

Keepmoat Homes

**Proposed Residential Development
Keresforth Road, Dodworth
Supplementary Transport Note**

March 2025

Armstrong House,
The Flemingate Centre,
Beverley,
HU17 0NW

📞 01482 679 911

✉️ info@ltp.co.uk

🌐 www.local-transport-projects.co.uk

Registered No. 5295328

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Client Commission			
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LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown and CVs are available upon request to demonstrate our experience and credentials.

Team Member	LTP Designation	Qualifications
Steven Windass	Technical Director	BSc(Hons) MSc(Eng) CEng FIHE MCIHT
Mike Raynor	Associate	BA(Hons) MIHE
Annabel Carrick	Senior Transport Planner	BSc(Hons) EngTech MIHE

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PROPOSED RESIDENTIAL DEVELOPMENT

KERESFORTH ROAD, DODWORTH

SUPPLEMENTARY TRANSPORT NOTE

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I. INTRODUCTION

I.1 Background

- 1.1.1 Local Transport Projects Ltd (LTP) has been commissioned to produce a Supplementary Transport Note (STN) in support of an outline planning application (all matters reserved expect for access) for a proposed residential development at a site located to the north of Keresforth Road in Dodworth, Barnsley.
- 1.1.2 The local planning and highway authority for the site is Barnsley Metropolitan Borough Council (BMBC). Due to the site's proximity to the M1, which forms part of the Strategic Road Network (SRN), National Highways (NH) are also a key consultee in relation to the proposals.
- 1.1.3 The outline planning application for the development (ref: 2022/0016) is seeking consent for "*[r]esidential development of up to 215 dwellings and associated works (Outline application with all matters reserved apart from means of access)*". This STN follows on from, and should be read in conjunction with, the Transport Assessment (TA) (LTP, 2022a), Travel Plan (TP) (LTP, 2022b), Supplementary Transport Assessment (STA) (LTP, 2022c), STA2 (LTP, 2022d) and STA3 (LTP, 2024) that have been produced in support of the application.
- 1.1.4 Following submission of the planning application (ref: 2022/0016), the residential development has reduced considerably in size from 220 dwellings to 126 dwellings. BMBC Highways acknowledge in their latest feedback that the revised scheme is expected to have a reduced impact on the local highway network, although officers note that no supplementary reports have been submitted to provide this evidence and therefore this STN has been produced to provide the results of the assessments based on the revised development proposals.

2. TRAFFIC IMPACT

2.1 Development Trip Generation

- 2.1.1 As outlined in STA2 (LTP, 2022d), both BMBC Highways and NH consider the trip rates and associated traffic generation projections presented within the TA (LTP, 2022a) to be acceptable.
- 2.1.2 The approved trip rates have been extracted in Table 1 below for ease of reference and have been applied to the revised development quanta of 126 dwellings, as shown in Table 1:

Table 1: Projected Vehicle Trip Generation (126 dwellings)

Residential Development (03-A)	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Accepted Vehicle Trip Rates (per dwelling)	0.138	0.418	0.556	0.401	0.154	0.555
Proposed Vehicle Trips (126 dwellings)	17	53	70	51	19	70
Previous Scheme Vehicle Trips (220 dwellings)	30	92	122	88	34	122
Difference	-13	-39	-52	-37	-15	-52

- 2.1.3 The trip generation projections indicate that the revised scheme of 126 dwellings could be expected to generate up to 70 two-way vehicle trip movements during each of the respective AM (08:00-09:00) and PM (17:00-18:00) peak hours, which is a reduction in 52 two-way vehicle movements in each peak hour relative to the previously assessed scheme on the site.

2.2 Baseline Traffic Flows & Peak Hours

- 2.2.1 In order to establish the baseline traffic situation at local junctions, where the development is expected to generate 30 or more additional two-way vehicle trips, the 12-hour (07:00-19:00) fully classified turning count surveys obtained as part of the STA2 (LTP, 2022d) have been utilised. These were undertaken by a specialist survey company on a neutral weekday during school term-time.
- 2.2.2 The results of the surveys indicate that the AM network peak hour is 07:45-08:45 and the PM network peak hour is 16:30-17:30. As per the STA2 (LTP, 2022d), it should be noted that the peak hours identified for development traffic generation and the baseline traffic flows are slightly offset, and therefore the assessments within this STN represent a robust 'worst-case' scenario by applying the worst-case development peak hour traffic (AM 08:00-09:00 and PM 17:00-18:00) against the worst-case network peak hour traffic.
- 2.2.3 The recorded 2022 baseline traffic flows at the junctions during the peak hours are illustrated in the network diagrams included as Appendix 1.

2.3 Committed Development

2.3.1 NH and BMBC Highways previously requested consideration of a number of committed developments, which were included as part of the assessments presented within the STA (LTP, 2022c) and STA2 (LTP, 2022d). The same committed developments have been considered within this STN report and the following assessments.

2.4 Assessment Scenarios

2.4.1 The proposals have been tested against the following weekday AM and PM peak hour traffic flow scenarios:

- **2022 Base** – Existing traffic flows recorded during the September 2022 traffic surveys;
- **2030 Do Nothing** – ‘2022 Base’ traffic flows, growthed to 2030, with the addition of committed developments;
- **2030 With Development** – ‘2030 Do Nothing’ with the addition of traffic associated with the proposed development.

2.4.2 The network traffic flows in 2030 have been predicted using the DfT’s ‘*National Transport Model*’ (NTM). The regional growth factor obtained from the NTM has been adjusted to reflect local circumstances, using the latest TEMPro software (Ref: Yorkshire & Humber Dataset v8.1), see Appendix 2.

2.4.3 In accordance with the DfT’s ‘*Transport Analysis Guidance*’ (TAG) (DfT, 2023b), the underlying NTEM growth includes for households and jobs have also been adjusted to reflect the committed development and proposed development traffic that has been explicitly incorporated into the traffic projections of this STN, in order to avoid double counting the associated traffic flows.

2.5 Traffic Distribution & Assignment

2.5.1 BMBC Highways previously accepted the traffic distribution and assignment for the proposed development, as detailed within STA2 (LTP, 2022d). The defined zones utilised within the gravity model calculations are reproduced in Figure 1.

Figure 1: Gravity Model Zones



Map Data: Google © 2025 Vexcel Imaging US, Inc

2.5.2 Additional assessments were also undertaken previously as part of STA2 (LTP, 2022d) to extend Zone E to the east to understand the expected trip distribution at the A61 Sheffield Road/Cemetery Road/Park Road signalised junction. The extended Zone E is shown below in Figure 2 for reference.

Figure 2: Extended Gravity Model Zone E



Map Data: Google © 2025 Vexcel Imaging US, Inc

2.5.3 The gravity model results presented within the STA2 (LTP, 2022d) are reproduced in Table 2.

Table 2: Gravity Model Results

Zone	Route	Distribution Split
A	M1 (North)	15.8%
B	M1 (South)	14.6%
C	Pogmoor Road	9.5%
D	Racecommon Road	12.6%
E1	A61 Sheffield Road (North)	12.0%
E2	A6133 (East)	12.2%
E3	A61 Sheffield Road (South)	1.5%
Zone E Subtotal		25.7%
F	Gilroyd Lane	5.6%
G	Dodworth Green Road	0.6%
H	A628 (West)	12.3%
I	Higham Lane	3.4%
TOTAL		100%

2.5.4 Table 2 indicates that there would be an approximate split of 53.3% of trips to/from the east (Zones C, D, E and F) and 46.7% to/from the west (Zones A, B, G, H and I) at the proposed site access junction with Keresforth Road.

2.6 Impact on Local Junctions

2.6.1 The predicted increase in traffic across the local highway network associated with the current proposed scheme (126 dwellings) is summarised in Table 3, at the junctions considered as part of the STA2 (LTP, 2022d):

Table 3: Projected Traffic Impact at Local Junctions

Junction	2022 Base	2030 Do Nothing	2030 With Development	Development Impact	
AM PEAK (07:45-08:45)					
J1: Wood End Court/B6099 Keresforth Road	785	817	887	+70	+8.6%
J2: A6133 Keresforth Hill Road/B6099 Keresforth Hill Road	1,827	2,236	2,269	+33	+1.5%
J3: Racecommon Road/A6133 Keresforth Hill Road/Keresforth Hill Road	1,874	2,216	2,238	+22	+1.0%
J4: Barnsley Road/High Street/Dodworth Green Road/Station Road	1,078	1,218	1,251	+33	+2.7%
J5: B6449 Barnsley Road/Mitchelson Avenue	663	765	786	+21	+2.7%
J6: Budgens Car Park Access/B6449 Barnsley Road/B6449	774	817	838	+21	+2.6%
J7: A628 Whinby Road/B6449/Access Road	2,372	2,950	2,971	+21	+0.7%
J9: Keresforth Hill Road/Gilroyd Lane/Keresforth Road	969	1,036	1,073	+37	+3.6%
J10: A61 Sheffield Road/Cemetery Road/Park Road	1,756	1,977	1,995	+18	+0.9%

Junction	2022 Base	2030 Do Nothing	2030 With Development	Development Impact	
PM PEAK (16:30-17:30)					
J1: Wood End Court/B6099 Keresforth Road	856	892	962	+70	+7.8%
J2: A6133 Keresforth Hill Road/B6099 Keresforth Hill Road	1,890	2,309	2,342	+33	+1.4%
J3: Racecommon Road/A6133 Keresforth Hill Road/Keresforth Hall Road	2,039	2,389	2,416	+27	+1.1%
J4: Barnsley Road/High Street/Dodworth Green Road/Station Road	1,501	1,654	1,687	+33	+2.0%
J5: B6449 Barnsley Road/Mitchelson Avenue	1,103	1,221	1,242	+21	+1.7%
J6: Budgens Car Park Access/B6449 Barnsley Road/B6449	1,217	1,280	1,301	+21	+1.6%
J7: A628 Whinby Road/B6449/Access Road	2,706	3,356	3,377	+21	+0.6%
J9: Keresforth Hill Road/Gilroyd Lane/Keresforth Road	1,137	1,211	1,248	+37	+3.1%
J10: A61 Sheffield Road/Cemetery Road/Park Road	2,142	2,380	2,398	+18	+0.8%

2.6.2 The traffic projections summarised in Table 3 indicate that the development of the site is generally expected to result in a relatively low proportionate increase (less than 4%) at all key local junctions (based on the '2030 With Development' scenario compared to the '2030 Do Nothing' scenario), apart from the site access junction (J1: Wood End Court/B6099 Keresforth Road) during both peak periods.

2.6.3 Due to the reduction in the number of dwellings proposed on the site, the development is only expected to result in an increase of 30 or more two-way vehicle movements at four local junctions, including the site access junction. The local junctions (J1, J2, J4 and J9) that are expected to experience 30 or more additional two-way vehicle movements as a result of the proposed development during the AM and PM peak hour periods have been modelled within Section 3 of this STN.

3. JUNCTION CAPACITY ASSESSMENTS

3.1 J1 Capacity Assessment

3.1.1 In order to assess the ability of the proposed access junction to accommodate the traffic associated with the proposed development (126 dwellings), a junction capacity assessment has been undertaken using Junctions 9 modelling software (PICADY module), which is a software package produced by Transport Research Laboratory (TRL) that provides an industry-standard method for assessing capacity, queuing and delay at priority junctions (PICADY) and roundabouts (ARCADY).

3.1.2 The input parameters used to create the Junctions 9 model have been taken from the preliminary access design drawing (see Appendix 3) and the model utilised as part of the STA2 (LTP, 2022d). The results are summarised in Table 4, with the complete modelling output is included as Appendix 4.

Table 4: J1 Capacity Assessment

Traffic Stream	2030 With Development	
	Max. RFC	Max. End Q
AM Peak (07:45-08:45)		
Access Road (B-AC)	13.8%	0.2
Keresforth Road (C-AB)	2.6%	0.0
OVERALL	13.8%	0.2
PM Peak (16:30-17:30)		
Access Road (B-AC)	5.3%	0.1
Keresforth Road (C-AB)	8.7%	0.2
OVERALL	8.7%	0.2

3.1.3 The capacity assessment results shown in Table 4 indicate that the proposed site access junction on Keresforth Road would be expected to operate well within capacity in 2030 during both peak periods with the development fully occupied. The modelling results indicate that the maximum RFC (Ratio of Flow to Capacity) during the peak hours is likely to be 13.8% (AM peak) with the full residential development in place, which is significantly below the typical target RFC level of 85% and comfortably below the 100% RFC level of full capacity.

3.2 J2 Capacity Assessment

3.2.1 In order to assess the ability of the A6133/B6099 Keresforth Hill Road signalised junction to accommodate traffic associated with the proposed development, a junction capacity assessment has been undertaken using the industry-standard LinSig v3 modelling software, a design and assessment tool for traffic signal junctions. An aerial image of the A6133/B6099 Keresforth Hill Road signalised junction can be seen in Figure 3.

Figure 3: J2 Aerial Imagery



Map Data: Google © 2025 Vexcel Imaging US, Inc

- 3.2.2 The input parameters used to create the LinSig v3 model have been taken from the STA2 (LTP, 2022d), which was based on the junction model in the TA (MTP, 2021a) supporting the consented school development at Keresforth Close (ref: 2021/1631).
- 3.2.3 The base junction model utilised as part of the STA2 (LTP, 2022d) was calibrated against the observed cycle times and staging during the peak hours. A total of three stages are in operation at the junction during the AM and PM peak hours. The existing traffic signal operation associated with the junction was observed from the video footage captured as part of the baseline traffic surveys, with details of the staging for each assessment period extracted from the STA2 (LTP, 2022d) and provided in Table 5.

Table 5: J2 Existing Staging

Stage	Stage Appearances per Hour	
	AM Peak	PM Peak
Stage 1 – A6133	60	60
Stage 2 – Keresforth Hill Road	60	60
Stage 3 – Pedestrian Stages	22 (assumed 1 in 2 cycles)	13 (assumed 1 in 3 cycles)
TOTAL CYCLES	60	60

- 3.2.4 As per the modelling in the STA2 (LTP, 2022d), the measured cycle time of 60 seconds in the peak hours has been utilised.
- 3.2.5 Captured queue data was used to validate the base LinSig v3 model utilised as part of the STA2 (LTP, 2022d), with the base model aligned to the peak hour queuing results across all arms. It is therefore considered that the LinSig v3 model provides a good representation of the on-site conditions at the time of the traffic surveys.

3.2.6 The baseline and future peak hour traffic flows have been assessed against the existing junction layout, the results of which are summarised in Table 6, with the complete modelling output included as Appendix 5.

Table 6: J2 Capacity Assessment

Approach	2022 Base		2030 Do Nothing		2030 With Development		Development Impact	
	Max. DoS	MMQ	Max. DoS	MMQ	Max. DoS	MMQ	Max. DoS	MMQ
AM Peak (07:45-08:45)								
A6133 (E)	71.0%	7.3	82.6%	9.8	83.2%	10.0	+0.6%	+0.2
B6099 Keresforth Hill Road	72.2%	8.2	81.6%	10.2	85.3%	11.4	+3.7%	+1.2
A6133 (W)	51.8%	2.6	83.0%	9.1	84.8%	9.1	+1.8%	-
PRC	+24.7%		+8.4%		+5.5%		-2.9%	
PM Peak (16:30-17:30)								
A6133 (E)	61.1%	5.9	61.4%	6.4	62.4%	6.9	+1.0%	+0.4
B6099 Keresforth Hill Road	58.9%	6.4	73.3%	8.5	74.5%	8.9	+1.2%	+0.4
A6133 (W)	49.9%	3.9	71.0%	5.1	75.0%	5.1	+4.0%	-
PRC	+47.3%		+22.9%		+20.0%		-2.9%	

3.2.7 The Degree of Saturation (DoS) quoted within Table 6 is a ratio of the demand to capacity on each approach to the junction, with a value of 100% meaning that demand and capacity are equal. The Mean Max Queue (MMQ) is a measurement of the average maximum queue likely to occur across all cycles of the modelled scenario. The Practical Reserve Capacity (PRC) is the difference between the capacity of the junction and the current demand expressed as a percentage.

3.2.8 The results of the capacity assessment indicate that the A6133/B6099 Keresforth Hill Road signalised junction would be expected to operate with a DoS below the target level of 90% across all arms during the 2030 assessment period with the development in place, with positive levels of PRC.

3.2.9 It is therefore considered that the proposed development of 126 dwellings will not have a severe impact on the operation of the existing A6133/B6099 Keresforth Hill Road signalised junction.

3.3 J4 Capacity Assessment

3.3.1 In order to assess the ability of the Barnsley Road/High Street/Dodworth Green Road/Station Road priority crossroads to accommodate the traffic associated with the proposed development, a junction capacity assessment has been undertaken using Junctions 9 modelling software (PICADY module). An aerial image of the junction can be seen in Figure 4.

Figure 4: J4 Aerial Imagery



Map Data: Google © 2025 Vexcel Imaging US, Inc

3.3.2 The input parameters used to create the Junctions 9 model have been taken from the STA2 (LTP, 2022d), which was based on the junction model in the TA (OIHS, 2021a) supporting the consented residential development on land off Smithywood Lane and Calver Close (ref: 2021/1642). However, as detailed within the STA2 (LTP, 2022d), several geometric inputs have been revised when creating the model to better reflect the junction geometry. The results are summarised in Table 7, with the complete modelling output is included as Appendix 6.

Table 7: J4 Capacity Assessment

Traffic Stream	2022 Base		2030 Do Nothing		2030 With Development		Development Impact	
	Max. RFC	Max. End Q	Max. RFC	Max. End Q	Max. RFC	Max. End Q	Max. RFC	Max. End Q
AM Peak (07:45-08:45)								
Station Road	30.0%	0.4	33.0%	0.5	34.0%	0.5	+1.0%	-
Dodworth Green Road	25.6%	0.4	27.2%	0.5	27.3%	0.5	+0.1%	-
High Street (Left-Turn)	51.1%	1.1	66.9%	2.0	71.7%	2.8	+4.8%	+0.8
High Street (Ahead and Right-Turn)	57.6%	1.3	73.5%	2.6	77.3%	3.5	+3.8%	+0.9
Barnsley Road	3.4%	0.0	3.8%	0.1	3.8%	0.1	-	-
OVERALL	57.6%	1.3	73.5%	2.6	77.3%	3.5	+3.8%	+0.9
PM Peak (16:30-17:30)								
Station Road	53.9%	1.2	62.5%	1.6	65.6%	1.9	+3.1%	+0.3
Dodworth Green Road	17.7%	0.3	19.7%	0.3	19.9%	0.3	+0.2%	-

Traffic Stream	2022 Base		2030 Do Nothing		2030 With Development		Development Impact	
	Max. RFC	Max. End Q	Max. RFC	Max. End Q	Max. RFC	Max. End Q	Max. RFC	Max. End Q
High Street (Left-Turn)	65.0%	1.8	77.9%	3.2	80.6%	3.7	+2.7%	+0.5
High Street (Ahead and Right-Turn)	51.5%	1.0	63.5%	1.7	66.0%	1.8	+2.5%	+0.1
Barnsley Road	7.6%	0.1	8.7%	0.2	8.8%	0.2	+0.1%	-
OVERALL	65.0%	1.8	77.9%	3.2	80.6%	3.7	+2.7%	+0.5

3.3.3 The capacity assessment results shown in Table 7 indicate that the Barnsley Road/High Street/Dodworth Green Road/Station Road priority crossroads would be expected to operate within capacity during all scenarios. The modelling results indicate that the maximum RFC during the peak hours is likely to be 80.6% (PM peak) with the proposed residential development in place, which is below the typical target level of 85% capacity.

3.3.4 It is therefore considered that the proposed development will not have a severe impact on the operation of the existing Barnsley Road/High Street/Dodworth Green Road/Station Road priority crossroads.

3.4 J9 Capacity Assessment

3.4.1 In order to assess the ability of the Keresforth Hill Road/Gilroyd Lane/Keresforth Road priority T-junction to accommodate traffic associated with the proposed development, a junction capacity assessment has been undertaken using Junctions 9 modelling software (PICADY module). An aerial image of the Keresforth Hill Road/Gilroyd Lane/Keresforth Road priority T-junction can be seen in Figure 5.

Figure 5: J9 Aerial Imagery



Map Data: Google © 2025 Vexcel Imaging US, Inc

3.4.2 The input parameters used to create the Junctions 9 model have been taken from the STA2 (LTP, 2022d). The results are summarised in Table 8, with the complete modelling output is included as Appendix 7.

Table 8: J9 Capacity Assessment

Traffic Stream	2022 Base		2030 Do Nothing		2030 With Development		Development Impact	
	Max. RFC	Max. End Q	Max. RFC	Max. End Q	Max. RFC	Max. End Q	Max. RFC	Max. End Q
AM Peak (07:45-08:45)								
Gilroyd Lane (Left-Turn)	10.3%	0.1	10.9%	0.1	11.1%	0.1	+0.2%	-
Gilroyd Lane (Right-Turn)	26.8%	0.4	28.6%	0.4	29.1%	0.4	+0.5%	-
Keresforth Road	18.5%	0.4	20.1%	0.5	21.4%	0.5	+1.3%	-
OVERALL	26.8%	0.4	28.6%	0.4	29.1%	0.4	+0.5%	-
PM Peak (16:30-17:30)								
Gilroyd Lane (Left-Turn)	15.8%	0.2	16.8%	0.2	17.6%	0.2	+0.8%	-
Gilroyd Lane (Right-Turn)	29.2%	0.4	31.4%	0.5	32.2%	0.5	+0.8%	-
Keresforth Road	51.0%	1.4	54.9%	1.7	56.1%	1.8	+1.2%	+0.1
OVERALL	51.0%	1.4	54.9%	1.7	56.1%	1.8	+1.2%	+0.1

3.4.3 The capacity assessment results shown in Table 8 indicate that the Keresforth Hill Road/Gilroyd Lane/Keresforth Road priority T-junction would be expected to operate well within capacity across all scenarios in both peak periods. The modelling results indicate that the maximum RFC during the peak hours is likely to be 56.1% (PM peak), which is well below the typical RFC target level of 85%.

3.4.4 It is therefore considered that the proposed development will not have a severe impact on the operation of the existing Keresforth Hill Road/Gilroyd Lane/Keresforth Road priority T-junction.

3.5 Traffic Impact Summary

3.5.1 Based on the capacity assessments detailed in this STN, it is considered that the development will not have a severe impact on the operation of the local highway network. Therefore, as the traffic impact of the residential development is not expected to be severe, the proposals are considered to be in accordance with the ‘National Planning Policy Framework’, which states that “development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios” (MHCLG, 2024).

4. CONCLUSIONS

- 4.1.1 This Supplementary Transport Note (STN) has been produced in support of an outline planning application (all matters reserved except for access) for a proposed residential development at a site located to the north of Keresforth Road in Dodworth, Barnsley.
- 4.1.2 The local planning and highway authority for the site is Barnsley Metropolitan Borough Council (BMBC). Due to the site's proximity to the M1, which forms part of the Strategic Road Network (SRN), National Highways (NH) are also a key consultee in relation to the proposals.
- 4.1.3 The outline planning application for the development (ref: 2022/0016) is seeking consent for "*[r]esidential development of up to 215 dwellings and associated works (Outline application with all matters reserved apart from means of access)*". This STN follows on from, and should be read in conjunction with, the Transport Assessment (TA) (LTP, 2022a), Travel Plan (TP) (LTP, 2022b), Supplementary Transport Assessment (STA) (LTP, 2022c), STA2 (LTP, 2022d) and STA3 (LTP, 2024) that have been produced in support of the application.
- 4.1.4 Following submission of the planning application (ref: 2022/0016), the residential development has reduced considerably in size from 220 dwellings to 126 dwellings. BMBC Highways acknowledge in their latest feedback that the revised scheme is expected to have a reduced impact on the local highway network, although officers note that no supplementary reports have been submitted to provide this evidence and therefore this STN has been produced to provide the results of the assessments based on the revised development proposals.
- 4.1.5 As outlined in STA2 (LTP, 2022d), both BMBC Highways and NH consider the trip rates and associated traffic generation projections presented within the TA (LTP, 2022a) to be acceptable. The approved trip rates have been applied to the revised development quanta of 126 dwellings. The trip generation projections indicate that the revised scheme could be expected to generate up to 70 two-way vehicle trip movements during each of the respective AM (08:00-09:00) and PM (17:00-18:00) peak hours, which is a reduction in 52 two-way vehicle movements in each peak hour relative to the previously assessed scheme on the site.
- 4.1.6 Due to the reduction in the number of dwellings proposed on the site, the development is only expected to result in an increase of 30 or more two-way vehicle movements at four local junctions, including the site access junction. The local junctions (J1, J2, J4 and J9) that were assessed in STA2 (LTP, 2022d) are expected to experience 30 or more additional two-way vehicle movements as a result of the proposed development during the AM and PM peak hour periods and have been modelled as part of this STN.

- 4.1.7 Based on the capacity assessments detailed in this STN, it is considered that the development will not have a severe impact on the operation of the local highway network. Therefore, as the traffic impact of the residential development is not expected to be severe, the proposals are considered to be in accordance with the '*National Planning Policy Framework*', which states that "*development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios*" (MHCLG, 2024).
- 4.1.8 It is concluded from the assessments within this STN that the proposed development would not be expected to have a severe impact in terms of traffic impact on the operation of the local highway network.

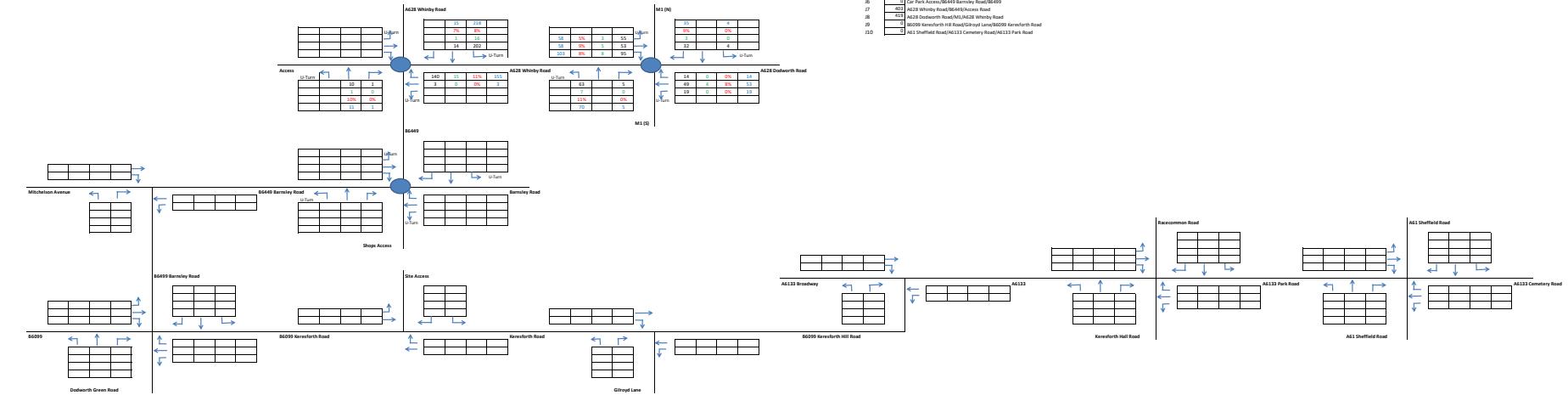
5. REFERENCES

- DfT (Department for Transport), 2023. Transport Analysis Guidance (TAG) Unit M4 - Forecasting and Uncertainty (November 2023).
- DfT, 2007. Guidance on Transport Assessment.
- LTP (Local Transport Projects Ltd), 2024. Proposed Residential Development, Keresforth Road, Dodworth – Supplementary Transport Assessment 3.
- LTP, 2022a. Proposed Residential Development, Keresforth Road, Dodworth - Transport Assessment.
- LTP, 2022b. Proposed Residential Development, Keresforth Road, Dodworth - Travel Plan.
- LTP, 2022c. Proposed Residential Development, Keresforth Road, Dodworth – Supplementary Transport Assessment.
- LTP, 2022d. Proposed Residential Development, Keresforth Road, Dodworth – Supplementary Transport Assessment 2.
- MHCLG (Ministry of Housing, Communities & Local Government), 2024. National Planning Policy Framework.
- MHCLG, 2014. Planning Practice Guidance – Travel Plans, Transport Assessments and Statements in Decision-Taking (ID: 42-06/03/2014) [online: <http://planningguidance.planningportal.gov.uk>].
- MTP (Milestone Transport Planning), 2021a. Trinity Academy, Barnsley. Transport Assessment. November 2021.
- MTP, 2021b. Trinity Academy, Barnsley. Travel Plan. November 2021.
- OIHS (Optima Intelligent Highways Solutions Ltd), 2021a. Calver Close, Dodworth. Proposed Residential Development. Transport Assessment. November 2021 (Planning Issue).
- OIHS, 2021b. Calver Close, Dodworth. Proposed Residential Development. Residential Travel Plan. November 2021 (Planning Issue).

Appendix I – Network Diagrams

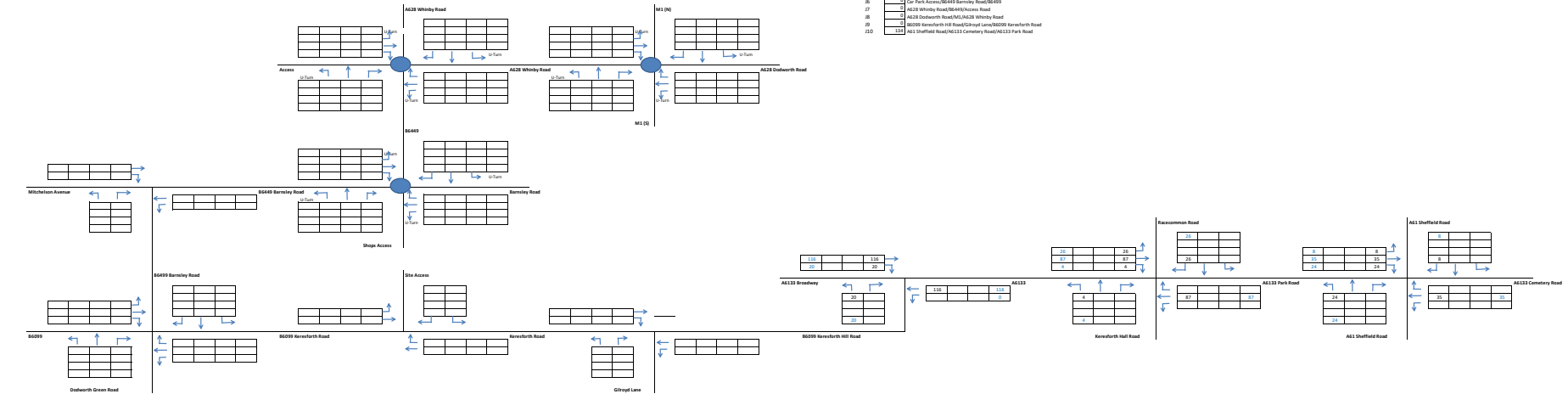
Committed Development - Land to the South-East of Higham Common Road, Barnley (M1 - Residential & Employment) (Ref: 2021/1000 & 2022/2480)

AM Peak Hour (07:45-09:00)
 Vehicles: 100k vehicles have been calculated assuming HDV form 2 vehicles
 HDV (%)
 PCV (%)



Committed Development - Proposed Secondary School, Land off Keworth Close (Ref: 2021/1633) PUPIL TRIPS ONLY

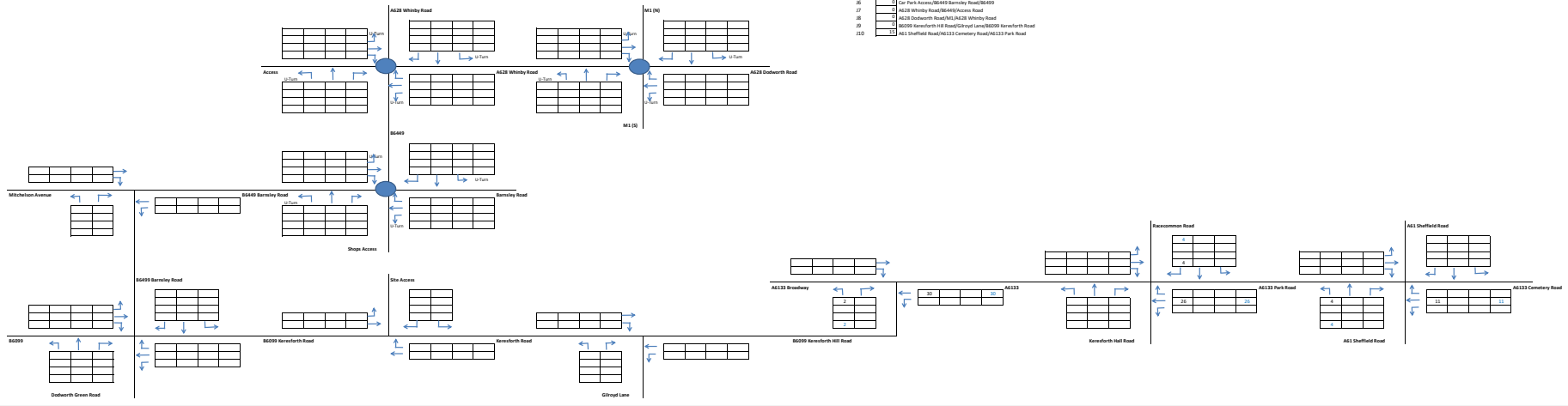
AM Peak Hour (07:45-09:00)
 Vehicle: in the absence of total vehicle numbers, PCU figures have been used
 HDV (%)
 PCV (%)



Committed Development - Proposed Secondary School, Land off Kereforth Close (Ref: 2021/1631) STAFF TRIPS ONLY

AM Peak Hour (07:45-09:00)
 Vehicle - in the absence of total vehicle numbers, PCU figures have been used
 HCVs
 HCVs (N)
 PCUs

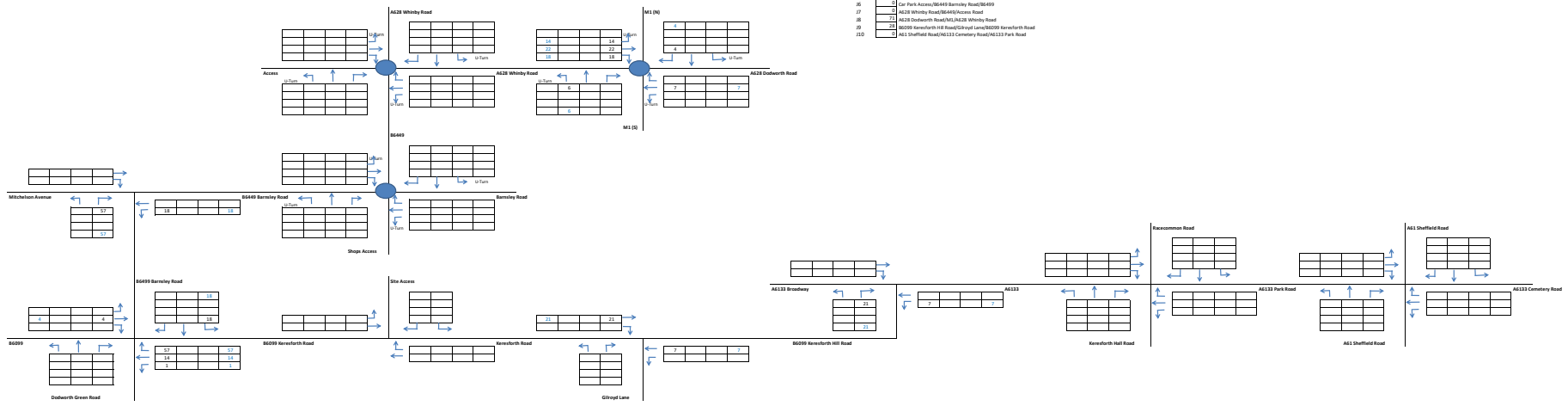
- 21 Wood End Court/80099 Kereforth Road
- 22 A6113 Kereforth Hill Road/80099 Kereforth Hill Road
- 23 Raccooncom Road/A6113 Kereforth Hill Road/Kereforth Hill Road
- 24 86489 Barnley Road/80099 High Street/86449 Dodsworth Green Road/80099 Station Road
- 25 86499 Barnley Road/Melksham Avenue
- 26 Car Park Access/86449 Barnley Road/86499
- 27 A6128 Whitley Road/86449 Access Road
- 28 A6128 Dodsworth Road/A6128 Whitley Road
- 29 80099 Kereforth Hill Road/Gt Ryd Lane/80099 Kereforth Road
- 310 A611 Shaftfield Road/A6113 Cemetery Road/A6113 Park Road



Committed Development - Land off Shaftfield Lane and Calver Close, Gilroyd (Ref: 2021/1642)

AM Peak Hour (07:45-09:00)
 Vehicle - in the absence of total vehicle numbers, PCU figures have been used
 HCVs
 HCVs (N)
 PCUs

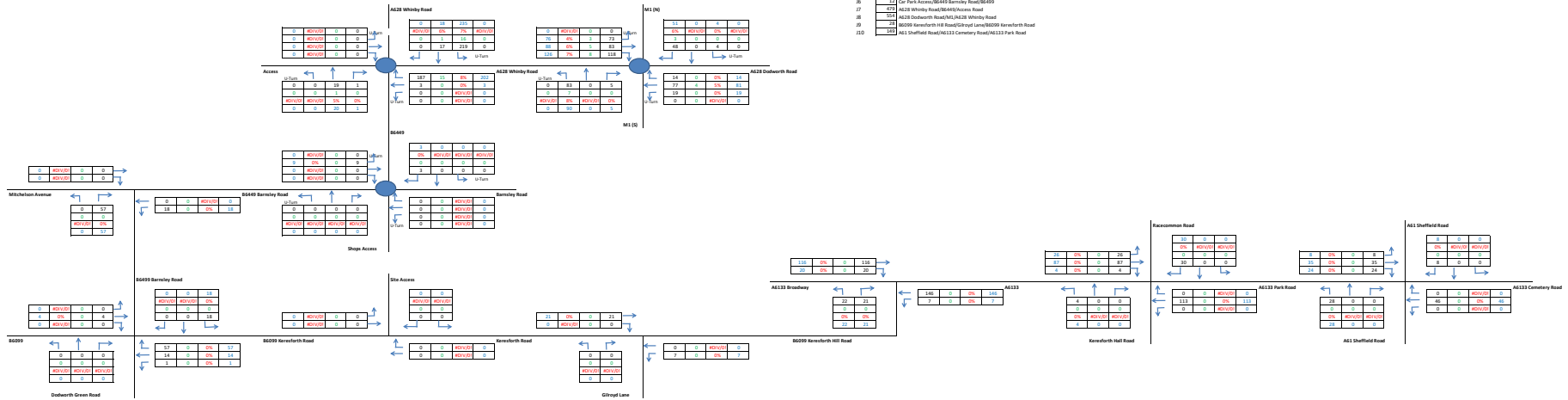
- 21 Wood End Court/80099 Kereforth Road
- 22 A6113 Kereforth Hill Road/80099 Kereforth Hill Road
- 23 Raccooncom Road/A6113 Kereforth Hill Road/Kereforth Hill Road
- 24 86489 Barnley Road/80099 High Street/86449 Dodsworth Green Road/80099 Station Road
- 25 86499 Barnley Road/Melksham Avenue
- 26 Car Park Access/86449 Barnley Road/86499
- 27 A6128 Whitley Road/86449 Access Road
- 28 A6128 Dodsworth Road/A6128 Whitley Road
- 29 80099 Kereforth Hill Road/Gt Ryd Lane/80099 Kereforth Road
- 310 A611 Shaftfield Road/A6113 Cemetery Road/A6113 Park Road



Total Committed Development Trips
AM Peak Hour 07:00-08:00

Vehicle
 HCV
 MCV (PK)
 PCV

- 21 Wood End Court/60099 Kereworth Road
- 22 A113 Kereworth Hill Road/60099 Kereworth Hill Road
- 23 Maccommen Road/A113 Kereworth Hill Road/Kereworth Hill Road
- 24 A649 Barnley Road/60099 High Street/6649 Dodsworth Green Road/60099 Station Road
- 25 A649 Barnley Road/Malcolm Avenue
- 26 Car Park Access/6649 Barnley Road/60099
- 27 A128 Whinney Road/6649 Access Road
- 28 A128 Dodsworth Road/A128 Whinney Road
- 29 60099 Kereworth Hill Road/Guyton Lane/60099 Kereworth Road
- 210 A11 Shaftfield Road/A113 Cemetery Road/A113 Park Road

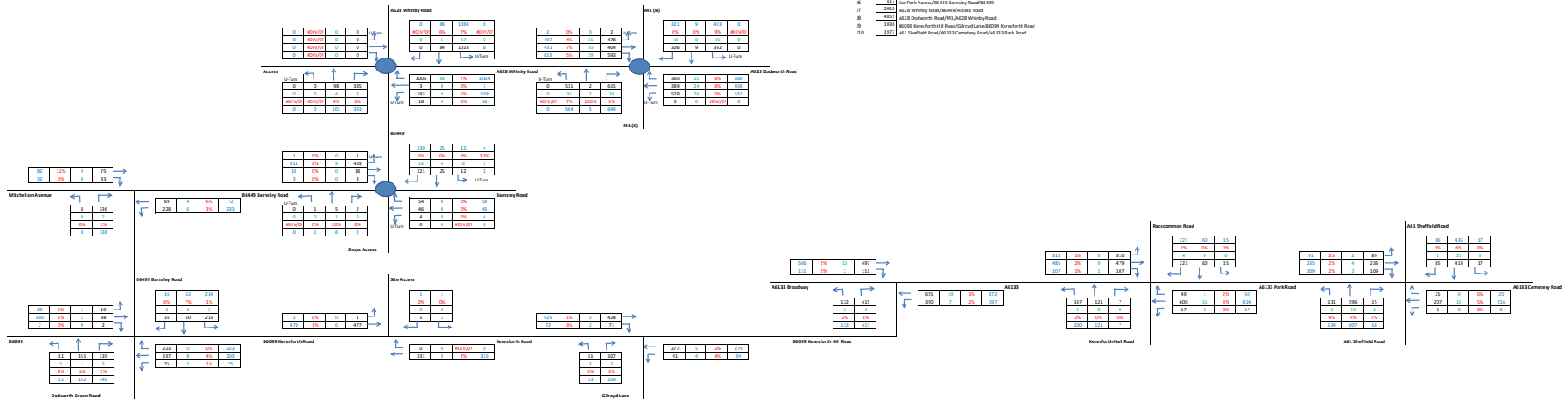


2036 Do Nothing
AM Peak Hour 07:00-08:00

4.26 2022 to 2030 TEMPro traffic growth factor

Vehicle
 HCV
 MCV (PK)
 PCV

- 21 Wood End Court/60099 Kereworth Road
- 22 A113 Kereworth Hill Road/60099 Kereworth Hill Road
- 23 Maccommen Road/A113 Kereworth Hill Road/Kereworth Hill Road
- 24 A649 Barnley Road/60099 High Street/6649 Dodsworth Green Road/60099 Station Road
- 25 A649 Barnley Road/Malcolm Avenue
- 26 Car Park Access/6649 Barnley Road/60099
- 27 A128 Whinney Road/6649 Access Road
- 28 A128 Dodsworth Road/A128 Whinney Road
- 29 60099 Kereworth Hill Road/Guyton Lane/60099 Kereworth Road
- 210 A11 Shaftfield Road/A113 Cemetery Road/A113 Park Road

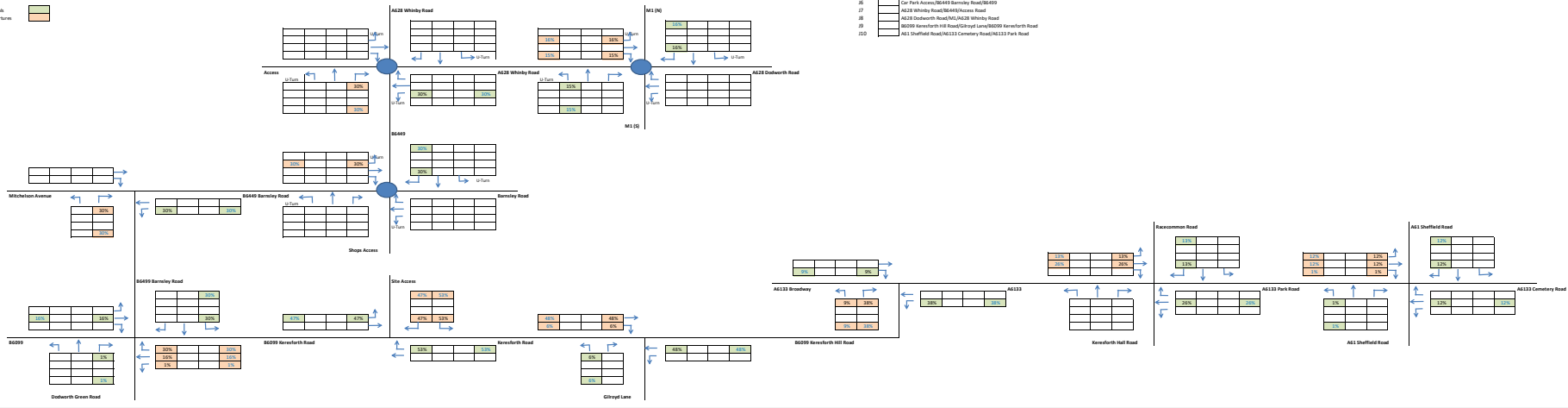


Development Top Distribution
AM Peak Hour (07:45-09:45)

Vehicle
 HCV (%)
 HCV (%)
 PCU

Arrivals
 Departures

- 21 Wood End Court/86009 Kereworth Road
- 22 A6133 Kereworth Hill Road/86009 Kereworth Hill Road
- 23 Raccooncom Road/A6133 Kereworth Hill Road/Kereworth Hill Road
- 24 86489 Barnley Road/86009 High Street/86449 Dodsworth Green Road/86009 Station Road
- 25 86489 Barnley Road/Mitchelson Avenue
- 26 Car Park Access/86449 Barnley Road/86489
- 27 A6133 Whitley Road/86449 Access Road
- 28 A6133 Dodsworth Road/A6133 Whitley Road
- 29 86009 Kereworth Hill Road/57-71 Lane/86009 Kereworth Road
- 30 A6133 Dodsworth Road/A6133 Whitley Road
- 31 A6133 Sheffield Road/A6133 Cemetery Road/A6133 Park Road

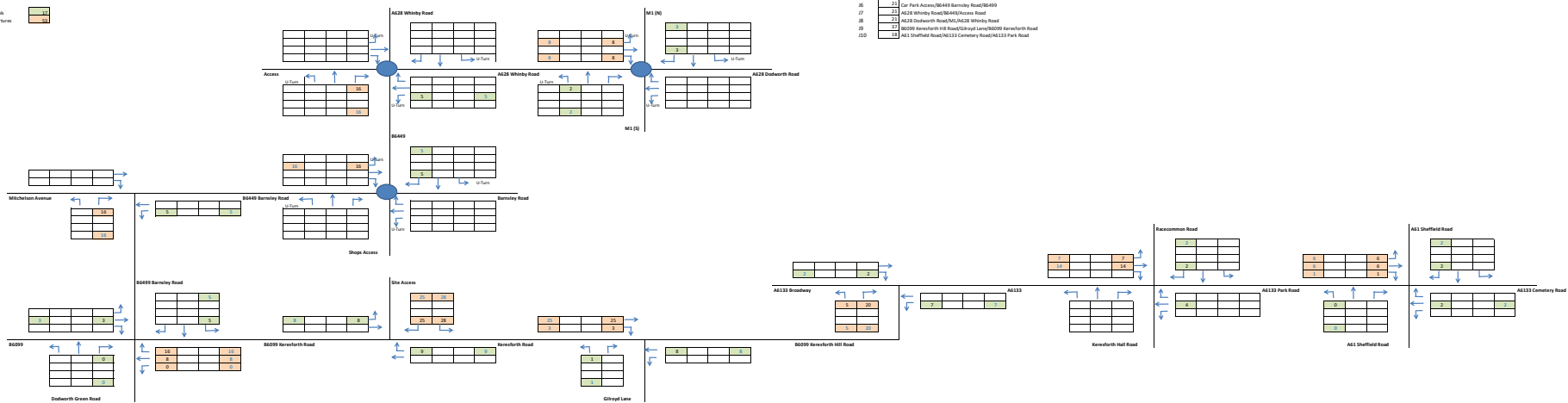


Development Top Distribution
AM Peak Hour (07:45-09:45)

Vehicle
 HCV (%)
 HCV (%)
 PCU

Arrivals
 Departures

- 21 Wood End Court/86009 Kereworth Road
- 22 A6133 Kereworth Hill Road/86009 Kereworth Hill Road
- 23 Raccooncom Road/A6133 Kereworth Hill Road/Kereworth Hill Road
- 24 86489 Barnley Road/86009 High Street/86449 Dodsworth Green Road/86009 Station Road
- 25 86489 Barnley Road/Mitchelson Avenue
- 26 Car Park Access/86449 Barnley Road/86489
- 27 A6133 Whitley Road/86449 Access Road
- 28 A6133 Dodsworth Road/A6133 Whitley Road
- 29 86009 Kereworth Hill Road/57-71 Lane/86009 Kereworth Road
- 30 A6133 Dodsworth Road/A6133 Whitley Road
- 31 A6133 Sheffield Road/A6133 Cemetery Road/A6133 Park Road

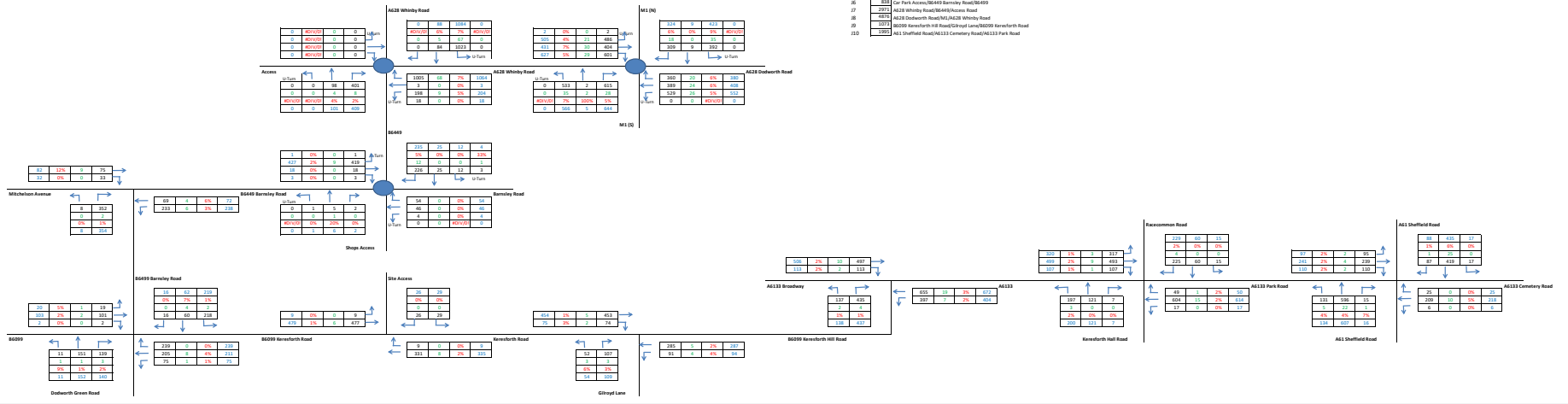


2035 With Development
A133 Road Inter 87+45 (8+4)

Vehicles
 HCV
 HCV 7.5
 PCU

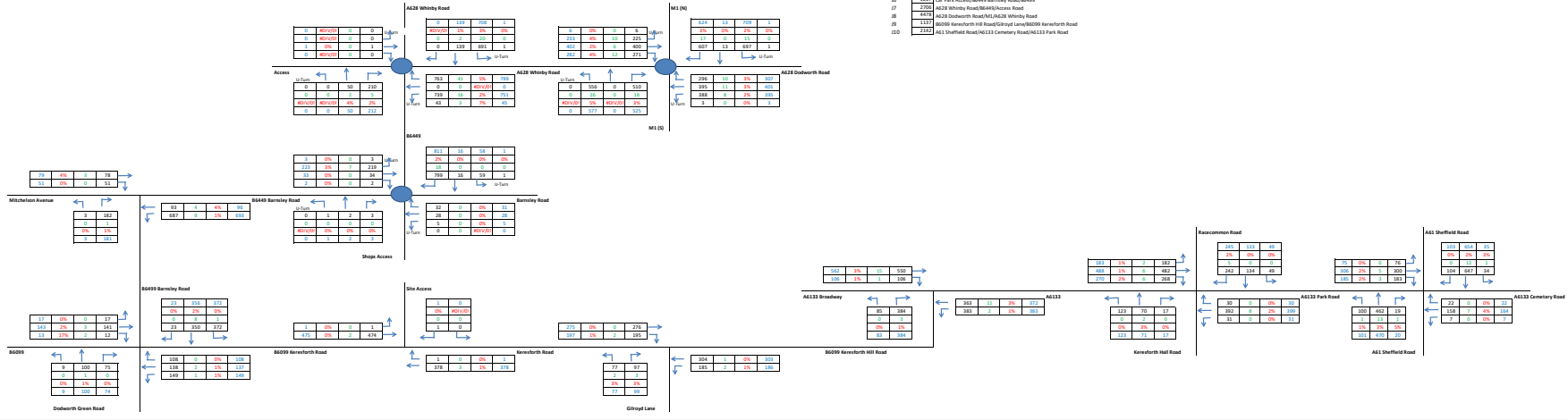
Legend for road segments:

21	802	Windmill Cuts/B6009 Kereworth Road
22	822	A133 Kereworth Hill Road/B6009 Kereworth Hill Road
23	2223	Rosecommon Road/A133 Kereworth Hill Road/Kereworth Hill Road
24	1223	B6499 Barnimley Road/B6009 High View/B6449 Doodwath Green Road/B6009 Station Road
25	222	B6499 Barnimley Road/Robinson Avenue
26	222	Old Park Avenue/B6499 Barnimley Road/B6499
27	2222	A133 Whinney Road/6+45+65 Access Road
28	122	A133 Doodwath Road/M120 Whinney Road
29	1022	B6009 Kereworth Hill Road/Glryd Lane/B6009 Kereworth Road
310	1022	A11 Sheffield Road/A133 Cemetery Road/A133 Park Road



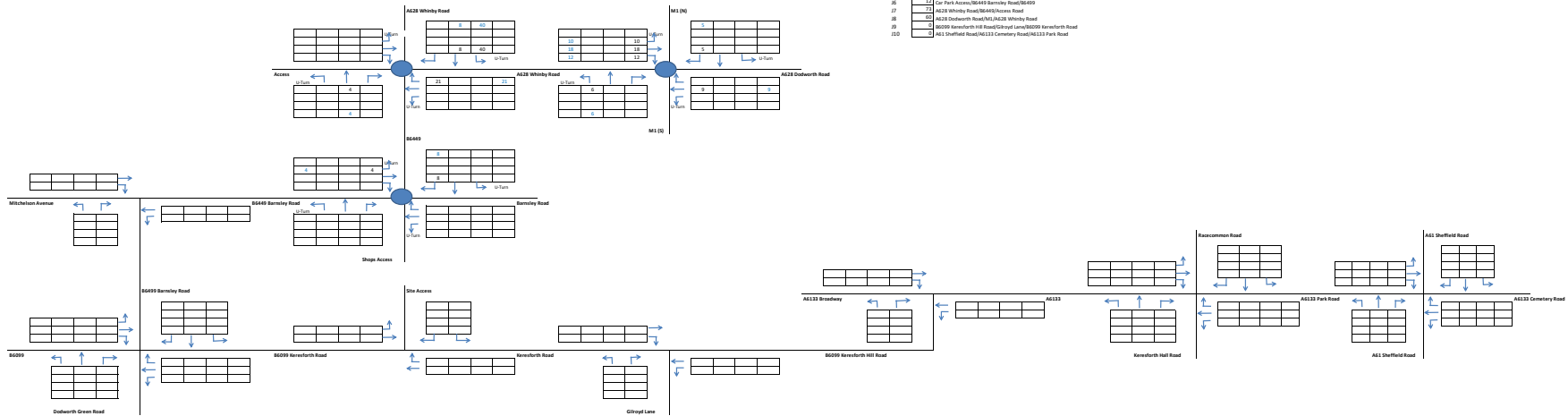
2022 Bas
PM Peak Hour (16:30-17:30)
Vehicle
HCV (%)
HCV (%)
PCU

- 21 Wood End Court/S6099 Kererforth Road
- 22 A6113 Kererforth Hill Road/S6099 Kererforth Hill Road
- 23 Kererforth Road/A6113 Kererforth Hill Road/Kererforth Hill Road
- 24 A649 Barnley Road/S6099 High Street/S6449 Dodsworth Green Road/S6099 Station Road
- 25 A649 Barnley Road/Mitchelson Avenue
- 26 Car Park Access/S6449 Barnley Road/S6499
- 27 A628 Whitley Road/S6449 Access Road
- 28 A628 Dodsworth Road/A6128 Whitley Road
- 29 A609 Kererforth Hill Road/Gt Ryd Lane/S6099 Kererforth Road
- 30 A61 Sheffild Road/A6113 Cemetery Road/A6113 Park Road
- 310



Committed Development: Capital Park Extension (Ref: 2019/0246)
PM Peak Hour (16:30-17:30)
Vehicle - in the absence of total vehicle numbers, PCU figures have been used
HCV (%)
HCV (%)
PCU

- 31 Wood End Court/S6099 Kererforth Road
- 32 A6113 Kererforth Hill Road/S6099 Kererforth Hill Road
- 33 Kererforth Road/A6113 Kererforth Hill Road/Kererforth Hill Road
- 34 A649 Barnley Road/S6099 High Street/S6449 Dodsworth Green Road/S6099 Station Road
- 35 A649 Barnley Road/Mitchelson Avenue
- 36 Car Park Access/S6449 Barnley Road/S6499
- 37 A628 Whitley Road/S6449 Access Road
- 38 A628 Dodsworth Road/A6128 Whitley Road
- 39 A609 Kererforth Hill Road/Gt Ryd Lane/S6099 Kererforth Road
- 40 A61 Sheffild Road/A6113 Cemetery Road/A6113 Park Road
- 310

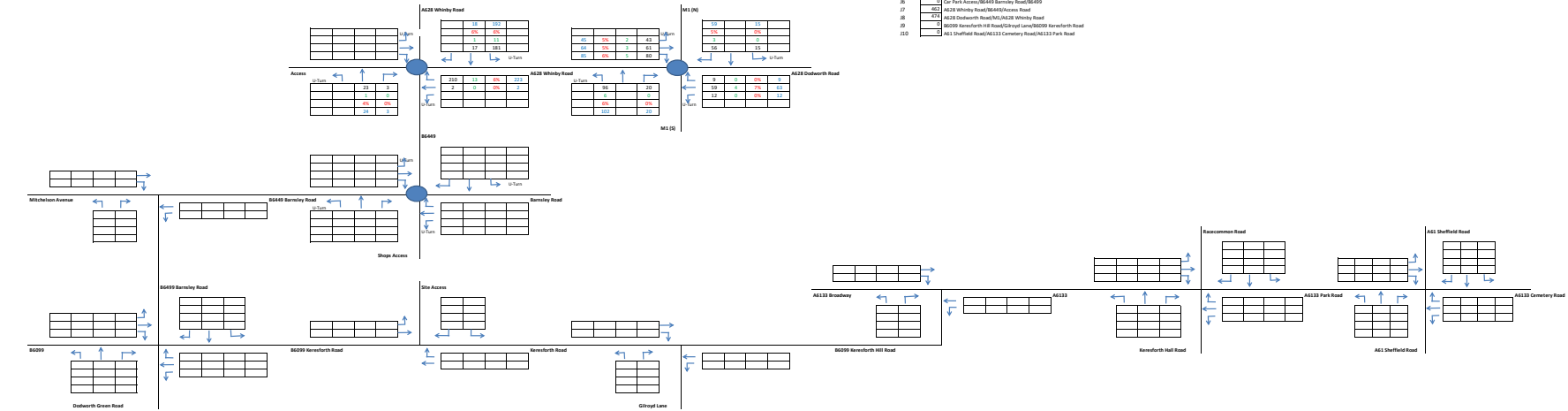


Committed Development - Land to the South-East of Higham Common Road, Barnley (MU1 - Residential & Employment) (Ref: 2021/1000 & 2021/2480)

PM Peak Hour (16:30-17:30)

Vehicle - 100k vehicles have been calculated assuming HDV's form 2 vehicles

HDV (%)
PCU (%)

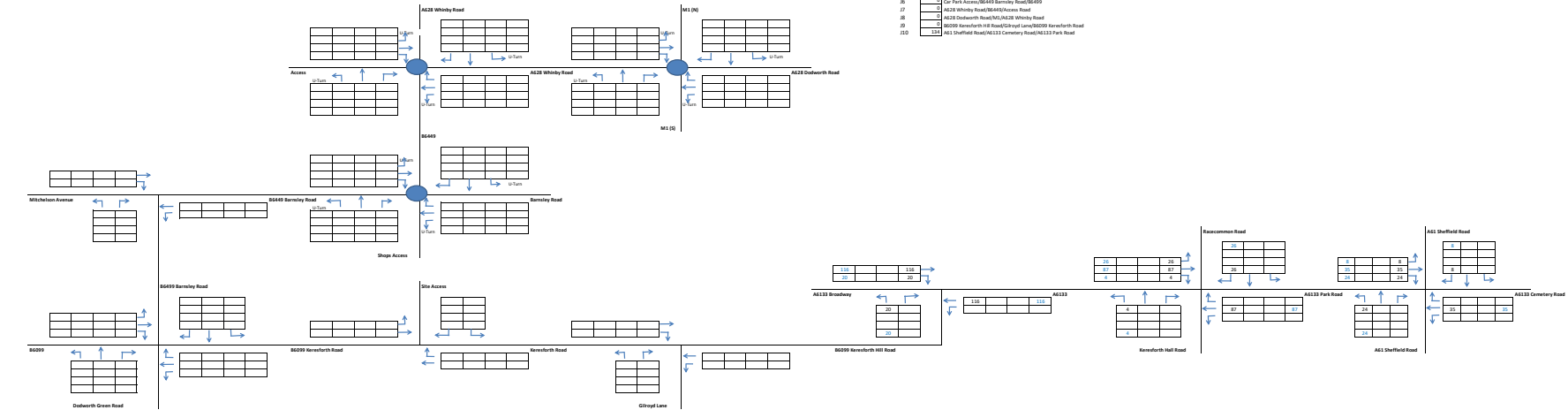


Committed Development - Proposed Secondary School, Land off Keresforth Close (Ref: 2021/1633) TYPICAL PM PEAK ONLY

PM Peak Hour (16:30-17:30)

Vehicle - in the absence of total vehicle numbers, PCU figures have been used

HDV (%)
PCU (%)

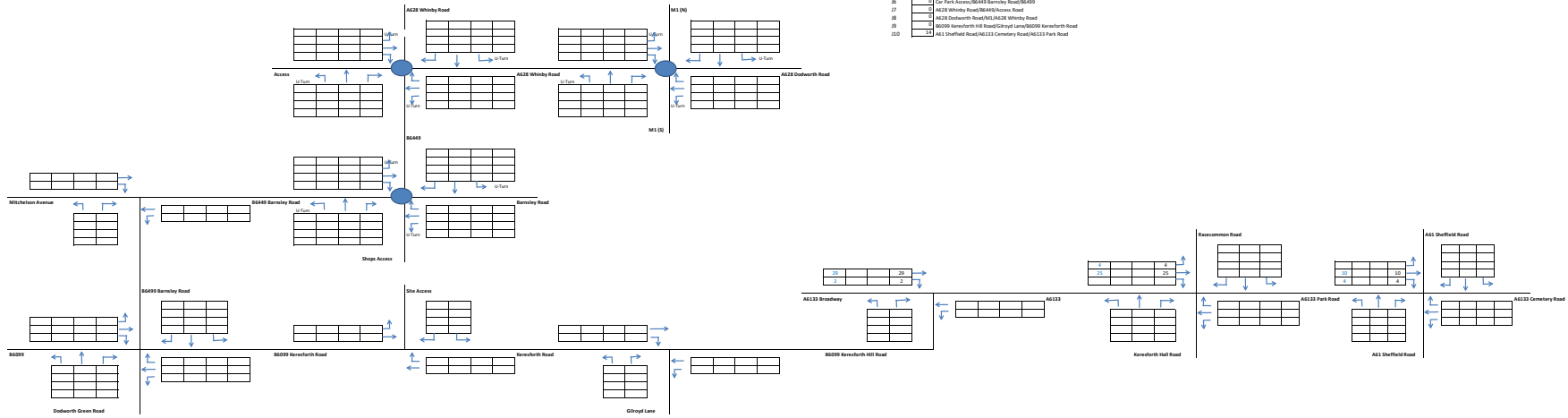


Committed Development - Proposed Secondary School, Land off Kereforth Close (Ref: 2021/1631) STAFF TRIPS ONLY

PM Peak Hour (16:30-17:30)

Vehicles - in the absence of total vehicle numbers, PCU figures have been used

- HCV
- HCV (N)
- PCU

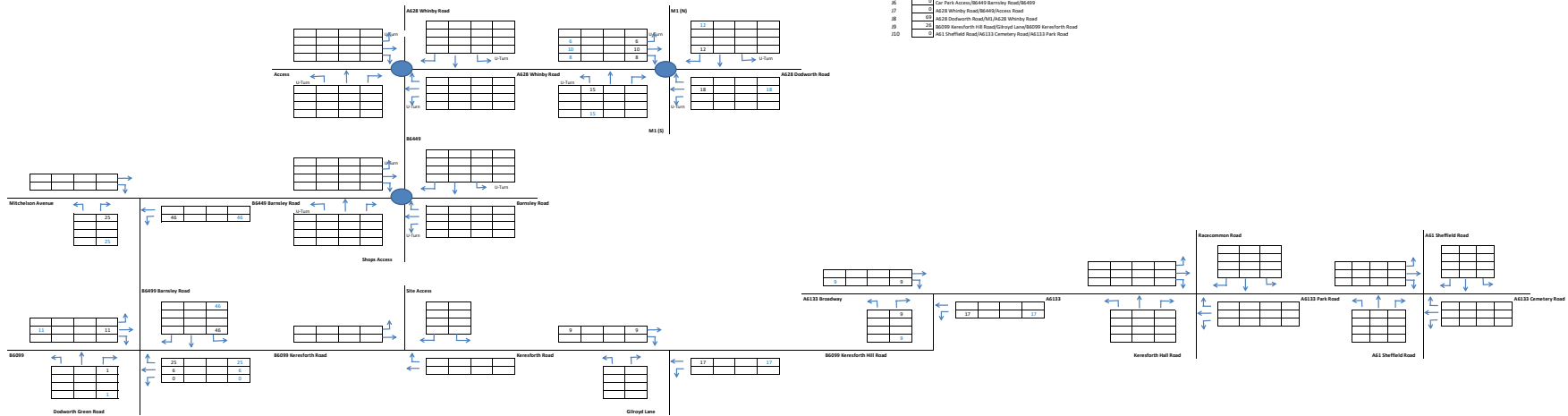


Committed Development - Land off Smithwood Lane and Calver Cross, Gilroyd (Ref: 2021/1642)

PM Peak Hour (16:30-17:30)

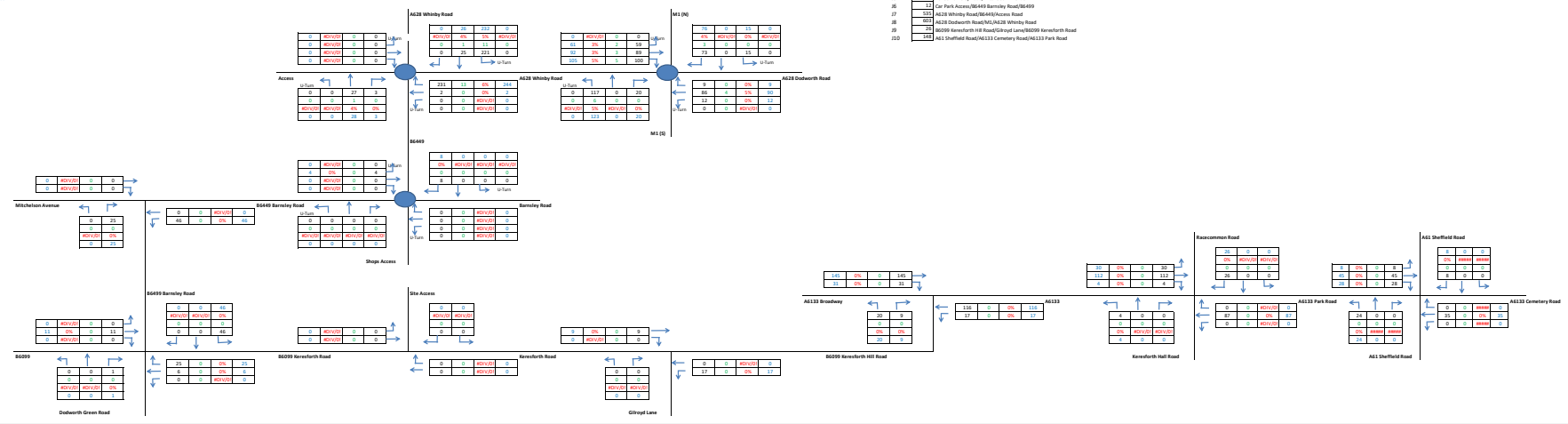
Vehicles - in the absence of total vehicle numbers, PCU figures have been used

- HCV
- HCV (N)
- PCU



Total Committed Development Trips
PM Peak Hour (16:30-17:30)
 Vehicles
 HCVs
 HDV (PK)
 PCUs

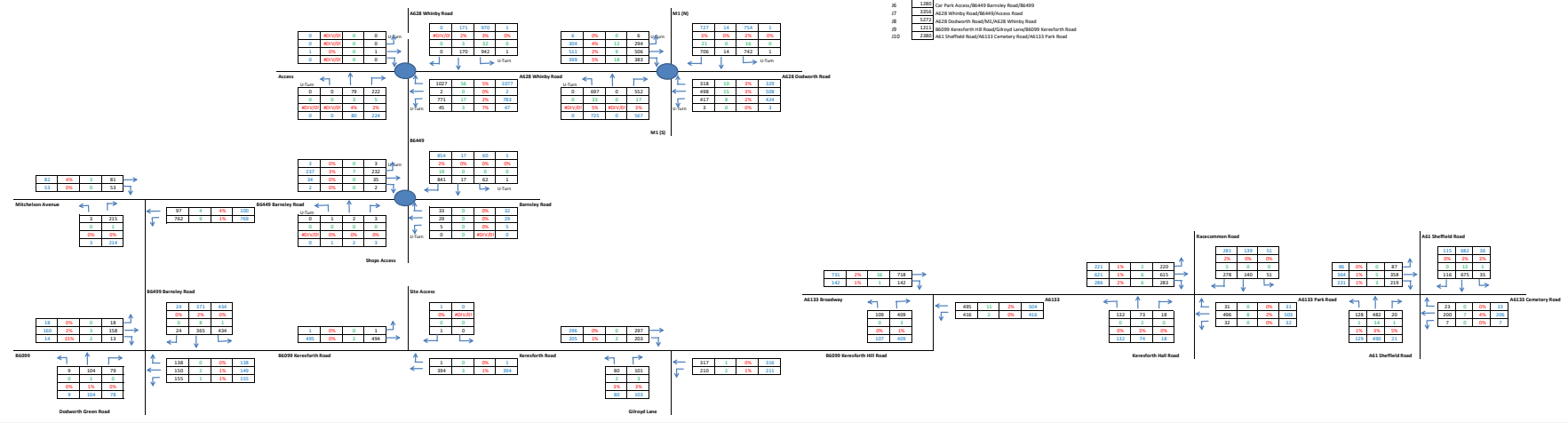
- 21 Wood End Court/S6099 Kereworth Road
- 22 A6133 Kereworth Hill Road/S6009 Kereworth Hill Road
- 23 Rasecommon Road/A6133 Kereworth Hill Road/Kereworth Hill Road
- 24 A6489 Barnimley Road/S6009 High Street/S6449 Dodsworth Green Road/S6009 Station Road
- 25 A6489 Barnimley Road/S6009 High Street/S6449 Dodsworth Green Road/S6009 Station Road
- 26 Car Park Access/S6449 Barnimley Road/S6009
- 27 A6238 Dodsworth Road/A6133 Whinney Road
- 28 A6238 Dodsworth Road/A6133 Whinney Road
- 29 S6009 Kereworth Hill Road/Gt Ryd Lane/S6009 Kereworth Road
- 30 A6133 Dodsworth Road/A6133 Cemetery Road/A6133 Park Road
- 31 A6133 Dodsworth Road/A6133 Cemetery Road/A6133 Park Road



2034 On-Street
PM Peak Hour (16:30-17:30)
 Vehicles
 HCVs
 HDV (PK)
 PCUs

4.1.12 2022 to 2030 TEMPro traffic growth factor

- 31 Wood End Court/S6099 Kereworth Road
- 32 A6133 Kereworth Hill Road/S6009 Kereworth Hill Road
- 33 Rasecommon Road/A6133 Kereworth Hill Road/Kereworth Hill Road
- 34 A6489 Barnimley Road/S6009 High Street/S6449 Dodsworth Green Road/S6009 Station Road
- 35 A6489 Barnimley Road/S6009 High Street/S6449 Dodsworth Green Road/S6009 Station Road
- 36 Car Park Access/S6449 Barnimley Road/S6009
- 37 A6238 Dodsworth Road/A6133 Whinney Road
- 38 A6238 Dodsworth Road/A6133 Whinney Road
- 39 S6009 Kereworth Hill Road/Gt Ryd Lane/S6009 Kereworth Road
- 40 A6133 Dodsworth Road/A6133 Cemetery Road/A6133 Park Road
- 41 A6133 Dodsworth Road/A6133 Cemetery Road/A6133 Park Road



2022 Base

PM Peak Hour (16:30-17:30)

Vehicle

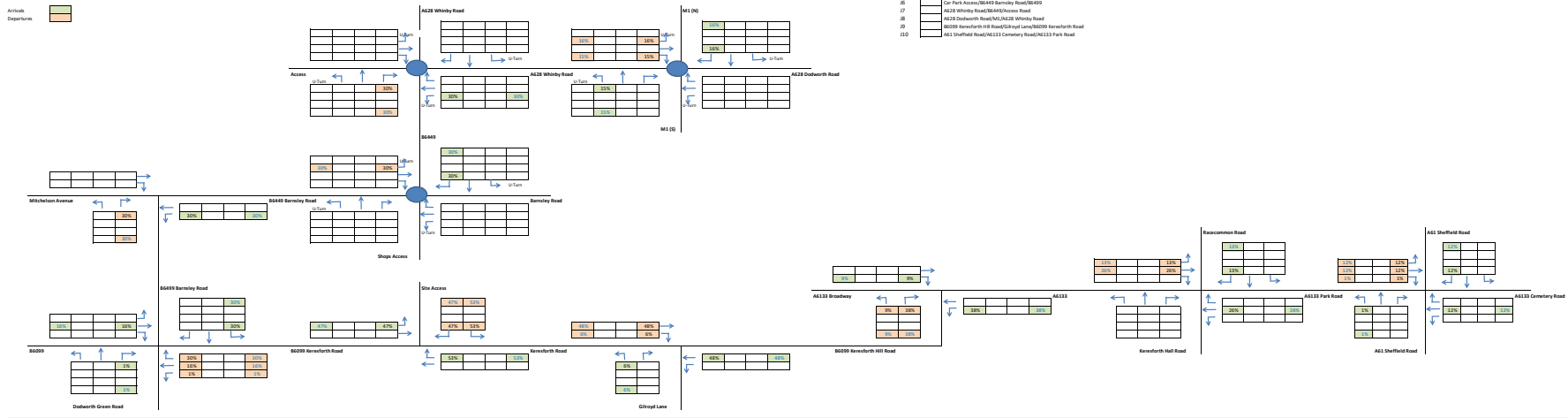
HCV

HCV (%)

PCU

Arrivals

Departures



- 11 Wood End Court/B6099 Keresforth Road
- 12 A6133 Keresforth Hill Road/B6099 Keresforth Hill Road
- 13 B6099 Keresforth Hill Road/A6133 Keresforth Hill Road/Keresforth Hill Road
- 14 B6449 Barnley Road/B6099 High Street/B6449 Dudenworth Green Road/B6099 Station Road
- 15 B6449 Barnley Road/Michelson Avenue
- 16 Car Park Access/B6449 Barnley Road/B6449
- 17 A628 Whiskey Road/B6449 Barnley Road
- 18 A628 Dudenworth Road/A6133 Whiskey Road
- 19 B6099 Keresforth Hill Road/Girtpool Lane/B6099 Keresforth Hill Road
- 210 A611 Sheffield Road/A6133 Cemetery Road/A6133 Park Road

Development Title

PM Peak Hour (16:30-17:30)

Vehicle

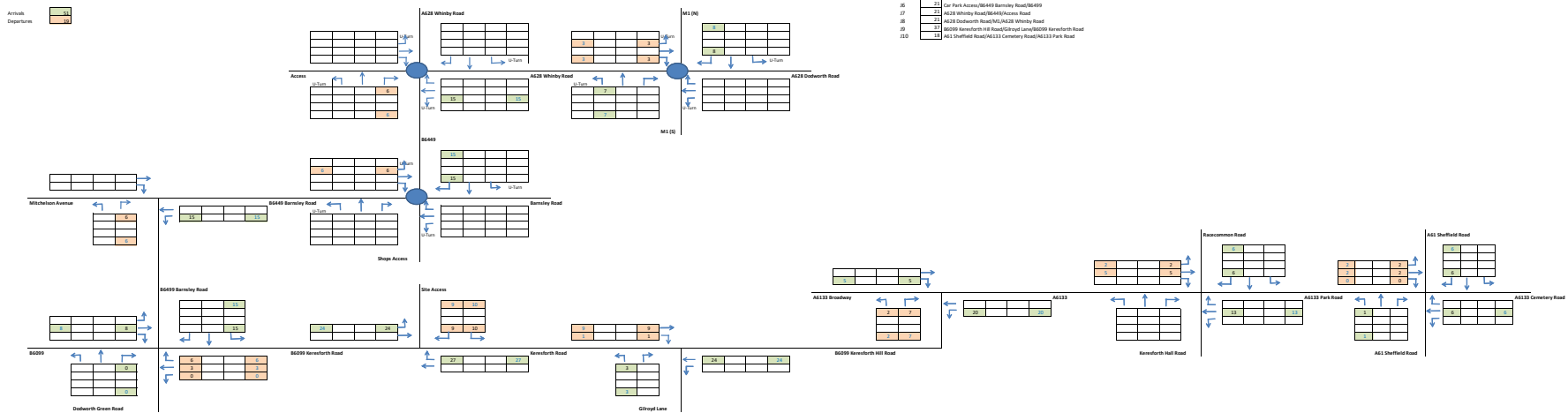
HCV

HCV (%)

PCU

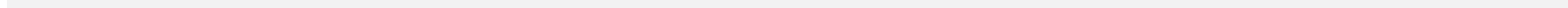
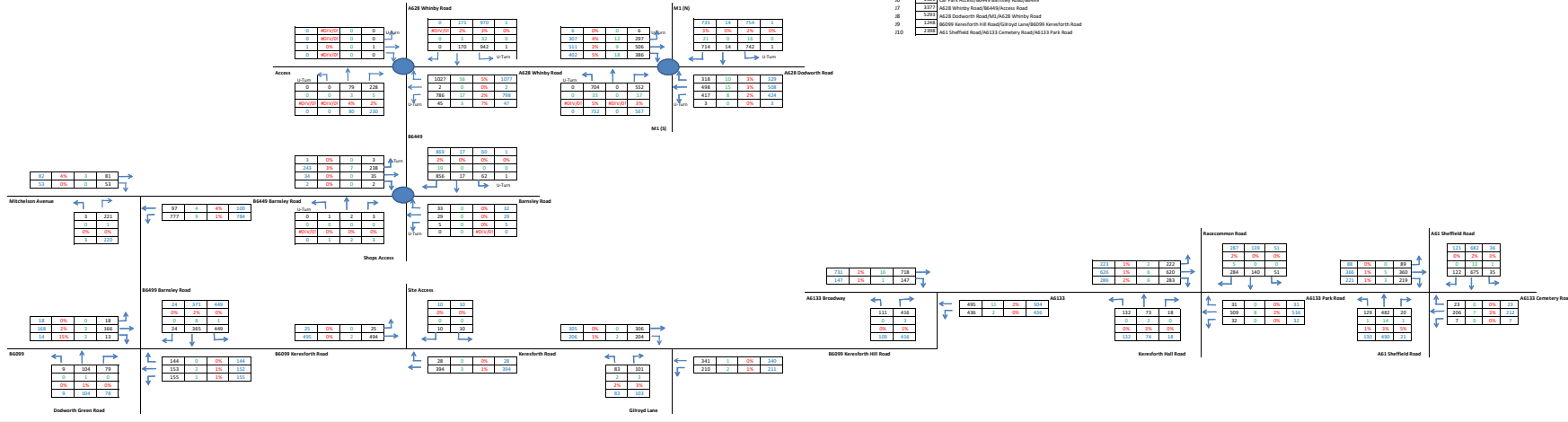
Arrivals

Departures



- 11 Wood End Court/B6099 Keresforth Road
- 12 A6133 Keresforth Hill Road/B6099 Keresforth Hill Road
- 13 B6099 Keresforth Hill Road/A6133 Keresforth Hill Road/Keresforth Hill Road
- 14 B6449 Barnley Road/B6099 High Street/B6449 Dudenworth Green Road/B6099 Station Road
- 15 B6449 Barnley Road/Michelson Avenue
- 16 Car Park Access/B6449 Barnley Road/B6449
- 17 A628 Whiskey Road/B6449 Barnley Road
- 18 A628 Dudenworth Road/A6133 Whiskey Road
- 19 B6099 Keresforth Hill Road/Girtpool Lane/B6099 Keresforth Hill Road
- 210 A611 Sheffield Road/A6133 Cemetery Road/A6133 Park Road

- 21 - 2201 Windmill Close/B00209 Keraworth Road
- 22 - 2202 A6133 Keraworth Hill Road/B0009 Keraworth Hill Road
- 23 - 2203 Newcommon Road/A6133 Keraworth Hill Road/Keraworth Hill Road
- 24 - 1202 B6499 Barnimley Road/B0009 High View/B6499 Doodworth Green Road/B0009 Station Road
- 25 - 1202 B6499 Barnimley Road/Mulcahane Avenue
- 26 - 1202 G17 Park Access/B6499 Barnimley Road/B6499
- 27 - 1202 A6133 Whinny Road/B6499 Access Road
- 28 - 1202 A6133 Doodworth Road/M12828 Whinny Road
- 29 - 1202 B0009 Keraworth Hill Road/G17 Park Lane/B0009 Keraworth Road
- 210 - 2202 A6133 Duffield Road/A6133 Cemetery Road/A6133 Park Road



Appendix 2 – TEMPro Traffic Growth

Traffic Growth Forecasts

Base Year: 2022
Assessment Year: 2030
Period (years): 8
Road Type: A Road
Area Served: Region
Region Data Set Version: Yorkshire & Humber YH v8
Software Version: TEMPRO v8
Area: Barnsley Local Authority Area

Factor	Households (HH)	Jobs
Base Year Unadjusted	108548	92140
Forecast Year Unadjusted	113816	95129
Growth Unadjusted	5268	2989
Committed Developments	1958	3143
Do Nothing Adjusted	111858	92140
Proposed Development	126	
Do Something Adjusted	111732	92140

Scenario	Weekday AM Peak	Weekday PM Peak	Average Weekday
Unadjusted	1.0683	1.0687	1.0710
Unadjusted Growth Factor:	6.8%	6.9%	7.1%

Do Something	Weekday AM Peak	Weekday PM Peak	Average Weekday
Adjusted	1.0415	1.0427	1.0449
Adjusted Growth Factor:	4.2%	4.3%	4.5%

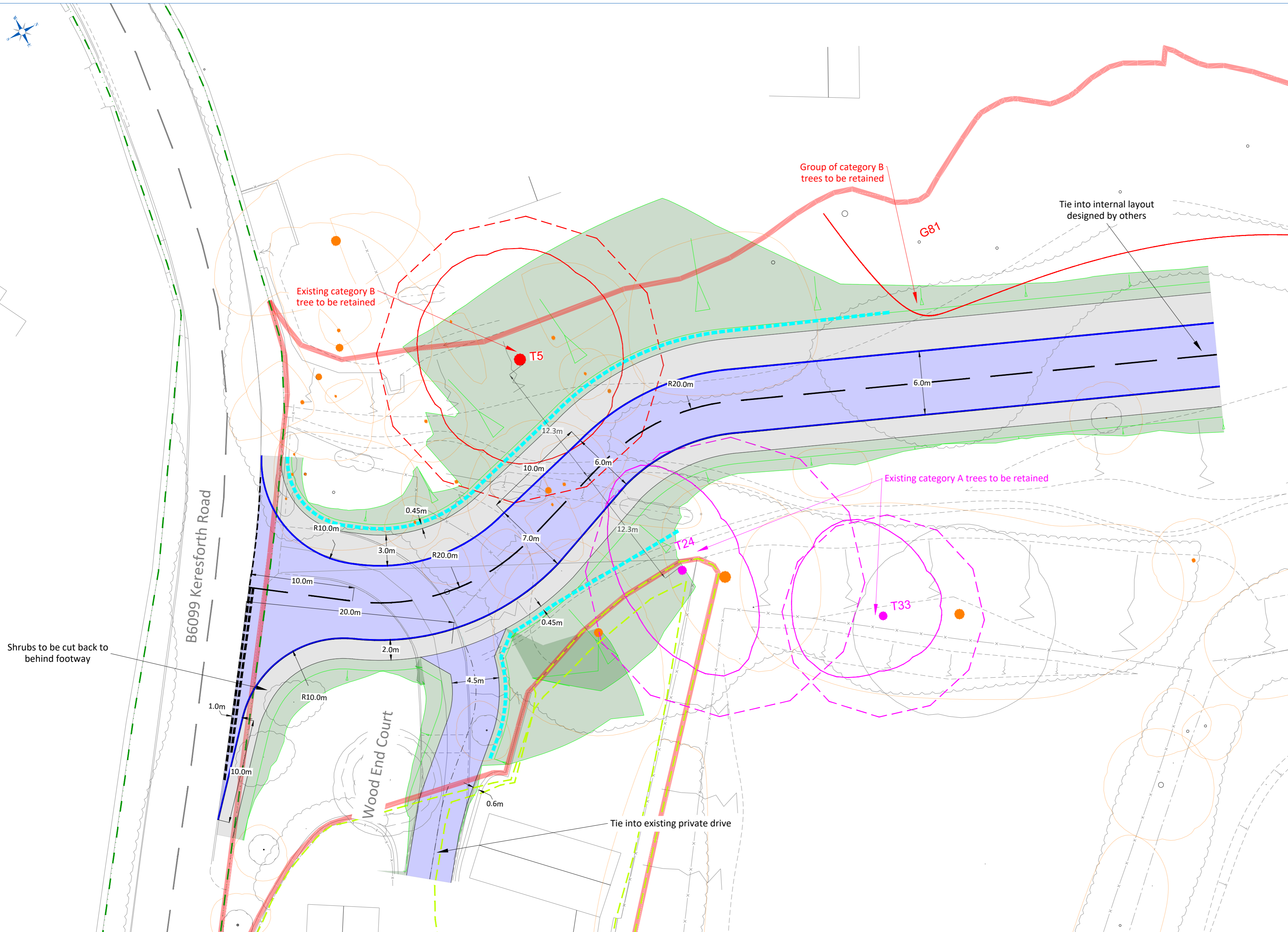
Land to the South-East of Higham Common Road, Barnsley (MU1 - Residential)
 Land off Smithywood Lane and Calver Close, Gilroyd, Barnsley

 Proposed Secondary School, Land off Keresforth Close
 Capitol Park Extension
 Land to the South-East of Higham Common Road, Barnsley (MU1 - Employment)

Dwellings
 1760
 198
1958

 Jobs
 90
 193 based on parking spaces
 2860 based on land area and job growth aspirations in the local plan
3143 50 hectares out of 306 hectares (17,500 jobs)

Appendix 3 – Preliminary Access Design



KEY:

- Potential carriageway
- Potential kerb line
- Potential footway
- Potential road markings
- Potential embankment works at 1:3 with 1m flat verge adjacent to footway (unless otherwise shown to be protected by retaining structure)
- Indicative Structural Retaining Feature (for details see drawings by Queensberry Design)
- Assumed development boundary
- Land Registry Boundaries
- Assumed Highway Boundary

Local Transport Projects Ltd accepts no liability for the accuracy of the data provided and the highway boundary information shown is subject to checks by a licensed conveyancer.

- Existing category U and category C trees assumed to be okay for removal if required
- Existing category B tree to be retained
- Existing category A tree to be retained
- Root Protection Areas

Tree information based on:
Tree Constraints Plan AWA5655 provided by client.

Notes:

1. Preliminary design layout only - scheme subject to further detailed design.
2. Scheme subject to agreement with local highway authority and other key stakeholders.
3. Checks to be made on existing Statutory Undertakers equipment.
4. Design (including type and size) of structural elements such as retaining structures to be undertaken at detailed design stage. For current details of potential retaining structure see drawings by Queensberry Design.

Disclaimers:-

- i. This drawing is copyright and must not be copied in part or in whole unless agreed in writing by Local Transport Projects Ltd.
- ii. Reference should be made to the project's drawing register to ensure the latest drawing is being referred to.
- iii. All dimensions are to be checked by the contractor prior to commencement of work. Any discrepancy shall be reported immediately to Local Transport Projects Ltd.
- iv. All work shall be carried out in accordance with local authority, statutory authority and health & safety requirements & regulations.
- v. This drawing is produced to be printed and read in colour. Reproduction in black and white may prevent correct interpretation of some aspects.
- vi. Based on topographical survey supplied by Haycock & Todd Land Survey Consultants Architectural Surveyors.

Client
Keepmoat Homes

Project
Proposed Residential Development,
Keresforth Road, Dodworth

Title
Potential Residential Access Road
Preliminary Design Layout

Status
PRELIMINARY

Drawing number					
Project	Job	Drawing	Sheet	Revision	
LTP / 4283	P2	01	01	L	
Drawn SP		Date 15 09 22			
Scale 1 : 250		Checked MR	Approved TK		

Rev.	Date	By	Chk	Description
I	01.02.24	JC	MR	Updated access to avoid tree RPA
J	06.02.24	JC	MR	Updated access following client comments.
K	05.04.24	JC	MR	Updated access following BMBC comments.
L	28.05.24	JC	MR	Minor amendments.

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traffic engineering and transport planning

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25 000
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Accredited Contractor

Armstrong House,
The Flemingate Centre,
Beverley,
East Riding of Yorkshire.
HU17 0NW.

01482 679 911
info@ltp.co.uk
www.local-transport-projects.co.uk
Registered No. 5295328

A2

Appendix 4 – JI Modelling Results

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: Keresforth Road_Access Junction (126 Dwellings).j9
Path: Z:\Projects\4283 Bark Meadows Dodworth\Data\Modelling\Sept 22\J1
Report generation date: 14/03/2025 12:32:29

- »Proposed Layout - 2030 With Development, AM
- »Proposed Layout - 2030 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
Proposed Layout - 2030 With Development										
Stream B-AC	D1	0.2	9.51	0.14	A	D2	0.1	9.19	0.05	A
Stream C-AB		0.0	5.28	0.03	A		0.2	5.26	0.09	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	Keresforth Road, Dodworth
Location	Keresforth Road/Access Junction
Site number	J1
Date	14/03/2025
Version	
Status	
Identifier	
Client	Keepmoat Homes
Jobnumber	LTP/4283
Enumerator	LTP\AC
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 With Development	AM	ONE HOUR	07:30	09:00	15
D2	2030 With Development	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Proposed Layout	100.000

Proposed Layout - 2030 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Access Road/Keresforth Road Junction	T-Junction	Two-way		0.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Keresforth Road (W)		Major
B	Access Road		Minor
C	Keresforth Road (E)		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 - Keresforth Road (E)	6.80			45.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Access Road	One lane	3.50	52	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	545	0.096	0.242	0.152	0.346
B-C	688	0.102	0.257	-	-
C-B	600	0.224	0.224	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 With Development	AM	ONE HOUR	07:30	09:00	15

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 (PCU/hr)	Scaling Factor (%)
A - Keresforth Road (W)		✓	486	100.000
B - Access Road		✓	55	100.000
C - Keresforth Road (E)		✓	344	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Keresforth Road (W)	B - Access Road	C - Keresforth Road (E)
From	A - Keresforth Road (W)	0	9	477
	B - Access Road	26	0	29
	C - Keresforth Road (E)	335	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Keresforth Road (W)	B - Access Road	C - Keresforth Road (E)
From	A - Keresforth Road (W)	0	0	1
	B - Access Road	0	0	0
	C - Keresforth Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.14	9.51	0.2	A
C-AB	0.03	5.28	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	495	0.084	41	0.1	7.919	A
C-AB	11	698	0.015	11	0.0	5.277	A
C-A	248			248			
A-B	7			7			
A-C	359			359			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	472	0.105	49	0.1	8.523	A
C-AB	14	719	0.019	14	0.0	5.144	A
C-A	295			295			
A-B	8			8			
A-C	429			429			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	439	0.138	60	0.2	9.505	A
C-AB	20	750	0.026	19	0.0	4.969	A
C-A	359			359			
A-B	10			10			
A-C	525			525			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	439	0.138	61	0.2	9.513	A
C-AB	20	750	0.026	20	0.0	4.973	A
C-A	359			359			
A-B	10			10			
A-C	525			525			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	472	0.105	50	0.1	8.533	A
C-AB	14	719	0.019	14	0.0	5.151	A
C-A	295			295			
A-B	8			8			
A-C	429			429			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	495	0.084	42	0.1	7.941	A
C-AB	11	698	0.015	11	0.0	5.281	A
C-A	248			248			
A-B	7			7			
A-C	359			359			

Proposed Layout - 2030 With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Access Road/Keresforth Road Junction	T-Junction	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2030 With Development	PM	ONE HOUR	16:15	17:45	15

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 (PCU/hr)	Scaling Factor (%)
A - Keresforth Road (W)		✓	520	100.000
B - Access Road		✓	20	100.000
C - Keresforth Road (E)		✓	422	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Keresforth Road (W)	B - Access Road	C - Keresforth Road (E)
From	A - Keresforth Road (W)	0	25	495
	B - Access Road	10	0	10
	C - Keresforth Road (E)	394	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Keresforth Road (W)	B - Access Road	C - Keresforth Road (E)
From	A - Keresforth Road (W)	0	0	0
	B - Access Road	0	0	0
	C - Keresforth Road (E)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	9.19	0.1	A
C-AB	0.09	5.26	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	477	0.032	15	0.0	7.784	A
C-AB	36	724	0.049	35	0.1	5.245	A
C-A	282			282			
A-B	19			19			
A-C	373			373			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	451	0.040	18	0.0	8.314	A
C-AB	48	752	0.064	48	0.1	5.136	A
C-A	332			332			
A-B	22			22			
A-C	445			445			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	414	0.053	22	0.1	9.183	A
C-AB	68	792	0.086	68	0.2	5.004	A
C-A	396			396			
A-B	28			28			
A-C	545			545			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	414	0.053	22	0.1	9.186	A
C-AB	69	792	0.087	69	0.2	5.007	A
C-A	396			396			
A-B	28			28			
A-C	545			545			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	451	0.040	18	0.0	8.319	A
C-AB	48	752	0.064	48	0.1	5.145	A
C-A	332			332			
A-B	22			22			
A-C	445			445			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	477	0.032	15	0.0	7.790	A
C-AB	36	725	0.049	36	0.1	5.255	A
C-A	282			282			
A-B	19			19			
A-C	373			373			

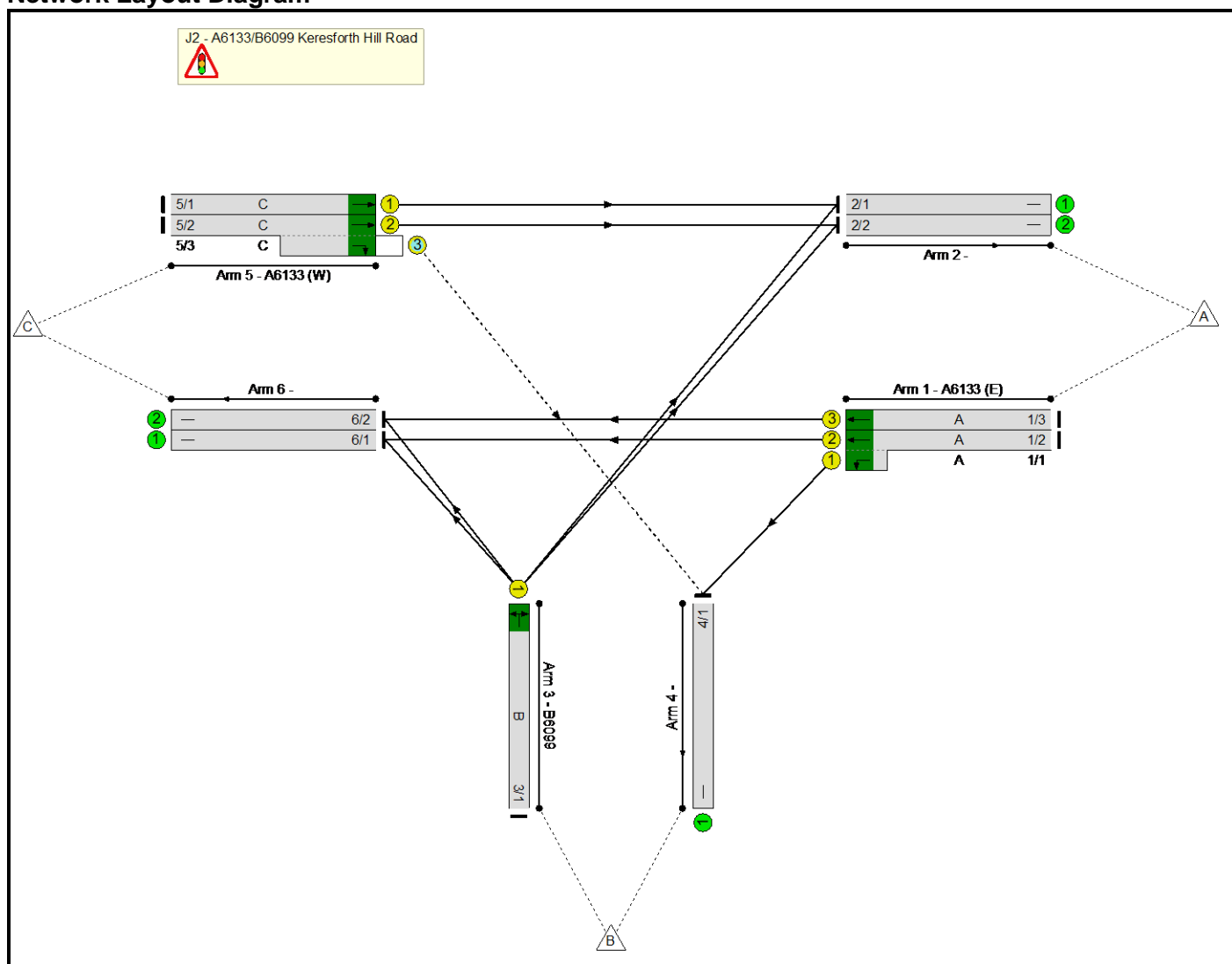
Appendix 5 – J2 Modelling Results

LTP LinSig Output

User and Project Details

Project:	4283 Bark Meadows Dodworth
Title:	Proposed Residential Development (126 dwellings)
Location:	Barnsley
Client:	Keepmoat Homes
Site Ref(s):	J2 - A6133 Keresforth Hill Road/B6099 Keresforth Hill Road
Additional detail:	
File name:	J2 - A6133 Keresforth Hill Road B6099 Keresforth Hill Road.lsg3x
Author:	AC
Company:	Local Transport Projects Ltd
Address:	

Network Layout Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Pedestrian		7	7
E	Pedestrian		7	7
F	Pedestrian		7	7

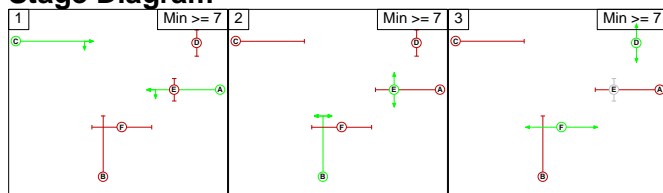
Phase Intergreens Matrix

		Starting Phase					
		A	B	C	D	E	F
Terminating Phase	A		5	-	-	5	7
	B	5		6	9	-	5
	C	-	5		8	-	8
	D	-	8	8		-	-
	E	11	-	-	-		-
	F	10	10	10	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	B E
3	D F

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		5	8
	2	11		9
	3	10	10	

Give-Way Lane Input Data

Junction: J2 - A6133/B6099 Keresforth Hill Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
5/3 (A6133 (W))	4/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
				1/2	1.09	All					
				1/3	1.09	All					

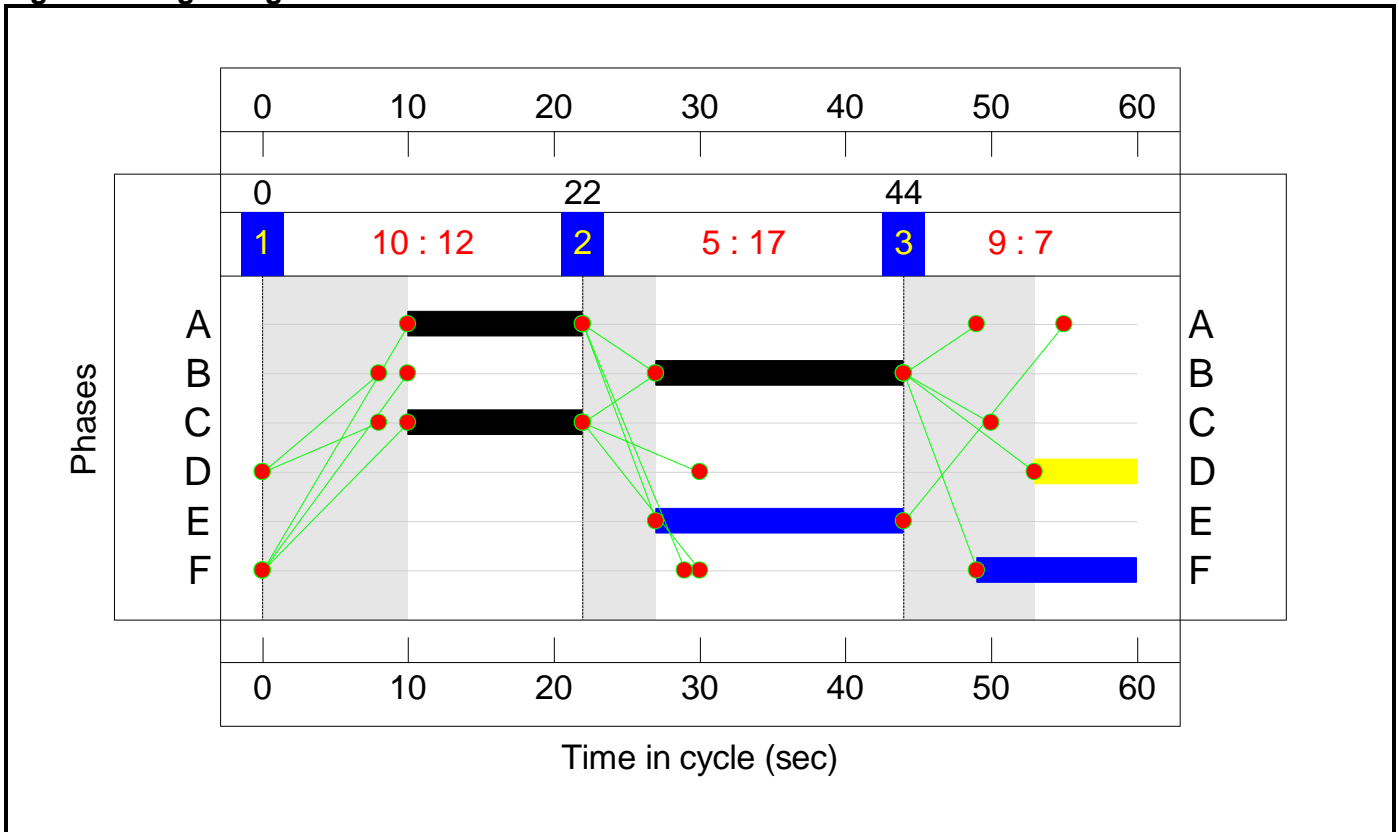
Lane Input Data

Junction: J2 - A6133/B6099 Keresforth Hill Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A6133 (E))	U	A	2	3	3.0	Geom	-	3.50	0.00	Y	Arm 4 Left	10.00
1/2 (A6133 (E))	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Ahead	Inf
1/3 (A6133 (E))	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Ahead	Inf
2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
2/2	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (B6099)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 2 Right	14.00
											Arm 6 Left	10.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A6133 (W))	U	C	2	3	60.0	Geom	-	3.60	0.00	Y	Arm 2 Ahead	Inf
5/2 (A6133 (W))	U	C	2	3	60.0	Geom	-	3.60	0.00	Y	Arm 2 Ahead	Inf
5/3 (A6133 (W))	O	C	2	3	7.0	Geom	-	3.60	0.00	Y	Arm 4 Right	15.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base AM'	07:45	08:45	01:00	
2: '2022 Base PM'	16:30	17:30	01:00	
3: '2030 Do Nothing AM'	07:45	08:45	01:00	
4: '2030 Do Nothing PM'	16:30	17:30	01:00	
5: '2030 With Development AM'	07:45	08:45	01:00	
6: '2030 With Development PM'	16:30	17:30	01:00	

Scenario 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')
Signal Timings Diagram



Traffic Flows, Desired
Desired Flow :

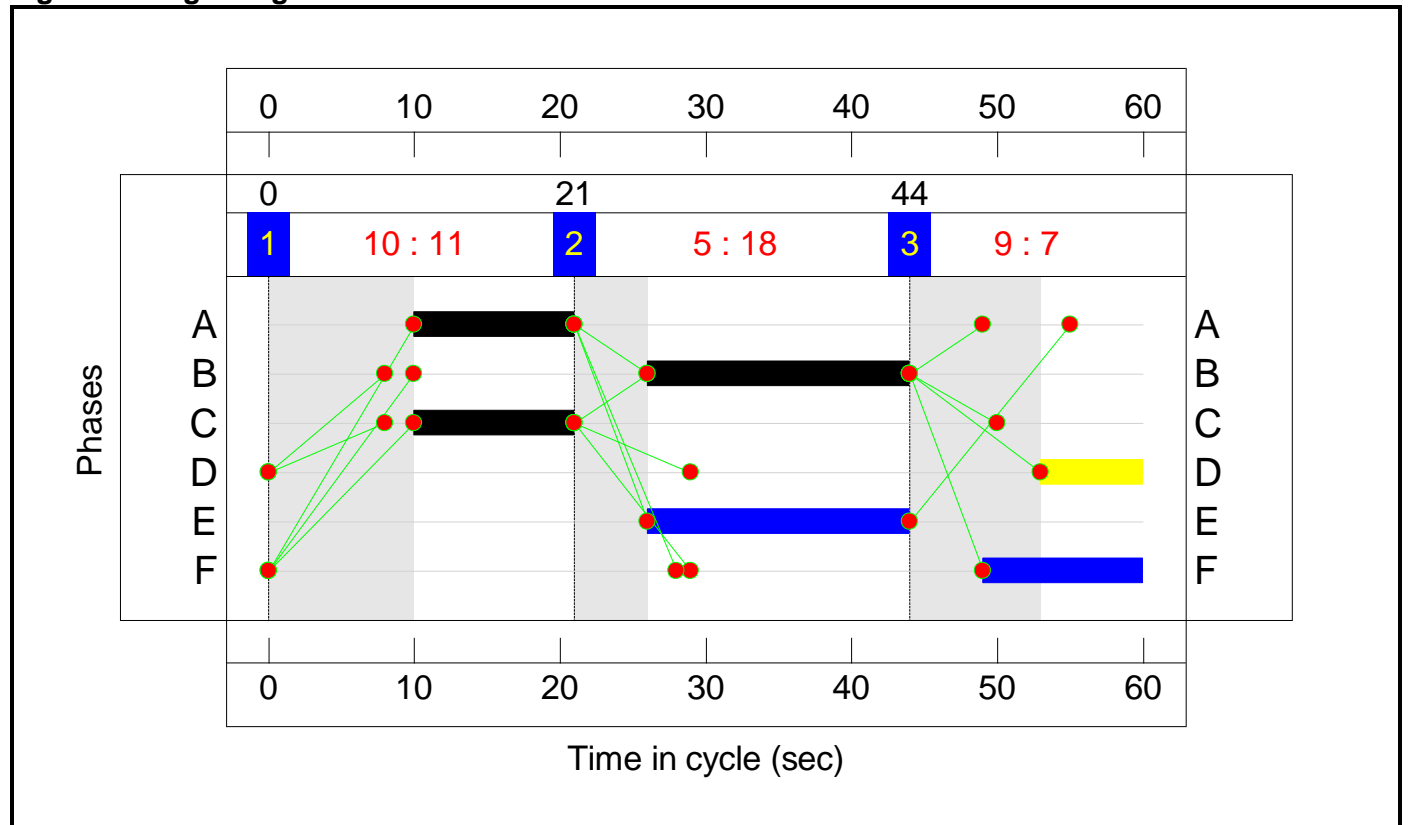
		Destination			
		A	B	C	Tot.
Origin	A	0	374	505	879
	B	380	0	107	487
	C	374	87	0	461
	Tot.	754	461	612	1827

Lane Saturation Flows

Junction: J2 - A6133/B6099 Keresforth Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A6133 (E))	3.50	0.00	Y	Arm 4 Left	10.00	100.0 %	1709	1709
1/2 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/3 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1	Infinite Saturation Flow						Inf	Inf
2/2	Infinite Saturation Flow						Inf	Inf
3/1 (B6099)	3.50	0.00	Y	Arm 2 Right Arm 6 Left	14.00 10.00	78.0 % 22.0 %	1760	1760
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/2 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/3 (A6133 (W))	3.60	0.00	Y	Arm 4 Right	15.00	100.0 %	1795	1795
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

Signal Timings Diagram



Traffic Flows, Desired

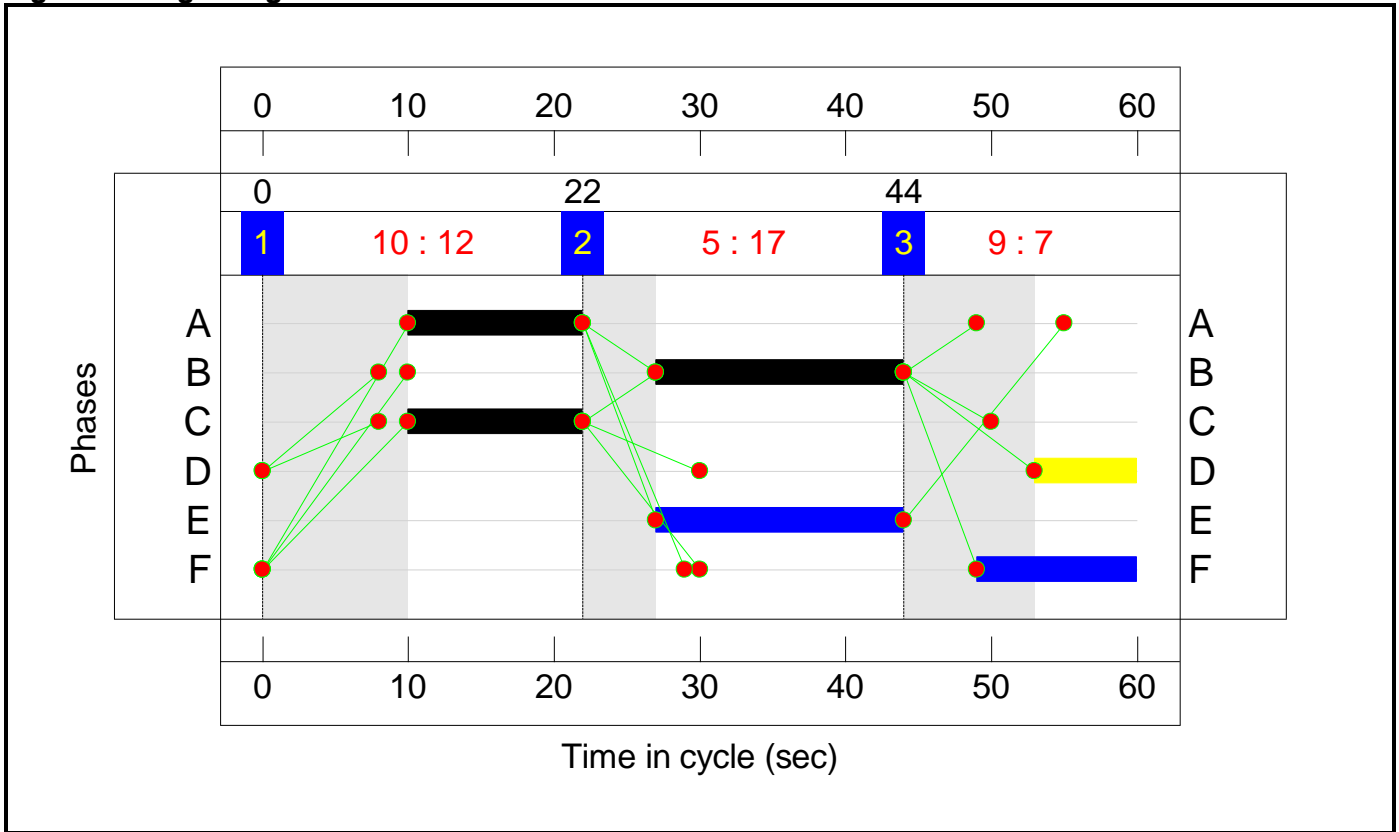
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	383	372	755
	B	384	0	83	467
	C	562	106	0	668
	Tot.	946	489	455	1890

Lane Saturation Flows

Junction: J2 - A6133/B6099 Keresforth Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A6133 (E))	3.50	0.00	Y	Arm 4 Left	10.00	100.0 %	1709	1709
1/2 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	0.0 %	1965	1965
1/3 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1	Infinite Saturation Flow						Inf	Inf
2/2	Infinite Saturation Flow						Inf	Inf
3/1 (B6099)	3.50	0.00	Y	Arm 2 Right	14.00	82.2 %	1763	1763
				Arm 6 Left	10.00	17.8 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/2 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/3 (A6133 (W))	3.60	0.00	Y	Arm 4 Right	15.00	100.0 %	1795	1795
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2030 Do Nothing AM' (FG3: '2030 Do Nothing AM', Plan 1: 'Network Control Plan 1')
Signal Timings Diagram



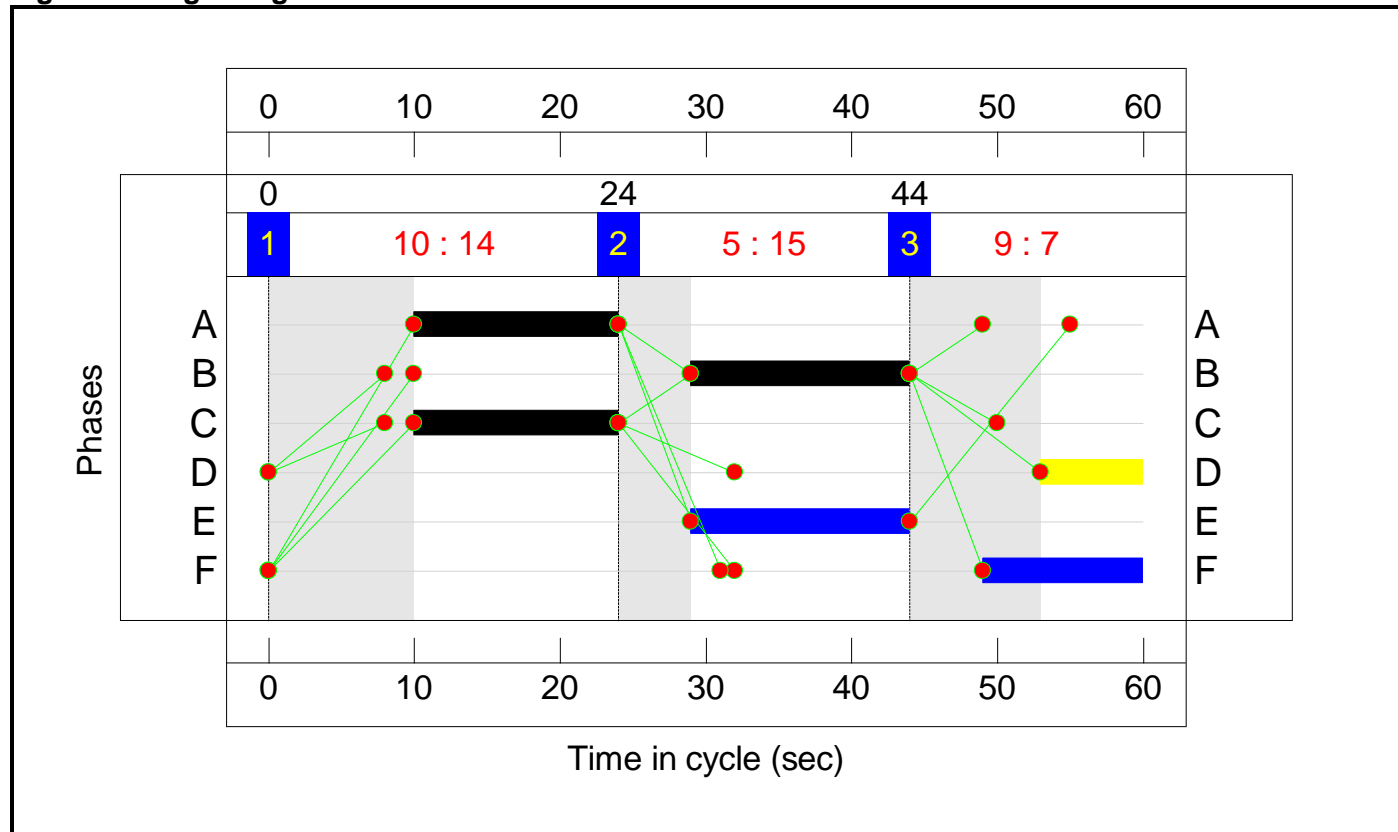
Traffic Flows, Desired
Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	397	672	1069
	B	417	0	133	550
	C	506	111	0	617
	Tot.	923	508	805	2236

Lane Saturation Flows

Junction: J2 - A6133/B6099 Keresforth Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A6133 (E))	3.50	0.00	Y	Arm 4 Left	10.00	100.0 %	1709	1709
1/2 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/3 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1	Infinite Saturation Flow						Inf	Inf
2/2	Infinite Saturation Flow						Inf	Inf
3/1 (B6099)	3.50	0.00	Y	Arm 2 Right Arm 6 Left	14.00 10.00	75.8 % 24.2 %	1758	1758
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/2 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	0.0 %	1975	1975
5/3 (A6133 (W))	3.60	0.00	Y	Arm 4 Right	15.00	100.0 %	1795	1795
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2030 Do Nothing PM' (FG4: '2030 Do Nothing PM', Plan 1: 'Network Control Plan 1')



Traffic Flows, Desired

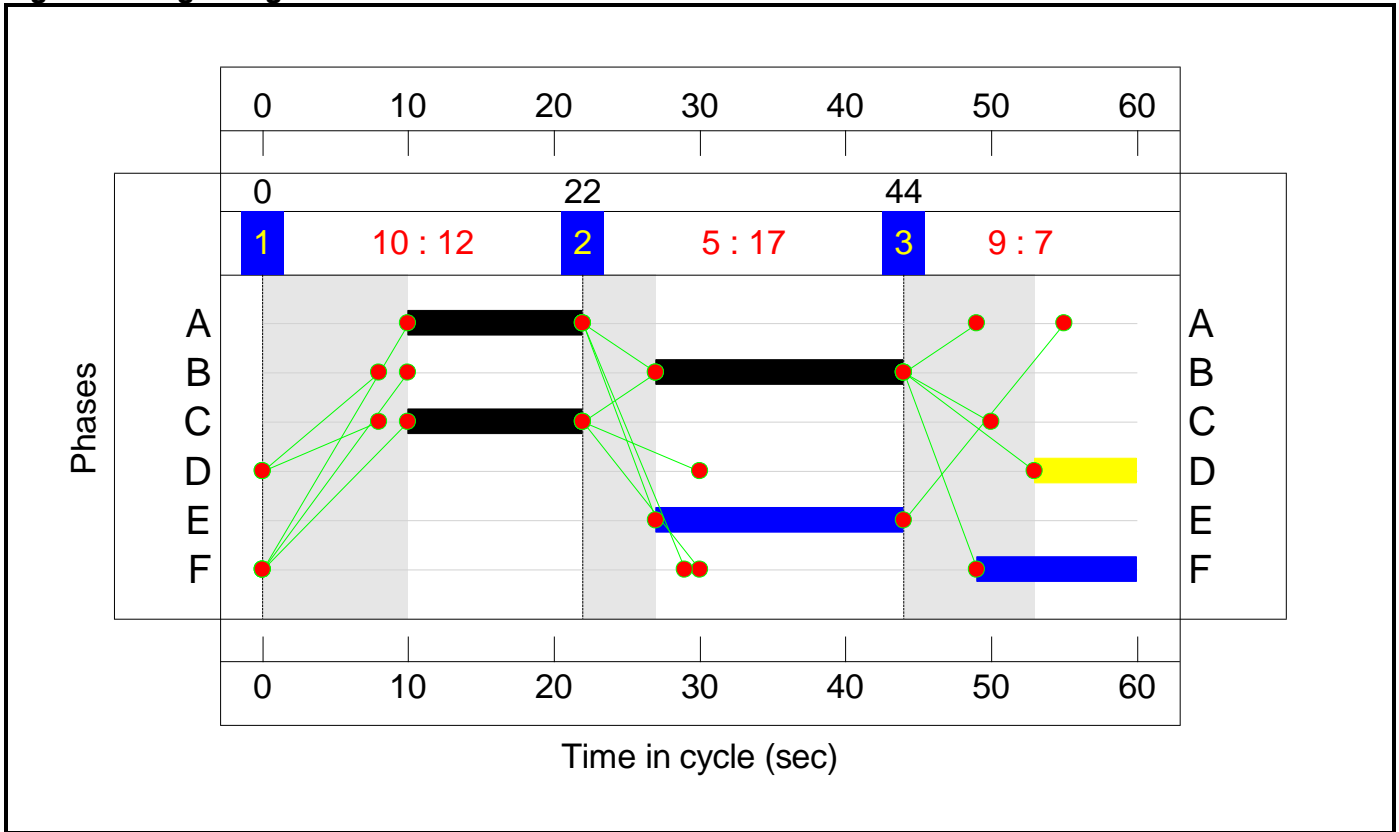
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	416	504	920
	B	409	0	107	516
	C	731	142	0	873
	Tot.	1140	558	611	2309

Lane Saturation Flows

Junction: J2 - A6133/B6099 Keresforth Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A6133 (E))	3.50	0.00	Y	Arm 4 Left	10.00	100.0 %	1709	1709
1/2 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/3 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1	Infinite Saturation Flow						Inf	Inf
2/2	Infinite Saturation Flow						Inf	Inf
3/1 (B6099)	3.50	0.00	Y	Arm 2 Right	14.00	79.3 %	1761	1761
				Arm 6 Left	10.00	20.7 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/2 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/3 (A6133 (W))	3.60	0.00	Y	Arm 4 Right	15.00	100.0 %	1795	1795
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2030 With Development AM' (FG5: '2030 With Development AM', Plan 1: 'Network Control Plan 1')
Signal Timings Diagram



Traffic Flows, Desired
Desired Flow :

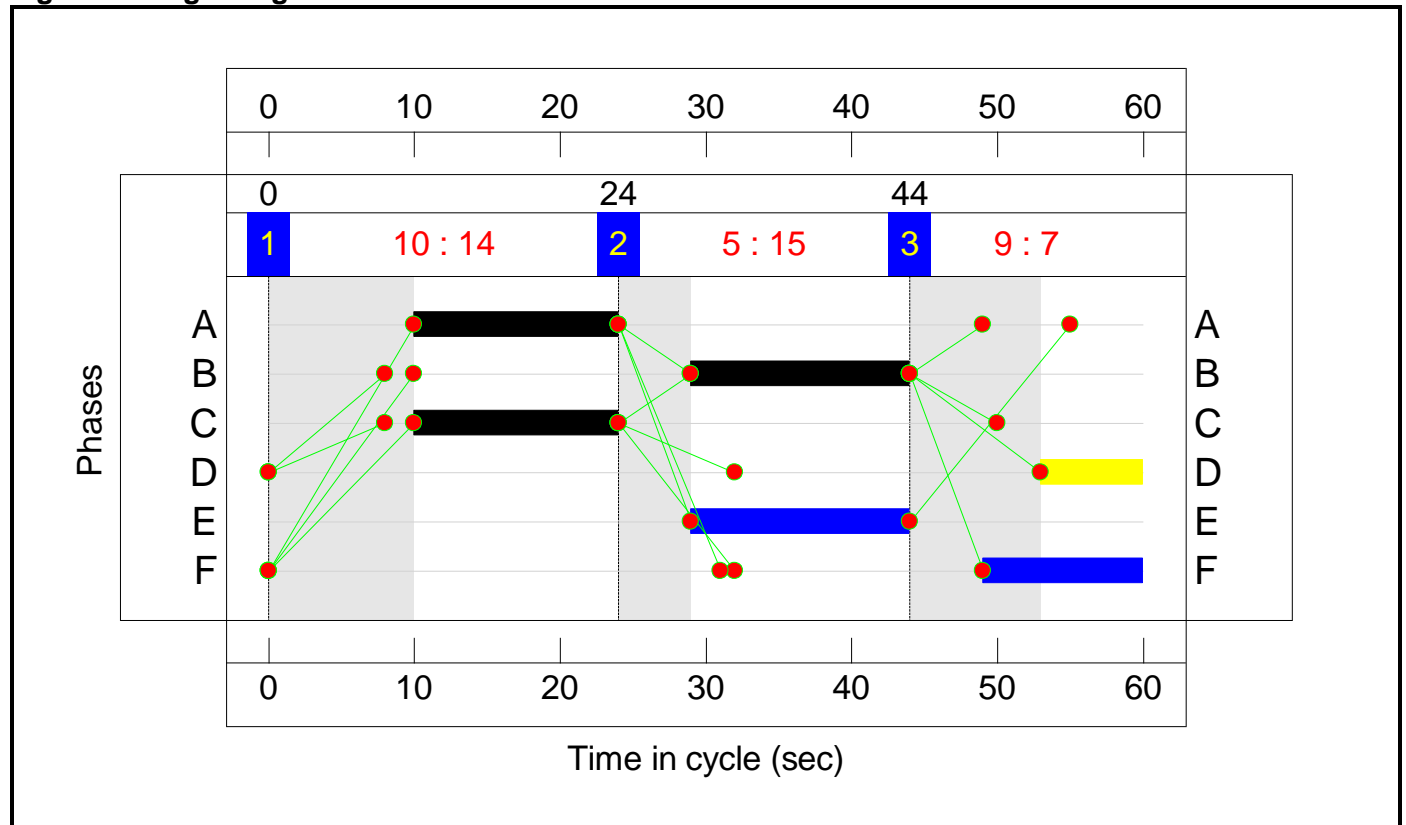
	Destination				
	A	B	C	Tot.	
Origin	A	0	404	672	1076
	B	437	0	138	575
	C	506	113	0	619
	Tot.	943	517	810	2270

Lane Saturation Flows

Junction: J2 - A6133/B6099 Keresforth Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A6133 (E))	3.50	0.00	Y	Arm 4 Left	10.00	100.0 %	1709	1709
1/2 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/3 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1	Infinite Saturation Flow						Inf	Inf
2/2	Infinite Saturation Flow						Inf	Inf
3/1 (B6099)	3.50	0.00	Y	Arm 2 Right Arm 6 Left	14.00 10.00	76.0 % 24.0 %	1759	1759
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/2 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	0.0 %	1975	1975
5/3 (A6133 (W))	3.60	0.00	Y	Arm 4 Right	15.00	100.0 %	1795	1795
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2030 With Development PM' (FG6: '2030 With Development PM', Plan 1: 'Network Control Plan 1')

Signal Timings Diagram



Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	436	504	940
	B	416	0	109	525
	C	731	147	0	878
	Tot.	1147	583	613	2343

Lane Saturation Flows

Junction: J2 - A6133/B6099 Keresforth Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A6133 (E))	3.50	0.00	Y	Arm 4 Left	10.00	100.0 %	1709	1709
1/2 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
1/3 (A6133 (E))	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1	Infinite Saturation Flow						Inf	Inf
2/2	Infinite Saturation Flow						Inf	Inf
3/1 (B6099)	3.50	0.00	Y	Arm 2 Right	14.00	79.2 %	1761	1761
				Arm 6 Left	10.00	20.8 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/2 (A6133 (W))	3.60	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1975	1975
5/3 (A6133 (W))	3.60	0.00	Y	Arm 4 Right	15.00	100.0 %	1795	1795
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Network Results

Scenario 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development (126 dwellings)	-	-	-		-	-	-	-	-	-	72.2%	-	-	64	0	23	12.5	-	-
J2 - A6133/B6099 Keresforth Hill Road	-	-	-		-	-	-	-	-	-	72.2%	-	-	64	0	23	12.5	-	-
1/2+1/1	A6133 (E) Left Ahead	U	A		1	12	-	438	1965:1709	90+527	71.0 : 71.0%	438	438	-	-	-	3.3	26.8	6.9
1/3	A6133 (E) Ahead	U	A		1	12	-	441	1965	655	67.3%	441	441	-	-	-	3.1	25.5	7.3
3/1	B6099 Right Left	U	B		1	17	-	487	1760	675	72.2%	487	487	-	-	-	3.4	25.2	8.2
5/1	A6133 (W) Ahead	U	C		1	12	-	188	1975	658	28.6%	188	188	-	-	-	1.0	18.6	2.5
5/2+5/3	A6133 (W) Ahead Right	U+O	C		1	12	-	273	1975:1795	572+168	32.5 : 51.8%	273	273	64	0	23	1.7	22.5	2.6
<p style="text-align: center;">C1 PRC for Signalled Lanes (%): 24.7 Total Delay for Signalled Lanes (pcuHr): 12.48 Cycle Time (s): 60</p> <p style="text-align: center;">PRC Over All Lanes (%): 24.7 Total Delay Over All Lanes(pcuHr): 12.48</p>																			

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development (126 dwellings)	-	-	-		-	-	-	-	-	-	61.1%	-	-	106	0	0	10.5	-	-
J2 - A6133/B6099 Keresforth Hill Road	-	-	-		-	-	-	-	-	-	61.1%	-	-	106	0	0	10.5	-	-
1/2+1/1	A6133 (E) Left Ahead	U	A		1	11	-	383	1965:1709	0+627	0.0 : 61.1%	383	383	-	-	-	2.4	22.9	5.9
1/3	A6133 (E) Ahead	U	A		1	11	-	372	1965	721	51.6%	372	372	-	-	-	2.1	20.0	5.3
3/1	B6099 Right Left	U	B		1	18	-	467	1763	793	58.9%	467	467	-	-	-	2.3	17.8	6.4
5/1	A6133 (W) Ahead	U	C		1	11	-	278	1975	724	38.4%	278	278	-	-	-	1.4	18.0	3.7
5/2+5/3	A6133 (W) Ahead Right	U+O	C		1	11	-	390	1975:1795	630+212	45.1 : 49.9%	390	390	106	0	0	2.3	20.8	3.9
		C1		PRC for Signalled Lanes (%): 47.3				47.3		Total Delay for Signalled Lanes (pcuHr): 10.46			10.46		Cycle Time (s): 60				
		PRC Over All Lanes (%):						Total Delay Over All Lanes(pcuHr):											

Scenario 3: '2030 Do Nothing AM' (FG3: '2030 Do Nothing AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development (126 dwellings)	-	-	-		-	-	-	-	-	-	83.0%	-	-	23	0	88	21.3	-	-
J2 - A6133/B6099 Keresforth Hill Road	-	-	-		-	-	-	-	-	-	83.0%	-	-	23	0	88	21.3	-	-
1/2+1/1	A6133 (E) Left Ahead	U	A		1	12	-	546	1965:1709	180+481	82.6 : 82.6%	546	546	-	-	-	4.9	32.4	9.3
1/3	A6133 (E) Ahead	U	A		1	12	-	523	1965	655	79.8%	523	523	-	-	-	4.6	31.4	9.8
3/1	B6099 Right Left	U	B		1	17	-	550	1758	674	81.6%	550	550	-	-	-	4.7	30.6	10.2
5/1	A6133 (W) Ahead	U	C		1	12	-	506	1975	658	76.9%	506	506	-	-	-	4.1	29.5	9.1
5/2+5/3	A6133 (W) Ahead Right	U+O	C		1	12	-	111	1975:1795	0+134	0.0 : 83.0%	111	111	23	0	88	3.0	97.8	3.4
		C1		PRC for Signalled Lanes (%):		8.4		Total Delay for Signalled Lanes (pcuHr):		21.32		Cycle Time (s):		60					
				PRC Over All Lanes (%):		8.4		Total Delay Over All Lanes(pcuHr):		21.32									

Scenario 4: '2030 Do Nothing PM' (FG4: '2030 Do Nothing PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development (126 dwellings)	-	-	-		-	-	-	-	-	-	73.3%	-	-	94	0	48	13.0	-	-
J2 - A6133/B6099 Keresforth Hill Road	-	-	-		-	-	-	-	-	-	73.3%	-	-	94	0	48	13.0	-	-
1/2+1/1	A6133 (E) Left Ahead	U	A		1	14	-	458	1965:1709	68+677	61.4 : 61.4%	458	458	-	-	-	2.5	19.6	6.3
1/3	A6133 (E) Ahead	U	A		1	14	-	462	1965	819	56.4%	462	462	-	-	-	2.4	18.4	6.4
3/1	B6099 Right Left	U	B		1	15	-	516	1761	704	73.3%	516	516	-	-	-	3.5	24.7	8.5
5/1	A6133 (W) Ahead	U	C		1	14	-	386	1975	823	46.9%	386	386	-	-	-	1.8	16.8	5.1
5/2+5/3	A6133 (W) Ahead Right	U+O	C		1	14	-	487	1975:1795	692+200	49.9 : 71.0%	487	487	94	0	48	2.8	20.8	4.6
C1					PRC for Signalled Lanes (%): 22.9			22.9		Total Delay for Signalled Lanes (pcuHr): 13.00			13.00		Cycle Time (s): 60				
					PRC Over All Lanes (%):					Total Delay Over All Lanes(pcuHr):									

Scenario 5: '2030 With Development AM' (FG5: '2030 With Development AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network: Proposed Residential Development (126 dwellings)	-	-	-		-	-	-	-	-	-	85.3%	-	-	22	0	91	22.6	-	-	
J2 - A6133/B6099 Keresforth Hill Road	-	-	-		-	-	-	-	-	-	85.3%	-	-	22	0	91	22.6	-	-	
1/2+1/1	A6133 (E) Left Ahead	U	A		1	12	-	546	1965:1709	171+485	83.2 : 83.2%	546	546	-	-	-	5.0	33.1	9.5	
1/3	A6133 (E) Ahead	U	A		1	12	-	530	1965	655	80.9%	530	530	-	-	-	4.7	32.2	10.0	
3/1	B6099 Right Left	U	B		1	17	-	575	1759	674	85.3%	575	575	-	-	-	5.5	34.1	11.4	
5/1	A6133 (W) Ahead	U	C		1	12	-	506	1975	658	76.9%	506	506	-	-	-	4.1	29.5	9.1	
5/2+5/3	A6133 (W) Ahead Right	U+O	C		1	12	-	113	1975:1795	0+133	0.0 : 84.8%	113	113	22	0	91	3.2	103.2	3.6	
C1					PRC for Signalled Lanes (%):			5.5	Total Delay for Signalled Lanes (pcuHr):			22.60	Cycle Time (s):			60				
					PRC Over All Lanes (%):			5.5	Total Delay Over All Lanes (pcuHr):			22.60								

Scenario 6: '2030 With Development PM' (FG6: '2030 With Development PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development (126 dwellings)	-	-	-		-	-	-	-	-	-	75.0%	-	-	90	0	57	13.5	-	-
J2 - A6133/B6099 Keresforth Hill Road	-	-	-		-	-	-	-	-	-	75.0%	-	-	90	0	57	13.5	-	-
1/2+1/1	A6133 (E) Left Ahead	U	A		1	14	-	458	1965:1709	35+698	62.4 : 62.4%	458	458	-	-	-	2.6	20.1	6.5
1/3	A6133 (E) Ahead	U	A		1	14	-	482	1965	819	58.9%	482	482	-	-	-	2.5	18.9	6.9
3/1	B6099 Right Left	U	B		1	15	-	525	1761	704	74.5%	525	525	-	-	-	3.7	25.3	8.9
5/1	A6133 (W) Ahead	U	C		1	14	-	390	1975	823	47.4%	390	390	-	-	-	1.8	16.9	5.1
5/2+5/3	A6133 (W) Ahead Right	U+O	C		1	14	-	488	1975:1795	688+196	49.6 : 75.0%	488	488	90	0	57	2.9	21.1	4.6
		C1		PRC for Signalled Lanes (%): 20.0				20.0		Total Delay for Signalled Lanes (pcuHr): 13.46				13.46		Cycle Time (s): 60			

Appendix 6 – J4 Modelling Results

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: J4 - B6449_B6099 Junction (126 dwellings).j9
 Path: Z:\Projects\4283 Bark Meadows Dodworth\Data\Modelling\Sept 22\J4
 Report generation date: 14/03/2025 12:29:43

- »Existing Layout - 2022 Base, AM
- »Existing Layout - 2022 Base, PM
- »Existing Layout - 2030 Do Nothing, AM
- »Existing Layout - 2030 Do Nothing, PM
- »Existing Layout - 2030 With Development, AM
- »Existing Layout - 2030 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
Existing Layout - 2022 Base										
Stream B-ACD	D1	0.4	12.71	0.30	B	D2	1.2	22.65	0.54	C
Stream A-BCD		0.4	6.57	0.26	A		0.3	7.55	0.18	A
Stream D-AB		1.1	17.53	0.51	C		1.8	24.92	0.65	C
Stream D-BC		1.3	21.47	0.58	C		1.0	23.25	0.52	C
Stream C-ABD		0.0	5.10	0.03	A		0.1	3.83	0.08	A
Existing Layout - 2030 Do Nothing										
Stream B-ACD	D3	0.5	13.53	0.33	B	D4	1.6	28.88	0.62	D
Stream A-BCD		0.5	6.75	0.27	A		0.3	7.99	0.20	A
Stream D-AB		2.0	27.59	0.67	D		3.2	41.37	0.78	E
Stream D-BC		2.6	34.40	0.73	D		1.7	32.72	0.64	D
Stream C-ABD		0.1	5.04	0.04	A		0.2	3.71	0.09	A
Existing Layout - 2030 With Development										
Stream B-ACD	D5	0.5	13.77	0.34	B	D6	1.9	31.69	0.66	D
Stream A-BCD		0.5	6.77	0.27	A		0.3	8.07	0.20	A
Stream D-AB		2.4	32.63	0.72	D		3.7	46.96	0.81	E
Stream D-BC		3.1	39.69	0.77	E		1.8	35.50	0.66	E
Stream C-ABD		0.1	5.02	0.04	A		0.2	3.69	0.09	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	Keresforth Road, Dodworth
Location	B6449 Barnsley Road/B6099 High Street/B6449 Dodworth Road/B6099 Station Road Junction
Site number	J4
Date	14/03/2025
Version	
Status	
Identifier	
Client	Keepmoat Homes
Jobnumber	LTP/4283
Enumerator	LTP\AC
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:30	09:00	15
D2	2022 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Do Nothing	AM	ONE HOUR	07:30	09:00	15
D4	2030 Do Nothing	PM	ONE HOUR	16:15	17:45	15
D5	2030 With Development	AM	ONE HOUR	07:30	09:00	15
D6	2030 With Development	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

Existing Layout - 2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B6449 Barnsley Road/B6099 High Street/B6449 Dodworth Green Road/B6099 Station Road	Crossroads	Two-way		9.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B6449 Dodworth Green Road		Major
B	B6099 Station Road		Minor
C	B6449 Barnsley Road		Major
D	B6099 High Street		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 - B6449 Dodworth Green Road	6.80			250.0	✓	0.00
C - B6449 Barnsley Road	6.80			160.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B - B6099 Station Road	One lane	3.25			20	19
D - B6099 High Street	Two lanes		4.00	3.30	40	60

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	719	-	-	-	-	-	-	0.269	0.384	0.269	-	-	-
B-A	506	0.089	0.225	0.225	-	-	-	0.141	0.321	-	0.225	0.225	0.112
B-C	652	0.096	0.244	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	506	0.089	0.225	0.225	-	-	-	0.141	0.321	0.141	-	-	-
B-D, offside lane	506	0.089	0.225	0.225	-	-	-	0.141	0.321	0.141	-	-	-
C-B	667	0.249	0.249	0.356	-	-	-	-	-	-	-	-	-
D-A	728	-	-	-	-	-	-	0.272	-	0.108	-	-	-
D-B, nearside lane	572	0.160	0.160	0.363	-	-	-	0.254	0.254	0.101	-	-	-
D-B, offside lane	536	0.150	0.150	0.340	-	-	-	0.238	0.238	0.094	-	-	-
D-C	536	-	0.150	0.340	0.119	0.238	0.238	0.238	0.238	0.094	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
 Streams may be combined, in which case capacity will be adjusted.
 Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:30	09:00	15

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 (PCU/hr)	Scaling Factor (%)
A - B6449 Dodworth Green Road		✓	291	100.000
B - B6099 Station Road		✓	113	100.000
C - B6449 Barnsley Road		✓	263	100.000
D - B6099 High Street		✓	411	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	11	146	134
	B - B6099 Station Road	2	0	19	92
	C - B6449 Barnsley Road	60	15	0	188
	D - B6099 High Street	71	181	159	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	9	1	2
	B - B6099 Station Road	0	0	6	2
	C - B6449 Barnsley Road	7	0	0	1
	D - B6099 High Street	1	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.30	12.71	0.4	B
A-BCD	0.26	6.57	0.4	A
A-B				
A-C				
D-AB	0.51	17.53	1.1	C
D-BC	0.58	21.47	1.3	C
C-ABD	0.03	5.10	0.0	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	85	451	0.189	84	0.2	10.051	B
A-BCD	120	739	0.163	119	0.2	5.915	A
A-B	7			7			
A-C	92			92			
D-AB	140	499	0.281	139	0.4	10.282	B
D-BC	169	443	0.382	167	0.6	13.083	B
C-ABD	15	726	0.021	15	0.0	5.097	A
C-D	139			139			
C-A	44			44			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	102	436	0.233	101	0.3	11.033	B
A-BCD	149	744	0.200	149	0.3	6.168	A
A-B	8			8			
A-C	105			105			
D-AB	173	472	0.367	173	0.6	12.392	B
D-BC	196	425	0.462	195	0.8	15.845	C
C-ABD	19	738	0.026	19	0.0	5.039	A
C-D	165			165			
C-A	53			53			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	124	415	0.300	124	0.4	12.662	B
A-BCD	192	751	0.256	192	0.4	6.563	A
A-B	9			9			
A-C	119			119			
D-AB	223	436	0.511	221	1.0	17.161	C
D-BC	230	399	0.576	228	1.3	21.105	C
C-ABD	26	757	0.034	26	0.0	4.961	A
C-D	200			200			
C-A	64			64			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	124	415	0.300	124	0.4	12.707	B
A-BCD	192	751	0.256	192	0.4	6.572	A
A-B	9			9			
A-C	119			119			
D-AB	223	436	0.513	223	1.1	17.533	C
D-BC	229	398	0.575	229	1.3	21.474	C
C-ABD	26	757	0.034	26	0.0	4.966	A
C-D	200			200			
C-A	64			64			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	102	436	0.233	102	0.3	11.093	B
A-BCD	149	744	0.200	149	0.3	6.183	A
A-B	8			8			
A-C	105			105			
D-AB	174	471	0.369	176	0.6	12.693	B
D-BC	196	424	0.461	197	0.9	16.187	C
C-ABD	19	738	0.026	19	0.0	5.051	A
C-D	165			165			
C-A	53			53			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	85	450	0.189	85	0.2	10.126	B
A-BCD	120	739	0.163	121	0.2	5.938	A
A-B	7			7			
A-C	92			92			
D-AB	141	498	0.283	141	0.4	10.483	B
D-BC	169	443	0.381	170	0.6	13.411	B
C-ABD	15	725	0.021	15	0.0	5.104	A
C-D	139			139			
C-A	44			44			

Existing Layout - 2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B6449 Barnsley Road/B6099 High Street/B6449 Dodworth Green Road/B6099 Station Road	Crossroads	Two-way		9.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Base	PM	ONE HOUR	16:15	17:45	15

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 (PCU/hr)	Scaling Factor (%)
A - B6449 Dodworth Green Road		✓	183	100.000
B - B6099 Station Road		✓	173	100.000
C - B6449 Barnsley Road		✓	751	100.000
D - B6099 High Street		✓	394	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	9	100	74
	B - B6099 Station Road	13	0	17	143
	C - B6449 Barnsley Road	356	23	0	372
	D - B6099 High Street	149	137	108	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
A - B6449 Dodworth Green Road	0	0	1	0
B - B6099 Station Road	17	0	0	2
C - B6449 Barnsley Road	2	0	0	0
D - B6099 High Street	1	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.54	22.65	1.2	C
A-BCD	0.18	7.55	0.3	A
A-B				
A-C				
D-AB	0.65	24.92	1.8	C
D-BC	0.52	23.25	1.0	C
C-ABD	0.08	3.83	0.1	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	130	406	0.321	128	0.5	13.217	B
A-BCD	64	621	0.103	64	0.1	6.461	A
A-B	6			6			
A-C	68			68			
D-AB	175	500	0.350	173	0.5	11.042	B
D-BC	122	391	0.312	120	0.4	13.273	B
C-ABD	39	984	0.040	39	0.1	3.830	A
C-D	269			269			
C-A	257			257			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	156	384	0.405	155	0.7	16.059	C
A-BCD	80	604	0.132	79	0.2	6.875	A
A-B	7			7			
A-C	78			78			
D-AB	213	464	0.458	212	0.8	14.317	B
D-BC	141	361	0.392	141	0.6	16.333	C
C-ABD	55	1048	0.053	55	0.1	3.648	A
C-D	317			317			
C-A	303			303			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	190	354	0.539	189	1.1	22.168	C
A-BCD	103	581	0.177	103	0.3	7.543	A
A-B	8			8			
A-C	90			90			
D-AB	269	415	0.648	265	1.7	23.728	C
D-BC	165	320	0.515	163	1.0	22.819	C
C-ABD	86	1139	0.075	86	0.1	3.440	A
C-D	379			379			
C-A	362			362			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	190	353	0.539	190	1.2	22.649	C
A-BCD	103	581	0.177	103	0.3	7.554	A
A-B	8			8			
A-C	90			90			
D-AB	269	414	0.650	269	1.8	24.920	C
D-BC	165	319	0.515	164	1.0	23.254	C
C-ABD	86	1139	0.076	86	0.1	3.443	A
C-D	379			379			
C-A	362			362			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	156	384	0.405	157	0.7	16.454	C
A-BCD	80	604	0.132	80	0.2	6.893	A
A-B	7			7			
A-C	78			78			
D-AB	213	463	0.460	217	0.9	14.980	B
D-BC	141	360	0.392	143	0.7	16.695	C
C-ABD	55	1048	0.053	56	0.1	3.651	A
C-D	317			317			
C-A	303			303			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	130	406	0.321	131	0.5	13.503	B
A-BCD	64	621	0.104	64	0.1	6.480	A
A-B	6			6			
A-C	67			67			
D-AB	175	499	0.351	176	0.6	11.331	B
D-BC	122	390	0.312	122	0.5	13.549	B
C-ABD	39	984	0.040	39	0.1	3.834	A
C-D	269			269			
C-A	257			257			

Existing Layout - 2030 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B6449 Barnsley Road/B6099 High Street/B6449 Dodworth Green Road/B6099 Station Road	Crossroads	Two-way		15.30	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Do Nothing	AM	ONE HOUR	07:30	09:00	15

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 (PCU/hr)	Scaling Factor (%)
A - B6449 Dodworth Green Road		✓	303	100.000
B - B6099 Station Road		✓	122	100.000
C - B6449 Barnsley Road		✓	292	100.000
D - B6099 High Street		✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	11	152	140
	B - B6099 Station Road	2	0	20	100
	C - B6449 Barnsley Road	62	16	0	214
	D - B6099 High Street	75	203	223	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
A - B6449 Dodworth Green Road	0	9	1	2
B - B6099 Station Road	0	0	5	2
C - B6449 Barnsley Road	7	0	0	1
D - B6099 High Street	1	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.33	13.53	0.5	B
A-BCD	0.27	6.75	0.5	A
A-B				
A-C				
D-AB	0.67	27.59	2.0	D
D-BC	0.73	34.40	2.6	D
C-ABD	0.04	5.04	0.1	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	92	445	0.206	91	0.3	10.381	B
A-BCD	126	736	0.172	125	0.2	6.003	A
A-B	7			7			
A-C	95			95			
D-AB	163	474	0.343	160	0.5	11.728	B
D-BC	215	436	0.492	211	0.9	15.858	C
C-ABD	17	737	0.023	17	0.0	5.028	A
C-D	157			157			
C-A	46			46			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	110	429	0.256	109	0.3	11.523	B
A-BCD	157	740	0.212	157	0.3	6.288	A
A-B	8			8			
A-C	107			107			
D-AB	204	443	0.460	203	0.8	15.295	C
D-BC	247	416	0.593	245	1.4	21.007	C
C-ABD	22	752	0.029	21	0.0	4.958	A
C-D	187			187			
C-A	54			54			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	134	407	0.330	134	0.5	13.471	B
A-BCD	203	747	0.272	203	0.5	6.737	A
A-B	9			9			
A-C	122			122			
D-AB	267	403	0.663	263	1.9	25.777	D
D-BC	284	387	0.735	280	2.5	32.560	D
C-ABD	29	775	0.037	29	0.1	4.866	A
C-D	227			227			
C-A	66			66			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	134	407	0.330	134	0.5	13.535	B
A-BCD	203	747	0.272	203	0.5	6.751	A
A-B	9			9			
A-C	121			121			
D-AB	268	402	0.669	268	2.0	27.593	D
D-BC	283	387	0.732	283	2.6	34.405	D
C-ABD	29	775	0.038	29	0.1	4.873	A
C-D	227			227			
C-A	66			66			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	110	429	0.256	110	0.4	11.599	B
A-BCD	157	741	0.212	158	0.3	6.302	A
A-B	8			8			
A-C	107			107			
D-AB	205	441	0.465	209	0.9	16.295	C
D-BC	245	415	0.591	249	1.5	22.368	C
C-ABD	22	752	0.029	22	0.0	4.968	A
C-D	187			187			
C-A	54			54			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	92	445	0.207	92	0.3	10.474	B
A-BCD	127	736	0.172	127	0.3	6.030	A
A-B	7			7			
A-C	95			95			
D-AB	164	472	0.346	165	0.6	12.134	B
D-BC	214	435	0.491	216	1.0	16.657	C
C-ABD	17	737	0.023	17	0.0	5.037	A
C-D	157			157			
C-A	46			46			

Existing Layout - 2030 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B6449 Barnsley Road/B6099 High Street/B6449 Dodworth Green Road/B6099 Station Road	Crossroads	Two-way		14.10	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Do Nothing	PM	ONE HOUR	16:15	17:45	15

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 (PCU/hr)	Scaling Factor (%)
A - B6449 Dodworth Green Road		✓	191	100.000
B - B6099 Station Road		✓	192	100.000
C - B6449 Barnsley Road		✓	829	100.000
D - B6099 High Street		✓	442	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	9	104	78
	B - B6099 Station Road	14	0	18	160
	C - B6449 Barnsley Road	371	24	0	434
	D - B6099 High Street	155	149	138	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
A - B6449 Dodworth Green Road	0	0	1	0
B - B6099 Station Road	15	0	0	2
C - B6449 Barnsley Road	2	0	0	0
D - B6099 High Street	1	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.62	28.88	1.6	D
A-BCD	0.20	7.99	0.3	A
A-B				
A-C				
D-AB	0.78	41.37	3.2	E
D-BC	0.64	32.72	1.7	D
C-ABD	0.09	3.71	0.2	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	145	396	0.365	142	0.6	14.428	B
A-BCD	68	608	0.112	68	0.1	6.666	A
A-B	6			6			
A-C	70			70			
D-AB	189	478	0.394	186	0.6	12.346	B
D-BC	144	378	0.382	142	0.6	15.150	C
C-ABD	45	1020	0.044	44	0.1	3.708	A
C-D	312			312			
C-A	267			267			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	173	372	0.464	171	0.9	18.308	C
A-BCD	85	588	0.144	85	0.2	7.158	A
A-B	7			7			
A-C	80			80			
D-AB	231	438	0.528	230	1.1	17.289	C
D-BC	166	345	0.481	165	0.9	19.860	C
C-ABD	64	1092	0.059	64	0.1	3.521	A
C-D	367			367			
C-A	314			314			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	211	339	0.624	209	1.6	27.742	D
A-BCD	110	562	0.196	110	0.3	7.977	A
A-B	8			8			
A-C	92			92			
D-AB	296	383	0.774	289	2.9	36.139	E
D-BC	190	300	0.635	188	1.6	31.343	D
C-ABD	103	1193	0.086	103	0.2	3.322	A
C-D	436			436			
C-A	373			373			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	211	338	0.625	211	1.6	28.884	D
A-BCD	111	562	0.197	111	0.3	7.995	A
A-B	8			8			
A-C	92			92			
D-AB	297	381	0.779	296	3.2	41.375	E
D-BC	190	299	0.634	189	1.7	32.723	D
C-ABD	103	1194	0.087	103	0.2	3.327	A
C-D	436			436			
C-A	373			373			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	173	372	0.464	175	0.9	19.098	C
A-BCD	85	588	0.144	85	0.2	7.178	A
A-B	7			7			
A-C	80			80			
D-AB	232	436	0.533	240	1.2	19.289	C
D-BC	165	344	0.480	168	1.0	20.788	C
C-ABD	64	1092	0.059	65	0.1	3.526	A
C-D	367			367			
C-A	314			314			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	145	396	0.365	146	0.6	14.856	B
A-BCD	68	608	0.112	69	0.2	6.688	A
A-B	6			6			
A-C	69			69			
D-AB	189	476	0.397	191	0.7	12.848	B
D-BC	144	377	0.381	145	0.6	15.664	C
C-ABD	45	1020	0.044	45	0.1	3.715	A
C-D	312			312			
C-A	267			267			

Existing Layout - 2030 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B6449 Barnsley Road/B6099 High Street/B6449 Dodworth Green Road/B6099 Station Road	Crossroads	Two-way		17.74	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 With Development	AM	ONE HOUR	07:30	09:00	15

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 (PCU/hr)	Scaling Factor (%)
A - B6449 Dodworth Green Road		✓	303	100.000
B - B6099 Station Road		✓	125	100.000
C - B6449 Barnsley Road		✓	297	100.000
D - B6099 High Street		✓	525	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	11	152	140
	B - B6099 Station Road	2	0	20	103
	C - B6449 Barnsley Road	62	16	0	219
	D - B6099 High Street	75	211	239	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
A - B6449 Dodworth Green Road	0	9	1	2
B - B6099 Station Road	0	0	5	2
C - B6449 Barnsley Road	7	0	0	1
D - B6099 High Street	1	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.34	13.77	0.5	B
A-BCD	0.27	6.77	0.5	A
A-B				
A-C				
D-AB	0.72	32.63	2.4	D
D-BC	0.77	39.69	3.1	E
C-ABD	0.04	5.02	0.1	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	94	444	0.212	93	0.3	10.476	B
A-BCD	127	735	0.172	126	0.2	6.013	A
A-B	7			7			
A-C	95			95			
D-AB	169	468	0.361	167	0.6	12.210	B
D-BC	226	435	0.520	222	1.0	16.715	C
C-ABD	17	740	0.023	17	0.0	5.011	A
C-D	161			161			
C-A	46			46			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	112	428	0.263	112	0.4	11.666	B
A-BCD	157	739	0.213	157	0.3	6.300	A
A-B	8			8			
A-C	107			107			
D-AB	213	436	0.487	211	0.9	16.347	C
D-BC	259	414	0.626	257	1.6	22.752	C
C-ABD	22	755	0.029	22	0.0	4.939	A
C-D	191			191			
C-A	54			54			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	138	405	0.339	137	0.5	13.702	B
A-BCD	203	746	0.273	203	0.5	6.755	A
A-B	9			9			
A-C	121			121			
D-AB	280	395	0.709	275	2.3	29.629	D
D-BC	298	385	0.773	292	2.9	36.883	E
C-ABD	29	779	0.038	29	0.1	4.843	A
C-D	232			232			
C-A	66			66			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	138	405	0.340	138	0.5	13.773	B
A-BCD	203	746	0.273	203	0.5	6.769	A
A-B	9			9			
A-C	121			121			
D-AB	282	394	0.717	281	2.4	32.631	D
D-BC	296	385	0.769	295	3.1	39.694	E
C-ABD	29	778	0.038	29	0.1	4.848	A
C-D	232			232			
C-A	66			66			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	112	427	0.263	113	0.4	11.746	B
A-BCD	157	740	0.213	158	0.3	6.315	A
A-B	8			8			
A-C	107			107			
D-AB	215	434	0.495	220	1.0	17.812	C
D-BC	257	414	0.622	263	1.8	24.727	C
C-ABD	22	755	0.029	22	0.0	4.949	A
C-D	191			191			
C-A	54			54			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	94	444	0.212	94	0.3	10.575	B
A-BCD	127	735	0.172	127	0.3	6.039	A
A-B	7			7			
A-C	95			95			
D-AB	170	465	0.366	172	0.6	12.711	B
D-BC	225	434	0.518	228	1.1	17.729	C
C-ABD	17	739	0.023	17	0.0	5.018	A
C-D	161			161			
C-A	46			46			

Existing Layout - 2030 With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B6449 Barnsley Road/B6099 High Street/B6449 Dodworth Green Road/B6099 Station Road	Crossroads	Two-way		15.68	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 With Development	PM	ONE HOUR	16:15	17:45	15

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 (PCU/hr)	Scaling Factor (%)
A - B6449 Dodworth Green Road		✓	191	100.000
B - B6099 Station Road		✓	200	100.000
C - B6449 Barnsley Road		✓	844	100.000
D - B6099 High Street		✓	451	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	9	104	78
	B - B6099 Station Road	14	0	18	168
	C - B6449 Barnsley Road	371	24	0	449
	D - B6099 High Street	155	152	144	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B6449 Dodworth Green Road	B - B6099 Station Road	C - B6449 Barnsley Road	D - B6099 High Street
From	A - B6449 Dodworth Green Road	0	0	1	0
	B - B6099 Station Road	15	0	0	2
	C - B6449 Barnsley Road	2	0	0	0
	D - B6099 High Street	1	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.66	31.69	1.9	D
A-BCD	0.20	8.07	0.3	A
A-B				
A-C				
D-AB	0.81	46.96	3.7	E
D-BC	0.66	35.50	1.8	E
C-ABD	0.09	3.69	0.2	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	151	394	0.382	148	0.6	14.874	B
A-BCD	68	605	0.113	68	0.1	6.703	A
A-B	6			6			
A-C	69			69			
D-AB	191	474	0.403	188	0.7	12.620	B
D-BC	149	375	0.396	146	0.6	15.580	C
C-ABD	45	1028	0.044	45	0.1	3.683	A
C-D	323			323			
C-A	267			267			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	180	370	0.486	179	0.9	19.187	C
A-BCD	85	585	0.145	85	0.2	7.209	A
A-B	7			7			
A-C	80			80			
D-AB	235	433	0.542	233	1.1	17.975	C
D-BC	171	342	0.499	170	1.0	20.735	C
C-ABD	66	1101	0.060	65	0.1	3.498	A
C-D	380			380			
C-A	314			314			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	220	336	0.655	217	1.8	30.133	D
A-BCD	111	558	0.198	110	0.3	8.058	A
A-B	8			8			
A-C	92			92			
D-AB	301	377	0.800	293	3.3	39.749	E
D-BC	195	296	0.660	192	1.8	33.711	D
C-ABD	106	1204	0.088	106	0.2	3.297	A
C-D	451			451			
C-A	372			372			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	220	336	0.656	220	1.9	31.695	D
A-BCD	111	558	0.199	111	0.3	8.073	A
A-B	8			8			
A-C	92			92			
D-AB	302	375	0.806	301	3.7	46.959	E
D-BC	194	295	0.659	194	1.8	35.496	E
C-ABD	106	1205	0.088	106	0.2	3.300	A
C-D	451			451			
C-A	372			372			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	180	369	0.487	183	1.0	20.201	C
A-BCD	85	585	0.145	85	0.2	7.232	A
A-B	7			7			
A-C	80			80			
D-AB	236	430	0.547	245	1.3	20.550	C
D-BC	170	341	0.498	173	1.0	21.882	C
C-ABD	66	1101	0.060	66	0.1	3.501	A
C-D	379			379			
C-A	314			314			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	151	394	0.382	152	0.7	15.375	C
A-BCD	68	605	0.113	69	0.2	6.724	A
A-B	6			6			
A-C	69			69			
D-AB	191	472	0.406	194	0.7	13.182	B
D-BC	148	374	0.396	150	0.7	16.170	C
C-ABD	45	1028	0.044	46	0.1	3.687	A
C-D	323			323			
C-A	267			267			

Appendix 7 – J9 Modelling Results

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: J9 - B6099_Gilroyd Lane Junction (126 dwellings).j9
Path: Z:\Projects\4283 Bark Meadows Dodworth\Data\Modelling\Sept 22\J9
Report generation date: 14/03/2025 12:41:50

- »Existing Layout - 2022 Base, AM
- »Existing Layout - 2022 Base, PM
- »Existing Layout - 2030 Do Nothing, AM
- »Existing Layout - 2030 Do Nothing, PM
- »Existing Layout - 2030 With Development, AM
- »Existing Layout - 2030 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
Existing Layout - 2022 Base										
Stream B-C	D1	0.1	7.82	0.10	A	D2	0.2	8.21	0.16	A
Stream B-A		0.4	11.76	0.27	B		0.4	14.05	0.29	B
Stream C-AB		0.4	5.38	0.18	A		1.4	10.19	0.51	B
Existing Layout - 2030 Do Nothing										
Stream B-C	D3	0.1	7.98	0.11	A	D4	0.2	8.49	0.17	A
Stream B-A		0.4	12.35	0.29	B		0.5	14.99	0.31	B
Stream C-AB		0.5	5.31	0.20	A		1.7	10.92	0.55	B
Existing Layout - 2030 With Development										
Stream B-C	D5	0.1	8.05	0.11	A	D6	0.2	8.59	0.18	A
Stream B-A		0.4	12.67	0.29	B		0.5	15.52	0.32	C
Stream C-AB		0.5	5.27	0.21	A		1.8	11.20	0.56	B

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	Keresforth Road, Dodworth
Location	Keresforth Road/Gilroyd Lane
Site number	J9
Date	14/03/2025
Version	
Status	
Identifier	
Client	Keepmoat Homes
Jobnumber	LTP/4283
Enumerator	LTP\AC
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:30	09:00	15
D2	2022 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Do Nothing	AM	ONE HOUR	07:30	09:00	15
D4	2030 Do Nothing	PM	ONE HOUR	16:15	17:45	15
D5	2030 With Development	AM	ONE HOUR	07:30	09:00	15
D6	2030 With Development	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

Existing Layout - 2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	J9 - B6099 Keresforth Hill Road/Gilroyd Lane/B6099 Keresforth Road	T-Junction	Two-way		2.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B6099 Keresforth Hill Road		Major
B	Gilroyd Lane		Minor
C	B6099 Keresforth Road		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 - B6099 Keresforth Road	10.00			80.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Gilroyd Lane	One lane plus flare	10.00	5.20	4.25	4.00	3.65	✓	1.00	105	31

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	593	0.089	0.225	0.142	0.322
B-C	666	0.084	0.213	-	-
C-B	620	0.199	0.199	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:30	09:00	15

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 (PCU/hr)	Scaling Factor (%)
A - B6099 Keresforth Hill Road		✓	352	100.000
B - Gilroyd Lane		✓	156	100.000
C - B6099 Keresforth Road		✓	461	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	84	268
	B - Gilroyd Lane	105	0	51
	C - B6099 Keresforth Road	392	69	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	5	2
	B - Gilroyd Lane	3	0	6
	C - B6099 Keresforth Road	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.10	7.82	0.1	A
B-A	0.27	11.76	0.4	B
C-AB	0.18	5.38	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	590	0.065	38	0.1	6.914	A
B-A	79	483	0.164	78	0.2	9.149	A
C-AB	84	770	0.109	83	0.2	5.361	A
C-A	263			263			
A-B	63			63			
A-C	202			202			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	572	0.080	46	0.1	7.253	A
B-A	94	461	0.205	94	0.3	10.098	B
C-AB	111	801	0.139	111	0.3	5.334	A
C-A	303			303			
A-B	76			76			
A-C	241			241			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	545	0.103	56	0.1	7.810	A
B-A	116	431	0.268	115	0.4	11.725	B
C-AB	156	845	0.185	155	0.4	5.336	A
C-A	352			352			
A-B	92			92			
A-C	295			295			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	544	0.103	56	0.1	7.818	A
B-A	116	431	0.268	116	0.4	11.760	B
C-AB	156	845	0.185	156	0.4	5.340	A
C-A	351			351			
A-B	92			92			
A-C	295			295			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	571	0.080	46	0.1	7.265	A
B-A	94	461	0.205	95	0.3	10.138	B
C-AB	111	801	0.139	112	0.3	5.338	A
C-A	303			303			
A-B	76			76			
A-C	241			241			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	589	0.065	38	0.1	6.928	A
B-A	79	483	0.164	79	0.2	9.201	A
C-AB	85	770	0.110	85	0.2	5.376	A
C-A	262			262			
A-B	63			63			
A-C	202			202			

Existing Layout - 2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	J9 - B6099 Keresforth Hill Road/Gilroyd Lane/B6099 Keresforth Road	T-Junction	Two-way		4.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Base	PM	ONE HOUR	16:15	17:45	15

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 (PCU/hr)	Scaling Factor (%)
A - B6099 Keresforth Hill Road		✓	489	100.000
B - Gilroyd Lane		✓	176	100.000
C - B6099 Keresforth Road		✓	472	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	186	303
	B - Gilroyd Lane	99	0	77
	C - B6099 Keresforth Road	275	197	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	1	0
	B - Gilroyd Lane	3	0	3
	C - B6099 Keresforth Road	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.16	8.21	0.2	A
B-A	0.29	14.05	0.4	B
C-AB	0.51	10.19	1.4	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	593	0.098	58	0.1	6.916	A
B-A	75	440	0.170	74	0.2	10.114	B
C-AB	212	691	0.306	209	0.6	7.504	A
C-A	144			144			
A-B	140			140			
A-C	228			228			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	571	0.121	69	0.1	7.381	A
B-A	89	412	0.216	89	0.3	11.467	B
C-AB	273	708	0.386	272	0.8	8.337	A
C-A	151			151			
A-B	167			167			
A-C	272			272			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	537	0.158	85	0.2	8.195	A
B-A	109	373	0.292	108	0.4	13.968	B
C-AB	372	731	0.510	370	1.4	10.064	B
C-A	147			147			
A-B	205			205			
A-C	334			334			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	536	0.158	85	0.2	8.212	A
B-A	109	373	0.292	109	0.4	14.049	B
C-AB	373	732	0.510	373	1.4	10.188	B
C-A	146			146			
A-B	205			205			
A-C	334			334			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	571	0.121	69	0.1	7.400	A
B-A	89	411	0.217	90	0.3	11.552	B
C-AB	274	709	0.387	277	0.9	8.455	A
C-A	150			150			
A-B	167			167			
A-C	272			272			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	592	0.098	58	0.1	6.943	A
B-A	75	439	0.170	75	0.2	10.196	B
C-AB	213	692	0.307	214	0.6	7.609	A
C-A	143			143			
A-B	140			140			
A-C	228			228			

Existing Layout - 2030 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	J9 - B6099 Keresforth Hill Road/Gilroyd Lane/B6099 Keresforth Road	T-Junction	Two-way		2.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Do Nothing	AM	ONE HOUR	07:30	09:00	15

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 (PCU/hr)	Scaling Factor (%)
A - B6099 Keresforth Hill Road		✓	373	100.000
B - Gilroyd Lane		✓	162	100.000
C - B6099 Keresforth Road		✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	94	279
	B - Gilroyd Lane	109	0	53
	C - B6099 Keresforth Road	429	72	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	4	2
	B - Gilroyd Lane	3	0	6
	C - B6099 Keresforth Road	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.11	7.98	0.1	A
B-A	0.29	12.35	0.4	B
C-AB	0.20	5.31	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	586	0.068	40	0.1	6.984	A
B-A	82	476	0.173	81	0.2	9.385	A
C-AB	92	786	0.117	91	0.2	5.291	A
C-A	285			285			
A-B	71			71			
A-C	210			210			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	567	0.084	48	0.1	7.353	A
B-A	98	452	0.217	98	0.3	10.448	B
C-AB	123	821	0.149	122	0.3	5.267	A
C-A	328			328			
A-B	85			85			
A-C	251			251			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	537	0.109	58	0.1	7.974	A
B-A	120	420	0.286	120	0.4	12.311	B
C-AB	174	870	0.200	174	0.5	5.279	A
C-A	377			377			
A-B	103			103			
A-C	307			307			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	536	0.109	58	0.1	7.983	A
B-A	120	420	0.286	120	0.4	12.353	B
C-AB	175	870	0.201	175	0.5	5.284	A
C-A	377			377			
A-B	103			103			
A-C	307			307			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	566	0.084	48	0.1	7.366	A
B-A	98	452	0.217	98	0.3	10.498	B
C-AB	123	821	0.150	124	0.3	5.272	A
C-A	327			327			
A-B	85			85			
A-C	251			251			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	585	0.068	40	0.1	7.000	A
B-A	82	475	0.173	82	0.2	9.444	A
C-AB	92	787	0.118	93	0.2	5.307	A
C-A	285			285			
A-B	71			71			
A-C	210			210			

Existing Layout - 2030 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	J9 - B6099 Keresforth Hill Road/Gilroyd Lane/B6099 Keresforth Road	T-Junction	Two-way		4.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Do Nothing	PM	ONE HOUR	16:15	17:45	15

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 (PCU/hr)	Scaling Factor (%)
A - B6099 Keresforth Hill Road		✓	527	100.000
B - Gilroyd Lane		✓	183	100.000
C - B6099 Keresforth Road		✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	211	316
	B - Gilroyd Lane	103	0	80
	C - B6099 Keresforth Road	296	205	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	1	0
	B - Gilroyd Lane	3	0	3
	C - B6099 Keresforth Road	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.17	8.49	0.2	A
B-A	0.31	14.99	0.5	B
C-AB	0.55	10.92	1.7	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	587	0.103	60	0.1	7.020	A
B-A	78	432	0.180	77	0.2	10.420	B
C-AB	227	697	0.325	224	0.6	7.642	A
C-A	150			150			
A-B	159			159			
A-C	238			238			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	564	0.128	72	0.1	7.535	A
B-A	93	402	0.230	92	0.3	11.953	B
C-AB	295	715	0.412	293	0.9	8.609	A
C-A	156			156			
A-B	190			190			
A-C	284			284			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	88	526	0.168	88	0.2	8.465	A
B-A	113	361	0.314	113	0.5	14.875	B
C-AB	406	741	0.548	403	1.7	10.746	B
C-A	146			146			
A-B	232			232			
A-C	348			348			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	88	525	0.168	88	0.2	8.487	A
B-A	113	361	0.314	113	0.5	14.985	B
C-AB	407	742	0.549	407	1.7	10.921	B
C-A	145			145			
A-B	232			232			
A-C	348			348			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	563	0.128	72	0.2	7.558	A
B-A	93	401	0.231	93	0.3	12.058	B
C-AB	296	717	0.413	299	1.0	8.767	A
C-A	154			154			
A-B	190			190			
A-C	284			284			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	587	0.103	60	0.1	7.049	A
B-A	78	431	0.180	78	0.2	10.519	B
C-AB	228	698	0.327	229	0.7	7.768	A
C-A	149			149			
A-B	159			159			
A-C	238			238			

Existing Layout - 2030 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	J9 - B6099 Keresforth Hill Road/Gilroyd Lane/B6099 Keresforth Road	T-Junction	Two-way		2.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 With Development	AM	ONE HOUR	07:30	09:00	15

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 (PCU/hr)	Scaling Factor (%)
A - B6099 Keresforth Hill Road		✓	381	100.000
B - Gilroyd Lane		✓	163	100.000
C - B6099 Keresforth Road		✓	529	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	94	287
	B - Gilroyd Lane	109	0	54
	C - B6099 Keresforth Road	454	75	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	4	2
	B - Gilroyd Lane	3	0	6
	C - B6099 Keresforth Road	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.11	8.05	0.1	A
B-A	0.29	12.67	0.4	B
C-AB	0.21	5.27	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	585	0.070	40	0.1	7.006	A
B-A	82	470	0.174	81	0.2	9.509	A
C-AB	99	798	0.124	98	0.2	5.248	A
C-A	300			300			
A-B	71			71			
A-C	216			216			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	565	0.086	48	0.1	7.388	A
B-A	98	446	0.220	98	0.3	10.632	B
C-AB	132	835	0.158	132	0.3	5.229	A
C-A	343			343			
A-B	85			85			
A-C	258			258			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	534	0.111	59	0.1	8.035	A
B-A	120	413	0.291	119	0.4	12.621	B
C-AB	190	888	0.214	189	0.5	5.260	A
C-A	392			392			
A-B	103			103			
A-C	316			316			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	534	0.111	59	0.1	8.046	A
B-A	120	413	0.291	120	0.4	12.668	B
C-AB	190	889	0.214	190	0.5	5.267	A
C-A	392			392			
A-B	103			103			
A-C	316			316			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	564	0.086	49	0.1	7.399	A
B-A	98	446	0.220	98	0.3	10.684	B
C-AB	133	836	0.159	133	0.4	5.235	A
C-A	343			343			
A-B	85			85			
A-C	258			258			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	584	0.070	41	0.1	7.023	A
B-A	82	470	0.175	82	0.2	9.571	A
C-AB	99	799	0.124	100	0.3	5.265	A
C-A	299			299			
A-B	71			71			
A-C	216			216			

Existing Layout - 2030 With Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	J9 - B6099 Keresforth Hill Road/Gilroyd Lane/B6099 Keresforth Road	T-Junction	Two-way		4.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 With Development	PM	ONE HOUR	16:15	17:45	15

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 (PCU/hr)	Scaling Factor (%)
A - B6099 Keresforth Hill Road		✓	551	100.000
B - Gilroyd Lane		✓	186	100.000
C - B6099 Keresforth Road		✓	511	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	211	340
	B - Gilroyd Lane	103	0	83
	C - B6099 Keresforth Road	305	206	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6099 Keresforth Hill Road	B - Gilroyd Lane	C - B6099 Keresforth Road
From	A - B6099 Keresforth Hill Road	0	1	0
	B - Gilroyd Lane	3	0	2
	C - B6099 Keresforth Road	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.18	8.59	0.2	A
B-A	0.32	15.52	0.5	C
C-AB	0.56	11.20	1.8	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	585	0.107	62	0.1	7.021	A
B-A	78	426	0.182	77	0.2	10.601	B
C-AB	231	699	0.330	228	0.7	7.679	A
C-A	154			154			
A-B	159			159			
A-C	256			256			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	560	0.133	74	0.2	7.566	A
B-A	93	395	0.234	92	0.3	12.232	B
C-AB	301	717	0.420	300	1.0	8.695	A
C-A	158			158			
A-B	190			190			
A-C	306			306			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	91	520	0.176	91	0.2	8.566	A
B-A	113	353	0.321	113	0.5	15.399	C
C-AB	416	744	0.560	413	1.8	10.993	B
C-A	146			146			
A-B	232			232			
A-C	374			374			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	91	519	0.176	91	0.2	8.590	A
B-A	113	352	0.322	113	0.5	15.522	C
C-AB	418	745	0.561	418	1.8	11.196	B
C-A	145			145			
A-B	232			232			
A-C	374			374			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	559	0.134	75	0.2	7.594	A
B-A	93	394	0.235	93	0.3	12.351	B
C-AB	303	719	0.421	306	1.0	8.872	A
C-A	157			157			
A-B	190			190			
A-C	306			306			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	584	0.107	63	0.1	7.051	A
B-A	78	425	0.183	78	0.2	10.704	B
C-AB	232	700	0.332	234	0.7	7.814	A
C-A	152			152			
A-B	159			159			
A-C	256			256			