Project:	**Stradbroke Neighbourhood Plan**	Job No:	**60538603/ DR-01470-Stradbroke**
Subject:	**Transport Appraisal of Queen Street/ Mill Lane Junction**		
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Overview

AECOM has been appointed by Locality as part of the Ministry for Housing, Communities and Local Government Neighbourhood Planning programme to assess the future operation and capacity of the Queen Street/ Mill Lane junction in Stradbroke based on the planned delivery of housing and jobs in the village. The study is designed to support the draft Neighbourhood Plan by identifying whether any highway capacity improvements are likely to be required to support the consent of proposed allocation sites at planning stage.

The study assesses the existing and future junction operation during the weekday peak hours considering the development of various residential and employment sites within the village and the forecast increase in traffic arising from the potential cumulative delivery of housing and jobs during the Local Plan period (up to 2036). The study also considers the re-distribution of traffic associated with Stradbroke Primary School as part of proposals to provide alternative parking and drop-off facilities at one of the sites.

Existing Highway Network

Introduction

Queen Street is a two-way single carriageway road which runs in a north-south direction and forms one of the key vehicular routes into the village. Queen Street forms the major arms of a three-arm priority T-junction with Mill Lane approximately 500m to the north of village centre. A footway is situated along the western side of Queen Street which provides access to the village centre and Stradbroke Primary School to the south.

Mill Lane is a no-through road which currently serves the Skinner's pet foods factory as well as four residential dwellings to the west of Queen Street. A footway is situated along the northern side of Mill Lane which provides access to the Skinner's factory and the footway on Queen Street. Both Queen Street and Mill Lane are subject to a 30mph speed limit in the vicinity of the junction.

A site location plan is shown below in Figure 1.

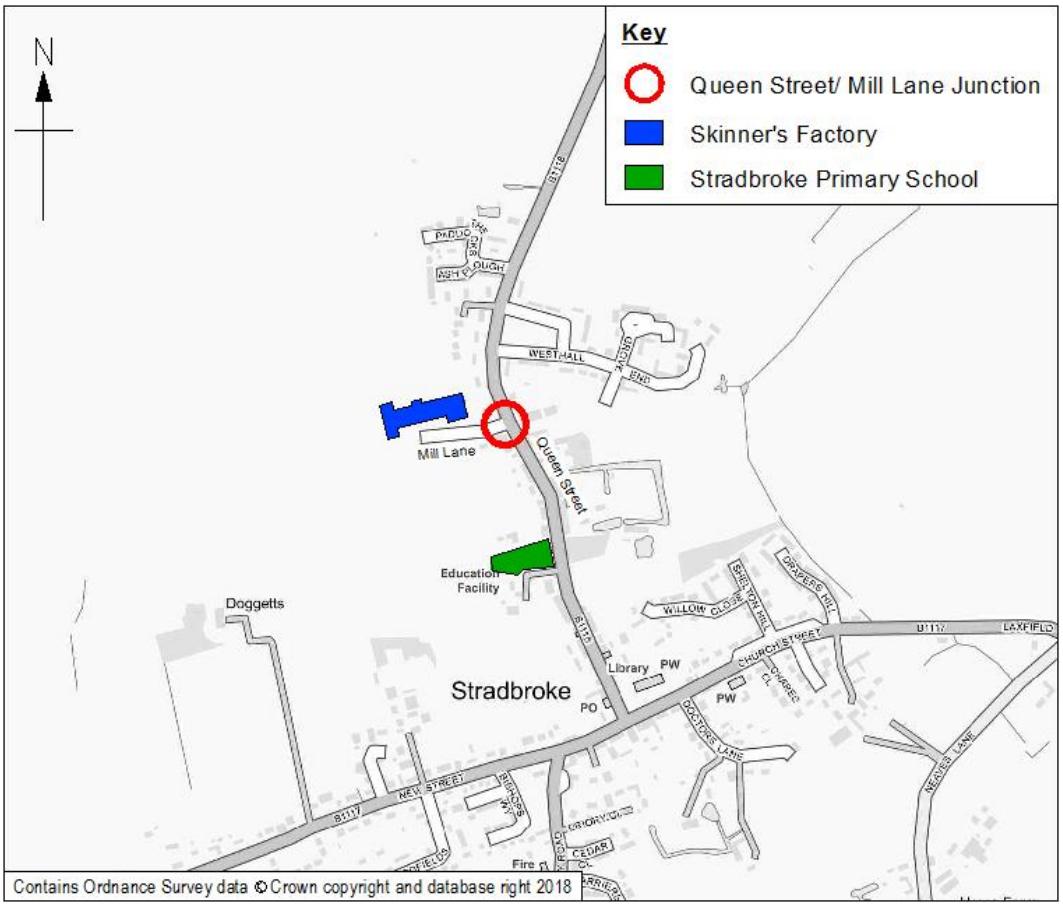


Figure 1: Location of Queen Street/ Mill Lane Priority T-Junction

Queen Street/ Mill Lane Junction (Skinner's Factory)

A manually classified traffic count was carried out by Nationwide Data Collection (NDC) at the Queen Street/ Mill Lane junction on Tuesday 16th January 2018. The traffic count was undertaken between 07:00-10:00 and 15:00-19:00. The network weekday peak hours at the junction were identified from the survey data as 08:00-09:00 (AM Peak) and 16:45-17:45 (PM Peak).

For the purposes of this assessment, all trips turning in/ out of Mill Lane have been assumed to be associated with the existing Skinner's factory, in order to provide a robust appraisal of trip attraction for this land use. A summary of the existing trip attraction observed for the Skinner's factory is set out in Table 1 below, separated by vehicle class.

Table 1: Summary of Existing Skinner's Factory Traffic Flows (turning in/ out Mill Lane)

Vehicle Type	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (16:45-17:45)		
	Arr	Dep	Total	Arr	Dep	Total
Car	22	4	26	5	23	28
LGV	3	0	3	0	1	1
HGV	1	1	2	0	0	0
Total	26	5	31	5	24	29

The full results of the traffic count including turning movements and queue lengths are held within Appendix A. The results have also been used to compile traffic flow diagrams for the network weekday peak hours. The existing traffic flows for the Queen Street/ Mill Lane junction are shown on traffic flow diagrams 1 & 2 which are presented ahead of the appendices. The existing traffic flows for the Skinner's factory are shown on traffic flow diagrams 3 & 4.

Stradbroke Primary School

Stradbroke Primary School is situated on the western side of Queen Street approximately 200m to the south of Mill Lane as shown on Figure 1. The school has a staff car park which contains 11 parking spaces and takes access from Queen Street via a priority T-junction. There are 'School Keep Clear' markings on the western side of the carriageway outside of the school. The school is served by a school bus service which makes use of these markings, as well as a couple of taxis during peak times. Parents and guardians currently park on-street both to the north and south of the keep clear markings to drop-off and pick-up pupils at the start and end of the school day.

There are local concerns about the level of traffic congestion experienced outside of the school due to the drop-off and pick-up trips that occur on Queen Street during peak times. There are also road safety concerns associated with these vehicle manoeuvres (e.g. u-turning movements) and the interactions of vehicular traffic with pedestrians (including school pupils) in the vicinity of the school and HGVs travelling on Queen Street. A total of 17 two-way HGV movements were recorded during the AM peak hour (see traffic flow diagram 1), and this therefore increases the potential risk for vehicle conflict and/ or congestion when HGVs are unable to safely pass parked vehicles.

In view of the above, a traffic survey was carried out by AECOM at Stradbroke Primary School on Tuesday 16th January 2018. The traffic survey was undertaken during the afternoon school peak between 14:55-15:30 and recorded all traffic movements associated with the school including those on Queen Street (school bus, taxi and car pick-up trips) and those entering and exiting the school staff car park. The results of the traffic survey are set out in Table 2 below.

Table 2: Summary of Existing Stradbroke Primary School Traffic Flows (Afternoon Peak, 14:55-15:30)

Vehicle Type	Location	Arr	Dep	Total
School Bus	Queen Street (on-street)	1	1	2
Taxi		2	2	4
Car		22	23	45
Car	Staff Car Park*	2	4	6
Total	-	27	30	57

*nine vehicles parked at the start of the survey, seven vehicles parked at the end

The results in Table 2 have been used to estimate the level of existing school-related trips during the network weekday peak hours. For the purposes of this assessment, it is assumed that the same number of vehicles (school bus, taxis and cars) drop-off pupils on Queen Street during the AM peak compared to those observed collecting pupils during the afternoon peak. It is also assumed, for the purposes of a robust appraisal, that nine staff vehicles arrive to the car park during the AM peak (in addition to two drop-off trips), and that all seven vehicles parked within the staff car park at the end of the afternoon peak depart during the PM peak. The results are presented in Table 3 below.

Table 3: Estimate of Existing Weekday Peak Hour Stradbroke Primary School Traffic Flows

Vehicle Type	Location	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (16:45-17:45)		
		Arr	Dep	Total	Arr	Dep	Total
School Bus	Queen Street (on-street)	1	1	2	0	0	0
Taxi		2	2	4	0	0	0
Car		23	22	45	0	0	0
Car	Staff Car Park	11	2	13	0	7	7
Total	-	37	27	64	0	0	7

The staff traffic flows (nine arriving during the AM peak and seven departing during the PM peak) have been distributed across the network based on the 2011 Census Travel to Work Origin-Destination (O-D) database to reflect the likely origins of staff travelling to the school. The data is currently available at Census MSOA level from the www.datashine.org.uk website developed by University College London (UCL) and the Economic & Social Research Council (ESRC).

The village of Stradbroke is located within the Mid Suffolk 003 Middle Super Output Area (MSOA). The trips have therefore been assigned using the Mid Suffolk 003 MSOA (as a destination) and the shortest anticipated journey times to this area during the weekday peak hours based on the www.google.co.uk/maps routefinder. It is assumed that 48% trips travel to/ from Queen Street to the north, and 52% trips travel to/ from Queen Street to the south i.e. via the village centre.

The results indicate that two-way traffic flows on Queen Street during the school peak hours are currently comprised of almost 10% school traffic in the vicinity of Mill Lane to the north of the school, and almost 15% school traffic towards the centre of the village to the south, demonstrating the existing contribution of school traffic to localised congestion on the highway network. The existing afternoon peak and weekday peak hour traffic flows for Stradbroke Primary School are shown on traffic flow diagrams 5-9. The 2011 Census Travel to Work O-D data and supporting calculations are held within Appendix B.

Junction Assessment (Existing Operation)

The existing operation of the Queen Street/ Mill Lane junction has been modelled using the appropriate industry-standard software: PICADY for priority T-junctions, which forms part of the Transport Research Laboratory's 'Junctions 9' suite. The modelling has been informed by on-site junction geometry measurements which were undertaken on Tuesday 16th January 2018.

The PICADY results tables provide the maximum Ratio of Flow to Capacity (RFC) values predicted for each arm, together with the maximum average queue (in vehicles) and average overall delay incurred by each vehicle passing through the junction. An RFC value of 0.85 is usually taken to indicate that the manoeuvre is operating at practical capacity, whilst a value of 1.0 indicates that it is operating at theoretical capacity.

A summary of the modelling results for the existing junction during the network weekday peak hours is set out below in Table 4.

Table 4: Summary of PICADY Results for Existing Queen Street/ Mill Lane Junction (2018 Existing)

Approach	2018 Existing			
	Weekday AM Peak Hour (08:00-09:00)		Weekday PM Peak Hour (16:45-17:45)	
	RFC	Max Queue	RFC	Max Queue
Queen Street (S)	-	-	-	-
Mill Lane (W)	0.01	0	0.03	0
Queen Street (N)	0.03	0	0.00	0
Overall junction delay (secs/veh)	0.44		0.52	

The PICADY results demonstrate that, based on existing flows and geometry, the existing Queen Street/ Mill Lane junction currently operates well within capacity during the weekday peak hours, with negligible queuing experienced at the junction. The results compare well with the queue length surveys which also identify negligible queues on all arms at the junction under existing conditions. The full PICADY results are held within Appendix C.

Future Baseline Scenario (2036)

Introduction

This section examines the future baseline operation of the Queen Street/ Mill Lane junction based on forecast background traffic growth on the local highway network and the current configuration of the junction.

Future Year of Assessment

This study considers the future year of 2036 which represents the end of the Local Plan period i.e. the period within which the housing and jobs associated with the proposed allocation sites could be expected to be delivered.

Background Traffic Growth

Forecast background traffic growth has been applied to the baseline traffic flows derived from the 2018 surveys to represent conditions during the future assessment year of 2036. The traffic flows associated with the Skinner's factory and Stradbroke Primary School (see earlier section) have been excluded from the traffic growth, as these uses are not expected to increase vehicle trips under the future baseline scenario. The 2018 baseline weekday peak hour traffic flows (excluding Skinner's factory and Stradbroke Primary School traffic) are shown on traffic flow diagrams 10 & 11.

Growth factors have been derived from projected increases in annual vehicle mileage on roads in the East region from the National Transport Model (NTM). These have been modified by the use of local factors for the increase in car driver trips in each weekday peak period derived from the National Trip End Model (NTEM) dataset v7.0 (July 2016) using the Trip Ends Model program (TEMPro). The growth factors have been derived for Rural Minor Roads together with NTEM for the Mid Suffolk 003 MSOA.

The background growth factors which have been used to convert the 2018 surveyed flows (excluding the Skinner's factory and Stradbroke Primary School flows) to represent the baseline traffic flows during the future assessment year of 2036 are set out in Table 5 below.

Table 5: Adopted Background Traffic Growth Factors

Road	Weekday AM Peak Hour	Weekday PM Peak Hour
Rural Roads within Stradbroke	12.6%	13.0%

The TEMPro calculations are held within Appendix D. The factored up background traffic flows following the application of the above growth factors are shown on traffic flow diagrams 12 & 13. The future baseline weekday peak hour traffic flows are subsequently shown on traffic flow diagrams 14 & 15 which include the existing (un-factored) traffic flows associated with the Skinner's factory and Stradbroke Primary School.

Junction Assessment (Future Baseline Operation)

The future baseline operation of the existing Queen Street/ Mill Lane junction has been modelled using PICADY. A summary of the results for the network weekday peak hours is set out below in Table 6.

Table 6: Summary of PICADY Results for Existing Queen Street/ Mill Lane Junction (2036 Future Baseline)

Approach	2036 Future Baseline			
	Weekday AM Peak Hour (08:00-09:00)		Weekday PM Peak Hour (16:45-17:45)	
	RFC	Max Queue	RFC	Max Queue
Queen Street (S)	-	-	-	-
Mill Lane (W)	0.01	0	0.03	0
Queen Street (N)	0.03	0	0.00	0
Overall junction delay (secs/veh)	0.41		0.47	

The PICADY results show that the existing Queen Street/ Mill Lane junction is forecast to operate well within capacity under the 2036 future baseline scenario during the weekday peak hours, with negligible queuing experienced at the junction. The full PICADY results are held within Appendix C.

Proposed Allocation Sites

Introduction

This assessment considers the planned delivery of housing and jobs across the following sites in Stradbroke as identified in Figure 2 below. Further details are subsequently set out further below.

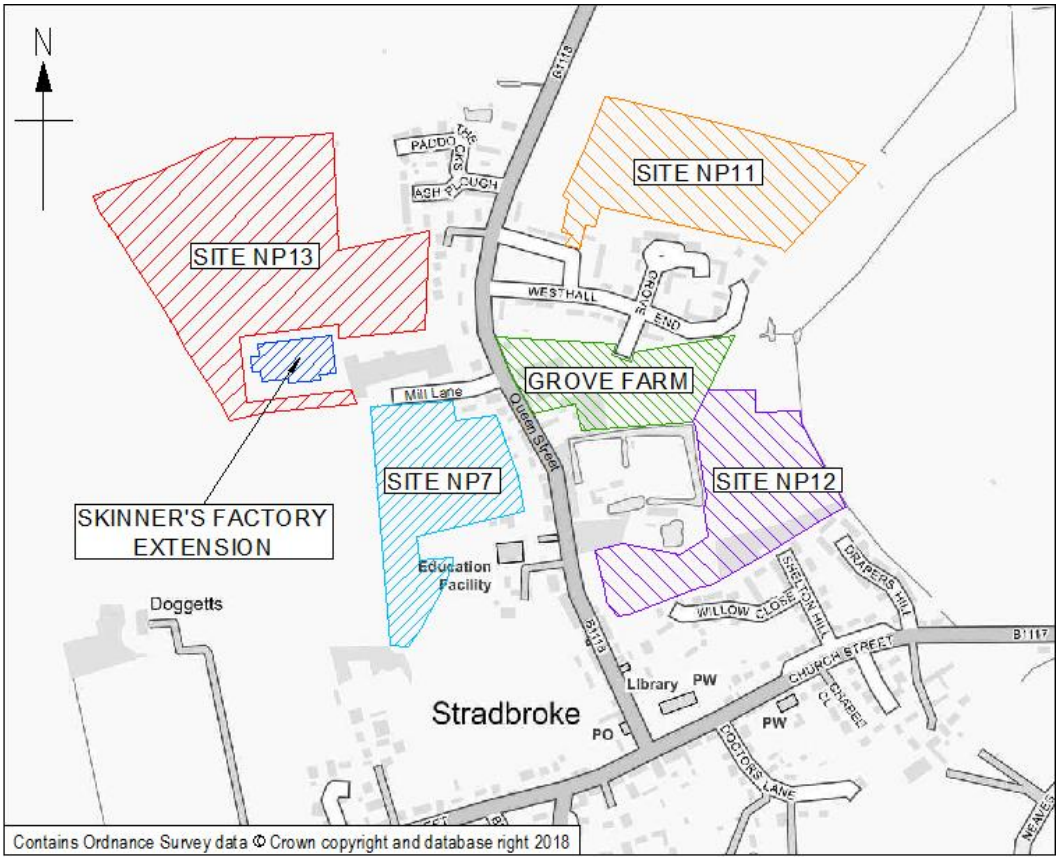


Figure 2: Proposal Sites

Skinner's Factory Extension (Employment)

The Skinner's factory currently takes access from Queen Street via Mill Lane. The factory operates one production line and employs around 50 staff members including office staff, sales staff and factory staff working different shifts. The site manufactures dry dog foods and receives bulk deliveries from HGVs which are required to make use of an off-site weighbridge such as at Rattlerow Farm to the north of the site, or alternative facilities within Eye. These HGVs are currently required to access/ egress the site twice, firstly to unload materials at the site after initially being weighed off-site (loaded weight) and secondly to record the quantity of unloaded materials at the site after being weighed off-site (empty weight) once again.

The proposals for the Skinner's factory extension include an additional building and second production line to expand the operational capabilities of the site. It is envisaged that the expansion will ultimately create around 20 jobs. The proposals also include an on-site weighbridge facility which will enable HGVs to access/ egress the site only once.

The proposals will ensure that the new building is set-back to accommodate the extension of Mill Lane, which will also support future access to Site NP13 (see below).

Site NP13 (Employment)

Site NP13 is situated to the north-west of the Skinner's factory and is currently vacant. It is understood that office/ business use could be developed on this site with an approximate floor area of 27,000 sqm. Vehicular access will be taken directly from Mill Lane and all trips will therefore pass through the Queen Street/ Mill Lane junction. For the purposes of this assessment, it has been assumed that 150 jobs could be supported by the proposed employment use from the outset.

Site NP7 (Housing)

Site NP7 is located to the south of Mill Lane and to the west of Stradbroke Primary School. For the purposes of this assessment, it is assumed that the site has the capacity to deliver up to 82 dwellings.

A key element of the proposals for Site NP7 is to accommodate a school car park and bus drop-off area for Stradbroke Primary School. These facilities will be available to parents/ guardians and staff and will be situated within the southern section of the site to minimise walking distances to the school. Vehicular access will be taken via Mill Lane to the north and it has been assumed (for the purposes of this assessment) that all school-related trips will subsequently pass through the Queen Street/ Mill Lane junction. These proposals will help to reduce the occurrence of drop-off and pick-up trips on Queen Street in the vicinity of the school and the associated road safety concerns arising from localised congestion.

Grove Farm Development (Housing)

This site has consent to deliver 46 dwellings in accordance with the following approved planning applications:

- 4005/14: Erection of 44 dwellings together with associated garages, hardstanding drainage and infrastructure including new accesses; and,
- 4006/14: Works to barns to convert and form two dwellings.

A new vehicular access will be provided on Queen Street to the west of the site. These proposals will result in a four-arm staggered junction arrangement with Queen Street and Mill Lane which has been reflected within the cumulative assessment. The proposed site access junction for the Grove Farm development is shown in Appendix E.

Site NP12 (Housing)

Site NP12 is located to the north-east of the village centre and has the potential to deliver up to 40 dwellings. For the purposes of this assessment, it is assumed that vehicular access will be taken via the consented Grove Farm

development to the north. All trips will therefore pass through the proposed four-arm staggered junction with Queen Street and Mill Lane.

Site NP11 (Housing)

Site NP11 is located to the north of the village and north of the Queen Street/ Mill Lane junction. It has the potential to deliver up to 80 dwellings. Vehicular access will be taken from Queen Street via Westhall to the south of Site NP11.

Summary of Sites for Cumulative Assessment

A summary of the sites considered directly by the cumulative assessment is set out in Table 7 below.

Table 7: Proposal Sites considered by Cumulative Assessment

Site	Max. Housing	Employment	Vehicular Access
Skinner's Factory Extension	-	Increase in operational capabilities (20 jobs)	Mill Lane (to be extended to the west)
Site NP13	-	27,000 sqm office/ business use (150 jobs)	Mill Lane (via site access road)
Site NP7	82 dwellings	-	Mill Lane (via site access road) including for the school car park and drop-off area
Grove Farm	46 dwellings	-	New staggered junction arrangement with Queen Street/ Mill Lane
Site NP12	40 dwellings	-	Via Grove Farm development (see above)
Site NP11	80 dwellings	-	Westhall and Queen Street (north of Mill Ln)
Total	248 dwellings	170 jobs	-

Cumulative Assessment (2036)

Introduction

The cumulative assessment considers additional traffic directly associated with the identified residential and employment allocation sites, as well as the proposed four-arm staggered arrangement of the Queen Street/ Mill Lane junction following the implementation of the consented Grove Farm development. Further details of the methodology are provided below.

Skinner's Factory Extension (Employment)

The following assumptions have been applied to the existing trip attraction for the Skinner's factory (Table 1) to reflect the proposed factory extension:

- HGV and LGV movements have been increased by 100% to reflect the potential proposals for expansion and increased operational capabilities. It should be noted that for robustness, HGV bulk delivery trips have not been reduced to reflect the on-site weighbridge (which would allow these vehicles to access/ egress the site once instead of twice); and,
- Car movements have been increased by 40% to reflect the potential increase from 50 to 70 staff members.

The proposed trip generation for the Skinner's factory during the network weekday peak hours is set out below in Table 8.

Table 8: Summary of Proposed Skinner's Factory Traffic Flows (turning in/ out Mill Lane)

Vehicle Type	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (16:45-17:45)		
	Arr	Dep	Total	Arr	Dep	Total
Car	31	6	37	7	32	39
LGV	6	0	6	0	2	2
HGV	2	2	4	0	0	0
Total	39	8	47	7	34	41

The forecast weekday peak hour traffic flows for the Skinner's factory following the proposed expansion are shown on traffic flow diagrams 16-19. It should be noted that the same trip distribution has been adopted as for the existing site.

Site NP13 (Employment)

The forecast vehicular trip attraction of the proposed employment use on Site NP13 has been determined by deriving vehicular trip rates from the TRICS database (v7.4.4). The trip rates are based on an average of observed 'Business Park' employment sites located within the UK (excluding Greater London, Ireland and the Isle of Man) in edge of town or neighbourhood centre locations. A total of five sites have been selected and the TRICS output data including the details of the sites and selection criteria are provided at Appendix F. The typical weekday peak hours are identified as 08:00-09:00 and 16:30-17:30 for this land use.

The vehicular trip rates and forecast trip attraction based on an approximate floor area of 27,000 sqm has been set out below in Table 9.

Table 9: Site NP13 Employment Use Vehicular Trip Rates/ Attraction

Site NP13 (Employment)	Criteria	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (16:30-17:30)		
		Arr	Dep	Total	Arr	Dep	Total
Car/ LGV Trip Rates	Per 100 sqm	1.076	0.153	1.229	0.115	0.932	1.047
HGV Trip Rates		0.016	0.017	0.033	0.005	0.012	0.017
Vehicular Trip Rates		1.092	0.170	1.262	0.120	0.944	1.064
Car/ LGV Trip Attraction	27,000 sqm	291	41	332	31	252	283
HGV Trip Attraction		4	5	9	2	3	5
Vehicular Trip Attraction		295	46	341	33	255	288

The above vehicular trip attraction is significantly higher than the forecast cumulative trip generation for the residential sites (see Table 10 below) and is therefore considered to be robust.

The proposed car/ LGV traffic flows have been distributed at the Queen Street/ Mill Lane junction based on the 2011 Census Travel to Work O-D database to reflect the likely origins of trips travelling to the site. The trips have been assigned using the Mid Suffolk 003 MSOA (as a destination) and the shortest anticipated journey times to this area during the weekday peak hours. It has been assumed that 48% trips would travel to/ from Queen Street to the north, and 52% trips would travel to/ from Queen Street to the south i.e. via the village centre. It has been assumed that all HGV trips would travel to/ from the north i.e. by turning right in and left out of the site.

The forecast weekday peak hour traffic flows for Site NP13 are shown on traffic flow diagrams 20-23. The 2011 Census Travel to Work O-D data and supporting calculations are held within Appendix B.

Residential Sites

The forecast vehicular trip attraction for the proposed residential sites (including the consented Grove Farm development) has been determined by deriving vehicular trip rates from the TRICS database (v7.4.4). The trip rates are based on an average of observed mixed private/ affordable residential sites located within the UK

(excluding Greater London, Ireland and the Isle of Man) in suburban, edge of town or neighbourhood centre locations. The site selection also only included sites up to 100 dwellings with average car ownership levels of more than one vehicle per dwelling (to reflect the high reliance on the car within the village).

A total of seven sites have been selected and the TRICS output data including the details of the sites and selection criteria are provided at Appendix G. The typical weekday peak hours are identified as 08:00-09:00 and 17:00-18:00 for this land use. The vehicular trip rates and estimated trip attraction for each residential site based on the proposed number of dwellings has been set out below in Table 10.

Table 10: Residential Use Vehicular Trip Rates/ Attraction

Residential Sites	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arr	Dep	Total	Arr	Dep	Total
Vehicular Trip Rates (per dwelling)	0.121	0.421	0.542	0.395	0.151	0.546
Site NP7 (82 dwellings)	10	35	45	32	13	45
Grove Farm (46 dwellings)	6	19	25	18	7	25
Site NP12 (40 dwellings)	5	17	22	16	6	22
Site NP11 (80 dwellings)	10	34	44	32	12	44
Total (248 dwellings)	31	105	136	98	38	136

The proposed traffic flows have been distributed across the network based on the 2011 Census Travel to Work O-D database to reflect the likely destinations of trips travelling from each site. The trips have been assigned using the Mid Suffolk 003 MSOA (as the point of origin) and the shortest anticipated journey times to each destination during the weekday peak hours. It has been assumed that 43% trips would travel to/ from Queen Street to the north, and 57% trips would travel to/ from Queen Street to the south i.e. via the village centre.

The forecast weekday peak hour traffic flows for the residential sites are shown on traffic flow diagrams 24-27. The 2011 Census Travel to Work O-D data and supporting calculations are held within Appendix B.

Re-distribution of Stradbroke School Traffic (Site NP7)

The existing school traffic for Stradbroke Primary School (Table 2 and traffic flow diagrams 6 & 7) has been re-distributed so that all trips travel to/ from the proposed school car park/ drop-off facilities at Site NP7 via the Queen Street/ Mill Lane junction. Vehicles will no longer need to park on Queen Street in the vicinity of the school. It has therefore been assumed that all drop-off and pick-up trips would pass through the Queen Street/ Mill Lane junction (including the school bus), as well as staff trips associated with the existing car park. The re-distributed weekday peak hour traffic flows for Stradbroke Primary School are shown on traffic flow diagrams 28 & 29.

Adjusted Background Traffic Growth

The growth factors for each weekday period have been derived from NTEM, using the 'Alternative Assumptions' facility in TEMPro to take account of the site allocations for both employment and residential use as set out in Table 7. As the traffic flows for these sites have been considered explicitly (see traffic flow diagrams 16-29), the associated projected increase in households and jobs (outlined in Table 7) have been excluded from the background growth calculations to avoid double counting.

The projected increases in households and jobs for both employment and residential use between 2018 and 2036 are set out below in Table 11 based on the NTEM dataset for Mid Suffolk 003. The 'Alternative Assumptions' are subsequently shown below to exclude the 248 dwellings and 170 jobs considered explicitly by this study.

Table 11: Projected Increase in Households and Jobs, 2018 to 2036 (Source: NTEM v7.0)

Area	2018		2036		Difference	
	Households	Jobs	Households	Jobs	Households	Jobs
Mid Suffolk 003 (Current Assumptions)	3,373	2,899	3,692	3,087	+319	+188
Site Allocations (Table 7)	-	-	248	170	+248	+170
Mid Suffolk 003 (Alternative Assumptions)	3,373	2,899	3,444	2,917	+71	+18

The background growth factors which have been used to convert the 2018 surveyed flows (again, excluding the Skinner's factory and Stradbroke Primary School flows) to represent the adjusted baseline traffic flows during the network weekday peak hours of the future assessment year of 2036 are set out in Table 12 below.

Table 12: Adopted Adjusted Background Traffic Growth Factors

Road	Weekday AM Peak Hour	Weekday PM Peak Hour
Rural Roads within Stradbroke	5.8%	6.0%

The adjusted TEMPro calculations are held within Appendix H. The future baseline weekday peak hour traffic flows are shown on traffic flow diagrams 30 & 31. It should be noted that these continue to exclude the existing traffic flows associated with the Skinner's factory and Stradbroke Primary School, given that these are subsequently applied as part of the cumulative assessment.

Cumulative Traffic Flows

The cumulative traffic weekday peak hour flows for the future year assessment of 2036 are shown on traffic flow diagrams 32 & 33. These include all traffic associated with proposed allocation sites (including Skinner's factory expansion) as well as the re-assigned Stradbroke Primary School trips.

Whilst the AM weekday peak hour is expected to be the same in all cases (08:00-09:00), the forecast levels of vehicular trips to be attracted/ generated during the PM weekday peak hours for Site NP13 (16:30-17:30) and the residential sites (17:00-18:00) have been applied to the network during the worst-case network peak hour (16:45-17:45) for robustness.

Junction Assessment (Cumulative Assessment)

The future operation of the Queen Street/ Mill Lane junction has been modelled using PICADY. The modelling reflects the proposed four-arm staggered arrangement of the junction following the implementation of the Grove Farm development (Appendix E). A summary of the results for the proposed junction is set out below in Table 13.

Table 13: Summary of PICADY Results for Proposed Queen Street/ Mill Lane Junction (2036 Cumulative Assessment)

Approach	2036 Future Cumulative Assessment			
	Weekday AM Peak Hour (08:00-09:00)		Weekday PM Peak Hour (16:45-17:45)	
	RFC	Max Queue	RFC	Max Queue
Queen Street (S)	0.01	0	0.04	0
Mill Lane (W)	0.20	1	0.41	1
Queen Street (N)	0.38	1	0.06	1
Grove Farm (E)	0.04	0	0.02	0
Overall junction delay (secs/veh)	4.15		5.55	

The PICADY results show that the proposed Queen Street/ Mill Lane staggered crossroad junction is forecast to operate well within capacity during the network weekday peak hours in the cumulative assessment scenario, with negligible queuing experienced at the junction. The full PICADY results are held within Appendix J.

In view of the above, it is considered that the proposed development of the residential and employment sites considered by this study could, in principle, be brought forward by the future assessment year of 2036 without requiring any additional highway capacity improvements at the Queen Street/ Mill Lane junction.

Summary and Conclusion

AECOM has been appointed by Locality to assess the future operation and capacity of the Queen Street/ Mill Lane junction based on the planned delivery of housing and jobs in Stradbroke. The study is designed to support the draft Neighbourhood Plan by identifying whether any highway capacity improvements are likely to be required to support the consent of proposed allocation sites at planning stage.

The study assesses the existing and future junction operation during the weekday peak hours considering the development of various residential and employment sites within the village and the forecast increase in traffic movements at the junction arising from the potential cumulative delivery of housing and jobs during the Local Plan period (up to 2036). The study also considers the re-distribution of traffic associated with Stradbroke Primary School as part of proposals to relieve existing congestion and road safety concerns on Queen Street by providing alternative parking and drop-off facilities at Site NP7.

The existing operation of the Queen Street/ Mill Lane junction has been modelled using the appropriate industry-standard software: PICADY for priority T-junctions. The modelling has been informed by traffic counts carried out at the Queen Street/ Mill Lane junction and at Stradbroke Primary School in 2018. The PICADY results show that the existing Queen Street/ Mill Lane junction currently operates well within capacity during the observed weekday network peak hours of 08:00-09:00 and 16:45-17:45, with negligible queuing experienced at the junction.

This study considers the future year of 2036 which represents the end of the Local Plan period i.e. the period within which the housing and jobs associated with the proposed allocation sites could be expected to be delivered. The future baseline operation of the Queen Street/ Mill Lane junction considers forecast background traffic growth on the local highway network and reflects the current configuration of the junction. The PICADY results show that the existing Queen Street/ Mill Lane junction is forecast to operate well within capacity under the 2036 future baseline scenario during the network weekday peak hours, with negligible queuing experienced at the junction.

The cumulative assessment considers the planned delivery of housing and jobs across the following sites in Stradbroke:

- The Skinner's factory extension including an additional building and second production line to expand the operational capabilities of the site. Access to continue to be taken from Mill Lane.
- Employment (office/ business use) on Site NP13 with an approximate floor area of 27,000 sqm. Vehicular access will be taken directly via Mill Lane.
- Residential use (up to 82 dwellings) on Site NP7 located to the west of Stradbroke Primary School, with access to be taken from Mill Lane. The site is also proposed to accommodate a school car park and bus drop-off area for Stradbroke Primary School to relieve existing congestion and road safety concerns along Queen Street in the vicinity of the school.
- The consented Grove Farm development (up to 46 dwellings) including a new vehicular access on Queen Street to the west of the site (resulting in a four-arm staggered junction arrangement with Queen Street and Mill Lane).

- Residential use (up to 40 dwellings) on Site NP12 located to the north-east of the village centre, with access to be taken via the consented Grove Farm development to the north.
- Residential use (up to 80 dwellings) on Site NP11 located to the north of the village, with access to be taken from Queen Street via Westhall.

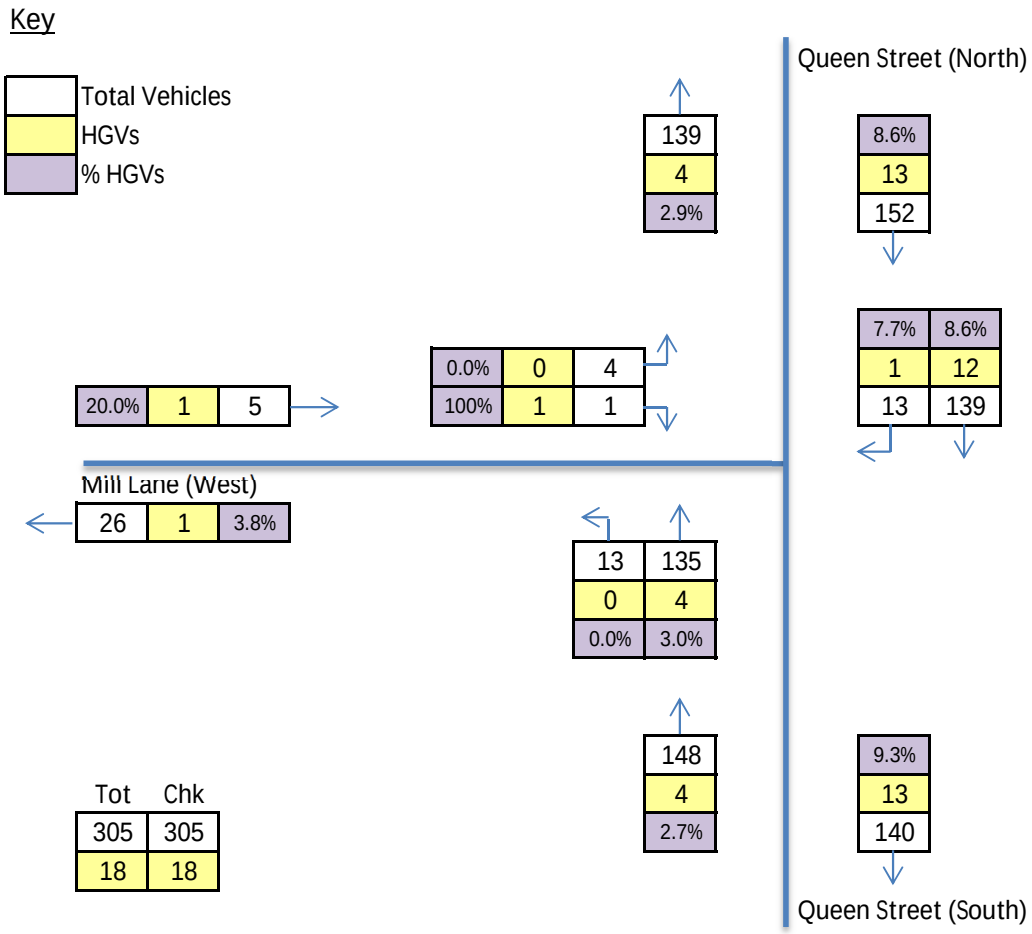
The forecast increase in traffic resulting from the Skinner's factory extension and the re-distribution of traffic associated with Stradbroke Primary School were both derived by applying first principle assumptions based on the 2018 traffic counts. The increase in traffic resulting from the proposed employment use on Site NP13 and residential use on the remaining sites was determined by obtaining trip rates from the TRICS database. Vehicle trips were distributed based on the existing distribution of traffic on the network where applicable, or by applying a forecast trip distribution derived from the 2011 Census Travel to Work O-D database.

The cumulative traffic flows for the future year assessment of 2036 included all traffic associated with the identified proposal sites. The growth factors for each weekday period were adjusted to take account of the site allocations for both employment and residential uses, to avoid double counting. The future operation of the Queen Street/ Mill Lane junction reflects the proposed four-arm staggered arrangement of the junction following the implementation of the Grove Farm development. The PICADY results demonstrate that the proposed Queen Street/ Mill Lane junction is forecast to operate well within capacity during the network weekday peak hours, with negligible queuing experienced at the junction.

In conclusion, it is considered that the residential and employment sites considered by this study could, in principle, be brought forward by the future assessment year of 2036 without requiring any additional highway capacity improvements at the Queen Street/ Mill Lane junction.

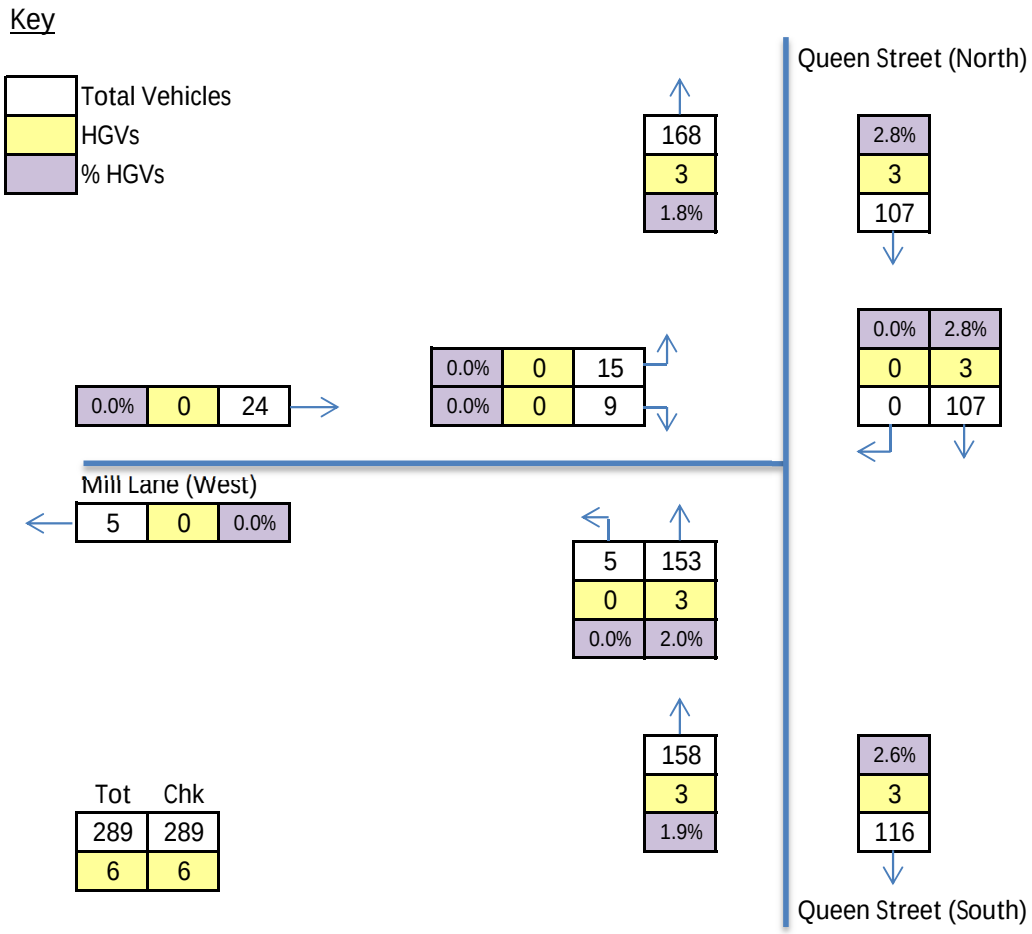
Traffic Flow Diagrams

2018 Existing Scenario - Traffic Count - Weekday AM Peak (08:00 - 09:00)



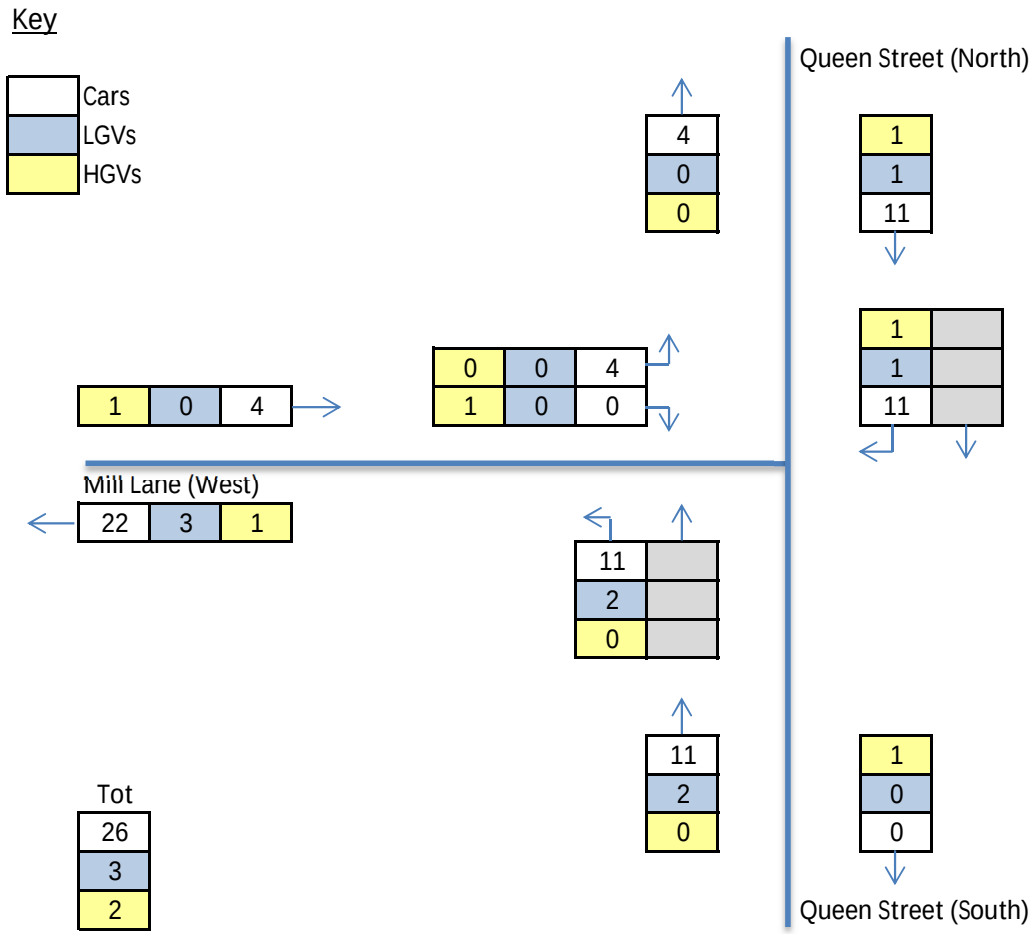
Traffic Flow Diagram 1

2018 Existing Scenario - Traffic Count - Weekday PM Peak (16:45 - 17:45)



Traffic Flow Diagram 2

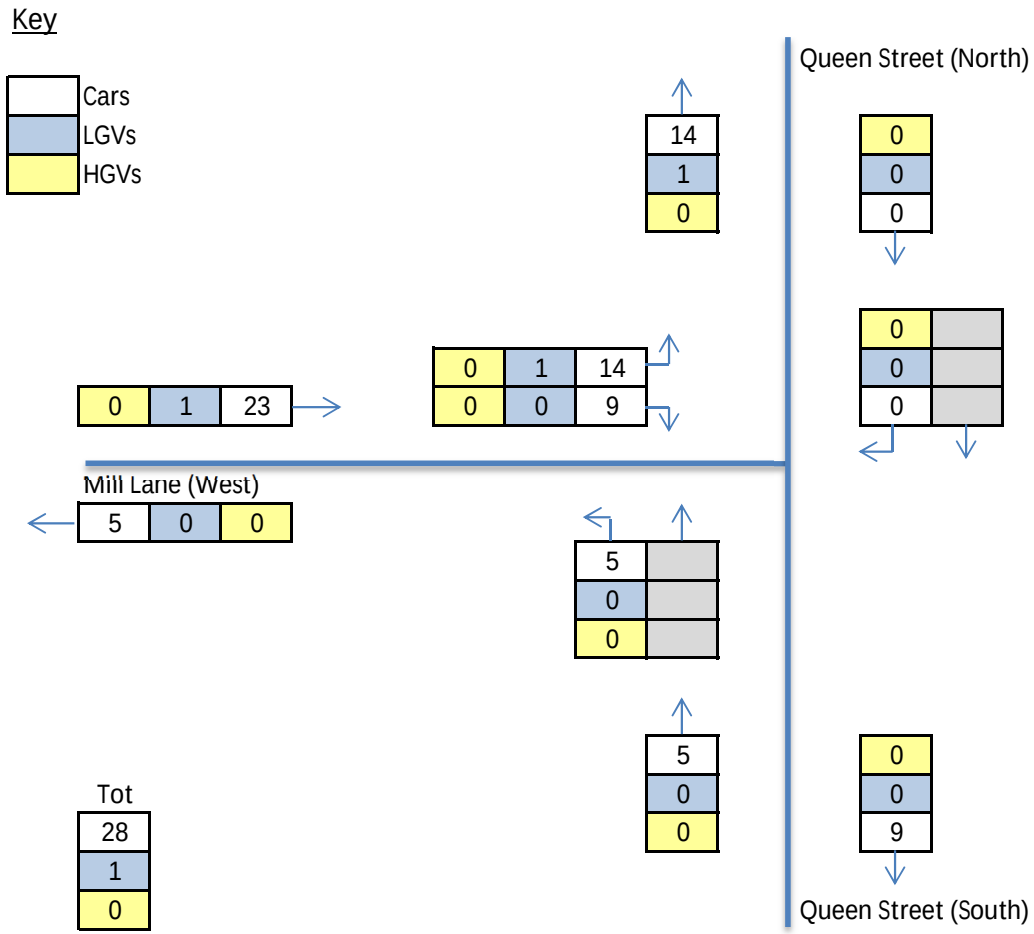
2018 Existing Scenario - Skinner's Factory Traffic - Weekday AM Peak (08:00 - 09:00)



*assumes all traffic in/ out of Mill Lane is related to the Skinner's Factory (worst-case)

Traffic Flow Diagram 3

2018 Existing Scenario - Skinner's Factory Traffic - Weekday PM Peak (16:45 - 17:45)

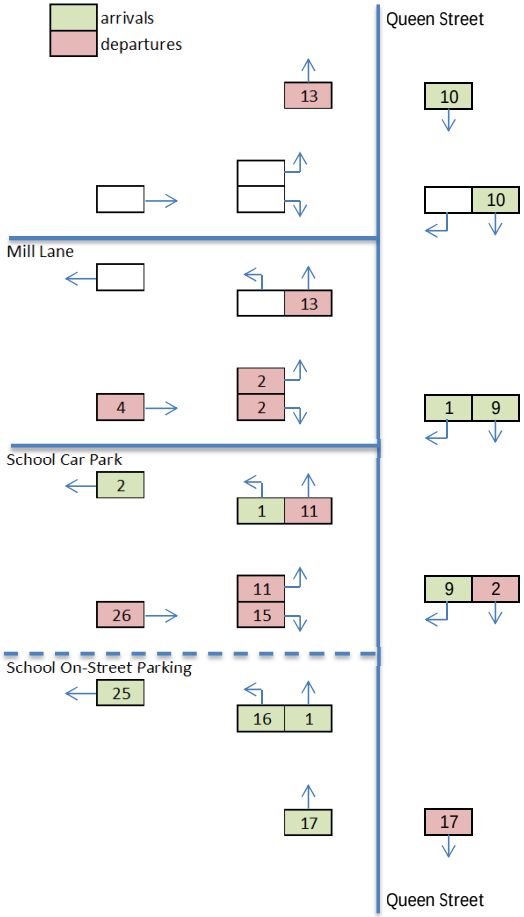


*assumes all traffic in/ out of Mill Lane is related to the Skinner's Factory (worst-case)

Traffic Flow Diagram 4

2018 Existing Scenario - School Traffic

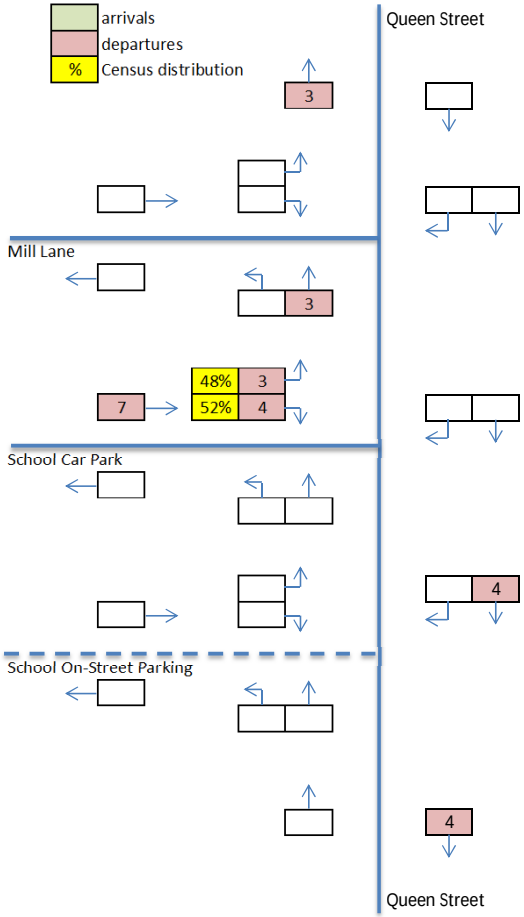
School Survey (Afternoon Peak - 14:55-15:30)



*includes one bus arriving from the south/ departing to the north
*one additional departure due to staff member leaving site to the south
*9 vehicles within school car park at start, 7 parked at the end

Traffic Flow Diagram 5 (Afternoon)

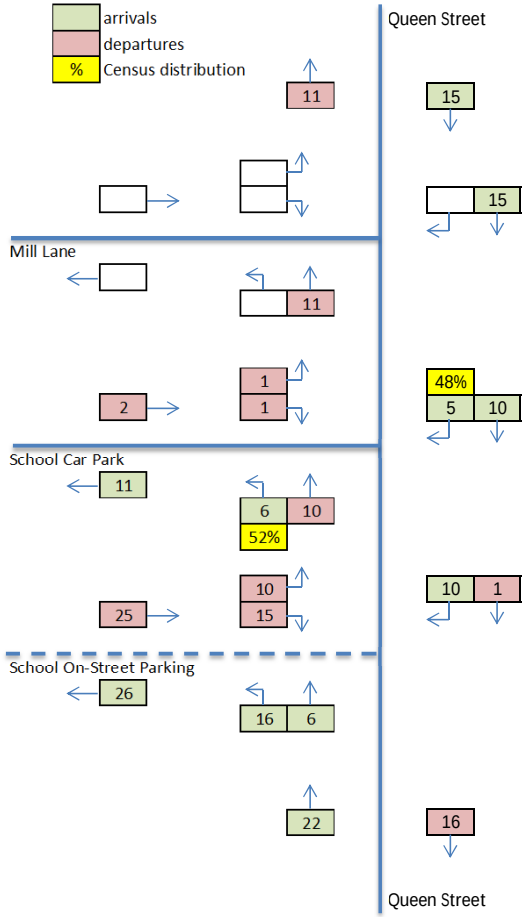
Estimated School Traffic (PM Peak)



*all remaining staff (7) depart during PM peak
*no pick-up trips or school bus
*staff split based on 2011 Census (incoming trips)

Traffic Flow Diagram 6 (PM Peak)

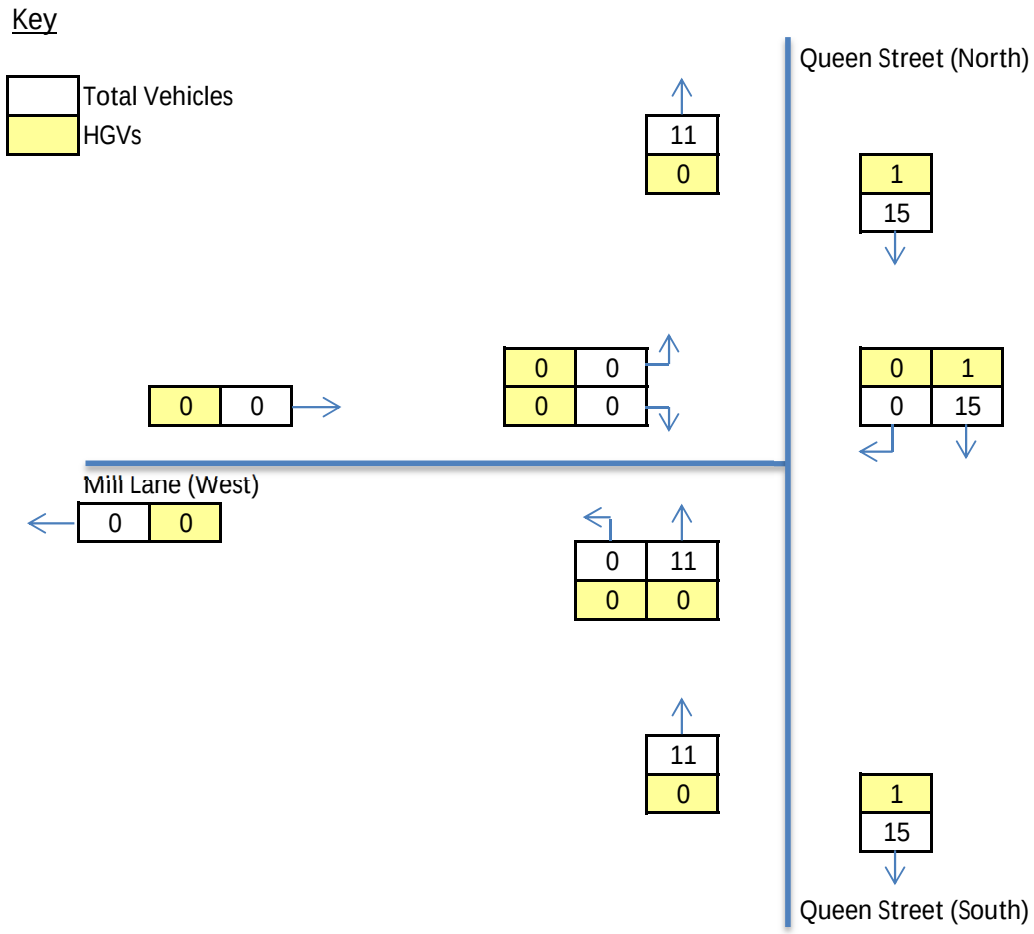
Estimated School Traffic (AM Peak)



*9 staff arrive, and 2 parents drop-off within the car park (based on survey)
*one additional arrival due to staff member arriving to site from south
*same activity for on-street parking during AM peak (based on survey)
*school bus arrives from north and departs to south (reverse arrangement)
*staff split based on 2011 Census (incoming trips)

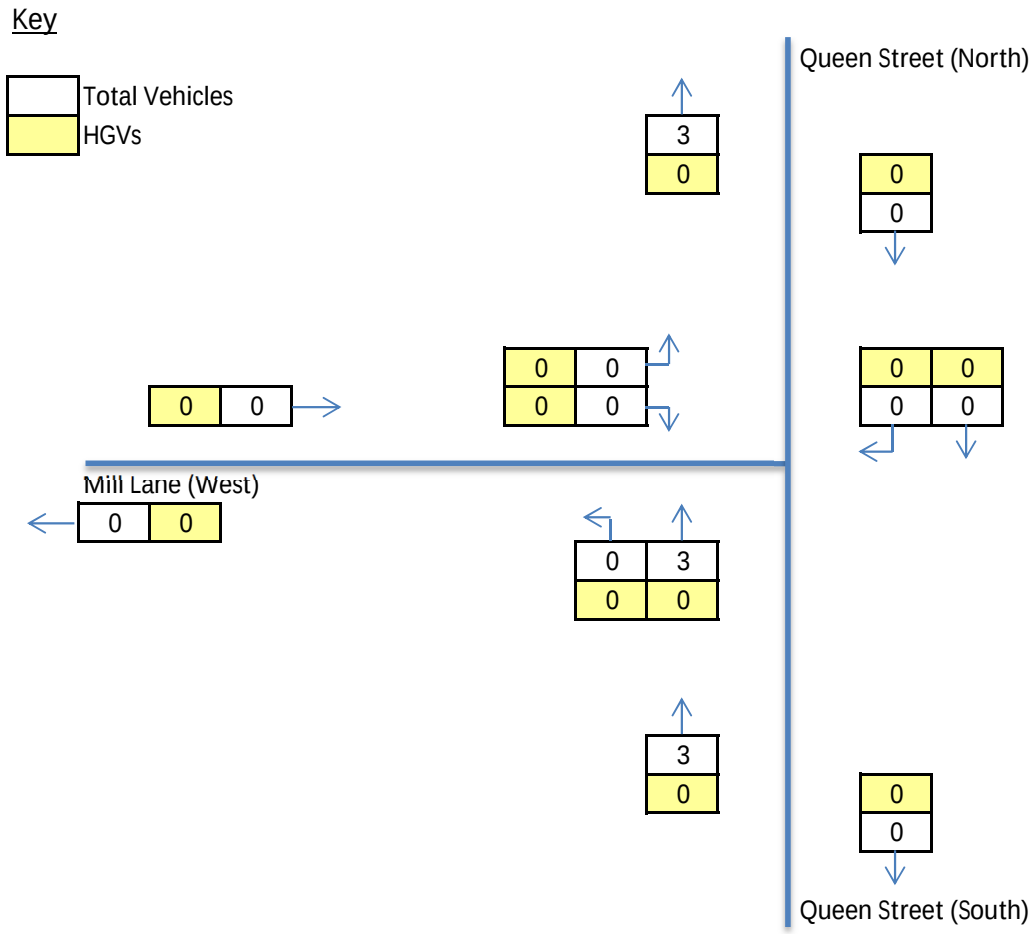
Traffic Flow Diagram 7 (AM Peak)

2018 Existing Scenario - School Traffic - Weekday AM Peak (08:00 - 09:00)



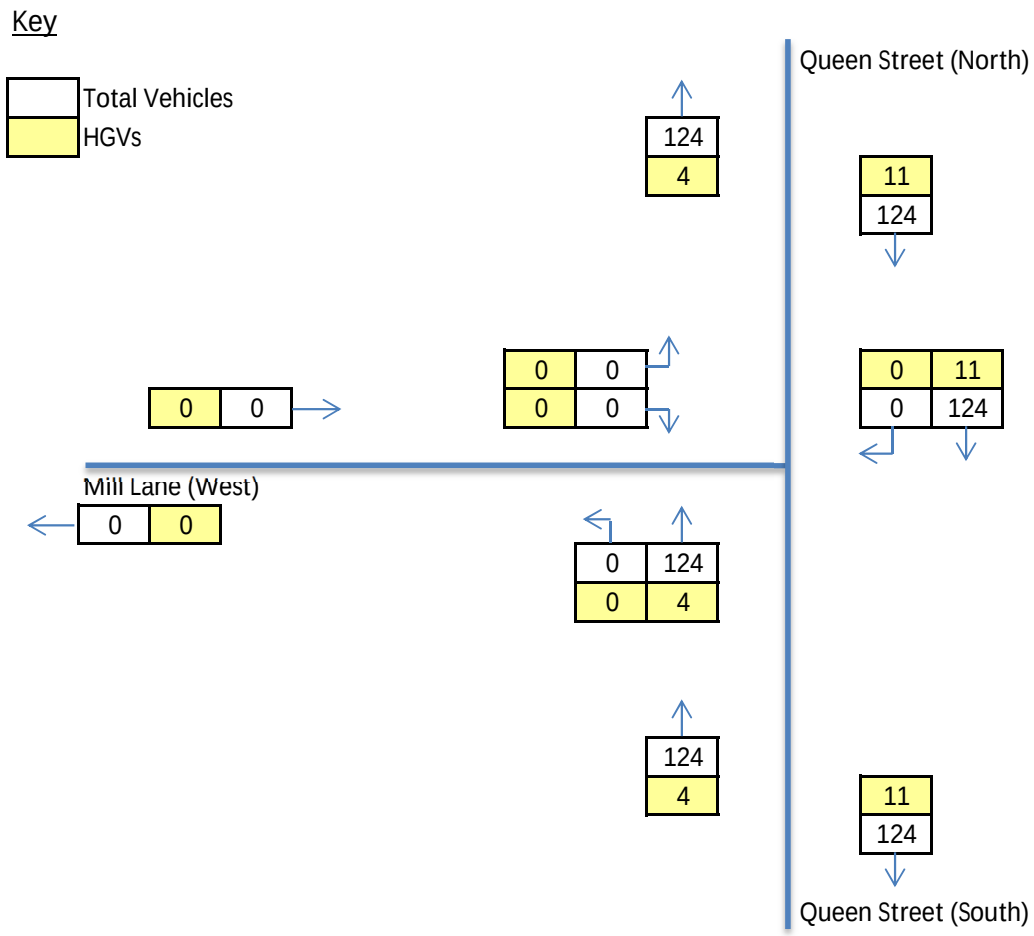
Traffic Flow Diagram 8

2018 Existing Scenario - School Traffic - Weekday PM Peak (16:45 - 17:45)



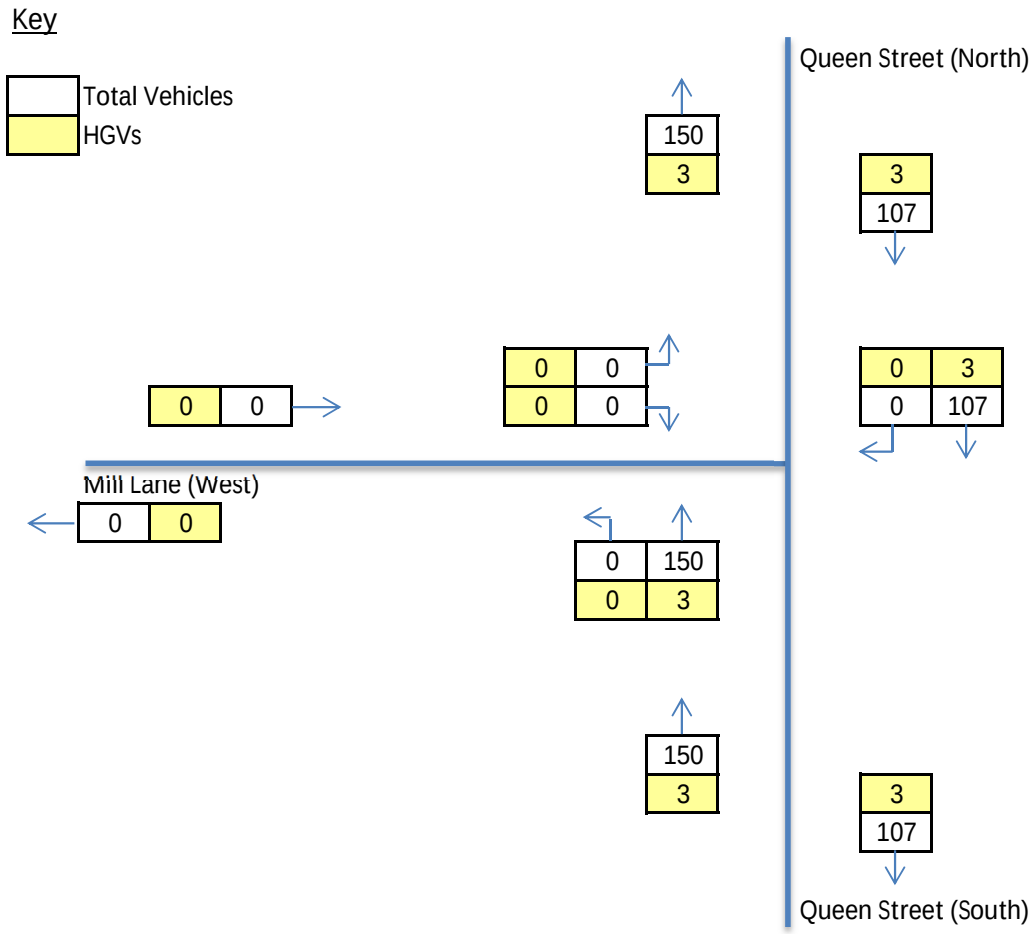
Traffic Flow Diagram 9

2018 Baseline Scenario - Weekday AM Peak (08:00 - 09:00)



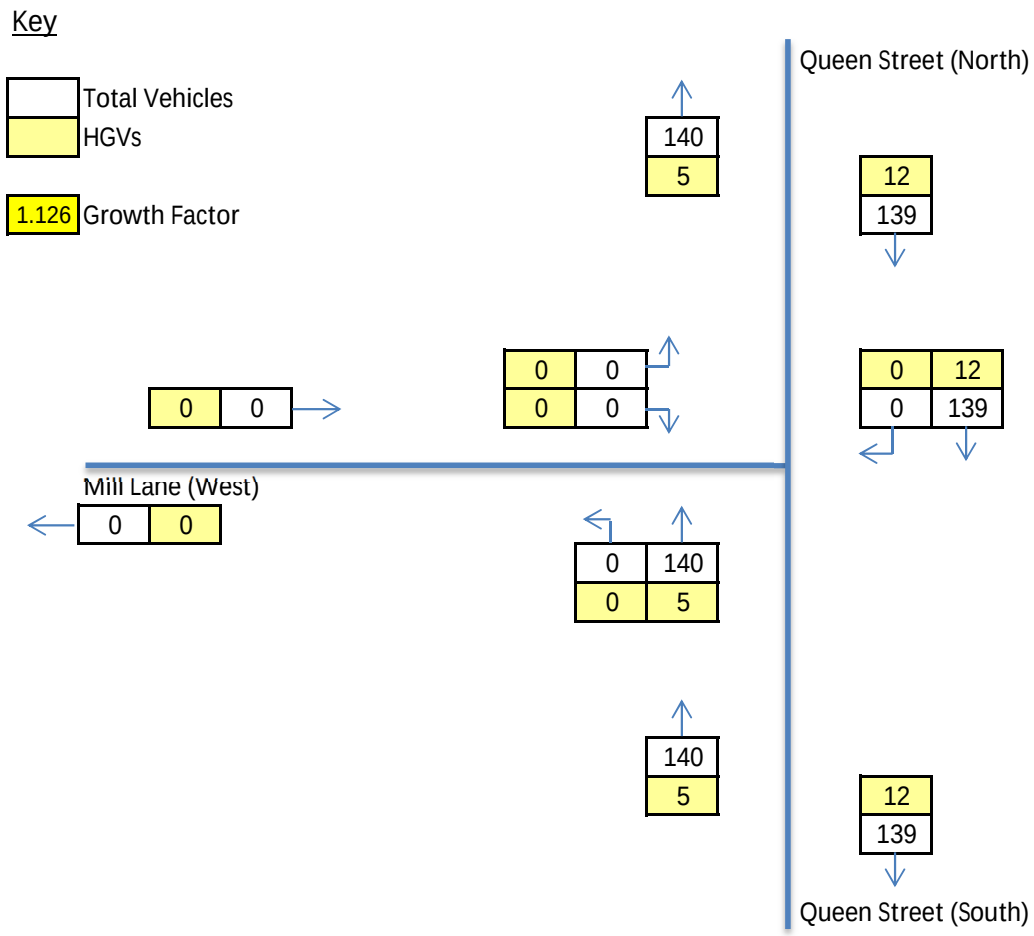
Traffic Flow Diagram 10

2018 Baseline Scenario - Weekday PM Peak (16:45 - 17:45)



Traffic Flow Diagram 11

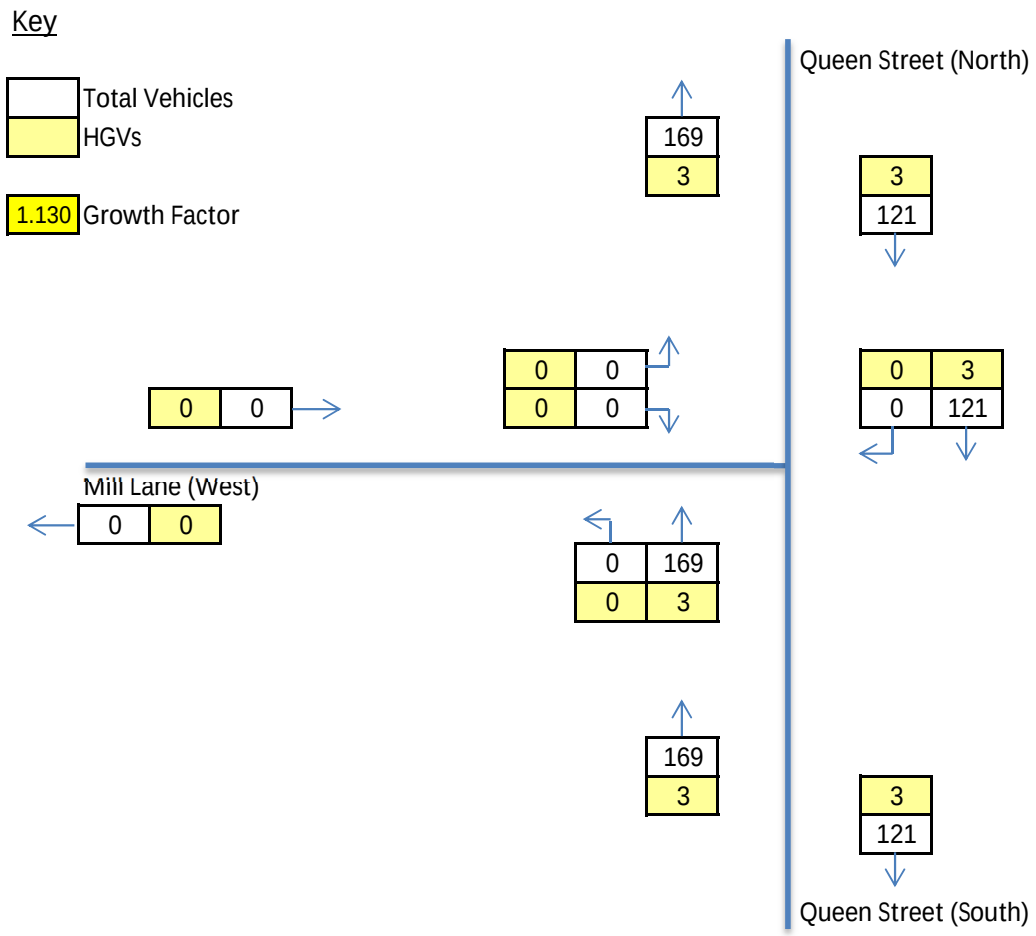
Traffic Growth - 2018 to 2036 (Unadjusted) - Weekday AM Peak



*excludes Skinner's Factory traffic and Stradbroke Primary School traffic

Traffic Flow Diagram 12

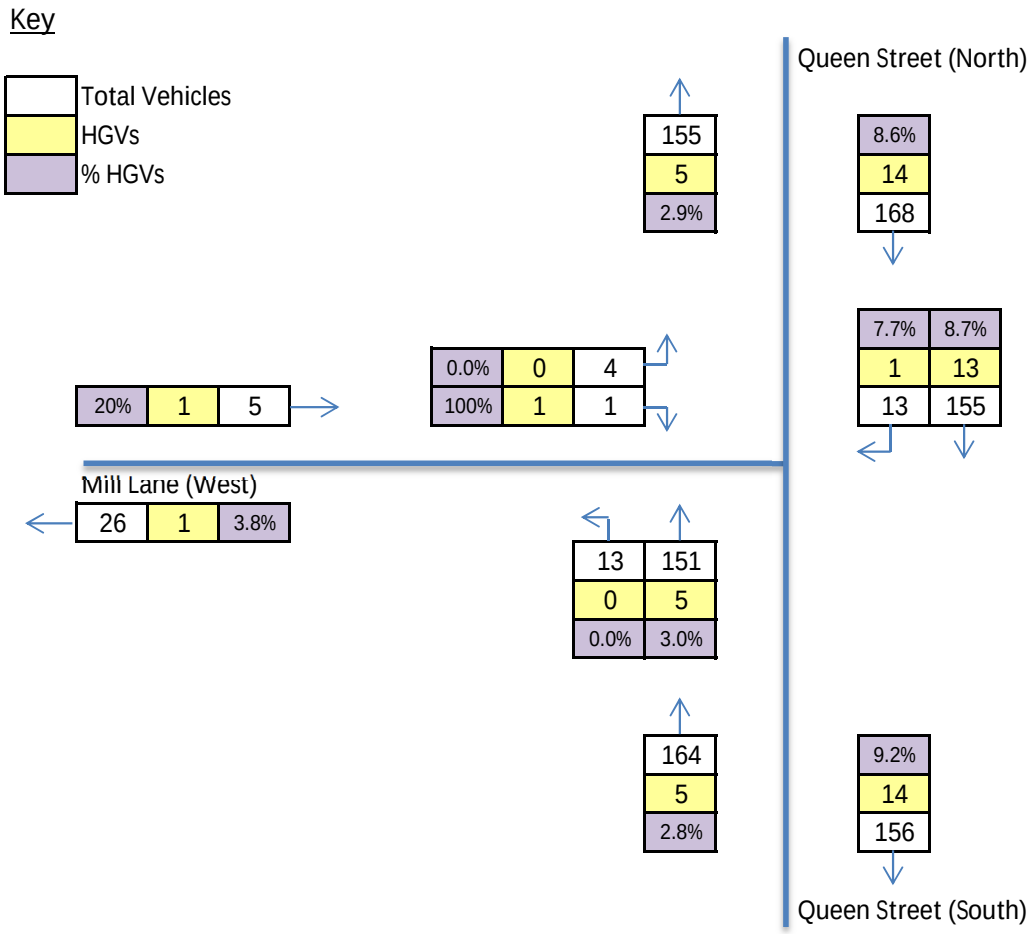
Traffic Growth - 2018 to 2036 (Unadjusted) - Weekday PM Peak



*excludes Skinner's Factory traffic and Stradbroke Primary School traffic

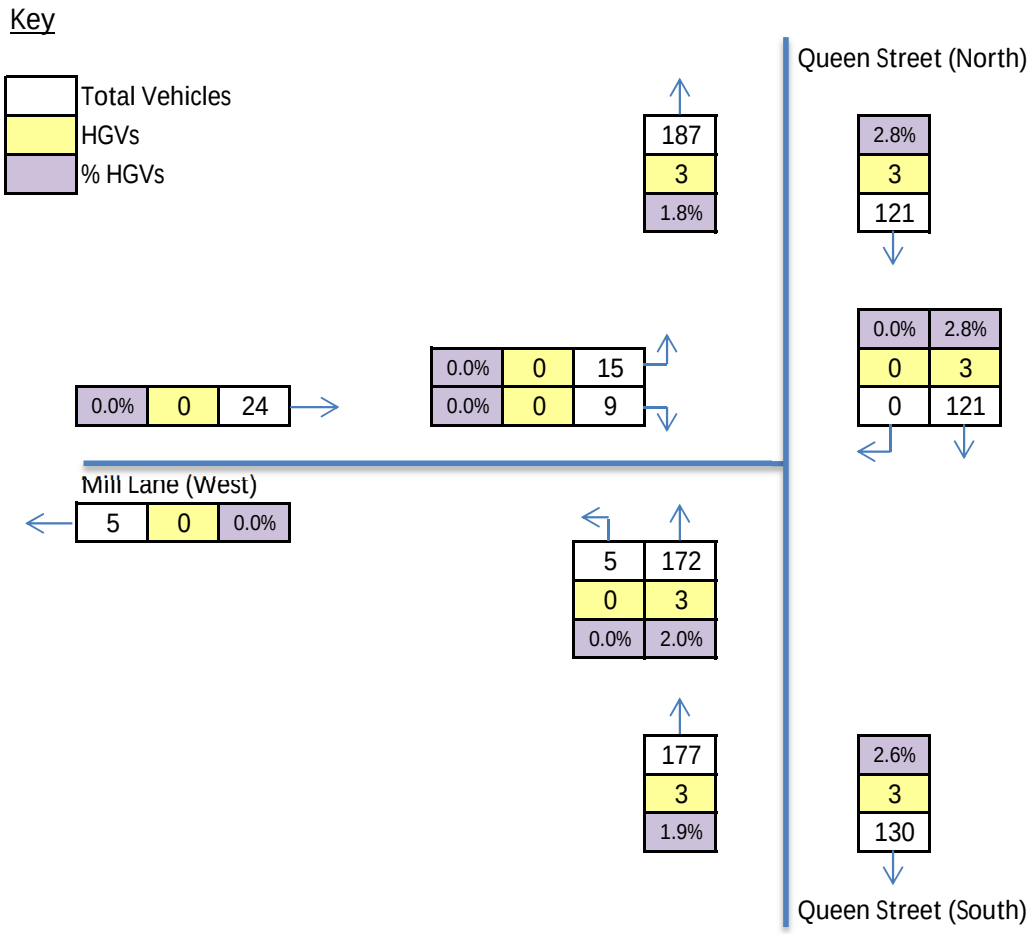
Traffic Flow Diagram 13

2036 Baseline Scenario - Weekday AM Peak (08:00 - 09:00)



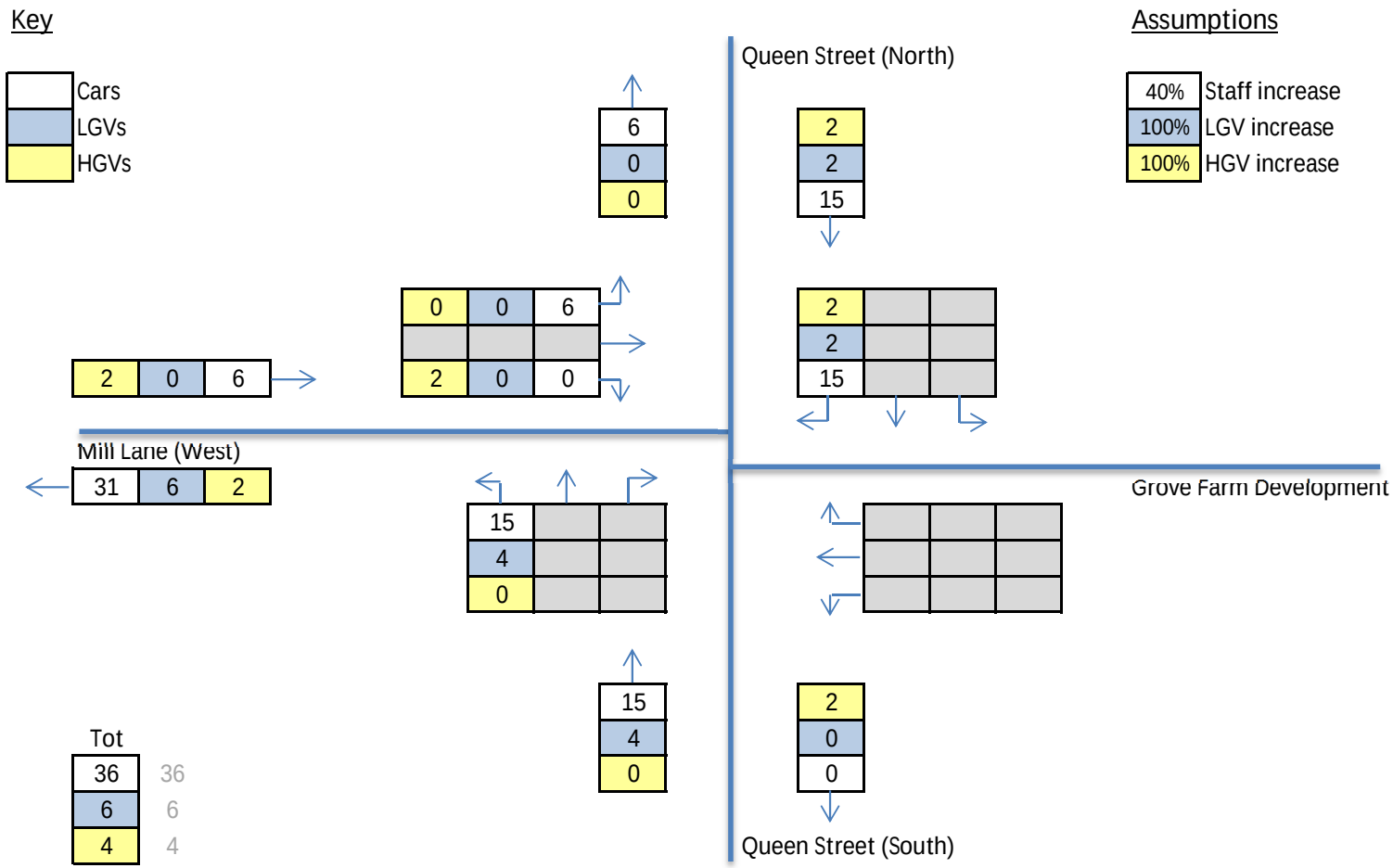
Traffic Flow Diagram 14

2036 Baseline Scenario - Weekday PM Peak (16:45 - 17:45)



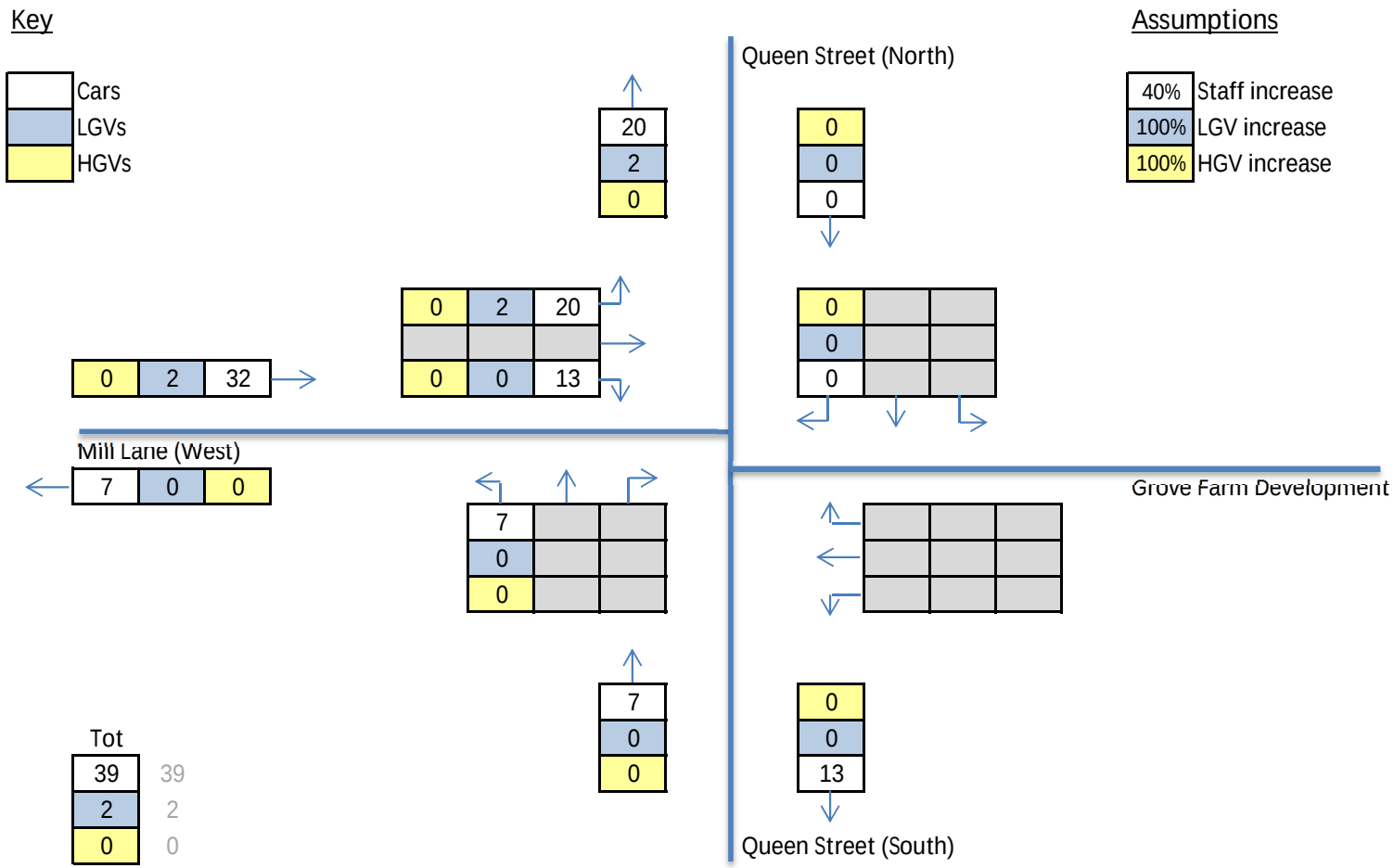
Traffic Flow Diagram 15

2036 Future Scenario - Skinner's Factory Traffic - Weekday AM Peak (08:00 - 09:00)



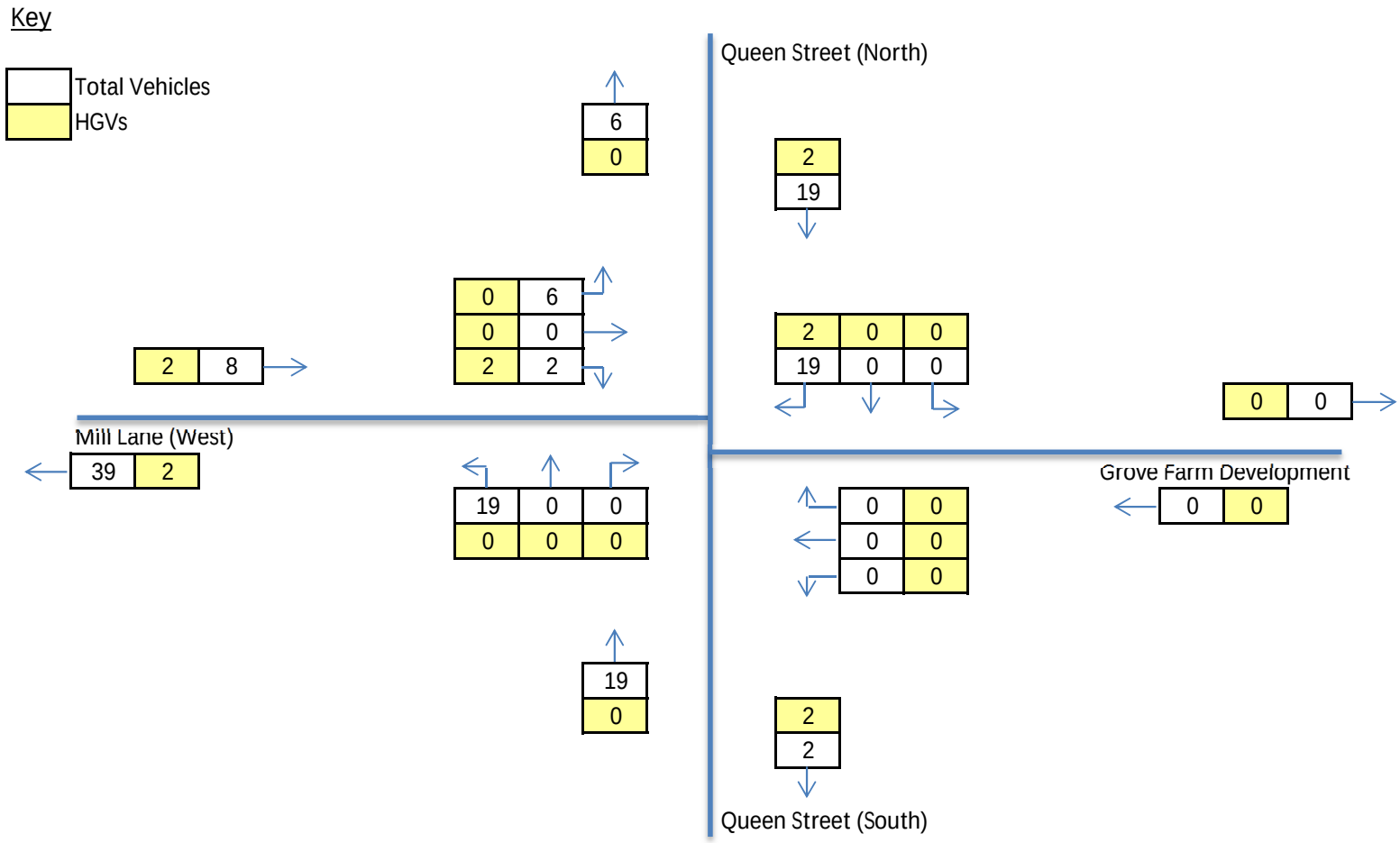
Traffic Flow Diagram 16

2036 Future Scenario - Skinner's Factory Traffic - Weekday PM Peak (16:45 - 17:45)



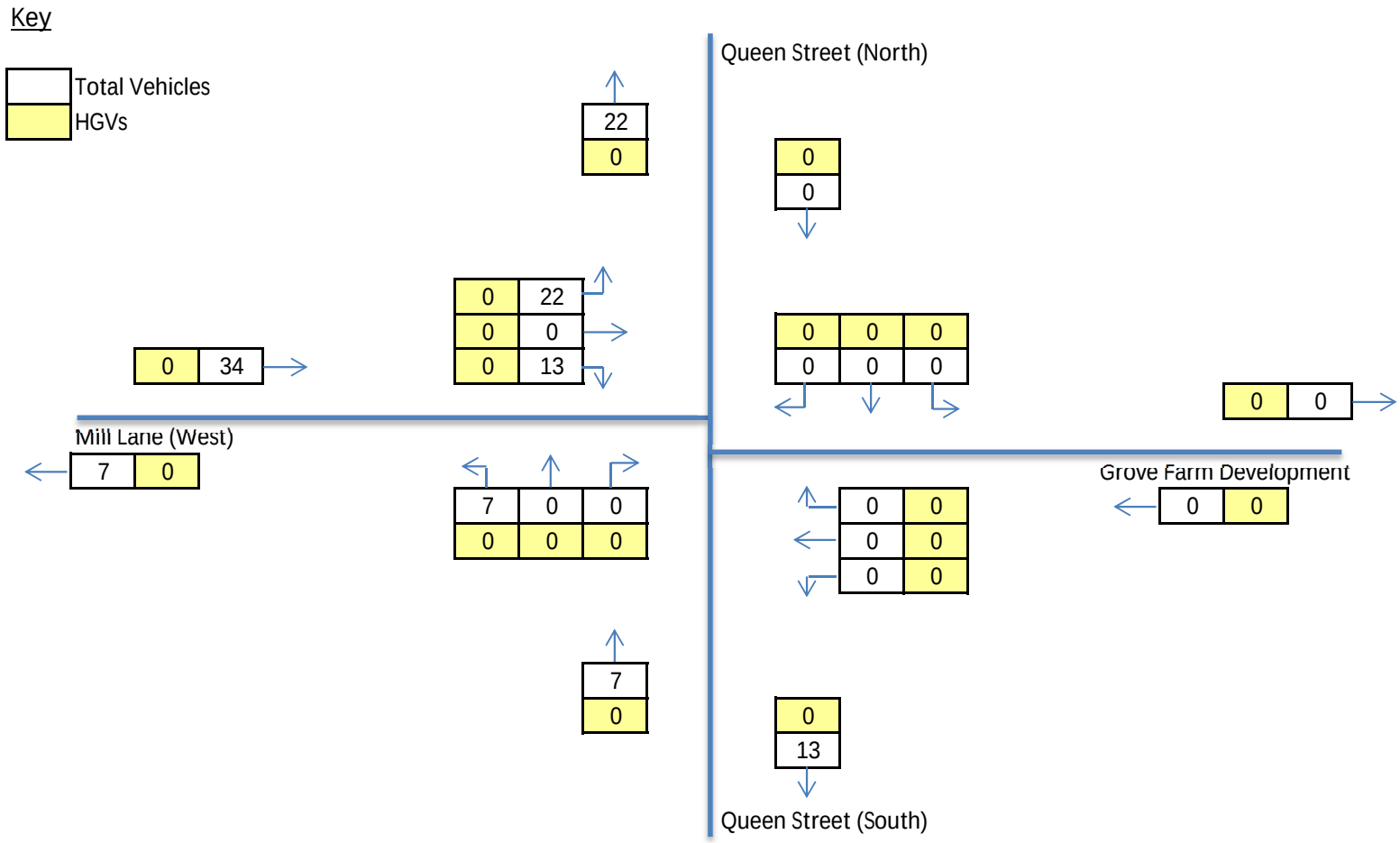
Traffic Flow Diagram 17

2036 Future Scenario - Skinner's Factory Traffic - Weekday AM Peak (08:00 - 09:00)



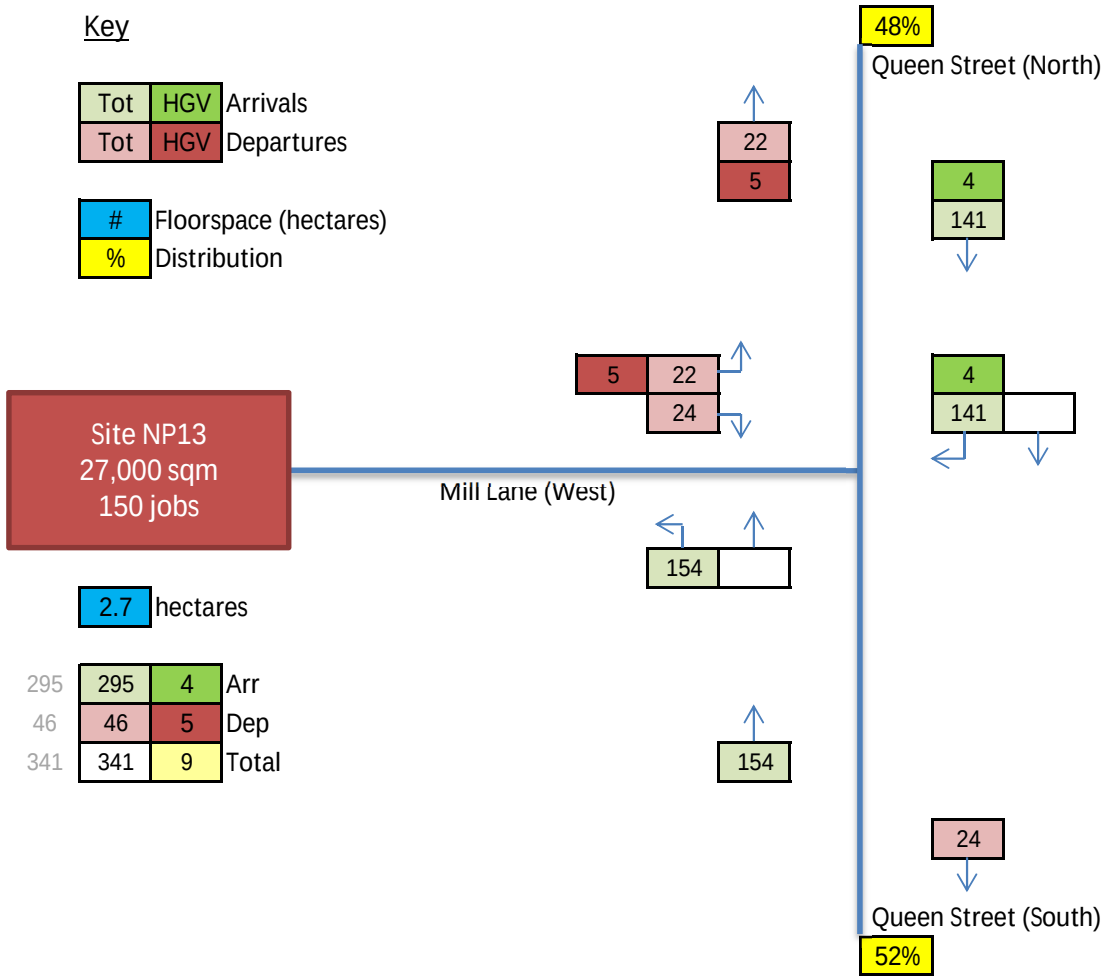
Traffic Flow Diagram 18

2036 Future Scenario - Skinner's Factory Traffic - Weekday PM Peak (16:45 - 17:45)



Traffic Flow Diagram 19

2036 Future Scenario - Site NP13 Commercial Development - Weekday AM Peak (08:00 - 09:00)



Vehicle Trip Rates (AM)

per 100sqm

1.092	Arr
0.170	Dep
1.262	Total

OGV Trip Rates (AM)

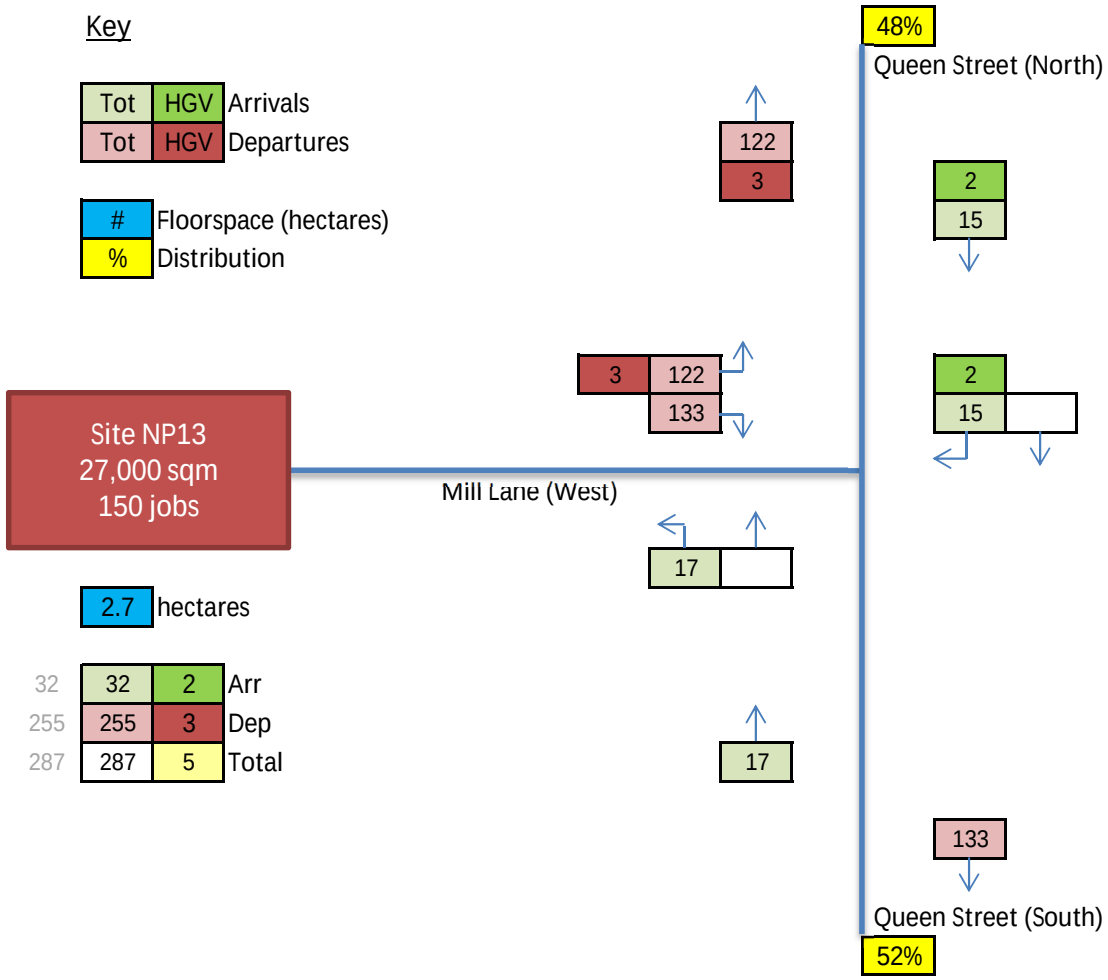
per 100sqm

0.016	Arr
0.017	Dep
0.033	Total

*all HGVs assumed to travel to/ from the north

Traffic Flow Diagram 20

2036 Future Scenario - Site NP13 Commercial Development - Weekday PM Peak (17:00 - 18:00)



Vehicle Trip Rates (PM)

per 100sqm

0.120	Arr
0.944	Dep
1.064	Total

OGV Trip Rates (PM)

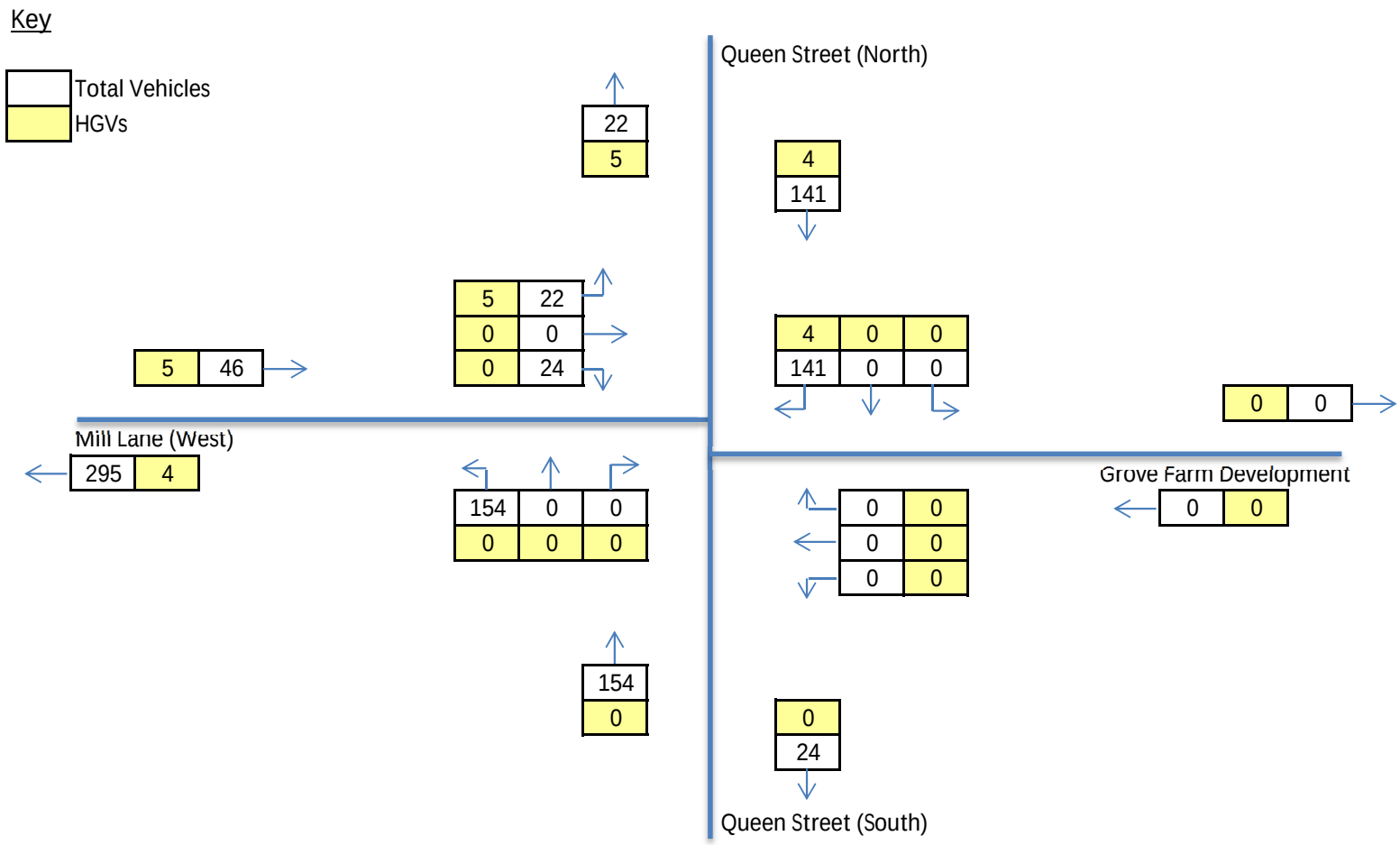
per 100sqm

0.005	Arr
0.012	Dep
0.017	Total

*all HGVs assumed to travel to/ from the north

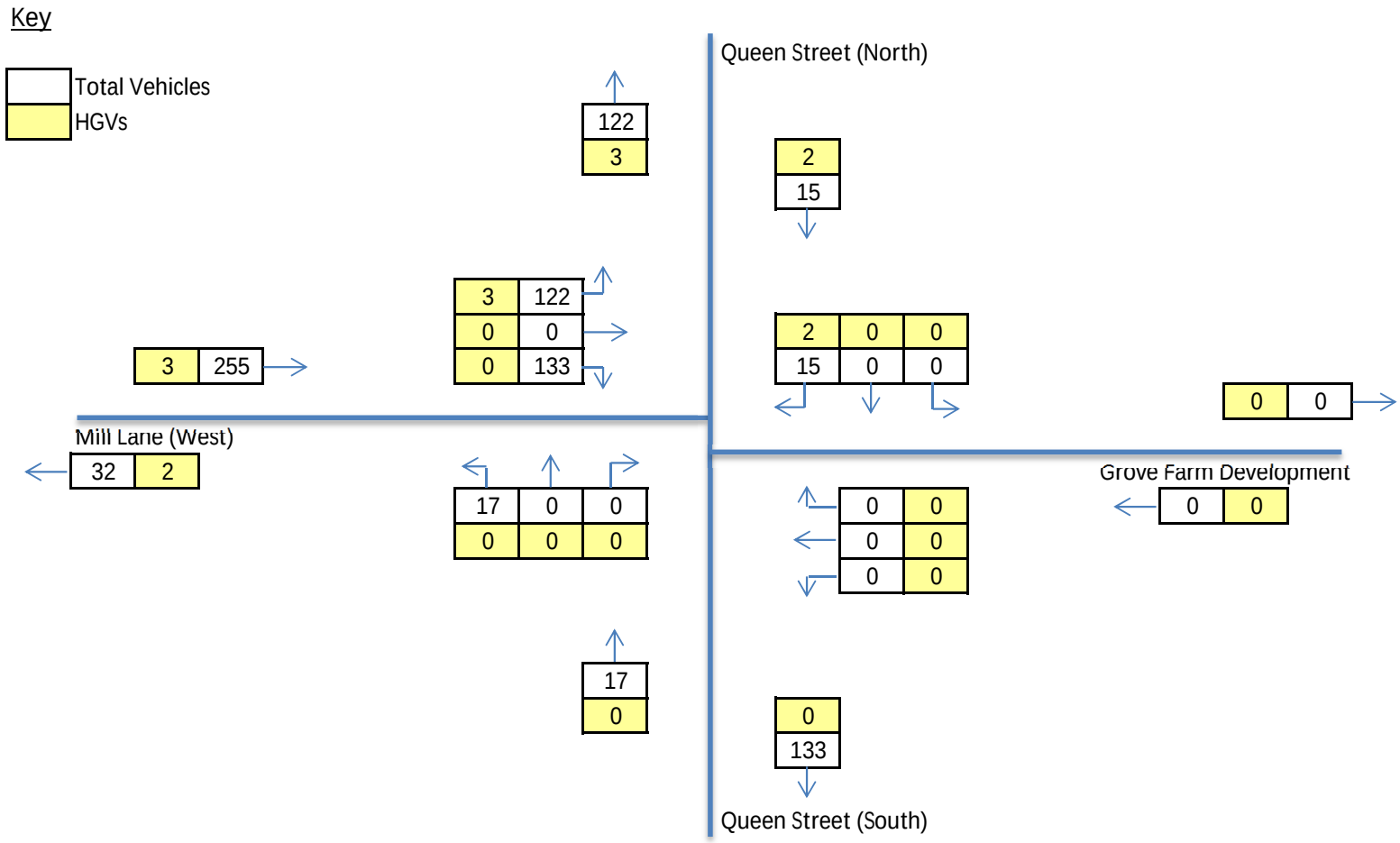
Traffic Flow Diagram 21

2036 Future Scenario - Site NP13 Commercial Development - Weekday AM Peak (08:00 - 09:00)



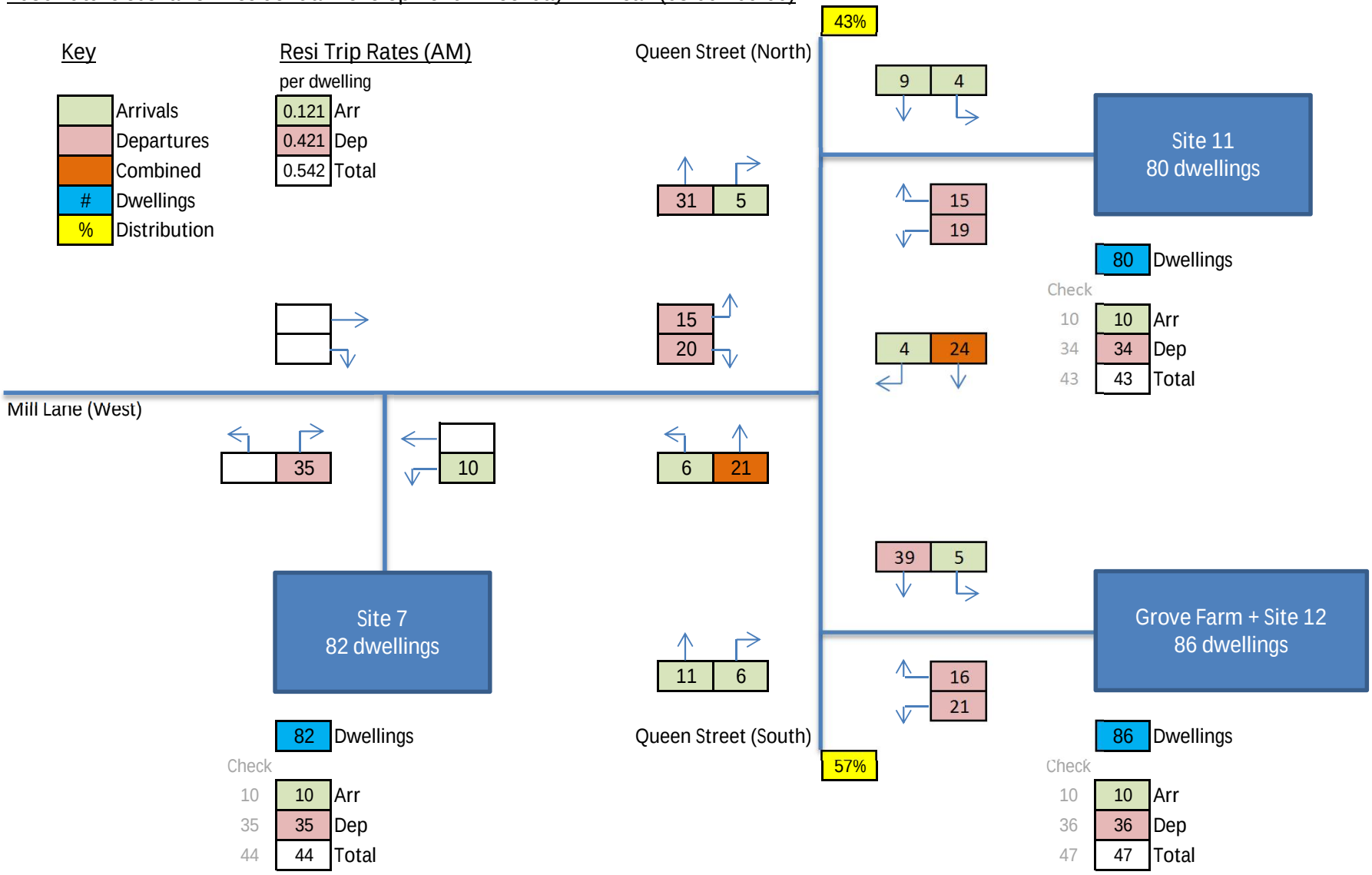
Traffic Flow Diagram 22

2036 Future Scenario - Site NP13 Commercial Development - Weekday PM Peak (17:00 - 18:00)



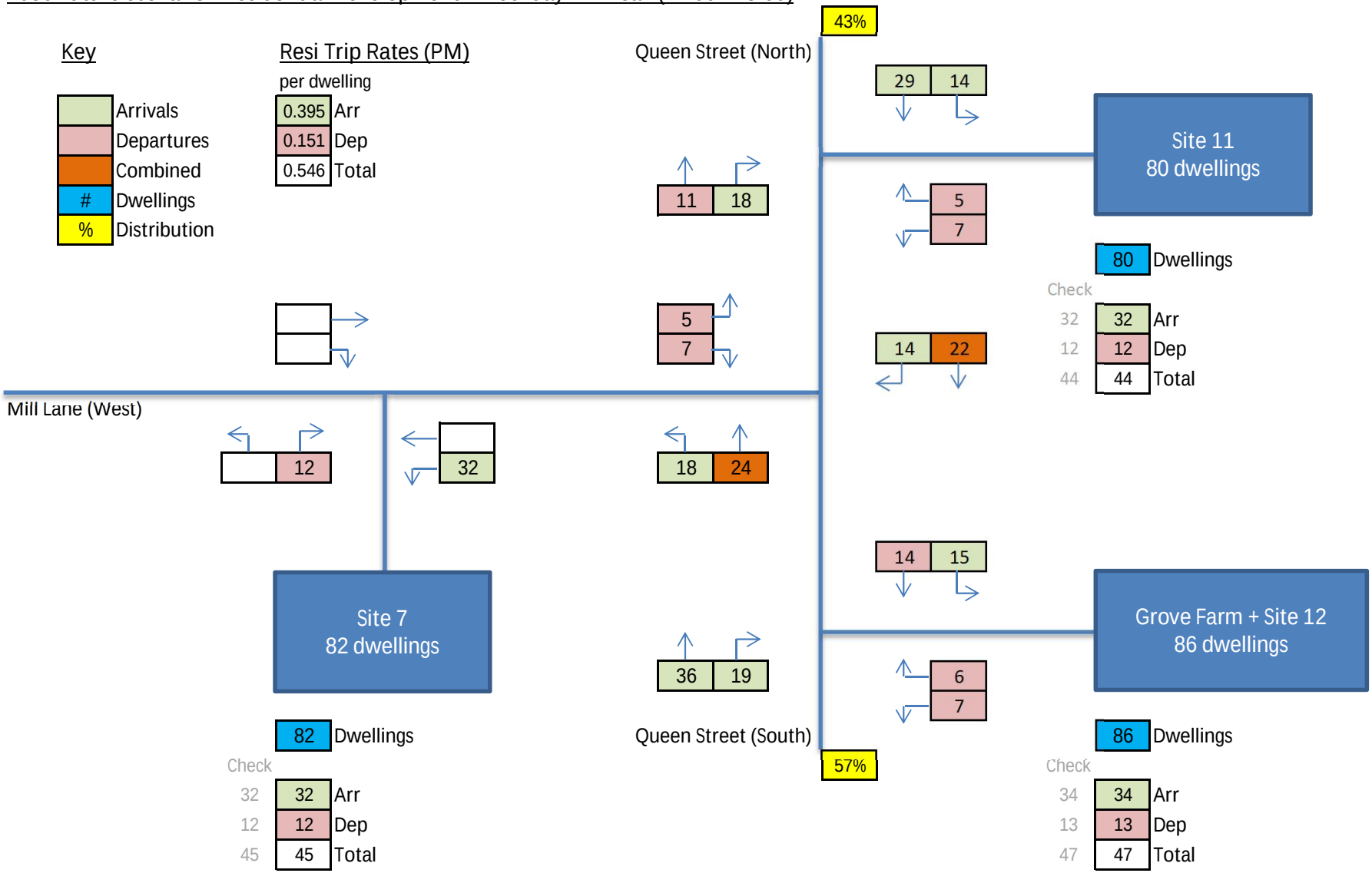
Traffic Flow Diagram 23

2036 Future Scenario - Residential Development - Weekday AM Peak (08:00 - 09:00)



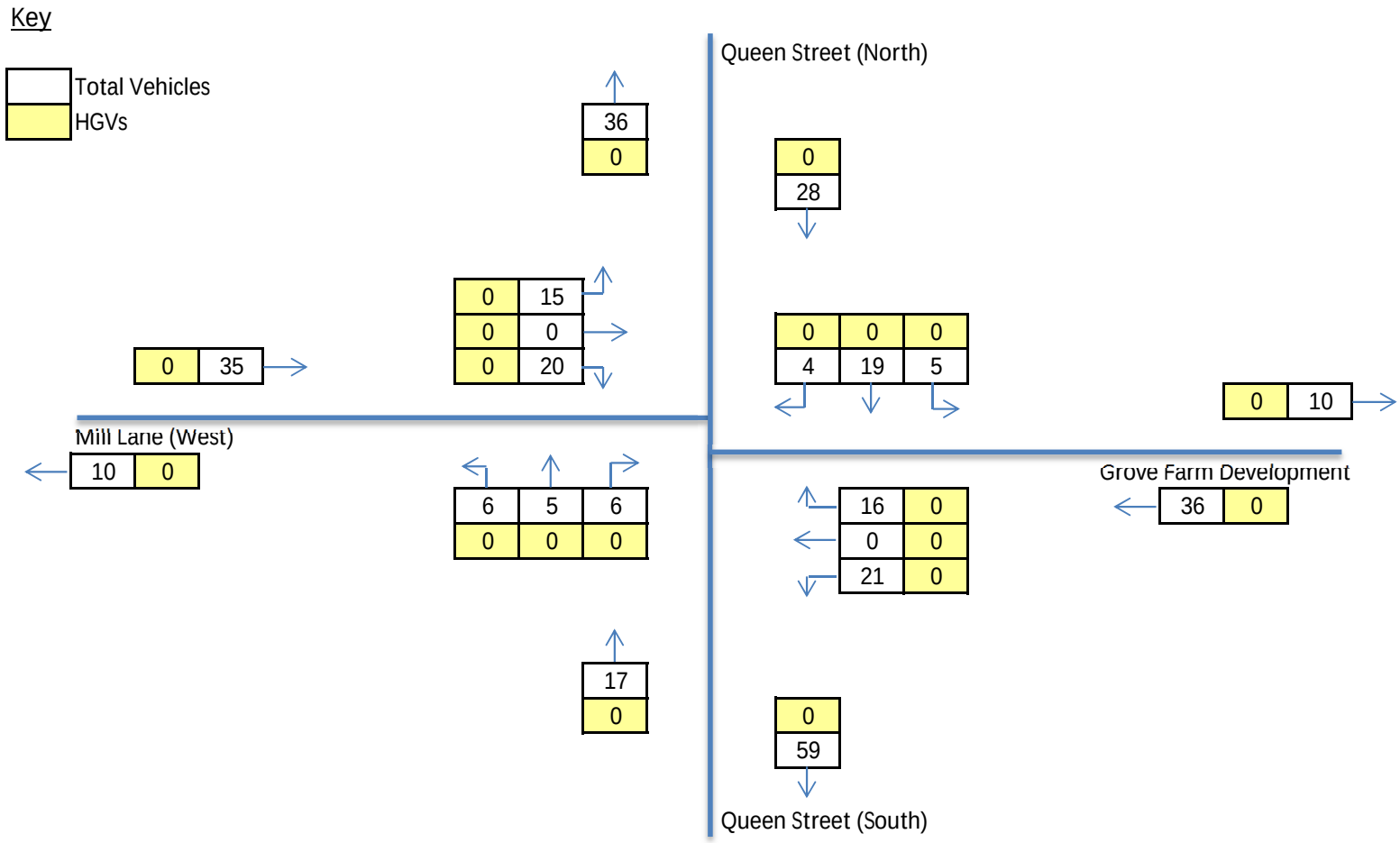
Traffic Flow Diagram 24

2036 Future Scenario - Residential Development - Weekday PM Peak (17:00 - 18:00)



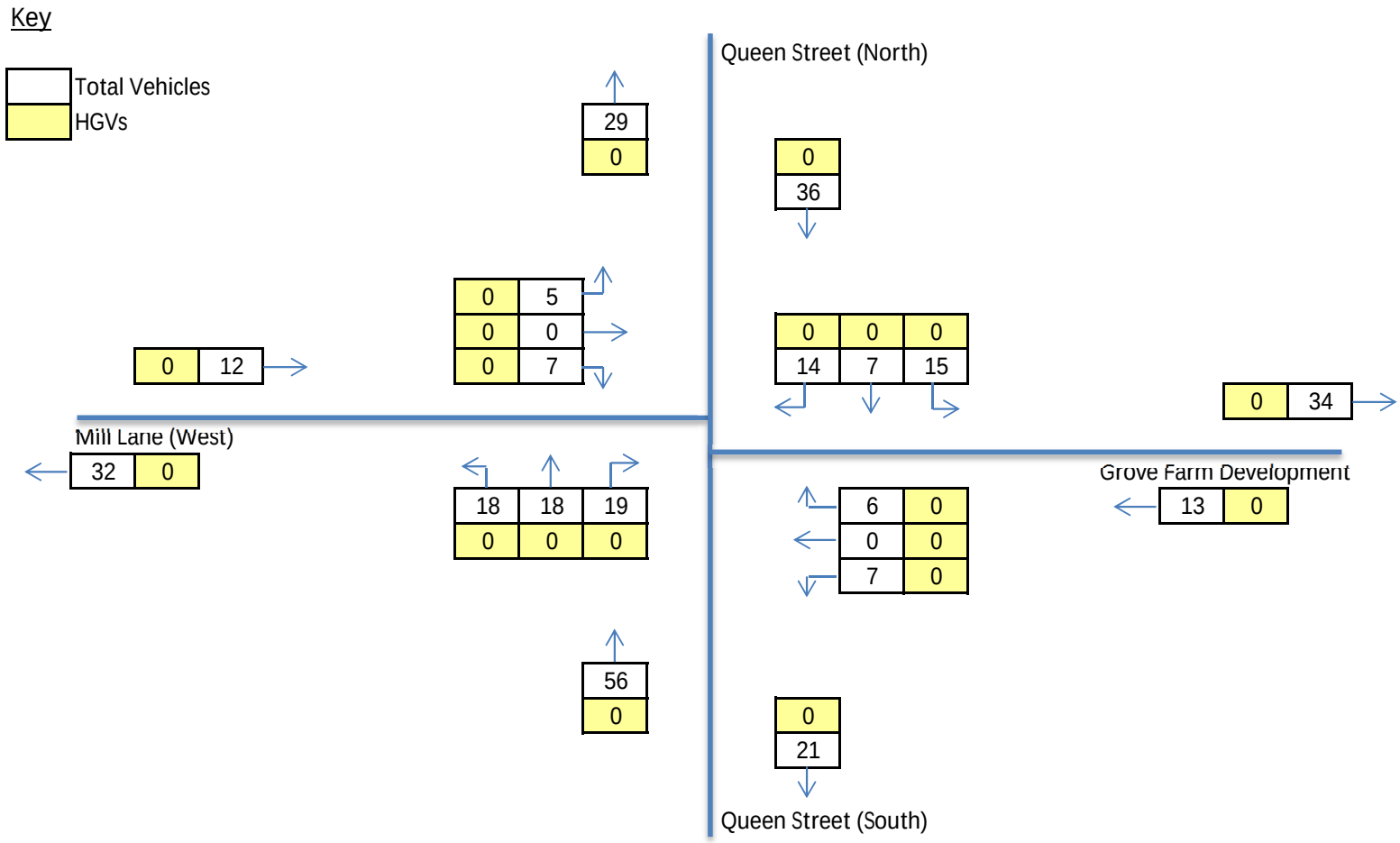
Traffic Flow Diagram 25

2036 Future Scenario - Residential Development - Weekday AM Peak (08:00 - 09:00)

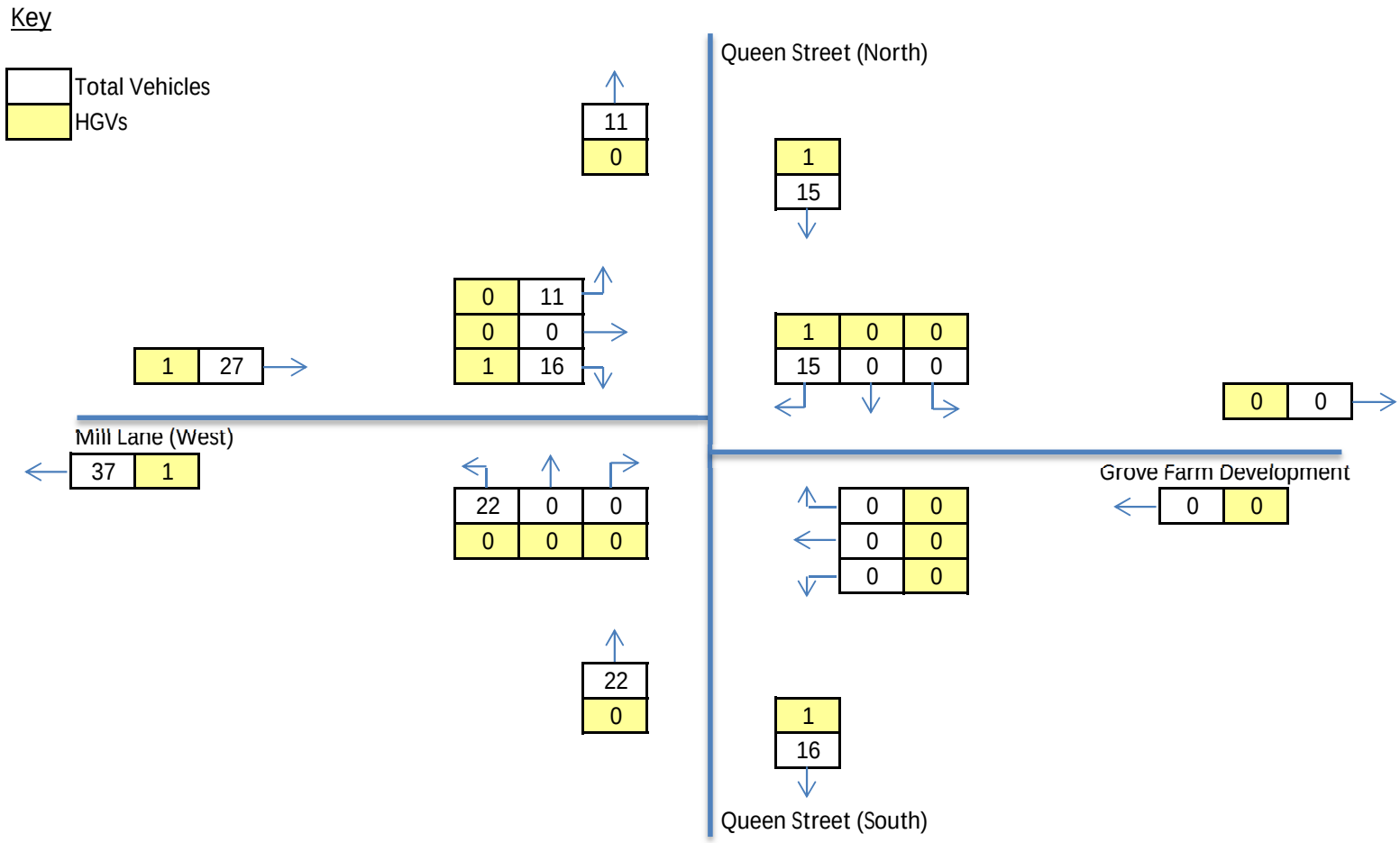


Traffic Flow Diagram 26

2036 Future Scenario - Residential Development - Weekday PM Peak (17:00 - 18:00)

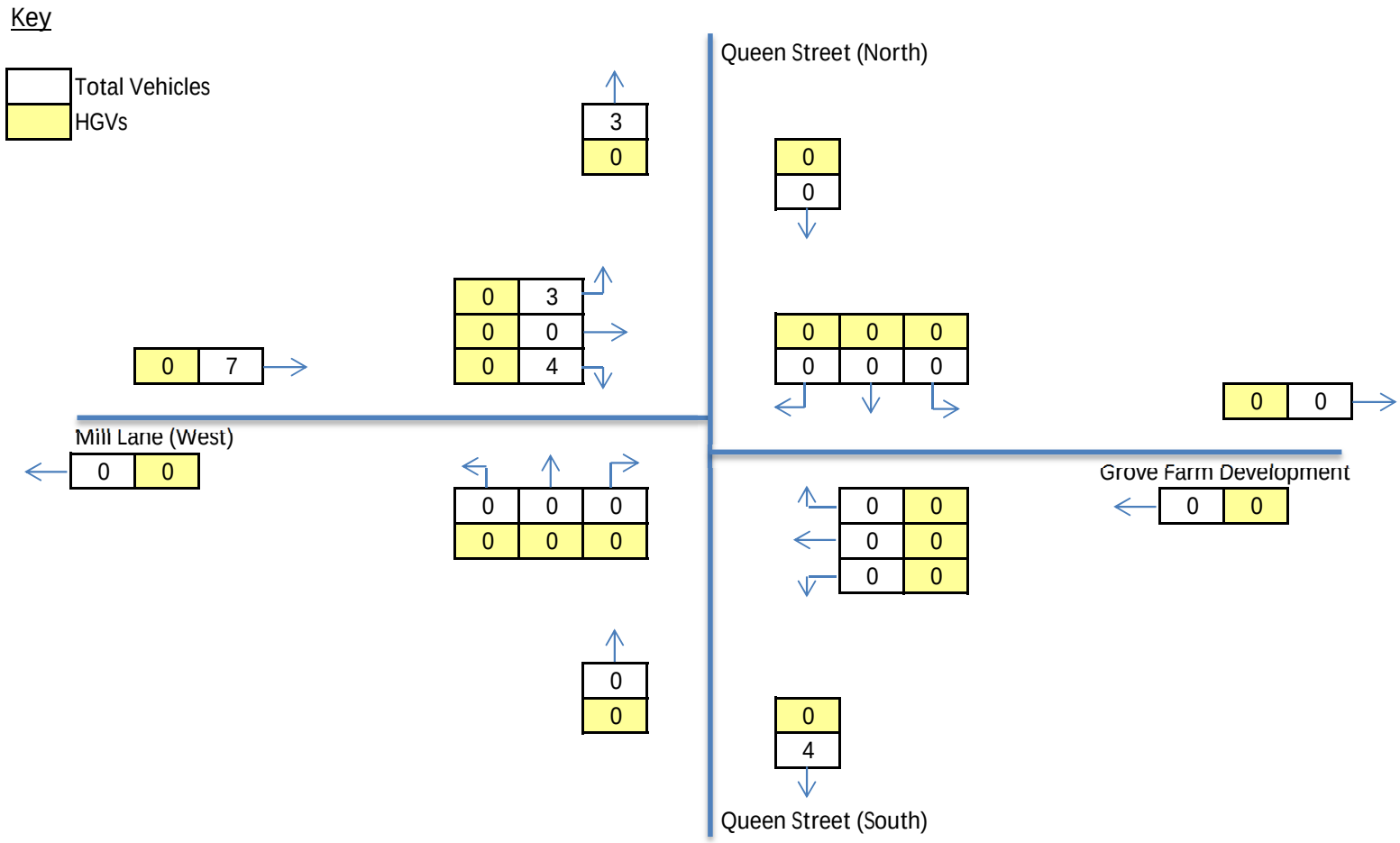


2036 Future Scenario - Redistributed School Traffic - Weekday AM Peak (08:00 - 09:00)



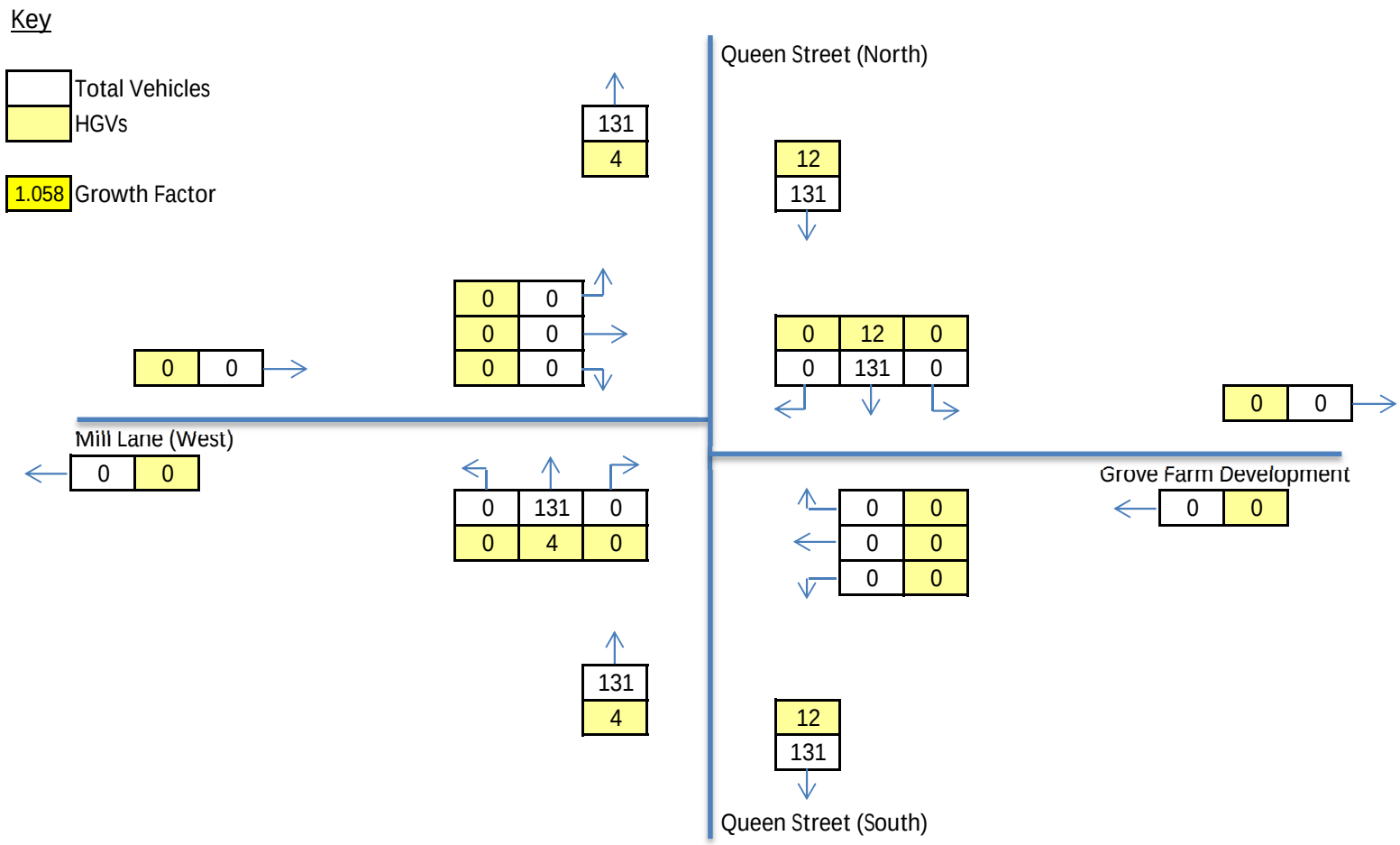
Traffic Flow Diagram 28

2036 Future Scenario - Redistributed School Traffic - Weekday PM Peak (16:45 - 17:45)



Traffic Flow Diagram 29

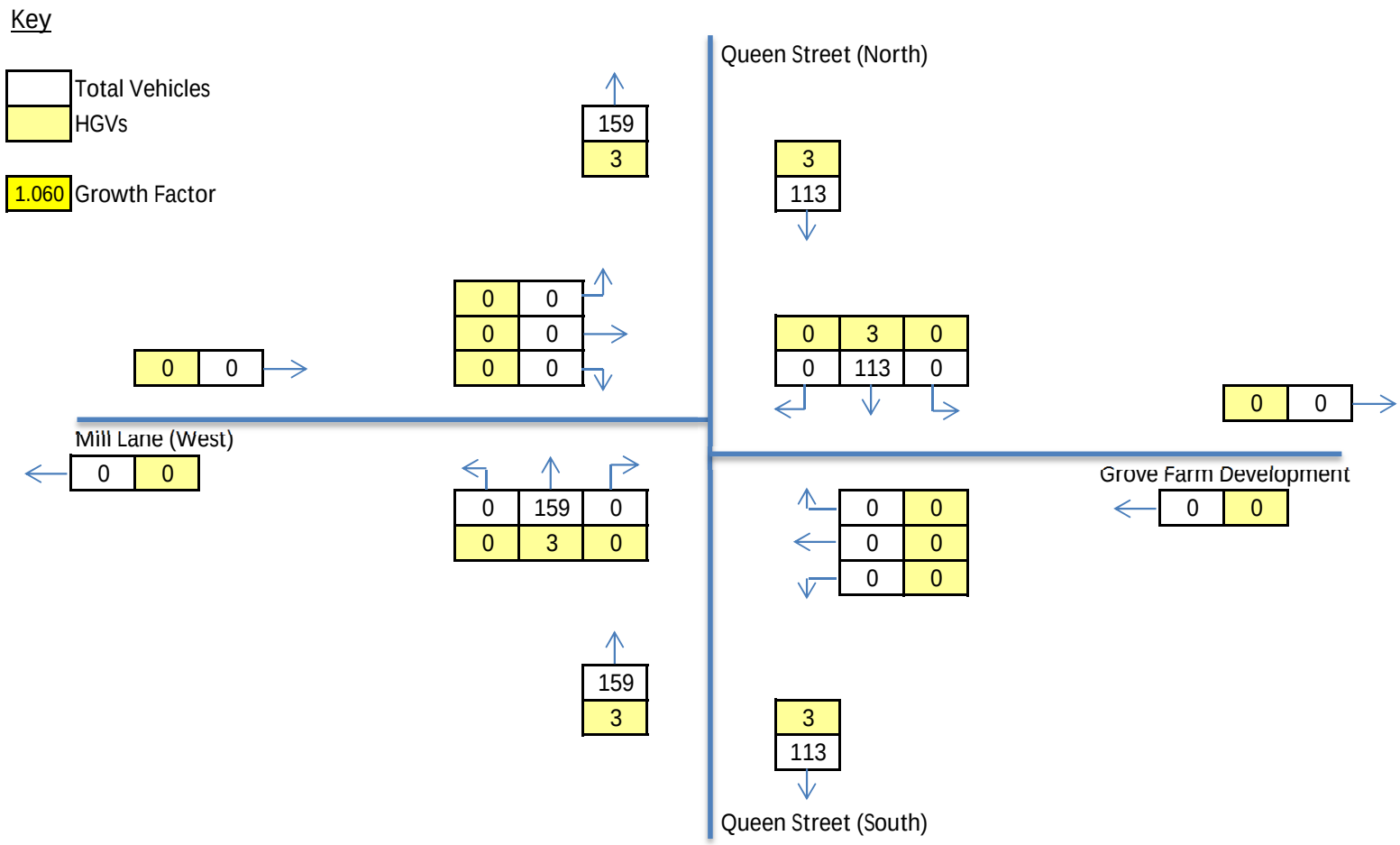
Traffic Growth - 2018 to 2036 (Adjusted) - Weekday AM Peak



*excludes Skinner's Factory traffic and Stradbroke Primary School traffic

Traffic Flow Diagram 30

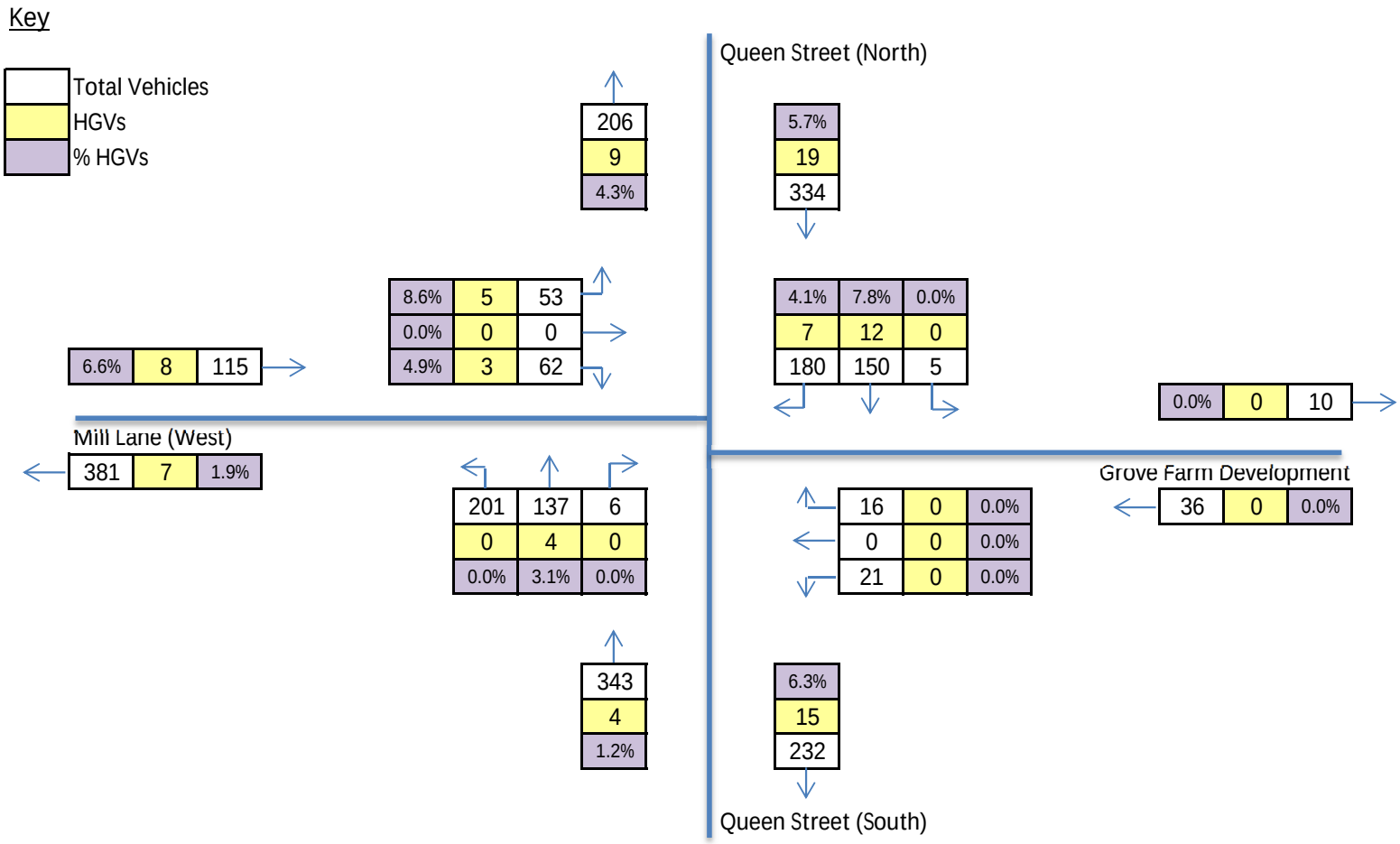
Traffic Growth - 2018 to 2036 (Adjusted) - Weekday PM Peak



*excludes Skinner's Factory traffic and Stradbroke Primary School traffic

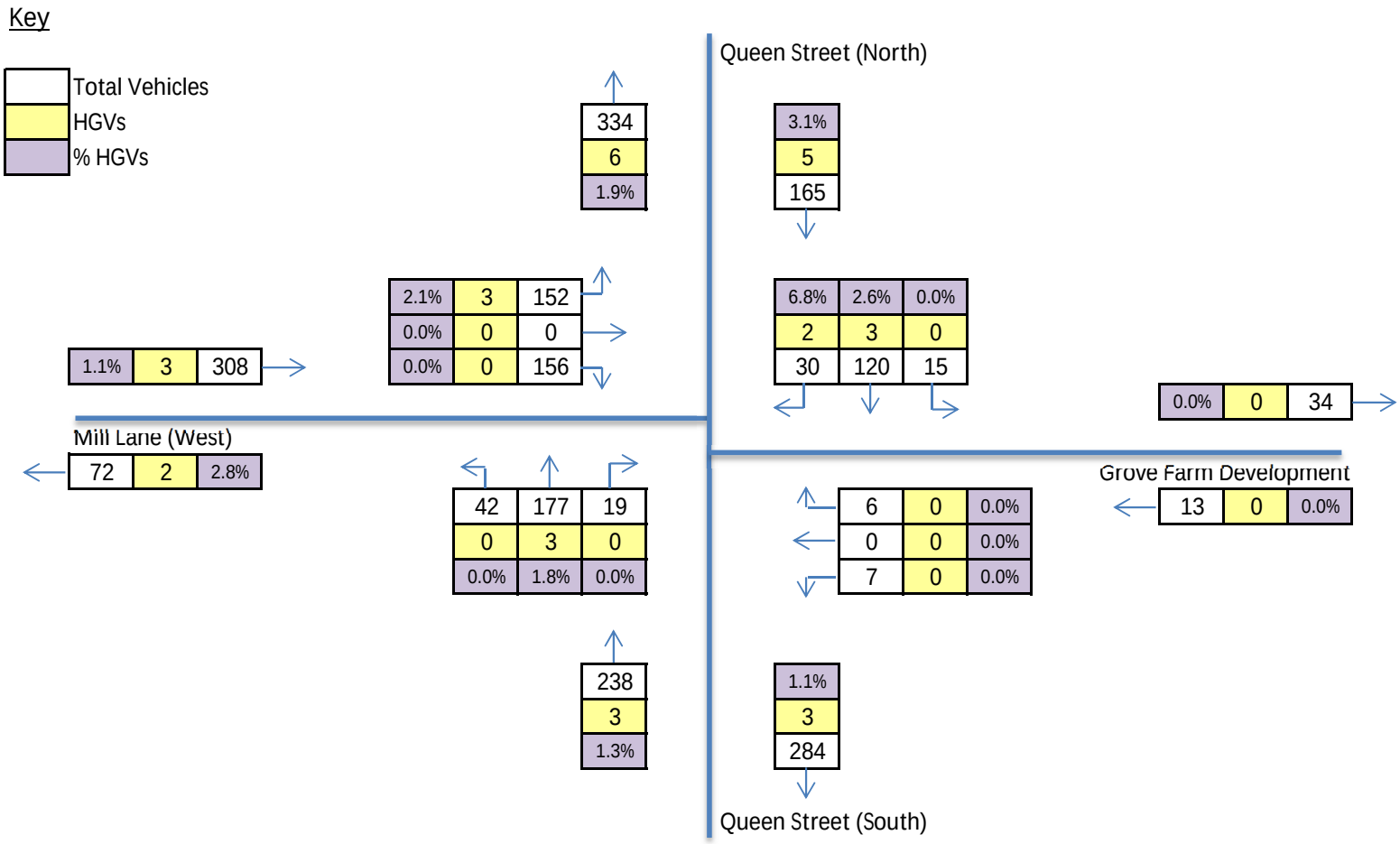
Traffic Flow Diagram 31

2036 Future Scenario - Cumulative Assessment - Weekday AM Peak (08:00 - 09:00)



Traffic Flow Diagram 32

2036 Future Scenario - Cumulative Assessment - Weekday PM Peak (16:45 - 17:45)



Traffic Flow Diagram 33

Appendix A: Queen Street/ Mill Lane Traffic Count Results

Midlands

Haseley Office Centre,
Firs Lane, Haseley,
Warwick,
CV35 7LS

Tel: 01926 485504
Fax: 01926 485537

AECOM
STRADBROKE
TRAFFIC SURVEY

SURVEY REPORT
JANUARY 2018

PROJECT NO.	8323
CHECKED	N. TOONE
DATE	18/01/2018
CONTACT	C. WHITEHOUSE
REVISION	

email: enquiries@nationwidedatacollection.co.uk
website: www.nationwidedatacollection.co.uk

Registered Office:
Haseley Office Centre, Firs Lane,
Haseley, Warwick, CV35 7LS

CONTENTS

INTRODUCTION

Nationwide Data Collection (NDC) was instructed by Aecom to undertake a classified turning count and queue length survey in Stradbroke, Suffolk. A general location plan is given in Diagram 1.

Classified Turning Count

A classified turning count was undertaken at the Mill Lane / Queen Street junction in Stradbroke, Suffolk. The survey was carried out on Tuesday 16th January 2018; survey hours were 07:00 to 10:00 and 15:00 to 19:00. All information was collected in fifteen-minute intervals and has been tabulated with period totals. Details of the observed movements are given in Drawing 8323-01.

Vehicles were classified into the following categories:
Cars and taxis (**CAR**), Light Goods Vehicles (**LGV**), Other Goods Vehicles type 1 (**OGV1**), Other Goods Vehicles type 2 (**OGV2**), Public Service Vehicles (**PSV**), Motorcycles (**MCL**) and Pedal Cycles (**PCL**).

A detailed description of the vehicles included in each category is included in Appendix A.
The results of the classified count survey are contained in Appendix B.

Queue Length Observation

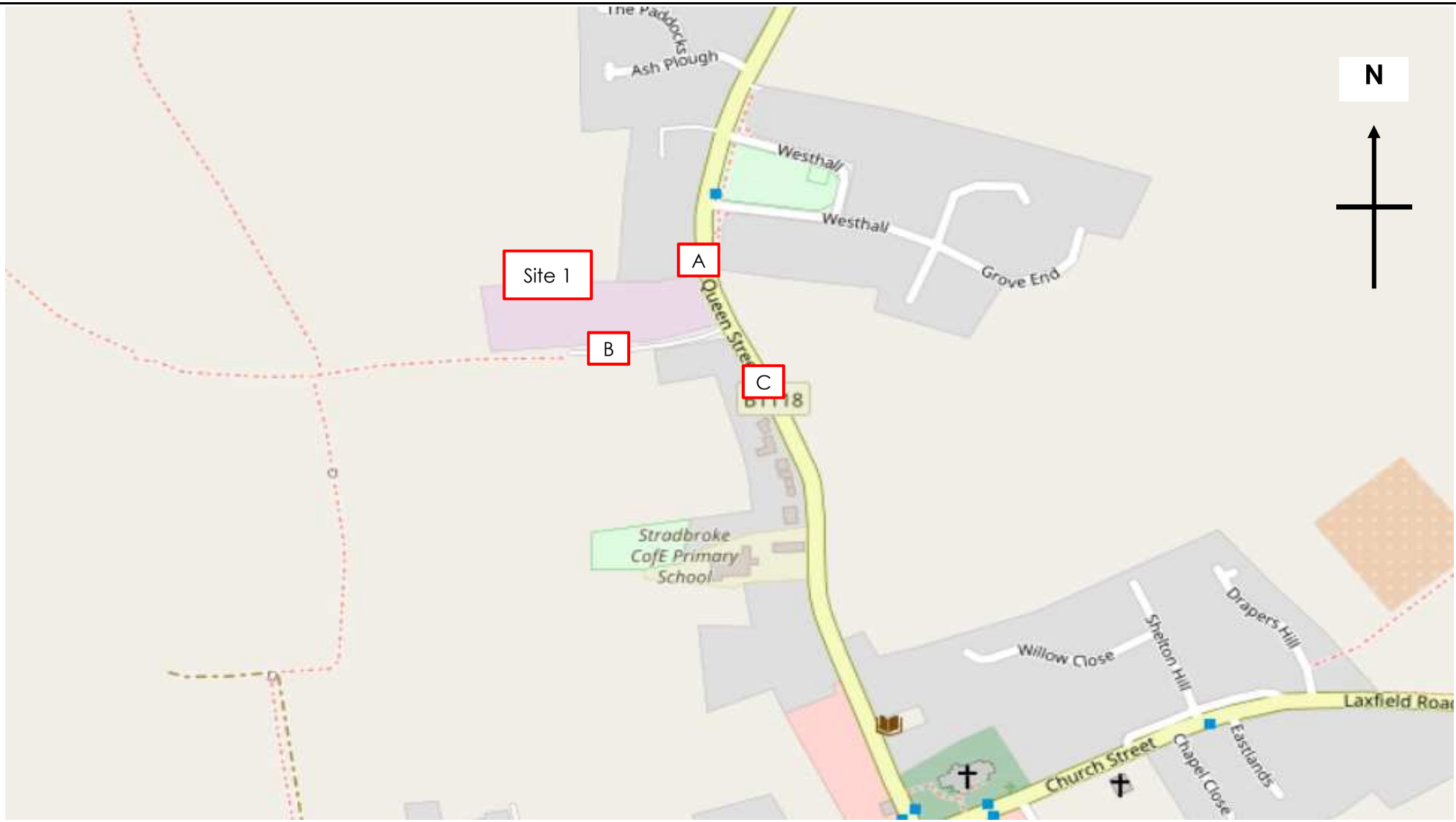
A queue length survey was carried out on all approaches to the junction at 5-minute intervals, by lane. Lane numbering is always outwards from the kerb in the direction of travel. All observations are in vehicle numbers rather than a linear measurement. Arm labelling is consistent with the classified counts carried out at the junctions. The results of the queue length data are included in Appendix C.

Site Notes

The weather remained dry and cold throughout the survey and there were no incidents or accidents likely to have had an effect on the results.

All data has been emailed to Kimberley Pettingill at Kimberley-pettingill@aecom.com.

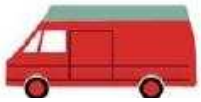
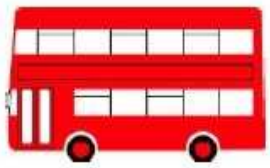
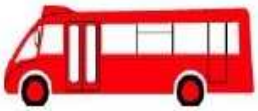
Diagram 1 – General Location Plan



NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 1, Queen Street / Access	**Project No:**	8323	**Drawing No:**	8323-01	**Drawn By:**	CJW
	Survey Date:	Tuesday 16th January 2018	**Project Name:**	Stradbroke				
	Survey Times:	07:00 to 10:00 and 15:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements				

APPENDIX A
Vehicle Categories

COBA VEHICLE CATEGORIES

CAR	 SALOON  ESTATE  PEOPLE CARRIER  CAR TOWING CARAVAN / TRAILER
LIGHT GOODS VEHICLE (LGV)	 VAN  <3.5 TONNES – single rear tyres  PICK-UP
OTHER GOODS VEHICLE (OGV1)	 > 3.5 TONNES – twin rear tyres  2-AXLES RIGID  2-AXLES RIGID  3 AXLES-RIGID
OTHER GOODS VEHICLE (OGV2)	 4 OR MORE AXLES RIGID  3-AXLES ARTIC  4 OR MORE AXLES ARTIC  OTHER GOODS VEHICLE WITH TRAILER
BUSES & COACHES (PSV)	 DOUBLE DECK BUS  SINGLE DECK BUS OR COACH

COBA VEHICLE CATEGORIES

Definition of Categories
The various components of traffic have different characteristics in terms of operating costs, growth and occupancy. The most common categories into which the traffic is split in COBA; these are defined as:

Cars (CARS)

Including taxis, estate cars, 'people carriers' and other passenger vehicles (for example, minibuses and camper vans) with a gross vehicle weight of less than 3.5 tonnes, normally ones which can accommodate not more than 15 seats. Three-wheeled cars, motor invalid carriages, Land Rovers, Range Rovers and Jeeps and smaller ambulances are included. Cars towing caravans or trailers are counted as one vehicle unless included as a separate class.

Light Goods Vehicles (LGV)

Includes all goods vehicles up to 3.5 tonnes gross vehicle weight (goods vehicles over 3.5 tonnes have sideguards fitted between axles), including those towing a trailer or caravan. This includes all car delivery vans and those of the next larger carrying capacity such as transit vans. Included here are small pickup vans, three-wheeled goods vehicles, milk floats and pedestrian controlled motor vehicles. Most of this group is delivery vans of one type or another.

Other Goods Vehicles (OGV 1)

Includes all rigid vehicles over 3.5 tonnes gross vehicle weight with two or three axles Includes larger ambulances, tractors (without trailers), road rollers for tarmac pressing, box vans and similar large vans. A two or three axle motor tractive unit without a trailer is also included.

Other Goods Vehicles (OGV 2)
This category includes all rigid vehicles with four or more axles and all articulated vehicles. Also included in this class are OGV1 goods vehicles towing a caravan or trailer.

Buses and Coaches (PSV)
Includes all public service vehicles and works buses with a gross vehicle weight of 3.5 tonnes or more, usually vehicles with more than 16 seats.

NDC
NATIONWIDE DATA COLLECTION

APPENDIX B
Classified Count Data

8323 / STRADBROKE
JANUARY 2018
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

	A to C							A to B						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**
07:00	12	2	0	1	0	1	16	1	0	0	0	0	0	1
07:15	15	3	5	0	0	0	23	2	0	0	0	0	0	2
07:30	17	7	1	3	1	1	30	2	0	0	0	0	0	2
07:45	16	15	4	1	0	0	36	1	0	0	0	0	0	1
08:00	25	3	1	2	2	0	33	1	0	0	0	0	0	1
08:15	23	9	1	3	0	1	37	3	0	0	0	0	0	3
08:30	25	9	0	1	0	0	35	2	0	0	1	0	0	3
08:45	26	5	0	1	1	1	34	5	1	0	0	0	0	6
09:00	11	6	1	2	0	0	20	0	0	1	0	0	0	1
09:15	14	6	2	1	0	0	23	1	1	0	0	0	0	2
09:30	15	4	0	1	0	0	20	0	0	0	1	0	0	1
09:45	14	5	1	1	0	0	21	1	0	0	0	0	0	1
P/TOT	213	74	16	17	4	4	328	19	2	1	2	0	0	24

	A to C							A to B						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**
15:00	22	6	2	1	0	0	31	0	0	0	0	0	0	0
15:15	19	3	2	0	0	1	25	0	0	0	0	0	0	0
15:30	26	4	0	1	1	0	32	0	0	0	0	0	0	0
15:45	14	2	1	1	1	1	20	1	1	0	0	0	0	2
16:00	24	1	1	0	0	1	27	0	1	0	0	0	0	1
16:15	19	5	1	1	1	0	27	0	0	0	0	0	0	0
16:30	14	4	0	3	0	0	21	1	1	0	0	0	0	2
16:45	23	7	0	0	0	0	30	0	0	0	0	0	0	0
17:00	14	4	0	2	0	1	21	0	0	0	0	0	0	0
17:15	21	5	0	1	0	0	27	0	0	0	0	0	0	0
17:30	27	2	0	0	0	0	29	0	0	0	0	0	0	0
17:45	29	4	0	0	0	0	33	0	0	0	0	0	0	0
18:00	20	0	0	0	0	1	21	0	0	0	0	0	0	0
18:15	18	0	0	0	0	0	18	0	0	0	0	0	0	0
18:30	17	0	0	0	0	0	17	0	0	0	0	0	0	0
18:45	18	1	0	0	0	0	19	0	0	0	0	0	0	0
P/TOT	325	48	7	10	3	5	398	2	3	0	0	0	0	5

8323 / STRADBROKE
JANUARY 2018
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

	B to A							B to C						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**
07:00	2	0	0	0	0	0	2	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	1	0	0	0	0	0	1	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	1	0	0	0	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	1	0	0	0	0	0	1	0	0	0	0	0	0	0
08:45	3	0	0	0	0	0	3	0	0	0	0	0	0	0
09:00	1	0	0	0	0	0	1	0	1	0	0	0	0	1
09:15	0	0	0	0	0	0	0	0	0	1	0	0	0	1
09:30	0	0	0	0	0	0	0	0	1	0	0	0	0	1
09:45	0	0	0	0	0	0	0	1	0	0	0	0	0	1
P/TOT	8	0	0	0	0	0	8	1	2	2	0	0	0	5

	B to A							B to C						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**
15:00	0	0	0	0	0	0	0	2	0	0	0	0	0	2
15:15	2	0	0	0	0	0	2	0	2	0	0	0	0	2
15:30	2	0	0	1	0	0	3	0	2	0	1	0	0	3
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	2	0	0	0	0	2	0	0	0	0	0	0	0
16:15	0	3	0	0	0	0	3	1	0	0	0	0	0	1
16:30	0	0	0	0	0	0	0	1	0	0	0	0	0	1
16:45	2	0	0	0	0	0	2	3	0	0	0	0	0	3
17:00	11	1	0	0	0	0	12	4	0	0	0	0	0	4
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	1	0	0	0	0	0	1	2	0	0	0	0	0	2
17:45	1	0	0	0	0	0	1	2	0	0	0	0	0	2
18:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
18:15	1	0	0	0	0	0	1	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	1	0	0	0	0	0	1	0	0	0	0	0	0	0
P/TOT	21	6	0	1	0	0	28	16	4	0	1	0	0	21

8323 / STRADBROKE
JANUARY 2018
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

	C to B							C to A						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**
07:00	0	0	0	0	0	0	0	20	4	0	1	0	1	26
07:15	2	1	0	0	0	0	3	20	4	0	0	0	0	24
07:30	2	0	0	0	0	0	2	18	9	0	2	0	0	29
07:45	0	1	0	1	0	0	2	27	9	0	2	0	0	38
08:00	1	0	0	0	0	0	1	28	10	0	0	0	1	39
08:15	1	1	0	0	0	0	2	17	1	0	0	0	0	18
08:30	4	1	0	0	0	0	5	18	4	1	0	0	0	23
08:45	5	0	0	0	0	0	5	43	9	2	1	0	0	55
09:00	2	0	0	0	0	0	2	11	3	2	0	0	0	16
09:15	1	0	0	0	0	0	1	19	1	0	1	1	0	22
09:30	0	0	0	0	0	0	0	19	11	1	2	0	0	33
09:45	0	0	0	0	0	0	0	15	8	1	1	0	0	25
P/TOT	18	4	0	1	0	0	23	255	73	7	10	1	2	348

	C to B							C to A						
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**TOT**
15:00	1	0	0	0	0	0	1	20	9	1	2	0	0	32
15:15	2	0	0	0	0	0	2	24	4	0	2	1	0	31
15:30	1	1	0	0	0	0	2	20	4	1	0	0	0	25
15:45	0	0	0	0	0	0	0	24	7	3	0	1	1	36
16:00	1	2	0	0	0	0	3	19	11	1	0	0	0	31
16:15	0	0	0	0	0	0	0	28	7	0	1	1	0	37
16:30	0	0	0	0	0	0	0	20	11	0	0	1	0	32
16:45	1	0	0	0	0	0	1	29	9	0	0	0	1	39
17:00	4	0	0	0	0	0	4	29	6	0	1	0	0	36
17:15	0	0	0	0	0	0	0	34	1	0	1	0	0	36
17:30	0	0	0	0	0	0	0	39	2	1	0	0	0	42
17:45	0	0	0	0	0	0	0	23	3	1	0	0	0	27
18:00	1	0	0	0	0	0	1	17	3	0	0	0	0	20
18:15	1	0	0	0	0	0	1	21	0	0	0	0	0	21
18:30	0	0	0	0	0	0	0	19	2	0	0	0	0	21
18:45	0	0	0	0	0	0	0	20	1	0	0	0	0	21
P/TOT	12	3	0	0	0	0	15	386	80	8	7	4	2	487

8323 / STRADBROKE
JANUARY 2018
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

	TO ARM A							FROM ARM A						
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
07:00	22	4	0	1	0	1	28	13	2	0	1	0	1	17
07:15	20	4	0	0	0	0	24	17	3	5	0	0	0	25
07:30	19	9	0	2	0	0	30	19	7	1	3	1	1	32
07:45	27	9	0	2	0	0	38	17	15	4	1	0	0	37
08:00	28	10	0	0	0	1	39	26	3	1	2	2	0	34
08:15	17	1	0	0	0	0	18	26	9	1	3	0	1	40
08:30	19	4	1	0	0	0	24	27	9	0	2	0	0	38
08:45	46	9	2	1	0	0	58	31	6	0	1	1	1	40
09:00	12	3	2	0	0	0	17	11	6	2	2	0	0	21
09:15	19	1	0	1	1	0	22	15	7	2	1	0	0	25
09:30	19	11	1	2	0	0	33	15	4	0	2	0	0	21
09:45	15	8	1	1	0	0	25	15	5	1	1	0	0	22
P/TOT	263	73	7	10	1	2	356	232	76	17	19	4	4	352

	TO ARM A							FROM ARM A						
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
15:00	20	9	1	2	0	0	32	22	6	2	1	0	0	31
15:15	26	4	0	2	1	0	33	19	3	2	0	0	1	25
15:30	22	4	1	1	0	0	28	26	4	0	1	1	0	32
15:45	24	7	3	0	1	1	36	15	3	1	1	1	1	22
16:00	19	13	1	0	0	0	33	24	2	1	0	0	1	28
16:15	28	10	0	1	1	0	40	19	5	1	1	1	0	27
16:30	20	11	0	0	1	0	32	15	5	0	3	0	0	23
16:45	31	9	0	0	0	1	41	23	7	0	0	0	0	30
17:00	40	7	0	1	0	0	48	14	4	0	2	0	1	21
17:15	34	1	0	1	0	0	36	21	5	0	1	0	0	27
17:30	40	2	1	0	0	0	43	27	2	0	0	0	0	29
17:45	24	3	1	0	0	0	28	29	4	0	0	0	0	33
18:00	17	3	0	0	0	0	20	20	0	0	0	0	1	21
18:15	22	0	0	0	0	0	22	18	0	0	0	0	0	18
18:30	19	2	0	0	0	0	21	17	0	0	0	0	0	17
18:45	21	1	0	0	0	0	22	18	1	0	0	0	0	19
P/TOT	407	86	8	8	4	2	515	327	51	7	10	3	5	403

8323 / STRADBROKE
JANUARY 2018
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

	TO ARM B							FROM ARM B						
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
07:00	1	0	0	0	0	0	1	2	0	0	0	0	0	2
07:15	4	1	0	0	0	0	5	0	0	0	0	0	0	0
07:30	4	0	0	0	0	0	4	1	0	0	0	0	0	1
07:45	1	1	0	1	0	0	3	0	0	0	0	0	0	0
08:00	2	0	0	0	0	0	2	0	0	1	0	0	0	1
08:15	4	1	0	0	0	0	5	0	0	0	0	0	0	0
08:30	6	1	0	1	0	0	8	1	0	0	0	0	0	1
08:45	10	1	0	0	0	0	11	3	0	0	0	0	0	3
09:00	2	0	1	0	0	0	3	1	1	0	0	0	0	2
09:15	2	1	0	0	0	0	3	0	0	1	0	0	0	1
09:30	0	0	0	1	0	0	1	0	1	0	0	0	0	1
09:45	1	0	0	0	0	0	1	1	0	0	0	0	0	1
P/TOT	37	6	1	3	0	0	47	9	2	2	0	0	0	13

	TO ARM B							FROM ARM B						
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
15:00	1	0	0	0	0	0	1	2	0	0	0	0	0	2
15:15	2	0	0	0	0	0	2	2	2	0	0	0	0	4
15:30	1	1	0	0	0	0	2	2	2	0	2	0	0	6
15:45	1	1	0	0	0	0	2	0	0	0	0	0	0	0
16:00	1	3	0	0	0	0	4	0	2	0	0	0	0	2
16:15	0	0	0	0	0	0	0	1	3	0	0	0	0	4
16:30	1	1	0	0	0	0	2	1	0	0	0	0	0	1
16:45	1	0	0	0	0	0	1	5	0	0	0	0	0	5
17:00	4	0	0	0	0	0	4	15	1	0	0	0	0	16
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	3	0	0	0	0	0	3
17:45	0	0	0	0	0	0	0	3	0	0	0	0	0	3
18:00	1	0	0	0	0	0	1	1	0	0	0	0	0	1
18:15	1	0	0	0	0	0	1	1	0	0	0	0	0	1
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	1	0	0	0	0	0	1
P/TOT	14	6	0	0	0	0	20	37	10	0	2	0	0	49

8323 / STRADBROKE
JANUARY 2018
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

	TO ARM C							FROM ARM C						
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
07:00	12	2	0	1	0	1	16	20	4	0	1	0	1	26
07:15	15	3	5	0	0	0	23	22	5	0	0	0	0	27
07:30	17	7	1	3	1	1	30	20	9	0	2	0	0	31
07:45	16	15	4	1	0	0	36	27	10	0	3	0	0	40
08:00	25	3	2	2	2	0	34	29	10	0	0	0	1	40
08:15	23	9	1	3	0	1	37	18	2	0	0	0	0	20
08:30	25	9	0	1	0	0	35	22	5	1	0	0	0	28
08:45	26	5	0	1	1	1	34	48	9	2	1	0	0	60
09:00	11	7	1	2	0	0	21	13	3	2	0	0	0	18
09:15	14	6	3	1	0	0	24	20	1	0	1	1	0	23
09:30	15	5	0	1	0	0	21	19	11	1	2	0	0	33
09:45	15	5	1	1	0	0	22	15	8	1	1	0	0	25
P/TOT	214	76	18	17	4	4	333	273	77	7	11	1	2	371

	TO ARM C							FROM ARM C						
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
15:00	24	6	2	1	0	0	33	21	9	1	2	0	0	33
15:15	19	5	2	0	0	1	27	26	4	0	2	1	0	33
15:30	26	6	0	2	1	0	35	21	5	1	0	0	0	27
15:45	14	2	1	1	1	1	20	24	7	3	0	1	1	36
16:00	24	1	1	0	0	1	27	20	13	1	0	0	0	34
16:15	20	5	1	1	1	0	28	28	7	0	1	1	0	37
16:30	15	4	0	3	0	0	22	20	11	0	0	1	0	32
16:45	26	7	0	0	0	0	33	30	9	0	0	0	1	40
17:00	18	4	0	2	0	1	25	33	6	0	1	0	0	40
17:15	21	5	0	1	0	0	27	34	1	0	1	0	0	36
17:30	29	2	0	0	0	0	31	39	2	1	0	0	0	42
17:45	31	4	0	0	0	0	35	23	3	1	0	0	0	27
18:00	21	0	0	0	0	1	22	18	3	0	0	0	0	21
18:15	18	0	0	0	0	0	18	22	0	0	0	0	0	22
18:30	17	0	0	0	0	0	17	19	2	0	0	0	0	21
18:45	18	1	0	0	0	0	19	20	1	0	0	0	0	21
P/TOT	341	52	7	11	3	5	419	398	83	8	7	4	2	502

8323 / STRADBROKE
JANUARY 2018
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
07:00	35	6	0	2	0	2	45
07:15	39	8	5	0	0	0	52
07:30	40	16	1	5	1	1	64
07:45	44	25	4	4	0	0	77
08:00	55	13	2	2	2	1	75
08:15	44	11	1	3	0	1	60
08:30	50	14	1	2	0	0	67
08:45	82	15	2	2	1	1	103
09:00	25	10	4	2	0	0	41
09:15	35	8	3	2	1	0	49
09:30	34	16	1	4	0	0	55
09:45	31	13	2	2	0	0	48
P/TOT	514	155	26	30	5	6	736

PEAK HOUR CALCULATION	
07:00 to 08:00	238
07:15 to 08:15	268
07:30 to 08:30	276
07:45 to 08:45	279
08:00 to 09:00	**305**
08:15 to 09:15	271
08:30 to 09:30	260
08:45 to 09:45	248
09:00 to 10:00	193
PEAK VALUE	**305**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	TOT
15:00	45	15	3	3	0	0	66
15:15	47	9	2	2	1	1	62
15:30	49	11	1	3	1	0	65
15:45	39	10	4	1	2	2	58
16:00	44	17	2	0	0	1	64
16:15	48	15	1	2	2	0	68
16:30	36	16	0	3	1	0	56
16:45	58	16	0	0	0	1	75
17:00	62	11	0	3	0	1	77
17:15	55	6	0	2	0	0	63
17:30	69	4	1	0	0	0	74
17:45	55	7	1	0	0	0	63
18:00	39	3	0	0	0	1	43
18:15	41	0	0	0	0	0	41
18:30	36	2	0	0	0	0	38
18:45	39	2	0	0	0	0	41
P/TOT	762	144	15	19	7	7	954

PEAK HOUR CALCULATION	
15:00 to 16:00	251
15:15 to 16:15	249
15:30 to 16:30	255
15:45 to 16:45	246
16:00 to 17:00	263
16:15 to 17:15	276
16:30 to 17:30	271
16:45 to 17:45	**289**
17:00 to 18:00	277
17:15 to 18:15	243
17:30 to 18:30	221
17:45 to 18:45	185
18:00 to 19:00	163
PEAK VALUE	**289**

NDC
NATIONWIDE DATA COLLECTION

APPENDIX C
Queue Length Data

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

Notes: **All queues are measured in vehicle numbers on the 5-minute interval.**
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A	ARM B	ARM C
07:00	0	0	0
07:05	0	0	0
07:10	0	0	0
07:15	0	0	0
07:20	0	0	0
07:25	0	0	0
07:30	0	0	0
07:35	0	0	0
07:40	0	0	0
07:45	0	0	0
07:50	0	0	0
07:55	0	0	0
08:00	0	0	0
08:05	0	0	0
08:10	0	0	0
08:15	0	0	0
08:20	0	1	0
08:25	0	0	0
08:30	0	0	0
08:35	0	0	0
08:40	0	0	0
08:45	0	0	0
08:50	0	0	0
08:55	0	0	0
09:00	0	0	0
09:05	0	0	0
09:10	0	0	0
09:15	0	0	0
09:20	0	0	0
09:25	0	1	0
09:30	0	0	0
09:35	0	0	0
09:40	0	0	0
09:45	0	0	0
09:50	0	0	0
09:55	0	0	0
10:00	0	0	0
MAX QUEUE	0	1	0

SITE: 1 DATE: 16/01/2018

LOCATION: QUEEN STREET / ACCESS DAY: Tuesday

Notes: **All queues are measured in vehicle numbers on the 5-minute interval.**
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A	ARM B	ARM C
16:00	0	0	0
16:05	0	0	0
16:10	0	0	0
16:15	0	0	0
16:20	0	1	0
16:25	0	0	0
16:30	0	0	0
16:35	0	0	0
16:40	0	0	0
16:45	0	0	0
16:50	0	0	0
16:55	0	0	0
17:00	0	0	0
17:05	0	1	0
17:10	0	0	0
17:15	0	0	0
17:20	0	0	0
17:25	0	0	0
17:30	0	0	0
17:35	0	0	0
17:40	0	0	0
17:45	0	0	0
17:50	0	0	0
17:55	0	0	0
18:00	0	0	0
18:05	0	0	0
18:10	0	0	0
18:15	0	0	0
18:20	0	0	0
18:25	0	0	0
18:30	0	0	0
18:35	0	0	0
18:40	0	0	0
18:45	0	0	0
18:50	0	0	0
18:55	0	0	0
19:00	0	0	0
MAX QUEUE	0	1	0

Appendix B: 2011 Census Travel to Work O-D Data

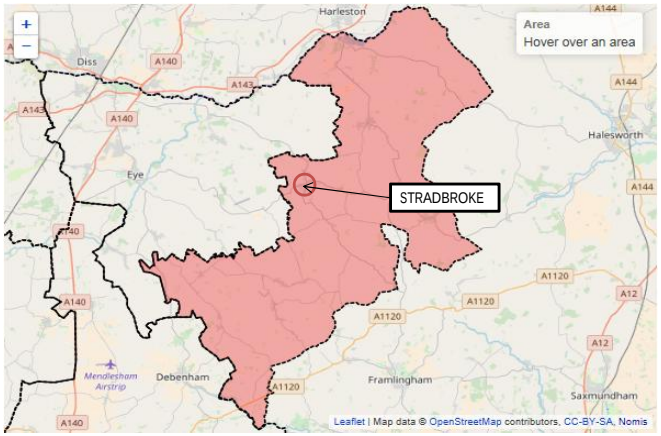
2011 Census Travel to Work O-D Data
Source: http://commute.datashine.org.uk/

Outgoing (Residential)

Home	Work	Number	B1118 (N)	B1117 (E)	B1118 (S)	B1117
Mid Suffolk 003	No fixed place	346	-	-	-	-
Mid Suffolk 003	Mid Suffolk 003	281	30%	20%	30%	20%
Mid Suffolk 003	Suffolk Coastal 002	201		50%	50%	
Mid Suffolk 003	Mid Suffolk 001	165	50%			50%
Mid Suffolk 003	South Norfolk 013	92	100%			
Mid Suffolk 003	South Norfolk 015	80	100%			
Mid Suffolk 003	Mid Suffolk 007	59			50%	50%
Mid Suffolk 003	Mid Suffolk 010	48	100%			
Mid Suffolk 003	South Norfolk 014	35	100%			
Mid Suffolk 003	Suffolk Coastal 010	32		100%		
Mid Suffolk 003	Waveney 015	31	50%	50%		
Mid Suffolk 003	Suffolk Coastal 001	30		100%		
Mid Suffolk 003	Mid Suffolk 011	27	50%			50%
Mid Suffolk 003	Suffolk Coastal 004	27		100%		
Mid Suffolk 003	Suffolk Coastal 008	25		100%		
Mid Suffolk 003	St Edmundsbury 006	24	100%			
Mid Suffolk 003	Waveney 013	24	100%			
Mid Suffolk 003	Ipswich 007	23		50%	50%	
Mid Suffolk 003	Ipswich 010	23		50%	50%	
Mid Suffolk 003	Mid Suffolk 002	21	100%			
Mid Suffolk 003	Suffolk Coastal 006	18		50%	50%	
Mid Suffolk 003	Suffolk Coastal 005	18		100%		
Mid Suffolk 003	Ipswich 014	18		50%	50%	
Mid Suffolk 003	Suffolk Coastal 003	17		100%		
Mid Suffolk 003	Babergh 005	16		50%	50%	
Mid Suffolk 003	Ipswich 003	16		50%	50%	
Mid Suffolk 003	Mid Suffolk 012	15	50%			50%
Mid Suffolk 003	Ipswich 009	14		50%	50%	
Mid Suffolk 003	Mid Suffolk 005	13	50%			50%
Mid Suffolk 003	St Edmundsbury 007	13	100%			
Mid Suffolk 003	Ipswich 004	13		50%	50%	
Mid Suffolk 003	South Norfolk 012	12	100%			
Mid Suffolk 003	South Norfolk 011	12	100%			
Mid Suffolk 003	Norwich 007	11	100%			
Mid Suffolk 003	Waveney 011	11	50%	50%		
Mid Suffolk 003	St Edmundsbury 009	11	100%			
Mid Suffolk 003	Mid Suffolk 009	11	100%			
Mid Suffolk 003	Suffolk Coastal 007	10		100%		
Mid Suffolk 003	Huntingdonshire 010	10	100%			
Mid Suffolk 003	St Edmundsbury 001	10	100%			
Mid Suffolk 003	South Norfolk 002	10	100%			
Mid Suffolk 003	Breckland 014	9	100%			
Mid Suffolk 003	St Edmundsbury 005	8	100%			
Mid Suffolk 003	Waveney 010	7	50%	50%		
Mid Suffolk 003	Suffolk Coastal 012	7		100%		
Mid Suffolk 003	Norwich 014	6	100%			
Mid Suffolk 003	Mid Suffolk 006	6	100%			
Mid Suffolk 003	Waveney 014	6		100%		
Mid Suffolk 003	St Edmundsbury 008	6	100%			
Mid Suffolk 003	Norwich 010	6	100%			
Mid Suffolk 003	Suffolk Coastal 015	6		100%		
Mid Suffolk 003	Breckland 015	6	100%			
Mid Suffolk 003	Broadland 016	6	100%			
TOTAL:		1606	695.8	429.7	284.8	195.7
			43.3%	26.8%	17.7%	12.2%

Queen Street (North): 43.3%
Queen Street (South): 56.7%

MID SUFFOLK 003 MSOA



Incoming (Employment)

Home	Work	Number	B1118 (N)	B1117 (E)	B1118 (S)	B1117
Mid Suffolk 003	Mid Suffolk 003	281	30%	20%	30%	20%
Mid Suffolk 001	Mid Suffolk 003	99	50%	0%	0%	50%
South Norfolk 013	Mid Suffolk 003	89	100%	0%	0%	0%
Suffolk Coastal 002	Mid Suffolk 003	55	0%	50%	50%	0%
South Norfolk 014	Mid Suffolk 003	42	100%	0%	0%	0%
Mid Suffolk 007	Mid Suffolk 003	32	0%	0%	50%	50%
Suffolk Coastal 001	Mid Suffolk 003	26	0%	100%	0%	0%
South Norfolk 015	Mid Suffolk 003	26	100%	0%	0%	0%
Waveney 013	Mid Suffolk 003	25	100%	0%	0%	0%
Ipswich 006	Mid Suffolk 003	16		50%	50%	
Mid Suffolk 002	Mid Suffolk 003	16	100%	0%	0%	0%
South Norfolk 012	Mid Suffolk 003	15	100%	0%	0%	0%
South Norfolk 011	Mid Suffolk 003	14	100%	0%	0%	0%
South Norfolk 010	Mid Suffolk 003	11	100%			
Suffolk Coastal 007	Mid Suffolk 003	11	0%	100%	0%	0%
Mid Suffolk 005	Mid Suffolk 003	10	50%	0%	0%	50%
Mid Suffolk 009	Mid Suffolk 003	10	100%	0%	0%	0%
Suffolk Coastal 003	Mid Suffolk 003	9	0%	100%	0%	0%
Mid Suffolk 006	Mid Suffolk 003	9	100%	0%	0%	0%
Suffolk Coastal 004	Mid Suffolk 003	8	0%	100%	0%	0%
Ipswich 008	Mid Suffolk 003	7		50%	50%	
Suffolk Coastal 008	Mid Suffolk 003	7	0%	100%	0%	0%
Waveney 011	Mid Suffolk 003	6	50%	50%	0%	0%
Waveney 010	Mid Suffolk 003	6	50%	50%	0%	0%
Waveney 007	Mid Suffolk 003	6	50%	50%		
Suffolk Coastal 010	Mid Suffolk 003	6	0%	100%	0%	0%
South Norfolk 008	Mid Suffolk 003	6	100%			
Suffolk Coastal 006	Mid Suffolk 003	6	0%	50%	50%	0%
Suffolk Coastal 005	Mid Suffolk 003	6	0%	100%	0%	0%
Ipswich 007	Mid Suffolk 003	6	0%	50%	50%	0%
Breckland 013	Mid Suffolk 003	6	100%			
TOTAL:		872	416.8	183.2	145.3	126.7
			47.8%	21.0%	16.7%	14.5%

Queen Street (North): 47.8%
Queen Street (South): 52.2%

Appendix C: Queen Street/ Mill Lane PICADY Results (Existing Layout)

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Junctions 9 Queen Street Mill Lane Existing Layout AM and PM assessment 070218.j9
Path: P:\Transport Consultancy Projects\Job Folders_605\60538603 - Stradbroke NP Access Review\02 Further Transport Work\10 - Technical\PICADY\Junction Modelling
Report generation date: 07/02/2018 09:53:12

Summary of junction performance

	Weekday AM peak (0800-0900)				Weekday PM peak (1645-1745)			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Existing Junction - 2018 Existing Scenario							
Stream B-C	0.0	5.76	0.01	A	0.0	5.93	0.03	A
Stream B-A	0.0	14.05	0.00	B	0.0	7.00	0.02	A
Stream C-AB	0.0	6.56	0.03	A	0.0	0.00	0.00	A
Stream C-A								
Stream A-B								
Stream A-C								
	Existing Junction - 2036 Future Baseline Scenario							
Stream B-C	0.0	5.80	0.01	A	0.0	5.99	0.03	A
Stream B-A	0.0	14.28	0.00	B	0.0	7.12	0.02	A
Stream C-AB	0.0	6.60	0.03	A	0.0	0.00	0.00	A
Stream C-A								
Stream A-B								
Stream A-C								

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

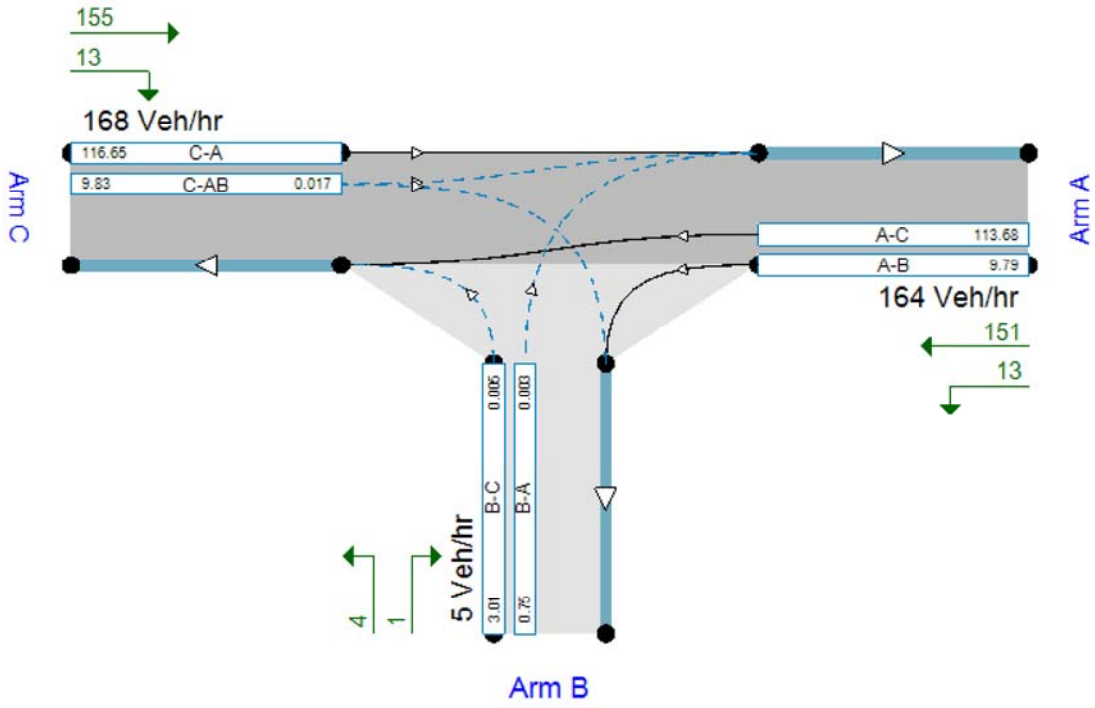
File summary

File Description

Title	Stradbroke - Junction Modelling
Location	Queen Street / Mill Lane T-junction - Stradbroke
Site number	
Date	02/02/2018
Version	
Status	(new file)
Identifier	
Client	Stradbroke Parish Council
Jobnumber	60538603
Enumerator	NA"joshua.barrett
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



Showing original traffic demand (Veh/hr).
Streams (upstreams) show Total Demand (Veh/hr); Streams (downstreams) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2018 Existing Scenario	Weekday AM peak (0800-0900)	ONE HOUR	07:45	09:15	15
2018 Existing Scenario	Weekday PM peak (1645-1745)	ONE HOUR	16:30	18:00	15
2036 Future Baseline Scenario	Weekday AM peak (0800-0900)	ONE HOUR	07:45	09:15	15
2036 Future Baseline Scenario	Weekday PM peak (1645-1745)	ONE HOUR	16:30	18:00	15

Existing Junction - 2018 Existing Scenario, Weekday AM peak (0800-0900)

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Description	Network flow scaling factor (%)
A1	Existing Junction	Queen Street / Mill Lane	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Queen Street / Mill Lane	T-Junction	Two-way	0.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Queen Street (South)		Major
B	Mill Lane (West)		Minor
C	Queen Street (North)		Major

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)
C	6.30			118.0	✓	1.00

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	10.00	4.20	2.90	2.90	2.90		1.00	22	16

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	591.346	0.106	0.269	0.169	0.384

1	B-C	671.025	0.102	0.257	-	-
1	C-B	642.298	0.246	0.246	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2018 Existing Scenario	Weekday AM peak (0800-0900)	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	148.00	100.000
B		✓	5.00	100.000
C		✓	152.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0.000	13.000	135.000
	B	1.000	0.000	4.000
	C	139.000	13.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	0	3
	B	100	0	0
	C	9	8	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	111.42	114.47
	B	3.76	4.52
	C	114.43	124.19
08:00-08:15	A	133.05	136.69
	B	4.49	5.39

	C	136.64	148.29
08:15-08:30	A	162.95	167.41
	B	5.51	6.61
	C	167.36	181.62
08:30-08:45	A	162.95	167.41
	B	5.51	6.61
	C	167.36	181.62
08:45-09:00	A	133.05	136.69
	B	4.49	5.39
	C	136.64	148.29
09:00-09:15	A	111.42	114.47
	B	3.76	4.52
	C	114.43	124.19

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-C	0.01	5.76	0.0	A
B-A	0.00	14.05	0.0	B
C-AB	0.03	6.56	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.01	642.72	0.005	2.99	0.0	5.626	A
B-A	0.75	269.46	0.003	0.74	0.0	13.396	B
C-AB	9.83	572.67	0.017	9.76	0.0	6.395	A
C-A	104.61			104.61			
A-B	9.79			9.79			
A-C	101.64			101.64			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.60	637.21	0.006	3.59	0.0	5.681	A
B-A	0.90	264.36	0.003	0.90	0.0	13.663	B
C-AB	11.76	568.61	0.021	11.74	0.0	6.464	A
C-A	124.89			124.89			
A-B	11.69			11.69			
A-C	121.36			121.36			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	4.40	629.60	0.007	4.40	0.0	5.757	A
B-A	1.10	257.32	0.004	1.10	0.0	14.049	B
C-AB	14.44	563.29	0.026	14.42	0.0	6.558	A
C-A	152.91			152.91			
A-B	14.31			14.31			
A-C	148.64			148.64			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	4.40	629.60	0.007	4.40	0.0	5.757	A
B-A	1.10	257.32	0.004	1.10	0.0	14.049	B
C-AB	14.44	563.30	0.026	14.44	0.0	6.558	A

C-A	152.91			152.91			
A-B	14.31			14.31			
A-C	148.64			148.64			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.60	637.21	0.006	3.60	0.0	5.681	A
B-A	0.90	264.35	0.003	0.90	0.0	13.666	B
C-AB	11.76	568.62	0.021	11.78	0.0	6.464	A
C-A	124.89			124.89			
A-B	11.69			11.69			
A-C	121.36			121.36			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.01	642.71	0.005	3.02	0.0	5.629	A
B-A	0.75	269.44	0.003	0.76	0.0	13.400	B
C-AB	9.83	572.68	0.017	9.84	0.0	6.398	A
C-A	104.61			104.61			
A-B	9.79			9.79			
A-C	101.64			101.64			

Existing Junction - 2018 Existing Scenario, Weekday PM peak (1645-1745)

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Description	Network flow scaling factor (%)
A1	Existing Junction	Queen Street / Mill Lane	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Queen Street / Mill Lane	T-Junction	Two-way	0.52	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2018 Existing Scenario	Weekday PM peak (1645-1745)	ONE HOUR	16:30	18:00	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	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	158.00	100.000
B		✓	24.00	100.000
C		✓	107.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0.000	5.000	153.000
	B	9.000	0.000	15.000
	C	107.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	3	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	118.95	121.25
	B	18.07	18.07
	C	80.56	82.81
16:45-17:00	A	142.04	144.79
	B	21.58	21.58
	C	96.19	98.88
17:00-17:15	A	173.96	177.33
	B	26.42	26.42
	C	117.81	121.11
17:15-17:30	A	173.96	177.33
	B	26.42	26.42
	C	117.81	121.11
17:30-17:45	A	142.04	144.79
	B	21.58	21.58
	C	96.19	98.88
17:45-18:00	A	118.95	121.25
	B	18.07	18.07
	C	80.56	82.81

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-C	0.03	5.93	0.0	A
B-A	0.02	7.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	11.29	638.50	0.018	11.22	0.0	5.739	A
B-A	6.78	545.38	0.012	6.73	0.0	6.683	A
C-AB	0.00	1225.03	0.000	0.00	0.0	0.000	A
C-A	80.56			80.56			
A-B	3.76			3.76			
A-C	115.19			115.19			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	13.48	632.16	0.021	13.47	0.0	5.818	A
B-A	8.09	536.45	0.015	8.08	0.0	6.812	A
C-AB	0.00	1213.47	0.000	0.00	0.0	0.000	A
C-A	96.19			96.19			
A-B	4.49			4.49			
A-C	137.54			137.54			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	16.52	623.39	0.026	16.49	0.0	5.931	A
B-A	9.91	524.11	0.019	9.89	0.0	7.000	A
C-AB	0.00	1197.49	0.000	0.00	0.0	0.000	A
C-A	117.81			117.81			
A-B	5.51			5.51			
A-C	168.46			168.46			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	16.52	623.39	0.026	16.51	0.0	5.931	A
B-A	9.91	524.11	0.019	9.91	0.0	7.000	A
C-AB	0.00	1197.49	0.000	0.00	0.0	0.000	A
C-A	117.81			117.81			
A-B	5.51			5.51			
A-C	168.46			168.46			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	13.48	632.15	0.021	13.51	0.0	5.818	A
B-A	8.09	536.45	0.015	8.11	0.0	6.815	A
C-AB	0.00	1213.47	0.000	0.00	0.0	0.000	A
C-A	96.19			96.19			
A-B	4.49			4.49			
A-C	137.54			137.54			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	11.29	638.49	0.018	11.31	0.0	5.741	A
B-A	6.78	545.38	0.012	6.79	0.0	6.683	A
C-AB	0.00	1225.03	0.000	0.00	0.0	0.000	A
C-A	80.56			80.56			
A-B	3.76			3.76			

A-C	115.19			115.19			

Existing Junction - 2036 Future Baseline Scenario, Weekday AM peak (0800-0900)

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Description	Network flow scaling factor (%)
A1	Existing Junction	Queen Street / Mill Lane	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Queen Street / Mill Lane	T-Junction	Two-way	0.41	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2036 Future Baseline Scenario	Weekday AM peak (0800-0900)	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	164.00	100.000
B		✓	5.00	100.000
C		✓	168.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0.000	13.000	151.000
	B	1.000	0.000	4.000
	C	155.000	13.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	0	3
	B	100	0	0
	C	9	8	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	123.47	126.88
	B	3.76	4.52
	C	126.48	137.39
08:00-08:15	A	147.43	151.51
	B	4.49	5.39
	C	151.03	164.05
08:15-08:30	A	180.57	185.55
	B	5.51	6.61
	C	184.97	200.92
08:30-08:45	A	180.57	185.55
	B	5.51	6.61
	C	184.97	200.92
08:45-09:00	A	147.43	151.51
	B	4.49	5.39
	C	151.03	164.05
09:00-09:15	A	123.47	126.88
	B	3.76	4.52
	C	126.48	137.39

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-C	0.01	5.80	0.0	A
B-A	0.00	14.28	0.0	B
C-AB	0.03	6.60	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.01	639.53	0.005	2.99	0.0	5.655	A
B-A	0.75	266.68	0.003	0.74	0.0	13.536	B
C-AB	9.83	570.13	0.017	9.76	0.0	6.424	A
C-A	116.65			116.65			
A-B	9.79			9.79			
A-C	113.68			113.68			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.60	633.41	0.006	3.59	0.0	5.715	A
B-A	0.90	261.04	0.003	0.90	0.0	13.837	B
C-AB	11.77	565.64	0.021	11.75	0.0	6.498	A
C-A	139.26			139.26			
A-B	11.69			11.69			
A-C	135.75			135.75			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	4.40	624.94	0.007	4.40	0.0	5.800	A
B-A	1.10	253.25	0.004	1.10	0.0	14.276	B
C-AB	14.46	559.78	0.026	14.44	0.0	6.600	A
C-A	170.51			170.51			
A-B	14.31			14.31			
A-C	166.25			166.25			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	4.40	624.94	0.007	4.40	0.0	5.800	A
B-A	1.10	253.25	0.004	1.10	0.0	14.276	B
C-AB	14.46	559.79	0.026	14.46	0.0	6.603	A
C-A	170.51			170.51			
A-B	14.31			14.31			
A-C	166.25			166.25			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.60	633.40	0.006	3.60	0.0	5.717	A
B-A	0.90	261.03	0.003	0.90	0.0	13.838	B
C-AB	11.77	565.66	0.021	11.79	0.0	6.499	A
C-A	139.26			139.26			
A-B	11.69			11.69			
A-C	135.75			135.75			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	3.01	639.53	0.005	3.02	0.0	5.655	A
B-A	0.75	266.66	0.003	0.76	0.0	13.537	B
C-AB	9.83	570.14	0.017	9.85	0.0	6.427	A
C-A	116.65			116.65			
A-B	9.79			9.79			

A-C	113.68			113.68			

Existing Junction - 2036 Future Baseline Scenario, Weekday PM peak (1645-1745)

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Description	Network flow scaling factor (%)
A1	Existing Junction	Queen Street / Mill Lane	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Queen Street / Mill Lane	T-Junction	Two-way	0.47	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2036 Future Baseline Scenario	Weekday PM peak (1645-1745)	ONE HOUR	16:30	18:00	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	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	177.00	100.000
B		✓	24.00	100.000
C		✓	121.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0.000	5.000	172.000
	B	9.000	0.000	15.000
	C	121.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	3	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	133.25	135.84
	B	18.07	18.07
	C	91.10	93.65
16:45-17:00	A	159.12	162.21
	B	21.58	21.58
	C	108.78	111.82
17:00-17:15	A	194.88	198.67
	B	26.42	26.42
	C	133.22	136.95
17:15-17:30	A	194.88	198.67
	B	26.42	26.42
	C	133.22	136.95
17:30-17:45	A	159.12	162.21
	B	21.58	21.58
	C	108.78	111.82
17:45-18:00	A	133.25	135.84
	B	18.07	18.07
	C	91.10	93.65

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-C	0.03	5.99	0.0	A
B-A	0.02	7.12	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	11.29	634.75	0.018	11.22	0.0	5.773	A
B-A	6.78	539.63	0.013	6.73	0.0	6.755	A
C-AB	0.00	1217.87	0.000	0.00	0.0	0.000	A
C-A	91.10			91.10			
A-B	3.76			3.76			
A-C	129.49			129.49			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	13.48	627.67	0.021	13.47	0.0	5.860	A
B-A	8.09	529.58	0.015	8.08	0.0	6.902	A
C-AB	0.00	1204.91	0.000	0.00	0.0	0.000	A
C-A	108.78			108.78			
A-B	4.49			4.49			
A-C	154.62			154.62			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	16.52	617.89	0.027	16.49	0.0	5.985	A
B-A	9.91	515.70	0.019	9.89	0.0	7.116	A
C-AB	0.00	1187.01	0.000	0.00	0.0	0.000	A
C-A	133.22			133.22			
A-B	5.51			5.51			
A-C	189.38			189.38			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	16.52	617.89	0.027	16.51	0.0	5.985	A
B-A	9.91	515.70	0.019	9.91	0.0	7.116	A
C-AB	0.00	1187.01	0.000	0.00	0.0	0.000	A
C-A	133.22			133.22			
A-B	5.51			5.51			
A-C	189.38			189.38			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	13.48	627.67	0.021	13.51	0.0	5.863	A
B-A	8.09	529.58	0.015	8.11	0.0	6.905	A
C-AB	0.00	1204.91	0.000	0.00	0.0	0.000	A
C-A	108.78			108.78			
A-B	4.49			4.49			
A-C	154.62			154.62			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	11.29	634.73	0.018	11.31	0.0	5.776	A
B-A	6.78	539.63	0.013	6.79	0.0	6.755	A
C-AB	0.00	1217.87	0.000	0.00	0.0	0.000	A
C-A	91.10			91.10			
A-B	3.76			3.76			

A-C	129.49			129.49			

Appendix D: TEMPro Outputs

Dataset Version:	70
Result Type:	Trip ends by time period
Base Year:	2018
Future Year:	2036
Trip Purpose Group:	All purposes
Time Period:	Weekday AM peak period (0700 - 0959)
Trip End Type:	Origin/Destination
Alternative Assumptions Applied:	No

	Current Assumptions				Alternative Assumptions			
Area	Base HH	Base Jobs	Future HH	Future Jobs	Base HH	Base Jobs	Future HH	Future Jobs
Mid Suffolk 003 (E02...	3373	2899	3692	3087	3373	2899	3692	3087

Level	Area	Local Growth Figure
Authority	Mid Suffolk	1.12249555 (Rural Minor)
E02006263	Mid Suffolk 003	1.12610133 (Rural Minor)

Growth Factor — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	1.1304	1.1304
Authority	Mid Suffolk	1.0215	1.1265
E02006263	Mid Suffolk 003	1.0263	1.1286

Future Year - Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	1,875,226	1,875,226
Authority	Mid Suffolk	567	3,004
E02006263	Mid Suffolk 003	53	196

Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	14,379,444	14,379,444
Authority	Mid Suffolk	26,432	23,744
E02006263	Mid Suffolk 003	2,009	1,525

Future Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	16,254,670	16,254,670
Authority	Mid Suffolk	26,999	26,747
E02006263	Mid Suffolk 003	2,062	1,721

Dataset Version:	70
Result Type:	Trip ends by time period
Base Year:	2018
Future Year:	2036
Trip Purpose Group:	All purposes
Time Period:	Weekday PM peak period (1600 - 1859)
Trip End Type:	Origin/Destination
Alternative Assumptions Applied:	No

	Current Assumptions				Alternative Assumptions			
Area	Base HH	Base Jobs	Future HH	Future Jobs	Base HH	Base Jobs	Future HH	Future Jobs
Mid Suffolk 003 (E02...	3373	2899	3692	3087	3373	2899	3692	3087

Level	Area	Local Growth Figure
Authority	Mid Suffolk	1.12484715 (Rural Minor)
E02006263	Mid Suffolk 003	1.13002066 (Rural Minor)

Growth Factor — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	1.1308	1.1308
Authority	Mid Suffolk	1.1101	1.0424
E02006263	Mid Suffolk 003	1.1135	1.0489

Future Year - Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	2,039,269	2,039,269
Authority	Mid Suffolk	2,830	1,160
E02006263	Mid Suffolk 003	195	100

Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	15,592,415	15,592,415
Authority	Mid Suffolk	25,699	27,348
E02006263	Mid Suffolk 003	1,720	2,050

Future Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
GB	GB	17,631,684	17,631,684
Authority	Mid Suffolk	28,529	28,508
E02006263	Mid Suffolk 003	1,915	2,150

Appendix E: Grove Farm Site Access

NOTE
- This drawing must not be reissued, loaned or copied without the written consent of Durrants.
- All errors, omissions, discrepancies should be reported to Durrants immediately.
- All dimensions to be checked before site fabrication by the contractor, his sub-contractor or supplier.
- Any deviation from the drawing to be reported to Durrants immediately.
- **This drawing is only to be used for the purpose identified in the boxes below.**

DO NOT SCALE FROM DRAWING

This bar measures 100mm when drawing is printed at correct scale.

Westhall

Grove End

existing sewer runs shown red

root protection zone

root protection zone

root protection zone

root protection zone

Foxgrove

2.5 x 90.0m visibility splay

new native hedgerow

Queen Street

proposed access

plot 1

plot 2

plot 3

plot 4

plot 5

plot 6

plot 7

plot 8

plot 9

plot 10

plot 11

plot 12

plot 13

plot 14

plot 15

plot 16

plot 17

plot 18

plot 19

plot 20

plot 21

plot 22

plot 23

plot 24

plot 25

adopted highway minor access road

adopted highway minor access road

adopted highway shared surface

adopted highway shared surface

adopted highway shared surface

shaded areas shows over run areas in cobbles or setts

Grove Farm Barn

improved pedestrian crossing

Grove Farm House

Grove Farm

Moat

Stradbroke Hall moat

Stradbroke Hall Barn access drive

plot 26a type 10

plot 27a type 10

plot 28a house type 9

plot 29a house type 9

plot 41L type 10

plot 42L type 10

plot 43L type 9

plot 44L type 9

plot 45L type 12

plot 46L type 12

plot 47L type 8

plot 48L type 8

plot 49a type 12

plot 40a type 11

plot 39a type 11

plot 38a type 11

plot 37a type 11

plot 36a type 11

plot 35a type 11

plot 34a type 12

plot 30a type 8

plot 31a type 8

plot 32a type 8

plot 33a type 8

improved drainage ditch

new fence to paddock/grazing

area retained as paddocks / grazing

former sewer run shown blue

public footpaths dashed

community meadows and drainage swales

public footpaths dashed

Albany Lodge

Pink Bungalow

Wheatsheaf Cottage

Tinkers Cottage

Hempsheaf House

The Hall

Hall Barn

garden area

outbuilding used as cartlodge

area of pond edge damaged by cattle to be reinstated

new native hedgerow to barn boundary

new native hedgerow to barn boundary

existing pond retained

area retained as paddocks / grazing

area retained as paddocks / grazing

new fence to paddock/grazing

area retained as paddocks / grazing

NORTH

0.0m 5.0m 10.0m 15.0m 20.0m 25.0m 50.0m

scale bar -plots at 100mm when printed at A1

Rev.	Date	Details	Drawn	Checked
G	22.12.14	Plot numbers revised	JF	BB
F	17.12.14	drawing updated and Hall Barn site shown	JF	BB
E	12.12.14	Highways comments reviewed and partial dwg update	JF	JF
D	13.10.14	Plot 12 adjusted and minor updates	JF	BB
C	01.10.14	Plot nomenclature revised & updated	DR	BB
B	24.09.14	Design revised and developed	JF	BB
A	08.08.14	Design revised and developed	JF	TM

Issued for:

INFORMATION / COMMENT

Client/Project:

WEBSTER, KEELING & HILLEN

PROPOSED DEVELOPMENT

GROVE FARM, STRADBROKE

Drawing Title:

SITE LAYOUT PLAN

Drawn.	Checked.	Size.	Scale.	Date.
JF	TM	A1	1:500	10.12.13

Project No.	Drawing No.	Revision.
300384	30-01	G

BUILT ENVIRONMENT
Pump Hill House
2b Market Hill
Diss, Norfolk
IP22 4JZ

01379 646603
WWW.DURRANTS.COM

DURRANTS SINCE 1853

Appendix F: TRICS Outputs (Commercial)

Calculation Reference: AUDIT-204610-180119-0140

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : B - BUSINESS PARK
VEHICLES

Selected regions and areas:

04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	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: 5000 to 18808 (units: sqm)
Range Selected by User: 5000 to 50000 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 28/11/16

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	1 days
Wednesday	2 days
Thursday	1 days
Friday	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:

Edge of Town	4
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
Development Zone	1
Village	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:

B1	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®.

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	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
50,001 to 75,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	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.

LIST OF SITES relevant to selection parameters

1 CA-02-B-02 BUSINESS PARK CAMBRIDGESHIRE
LYNCH WOOD

PETERBOROUGH
Edge of Town
Commercial Zone
Total Gross floor area: 12800 sqm
Survey date: WEDNESDAY 19/10/16 Survey Type: MANUAL

2 HE-02-B-01 BUSINESS PARK HEREFORDSHIRE
A4103
WHITESTONE
NEAR HEREFORD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 18808 sqm
Survey date: TUESDAY 13/09/11 Survey Type: MANUAL

3 LN-02-B-02 BUSINESS PARK LINCOLNSHIRE
CARDINAL CLOSE

LINCOLN
Edge of Town
Industrial Zone
Total Gross floor area: 5000 sqm
Survey date: THURSDAY 25/06/15 Survey Type: MANUAL

4 WM-02-B-02 BUSINESS PARK WEST MIDLANDS
PARADISE WAY

COVENTRY
Edge of Town
Development Zone
Total Gross floor area: 12800 sqm
Survey date: FRIDAY 11/11/16 Survey Type: MANUAL

5 WY-02-B-02 BUSINESS PARK WEST YORKSHIRE
ARMITAGE BRIDGE

HUDDERSFIELD
Edge of Town
No Sub Category
Total Gross floor area: 9200 sqm
Survey date: WEDNESDAY 23/04/14 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	11722	0.222	5	11722	0.009	5	11722	0.231
07:30 - 08:00	5	11722	0.468	5	11722	0.048	5	11722	0.516
08:00 - 08:30	5	11722	0.607	5	11722	0.061	5	11722	0.668
08:30 - 09:00	5	11722	0.485	5	11722	0.109	5	11722	0.594
09:00 - 09:30	5	11722	0.316	5	11722	0.111	5	11722	0.427
09:30 - 10:00	5	11722	0.186	5	11722	0.102	5	11722	0.288
10:00 - 10:30	5	11722	0.119	5	11722	0.080	5	11722	0.199
10:30 - 11:00	5	11722	0.087	5	11722	0.089	5	11722	0.176
11:00 - 11:30	5	11722	0.087	5	11722	0.096	5	11722	0.183
11:30 - 12:00	5	11722	0.106	5	11722	0.092	5	11722	0.198
12:00 - 12:30	5	11722	0.106	5	11722	0.130	5	11722	0.236
12:30 - 13:00	5	11722	0.147	5	11722	0.157	5	11722	0.304
13:00 - 13:30	5	11722	0.137	5	11722	0.145	5	11722	0.282
13:30 - 14:00	5	11722	0.174	5	11722	0.121	5	11722	0.295
14:00 - 14:30	5	11722	0.106	5	11722	0.113	5	11722	0.219
14:30 - 15:00	5	11722	0.082	5	11722	0.121	5	11722	0.203
15:00 - 15:30	5	11722	0.075	5	11722	0.167	5	11722	0.242
15:30 - 16:00	5	11722	0.087	5	11722	0.184	5	11722	0.271
16:00 - 16:30	5	11722	0.070	5	11722	0.432	5	11722	0.502
16:30 - 17:00	5	11722	0.053	5	11722	0.490	5	11722	0.543
17:00 - 17:30	5	11722	0.067	5	11722	0.454	5	11722	0.521
17:30 - 18:00	5	11722	0.041	5	11722	0.302	5	11722	0.343
18:00 - 18:30	4	12352	0.022	4	12352	0.202	4	12352	0.224
18:30 - 19:00	4	12352	0.016	4	12352	0.117	4	12352	0.133
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.866			3.932			7.798

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:	5000 - 18808 (units: sqm)
Survey date date range:	01/01/09 - 28/11/16
Number of weekdays (Monday-Friday):	5
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 for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
TAXIS
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
07:30 - 08:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
08:00 - 08:30	5	11722	0.003	5	11722	0.002	5	11722	0.005
08:30 - 09:00	5	11722	0.007	5	11722	0.007	5	11722	0.014
09:00 - 09:30	5	11722	0.007	5	11722	0.007	5	11722	0.014
09:30 - 10:00	5	11722	0.003	5	11722	0.003	5	11722	0.006
10:00 - 10:30	5	11722	0.003	5	11722	0.005	5	11722	0.008
10:30 - 11:00	5	11722	0.002	5	11722	0.000	5	11722	0.002
11:00 - 11:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
11:30 - 12:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
12:00 - 12:30	5	11722	0.000	5	11722	0.002	5	11722	0.002
12:30 - 13:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
13:00 - 13:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
13:30 - 14:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
14:00 - 14:30	5	11722	0.003	5	11722	0.000	5	11722	0.003
14:30 - 15:00	5	11722	0.003	5	11722	0.007	5	11722	0.010
15:00 - 15:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
15:30 - 16:00	5	11722	0.007	5	11722	0.003	5	11722	0.010
16:00 - 16:30	5	11722	0.007	5	11722	0.010	5	11722	0.017
16:30 - 17:00	5	11722	0.005	5	11722	0.003	5	11722	0.008
17:00 - 17:30	5	11722	0.002	5	11722	0.003	5	11722	0.005
17:30 - 18:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
18:00 - 18:30	4	12352	0.000	4	12352	0.000	4	12352	0.000
18:30 - 19:00	4	12352	0.002	4	12352	0.002	4	12352	0.004
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.054			0.054			0.108

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.

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Parameter summary

Trip rate parameter range selected:	5000 - 18808 (units: sqm)
Survey date date range:	01/01/09 - 28/11/16
Number of weekdays (Monday-Friday):	5
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 for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
OGVS
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	11722	0.002	5	11722	0.002	5	11722	0.004
07:30 - 08:00	5	11722	0.007	5	11722	0.003	5	11722	0.010
08:00 - 08:30	5	11722	0.007	5	11722	0.007	5	11722	0.014
08:30 - 09:00	5	11722	0.009	5	11722	0.010	5	11722	0.019
09:00 - 09:30	5	11722	0.005	5	11722	0.003	5	11722	0.008
09:30 - 10:00	5	11722	0.009	5	11722	0.007	5	11722	0.016
10:00 - 10:30	5	11722	0.003	5	11722	0.009	5	11722	0.012
10:30 - 11:00	5	11722	0.003	5	11722	0.003	5	11722	0.006
11:00 - 11:30	5	11722	0.003	5	11722	0.005	5	11722	0.008
11:30 - 12:00	5	11722	0.003	5	11722	0.000	5	11722	0.003
12:00 - 12:30	5	11722	0.003	5	11722	0.003	5	11722	0.006
12:30 - 13:00	5	11722	0.010	5	11722	0.007	5	11722	0.017
13:00 - 13:30	5	11722	0.005	5	11722	0.005	5	11722	0.010
13:30 - 14:00	5	11722	0.003	5	11722	0.007	5	11722	0.010
14:00 - 14:30	5	11722	0.002	5	11722	0.003	5	11722	0.005
14:30 - 15:00	5	11722	0.000	5	11722	0.002	5	11722	0.002
15:00 - 15:30	5	11722	0.012	5	11722	0.009	5	11722	0.021
15:30 - 16:00	5	11722	0.005	5	11722	0.005	5	11722	0.010
16:00 - 16:30	5	11722	0.005	5	11722	0.007	5	11722	0.012
16:30 - 17:00	5	11722	0.005	5	11722	0.010	5	11722	0.015
17:00 - 17:30	5	11722	0.000	5	11722	0.002	5	11722	0.002
17:30 - 18:00	5	11722	0.002	5	11722	0.002	5	11722	0.004
18:00 - 18:30	4	12352	0.000	4	12352	0.000	4	12352	0.000
18:30 - 19:00	4	12352	0.000	4	12352	0.000	4	12352	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.103			0.111			0.214

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:	5000 - 18808 (units: sqm)
Survey date date range:	01/01/09 - 28/11/16
Number of weekdays (Monday-Friday):	5
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 for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
PSVS
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
07:30 - 08:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
08:00 - 08:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
08:30 - 09:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
09:00 - 09:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
09:30 - 10:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
10:00 - 10:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
10:30 - 11:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
11:00 - 11:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
11:30 - 12:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
12:00 - 12:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
12:30 - 13:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
13:00 - 13:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
13:30 - 14:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
14:00 - 14:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
14:30 - 15:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
15:00 - 15:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
15:30 - 16:00	5	11722	0.002	5	11722	0.002	5	11722	0.004
16:00 - 16:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
16:30 - 17:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
17:00 - 17:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
17:30 - 18:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
18:00 - 18:30	4	12352	0.000	4	12352	0.000	4	12352	0.000
18:30 - 19:00	4	12352	0.000	4	12352	0.000	4	12352	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.002			0.002			0.004

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:	5000 - 18808 (units: sqm)
Survey date date range:	01/01/09 - 28/11/16
Number of weekdays (Monday-Friday):	5
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 for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
CYCLISTS
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
07:30 - 08:00	5	11722	0.005	5	11722	0.000	5	11722	0.005
08:00 - 08:30	5	11722	0.007	5	11722	0.000	5	11722	0.007
08:30 - 09:00	5	11722	0.007	5	11722	0.000	5	11722	0.007
09:00 - 09:30	5	11722	0.002	5	11722	0.000	5	11722	0.002
09:30 - 10:00	5	11722	0.002	5	11722	0.002	5	11722	0.004
10:00 - 10:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
10:30 - 11:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
11:00 - 11:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
11:30 - 12:00	5	11722	0.002	5	11722	0.002	5	11722	0.004
12:00 - 12:30	5	11722	0.000	5	11722	0.002	5	11722	0.002
12:30 - 13:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
13:00 - 13:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
13:30 - 14:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
14:00 - 14:30	5	11722	0.000	5	11722	0.000	5	11722	0.000
14:30 - 15:00	5	11722	0.000	5	11722	0.000	5	11722	0.000
15:00 - 15:30	5	11722	0.000	5	11722	0.002	5	11722	0.002
15:30 - 16:00	5	11722	0.000	5	11722	0.002	5	11722	0.002
16:00 - 16:30	5	11722	0.000	5	11722	0.005	5	11722	0.005
16:30 - 17:00	5	11722	0.000	5	11722	0.002	5	11722	0.002
17:00 - 17:30	5	11722	0.000	5	11722	0.005	5	11722	0.005
17:30 - 18:00	5	11722	0.002	5	11722	0.003	5	11722	0.005
18:00 - 18:30	4	12352	0.000	4	12352	0.002	4	12352	0.002
18:30 - 19:00	4	12352	0.000	4	12352	0.000	4	12352	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.027			0.027			0.054

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:	5000 - 18808 (units: sqm)
Survey date date range:	01/01/09 - 28/11/16
Number of weekdays (Monday-Friday):	5
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.

Appendix G: TRICS Outputs (Residential)

Calculation Reference: AUDIT-204610-180119-0127

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : M - MIXED PRIVATE/AFFORDABLE HOUSING
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	3 days
	WS	WEST SUSSEX	3 days
03	SOUTH WEST		
	DC	DORSET	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: Number of dwellings
Actual Range: 16 to 92 (units:)
Range Selected by User: 9 to 100 (units:)

Public Transport Provision:
Selection by: Include all surveys

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

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	3 days
Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	7 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	4
Neighbourhood Centre (PPS6 Local Centre)	2

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:

Residential Zone	5
Village	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:

C3	7 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:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	1 days
10,001 to 15,000	2 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	4 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	6 days
1.6 to 2.0	1 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:

Yes	5 days
No	2 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	7 days

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

LIST OF SITES relevant to selection parameters

1 DC-03-M-02 TERRACED & BUNGALOWS DORSET
KINGS ROAD
FORDINGTON
DORCHESTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 37
Survey date: FRIDAY *16/09/16* *Survey Type: MANUAL*

2 ES-03-M-01 HOUSES & FLATS EAST SUSSEX
A26 CROWBOROUGH RD
FIVE ASH DOWN VILLAGE
NEAR UCKFIELD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 74
Survey date: WEDNESDAY *20/06/12* *Survey Type: MANUAL*

3 ES-03-M-08 MIXED HOUSES EAST SUSSEX
FIELD END

MARESFIELD
Edge of Town
Residential Zone
Total Number of dwellings: 80
Survey date: TUESDAY *10/05/16* *Survey Type: MANUAL*

4 ES-03-M-09 DETACHED/SEMI-DETACHED EAST SUSSEX
STATION ROAD

NORTHIAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 16
Survey date: WEDNESDAY *17/05/17* *Survey Type: MANUAL*

5 WS-03-M-05 MIXED HOUSING WEST SUSSEX
ELLIS ROAD
S BROADBRIDGE HEATH
WEST HORSHAM
Edge of Town
Residential Zone
Total Number of dwellings: 92
Survey date: THURSDAY *23/10/14* *Survey Type: MANUAL*

6 WS-03-M-06 SEMI DETACHED/DETACHED WEST SUSSEX
SOUTHFIELDS CLOSE

CHICHESTER
Edge of Town
Residential Zone
Total Number of dwellings: 67
Survey date: TUESDAY *27/01/15* *Survey Type: MANUAL*

7 WS-03-M-07 HOUSES & FLATS WEST SUSSEX
ROSE GREEN ROAD
ALDWICK
BOGNOR REGIS
Edge of Town
Residential Zone
Total Number of dwellings: 90
Survey date: WEDNESDAY *05/03/14* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	7	65	0.075	7	65	0.340	7	65	0.415
08:00 - 09:00	7	65	0.121	7	65	0.421	7	65	0.542
09:00 - 10:00	7	65	0.138	7	65	0.158	7	65	0.296
10:00 - 11:00	7	65	0.145	7	65	0.154	7	65	0.299
11:00 - 12:00	7	65	0.147	7	65	0.164	7	65	0.311
12:00 - 13:00	7	65	0.191	7	65	0.178	7	65	0.369
13:00 - 14:00	7	65	0.151	7	65	0.175	7	65	0.326
14:00 - 15:00	7	65	0.160	7	65	0.191	7	65	0.351
15:00 - 16:00	7	65	0.272	7	65	0.189	7	65	0.461
16:00 - 17:00	7	65	0.232	7	65	0.154	7	65	0.386
17:00 - 18:00	7	65	0.395	7	65	0.151	7	65	0.546
18:00 - 19:00	7	65	0.329	7	65	0.193	7	65	0.522
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.356			2.468			4.824

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:	16 - 92 (units:)
Survey date date range:	01/01/09 - 17/05/17
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
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 for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	7	65	0.004	7	65	0.002	7	65	0.006
08:00 - 09:00	7	65	0.004	7	65	0.007	7	65	0.011
09:00 - 10:00	7	65	0.000	7	65	0.000	7	65	0.000
10:00 - 11:00	7	65	0.000	7	65	0.000	7	65	0.000
11:00 - 12:00	7	65	0.002	7	65	0.002	7	65	0.004
12:00 - 13:00	7	65	0.002	7	65	0.002	7	65	0.004
13:00 - 14:00	7	65	0.000	7	65	0.000	7	65	0.000
14:00 - 15:00	7	65	0.000	7	65	0.000	7	65	0.000
15:00 - 16:00	7	65	0.015	7	65	0.013	7	65	0.028
16:00 - 17:00	7	65	0.009	7	65	0.007	7	65	0.016
17:00 - 18:00	7	65	0.000	7	65	0.002	7	65	0.002
18:00 - 19:00	7	65	0.007	7	65	0.007	7	65	0.014
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.043			0.042			0.085

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:	16 - 92 (units:)
Survey date date range:	01/01/09 - 17/05/17
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
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 for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	7	65	0.000	7	65	0.000	7	65	0.000
08:00 - 09:00	7	65	0.000	7	65	0.002	7	65	0.002
09:00 - 10:00	7	65	0.002	7	65	0.002	7	65	0.004
10:00 - 11:00	7	65	0.002	7	65	0.002	7	65	0.004
11:00 - 12:00	7	65	0.000	7	65	0.000	7	65	0.000
12:00 - 13:00	7	65	0.002	7	65	0.002	7	65	0.004
13:00 - 14:00	7	65	0.004	7	65	0.004	7	65	0.008
14:00 - 15:00	7	65	0.000	7	65	0.000	7	65	0.000
15:00 - 16:00	7	65	0.000	7	65	0.000	7	65	0.000
16:00 - 17:00	7	65	0.002	7	65	0.002	7	65	0.004
17:00 - 18:00	7	65	0.000	7	65	0.000	7	65	0.000
18:00 - 19:00	7	65	0.000	7	65	0.000	7	65	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.014			0.026

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:	16 - 92 (units:)
Survey date date range:	01/01/09 - 17/05/17
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
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 for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	7	65	0.000	7	65	0.000	7	65	0.000
08:00 - 09:00	7	65	0.000	7	65	0.000	7	65	0.000
09:00 - 10:00	7	65	0.000	7	65	0.000	7	65	0.000
10:00 - 11:00	7	65	0.000	7	65	0.000	7	65	0.000
11:00 - 12:00	7	65	0.000	7	65	0.000	7	65	0.000
12:00 - 13:00	7	65	0.000	7	65	0.000	7	65	0.000
13:00 - 14:00	7	65	0.000	7	65	0.000	7	65	0.000
14:00 - 15:00	7	65	0.000	7	65	0.000	7	65	0.000
15:00 - 16:00	7	65	0.000	7	65	0.000	7	65	0.000
16:00 - 17:00	7	65	0.002	7	65	0.002	7	65	0.004
17:00 - 18:00	7	65	0.000	7	65	0.000	7	65	0.000
18:00 - 19:00	7	65	0.000	7	65	0.000	7	65	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.002			0.004

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:	16 - 92 (units:)
Survey date date range:	01/01/09 - 17/05/17
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
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 for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	7	65	0.004	7	65	0.002	7	65	0.006
08:00 - 09:00	7	65	0.000	7	65	0.004	7	65	0.004
09:00 - 10:00	7	65	0.000	7	65	0.004	7	65	0.004
10:00 - 11:00	7	65	0.000	7	65	0.002	7	65	0.002
11:00 - 12:00	7	65	0.002	7	65	0.002	7	65	0.004
12:00 - 13:00	7	65	0.000	7	65	0.004	7	65	0.004
13:00 - 14:00	7	65	0.004	7	65	0.002	7	65	0.006
14:00 - 15:00	7	65	0.000	7	65	0.000	7	65	0.000
15:00 - 16:00	7	65	0.007	7	65	0.002	7	65	0.009
16:00 - 17:00	7	65	0.009	7	65	0.020	7	65	0.029
17:00 - 18:00	7	65	0.013	7	65	0.004	7	65	0.017
18:00 - 19:00	7	65	0.004	7	65	0.002	7	65	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.043			0.048			0.091

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:	16 - 92 (units:)
Survey date date range:	01/01/09 - 17/05/17
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
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 H: TEMPro Outputs (Alternative Assumptions)

Dataset Version:	70
Result Type:	Trip ends by time period
Base Year:	2018
Future Year:	2036
Trip Purpose Group:	All purposes
Time Period:	Weekday AM peak period (0700 - 0959)
Trip End Type:	Origin/Destination
Alternative Assumptions Applied:	Yes

	Current Assumptions				Alternative Assumptions			
Area	Base HH	Base Jobs	Future HH	Future Jobs	Base HH	Base Jobs	Future HH	Future Jobs
Mid Suffolk 003 (E02...	3373	2899	3692	3087	3373	2899	3444	2917

Level	Area	Local Growth Figure
E02006263	Mid Suffolk 003	1.057539 (Rural Minor)

Growth Factor — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	0.9593	1.0644

Future Year - Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	-82	98

Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	2,009	1,525

Future Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	1,927	1,623

Dataset Version:	70
Result Type:	Trip ends by time period
Base Year:	2018
Future Year:	2036
Trip Purpose Group:	All purposes
Time Period:	Weekday PM peak period (1600 - 1859)
Trip End Type:	Origin/Destination
Alternative Assumptions Applied:	Yes

	Current Assumptions				Alternative Assumptions			
Area	Base HH	Base Jobs	Future HH	Future Jobs	Base HH	Base Jobs	Future HH	Future Jobs
Mid Suffolk 003 (E02...	3373	2899	3692	3087	3373	2899	3444	2917

Level	Area	Local Growth Figure
Authority	Mid Suffolk	1.060204 (Rural Minor)

Growth Factor — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	1.0476	0.9812

Future Year - Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	82	-39

Base Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	1,720	2,050

Future Year — Car Driver

Area Description		All purposes	
Level	Name	Origin	Destination
E02006263	Mid Suffolk 003	1,801	2,012

Appendix I: Queen Street/ Mill Lane PICADY Results (Proposed Layout)

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.0.4211 []

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: Junctions 9 Queen Street Mill Lane Proposed Layout AM and PM assessment 190218.j9
Path: P:\Transport Consultancy Projects\Job Folders_605\60538603 - Stradbroke NP Access Review\02 Further Transport Work\10 - Technical\PICADY\Junction Modelling
Report generation date: 19/02/2018 12:08:38

Summary of junction performance

	Weekday AM peak (0800-0900)				Weekday PM peak (1645-1745)			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Proposed Junction - 2036 Future Cumulative Assessment Scenario							
Stream B-C	0.1	6.72	0.10	A	0.4	8.87	0.29	A
Stream B-AD	0.2	13.07	0.20	B	0.7	14.48	0.41	B
Stream A-BCD	0.0	6.45	0.01	A	0.0	6.77	0.04	A
Stream A-B								
Stream A-C								
Stream D-A	0.0	6.49	0.04	A	0.0	6.47	0.01	A
Stream D-BC	0.0	9.44	0.04	A	0.0	8.98	0.02	A
Stream C-ABD	0.7	9.80	0.38	A	0.1	6.92	0.06	A
Stream C-D								
Stream C-A								

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

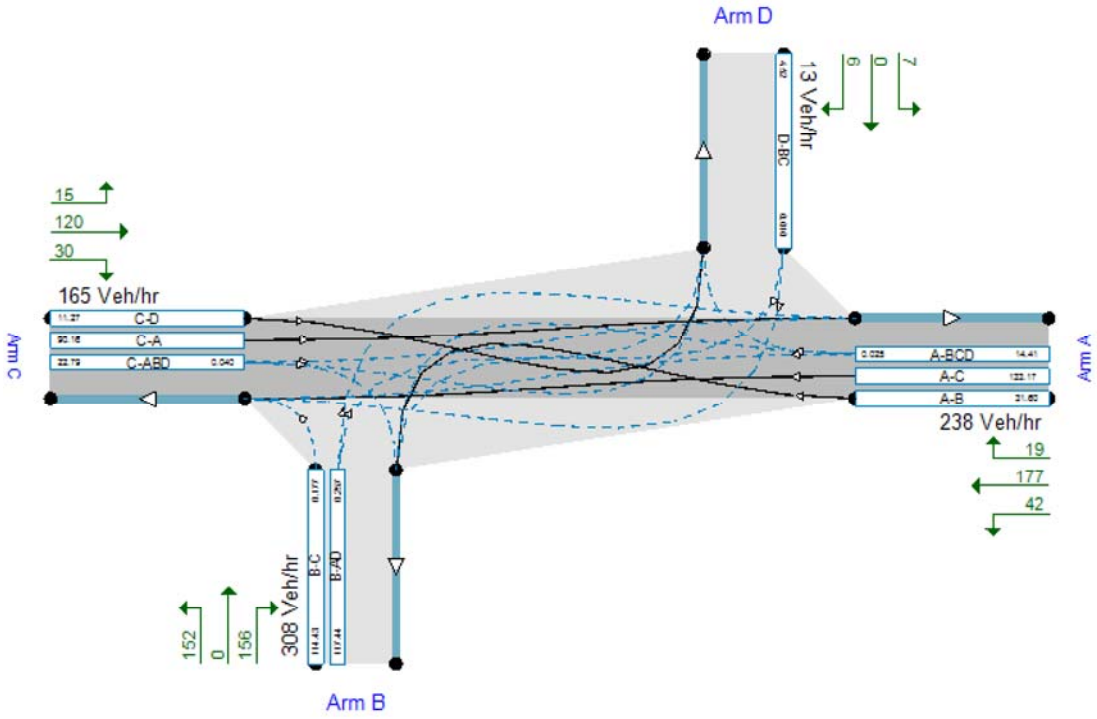
File summary

File Description

Title	Stradbroke - Junction Modelling
Location	Queen Street / Mill Lane T-junction - Stradbroke
Site number	
Date	02/02/2018
Version	
Status	(new file)
Identifier	
Client	Stradbroke Parish Council
Jobnumber	60538603
Enumerator	NA"joshua.barrett
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



Showing original traffic demand (Veh/hr).
Streams (upstreams) show Total Demand (Veh/hr); Streams (downstreams) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2036 Future Cumulative Assessment Scenario	Weekday AM peak (0800-0900)	ONE HOUR	07:45	09:15	15
2036 Future Cumulative Assessment Scenario	Weekday PM peak (1645-1745)	ONE HOUR	16:30	18:00	15

Proposed Junction - 2036 Future Cumulative Assessment Scenario, Weekday AM peak (0800-0900)

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Description	Network flow scaling factor (%)
A1	Proposed Junction	Queen Street / Mill Lane / Grove Farm	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Queen Street / Mill Lane	Right-Left Stagger	Two-way	4.15	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Queen Street (South)		Major
B	Mill Lane (West)		Minor
C	Queen Street (North)		Major
D	Grove Farm		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	6.30			82.0	✓	1.00
C	6.30			118.0	✓	1.00

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	10.00	4.20	2.90	2.90	2.90		1.00	22	16
D	One lane plus flare	8.00	3.00	2.80	2.80	2.80		1.00	21	18

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-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	621.450	-	-	-	0.238	0.238	0.238	-	0.238	-	-
1	B-AD	521.302	0.094	0.237	-	-	-	0.149	0.338	0.149	0.094	0.237
1	B-C	761.186	0.115	0.291	-	-	-	-	-	-	0.115	0.291
1	C-B	642.298	0.246	0.246	-	-	-	-	-	-	0.246	0.246
1	D-A	647.232	-	-	-	0.248	0.098	0.248	-	0.098	-	-
1	D-BC	515.957	0.147	0.147	0.335	0.234	0.093	0.234	-	0.093	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2036 Future Cumulative Assessment Scenario	Weekday AM peak (0800-0900)	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	344.00	100.000
B		✓	115.00	100.000
C		✓	335.00	100.000
D		✓	37.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0.000	201.000	137.000	6.000
	B	62.000	0.000	53.000	0.000
	C	150.000	180.000	0.000	5.000
	D	21.000	0.000	16.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	0	3	0
	B	5	0	9	0
	C	8	4	0	0
	D	0	0	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	258.98	262.08
	B	86.58	92.34
	C	252.21	266.43
	D	27.86	27.86
08:00-08:15	A	309.25	312.94
	B	103.38	110.27
	C	301.16	318.15
	D	33.26	33.26
08:15-08:30	A	378.75	383.28
	B	126.62	135.05
	C	368.84	389.65
	D	40.74	40.74
08:30-08:45	A	378.75	383.28
	B	126.62	135.05
	C	368.84	389.65
	D	40.74	40.74
08:45-09:00	A	309.25	312.94
	B	103.38	110.27
	C	301.16	318.15
	D	33.26	33.26
09:00-09:15	A	258.98	262.08
	B	86.58	92.34
	C	252.21	266.43
	D	27.86	27.86

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-C	0.10	6.72	0.1	A
B-AD	0.20	13.07	0.2	B
A-BCD	0.01	6.45	0.0	A
A-B				
A-C				
D-A	0.04	6.49	0.0	A
D-BC	0.04	9.44	0.0	A
C-ABD	0.38	9.80	0.7	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	39.90	632.59	0.063	39.63	0.1	6.068	A
B-AD	46.68	392.85	0.119	46.14	0.1	10.368	B
A-BCD	4.53	581.96	0.008	4.50	0.0	6.233	A
A-B	151.31			151.31			
A-C	103.13			103.13			
D-A	15.81	600.41	0.026	15.70	0.0	6.157	A
D-BC	12.05	436.07	0.028	11.93	0.0	8.486	A
C-ABD	142.89	584.06	0.245	141.54	0.3	8.113	A

C-D	3.53			3.53			
C-A	105.79			105.79			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	47.65	617.23	0.077	47.58	0.1	6.319	A
B-AD	55.74	372.14	0.150	55.57	0.2	11.366	B
A-BCD	5.42	574.64	0.009	5.41	0.0	6.323	A
A-B	180.68			180.68			
A-C	123.15			123.15			
D-A	18.88	590.96	0.032	18.85	0.0	6.292	A
D-BC	14.38	420.57	0.034	14.36	0.0	8.862	A
C-ABD	174.85	584.95	0.299	174.38	0.5	8.759	A
C-D	4.07			4.07			
C-A	122.23			122.23			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	58.35	594.40	0.098	58.25	0.1	6.715	A
B-AD	68.26	343.89	0.199	67.98	0.2	13.035	B
A-BCD	6.66	564.97	0.012	6.65	0.0	6.447	A
A-B	221.27			221.27			
A-C	150.82			150.82			
D-A	23.12	578.07	0.040	23.09	0.0	6.486	A
D-BC	17.62	399.06	0.044	17.57	0.0	9.435	A
C-ABD	223.48	591.06	0.378	222.62	0.7	9.753	A
C-D	4.69			4.69			
C-A	140.67			140.67			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	58.35	594.17	0.098	58.35	0.1	6.717	A
B-AD	68.26	343.61	0.199	68.25	0.2	13.073	B
A-BCD	6.66	564.87	0.012	6.66	0.0	6.448	A
A-B	221.27			221.27			
A-C	150.82			150.82			
D-A	23.12	577.91	0.040	23.12	0.0	6.488	A
D-BC	17.62	399.02	0.044	17.62	0.0	9.438	A
C-ABD	223.48	591.38	0.378	223.45	0.7	9.799	A
C-D	4.69			4.69			
C-A	140.67			140.67			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	47.65	616.93	0.077	47.74	0.1	6.325	A
B-AD	55.74	371.71	0.150	56.00	0.2	11.414	B
A-BCD	5.42	574.49	0.009	5.43	0.0	6.325	A
A-B	180.68			180.68			
A-C	123.15			123.15			
D-A	18.88	590.72	0.032	18.91	0.0	6.295	A
D-BC	14.38	420.54	0.034	14.42	0.0	8.866	A
C-ABD	174.85	585.56	0.299	175.68	0.5	8.817	A
C-D	4.07			4.07			
C-A	122.23			122.23			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	39.90	632.16	0.063	39.97	0.1	6.081	A
B-AD	46.68	392.21	0.119	46.85	0.1	10.430	B
A-BCD	4.53	581.75	0.008	4.54	0.0	6.238	A
A-B	151.31			151.31			
A-C	103.13			103.13			
D-A	15.81	600.06	0.026	15.83	0.0	6.163	A
D-BC	12.05	436.13	0.028	12.07	0.0	8.489	A
C-ABD	142.89	584.27	0.245	143.38	0.3	8.182	A
C-D	3.53			3.53			
C-A	105.79			105.79			

Proposed Junction - 2036 Future Cumulative Assessment Scenario, Weekday PM peak (1645-1745)

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Description	Network flow scaling factor (%)
A1	Proposed Junction	Queen Street / Mill Lane / Grove Farm	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Queen Street / Mill Lane	Right-Left Stagger	Two-way	5.55	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2036 Future Cumulative Assessment Scenario	Weekday PM peak (1645-1745)	ONE HOUR	16:30	18:00	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	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	238.00	100.000
B		✓	308.00	100.000
C		✓	165.00	100.000
D		✓	13.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0.000	42.000	177.000	19.000
	B	156.000	0.000	152.000	0.000
	C	120.000	30.000	0.000	15.000
	D	7.000	0.000	6.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	0	2	0
	B	0	0	2	0
	C	3	7	0	0
	D	0	0	0	0

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:30-16:45	A	179.18	181.84
	B	231.88	234.28
	C	124.22	128.29
	D	9.79	9.79
16:45-17:00	A	213.96	217.14
	B	276.89	279.76
	C	148.33	153.19
	D	11.69	11.69
17:00-17:15	A	262.04	265.94
	B	339.11	342.63
	C	181.67	187.61
	D	14.31	14.31
17:15-17:30	A	262.04	265.94
	B	339.11	342.63
	C	181.67	187.61
	D	14.31	14.31
17:30-17:45	A	213.96	217.14
	B	276.89	279.76
	C	148.33	153.19
	D	11.69	11.69

17:45-18:00	A	179.18	181.84
	B	231.88	234.28
	C	124.22	128.29
	D	9.79	9.79

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-C	0.29	8.87	0.4	A
B-AD	0.41	14.48	0.7	B
A-BCD	0.04	6.77	0.0	A
A-B				
A-C				
D-A	0.01	6.47	0.0	A
D-BC	0.02	8.98	0.0	A
C-ABD	0.06	6.92	0.1	A
C-D				
C-A				

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	114.43	646.36	0.177	113.58	0.2	6.745	A
B-AD	117.44	457.78	0.257	116.09	0.3	10.503	B
A-BCD	14.41	572.93	0.025	14.31	0.0	6.444	A
A-B	31.60			31.60			
A-C	133.17			133.17			
D-A	5.27	589.86	0.009	5.23	0.0	6.157	A
D-BC	4.52	445.82	0.010	4.48	0.0	8.157	A
C-ABD	22.79	566.85	0.040	22.62	0.0	6.613	A
C-D	11.27			11.27			
C-A	90.16			90.16			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	136.64	618.90	0.221	136.38	0.3	7.458	A
B-AD	140.24	443.08	0.317	139.78	0.5	11.832	B
A-BCD	17.26	564.25	0.031	17.24	0.0	6.580	A
A-B	37.72			37.72			
A-C	158.97			158.97			
D-A	6.29	578.87	0.011	6.29	0.0	6.286	A
D-BC	5.39	429.76	0.013	5.38	0.0	8.482	A
C-ABD	27.32	561.35	0.049	27.28	0.1	6.740	A
C-D	13.45			13.45			
C-A	107.57			107.57			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	167.36	574.27	0.291	166.85	0.4	8.825	A
B-AD	171.76	420.45	0.409	170.88	0.7	14.373	B
A-BCD	21.28	553.25	0.038	21.24	0.0	6.766	A
A-B	46.17			46.17			
A-C	194.59			194.59			
D-A	7.71	564.08	0.014	7.70	0.0	6.469	A
D-BC	6.61	407.74	0.016	6.59	0.0	8.974	A
C-ABD	33.69	554.39	0.061	33.63	0.1	6.913	A
C-D	16.44			16.44			
C-A	131.54			131.54			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	167.36	573.36	0.292	167.34	0.4	8.866	A
B-AD	171.76	420.27	0.409	171.72	0.7	14.479	B
A-BCD	21.28	553.07	0.038	21.28	0.0	6.771	A
A-B	46.17			46.17			
A-C	194.59			194.59			
D-A	7.71	563.84	0.014	7.71	0.0	6.472	A
D-BC	6.61	407.58	0.016	6.61	0.0	8.977	A
C-ABD	33.69	554.32	0.061	33.69	0.1	6.916	A
C-D	16.44			16.44			
C-A	131.54			131.54			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	136.64	617.81	0.221	137.13	0.3	7.496	A
B-AD	140.24	442.89	0.317	141.08	0.5	11.963	B
A-BCD	17.27	563.98	0.031	17.30	0.0	6.587	A
A-B	37.72			37.72			
A-C	158.97			158.97			
D-A	6.29	578.49	0.011	6.30	0.0	6.291	A
D-BC	5.39	429.54	0.013	5.41	0.0	8.489	A
C-ABD	27.32	561.21	0.049	27.37	0.1	6.742	A
C-D	13.45			13.45			
C-A	107.57			107.57			

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

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-C	114.43	645.11	0.177	114.71	0.2	6.790	A
B-AD	117.44	457.56	0.257	117.93	0.4	10.614	B
A-BCD	14.41	572.50	0.025	14.43	0.0	6.450	A
A-B	31.60			31.60			
A-C	133.17			133.17			
D-A	5.27	589.31	0.009	5.28	0.0	6.165	A
D-BC	4.52	445.57	0.010	4.53	0.0	8.163	A
C-ABD	22.79	566.79	0.040	22.83	0.0	6.619	A
C-D	11.27			11.27			
C-A	90.16			90.16			