Brunning and Price

Proposed Development
Tidbury Green Farm
Tidbury Green, Solihull

Transport Statement

December 2018

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1 INTRODUCTION

1.1 Vectos has been commissioned by Brunning & Price Ltd to provide transport and highway advice in relation to their proposed development at Tidbury Green Farm, Tidbury Green, Solihull.

1.2 The site is located in the centre of the village of Tidbury Green and the location is shown at **Figure 1.1**. The site is bound to the north by Dickens Heath Road and to the west by Fulford Hall Road. To the east is Tidbury Green school and nursery and to the south there is land, formerly part of the farm, that is currently being developed for residential purposes.

1.3 The site is to be redeveloped as a food led pub/restaurant. Presently, the site comprises the main farmhouse and a number of ancillary buildings. There is an existing vehicular access serving the site from Fulford Hall Road. It is anticipated that this access will be amended in association with the proposals.

1.4 A planning application was submitted to Solihull Metropolitan Borough Council in January 2018 and was accompanied by a Transport Statement. Following a review of the application, Council officers raised no issues with the proposals on transport matters. However, for other non-transport related reasons, the application has been withdrawn and a new scheme, comprising an amended layout, has been prepared. The Transport Statement has therefore been updated accordingly to accompany the new full planning application. There are no material changes to the transport aspects of the proposals.

1.5 This Transport Statement therefore describes the development proposals, sets out the transport context of the site, and considers the potential transport implications, including an assessment of the parking demand and the potential effects of increases in traffic flows on the local highway network.

1.6 The remainder of this report is thus structured as follows:

- Section 2 - Site Context
- Section 3 - Access by Sustainable Modes
- Section 4 - Policy Context
- Section 5 - Development Proposals
- Section 6 - Trip Generation
- Section 7 - Assessment of Proposals
- Section 8 - Summary and Conclusions

2 SITE CONTEXT

Existing Site

2.1 The existing site is occupied by the main farmhouse and a number of ancillary buildings, with a hardstanding area in the centre of and to the south of these buildings.

2.2 To the north, east and west of the buildings are gardens/mainly grassed areas, with a pond immediately to the north of the access road.

Site Access and Local Highway Conditions

2.3 There is an existing vehicular access point on Fulford Hall Road in the south-west corner of the site. The access is currently not wide enough to accommodate two-way vehicle movements.

2.4 Fulford Hall Road runs on a north/south alignment past the site and meets Dickens Heath Road, Lowbrook Lane and Tilehouse Lane at a four-arm crossroads junction adjacent to the north-west corner of the site. Fulford Hall Road and Tilehouse Lane are on the priority route through the junction, with Lowbrook Lane and Dickens Heath the minor arms.

2.5 To the south, Fulford Hall Road continues to meet Norton lane, which passes south of Tidbury Green and provides a link to Earlswood (south-east) and Wythall (west). To the north of the site, Tilehouse Lane continues to Whitlock's End and Major's Green

2.6 Lowbrook Lane continues in a south-westerly direction from Fulford Hall Road/Tilehouse Lane to meet Norton Lane at the western extent of Tidbury Green. Dickens Heath Road to the east provides a link to Dickens Heath, one of the largest villages in the area.

2.7 All roads in the vicinity of the site are single carriageways and have street lighting.

2.8 There is a speed table at the crossroads junction adjacent to the site and there are further traffic calming features such as speed tables/cushions on the Dickens Heath Road approach to the junction, where drivers are asked to 'Stop' rather than 'Give Way'.

Collision Data Analysis

2.9 During the most recent five-year period there have been no reported collisions within the vicinity of the site at the Fulford Hall Road/Lowbrook Lane/Tilehouse Lane/Dickens Heath Road crossroads. On the wider road network there have been a total of three collisions over the most recent five-year period 2013 to 2017, two of which were classed as slight and one as serious. The full reports are included in **Appendix A.**

2.10 One took place on Tilehouse Lane to the north in early 2013. The collision occurred when a vehicle passing a stationary vehicle on the offside failed to judge the manoeuvre correctly.

2.11 The second collision took place at the Dickens Heath Road/Birchy Leasowes Lane junction to the east in September 2014. The accident occurred when a vehicle in the act of turning right onto Dickens Heath Road failed to notice an oncoming pedal cycle causing the collision.

2.12 The third and most recent collision, which resulted in serious injury, occurred at the junction of Cleobury Lane with Dickens Heath Road in August 2017, when a driver turned right into the path of a motorcyclist.

2.13 There were no collisions in the immediate vicinity of the site. The limited number of collisions recorded in the wider study area were attributed to human error, with likely causes cited as failing to look properly or a failure to judge a manoeuvre correctly. These collisions most likely occurred as a result of causes that were not due to highway design conditions.

3 ACCESS BY SUSTAINABLE MODES

Introduction

3.1 New proposals should attempt to influence the mode of travel to the development in terms of gaining a shift in modal split towards non-car modes, thus assisting in meeting the aspirations of current and emerging national and local planning policy.

3.2 The accessibility of the proposed development by foot, cycle and public transport has therefore been considered particularly for staff, local residents, leisure walkers and cyclists.

Accessibility on Foot

3.3 Pedestrian access to the proposed development can be made from main property frontage on Fulford Hall Road. There is a 1.5m wide footway provided along the eastern edge of Fulford Hall Road which currently terminates adjacent to the south-west corner of the site. However, as part of the adjacent residential development (Ref: PL-2013-01394-OLM) it is proposed to continue this footway further south to link to the new residential scheme.

3.4 The western footway on Fulford Hall Road runs continuously between the junction with Norton lane to the south and Lowbrook Lane to the north. The footway continues north along the western side of Tilehouse Lane.

3.5 On Dickens Heath Road, to the north of the site, there is footway running along its southern side to the eastern edge of the village, from where it continues on the northern side of the road towards Dickens Heath. Lowbrook Lane has a continuous footway on the northern side of the road between Tilehouse Lane and Norton Lane.

3.6 The whole of Tidbury Green village and much of Dickens Heath, Wythall and Whitlock's End are within a 2km walk of the site. The site is situated in an area that could be attractive a number of walkers and walking groups.

Accessibility by Cycle

3.7 Cycling has the potential to replace car journeys, particularly those of less than 5km.

3.8 This distance comfortably includes the nearby settlements of Wythall, Dickens Heath, Major's Green, Hollywood, Cheswick Green and the much of Shirley (to the north-east). A 5km cycling Isochrone has been produced and is shown in **Figure 3.1**.

3.9 Birchy Leasowes Lane, to the north-east of the site, is described as an advisory cycle route and this provides part of a link between Hollywood and Dickens Heath. In addition, Rumbush Lane, to the east of the site, is also indicated as an advisory route. Much of the local road network is lightly trafficked and as such, it is thought that cycling offers a realistic opportunity to replace cars for short journeys and also to act as part of a leisure trip.

Accessibility by Bus

3.10 The closest bus stops are located immediately to the north-east of the site on Dickens Heath Road. Bus route S3/W serves these stops along with the less frequent 865. The S3/W provides hourly services between Wythall and Hockley Heath via Soliull, with an hourly service on the return route.

3.11 Additional bus stops can be accessed approximately 1km from the site in the village of Wythall. Service 50A operates from these stops and provides 2 services in the morning and 1 during the afternoon. The location of all accessible bus stops is presented in **Figure 3.2**.

Accessibility by Rail

3.12 Wythall also provides a railway station, approximately 1km to the west of the site, which is located on the North Warwickshire Line. This station provides hourly services in each direction between Birmingham Snow Hill and Stratford Upon Avon. On route, these services stop at a number of destinations in the local area including Shirley and Henley-in-Arden.

3.13 In addition, approximately 1.5km to the north of the site is the station of Whitlocks End. This station is located on the same line as Wythall.

4 PLANNING POLICY CONTEXT

National Planning Policy Framework, July 2018

4.1 The National Planning Policy Framework (NPPF) is a central Government planning document produced by the Ministry of Housing, Communities and Local Government. It provides the policy framework to guide local authorities when preparing their local plans and determining planning applications.

4.2 The document recognises the importance of transport issues when considering new development proposals, so that:

- *"the potential impacts of development on transport networks can be addressed;*
- *opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- *opportunities to promote walking, cycling and public transport use are identified and pursued;*
- *the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- *patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."*

4.3 Paragraph 108 states:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *safe and suitable access to the site can be achieved for all users; and*
- *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

4.4 Paragraph 109 is similar to paragraph 32 of the 2012 NPPF and states:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

Local Policy

Solihull Local Plan (2011 – 2028)

4.5 The Solihull Local Plan was adopted in December 2013. However, a legal challenge on the overall housing requirement resulted in this current version of the Plan being deleted and subject to reconsideration by the Council. In addition to this, the HS2 decision has resulted in additional policy areas to be considered. The Council is currently developing a Local Plan review during 2018/19.

4.6 In July 2017, the Draft Local Plan Review consultation was presented and reported to Cabinet members.

4.7 Therefore, the Local Plan adopted December 2013 has been retained during this process. Within Chapter 9 this focuses on 'Improving Accessibility and Encouraging Sustainable Travel'. The aims of the transport policies are as follows:

- ***Enable Economic Growth*** *– To ensure that the transport network does not constrain economic growth; allowing growth and the consequential increase in travel demand to be accommodated without significant increases in congestion.*
- ***Reduce Greenhouse Gas Emissions -*** *to reduce the need to travel by guiding development to the most accessible locations, and manage travel demand by encouraging a shift to public transport and active travel modes and supporting sustainable transport initiatives in the Local Transport Plan.*
- ***Connect Communities, Centres and Employment*** *- to ensure that people can access local services, key employment and retail centres and education locations on foot, by bicycle and public transport.*
- ***Encourage Ease of Access and Movement*** *- to consider the whole journey when planning travel and to ensure that all travel modes are accessible and attractive to all users.*
- ***Make Best Use of Existing Assets*** *- to make the most efficient use of existing transport networks limiting the need to build new roads and invest in large scale infrastructure.*

4.8 Policy P8 – Managing the demand for Travel and Reducing Congestion is applicable to the site as it states that

'All development proposals should have regard to transport efficiency and highway safety'

i. Development will not be permitted which results in a significant increase in delay to vehicles, pedestrians or cyclists or a reduction in safety for any users of the highway or other transport network; and

iv. Provision for parking and servicing will be required in accordance with a Supplementary Planning Document on managing travel demands associated with development.

4.9 There will be a number of customers that will be arriving on foot or by methods of public transport. For this reason, part b of policy 9 indicates that developments should promote and encouraged sustainable modes.

Solihull Connected - Transport Strategy 2016

4.10 This document was adopted within 2016 to provide a vision of transport for Solihull in light of the decision regarding HS2. This strategy looks at the high-level connections that Solihull endeavours to achieve. The vision of Solihull Connected is as follows:

'Solihull Connected will enable great mobility and connections for all by attracting major investment in our transport system and places – enhancing the Borough as an attractive, sustainable and economically vibrant place to live, work and visit.'

4.11 The strategy sets out a number of major aims within sustainable transport from Mass Transit Network, Heavy Rail and a strategic cycle network. However, it is also acknowledged that the congestion of local roads needs to investigated to keep the borough moving and ultimately:

'Finding a balance between moving people and creating great places'.

Vehicle Parking Standards and Green Travel Plans (June 2006)

4.12 This document sets out the parking standards for developments. The Council is looking to replace these standards. However, they have been retained as part of the existing Local Plan. **Table 4.1** sets out the relevant car parking standards.

Land Use	Standard
A3/A4/A5 Restaurants & Cafés/Drinking Establishments/Hot Food Takeaway	Range from 1 space per 4 customers to zero in some town centre locations

4.13 The standards indicate that the following are required for cycle parking:

'Normally require provision for safe; secure cycle parking in developments and appropriate provision for motorcycle parking'.

5 DEVELOPMENT PROPOSALS

The Scheme

5.1 Brunning and Price aim to create quality pubs that are 'informal places for people who like to meet, eat, drink and talk in a relaxed friendly atmosphere'. The development aims to provide an attractive destination for locals that adds to community facilities.

5.2 The aspiration for the site is to convert the existing farmhouse and associated outbuildings at Tidbury Green Farm into a pub. This is to be achieved by way of side and rear extensions to connect the farmhouse and barn, providing dining space, a new kitchen, bar and customer facilities on the ground floor. The upper floors of the farmhouse will provide manager's accommodation.

Access

5.3 The new development will retain the same access location on Fulford Hall Road, but this will be amended to provide two-way working and to increase the visibility splay provision.

5.4 A speed survey was undertaken on Fulford Hall Road in the form of an automatic traffic counter (ATC) placed at the location of the site access for a period of seven days from 12th to 18th October 2017. This survey established that the 85th percentile speeds past the site were as follows:

- Northbound 34.7 mph
- Southbound 34.4 mph

5.5 On the basis of these measured speeds and advice on stopping sight distances provided in Manual for Streets, it has been determined that visibility splays of 2.4m x 50m should be provided in each direction from the amended site access.

5.6 Drawing 173497/A/07 provided at **Appendix B** shows the proposed access arrangements including the improved visibility splay provision. A fence or hedge would be placed to the rear of the visibility splays.

Parking

5.7 As set out previously, the current car parking standards would suggest a maximum provision of one space for every 4 customers.

5.8 It is anticipated that the new pub/restaurant would cater for around 200 to 250 customers during the busiest periods (e.g. when the restaurant is full and other customers are in the main pub area). This suggests that there should be no more than 63 parking spaces on the site.

5.9 The proposed car parking provision is for a total of 57 spaces, including 3 disabled spaces and 5 for staff. The total provision is within the maximum suggested by the parking standards.

5.10 Further consideration of the operational use of the car park, based on the trip generation characteristics of the proposals, is provided later in this report.

5.11 The redeveloped site is expected to attract leisure cyclists. As such, it is proposed to provide cycle parking spaces convenient to the main entrance. The exact number to be provided will be determined following discussions with relevant officers at the authority.

Servicing

5.12 It is anticipated that the proposed development would have around three deliveries per day. Most deliveries will be by vans with occasional deliveries by larger rigid vehicle (some food deliveries and dray lorries).

5.13 Vehicles would tend to deliver outside of opening times so that staff are available.

5.14 A swept path analysis showing the ingress and egress of a 10 metre rigid vehicle (the largest expected) into the delivery space is presented in **Appendix C**.

6 TRIP GENERATION

6.1 This section sets out the methodology used for estimating the potential level of vehicle trips to and from the site.

6.2 The trip generation for vehicles has been estimated for a typical weekday and in addition for the weekend. The trip rates have been obtained from the TRICS database, taking into account the location, size of the development and the type of operator.

TRICS Data

6.3 The TRICS database has been used to derive vehicle trip rates for the proposed pub/restaurant. The following criteria were used to ensure that the trip rates were as representative as possible of the proposals:

- Land Use: Hot Food & Drink
- Sub Land Use: Pub/Restaurant
- Regions: All England (Excluding Greater London)
- Location: Suburban Area, Edge of Town, Neighbourhood Centre
- Survey Days: Weekdays and Weekends
- Unit Size (GFA): 300 – 1,000sqm
- Date Range: 01/01/06 – 20/05/17

6.4 The above selection identified six sites for the weekday and six for the weekend.

6.5 The TRICS output data for both the weekday and weekend selections is provided within **Appendix D**.

6.6 The typical peak period trip rates are summarised in **Table 6.1** below.

Table 6.1 – Vehicle Trip Rates for Pub/Restaurant

Mode	Weekday Peak (18:00-19:00)		Weekend Peak (13:00-14:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicle Trip Rate	3.675	3.007	5.249	4.236

Traffic Flows

6.7 The trip rates have been applied to the floor area of the proposed pub/restaurant to calculate the potential number of vehicle trips that could be generated by the site. **Table 6.2** sets out the number of weekday and weekend trips based on a floor area of 640sqm, which was assumed in the previous submission. The revised proposal is for around 630sqm of pub/restaurant floorspace, including back of house in some of the existing outbuildings. Given the marginal difference between the floor areas (with the revised scheme being slightly lower) for simplicity the trip generation element of the analysis has not been updated.

Table 6.2 – Vehicle Trip Generation for Pub/Restaurant

Mode	Weekday Peak (18:00-19:00)		Weekend Peak (13:00-14:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicle Trip Generation	24	19	33	27

6.8 As is demonstrated in **Table 6.2** the anticipated peak vehicle generation within the weekday peak would result in a maximum of 43 two-way movements. In the weekend peak, corresponding to the lunchtime period, there could be 60 two-way movements.

7 ASSESSMENT OF PROPOSALS

7.1 This section of the Transport Statement assesses the potential effects of the proposed development on the local road network and also considers the operation of the proposed car park.

Traffic Assessment

7.2 An assessment of the traffic associated with the proposed development has been undertaken for the key junction immediately to the north-west of the site, the crossroads of Tilehouse Lane/Dickens Heath Road/Lowbrook Lane/Fulford Hall Road.

Traffic Surveys

7.3 Manual Classified Counts (MCCs) were undertaken on 13th, 14th and 15th of October 2017 during the follow periods:

- Friday 13th – 16:00 to 19:00
- Saturday 14th - 11:00 to 15:00
- Sunday 15th - 11:00 to 15:00

7.4 The peak hours for each day have been identified through examination of the traffic survey data and are confirmed as 16:30-17:30 for the Friday, 12:45-13:45 on Saturday and 12:15-13:15 on the Sunday. The traffic flows for each peak hour are shown in **Figures 7.1** to **7.3**.

Committed Developments

7.5 A number of committed development sites have been identified in the vicinity of the site. Traffic generated by these sites has been included within the assessment to form the basis of future year traffic flows, with the assumption that these committed developments, when combined, will present most if not all of any traffic growth that occurs on the local road network in the centre of Tidbury Green.

7.6 Traffic flows for each committed development have been taken from the corresponding Transport Assessment submitted with the planning application.

7.7 The committed developments included within this assessment that are identified as having a material impact on traffic flows in the centre of Tidbury Green are:

- Fulford Hall Road, Tidbury Green – Planning references PL/2016/03232 and PL/2013/01394; and
- Lowbrook Lane, Tidbury Green – Planning reference PL/2012/01568.

7.8 Bleak House Farm, Wythall (Planning reference 12/0912) is not identified as having an effect on the junction and has thus not been included. The traffic flows for the Fulford Hall Road and Lowbrook Lane developments are shown at **Figures 7.4** to **7.8**.

7.9 The committed development traffic flows have been added to the surveyed flows to provide assumed baseline future year flows as shown at **Figures 7.9** to **7.11**.

Development Traffic Flows

7.10 A 50%/50% split of development traffic at the site entrance was assumed, to provide an even split of traffic travelling south towards Norton Lane and the remaining traffic distributed across the junction of Tilehouse Lane/Dickens Heath Road/Lowbrook Lane/Fulford Hall Road.

7.11 As part of the aforementioned Fulford Hall Road development, it is understood that the left turn movement from Fulford Hall Road into Lowbrook Lane has been banned. Therefore, no development traffic was distributed to this movement. It is assumed that any driver wishing to undertake this manoeuvre as part of a longer journey would instead travel south and then travel west on Norton Lane.

7.12 The remaining development traffic at the junction of Tilehouse Lane/Dickens Heath Road/Lowbrook Lane/Fulford Hall Road was distributed based on total approach flows from the two remaining arms (Tilehouse Lane and Dickens Heath).

7.13 The resultant development traffic flows are shown at **Figures 7.12** and **7.13**. The total traffic flow for capacity testing purposes are shown at **Figures 7.14** to **7.16**.

Tilehouse Lane/Dickens Heath Road/Lowbrook Lane/Fulford Hall Road

7.14 To understand the operation of the existing Tilehouse Lane/Dickens Heath Road/Lowbrook Lane/Fulford Hall Road junction with committed development growth, a PICADY model has been prepared. The results from these scenarios area summarised in **Tables 7.1** to **7.3**. This is a standalone industry standard type of modelling software for priority junctions.

7.15 The second scenario was to determine the impact of the development. The results of this model are summarized in **Tables 7.4** to **7.6** below These demonstrated the observed 2017 flows, with the addition of the committed development flows and then the impact of the development also added. Full outputs can be viewed at **Appendix D.**

Table 7.1: PICADY Results - Friday

Movement	Observed + Committed (Friday)		Observed + Committed + Dev (Friday)	
	RFC*	Queue	RFC*	Queue
Dickens Heath Road to Fulford Road/Lowbrook Road	0.83	4	0.86	5
Dickens Heath Road to Tilehouse Lane/Lowbrook Road	0.71	2	0.77	3
Tilehouse Lane to all Roads	0.22	0	0.22	0
Lowbrook Road to Tilehouse Lane/Dickens Heath Road	0.51	1	0.52	1
Lowbrook Road to Dickens Heath Road/Fulford Hall Road	0.46	1	0.47	1
Fulford Hall Road to all Roads	0.20	0	0.22	0

Table 7.2: PICADY Results - Saturday

Movement	Observed + Committed (Sat)		Observed + Committed + Dev (Sat)	
	RFC*	Queue	RFC*	Queue
Dickens Heath Road to Fulford Road/Lowbrook Road	0.28	0	0.29	0
Dickens Heath Road to Tilehouse Lane/Lowbrook Road	0.22	0	0.23	0
Tilehouse Lane to all Roads	0.16	0	0.16	0
Lowbrook Road to Tilehouse Lane/Dickens Heath Road	0.34	1	0.35	1
Lowbrook Road to Dickens Heath Road/Fulford Hall Road	0.18	0	0.19	0
Fulford Hall Road to all Roads	0.05	0	0.06	0

Table 7.3: PICADY Results - Sunday

Movement	Observed + Committed (Sun)		Observed + Committed + Dev (Sun)	
	RFC*	Queue	RFC*	Queue
Dickens Heath Road to Fulford Road/Lowbrook Road	0.24	0	0.26	0
Dickens Heath Road to Tilehouse Lane/Lowbrook Road	0.20	0	0.20	0
Tilehouse Lane to all Roads	0.16	0	0.16	0
Lowbrook Road to Tilehouse Lane/Dickens Heath Road	0.30	0	0.30	0
Lowbrook Road to Dickens Heath Road/Fulford Hall Road	0.18	0	0.18	0
Fulford Hall Road to all Roads	0.05	0	0.05	0

7.16 Tables 7.1 to 7.3 demonstrate that the junction operates satisfactorily allowing for existing conditions and the addition of committed developments.

7.17 The results above also indicate that the junction would operate satisfactorily following implementation of the proposed development. The proposals would make no material difference to the operation of the junction.

Car Parking

7.18 A car park assessment has been undertaken using results of the trip generation exercise previously set out in Section 6. **Tables 7.4** and **7.5** demonstrate the anticipated hourly development traffic flows, by direction, along with an anticipated car parking accumulation. An assumption is made that two cars will be in the car park before 08:00 (the start of the TRICS assessment).

Table 7.4: Weekday Parking Accumulation

Time	Arrivals	Departures	Change	Parking Accumulation
10:00-11:00	4	4	0	2
11:00-12:00	11	4	+7	9
12:00-13:00	23	10	+13	22
13:00-14:00	15	16	-1	21
14:00-15:00	8	17	-9	12
15:00-16:00	8	10	-2	10
16:00-17:00	18	8	+10	20
17:00-18:00	25	16	+9	29
18:00-19:00	24	19	+5	34
19:00-20:00	22	24	-2	32
20:00-21:00	12	20	-8	24
21:00-22:00	8	15	-7	17
22:00-23:00	5	16	-11	6
23:00-24:00	2	6	-4	2

Table 7.5: Weekend Parking Accumulation

Time	Arrivals	Departures	Change	Parking Accumulation
08:00-09:00	6	0	+6	8
09:00-10:00	7	2	+5	13
10:00-11:00	9	9	0	13
11:00-12:00	13	8	+5	18
12:00-13:00	37	13	+24	42
13:00-14:00	34	27	+7	49
14:00-15:00	23	36	-13	36
15:00-16:00	23	27	-4	32
16:00-17:00	27	23	+4	36
17:00-18:00	27	28	+1	35
18:00-19:00	21	22	-1	34
19:00-20:00	19	24	-5	29
20:00-21:00	7	16	-9	20
21:00-22:00	4	10	-6	14
22:00-23:00	1	6	-4	9
23:00-24:00	0	4	-4	5

7.19 The above tables demonstrate that the maximum parking accumulation may reach 49 spaces during the weekend peak. The proposed car park would accommodate this demand.

8 SUMMARY AND CONCLUSIONS

8.1 Vectos has been commissioned by Brunning & Price Ltd to provide transport and highway advice in relation to their proposed development at Tidbury Green Farm, Tidbury Green, Solihull.

8.2 The site is to be redeveloped as a food led pub/restaurant. Presently, the site comprises the main farmhouse and a number of ancillary buildings. There is an existing vehicular access serving the site from Fulford Hall Road. It is anticipated that this access will be amended in association with the proposals.

8.3 A Transport Statement was produced for a previous planning application for a similar development on the site, with Council officers raising no issues on transport matters. The scheme has been revised for the purposes of a new planning application in order to resolve other non-transport related issues. This Transport Statement is similar to the previous version but has been updated where necessary to reflect the revised development scheme.

8.4 The proposed car parking provision is for a total of 57 spaces, including 3 disabled spaces and 5 for staff. The total provision is within the maximum suggested by the parking standards.

8.5 To support this site as a destination for cyclists, cycle stands/racks will be provided within the grounds, convenient for the main entrance.

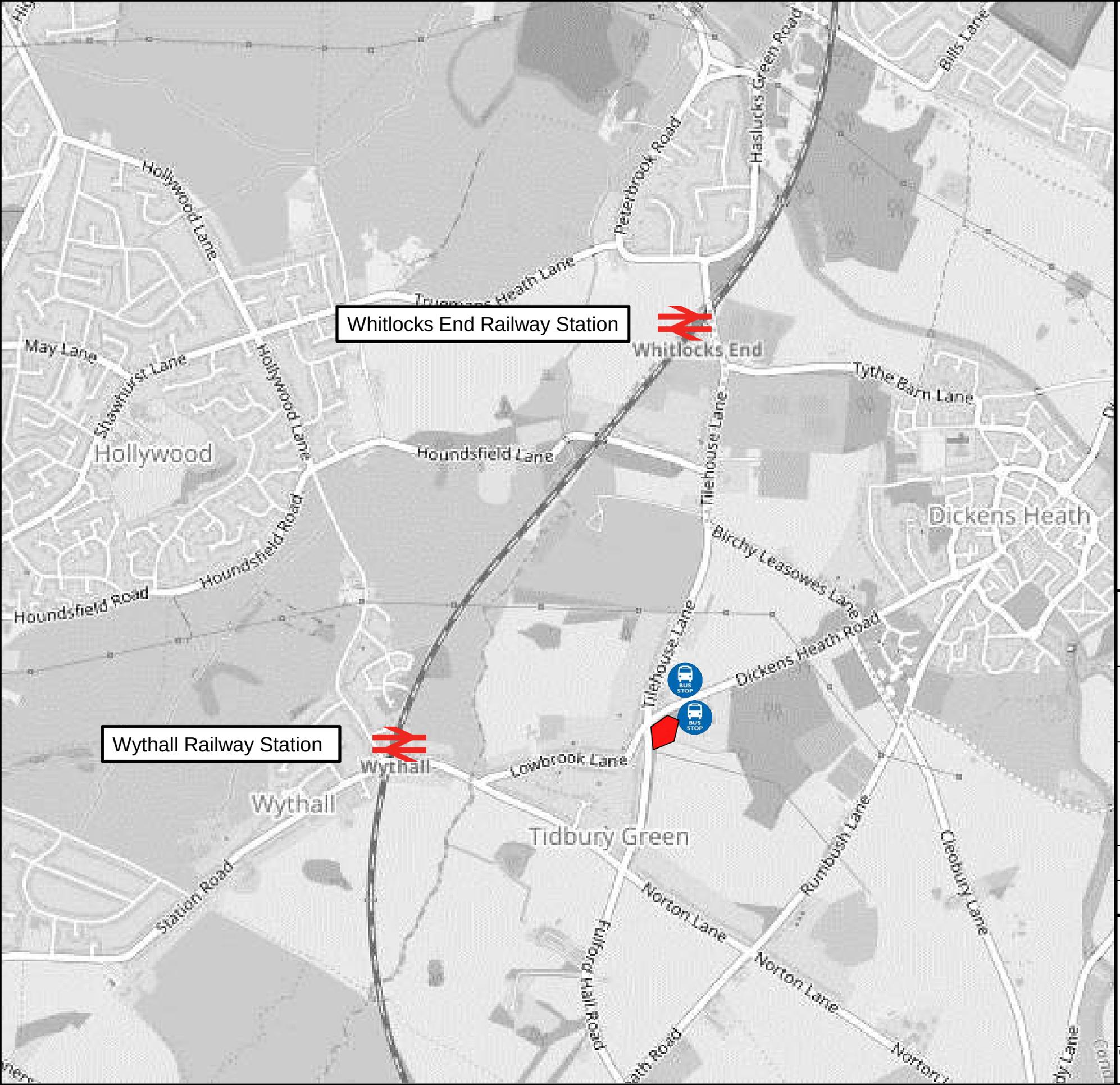
8.6 The site is located close to a number of local walking routes and would be attractive to visitors as part of a leisure walk. The site is served by a number of local bus services and railway stations are within vicinity of the site.

8.7 A traffic assessment has demonstrated that the proposals would make no material difference to the operation of the adjacent Tilehouse Lane/Fulford Hall Road/Dickens Heath Road/Lowbrook Lane junction during the peak periods, which would continue to operate satisfactorily.

8.8 A further assessment of development trips has confirmed that the proposed car parking provision is appropriate.

8.9 To conclude, it is evident that there are no material reasons why the development should not be granted planning permission on highways or transportation grounds.

FIGURES



Key

Site Location

Closest Bus Stop

National Railway Station

Brunning and Price

Tidbury Green Farms, Tidbury Green

Site Location Plan

SCALES:			
NTS			
DRAWN:	CHECKED:	DATE:	REVISION:
H.J	A.T	10/11/17	.

vectos transport planning specialists

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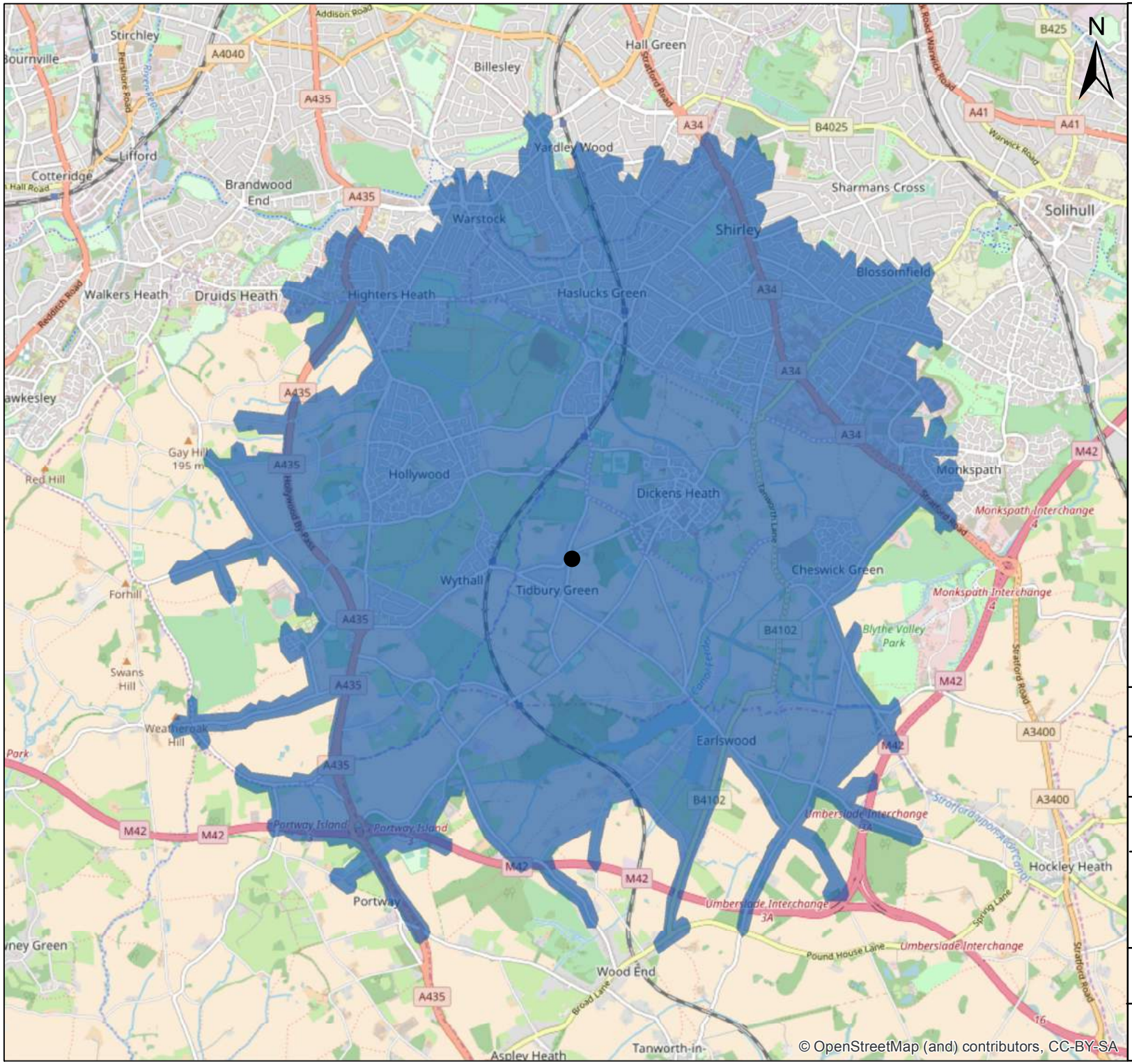
DRAWING REFERENCE:

Figure 1.1



Brunning and Price

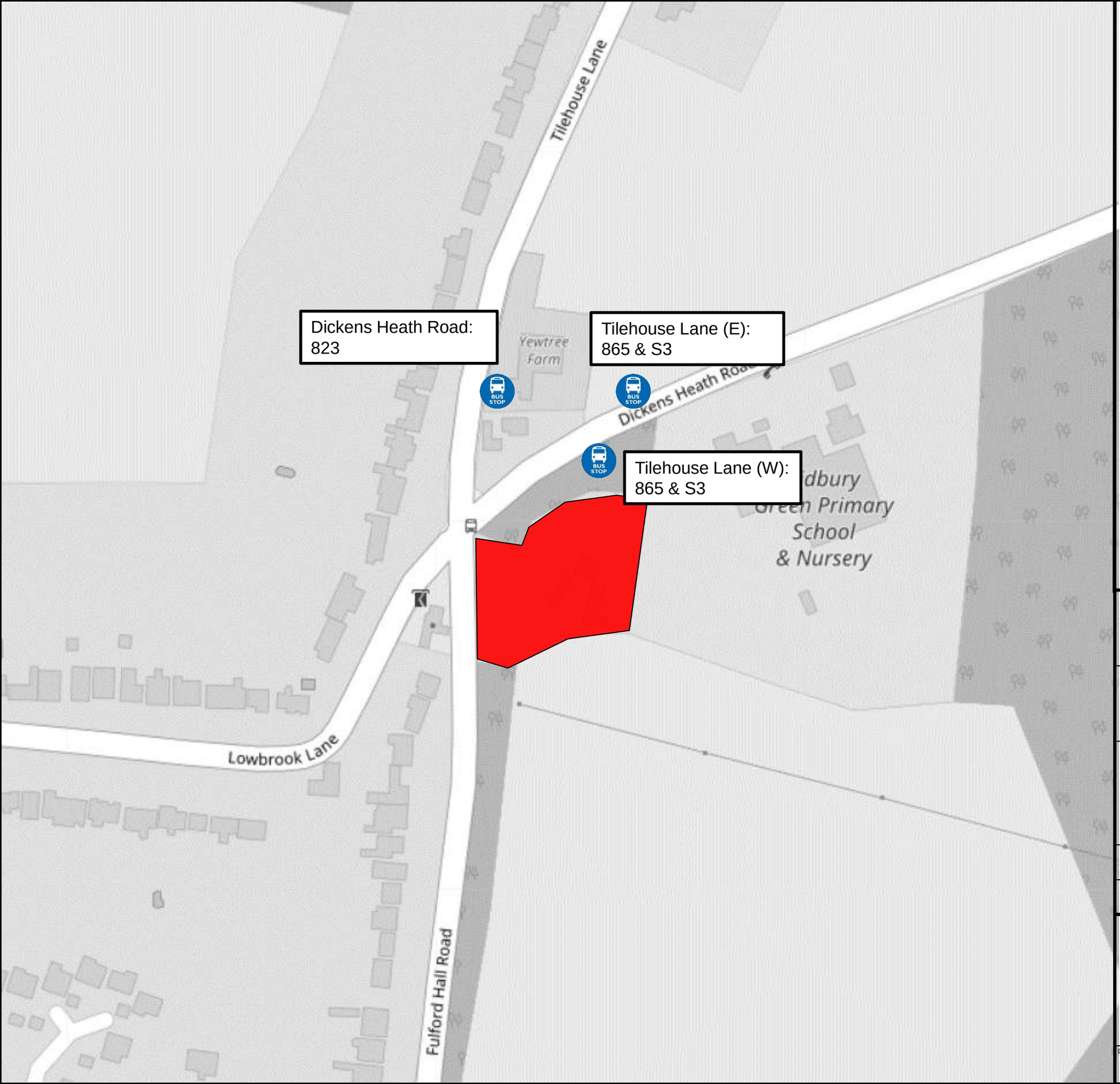
Tidbury Green Farms, Tidbury Green

5km Cycling Catchment

vectos transport planning specialists

FIGURE: **Figure 3.1**

DRAWN BY:	CHECKED BY:	DATE:
HJ	AT	16/01/2018



Key

Site Location

Closest Bus Stop

Brunning and Price

Tidbury Green Farms, Tidbury Green

Bus Stop Location Plan

SCALES:	NTS		
DRAWN: H.J	CHECKED: A.T	DATE: 10/11/17	REVISION: .

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transport planning specialists

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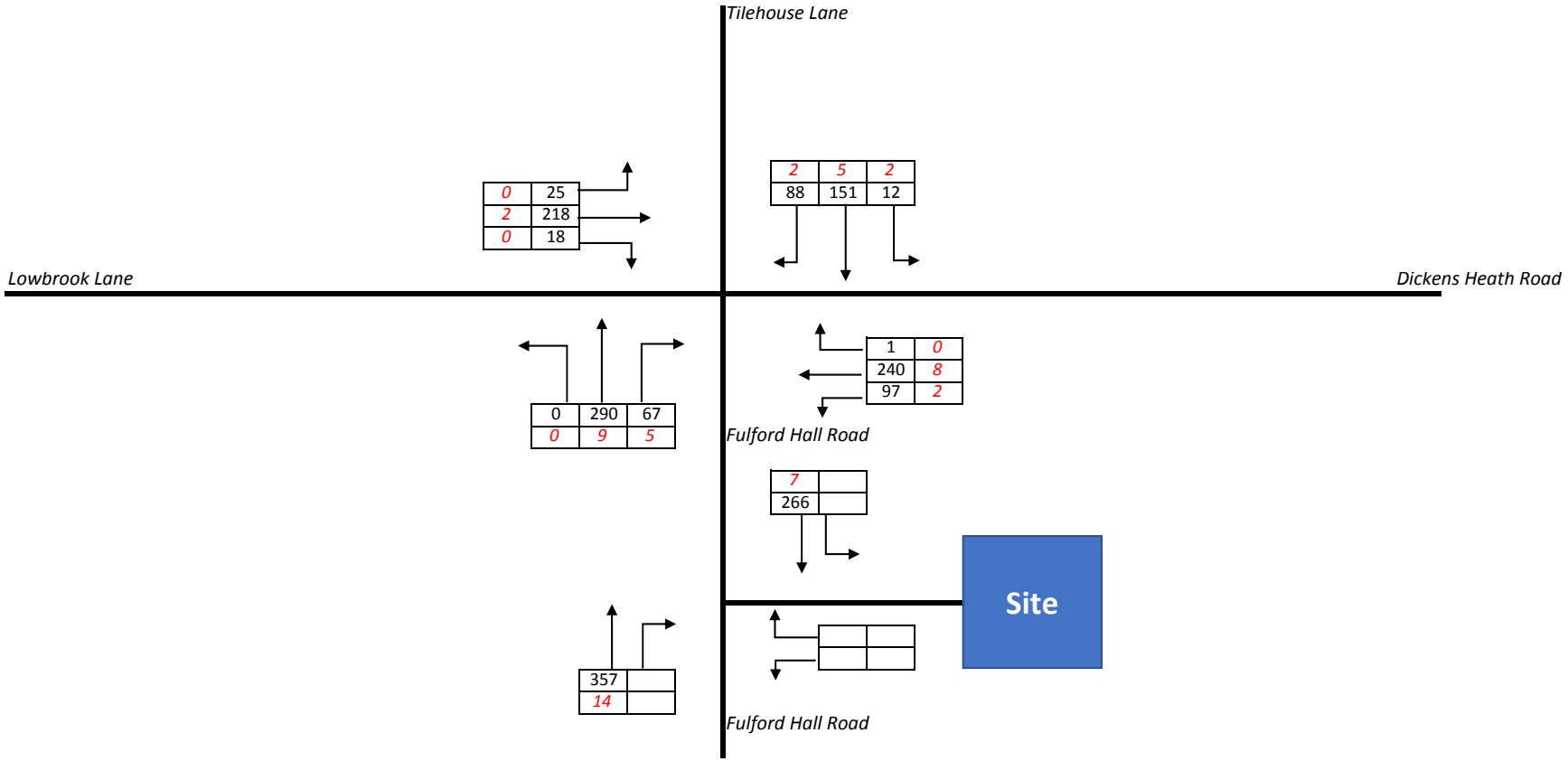
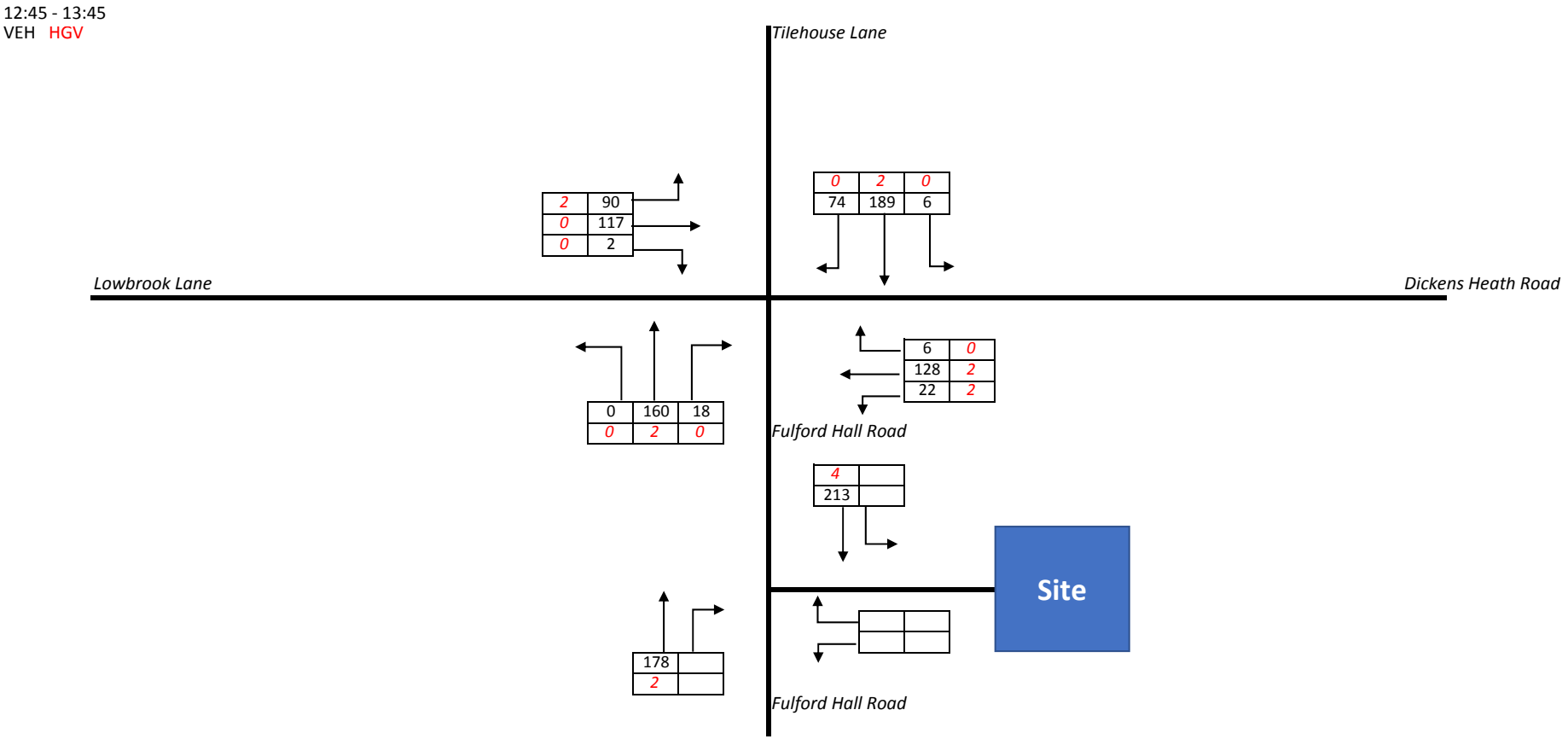
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

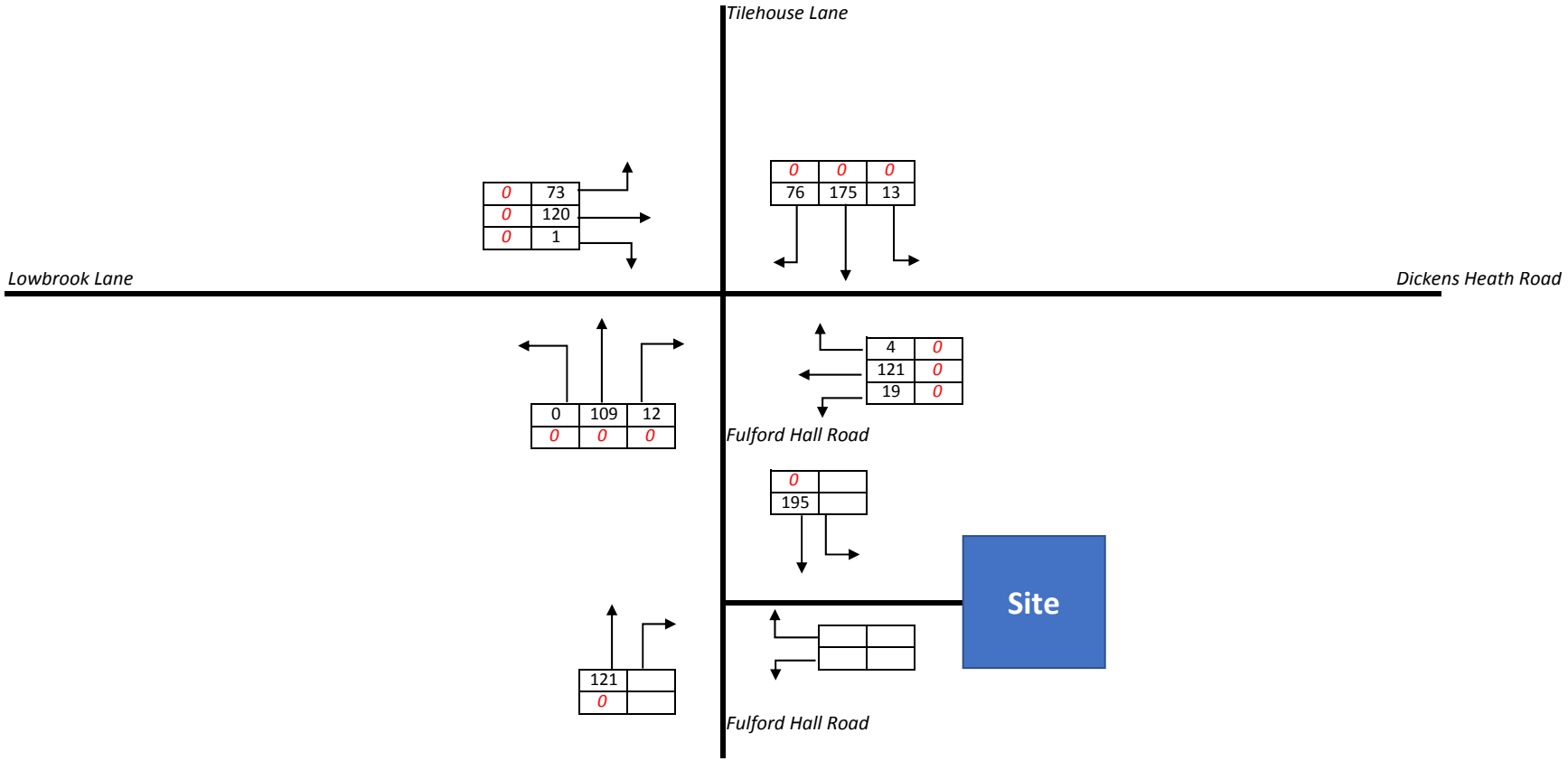
Figure 3.2

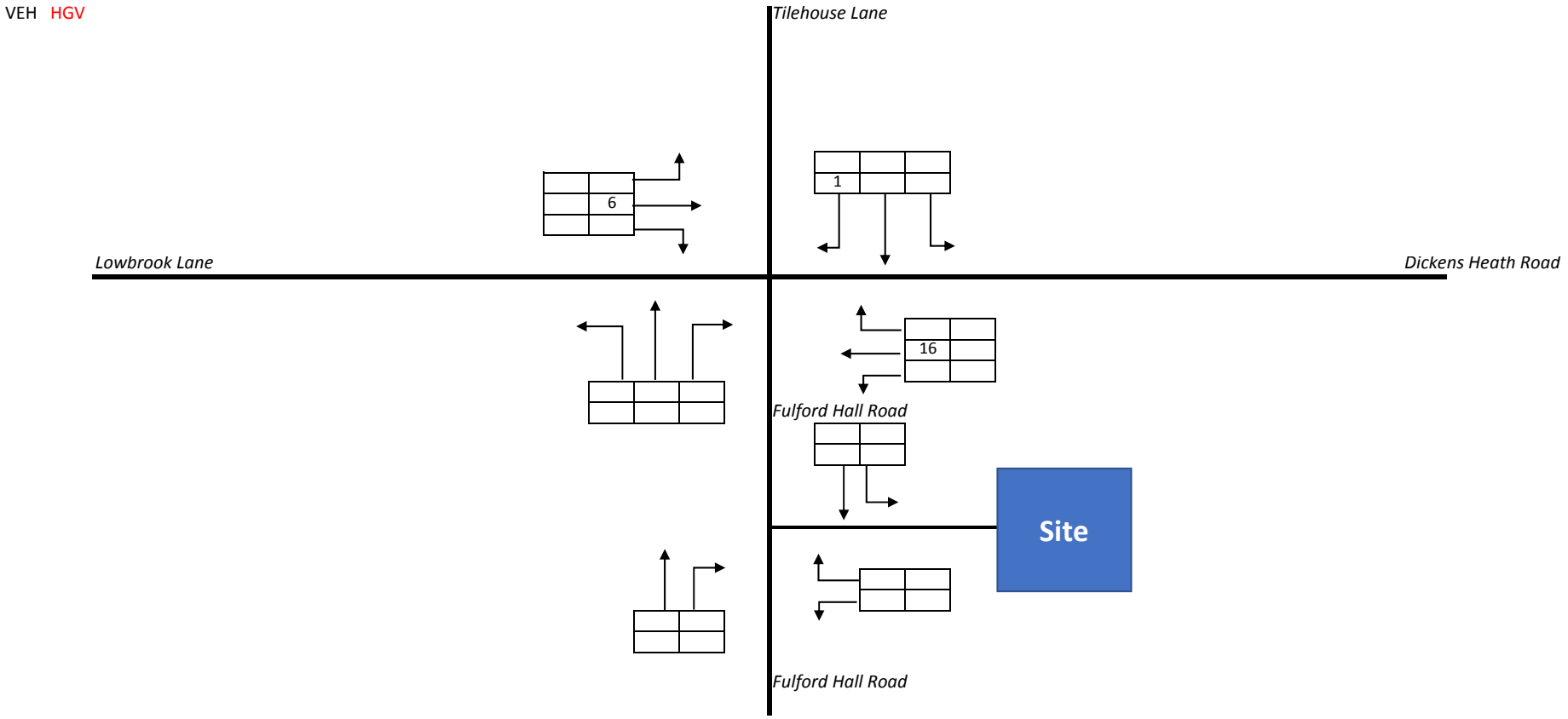
16:30 - 17:30
VEH HGV




12:45 - 13:45
VEH HGV
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
2 90
0 117
0 2
0 2 0
74 189 6
0 160 18
0 2 0
6 0
128 2
22 2
4
213
178
2

12:15 - 13:15
VEH HGV

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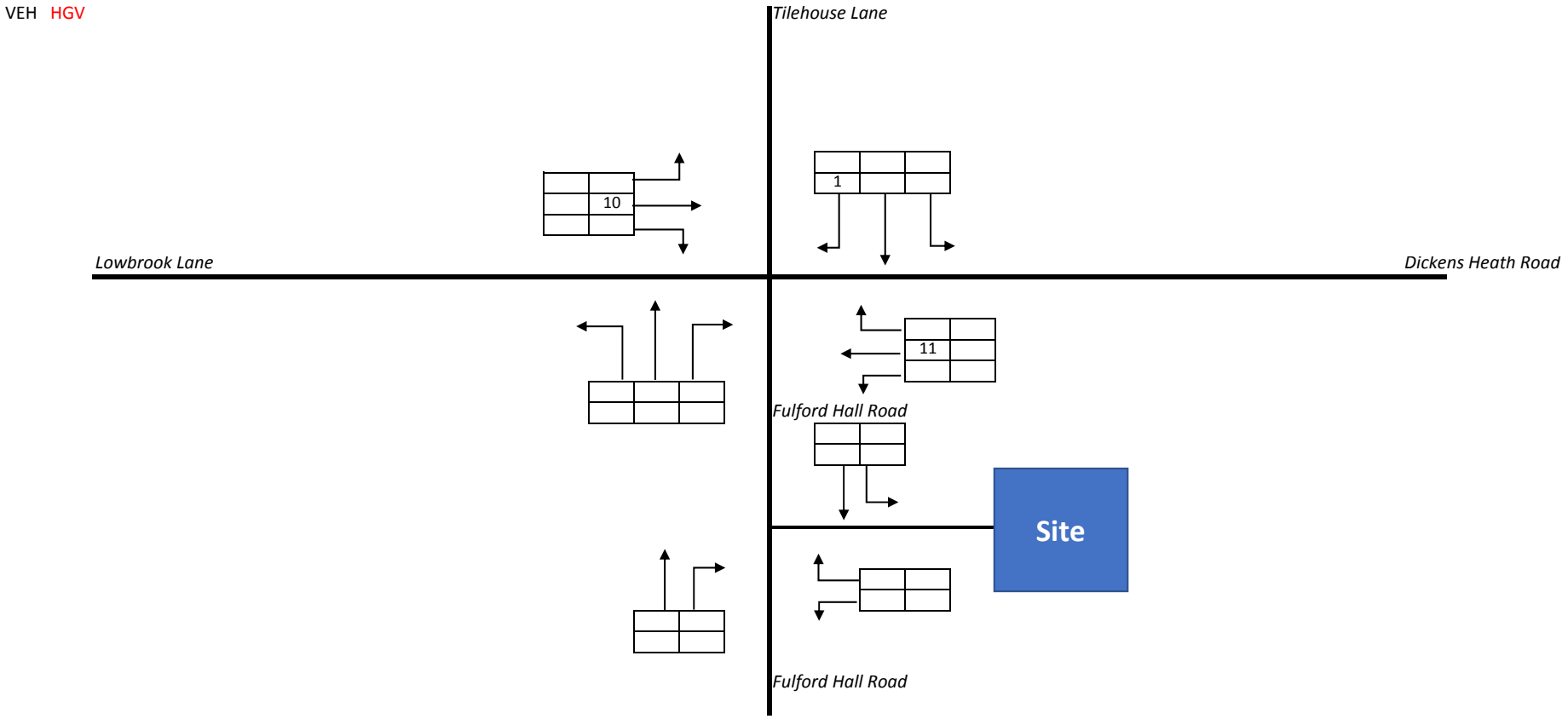
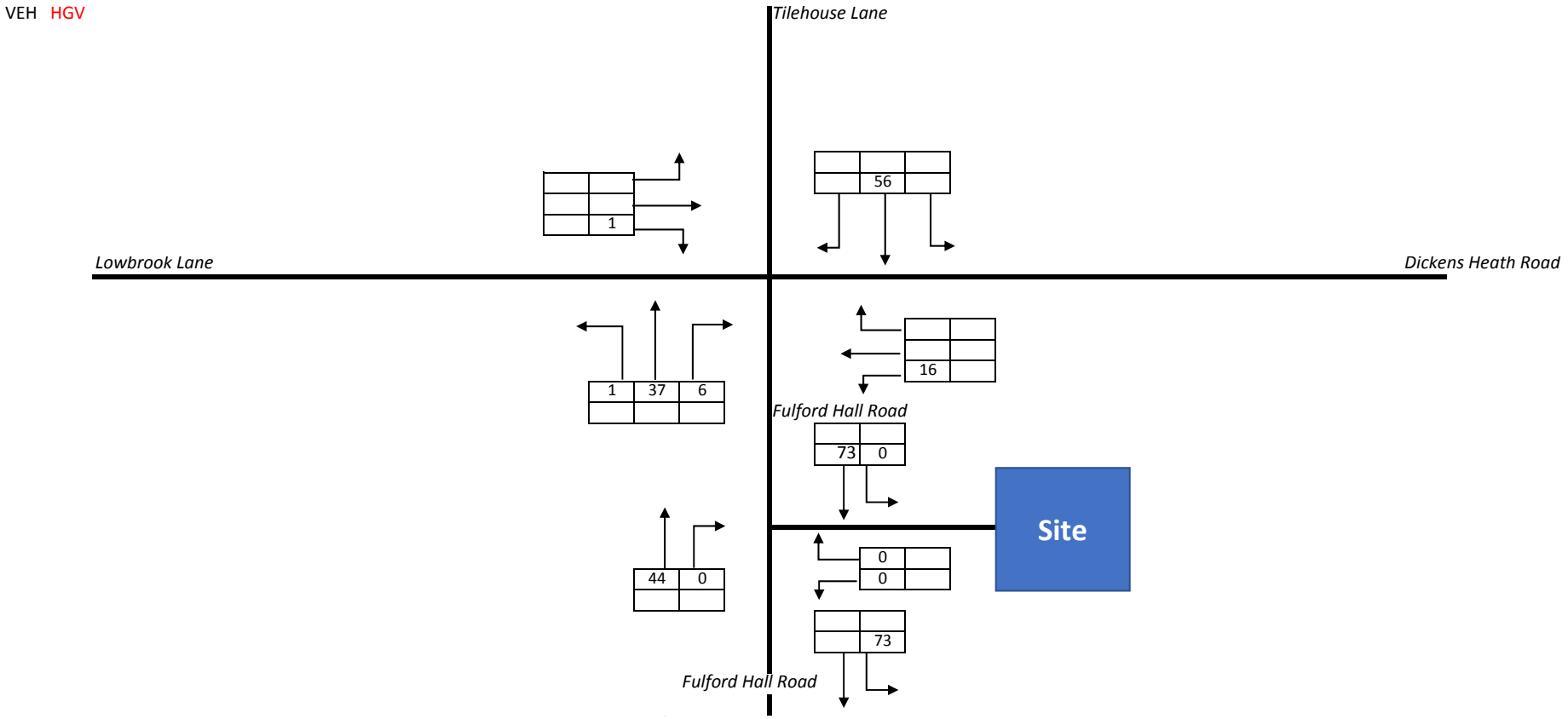
Tilehouse Lane
6
1
Lowbrook Lane
Dickens Heath Road
16
Fulford Hall Road
Site
Fulford Hall Road


VEH HGV
Tilehouse Lane
10
1
Lowbrook Lane
Dickens Heath Road
11
Fulford Hall Road
Site
Fulford Hall Road


VEH HGV
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
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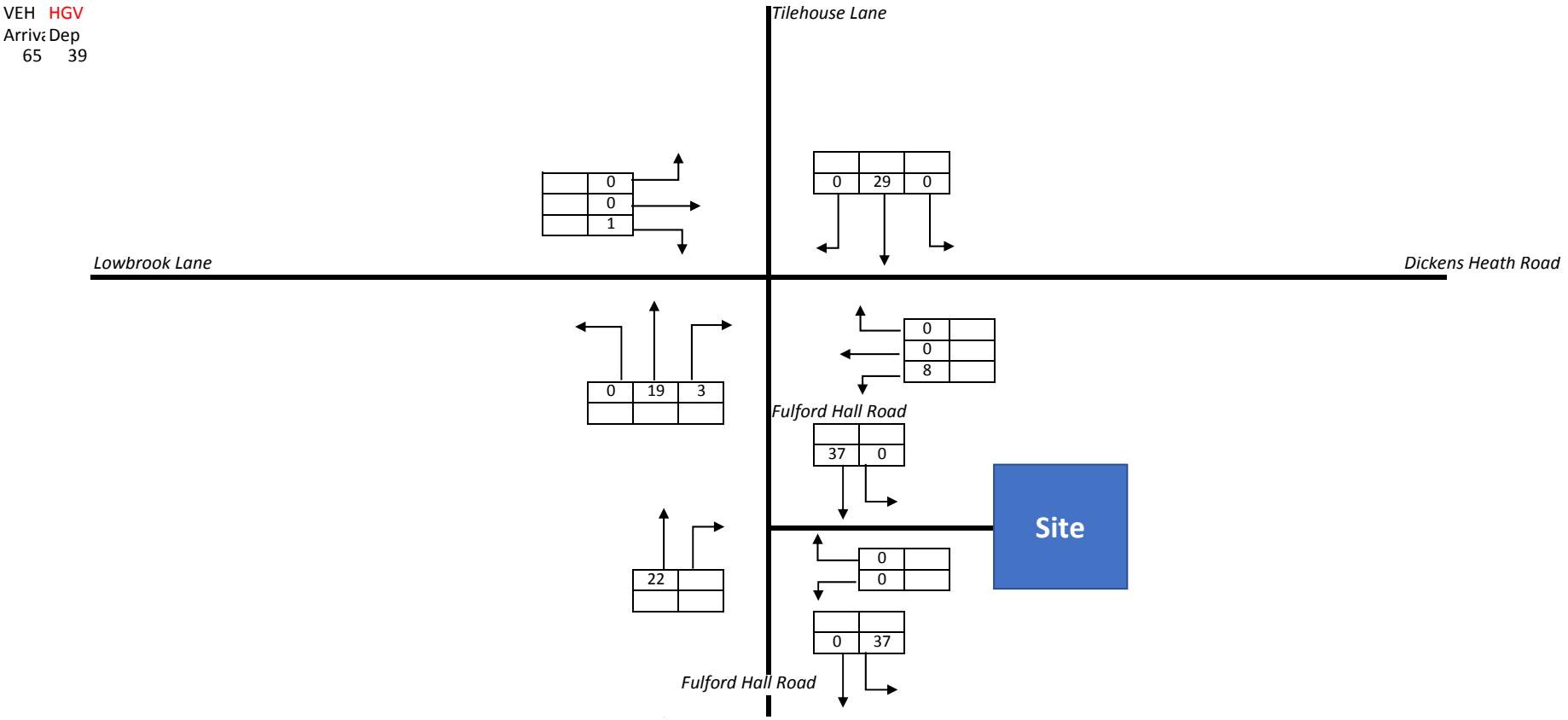
56
1 37 6
16
73 0
44 0
0 0
73


VEH HGV
Arriva Dep
65 39
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
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1
0 29 0
0 19 3
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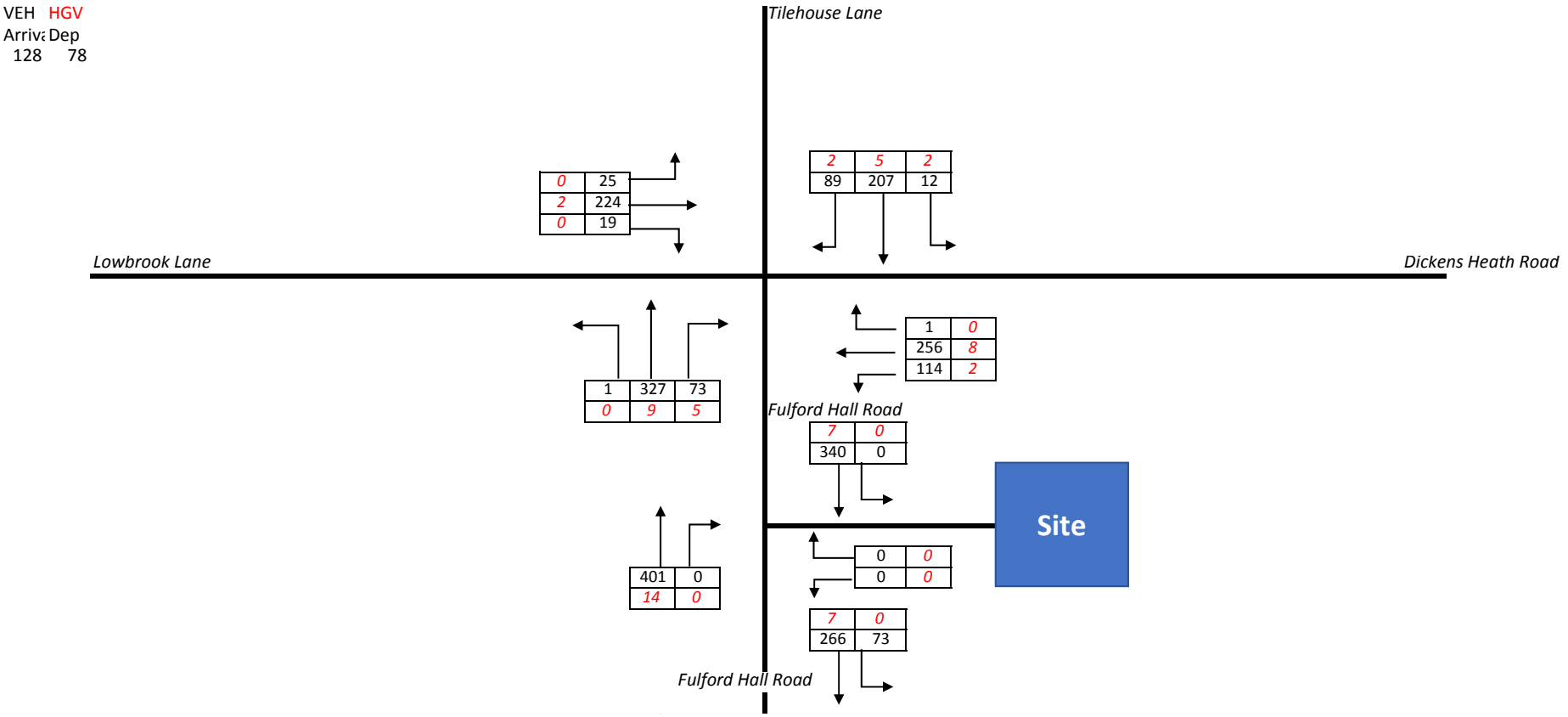
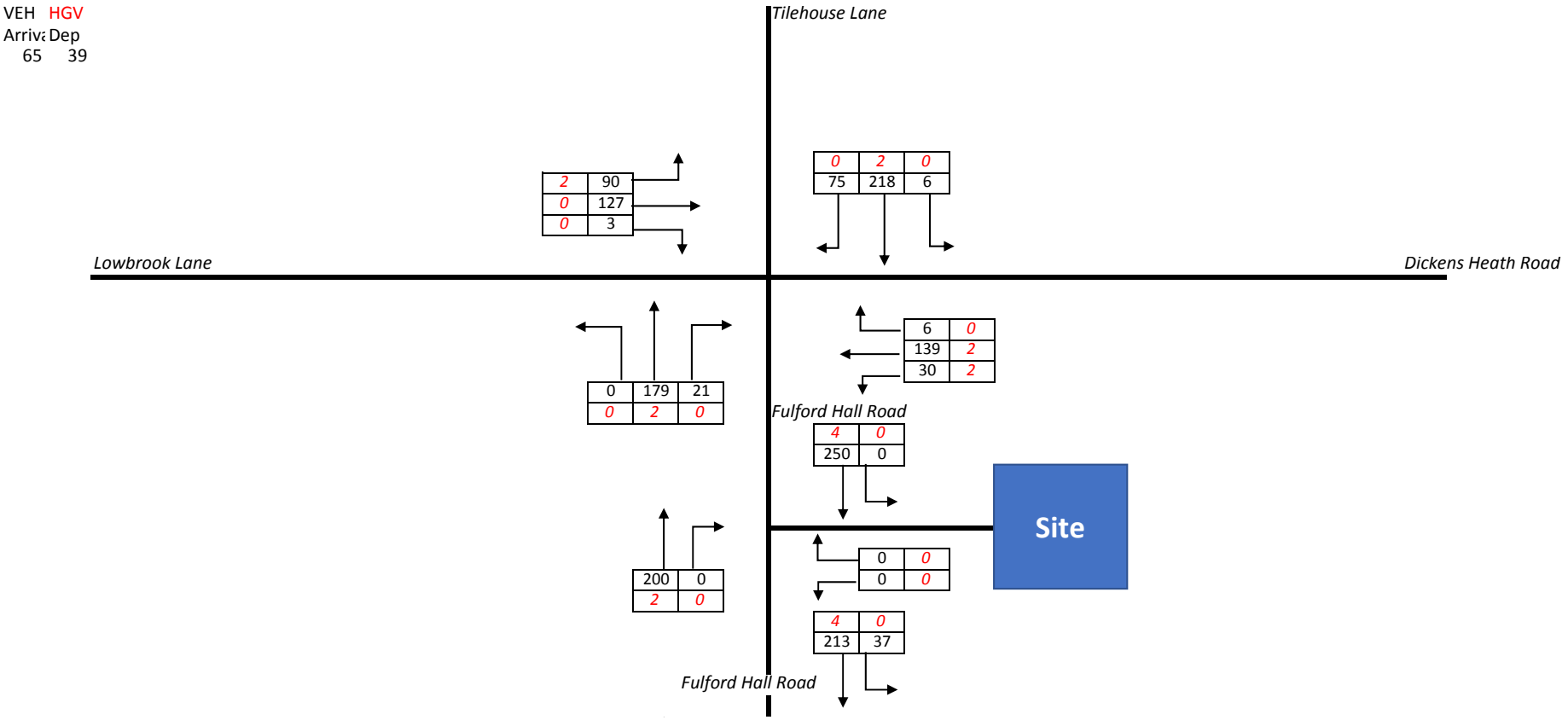
8
37 0
22
0
0
0 37


VEH HGV
Arriv Dep
128 78
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
0 25
2 224
0 19
2 5 2
89 207 12
1 327 73
0 9 5
1 0
256 8
114 2
7 0
340 0
401 0
14 0
0 0
0 0
7 0
266 73


VEH HGV
Arriva Dep
65 39
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
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0 3
0 2 0
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0 2 0
6 0
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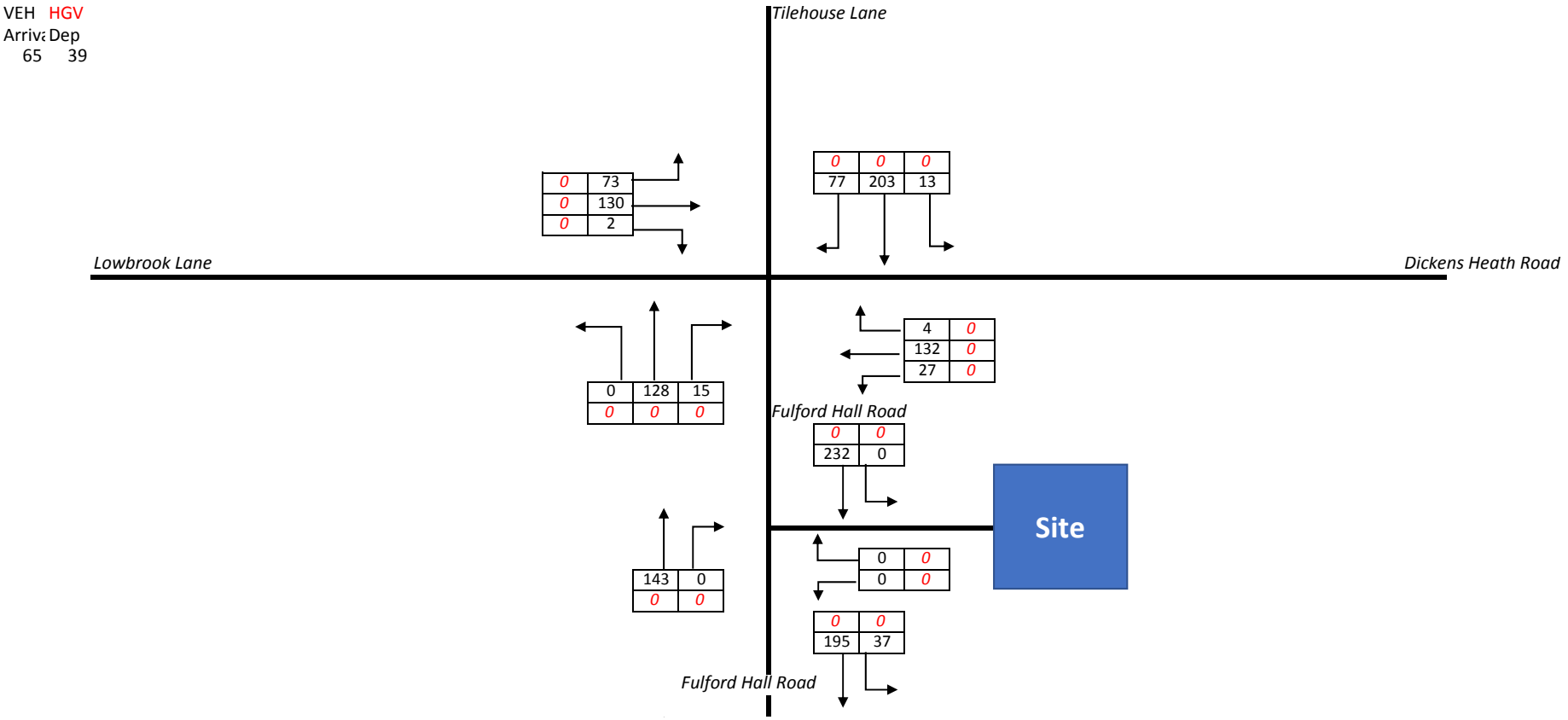
30 2
4 0
250 0
200 0
2 0
0 0
0 0
4 0
213 37


VEH HGV
Arriva Dep
65 39
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
0 73
0 130
0 2
0 0 0
77 203 13
0 128 15
0 0 0
4 0
132 0
27 0
0 0
232 0
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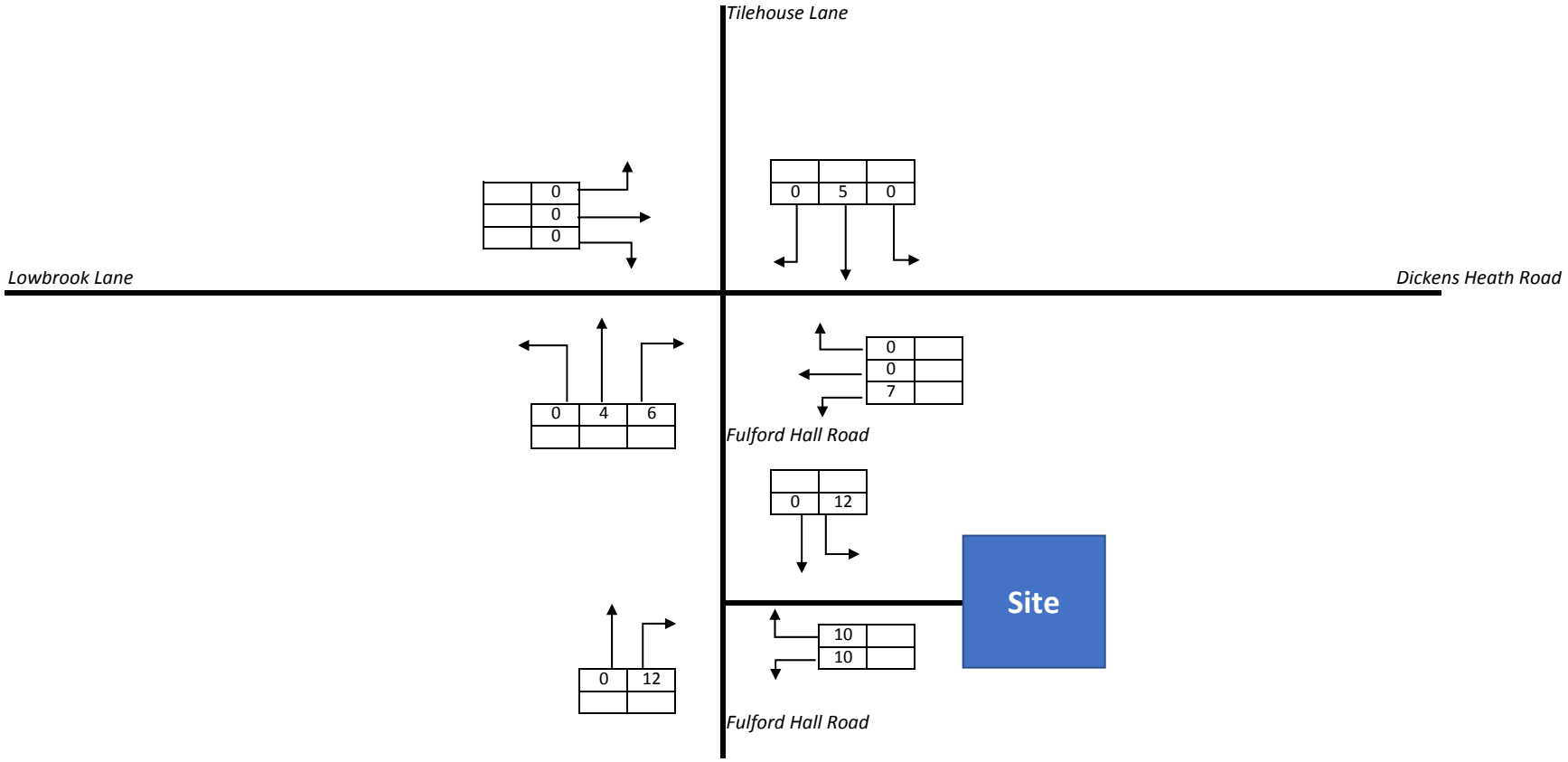
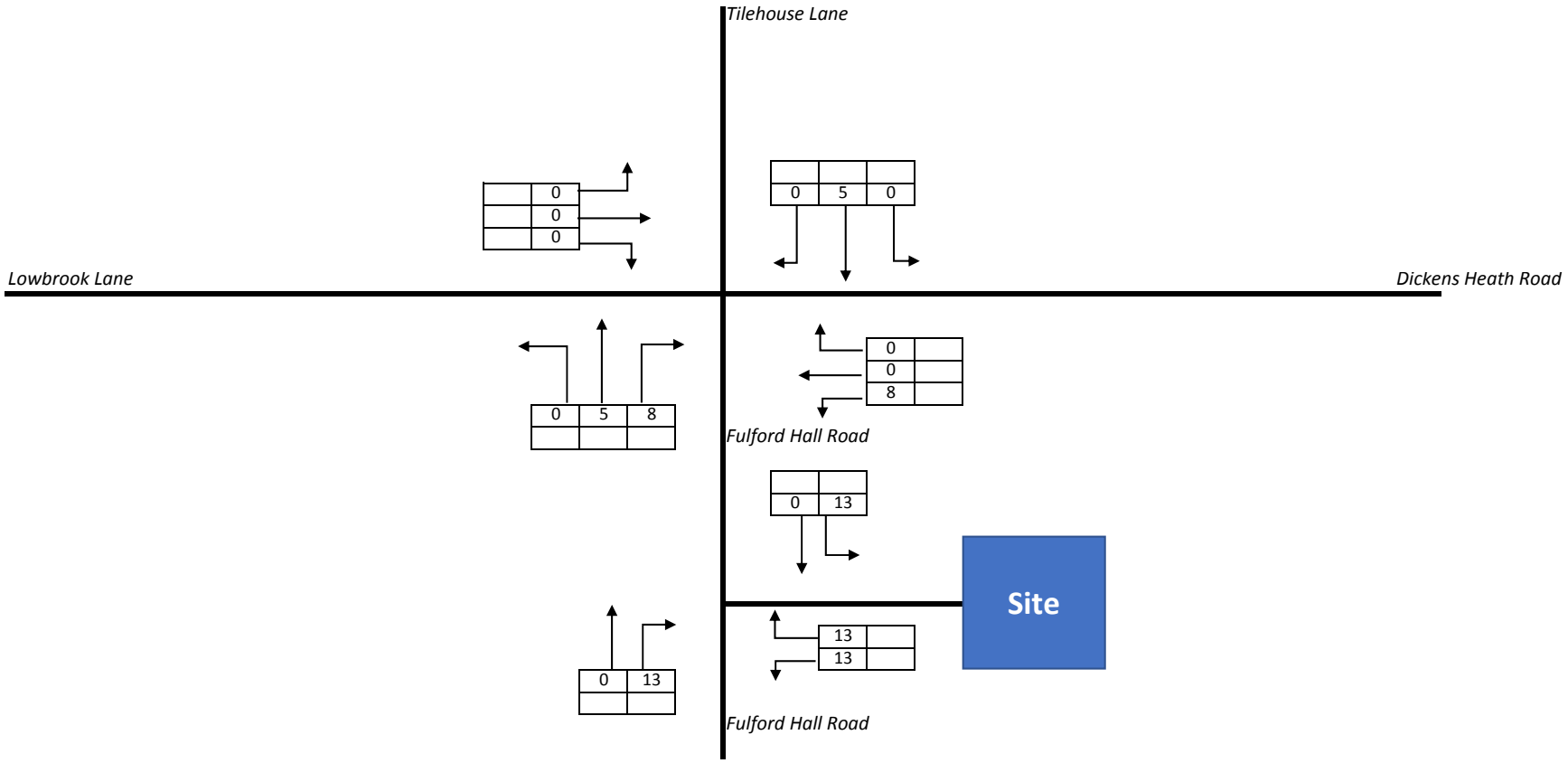
0 0
0 0
0 0
0 0
195 37

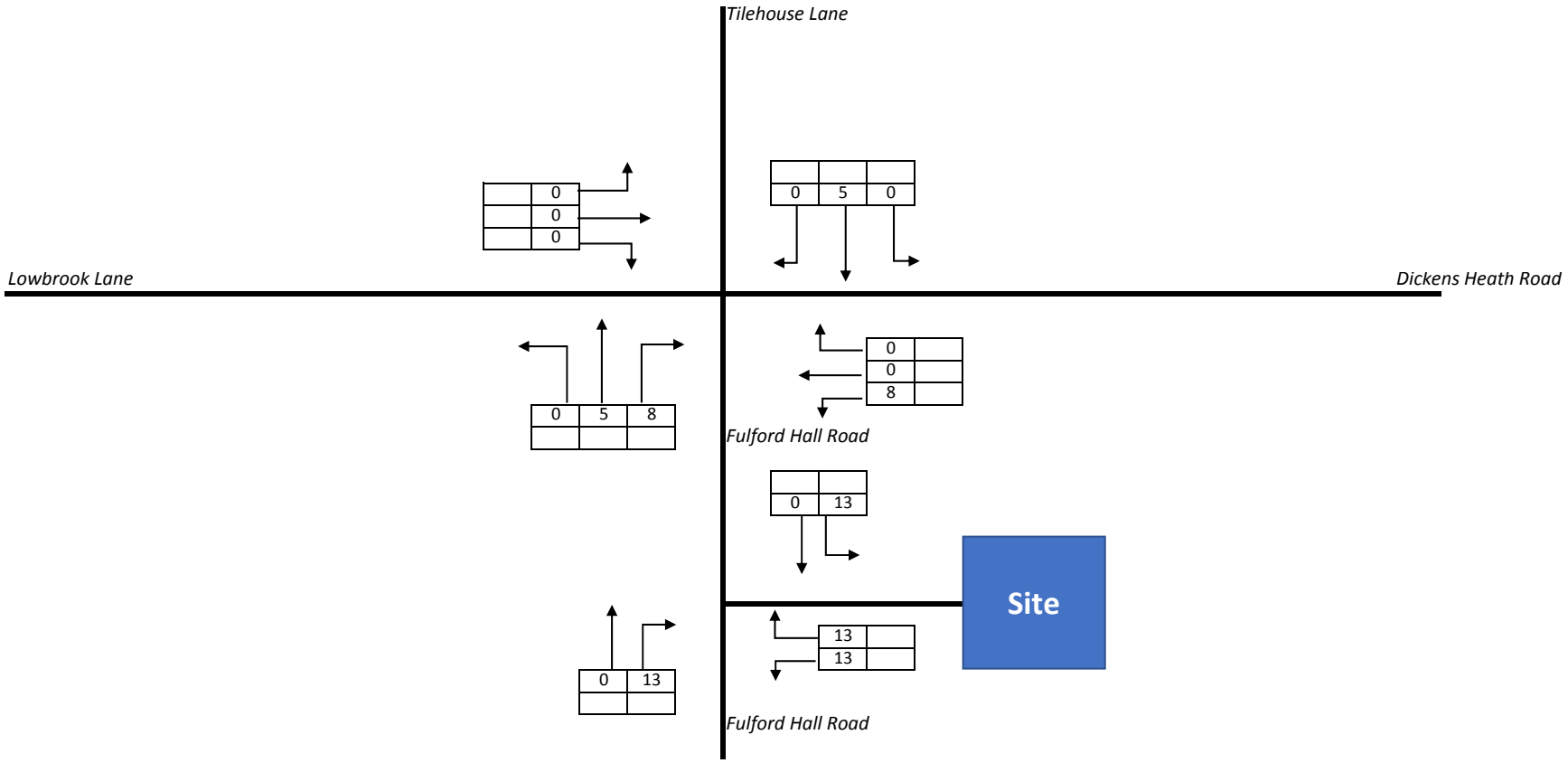
16:30 - 17:30
VEH HGV

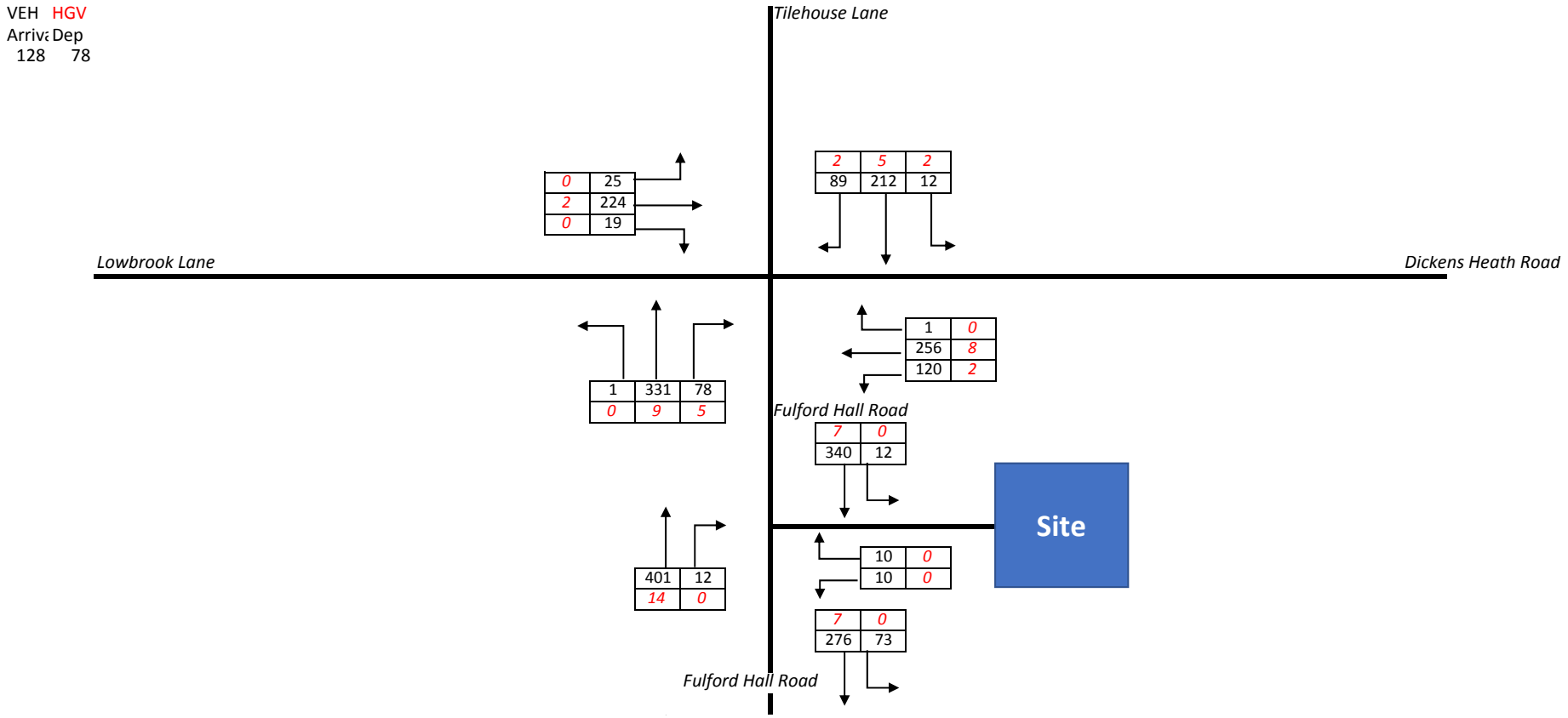


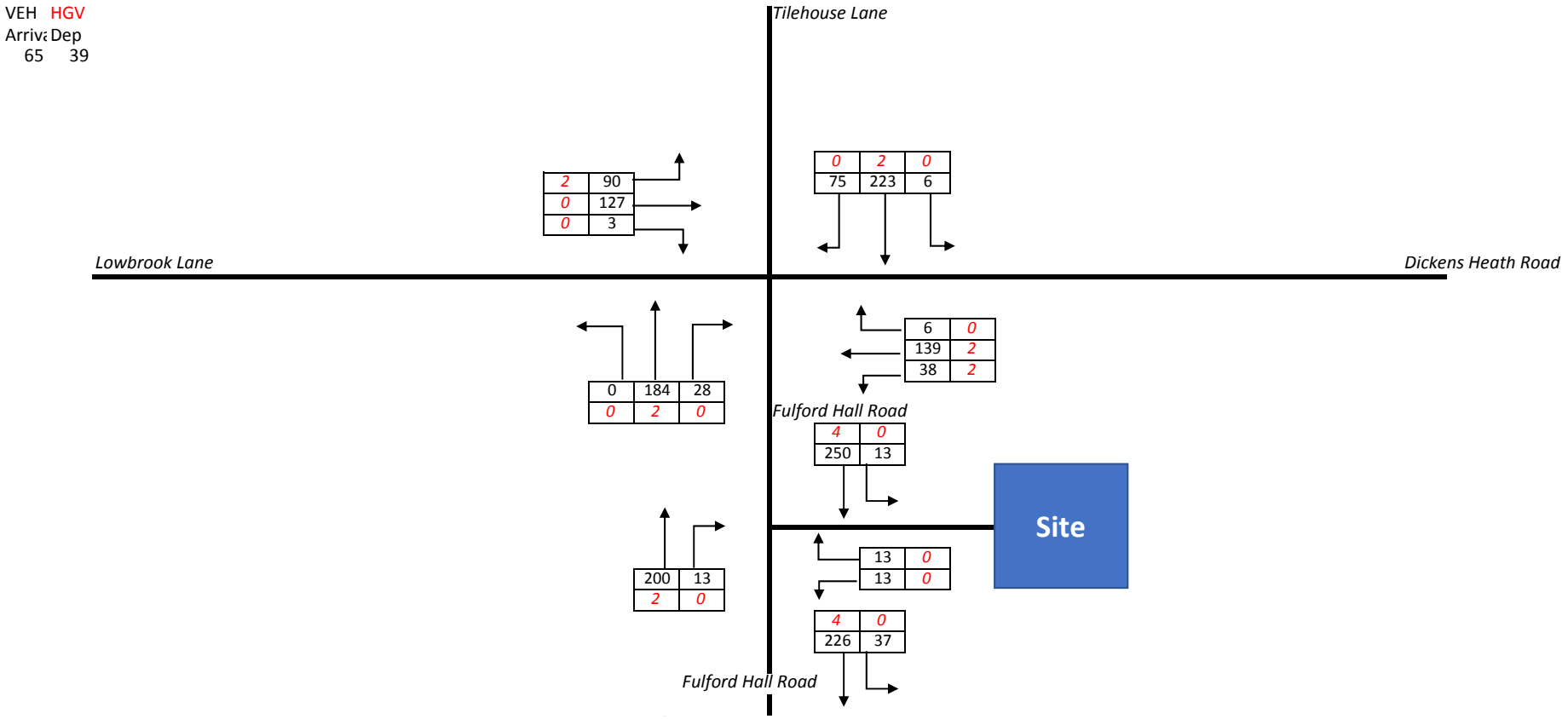
16:30 - 17:30
VEH HGV

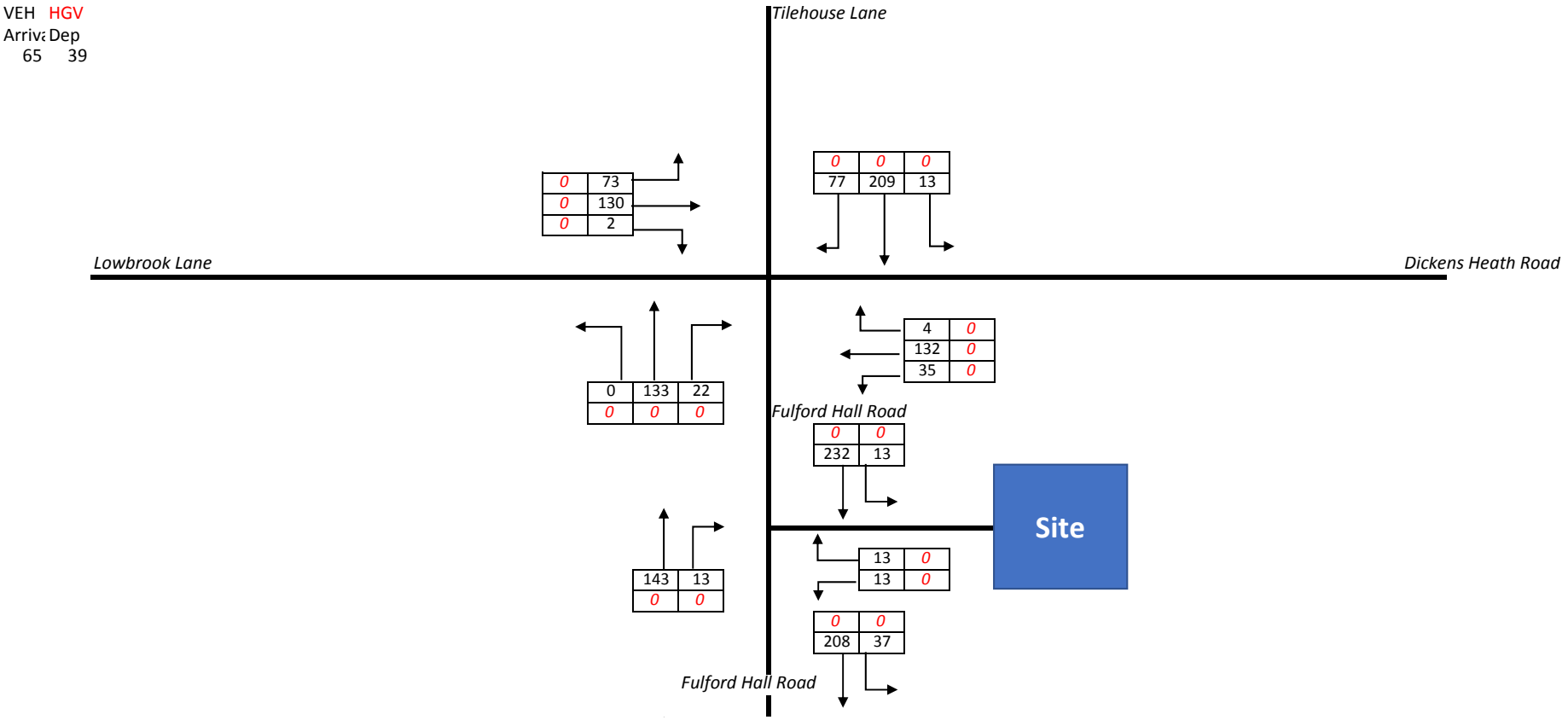


16:30 - 17:30
VEH HGV




VEH HGV
Arriv Dep
128 78
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
0 25
2 224
0 19
2 5 2
89 212 12
1 331 78
0 9 5
1 0
256 8
120 2
7 0
340 12
401 12
14 0
10 0
10 0
7 0
276 73


VEH HGV
Arriva Dep
65 39
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
2 90
0 127
0 3
0 2 0
75 223 6
0 184 28
0 2 0
6 0
139 2
38 2
4 0
250 13
200 13
2 0
13 0
13 0
4 0
226 37


VEH HGV
Arriva Dep
65 39
Tilehouse Lane
Lowbrook Lane
Dickens Heath Road
Fulford Hall Road
Fulford Hall Road
Site
0 73
0 130
0 2
0 0 0
77 209 13
0 133 22
0 0 0
4 0
132 0
35 0
0 0
232 13
143 13
0 0
13 0
13 0
0 0
208 37

APPENDIX A

Collision Data

Key:

Incident Severity

Slight Serious Fatal

Tidbury Green

Crashmap Collision Locations

DRAWN:	CHECKED:	DATE:	SCALES:
xx	xx	21/06/2016	

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Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE: Figure 1

crashmap.co.uk

Crash Date:	Friday, January 04, 2013	**Time of Crash:**	9:30:00 PM	**Crash Reference:**	**201320L000273**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Solihull			**Number of Vehicles:**	2
Local Authority:	Solihull			**OS Grid Reference:**	410140 276150
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Darkness: street lights present but unlit				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				

For more information about the data please visit: *www.crashmap.co.uk/home/aboutthedata* and *www.crashmap.co.uk/home/definitions*

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Female	16 - 20	Vehicle is passing a stationary vehicle on its offside	Front	Other	Parked vehicle	None
2	Van or goods vehicle 3.5 tonnes mgw and under	12	Male	36 - 45	Vehicle is parked in the carriageway	Back	Other	Bollard/Refuge	Tree

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	16 - 20	Unknown or other	Unknown or other

Accident Description: Accident description text currently unavailable for this highway authority / police force

crashmap.co.uk

Crash Date:	Friday, September 26, 2014	**Time of Crash:**	2:15:00 PM	**Crash Reference:**	**201420L006754**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Solihull			**Number of Vehicles:**	2
Local Authority:	Solihull			**OS Grid Reference:**	410720 276170
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

For more information about the data please visit: *www.crashmap.co.uk/home/aboutthedata* and *www.crashmap.co.uk/home/definitions*

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	Unknown	Vehicle is in the act of turning right	Front	Other	None	None
2	Pedal cycle	-1	Male	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None

Casualties

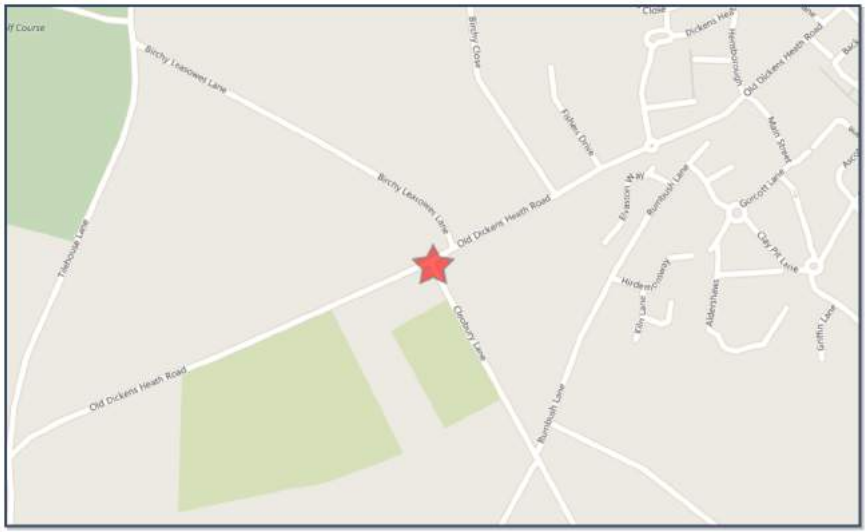
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other

Accident Description: Accident description text currently unavailable for this highway authority / police force

crashmap.co.uk

Crash Date:	Monday, August 14, 2017	**Time of Crash:**	6:24:00 PM	**Crash Reference:**	**2017200220009**

Highest Injury Severity:	Serious	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Solihull			**Number of Vehicles:**	2
Local Authority:	Solihull Metropolitan Borough			**OS Grid Reference:**	410692 276143
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: *www.crashmap.co.uk/home/aboutthedata* and *www.crashmap.co.uk/home/definitions*

Vehicles involved

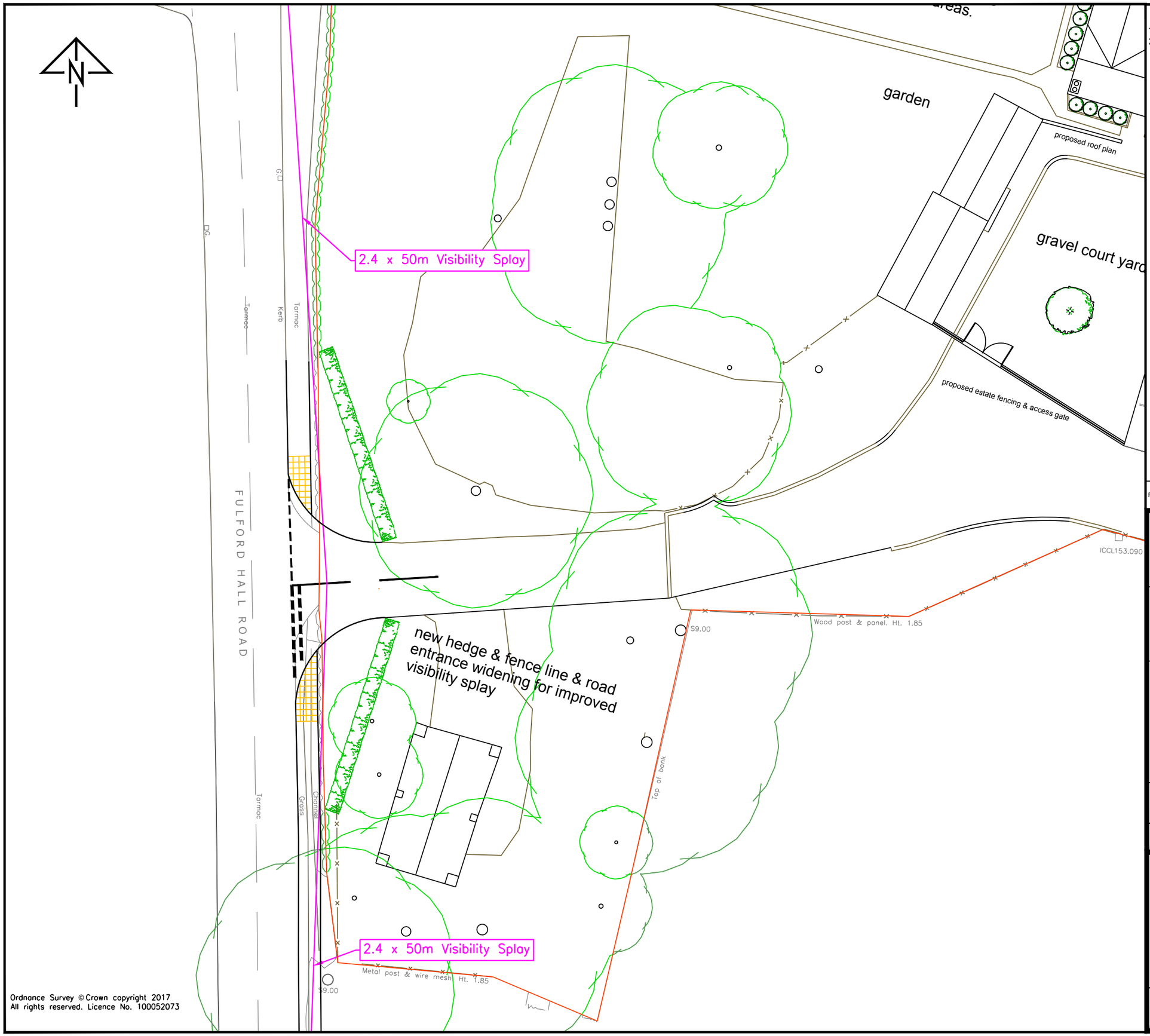
Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Motorcycle over 50cc and up to 125cc	4	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Commuting to/from work	None	None
1	Good vehicles of unknown weight	-1	Unknown	Unknown	Vehicle is in the act of turning right	Offside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

APPENDIX B

Proposed Access Arrangements



Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Key

Site Boundary

REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

CLIENT:

Brunning & Price

PROJECT:

Tidbury Green Farm
Tidbury Green

DRAWING TITLE:

Proposed Access
Visibility Splays & Tactile Paving

SCALES:

1:250 at A3

DRAWN:	CHECKED:	DATE:
JM	AT	20.12.2018

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transport planning specialists

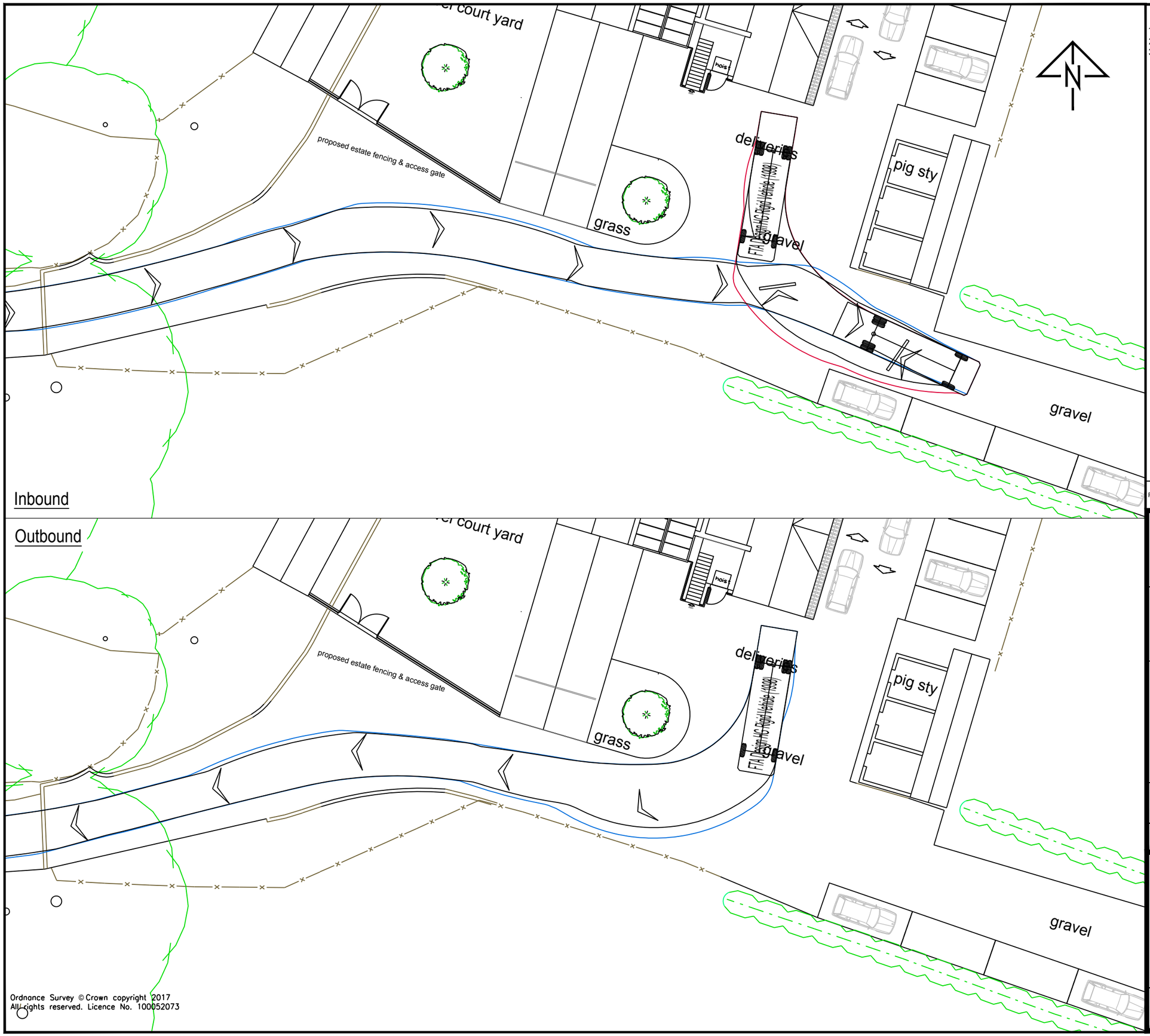
Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER: 173497/A/07

REVISION: .

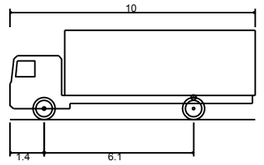
APPENDIX C

Swept Path Analysis



Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Site Plan is Tidbury Details 12-12-18 by Spatialized.



FTA Design HG Rigid Vehicle (1998)	
Overall Length	10.000m
Overall Width	2.500m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

REV.	DETAILS	DRAWN	CHECKED	DATE
B	Revised Site Plan from Architect.	JM	AT	20/12/2018
A	Revised Site Plan from Architect.	JM	AT	20/11/2018

CLIENT:

Brunning & Price

PROJECT:

Tidbury Green Farm
Tidbury Green

DRAWING TITLE:

Swept Path Analysis
Servicing
10m Rigid Vehicle

SCALES:

1:250 at A3

DRAWN:	CHECKED:	DATE:
JM	AT	18/07/2018

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transport planning specialists

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t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER: 173497/AT/C01

REVISION: B

APPENDIX D

TRICS Output

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : C - PUB/RESTAURANT
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	DH	DURHAM	1 days
	TW	TYNE & WEAR	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 400 to 875 (units: sqm)
Range Selected by User: 300 to 1000 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 20/05/17

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	2 days
Wednesday	1 days
Friday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	1
Residential Zone	4
Retail Zone	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

A4	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	5 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	8 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days

This data displays the number of selected surveys with PTAL Ratings.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	8	561	0.601	8	561	0.557	8	561	1.158
11:00 - 12:00	8	561	1.715	8	561	0.624	8	561	2.339
12:00 - 13:00	8	561	3.608	8	561	1.514	8	561	5.122
13:00 - 14:00	8	561	2.272	8	561	2.539	8	561	4.811
14:00 - 15:00	8	561	1.269	8	561	2.673	8	561	3.942
15:00 - 16:00	8	561	1.269	8	561	1.492	8	561	2.761
16:00 - 17:00	8	561	2.739	8	561	1.247	8	561	3.986
17:00 - 18:00	8	561	3.942	8	561	2.539	8	561	6.481
18:00 - 19:00	8	561	3.675	8	561	3.007	8	561	6.682
19:00 - 20:00	8	561	3.363	8	561	3.808	8	561	7.171
20:00 - 21:00	8	561	1.938	8	561	3.163	8	561	5.101
21:00 - 22:00	8	561	1.314	8	561	2.316	8	561	3.630
22:00 - 23:00	8	561	0.846	8	561	2.428	8	561	3.274
23:00 - 24:00	7	553	0.258	7	553	0.879	7	553	1.137
Total Rates:			28.809			28.786			57.595

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	400 - 875 (units: sqm)
Survey date date range:	01/01/09 - 20/05/17
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : C - PUB/RESTAURANT
VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	3 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 340 to 694 (units: sqm)
Range Selected by User: 300 to 1000 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 20/05/17

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Saturday	4 days
Sunday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	1
Village	1
No Sub Category	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

A4	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	340	0.882	1	340	0.000	1	340	0.882
09:00 - 10:00	2	360	1.111	2	360	0.278	2	360	1.389
10:00 - 11:00	5	434	1.473	5	434	1.473	5	434	2.946
11:00 - 12:00	5	434	1.980	5	434	1.197	5	434	3.177
12:00 - 13:00	5	434	5.847	5	434	1.980	5	434	7.827
13:00 - 14:00	5	434	5.249	5	434	4.236	5	434	9.485
14:00 - 15:00	5	434	3.591	5	434	5.617	5	434	9.208
15:00 - 16:00	5	434	3.637	5	434	4.282	5	434	7.919
16:00 - 17:00	5	434	4.236	5	434	3.591	5	434	7.827
17:00 - 18:00	5	434	4.236	5	434	4.328	5	434	8.564
18:00 - 19:00	5	434	3.269	5	434	3.407	5	434	6.676
19:00 - 20:00	5	434	2.993	5	434	3.775	5	434	6.768
20:00 - 21:00	5	434	1.105	5	434	2.440	5	434	3.545
21:00 - 22:00	5	434	0.552	5	434	1.611	5	434	2.163
22:00 - 23:00	5	434	0.184	5	434	0.875	5	434	1.059
23:00 - 24:00	4	370	0.000	4	370	0.609	4	370	0.609
Total Rates:			40.345			39.699			80.044

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	340 - 694 (units: sqm)
Survey date date range:	01/01/09 - 20/05/17
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	4
Number of Sundays:	1
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX E

PICADY Output

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.1.4646 []

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: Tilehouse Lane-Dickens Heath-Fulford Hall Road-Lowbrook Lane 180116.j9
Path: X:\Projects\170000\173497 - Tidbury Green Farm, Tidbury Green\MODELLING
Report generation date: 16/01/2018 16:26:30

Summary of junction performance

	Weekday PM				Saturday AM				Sunday AM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Tidbury Green Farms - Base + Com 2017											
Stream B-CD	4.0	57.89	0.83	F	0.4	12.29	0.28	B	0.3	10.94	0.24	B
Stream B-AD	2.1	58.03	0.71	F	0.3	12.70	0.22	B	0.2	11.46	0.20	B
Stream A-BCD	0.4	6.66	0.22	A	0.3	5.61	0.16	A	0.3	5.53	0.16	A
Stream D-AB	1.0	23.33	0.51	C	0.5	11.11	0.34	B	0.4	10.16	0.30	B
Stream D-BC	0.8	23.37	0.46	C	0.2	11.11	0.18	B	0.2	10.41	0.18	B
Stream C-ABD	0.4	5.98	0.20	A	0.1	5.62	0.05	A	0.0	5.81	0.03	A
	Tidbury Green Farms - Base + Com + Dev 2017											
Stream B-CD	4.7	67.61	0.86	F	0.4	12.48	0.29	B	0.3	11.11	0.26	B
Stream B-AD	2.6	72.80	0.77	F	0.3	12.97	0.23	B	0.2	11.69	0.20	B
Stream A-BCD	0.4	6.67	0.22	A	0.3	5.62	0.16	A	0.3	5.54	0.16	A
Stream D-AB	1.1	24.02	0.52	C	0.5	11.23	0.35	B	0.4	10.27	0.30	B
Stream D-BC	0.9	24.10	0.47	C	0.2	11.27	0.19	B	0.2	10.55	0.18	B
Stream C-ABD	0.5	6.03	0.22	A	0.1	5.67	0.06	A	0.1	5.88	0.05	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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	(untitled)
Location	
Site number	
Date	06/11/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	VECTOS\hugo.johnston
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	Base + Com 2017	Weekday PM	ONE HOUR	16:15	17:45	15	✓
D2	Base + Com 2017	Saturday AM	ONE HOUR	12:30	14:00	15	✓
D3	Base + Com 2017	Sunday AM	ONE HOUR	12:00	13:30	15	✓
D4	Base + Com + Dev 2017	Weekday PM	ONE HOUR	16:15	17:45	15	✓
D5	Base + Com + Dev 2017	Saturday AM	ONE HOUR	12:30	14:00	15	✓
D6	Base + Com + Dev 2017	Sunday AM	ONE HOUR	12:00	13:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Tidbury Green Farms	✓	100.000	100.000

Tidbury Green Farms - Base + Com 2017, Weekday PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm flare	Arm D - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	21.73	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Tilehouse Lane		Major
B	Dickens Heath Road		Minor
C	Fulford Hall Road		Major
D	Lowbrook Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.03			149.0	✓	0.00
C	6.03			97.2	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	7.03	3.14	2.89	2.85	2.85	✓	1.00	29	15
D	One lane plus flare	7.21	3.47	3.24	2.86	2.39	✓	1.00	143	17

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	660	-	-	-	-	-	-	0.255	0.365	0.255	-	-	-
1	B-A	497	0.090	0.228	0.228	-	-	-	0.144	0.326	-	0.228	0.228	0.114
1	B-C	666	0.102	0.258	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	520	0.095	0.239	0.239	-	-	-	0.150	0.341	0.150	-	-	-
1	B-D, offside lane	497	0.090	0.228	0.228	-	-	-	0.144	0.326	0.144	-	-	-
1	C-B	630	0.244	0.244	0.348	-	-	-	-	-	-	-	-	-
1	D-A	673	-	-	-	-	-	-	0.260	-	0.103	-	-	-
1	D-B, nearside lane	564	0.163	0.163	0.370	-	-	-	0.259	0.259	0.103	-	-	-
1	D-B, offside lane	538	0.156	0.156	0.353	-	-	-	0.247	0.247	0.098	-	-	-
1	D-C	538	-	0.156	0.353	0.124	0.247	0.247	0.247	0.247	0.098	-	-	-

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
D1	Base + Com 2017	Weekday PM	ONE HOUR	16:15	17:45	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	✓	308	100.000
B		ONE HOUR	✓	371	100.000
C		ONE HOUR	✓	401	100.000
D		ONE HOUR	✓	268	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	12	207	89
	B	1	0	114	256
	C	327	73	0	1
	D	25	224	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	2	2
	B	0	0	2	3
	C	3	7	0	0
	D	0	1	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-CD	0.83	57.89	4.0	F	222	334
B-AD	0.71	58.03	2.1	F	118	177
A-BCD	0.22	6.66	0.4	A	118	176
A-B					9	14
A-C					156	234
D-AB	0.51	23.33	1.0	C	132	199
D-BC	0.46	23.37	0.8	C	113	170
C-ABD	0.20	5.98	0.4	A	117	175
C-D					0.77	1
C-A					250	375

Main Results for each time segment

16:15 - 16:30

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-CD	182	46	431	0.423	180	0.0	0.7	14.175	B
B-AD	97	24	351	0.276	95	0.0	0.4	14.010	B
A-BCD	89	22	674	0.131	88	0.0	0.2	6.133	A
A-B	8	2			8				
A-C	135	34			135				
D-AB	107	27	415	0.257	105	0.0	0.3	11.568	B
D-BC	95	24	387	0.245	94	0.0	0.3	12.209	B
C-ABD	85	21	700	0.121	84	0.0	0.2	5.838	A
C-D	0.66	0.17			0.66				
C-A	216	54			216				

16:30 - 16:45

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-CD	218	54	394	0.554	216	0.7	1.2	20.061	C
B-AD	116	29	304	0.380	115	0.4	0.6	18.885	C
A-BCD	113	28	681	0.165	112	0.2	0.3	6.331	A
A-B	9	2			9				
A-C	155	39			155				
D-AB	129	32	377	0.342	128	0.3	0.5	14.426	B
D-BC	112	28	351	0.319	111	0.3	0.5	14.982	B
C-ABD	111	28	724	0.153	111	0.2	0.3	5.880	A
C-D	0.76	0.19			0.76				
C-A	249	62			249				

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-CD	267	67	329	0.810	258	1.2	3.4	45.844	E
B-AD	141	35	213	0.665	137	0.6	1.7	45.125	E
A-BCD	151	38	692	0.218	150	0.3	0.4	6.645	A
A-B	10	3			10				
A-C	178	44			178				
D-AB	161	40	317	0.508	160	0.5	1.0	22.517	C
D-BC	134	33	290	0.461	132	0.5	0.8	22.624	C
C-ABD	154	39	758	0.204	154	0.3	0.4	5.973	A
C-D	0.88	0.22			0.88				
C-A	286	72			286				

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-CD	267	67	323	0.827	265	3.4	4.0	57.885	F
B-AD	141	35	200	0.709	140	1.7	2.1	58.034	F
A-BCD	151	38	692	0.218	151	0.4	0.4	6.663	A
A-B	10	3			10				
A-C	178	44			178				
D-AB	162	40	316	0.512	162	1.0	1.0	23.327	C
D-BC	133	33	287	0.465	133	0.8	0.8	23.369	C
C-ABD	154	39	758	0.204	154	0.4	0.4	5.976	A
C-D	0.88	0.22			0.88				
C-A	286	72			286				

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-CD	218	54	386	0.564	228	4.0	1.4	24.092	C
B-AD	116	29	294	0.394	121	2.1	0.7	21.555	C
A-BCD	113	28	681	0.166	113	0.4	0.3	6.353	A
A-B	9	2			9				
A-C	155	39			155				
D-AB	129	32	375	0.344	131	1.0	0.5	14.870	B
D-BC	112	28	348	0.321	113	0.8	0.5	15.396	C
C-ABD	111	28	724	0.154	112	0.4	0.3	5.883	A
C-D	0.76	0.19			0.76				
C-A	248	62			248				

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-CD	182	46	429	0.425	185	1.4	0.8	14.896	B
B-AD	97	24	348	0.279	98	0.7	0.4	14.472	B
A-BCD	89	22	674	0.132	89	0.3	0.2	6.163	A
A-B	8	2			8				
A-C	135	34			135				
D-AB	107	27	414	0.258	108	0.5	0.4	11.789	B
D-BC	95	24	386	0.246	96	0.5	0.3	12.426	B
C-ABD	85	21	701	0.122	86	0.3	0.2	5.856	A
C-D	0.66	0.17			0.66				
C-A	216	54			216				

Tidbury Green Farms - Base + Com 2017, Saturday AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm flare	Arm D - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	6.03	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
D2	Base + Com 2017	Saturday AM	ONE HOUR	12:30	14:00	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	✓	299	100.000
B		ONE HOUR	✓	175	100.000
C		ONE HOUR	✓	200	100.000
D		ONE HOUR	✓	220	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	6	218	75
	B	6	0	30	139
	C	179	21	0	0
	D	90	127	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	0	0	7	2
	C	1	0	0	0
	D	2	0	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-CD	0.28	12.29	0.4	B	92	139
B-AD	0.22	12.70	0.3	B	68	102
A-BCD	0.16	5.61	0.3	A	96	144
A-B					5	7
A-C					173	260
D-AB	0.34	11.11	0.5	B	141	212
D-BC	0.18	11.11	0.2	B	61	91
C-ABD	0.05	5.62	0.1	A	26	39
C-D					0	0
C-A					158	237

Main Results for each time segment

12:30 - 12:45

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-CD	76	19	450	0.168	75	0.0	0.2	9.564	A
B-AD	56	14	408	0.138	56	0.0	0.2	10.196	B
A-BCD	73	18	730	0.101	73	0.0	0.1	5.478	A
A-B	4	1			4				
A-C	148	37			148				
D-AB	116	29	536	0.216	115	0.0	0.3	8.513	A
D-BC	50	12	448	0.111	49	0.0	0.1	9.019	A
C-ABD	20	5	661	0.030	20	0.0	0.0	5.616	A
C-D	0	0			0				
C-A	131	33			131				

12:45 - 13:00

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-CD	90	23	431	0.210	90	0.2	0.3	10.543	B
B-AD	67	17	391	0.171	67	0.2	0.2	11.104	B
A-BCD	93	23	744	0.124	92	0.1	0.2	5.526	A
A-B	5	1			5				
A-C	171	43			171				
D-AB	138	35	519	0.267	138	0.3	0.4	9.440	A
D-BC	59	15	428	0.139	59	0.1	0.2	9.766	A
C-ABD	25	6	668	0.037	25	0.0	0.1	5.601	A
C-D	0	0			0				
C-A	155	39			155				

13:00 - 13:15

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-CD	111	28	404	0.275	111	0.3	0.4	12.248	B
B-AD	82	20	365	0.223	81	0.2	0.3	12.660	B
A-BCD	122	31	765	0.160	122	0.2	0.3	5.605	A
A-B	6	1			6				
A-C	201	50			201				
D-AB	170	42	494	0.344	169	0.4	0.5	11.060	B
D-BC	73	18	397	0.183	72	0.2	0.2	11.088	B
C-ABD	33	8	678	0.048	33	0.1	0.1	5.577	A
C-D	0	0			0				
C-A	188	47			188				

13:15 - 13:30

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-CD	111	28	404	0.275	111	0.4	0.4	12.294	B
B-AD	82	20	365	0.223	82	0.3	0.3	12.696	B
A-BCD	122	31	765	0.160	122	0.3	0.3	5.611	A
A-B	6	1			6				
A-C	201	50			201				
D-AB	170	42	494	0.344	170	0.5	0.5	11.112	B
D-BC	73	18	397	0.183	73	0.2	0.2	11.113	B
C-ABD	33	8	678	0.048	33	0.1	0.1	5.581	A
C-D	0	0			0				
C-A	188	47			188				

13:30 - 13:45

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-CD	90	23	431	0.210	91	0.4	0.3	10.597	B
B-AD	67	17	390	0.171	67	0.3	0.2	11.150	B
A-BCD	93	23	744	0.125	93	0.3	0.2	5.537	A
A-B	5	1			5				
A-C	171	43			171				
D-AB	138	35	519	0.267	139	0.5	0.4	9.496	A
D-BC	59	15	427	0.139	60	0.2	0.2	9.798	A
C-ABD	25	6	668	0.037	25	0.1	0.1	5.607	A
C-D	0	0			0				
C-A	155	39			155				

13:45 - 14:00

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-CD	76	19	450	0.168	76	0.3	0.2	9.631	A
B-AD	56	14	408	0.138	56	0.2	0.2	10.257	B
A-BCD	74	18	730	0.101	74	0.2	0.2	5.494	A
A-B	4	1			4				
A-C	147	37			147				
D-AB	116	29	536	0.216	116	0.4	0.3	8.583	A
D-BC	50	12	448	0.111	50	0.2	0.1	9.058	A
C-ABD	20	5	661	0.030	20	0.1	0.0	5.623	A
C-D	0	0			0				
C-A	131	33			131				

Tidbury Green Farms - Base + Com 2017, Sunday AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm flare	Arm D - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	5.73	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
D3	Base + Com 2017	Sunday AM	ONE HOUR	12:00	13:30	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	✓	293	100.000
B		ONE HOUR	✓	163	100.000
C		ONE HOUR	✓	143	100.000
D		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	13	203	77
	B	4	0	27	132
	C	128	15	0	0
	D	73	130	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	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-CD	0.24	10.94	0.3	B	86	129
B-AD	0.20	11.46	0.2	B	64	95
A-BCD	0.16	5.53	0.3	A	97	145
A-B					10	16
A-C					162	242
D-AB	0.30	10.16	0.4	B	127	190
D-BC	0.18	10.41	0.2	B	61	92
C-ABD	0.03	5.81	0.0	A	17	26
C-D					0	0
C-A					114	171

Main Results for each time segment

12:00 - 12:15

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-CD	70	18	474	0.149	70	0.0	0.2	8.892	A
B-AD	52	13	427	0.123	52	0.0	0.1	9.591	A
A-BCD	74	19	737	0.101	74	0.0	0.1	5.425	A
A-B	9	2			9				
A-C	137	34			137				
D-AB	104	26	545	0.191	103	0.0	0.2	8.134	A
D-BC	50	13	461	0.109	50	0.0	0.1	8.735	A
C-ABD	13	3	636	0.021	13	0.0	0.0	5.778	A
C-D	0	0			0				
C-A	94	24			94				

12:15 - 12:30

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-CD	84	21	457	0.184	84	0.2	0.2	9.651	A
B-AD	62	16	412	0.151	62	0.1	0.2	10.294	B
A-BCD	93	23	753	0.124	93	0.1	0.2	5.463	A
A-B	10	3			10				
A-C	160	40			160				
D-AB	124	31	529	0.235	124	0.2	0.3	8.879	A
D-BC	60	15	445	0.135	60	0.1	0.2	9.355	A
C-ABD	16	4	638	0.026	16	0.0	0.0	5.791	A
C-D	0	0			0				
C-A	112	28			112				

12:30 - 12:45

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-CD	103	26	433	0.239	103	0.2	0.3	10.909	B
B-AD	76	19	390	0.195	76	0.2	0.2	11.440	B
A-BCD	123	31	774	0.158	122	0.2	0.3	5.524	A
A-B	12	3			12				
A-C	188	47			188				
D-AB	152	38	507	0.301	152	0.3	0.4	10.130	B
D-BC	73	18	419	0.175	73	0.2	0.2	10.390	B
C-ABD	21	5	641	0.033	21	0.0	0.0	5.808	A
C-D	0	0			0				
C-A	136	34			136				

12:45 - 13:00

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-CD	103	26	432	0.239	103	0.3	0.3	10.937	B
B-AD	76	19	390	0.195	76	0.2	0.2	11.463	B
A-BCD	123	31	775	0.158	123	0.3	0.3	5.529	A
A-B	12	3			12				
A-C	188	47			188				
D-AB	152	38	507	0.301	152	0.4	0.4	10.163	B
D-BC	73	18	419	0.175	73	0.2	0.2	10.408	B
C-ABD	21	5	641	0.033	21	0.0	0.0	5.809	A
C-D	0	0			0				
C-A	136	34			136				

13:00 - 13:15

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-CD	84	21	457	0.184	85	0.3	0.2	9.687	A
B-AD	62	16	412	0.152	63	0.2	0.2	10.324	B
A-BCD	94	23	753	0.124	94	0.3	0.2	5.468	A
A-B	10	3			10				
A-C	160	40			160				
D-AB	124	31	529	0.235	125	0.4	0.3	8.919	A
D-BC	60	15	444	0.135	60	0.2	0.2	9.379	A
C-ABD	16	4	638	0.026	17	0.0	0.0	5.794	A
C-D	0	0			0				
C-A	112	28			112				

13:15 - 13:30

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-CD	70	18	473	0.149	71	0.2	0.2	8.943	A
B-AD	52	13	426	0.123	52	0.2	0.1	9.635	A
A-BCD	75	19	737	0.101	75	0.2	0.1	5.439	A
A-B	9	2			9				
A-C	137	34			137				
D-AB	104	26	544	0.191	104	0.3	0.2	8.188	A
D-BC	50	13	461	0.109	50	0.2	0.1	8.770	A
C-ABD	13	3	636	0.021	13	0.0	0.0	5.783	A
C-D	0	0			0				
C-A	94	24			94				

Tidbury Green Farms - Base + Com + Dev 2017, Weekday PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm flare	Arm D - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	25.02	D

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
D4	Base + Com + Dev 2017	Weekday PM	ONE HOUR	16:15	17:45	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	✓	313	100.000
B		ONE HOUR	✓	377	100.000
C		ONE HOUR	✓	410	100.000
D		ONE HOUR	✓	268	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	12	212	89
	B	1	0	120	256
	C	331	78	0	1
	D	25	224	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	17	2	2
	B	0	0	2	3
	C	3	6	0	0
	D	0	1	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-CD	0.86	67.61	4.7	F	228	342
B-AD	0.77	72.80	2.6	F	118	177
A-BCD	0.22	6.67	0.4	A	119	178
A-B					9	14
A-C					160	239
D-AB	0.52	24.02	1.1	C	133	199
D-BC	0.47	24.10	0.9	C	113	170
C-ABD	0.22	6.03	0.5	A	125	188
C-D					0.76	1
C-A					250	375

Main Results for each time segment

16:15 - 16:30

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-CD	187	47	431	0.434	184	0.0	0.7	14.406	B
B-AD	97	24	347	0.279	95	0.0	0.4	14.227	B
A-BCD	89	22	675	0.132	89	0.0	0.2	6.131	A
A-B	8	2			8				
A-C	138	35			138				
D-AB	107	27	413	0.258	105	0.0	0.3	11.651	B
D-BC	95	24	385	0.247	94	0.0	0.3	12.311	B
C-ABD	91	23	706	0.129	90	0.0	0.2	5.842	A
C-D	0.66	0.16			0.66				
C-A	217	54			217				

16:30 - 16:45

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-CD	223	56	392	0.569	221	0.7	1.3	20.777	C
B-AD	116	29	298	0.388	115	0.4	0.6	19.505	C
A-BCD	114	28	682	0.167	113	0.2	0.3	6.328	A
A-B	9	2			9				
A-C	159	40			159				
D-AB	129	32	374	0.345	128	0.3	0.5	14.600	B
D-BC	112	28	348	0.322	111	0.3	0.5	15.177	C
C-ABD	119	30	730	0.163	119	0.2	0.3	5.903	A
C-D	0.75	0.19			0.75				
C-A	249	62			249				

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-CD	274	68	326	0.839	263	1.3	3.9	50.546	F
B-AD	141	35	201	0.703	136	0.6	2.0	51.519	F
A-BCD	153	38	694	0.220	152	0.3	0.4	6.650	A
A-B	10	3			10				
A-C	182	45			182				
D-AB	162	40	313	0.516	160	0.5	1.0	23.113	C
D-BC	133	33	285	0.468	132	0.5	0.8	23.248	C
C-ABD	165	41	764	0.217	165	0.3	0.5	6.027	A
C-D	0.86	0.22			0.86				
C-A	285	71			285				

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-CD	274	68	318	0.861	270	3.9	4.7	67.615	F
B-AD	141	35	185	0.765	139	2.0	2.6	72.798	F
A-BCD	153	38	694	0.220	153	0.4	0.4	6.668	A
A-B	10	3			10				
A-C	182	45			182				
D-AB	162	40	311	0.520	162	1.0	1.1	24.019	C
D-BC	133	33	282	0.472	133	0.8	0.9	24.097	C
C-ABD	166	41	764	0.217	166	0.5	0.5	6.031	A
C-D	0.86	0.22			0.86				
C-A	285	71			285				

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-CD	223	56	383	0.583	236	4.7	1.5	26.394	D
B-AD	116	29	284	0.407	123	2.6	0.7	23.360	C
A-BCD	114	28	682	0.167	114	0.4	0.3	6.354	A
A-B	9	2			9				
A-C	158	40			158				
D-AB	129	32	372	0.348	131	1.1	0.5	15.077	C
D-BC	112	28	345	0.324	113	0.9	0.5	15.638	C
C-ABD	119	30	730	0.164	120	0.5	0.3	5.909	A
C-D	0.75	0.19			0.75				
C-A	248	62			248				

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-CD	187	47	428	0.436	190	1.5	0.8	15.242	C
B-AD	97	24	344	0.282	98	0.7	0.4	14.743	B
A-BCD	90	22	675	0.133	90	0.3	0.2	6.162	A
A-B	8	2			8				
A-C	138	35			138				
D-AB	107	27	411	0.260	108	0.5	0.4	11.881	B
D-BC	95	24	383	0.248	96	0.5	0.3	12.538	B
C-ABD	91	23	706	0.129	92	0.3	0.2	5.863	A
C-D	0.65	0.16			0.65				
C-A	217	54			217				

Tidbury Green Farms - Base + Com + Dev 2017, Saturday AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm flare	Arm D - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	6.11	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
D5	Base + Com + Dev 2017	Saturday AM	ONE HOUR	12:30	14:00	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	✓	304	100.000
B		ONE HOUR	✓	183	100.000
C		ONE HOUR	✓	212	100.000
D		ONE HOUR	✓	220	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	6	223	75
	B	6	0	38	139
	C	184	28	0	0
	D	90	127	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	0	0	5	2
	C	1	0	0	0
	D	2	0	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-CD	0.29	12.48	0.4	B	100	150
B-AD	0.23	12.97	0.3	B	68	102
A-BCD	0.16	5.62	0.3	A	97	146
A-B					5	7
A-C					177	266
D-AB	0.35	11.23	0.5	B	141	212
D-BC	0.19	11.27	0.2	B	61	91
C-ABD	0.06	5.67	0.1	A	35	52
C-D					0	0
C-A					160	240

Main Results for each time segment

12:30 - 12:45

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-CD	82	20	457	0.179	81	0.0	0.2	9.555	A
B-AD	56	14	405	0.139	56	0.0	0.2	10.297	B
A-BCD	74	18	730	0.101	73	0.0	0.2	5.483	A
A-B	4	1			4				
A-C	151	38			151				
D-AB	116	29	534	0.217	115	0.0	0.3	8.558	A
D-BC	50	12	445	0.112	49	0.0	0.1	9.086	A
C-ABD	27	7	663	0.040	26	0.0	0.1	5.658	A
C-D	0	0			0				
C-A	133	33			133				

12:45 - 13:00

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-CD	98	24	437	0.223	97	0.2	0.3	10.592	B
B-AD	67	17	386	0.173	67	0.2	0.2	11.256	B
A-BCD	93	23	744	0.126	93	0.2	0.2	5.534	A
A-B	5	1			5				
A-C	175	44			175				
D-AB	138	35	516	0.268	138	0.3	0.4	9.508	A
D-BC	59	15	424	0.140	59	0.1	0.2	9.864	A
C-ABD	33	8	670	0.050	33	0.1	0.1	5.656	A
C-D	0	0			0				
C-A	157	39			157				

13:00 - 13:15

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-CD	120	30	409	0.293	119	0.3	0.4	12.428	B
B-AD	82	20	359	0.227	81	0.2	0.3	12.926	B
A-BCD	124	31	765	0.162	123	0.2	0.3	5.616	A
A-B	6	1			6				
A-C	206	51			206				
D-AB	170	42	490	0.346	169	0.4	0.5	11.183	B
D-BC	73	18	392	0.185	72	0.2	0.2	11.240	B
C-ABD	44	11	681	0.065	44	0.1	0.1	5.654	A
C-D	0	0			0				
C-A	189	47			189				

13:15 - 13:30

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-CD	120	30	408	0.294	120	0.4	0.4	12.478	B
B-AD	82	20	359	0.227	82	0.3	0.3	12.968	B
A-BCD	124	31	765	0.162	124	0.3	0.3	5.623	A
A-B	6	1			6				
A-C	206	51			206				
D-AB	170	42	490	0.346	170	0.5	0.5	11.233	B
D-BC	73	18	392	0.185	73	0.2	0.2	11.268	B
C-ABD	44	11	680	0.065	44	0.1	0.1	5.658	A
C-D	0	0			0				
C-A	189	47			189				

13:30 - 13:45

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-CD	98	24	437	0.224	98	0.4	0.3	10.651	B
B-AD	67	17	386	0.173	67	0.3	0.2	11.302	B
A-BCD	94	23	744	0.126	94	0.3	0.2	5.543	A
A-B	5	1			5				
A-C	175	44			175				
D-AB	138	35	516	0.268	139	0.5	0.4	9.563	A
D-BC	59	15	424	0.140	60	0.2	0.2	9.897	A
C-ABD	34	8	670	0.050	34	0.1	0.1	5.664	A
C-D	0	0			0				
C-A	157	39			157				

13:45 - 14:00

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-CD	82	20	456	0.179	82	0.3	0.2	9.628	A
B-AD	56	14	404	0.139	56	0.2	0.2	10.360	B
A-BCD	74	19	730	0.102	74	0.2	0.2	5.498	A
A-B	4	1			4				
A-C	151	38			151				
D-AB	116	29	534	0.217	116	0.4	0.3	8.628	A
D-BC	50	12	445	0.112	50	0.2	0.1	9.126	A
C-ABD	27	7	662	0.040	27	0.1	0.1	5.667	A
C-D	0	0			0				
C-A	133	33			133				

Tidbury Green Farms - Base + Com + Dev 2017, Sunday AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm flare	Arm D - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	5.80	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	Base + Com + Dev 2017	Sunday AM	ONE HOUR	12:00	13:30	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	✓	299	100.000
B		ONE HOUR	✓	171	100.000
C		ONE HOUR	✓	155	100.000
D		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	13	209	77
	B	4	0	35	132
	C	133	22	0	0
	D	73	130	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	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-CD	0.26	11.11	0.3	B	93	140
B-AD	0.20	11.69	0.2	B	64	95
A-BCD	0.16	5.54	0.3	A	98	147
A-B					10	16
A-C					166	249
D-AB	0.30	10.27	0.4	B	127	190
D-BC	0.18	10.55	0.2	B	61	92
C-ABD	0.05	5.88	0.1	A	25	38
C-D					0	0
C-A					117	176

Main Results for each time segment

12:00 - 12:15

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-CD	76	19	479	0.160	76	0.0	0.2	8.910	A
B-AD	52	13	423	0.124	52	0.0	0.1	9.682	A
A-BCD	75	19	737	0.102	74	0.0	0.1	5.427	A
A-B	9	2			9				
A-C	141	35			141				
D-AB	104	26	542	0.192	103	0.0	0.2	8.178	A
D-BC	50	13	458	0.110	50	0.0	0.1	8.795	A
C-ABD	20	5	638	0.031	19	0.0	0.0	5.821	A
C-D	0	0			0				
C-A	97	24			97				

12:15 - 12:30

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-CD	91	23	461	0.198	91	0.2	0.2	9.719	A
B-AD	62	16	407	0.153	62	0.1	0.2	10.428	B
A-BCD	94	24	753	0.125	94	0.1	0.2	5.464	A
A-B	10	3			10				
A-C	164	41			164				
D-AB	124	31	526	0.236	124	0.2	0.3	8.943	A
D-BC	60	15	441	0.136	60	0.1	0.2	9.444	A
C-ABD	24	6	640	0.038	24	0.0	0.1	5.848	A
C-D	0	0			0				
C-A	115	29			115				

12:30 - 12:45

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-CD	112	28	436	0.257	112	0.2	0.3	11.081	B
B-AD	76	19	384	0.198	76	0.2	0.2	11.661	B
A-BCD	124	31	775	0.160	124	0.2	0.3	5.529	A
A-B	12	3			12				
A-C	193	48			193				
D-AB	152	38	503	0.303	152	0.3	0.4	10.237	B
D-BC	73	18	415	0.177	73	0.2	0.2	10.528	B
C-ABD	31	8	643	0.049	31	0.1	0.1	5.882	A
C-D	0	0			0				
C-A	139	35			139				

12:45 - 13:00

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-CD	112	28	436	0.257	112	0.3	0.3	11.114	B
B-AD	76	19	384	0.198	76	0.2	0.2	11.686	B
A-BCD	124	31	775	0.160	124	0.3	0.3	5.536	A
A-B	12	3			12				
A-C	193	48			193				
D-AB	152	38	503	0.303	152	0.4	0.4	10.271	B
D-BC	73	18	415	0.177	73	0.2	0.2	10.547	B
C-ABD	31	8	643	0.049	31	0.1	0.1	5.884	A
C-D	0	0			0				
C-A	139	35			139				

13:00 - 13:15

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-CD	91	23	461	0.198	92	0.3	0.3	9.758	A
B-AD	62	16	407	0.153	63	0.2	0.2	10.461	B
A-BCD	94	24	753	0.125	95	0.3	0.2	5.472	A
A-B	10	3			10				
A-C	164	41			164				
D-AB	124	31	526	0.236	125	0.4	0.3	8.985	A
D-BC	60	15	441	0.136	60	0.2	0.2	9.469	A
C-ABD	24	6	640	0.038	24	0.1	0.1	5.854	A
C-D	0	0			0				
C-A	115	29			115				

13:15 - 13:30

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-CD	76	19	479	0.160	77	0.3	0.2	8.963	A
B-AD	52	13	423	0.124	52	0.2	0.1	9.728	A
A-BCD	75	19	737	0.102	75	0.2	0.2	5.442	A
A-B	9	2			9				
A-C	141	35			141				
D-AB	104	26	542	0.192	104	0.3	0.2	8.231	A
D-BC	50	13	458	0.110	50	0.2	0.1	8.833	A
C-ABD	20	5	638	0.031	20	0.1	0.0	5.829	A
C-D	0	0			0				
C-A	97	24			97				