this is the largest vehicle using this access. Clarification is required on this point as the access appears to lead to agricultural land which may require access for larger vehicles.

1.4 There will be no change between the existing and the proposed access between numbers 441 and 443 Dover Road, which could be used for vehicles. We have re-tracked the access demonstrating that a farm tractor and van can still access. It should be noted that the access between 441 and 443 Dover Road is approximately 14 metres from the proposed new pedestrian crossing. This tracking is shown at **Appendix A2**.

Comment 5

Clarification on the proposed bus stop should be sought from the bus operator and our Public Transport Team. You mention relocation of the stop but it is not clear if this means relocation of the existing southbound stop just to the north of the site, which would not be acceptable as it would leave a gap in the footway from the removed stop to the proposed one. The bus operator may consider that there would be two stops too close together, so may want to relocate the proposed stop further to the south (subject to this being achievable in highway terms). As previously advised the preferred form of the stop should also be discussed with the operator.

1.5 Clarification has been established from Stagecoach that drawing **16-T129_06A** which showed retaining the existing southbound bus stop adjacent to Downlands was a suitable arrangement. The new provision of bus stop 125m south of the existing southbound bus stop along our northern frontage, was subject to an independent road safety audit which deemed the proposal acceptable proposal to Stagecoach. The email attachment outlining this correspondence is shown in **Appendix A4**.

Comment 6

Kent Design indicates a secondary emergency access for over 50 dwellings and this should therefore be discussed with the Fire Service. It appears that one could be provided somewhere along the site frontage, preferably also acting as a pedestrian link if this is appropriate.

1.6 The application is promoting a single point of access which is sufficient for this level of development and there are numerous examples within the County as such precedent is set. The fire service will be a consultee to the application and can respond at that time.

Comment 7

I would repeat that if public transport discounts are being offered as the framework Travel Plan suggests, the nature and value of these discounts should be provided so that they can be secured through a planning consent. Again you should discuss this with Stagecoach and our Public Transport Team.

1.7 A framework Travel Plan was provided as part of the TA, a full Travel Plan will be provided at the reserved matters stage and will be conditioned.

Comment 8

Any amended access proposals will need to be accompanied by a safety audit and designer's response.

1.8 Clarification has been established from Stagecoach that drawing **16-T129_06A**, which showed retaining the existing southbound bus stop adjacent to Downlands and provision of a new bus stop 125m south of the existing southbound bus stop along our northern frontage, was a suitable arrangement. This has been the subject of a Road Safety Audit which deemed the proposals acceptable.

Highways Assessment Comments

Comment 9

It is not clear how the 2022 base and 2022 development figures have been derived. I wish to see additional flow diagrams giving a breakdown of the TEMPRO, committed development and proposed development trips added.

1.9 This data is provided with this note at **Appendix A5**.

Comment 10

The wrong flow figure appears to have been used in the 2022 am development assessment of the site access (B-C movement is 26, not 10).

1.10 This error has been rectified with the revised PICADY assessment attached to this note at **Appendix A6**.

Comment 11

The Dover Road/Station Road junction appears to have been modelled with the flows from the committed development in Station Road but not the associated alterations to the Dover Road junction. The geometry used for the assessment also appears incorrect. However, bearing in mind the small number of movements generated through this junction, a revised assessment is not required.

1.11 Noted.

Comment 12

The Duke of York roundabout assessment appears to use mostly incorrect dimensions. These should be checked and a plan showing the dimensions submitted. The 2017 observed flows assessments appear to use greater demand flows than those provided in the flow diagrams and in the counts, in some cases it appears as many as 30-40 additional movements (for example A-B movement in am peak is shown as 363 on flow diagram but the demand used appears to be 396). Proposals for Whitfield Urban Expansion Phase 2 are now well advanced and the junction should therefore also be modelled with and without the associated trips from this development. The planning permission for Whitfield Urban Expansion Phase 1 (ref: DOV/10/01010) includes a contribution for improvements at the roundabout which essentially provides three arms on the A258 (N) approach and round to the A2 (S) exit (a concept plan is included in the Transport Assessment dated June 2011). This should be included in the future year assessment of the junction. I understand the roundabout dimensions and modelling concepts for this roundabout have been agreed with Highways England for WUE Phase 2 so you may want to check this and then align your modelling accordingly, but I would advise you to discuss this with Highways England. It doesn't appear you have asked HE to comment on your current Highways Assessment document and I would therefore advise that you do, to avoid any subsequent abortive work. Clearly all of the above, particularly the incorrect dimensions and flow numbers, will require re-modelling of the junction.

1.12 The comments above have been noted. However, we were not in possession of the appropriate information as part of the scoping process to allow us to assess the capacity at this junction in its current and future layouts. Firstly, we were not made aware of these works and therefore modelled them as per the existing geometry based on OS mapping. Secondly, Iceni have searched online for an appropriate layout drawing to base an assessment on.

1.13 The Expansion Phase One does include a contribution to layout which is represented by a low quality scanned layout embedded into the body of the report, which is not appropriate to base a modelling assessment on. The Expansion Phase Two report does not include any modelling of this junction based on comments with the report that the development traffic will be accommodated as part of the Phase One contribution layout. Iceni have undertaken a number of investigations on the HE and KCC websites to find a detailed proposal drawing or modelling output but no information was discovered. We can model the proposed junction should a model or accurate drawing be provided.

1.14 That said, the development impact at the Duke of York roundabout is not considered 'severe' and will not be detrimental to the operational capacity of the roundabout.

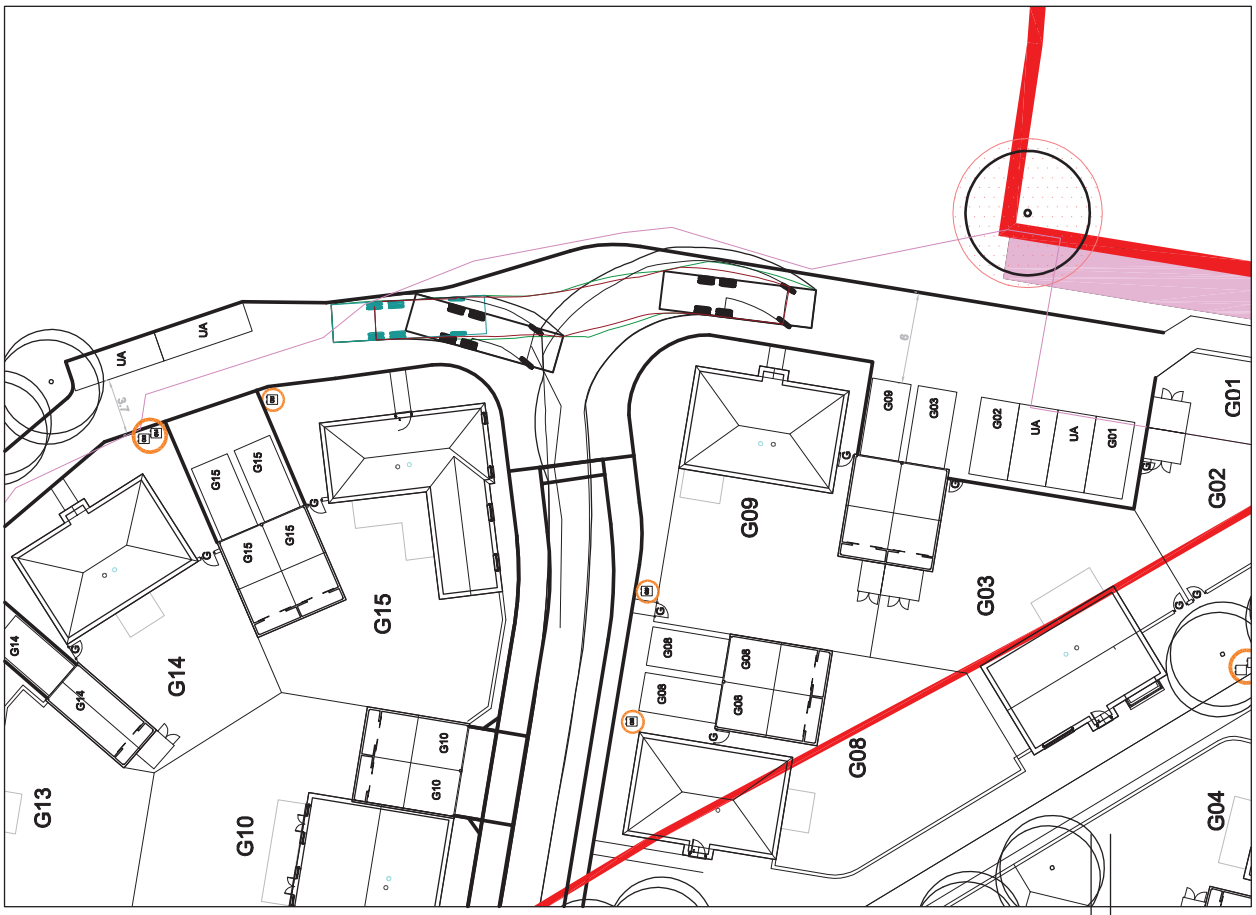
1.15 Finally, the geometries calculated at the existing junction are deemed correct and that our assessment of the existing layout is accurate and is shown at **Appendix A6**.

Comment 13

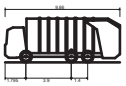
The Whitfield roundabout assessment appears to use incorrect dimensions, however bearing in mind the small number of movements generated through this junction, a revised assessment is not required. However, please note the comments above in relation to possible Highways England requirements.

1.16 Noted.

A1. DRAWING OF REFUSE TRUCK USED IN APPROVED APPLICATION DOV/14/00361



Notes



Large Refuse Vehicle (3 axle)

Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	9.500m

Rev	Amendments	Drn	Chk	App	Date

Consulting Engineers ltd

OFFICE 17
WEALDEN PLACE
BRADBOURNE VALE ROAD
SEVENOAKS KENT
TN13 3QQ

Telephone: 01732 448120
Fax: 01732 465026
Email: enquiries@c-a.uk.com
Web: www.c-a.uk.com

Job Title: Land at Station Road, Walmer

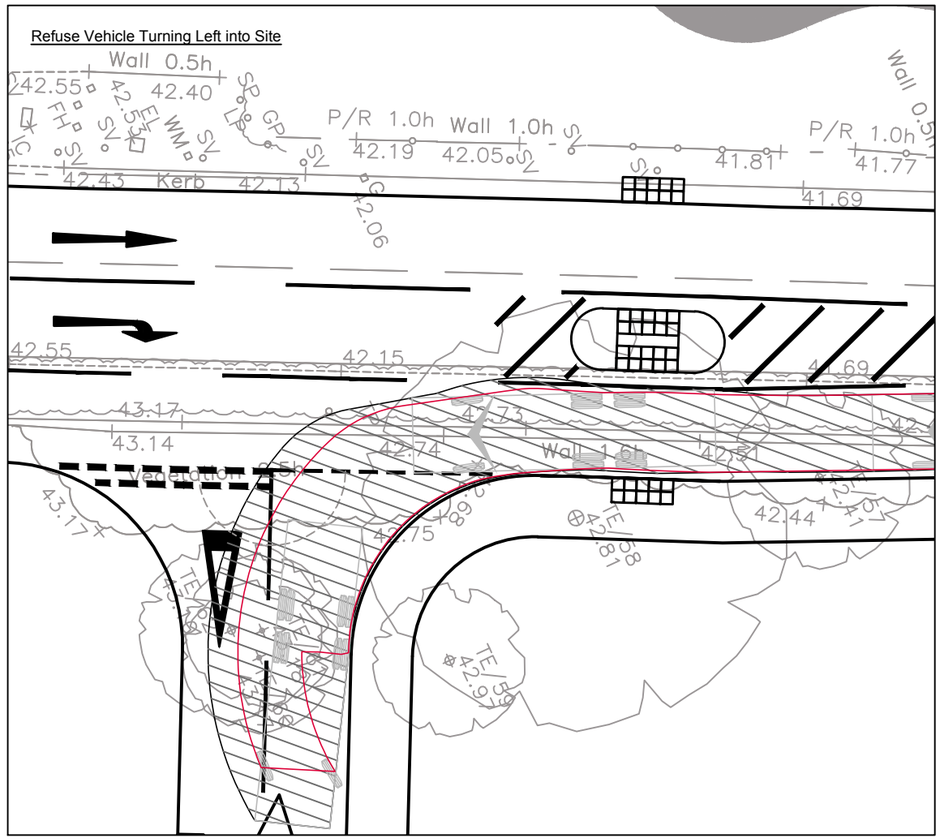
Drawing Title: Turning Head (G)

Client: Taylor Wimpey

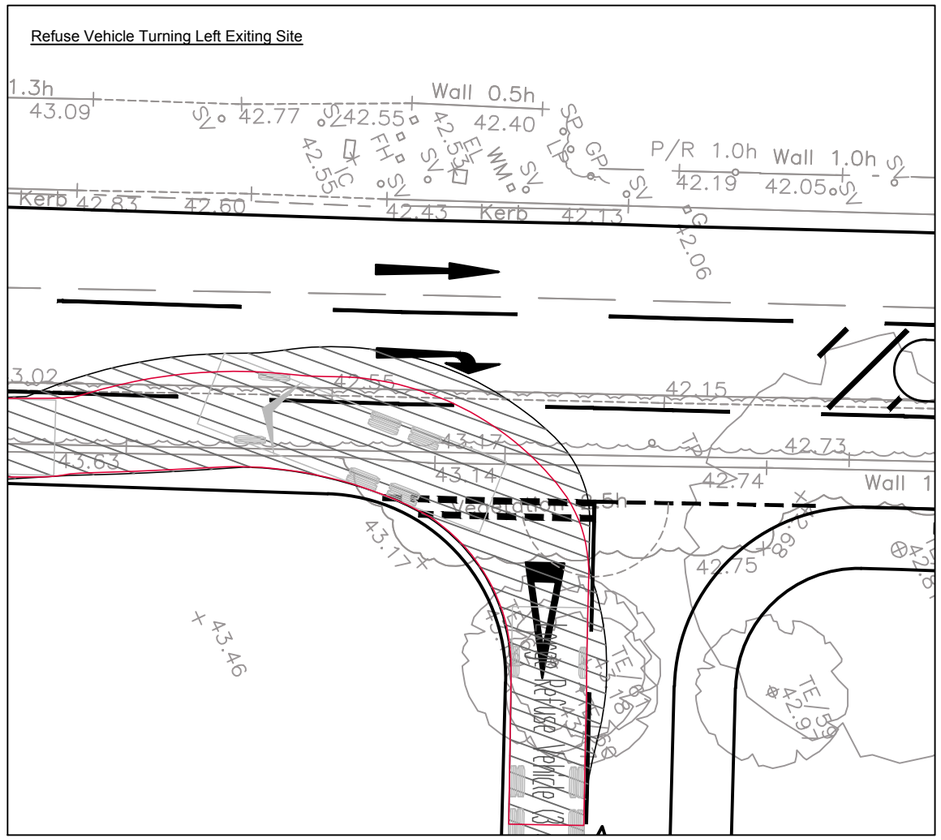
Scale	Date	Designed
1:250@A3	Mar 14	JO
Drawn	Checked	Approved
JO	JBW	JBW
Job No	Drawing No	Rev
12-015	12-015-102	-

A2. SWEPT PATH ANALYSIS

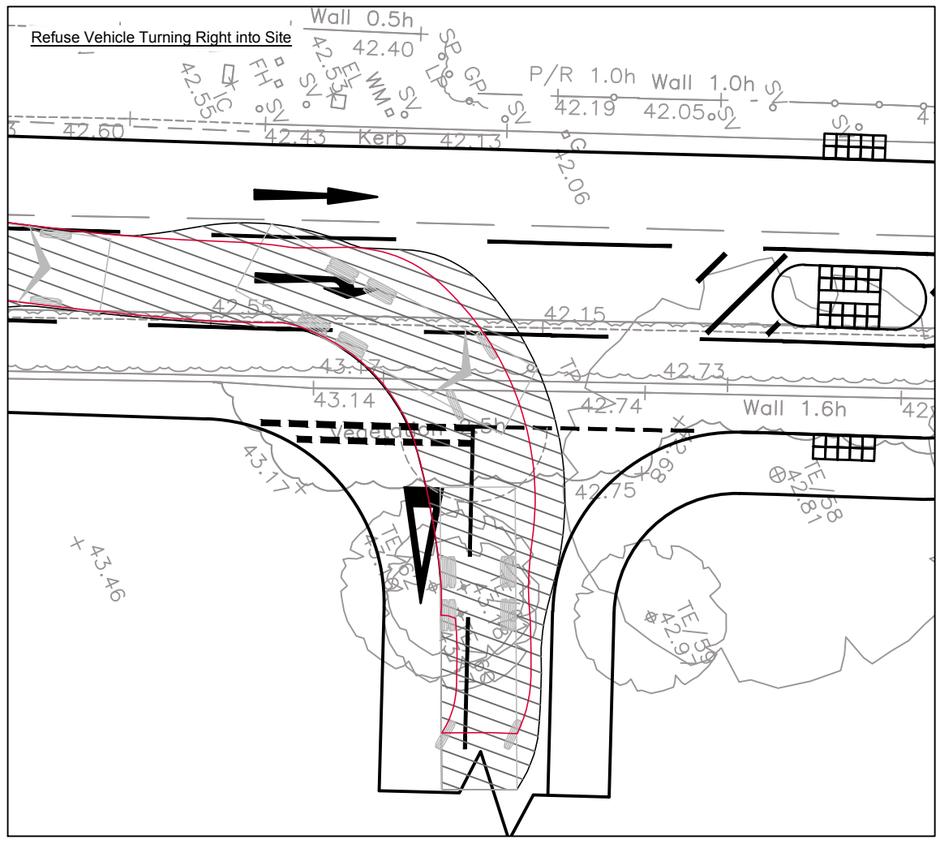
Refuse Vehicle Turning Left into Site



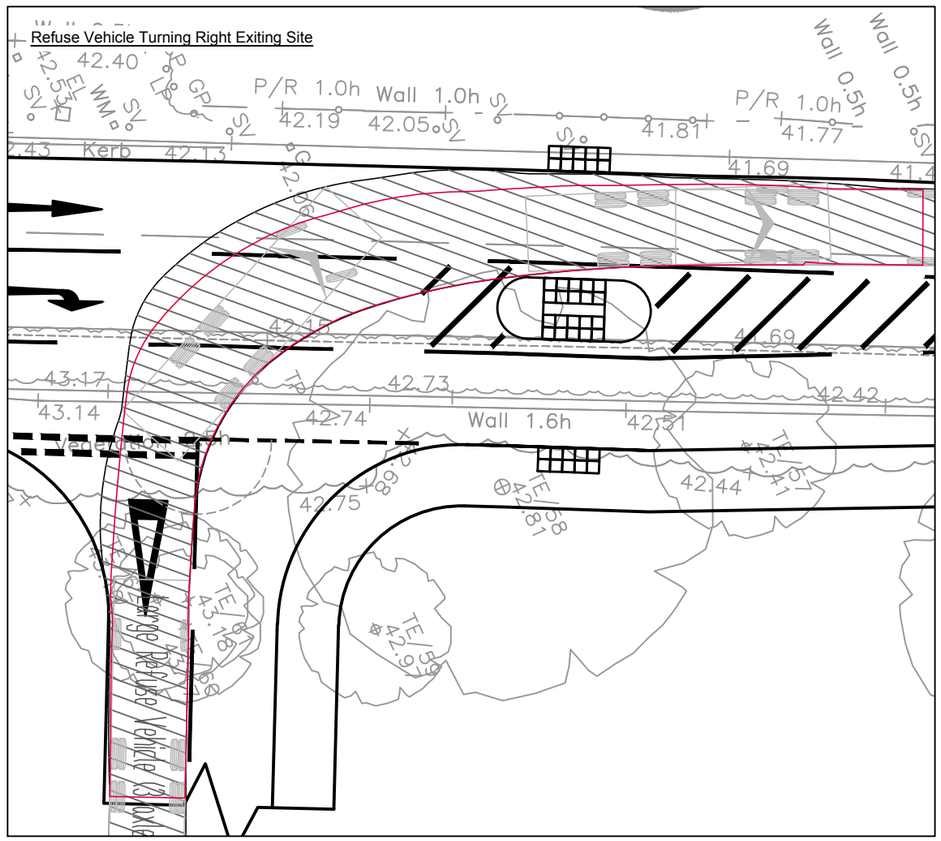
Refuse Vehicle Turning Left Exiting Site



Refuse Vehicle Turning Right into Site



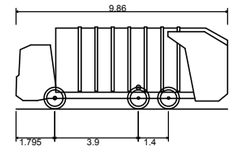
Refuse Vehicle Turning Right Exiting Site



Notes;

1.This drawing is based upon drawing number 2016-124/Topo_01_2D supplied by Gladman and Iceni Projects Ltd. shall not be liable for any inaccuracies or deficiencies.

Vehicle Profile



Large Refuse Vehicle (3 axle)	
Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	9.500m

Rev	Date	Amendments	Drawn	Chk	App
A	19.07.17	Revised Layout & Tracking	FA	TG	FP

Iceni Projects
Flitcroft House
114-116 Charing Cross Road
London, WC2H 0JR

T 020 3640 8508
F 020 3435 4228
mail@iceniprojects.com

Client

Gladman Developments

Project

Dover Road, Walmer, Kent

Title

Swept Path Analysis

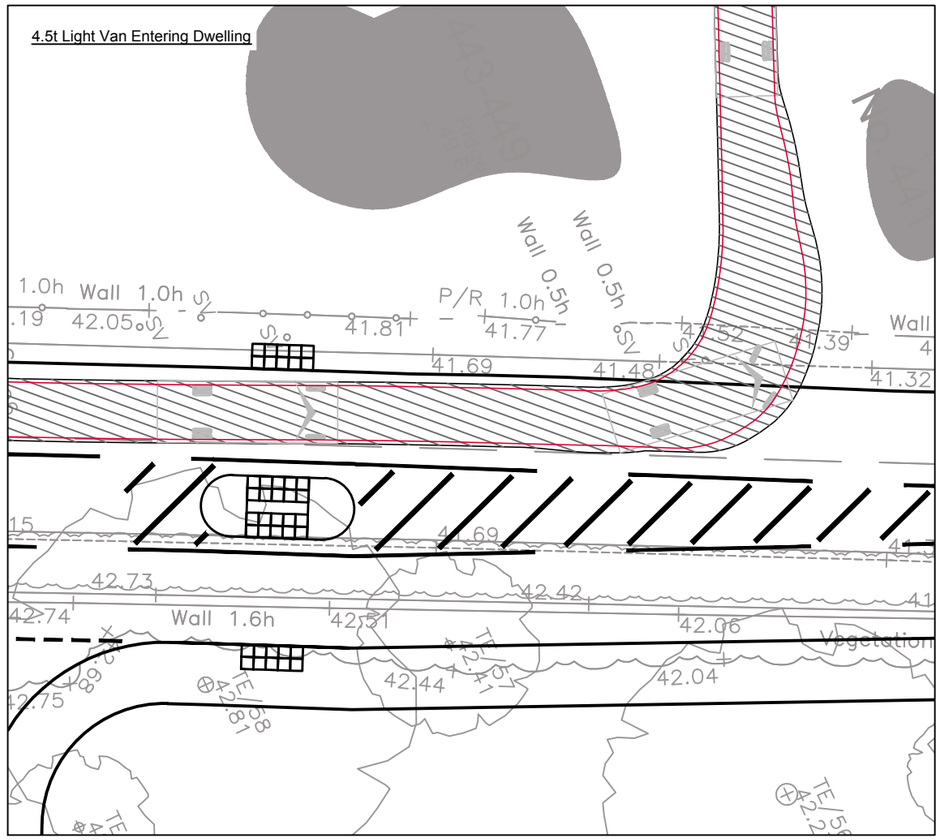
(Large Refuse Vehicle)

Drawn By	Checked By	Approved By
FA	EF 08/06/2017	FP 08/06/2017

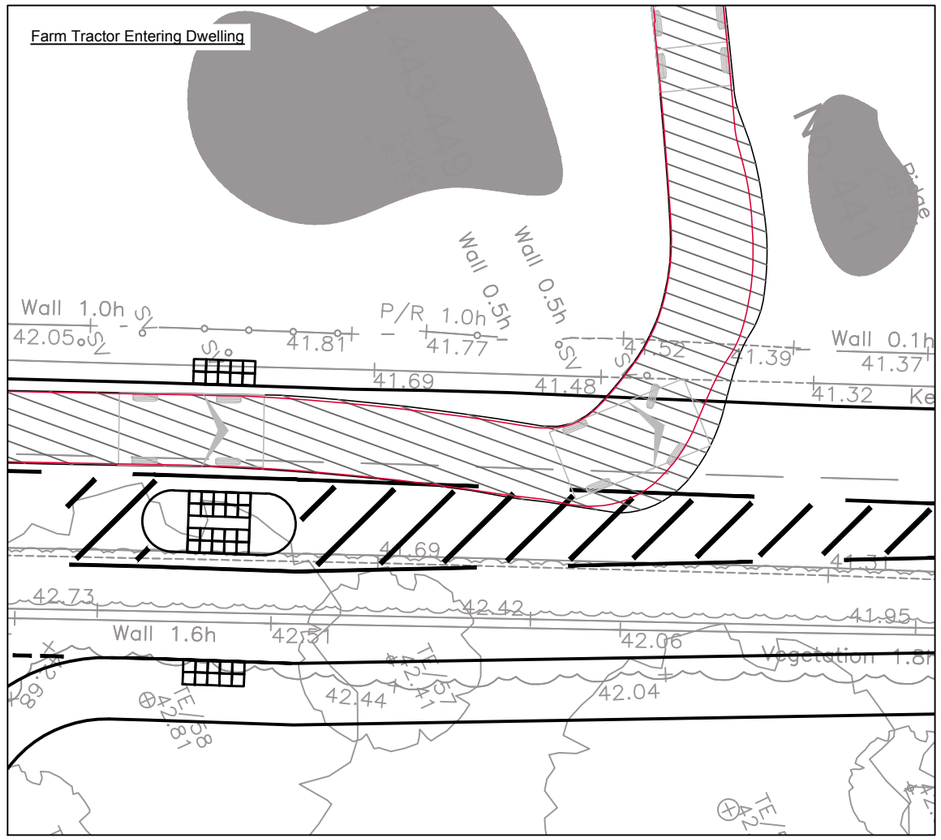
Scale @ A3	Date	
1:200	08/06/2017	

Project No.	Drawing No.	Rev.
16-T129	5.1	A

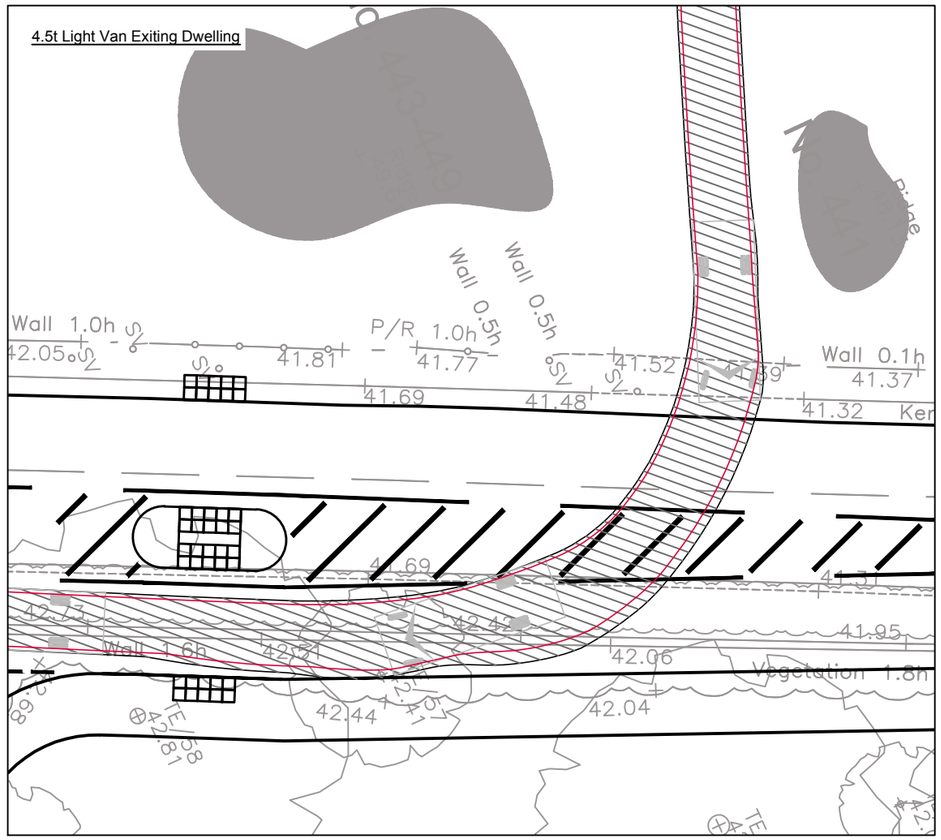
4.5t Light Van Entering Dwelling



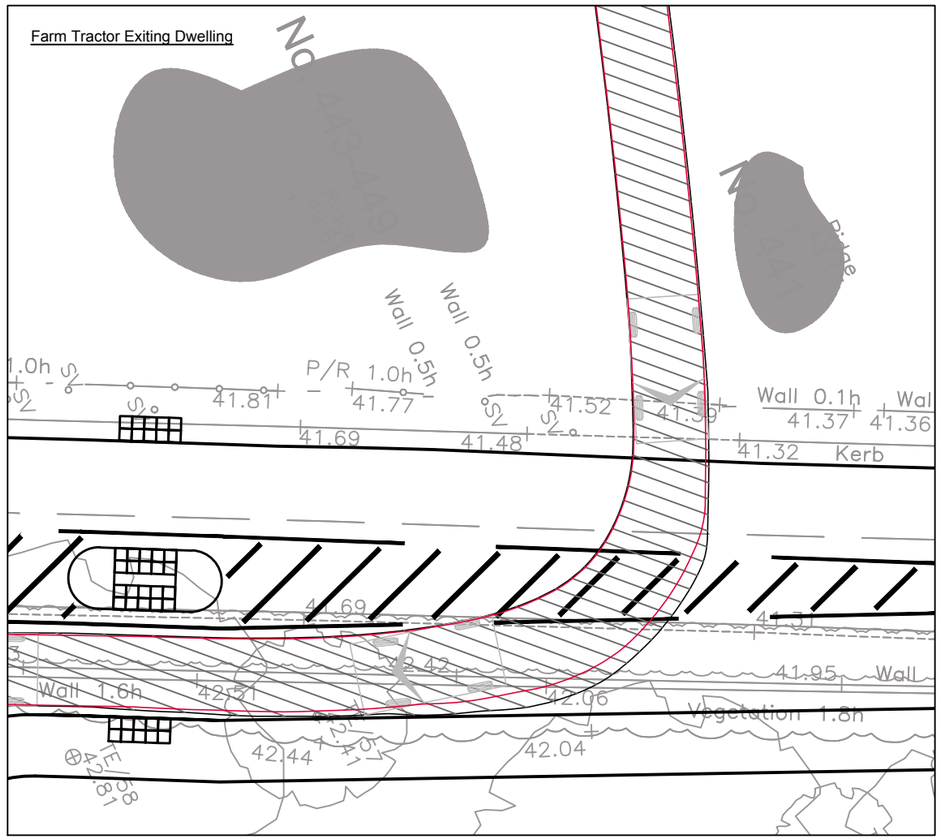
Farm Tractor Entering Dwelling



4.5t Light Van Exiting Dwelling



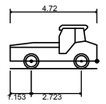
Farm Tractor Exiting Dwelling



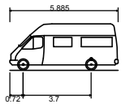
Notes;

1.This drawing is based upon drawing number 2016-124/Topo_01_2D supplied by Gladman and Iceni Projects Ltd. shall not be liable for any inaccuracies or deficiencies.

Vehicle Profile



Farm Tractor	
Overall Length	4.720m
Overall Width	2.350m
Overall Body Height	2.362m
Min Body Ground Clearance	0.415m
Max Track Width	2.296m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	4.620m



4.6t Light Van	
Overall Length	5.885m
Overall Width	2.000m
Overall Body Height	2.526m
Min Body Ground Clearance	0.299m
Track Width	1.765m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.000m

Rev	Date	Amendments	Drawn	Chk	App
A	19.07.17	Revised Layout & Tracking	FA	TG	FP

Iceni Projects
Flitcroft House
114-116 Charing Cross Road
London, WC2H 0JR

T 020 3640 8508
F 020 3435 4228
mail@iceniprojects.com

Client

Gladman Developments

Project

Dover Road, Walmer, Kent

Title

Swept Path Analysis

(4.6t Light Van & Farm Tractor)

Drawn By	Checked By	Approved By
FA	EF 08/06/2017	FP 08/06/2017

Scale @ A3	Date
1:200	08/06/2017

Project No.	Drawing No.	Rev.
16-T129	5.2	A

A4. EMAIL CORRESPONDENCE WITH STAGECOACH

Ed Faldo

From: John Pugh <John.Pugh@stagecoachbus.com>
Sent: 17 July 2017 16:17
To: Ed Faldo
Cc: Fred Peters; matthew.arnold@stagecoachbus.com; Rob Amey
Subject: RE: Planning Application DOV/17/00487: Outline application for the erection of up to 85. dwellings

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Ed

I've just come back from leave to find your email in my inbox, hence the delayed response.

Options 2 and 4 would probably work best for us, as they provide more convenient access to the proposed development, without dislocating existing users. However I would need to see drawings of the proposed locations before giving final confirmation.

As far as Option 4 is concerned, we don't particularly like laybys, as these cause delays for buses when they need to rejoin the traffic flow. However we are mindful that at this location the A258 is not particularly wide, is busy at peak times and carries fast moving traffic. A half width layby, that enables the bus to pull partly off the road but still gives traffic an opportunity to pass will probably work best.

The stops need to be constructed with raised kerbs (160mm high) with bus stop poles (The Externiture VXO modular pole is our preferred option) bus stop clearway markings and with shelters (if there is enough room).

Hope this helps.

Kind regards

John Pugh – Roadside Infrastructure Manager
Stagecoach South East
T: 01227 828107
E: john.pugh@stagecoachbus.com
The Bus Station | St George's Lane | Canterbury | Kent | CT1 2SY
www.stagecoachbus.com
Follow us on Twitter: @StagecoachSE

From: Ed Faldo <EFaldo@iceniprojects.com>
To: "matthew.arnold@stagecoachbus.com" <matthew.arnold@stagecoachbus.com>, "john.pugh@stagecoachbus.com" <john.pugh@stagecoachbus.com>
Cc: Fred Peters <fpeters@iceniprojects.com>, Rob Amey <ramey@iceniprojects.com>
Date: 13/07/2017 10:00
Subject: RE: Planning Application DOV/17/00487: Outline application for the erection of up to 85. dwellings

---

Dear Matthew,

I was wondering if you have had a chance to look at my email below regarding the proposed bus stop options for the outline application on Dover Road.

Please get in touch if you have any questions or queries.

Kind regards

Ed

Ed Faldo
Engineer, Transport

telephone: 020 3640 1018
mobile: 07947 365 030
email: EFaldo@iceniprojects.com

Find Us : London | Glasgow | Manchester

Follow us on : Instagram | LinkedIn | Twitter | YouTube | Vimeo | Ian's Blog

---

From: Ed Faldo
Sent: 06 July 2017 16:22
To: 'matthew.arnold@stagecoachbus.com' <matthew.arnold@stagecoachbus.com>
Cc: Fred Peters <fpeters@iceniprojects.com>; Rob Amey <ramey@iceniprojects.com>
Subject: Planning Application DOV/17/00487: Outline application for the erection of up to 85. dwellings

Dear Matthew,

I hope you can help, if not would you please advise who to speak to. I received an out office from your colleague John who commented on the above scheme we are working on, I have attached John's response to this email. Within John's comments he mentioned that the locations of the existing bus stops are within the minimum walking distances required, but was enquiring whether a footway would be provided from the site to the existing bus stop on the eastern side of Dover Road.

Having looked at this in detail it has been established that a footway cannot be accommodated within land under the clients control between the site and the existing bus stop at Downlands. Based on this we have provided some options for you to consider.

1. Retain existing southbound bus stop adjacent to Downlands and provide crossing point at the proposed access requiring passengers to cross Dover Road twice;
2. Retain existing southbound bus stop adjacent to Downlands and provide new bus stop circa 125m south of the existing southbound bus stop along our northern end site frontage;
3. Relocate bus stop to site frontage requiring passengers to cross Dover Road at the proposed access and walk back towards the Downlands.
4. Retain existing southbound bus stop and provide a new bus stop at the southern end of the site frontage, this will require a layby.

If you could consider these options and get back to me with your preferred option it would be much appreciated.
Please give me a call with any questions or queries.
Kind regards
Ed

Ed Faldo
Engineer, Transport

telephone: 020 3640 1018
mobile: 07947 365 030
email: EFaldo@iceniprojects.com

Find Us : London | Glasgow | Manchester

Follow us on : Instagram | LinkedIn | Twitter | YouTube | Vimeo | Ian's Blog

Iceni Projects is taking part in the JLL Property Triathlon North on Friday 28 July 2017.

A5. ADDITIONAL FLOW DIAGRAMS

NOTES:

Person Trip Rates (Not used in this assessment)

	AM			PM			Daily		
	Arrrive	Depart	Two-Way	Arrrive	Depart	Two-Way	Arrrive	Depart	Two-Way
Private House	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Private Flat	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Affordable House	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Affordable Flat	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vehicle Trip Rates

	AM			PM			Daily		
	Arrrive	Depart	Two-Way	Arrrive	Depart	Two-Way	Arrrive	Depart	Two-Way
Private House	0.160	0.420	0.580	0.390	0.230	0.620	0.000	0.000	0.000
Private Flat									
Affordable House									
Affordable Flat									

Schedule

Total Dwellings	85

	#	%
Private House	85	100%
Private Flat	0	0%
Affordable House	0	0%
Affordable Flat	0	0%

Vehicle Trips

	AM			PM			Daily		
	Arrrive	Depart	Two-Way	Arrrive	Depart	Two-Way	Arrrive	Depart	Two-Way
Private House	14	36	49	33	20	53	0	0	0
Private Flat	0	0	0	0	0	0	0	0	0
Affordable House	0	0	0	0	0	0	0	0	0
Affordable Flat	0	0	0	0	0	0	0	0	0
Total	**14**	**36**	**49**	**33**	**20**	**53**	**0**	**0**	**0**

PROJECT

DOVER ROAD

TITLE

TRIP GENERATION

REVISION	DATE
-	01/05/2017

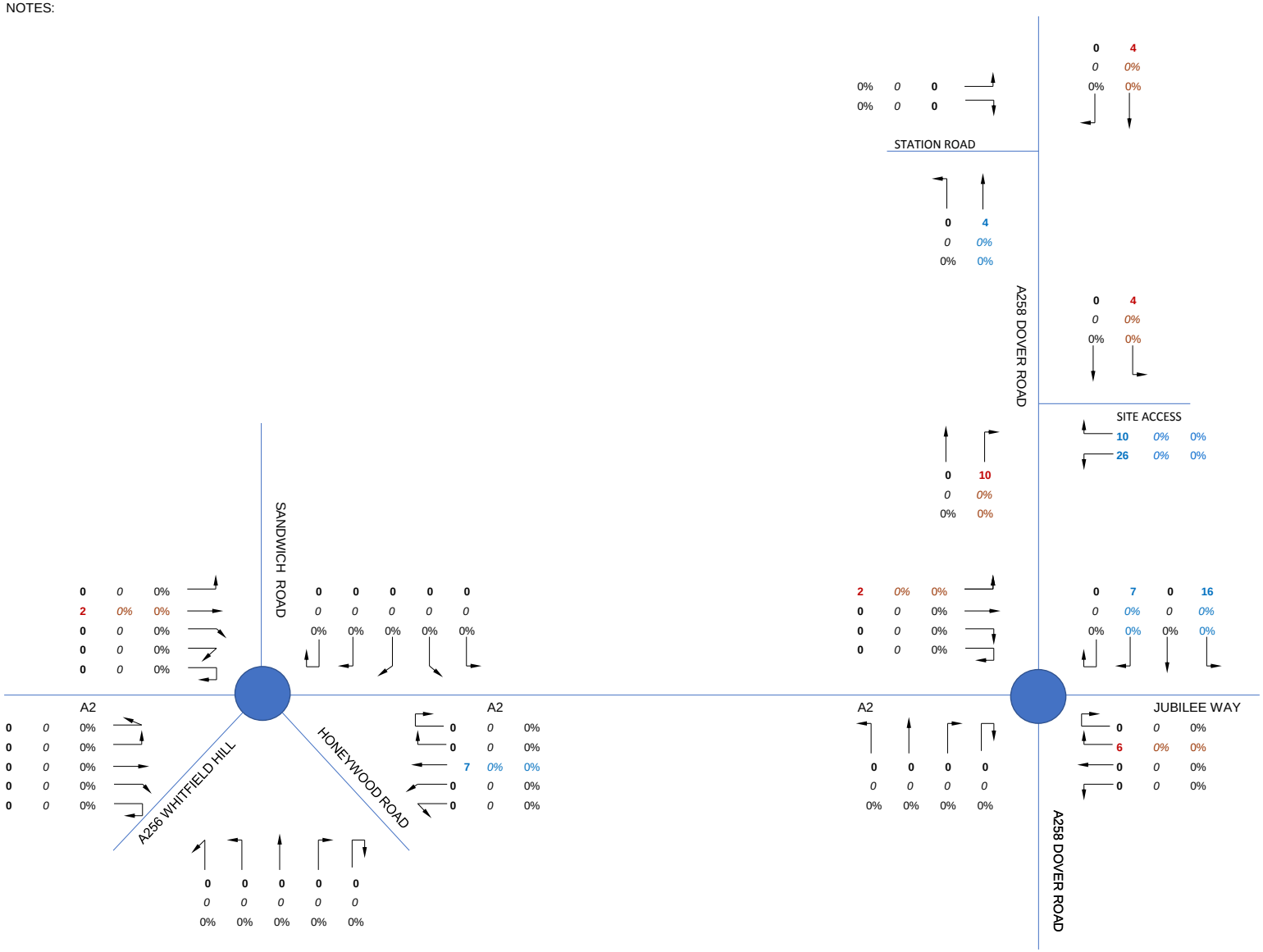
DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123 ARRIVALS

123 DEPARTURES



PROJECT

DOVER ROAD

TITLE

2022 DEVELOPMENT TRIPS AM

REVISION	DATE
-	01/05/2017

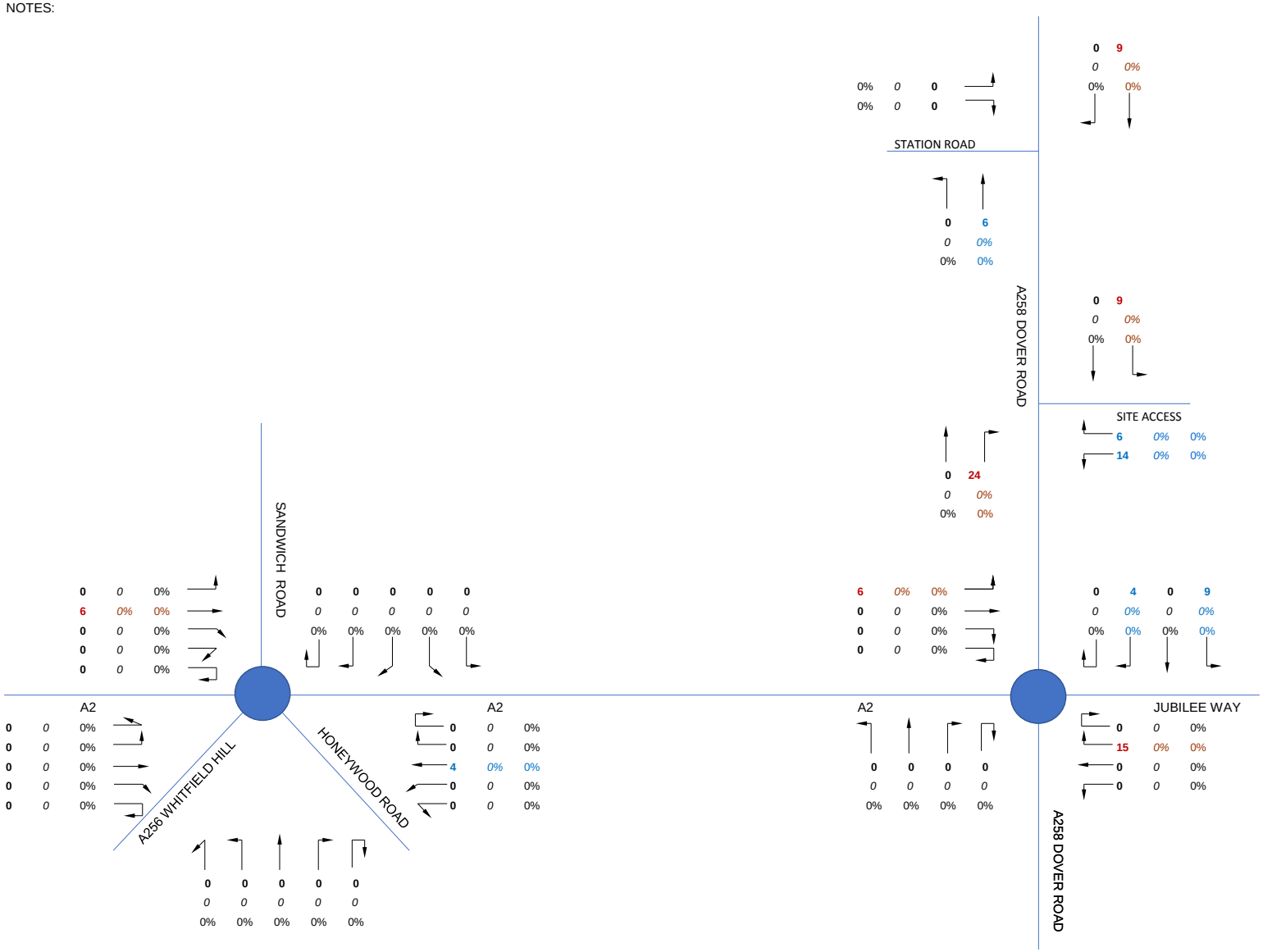
DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123 ARRIVALS

123 DEPARTURES



PROJECT

DOVER ROAD

TITLE

2022 DEVELOPMENT TRIPS PM

REVISION	DATE
-	01/05/2017

DRAWN BY	APPROVED BY
TG	FP

NOTES:

AREA TYPE	ROAD TYPE	GROWTH AM	GROWTH PM	GROWTH SAT	GROWTH AADT	GROWTH AAWDT	
			2017-2022				
URBAN	MOTORWAY						
URBAN	TRUNK	1.076238261	1.076752052				
URBAN	PRINCIPLE	1.072093604	1.072605417				
URBAN	MINOR	1.07319127	1.073703606				DOVER 003
RURAL	MOTORWAY						
RURAL	TRUNK						
RURAL	PRINCIPLE						
RURAL	MINOR						
AREA TYPE	ROAD TYPE	GROWTH AM	GROWTH PM	GROWTH SAT	GROWTH AADT	GROWTH AAWDT	
			2017-2022				
URBAN	MOTORWAY						
URBAN	TRUNK	1.068531394	1.068685531				
URBAN	PRINCIPLE	1.064416417	1.064569961				
URBAN	MINOR	1.065506222	1.065659923				DOVER 005
RURAL	MOTORWAY						
RURAL	TRUNK						
RURAL	PRINCIPLE						
RURAL	MINOR						
AREA TYPE	ROAD TYPE	GROWTH AM	GROWTH PM	GROWTH SAT	GROWTH AADT	GROWTH AAWDT	
			2017-2022				
URBAN	MOTORWAY						
URBAN	TRUNK	1.078909975	1.08034859				
URBAN	PRINCIPLE	1.074755029	1.076188104				
URBAN	MINOR	1.07585542	1.077289962				DOVER 007
RURAL	MOTORWAY						
RURAL	TRUNK						
RURAL	PRINCIPLE						
RURAL	MINOR						
AREA TYPE	ROAD TYPE	GROWTH AM	GROWTH PM	GROWTH SAT	GROWTH AADT	GROWTH AAWDT	
			2017-2022				
URBAN	MOTORWAY						
URBAN	TRUNK	1.075005162	1.07741998				
URBAN	PRINCIPLE	1.070865254	1.073270773				
URBAN	MINOR	1.071961662	1.074369644				DOVER 009
RURAL	MOTORWAY						
RURAL	TRUNK						
RURAL	PRINCIPLE						
RURAL	MINOR						
AREA TYPE	ROAD TYPE	GROWTH AM	GROWTH PM	GROWTH SAT	GROWTH AADT	GROWTH AAWDT	
			2017-2022				
URBAN	MOTORWAY						
URBAN	TRUNK	1.074594129	1.075467574				
URBAN	PRINCIPLE	1.070455804	1.071325885				
URBAN	MINOR	1.071551793	1.072422765				DOVER 010
RURAL	MOTORWAY						
RURAL	TRUNK						
RURAL	PRINCIPLE						
RURAL	MINOR						
AREA TYPE	ROAD TYPE	GROWTH AM	GROWTH PM	GROWTH SAT	GROWTH AADT	GROWTH AAWDT	
			2017-2022				
URBAN	MOTORWAY						
URBAN	TRUNK	1.078190667	1.07741998				
URBAN	PRINCIPLE	1.074038491	1.073270773				
URBAN	MINOR	1.075138149	1.074369644				DOVER 012
RURAL	MOTORWAY						
RURAL	TRUNK						
RURAL	PRINCIPLE						
RURAL	MINOR						
AREA TYPE	ROAD TYPE	GROWTH AM	GROWTH PM	GROWTH SAT	GROWTH AADT	GROWTH AAWDT	
			2017-2022				
URBAN	MOTORWAY						
URBAN	TRUNK						
URBAN	PRINCIPLE						
URBAN	MINOR						
RURAL	MOTORWAY						
RURAL	TRUNK						
RURAL	PRINCIPLE						
RURAL	MINOR						AVERAGE

iceni

PROJECT

DOVER ROAD

TITLE

GROWTH RATES

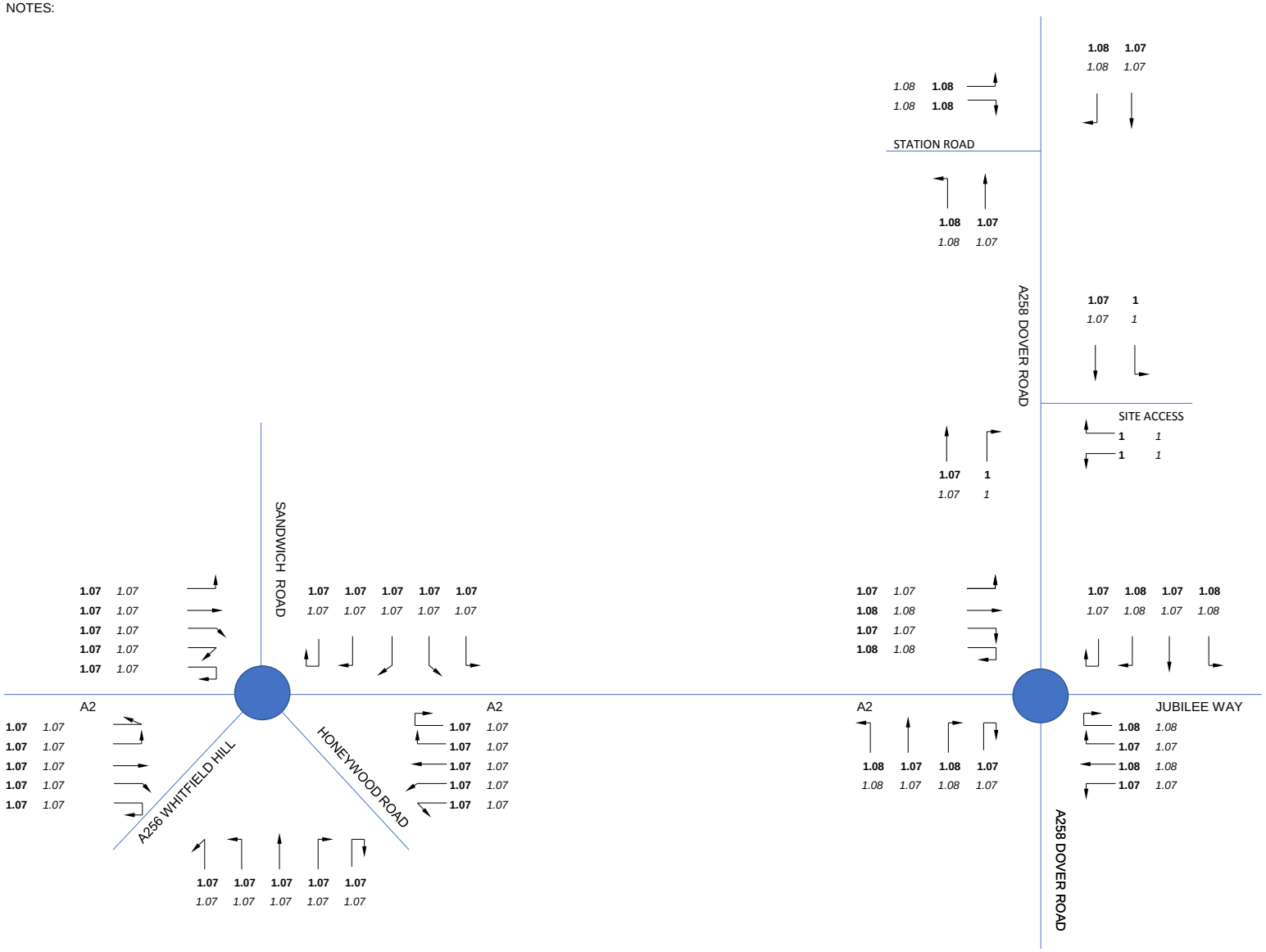
REVISION	DATE
-	01/05/2017

DRAWN BY	APPROVED BY
MG	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs

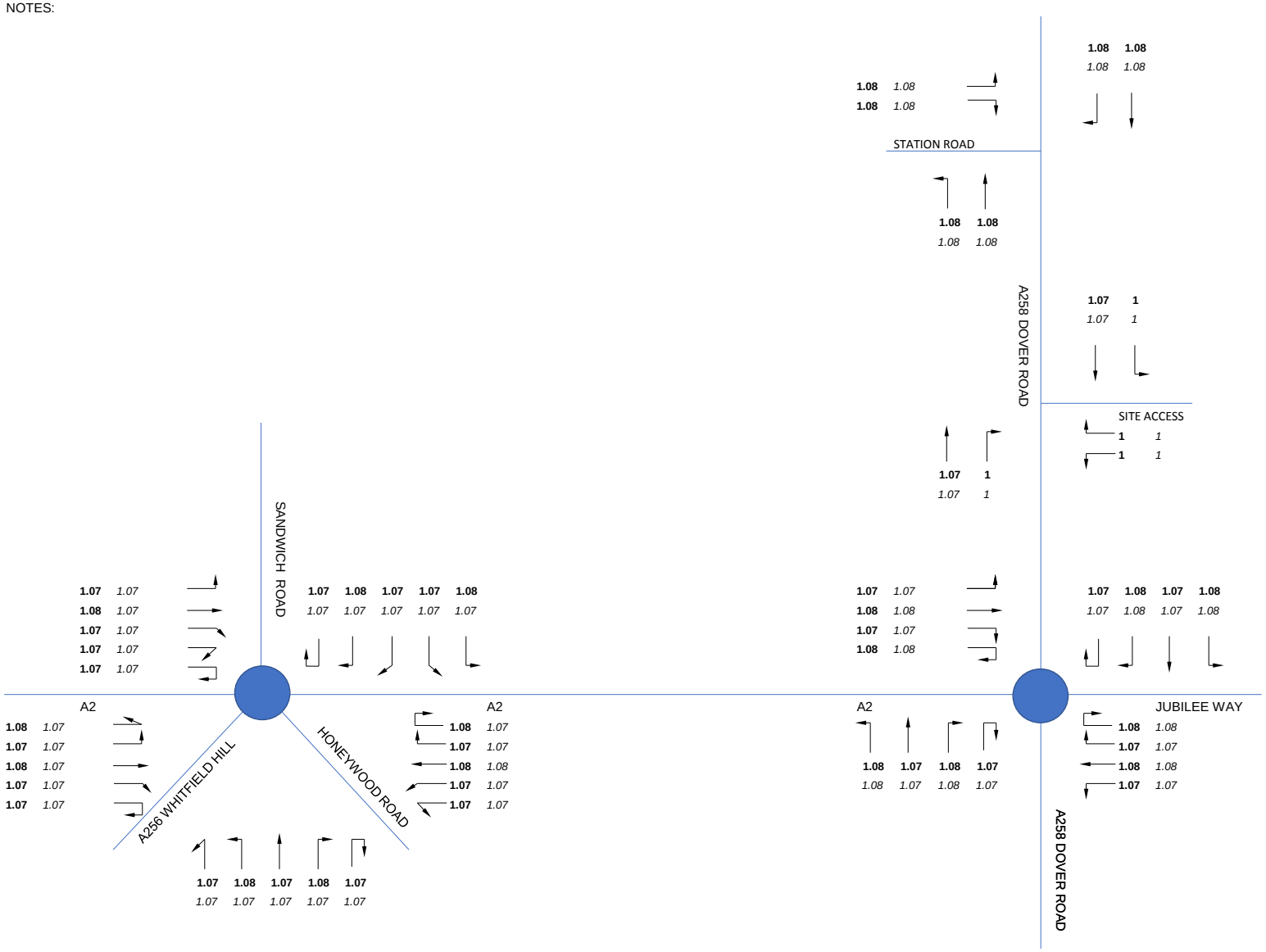


PROJECT	DOVER ROAD
TITLE	**2022 GROWTH RATES AM**
REVISION	-
DATE	01/05/2017
DRAWN BY	TG
APPROVED BY	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs

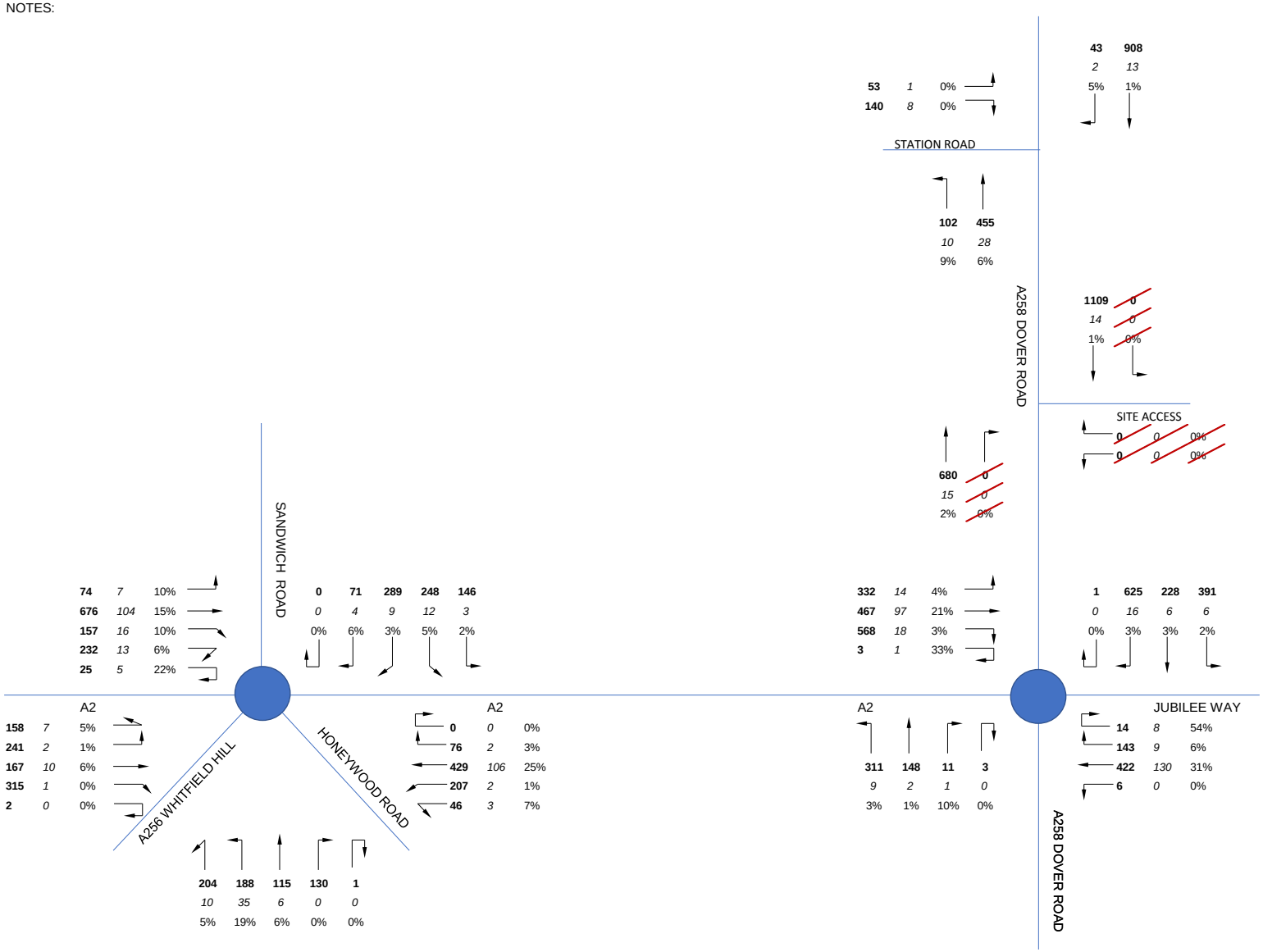


PROJECT	DOVER ROAD
TITLE	**2022 GROWTH RATES PM**
REVISION	-
DATE	01/05/2017
DRAWN BY	TG
APPROVED BY	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs



PROJECT

DOVER ROAD

TITLE

2022 GROWTH AM

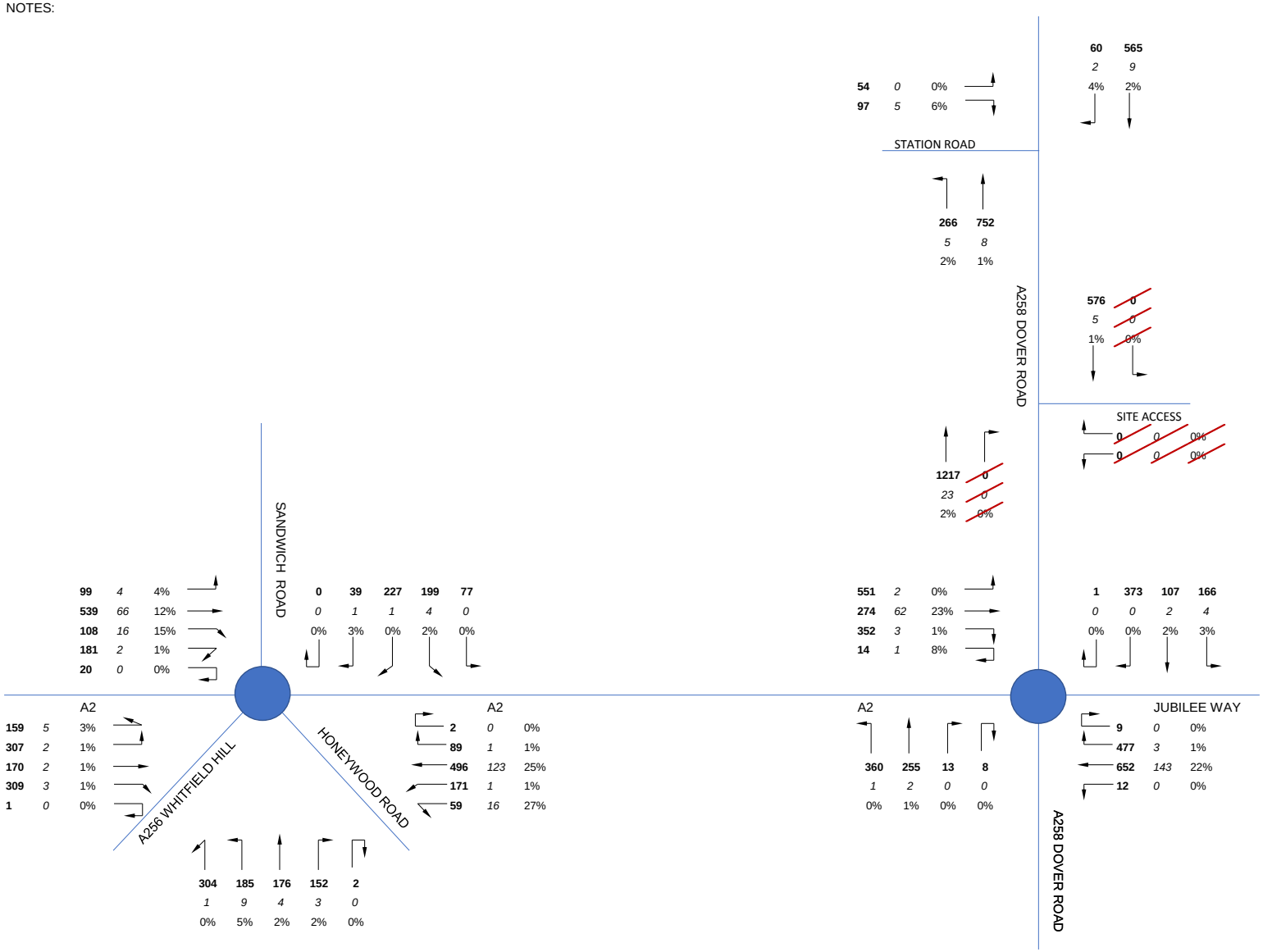
REVISION	DATE
-	01/05/2017

DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs

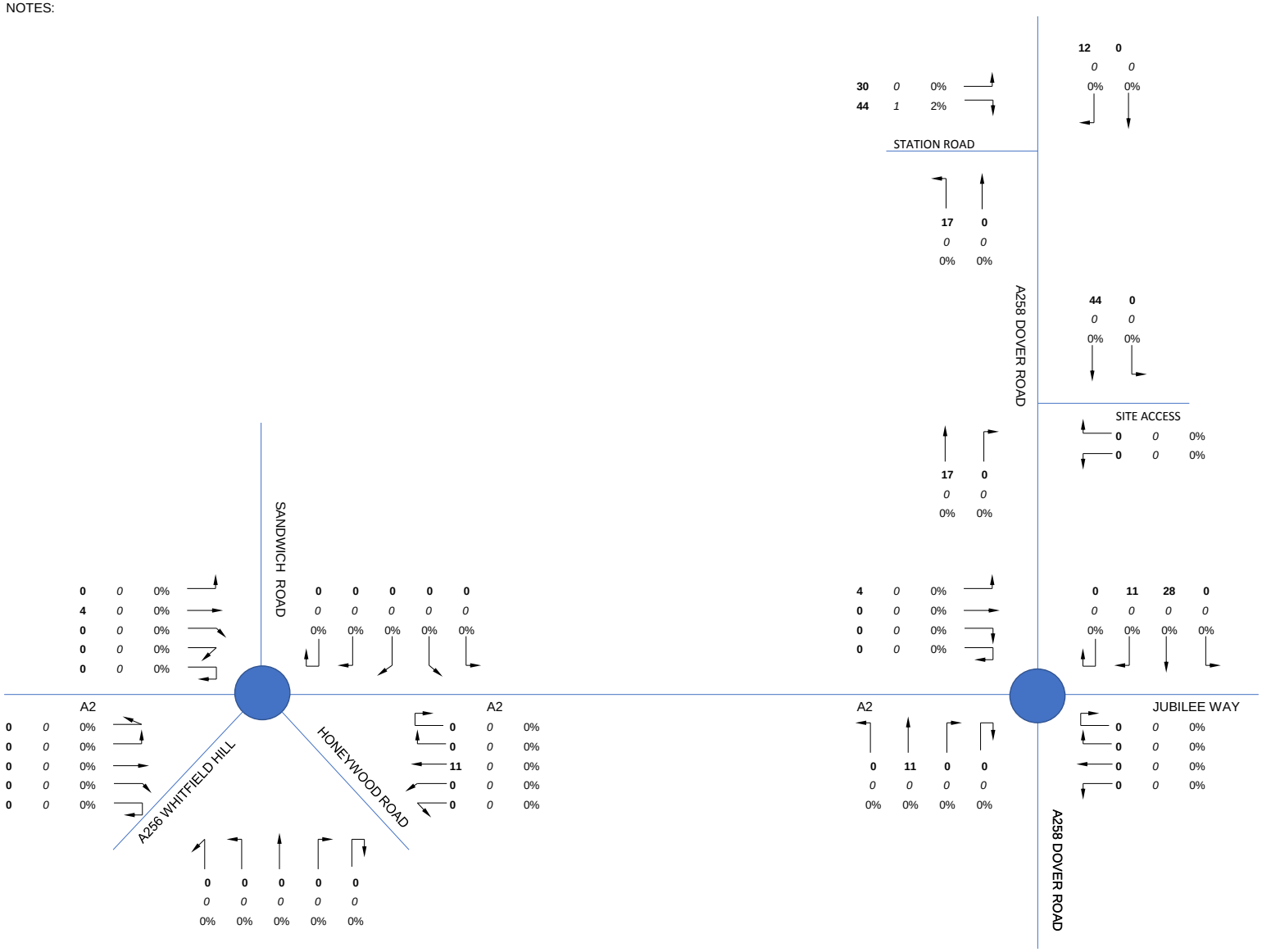


PROJECT	
	DOVER ROAD
TITLE	
	2022 GROWTH PM
REVISION	DATE
-	01/05/2017
DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs

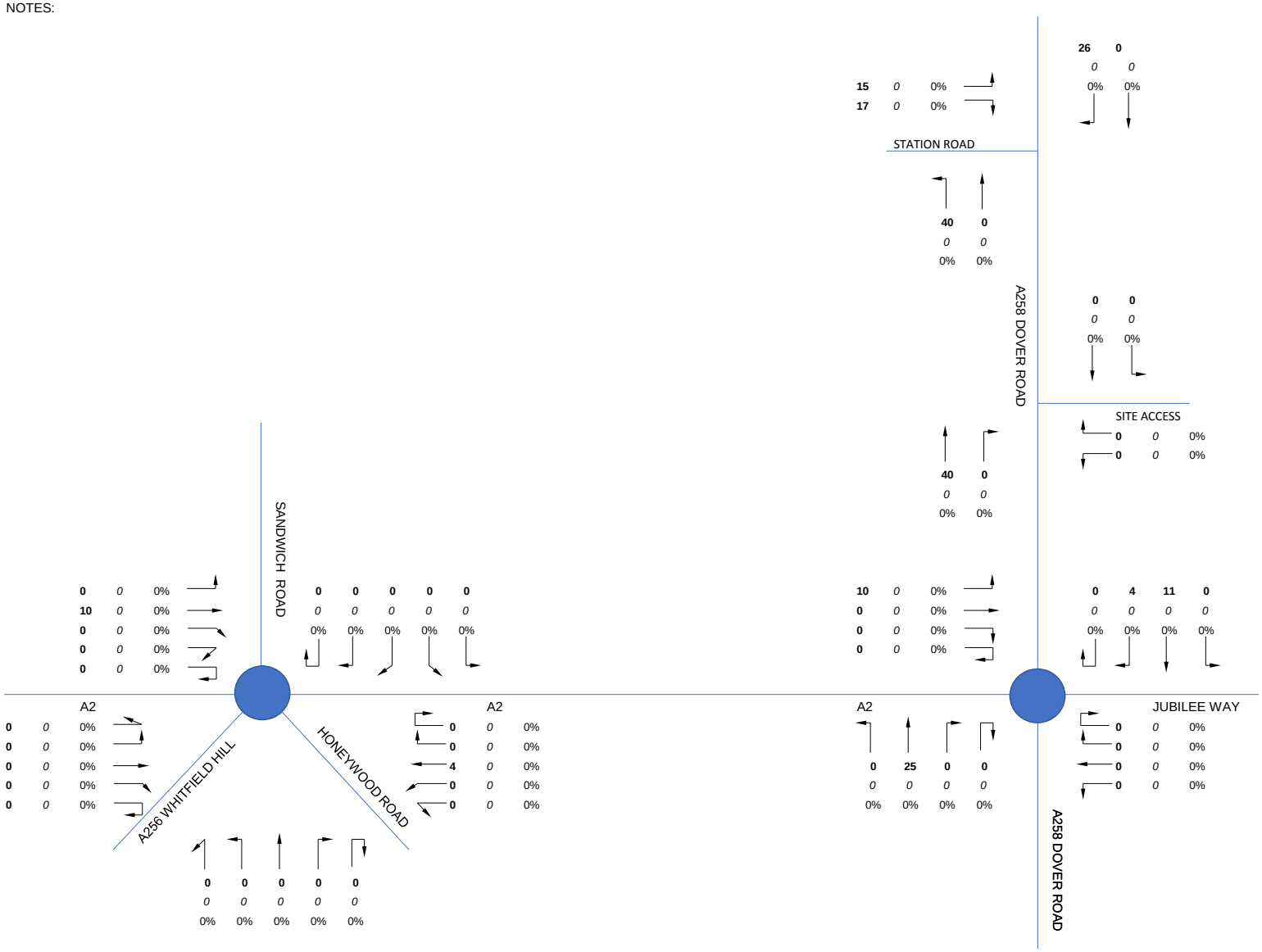


PROJECT	DOVER ROAD
TITLE	**2022 COMMITTED AM**
REVISION	-
DATE	01/05/2017
DRAWN BY	TG
APPROVED BY	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs

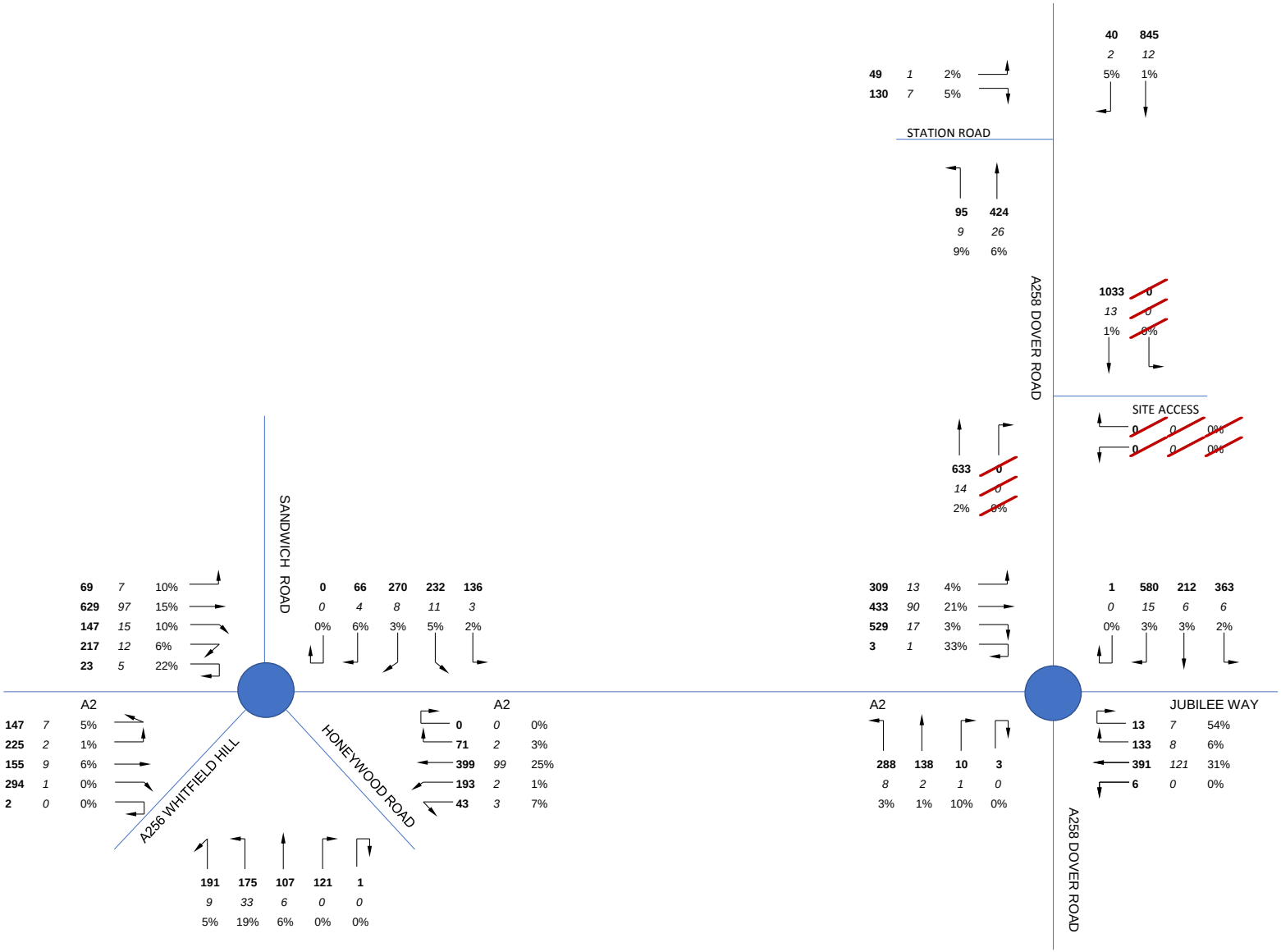


PROJECT	DOVER ROAD
TITLE	**2022 COMMITTED PM**
REVISION	-
DATE	01/05/2017
DRAWN BY	TG
APPROVED BY	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs



PROJECT

DOVER ROAD

TITLE

2017 OBSERVED AM

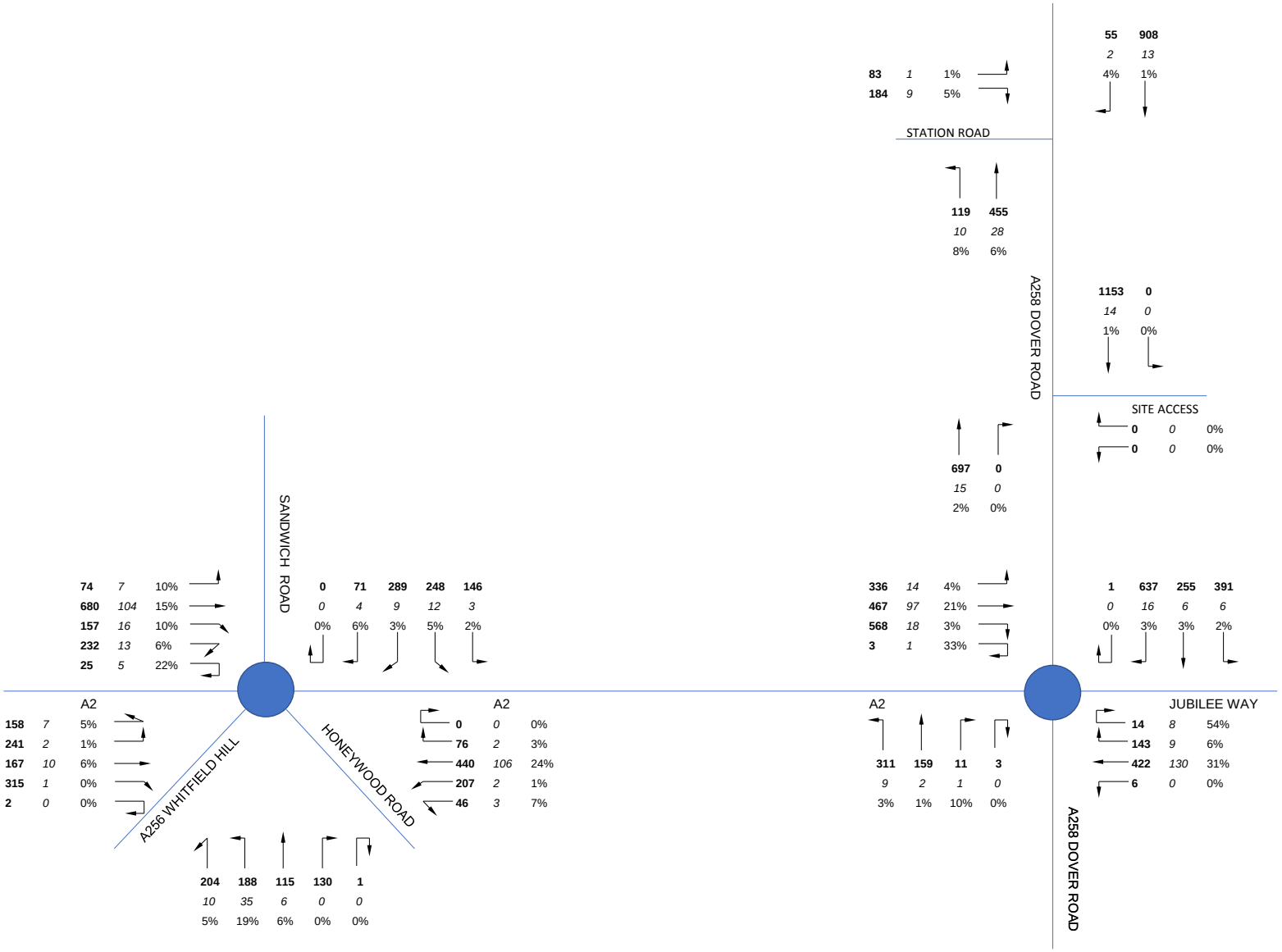
REVISION	DATE
-	01/05/2017

DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123 TOTAL VEHICLES
12 NO. OF HGVs
10% %AGE OF HGVs



PROJECT
DOVER ROAD

TITLE
2022 BASE AM

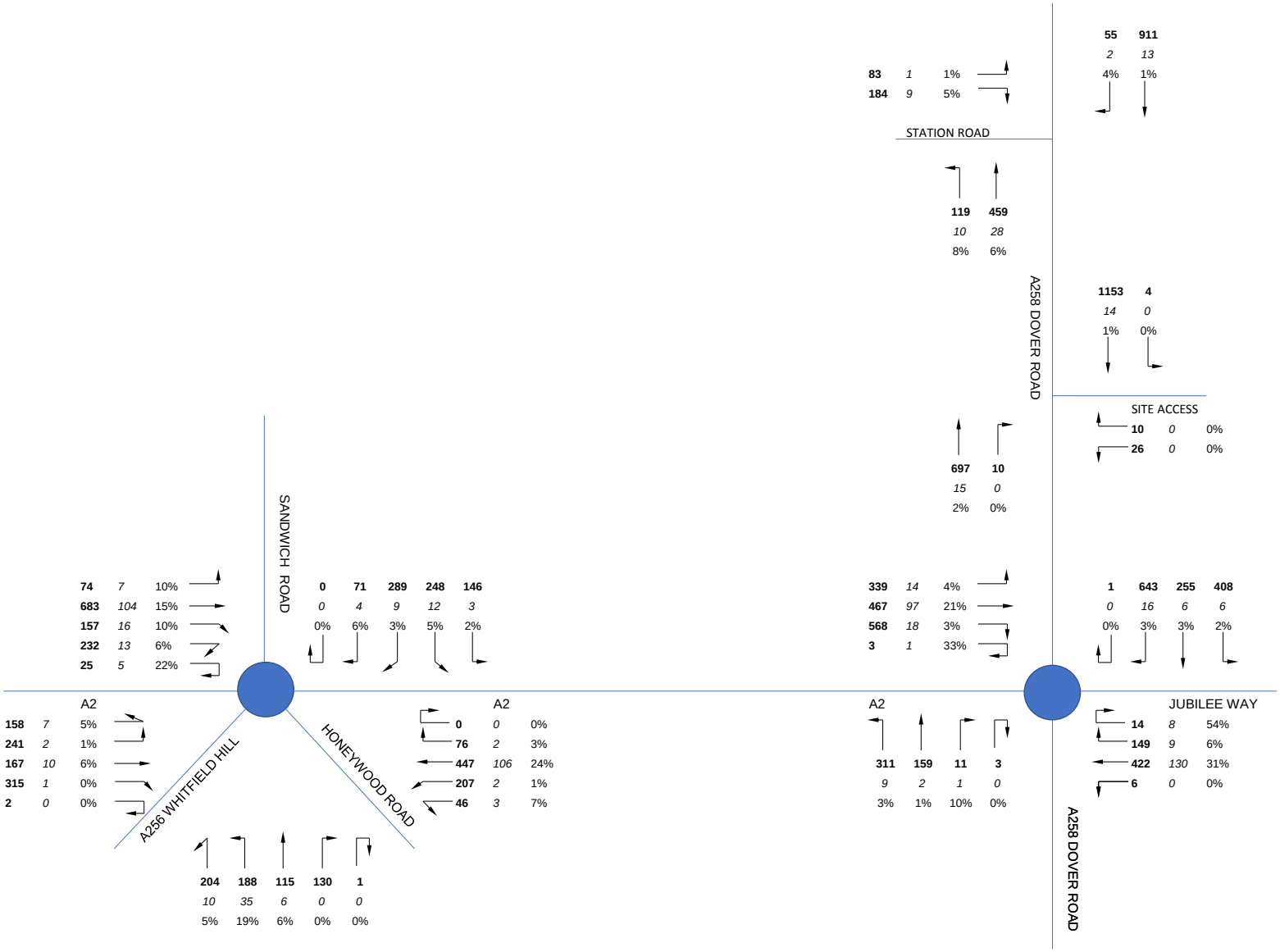
REVISION	DATE
-	01/05/2017

DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123 TOTAL VEHICLES
12 NO. OF HGVs
10% %AGE OF HGVs



PROJECT

DOVER ROAD

TITLE

2022 DEVELOPMENT CASE AM

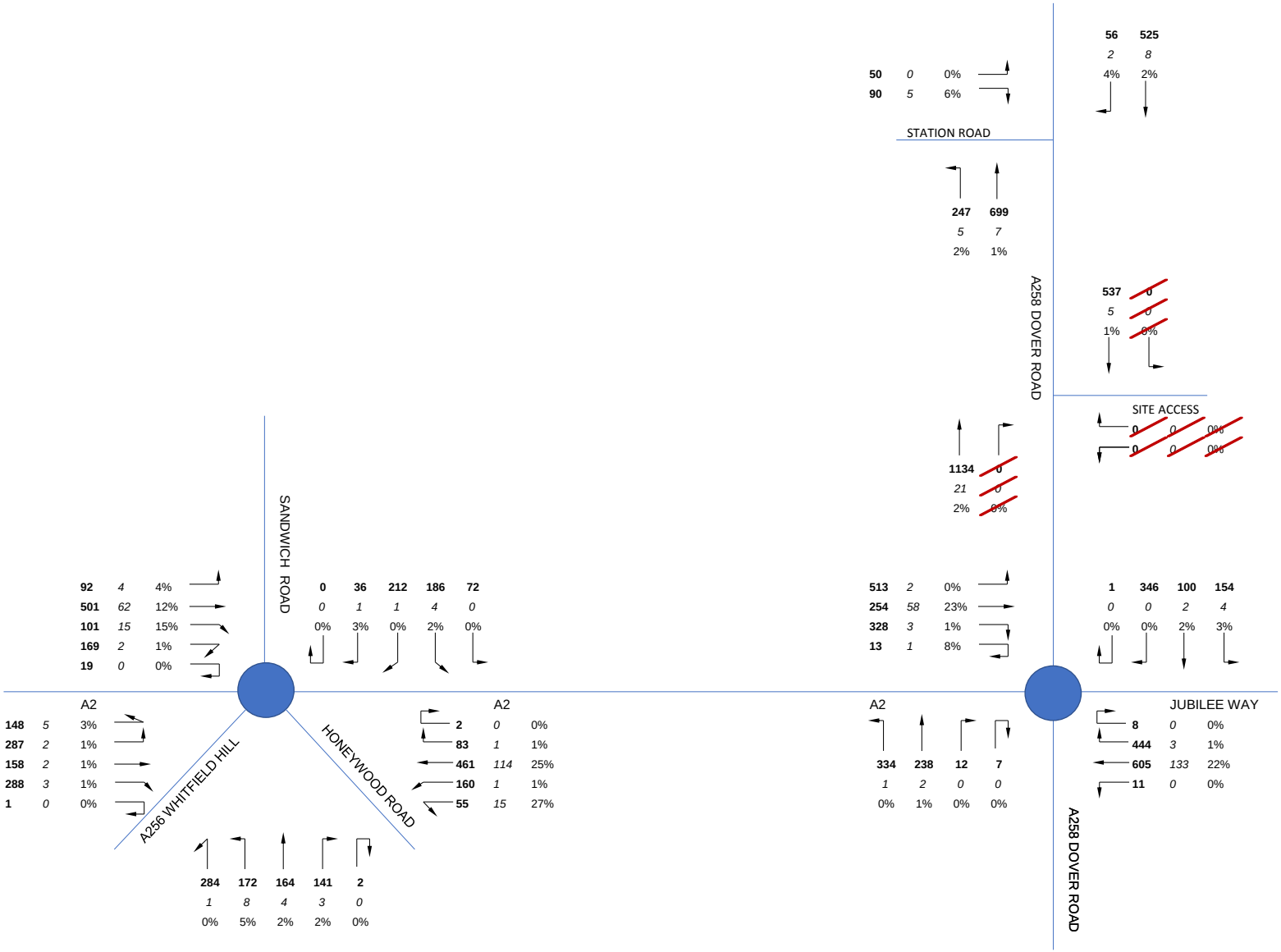
REVISION	DATE
-	01/05/2017

DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs

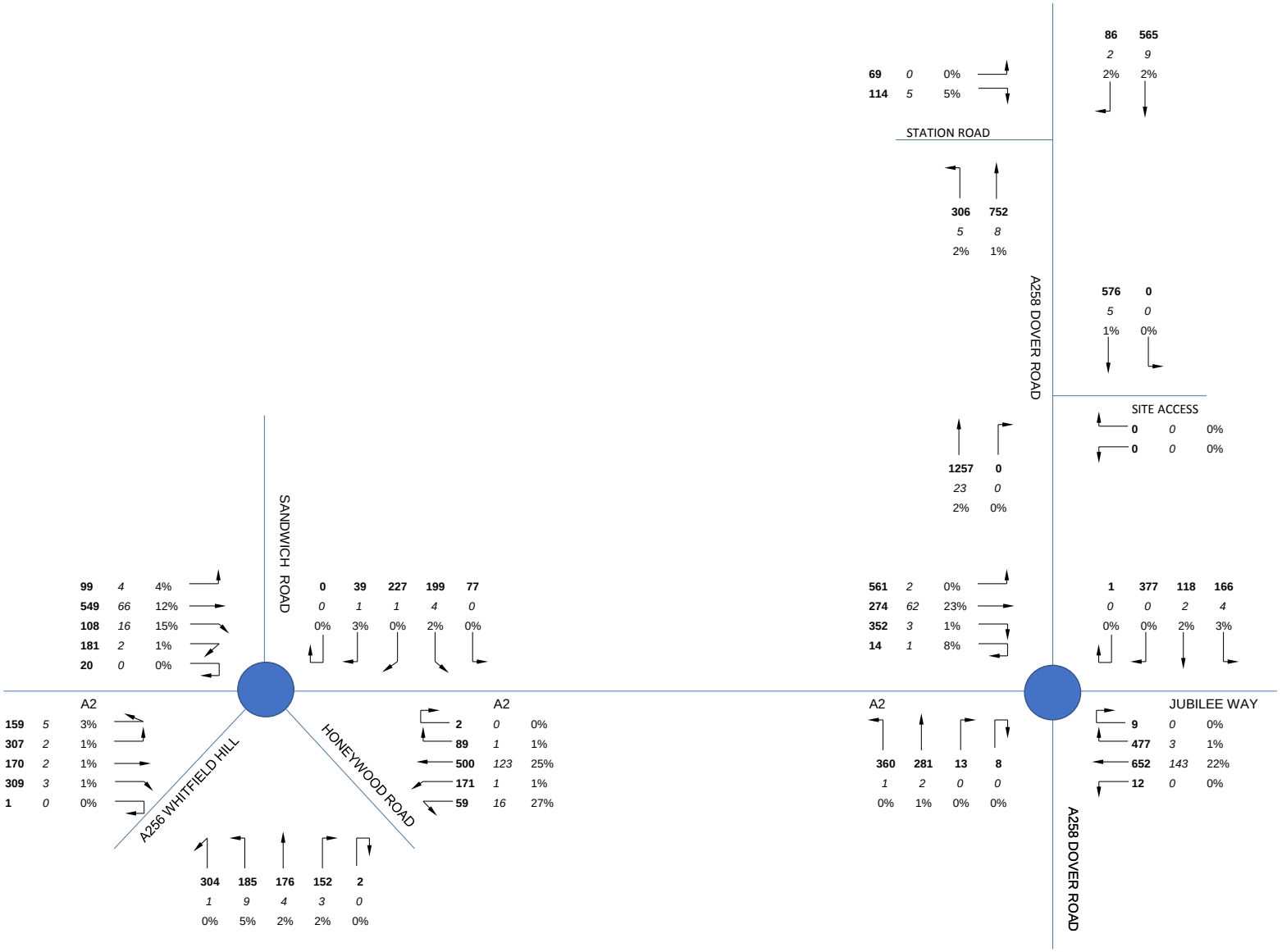


PROJECT	
DOVER ROAD	
TITLE	
2017 OBSERVED PM	
REVISION	DATE
-	01/05/2017
DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123 TOTAL VEHICLES
12 NO. OF HGVs
10% %AGE OF HGVs



PROJECT
DOVER ROAD

TITLE
2022 BASE PM

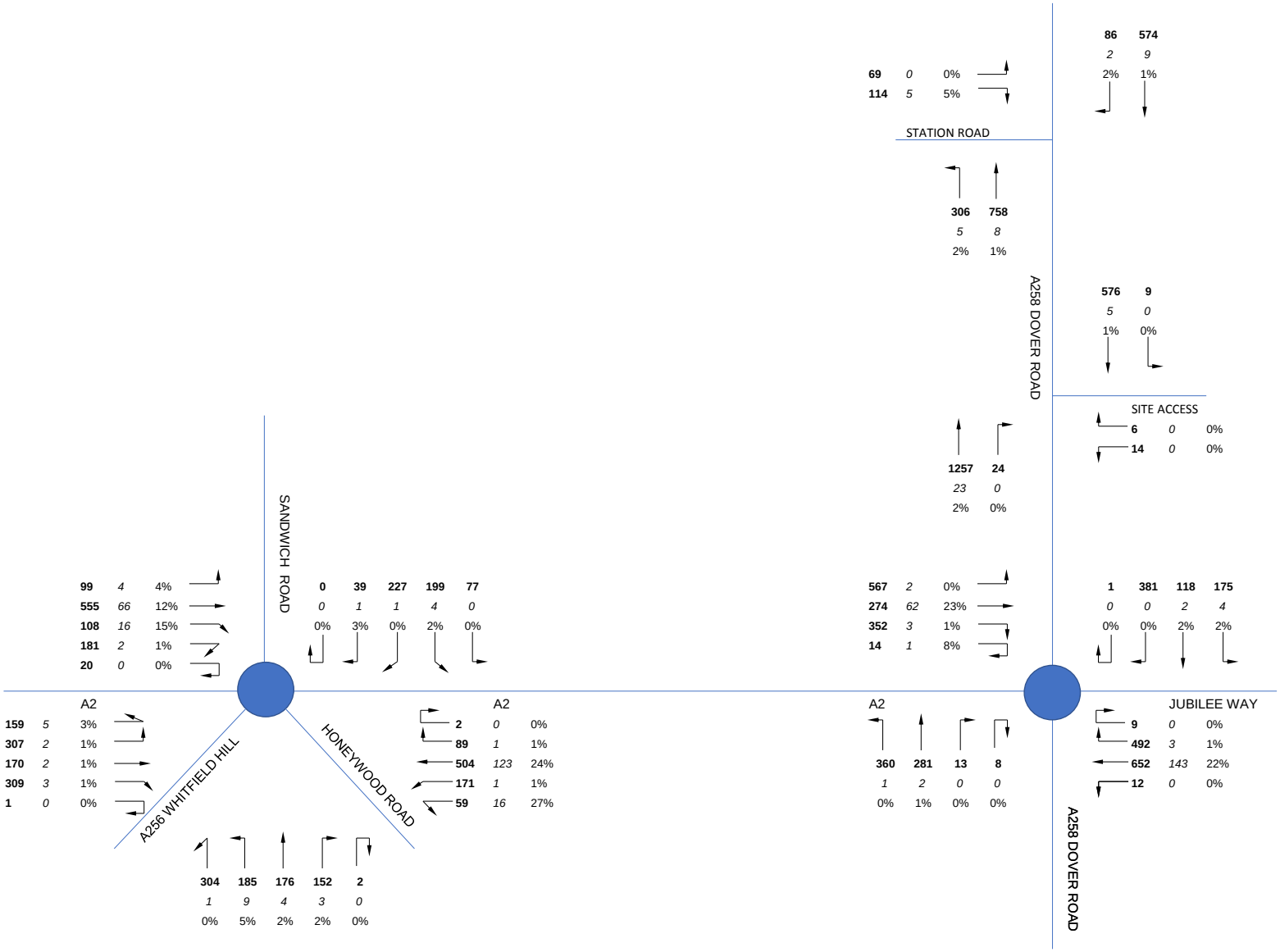
REVISION	DATE
-	01/05/2017

DRAWN BY	APPROVED BY
TG	FP

NOTES:

Key

123	TOTAL VEHICLES
12	NO. OF HGVs
10%	%AGE OF HGVs



PROJECT	DOVER ROAD
TITLE	2022 DEVELOPMENT CASE PM
REVISION	-
DATE	01/05/2017
DRAWN BY	TG
APPROVED BY	FP

A6. REVISED PICADY ASSESSMENT

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 17.07.19 A258 Dover Road_Site Access.j9
Path: P:\Transport\Projects\16-T129 - Gladman Developments - Dover Road, Walmer (Correspondence 2016-124)\4. Calculations\Traffic Models\17.05.25 A258 Dover Road_Site Access
Report generation date: 19/07/2017 12:43:24

Summary of junction performance

	AM		PM	
	Queue (Veh)	RFC	Queue (Veh)	RFC
	2022 Proposed			
Stream B-AC	0.2	0.20	0.1	0.07
Stream C-AB	0.0	0.03	0.0	0.05
	2022 Proposed + Speculative Development (Land at Cross Road c. 235 units)			
Stream B-AC	0.3	0.23	0.1	0.12
Stream C-AB	0.0	0.03	0.0	0.05

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

File summary

File Description

Title	A258 Dover Road / Site Access
Location	Walmer
Site number	
Date	25/05/2017
Version	
Status	
Identifier	TG
Client	Gladman Developments
Jobnumber	16-T129
Enumerator	ICENIPROJECTS\tgood
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	Veh	Veh	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

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2017 Observed	AM	ONE HOUR	07:45	09:15	15	
D2	2017 Observed	PM	ONE HOUR	16:45	18:15	15	
D3	2022 Base	AM	ONE HOUR	07:45	09:15	15	
D4	2022 Base	PM	ONE HOUR	16:45	18:15	15	
D5	2022 Proposed	AM	ONE HOUR	07:45	09:15	15	✓
D6	2022 Proposed	PM	ONE HOUR	16:45	18:15	15	✓
D7	2022 Proposed + Speculative Development (Land at Cross Road c. 235 units)	AM	ONE HOUR	07:45	09:15	15	✓
D8	2022 Proposed + Speculative Development (Land at Cross Road c. 235 units)	PM	ONE HOUR	16:45	18:15	15	✓
D9	2022 Development Case (No Committed)	AM	ONE HOUR	07:45	09:15	15	
D10	2022 Development Case (No Committed)	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

2022 Proposed, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A258 Dover Road (North)		Major
B	Site Access		Minor
C	A258 Dover Road (South)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00		✓	3.00	200.0	✓	5.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.75	91	100

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	544	0.099	0.250	0.157	0.358
1	B-C	670	0.103	0.259	-	-
1	C-B	750	0.291	0.291	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

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	2022 Proposed	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	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1157	100.000
B		ONE HOUR	✓	36	100.000
C		ONE HOUR	✓	707	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	4	1153
	B	10	0	26
	C	697	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.20	22.82	0.2	C	33	50
C-AB	0.03	9.86	0.0	A	9	14
C-A					640	959
A-B					4	6
A-C					1058	1587

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	27	7	356	0.076	27	0.0	0.1	10.916	B
C-AB	8	2	494	0.015	7	0.0	0.0	7.395	A
C-A	525	131			525				
A-B	3	0.75			3				
A-C	868	217			868				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	32	8	296	0.109	32	0.1	0.1	13.653	B
C-AB	9	2	445	0.020	9	0.0	0.0	8.263	A
C-A	627	157			627				
A-B	4	0.90			4				
A-C	1037	259			1037				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	40	10	197	0.201	39	0.1	0.2	22.683	C
C-AB	11	3	376	0.029	11	0.0	0.0	9.859	A
C-A	767	192			767				
A-B	4	1			4				
A-C	1269	317			1269				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	40	10	197	0.201	40	0.2	0.2	22.819	C
C-AB	11	3	376	0.029	11	0.0	0.0	9.861	A
C-A	767	192			767				
A-B	4	1			4				
A-C	1269	317			1269				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	32	8	296	0.109	33	0.2	0.1	13.720	B
C-AB	9	2	445	0.020	9	0.0	0.0	8.264	A
C-A	627	157			627				
A-B	4	0.90			4				
A-C	1037	259			1037				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	27	7	356	0.076	27	0.1	0.1	10.946	B
C-AB	8	2	494	0.015	8	0.0	0.0	7.396	A
C-A	525	131			525				
A-B	3	0.75			3				
A-C	868	217			868				

2022 Proposed, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2022 Proposed	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	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	585	100.000
B		ONE HOUR	✓	20	100.000
C		ONE HOUR	✓	1281	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	576
	B	6	0	14
	C	1257	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.07	13.17	0.1	B	18	28
C-AB	0.05	6.73	0.0	A	22	33
C-A					1153	1730
A-B					8	12
A-C					529	793

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	15	4	425	0.035	15	0.0	0.0	8.771	A
C-AB	18	5	621	0.029	18	0.0	0.0	5.971	A
C-A	946	237			946				
A-B	7	2			7				
A-C	434	108			434				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	18	4	376	0.048	18	0.0	0.0	10.054	B
C-AB	22	5	596	0.036	22	0.0	0.0	6.271	A
C-A	1130	283			1130				
A-B	8	2			8				
A-C	518	129			518				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	22	6	295	0.075	22	0.0	0.1	13.157	B
C-AB	26	7	561	0.047	26	0.0	0.0	6.735	A
C-A	1384	346			1384				
A-B	10	2			10				
A-C	634	159			634				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	22	6	295	0.075	22	0.1	0.1	13.168	B
C-AB	26	7	561	0.047	26	0.0	0.0	6.735	A
C-A	1384	346			1384				
A-B	10	2			10				
A-C	634	159			634				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	18	4	376	0.048	18	0.1	0.1	10.063	B
C-AB	22	5	596	0.036	22	0.0	0.0	6.274	A
C-A	1130	283			1130				
A-B	8	2			8				
A-C	518	129			518				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	15	4	425	0.035	15	0.1	0.0	8.779	A
C-AB	18	5	621	0.029	18	0.0	0.0	5.974	A
C-A	946	237			946				
A-B	7	2			7				
A-C	434	108			434				

2022 Proposed + Speculative Development (Land at Cross Road c. 235 units), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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
D7	2022 Proposed + Speculative Development (Land at Cross Road c. 235 units)	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	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1200	100.000
B		ONE HOUR	✓	36	100.000
C		ONE HOUR	✓	723	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	4	1196
	B	10	0	26
	C	713	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.23	26.42	0.3	D	33	50
C-AB	0.03	10.25	0.0	B	9	14
C-A					654	981
A-B					4	6
A-C					1097	1646

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	27	7	346	0.078	27	0.0	0.1	11.269	B
C-AB	8	2	485	0.016	7	0.0	0.0	7.542	A
C-A	537	134			537				
A-B	3	0.75			3				
A-C	900	225			900				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	32	8	282	0.115	32	0.1	0.1	14.389	B
C-AB	9	2	433	0.021	9	0.0	0.0	8.483	A
C-A	641	160			641				
A-B	4	0.90			4				
A-C	1075	269			1075				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	40	10	176	0.225	39	0.1	0.3	26.199	D
C-AB	11	3	362	0.030	11	0.0	0.0	10.249	B
C-A	785	196			785				
A-B	4	1			4				
A-C	1317	329			1317				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	40	10	176	0.225	40	0.3	0.3	26.422	D
C-AB	11	3	362	0.030	11	0.0	0.0	10.251	B
C-A	785	196			785				
A-B	4	1			4				
A-C	1317	329			1317				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	32	8	282	0.115	33	0.3	0.1	14.482	B
C-AB	9	2	433	0.021	9	0.0	0.0	8.487	A
C-A	641	160			641				
A-B	4	0.90			4				
A-C	1075	269			1075				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	27	7	346	0.078	27	0.1	0.1	11.306	B
C-AB	8	2	485	0.016	8	0.0	0.0	7.546	A
C-A	537	134			537				
A-B	3	0.75			3				
A-C	900	225			900				

2022 Proposed + Speculative Development (Land at Cross Road c. 235 units), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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
D8	2022 Proposed + Speculative Development (Land at Cross Road c. 235 units)	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	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	609	100.000
B		ONE HOUR	✓	33	100.000
C		ONE HOUR	✓	1297	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	600
	B	9	0	24
	C	1273	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.12	13.97	0.1	B	30	45
C-AB	0.05	6.83	0.0	A	22	33
C-A					1168	1752
A-B					8	12
A-C					551	826

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	25	6	428	0.058	25	0.0	0.1	8.920	A
C-AB	18	5	615	0.029	18	0.0	0.0	6.024	A
C-A	958	240			958				
A-B	7	2			7				
A-C	452	113			452				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	30	7	378	0.079	30	0.1	0.1	10.338	B
C-AB	22	5	589	0.037	22	0.0	0.0	6.341	A
C-A	1144	286			1144				
A-B	8	2			8				
A-C	539	135			539				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	36	9	294	0.124	36	0.1	0.1	13.946	B
C-AB	26	7	553	0.048	26	0.0	0.0	6.834	A
C-A	1402	350			1402				
A-B	10	2			10				
A-C	661	165			661				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	36	9	294	0.124	36	0.1	0.1	13.969	B
C-AB	26	7	553	0.048	26	0.0	0.0	6.834	A
C-A	1402	350			1402				
A-B	10	2			10				
A-C	661	165			661				

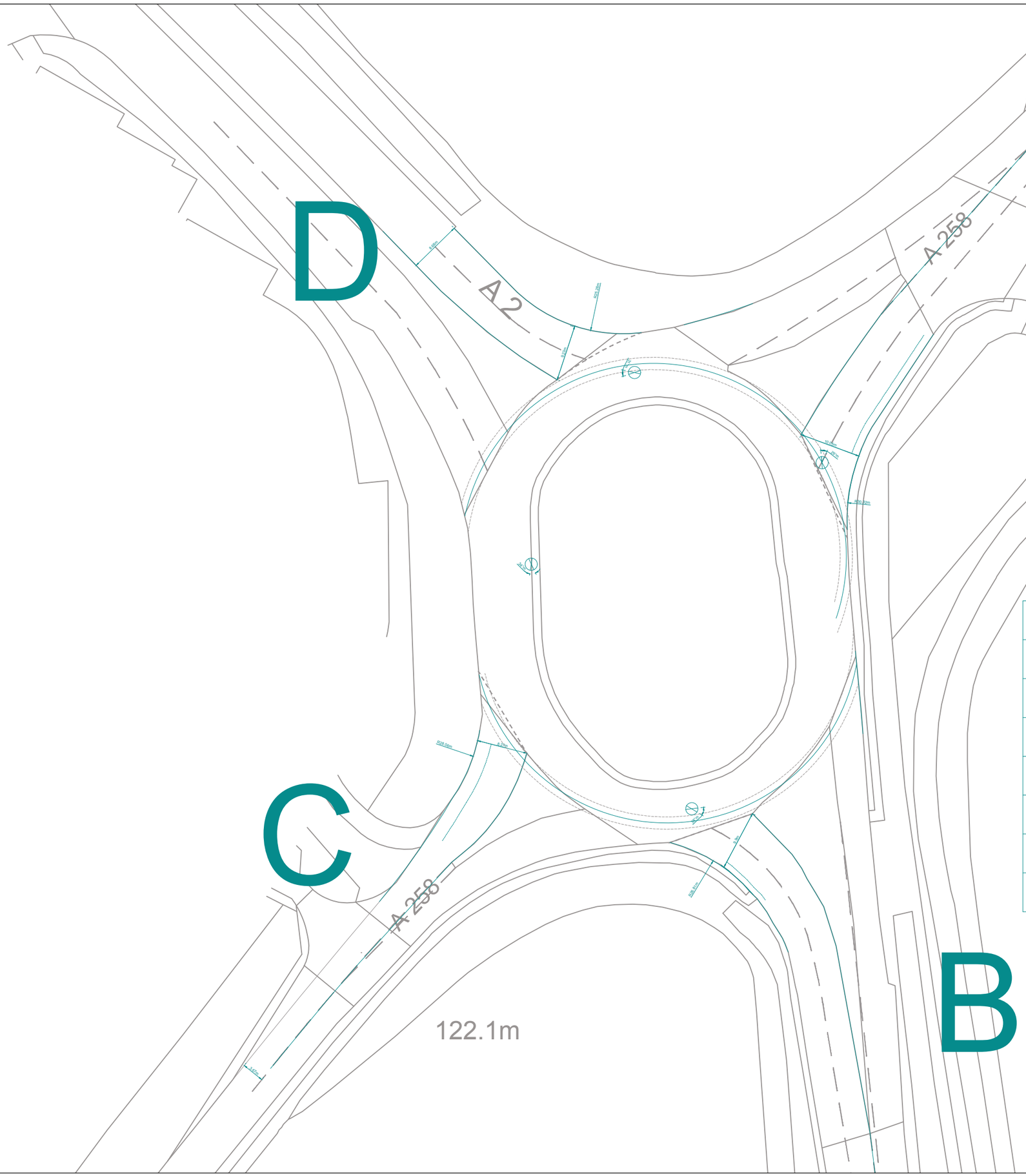
17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	30	7	378	0.079	30	0.1	0.1	10.356	B
C-AB	22	5	589	0.037	22	0.0	0.0	6.342	A
C-A	1144	286			1144				
A-B	8	2			8				
A-C	539	135			539				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	25	6	428	0.058	25	0.1	0.1	8.937	A
C-AB	18	5	615	0.029	18	0.0	0.0	6.029	A
C-A	958	240			958				
A-B	7	2			7				
A-C	452	113			452				

A7. JUNCTION GEOMETRIES



ARCAD□				
	Arm A	Arm B	Arm C	Arm D
ARHW	7.48	7.7	3.67	8.68
EW	10.05	9.9	8.27	9.23
EFL	22.7	8.9	17.7	0.7
ER	30.32	26.81	28.06	25.28
ICD	31.5	31.5	31.5	31.5
CA	14.5	19	17	15.5