

TRANSPORT STATEMENT

**BEECHES FARM
UPPER ICKNIELD WAY
TRING
HP23 4LA**

PLANNING APPLICATIONS FOR:

**CHANGE OF USE OF RESIDUAL AREA OF UNIT 1 FROM AGRICULTURAL TO
OFFICE USE (USE CLASS E - RETROSPECTIVE)**

**CHANGE OF USE OF RESIDUAL AREA OF UNIT 2 FOR FROM AGRICULTURAL TO
STORAGE (USE CLASS B8)**

4th November 2021
Second Issue

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1 INTRODUCTION

- 1.1 Abington Consulting has been appointed to provide advice on access, highway and transportation issues associated with proposed development at Beeches Farm, Icknield Way, Tring HP23. The site's general location is shown in Figure 1.

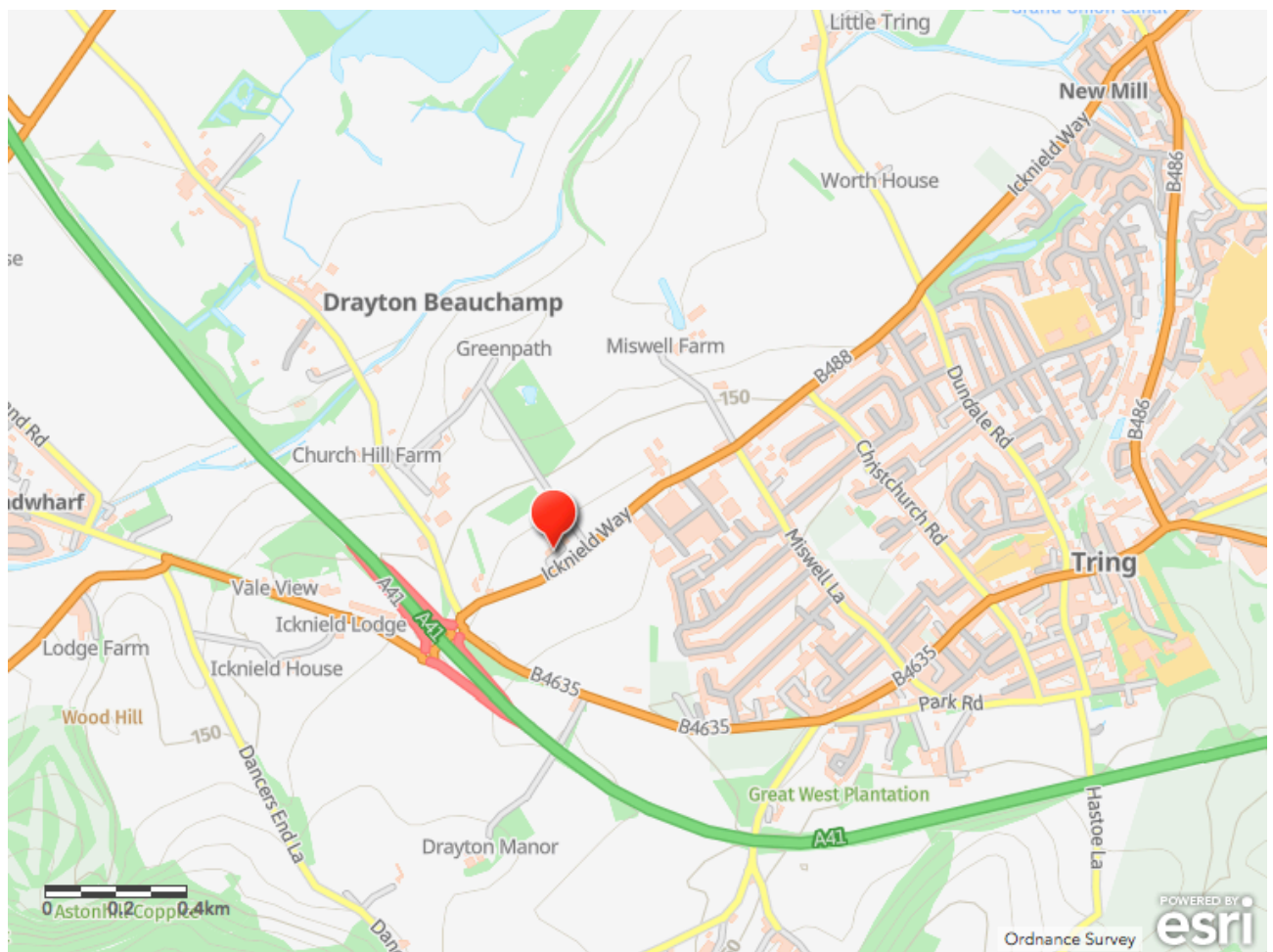


Figure 1 Location Plan

- 1.2 Planning permission is sought for:
- Change of use of residual area (335m²), Unit 1 from agricultural to office use (use class E - retrospective).
 - Change of use of residual area (290m²), Unit 2 from agricultural to storage (use class B8)
- 1.3 The purpose of this Transport Statement is to set out the transport issues relating to the proposed development of the site. The site's location, in terms of its accessibility by sustainable forms of transport will be considered together with access arrangements and parking provision for the proposed development. The likely trip generation of the proposed development will be quantified and compared.
- 1.4 The structure of this document is as follows;
- Section 2 describes the existing conditions; the site's location and accessibility to services.
 - Section 3 describes the proposed development.
 - Finally, a summary and overall conclusion is provided in Section 4.

2 Location & Transport Links

Location

- 2.1 The application sites are contained within Beeches Farm, shown in the context of surrounding facilities and transport links in Figure 2.

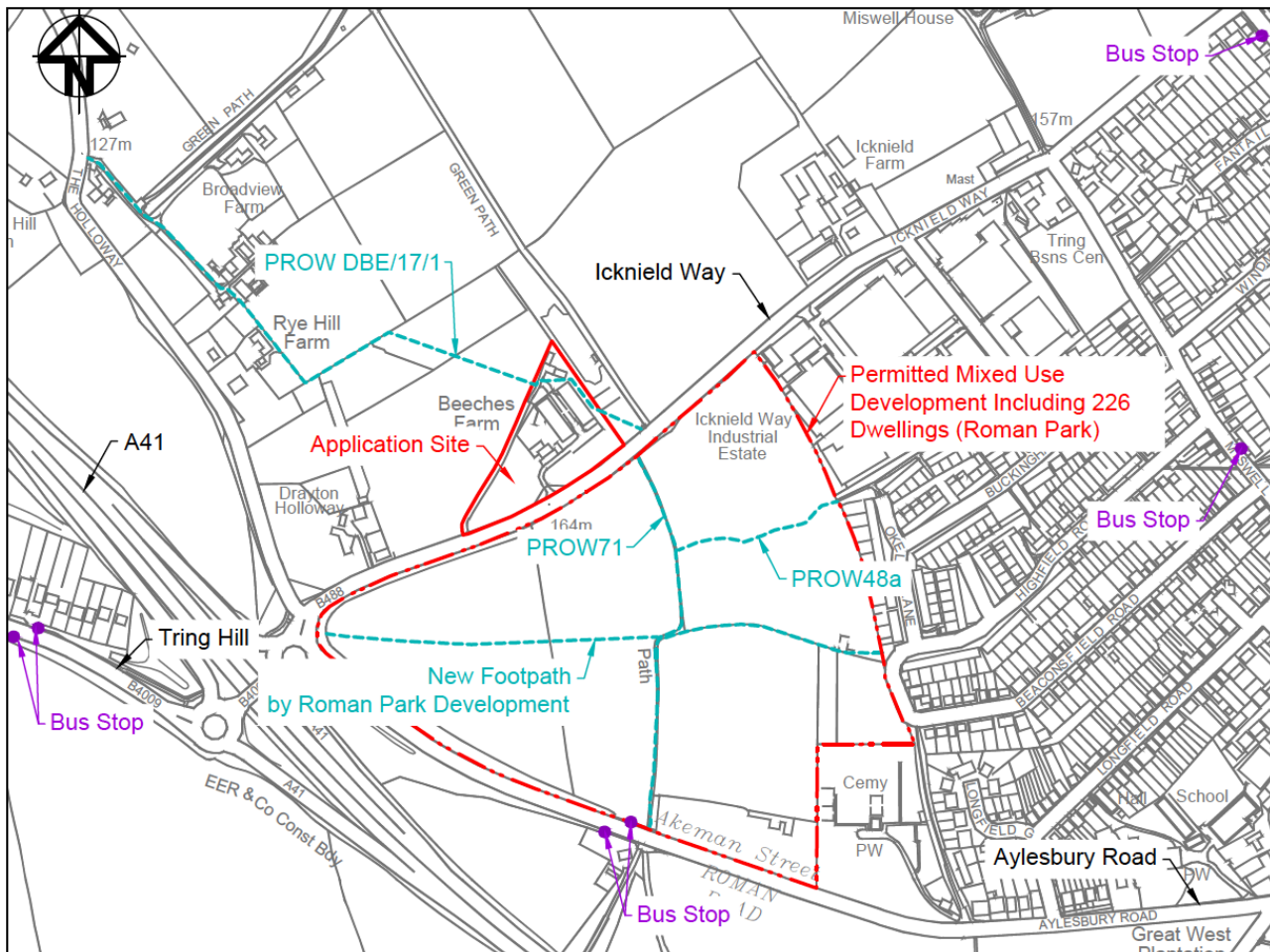


Figure 2 Site Context

- 2.2 Beeches Farm is located approximately 1.3km to the west of Tring's High Street and some 350m to the east of the A41/B4009/B488 junction. Access to the site is from the B488 Icknield Way, which forms the site's southern boundary.
- 2.3 The overall site, owned by the applicant, is triangular in shape and is approximately 1.4 hectares in area. It consists of a complex of buildings, with two main structures (Units 1 and 2). Originally used for chick rearing, the agricultural use of the buildings ceased in 1999.
- 2.4 A Lawful Development Certificate was granted in September 2019 in respect to the change of use of Area B (375m²) of Unit 1 to B8 (storage) took place more than 10 years ago. The residual area of Unit 1 (335m²) was converted to offices, without planning permission, and the retrospective planning application seeks to regularise this use.
- 2.5 Whilst not implemented, the use of 500m² of Unit 2 was approved under Class R for flexible commercial use (19/02629/COUAF). A further Prior Approval application under Class R has been submitted for the conversion of part of Unit 2 and a building to the north to a flexible commercial use (21/04040/COUAR) but remains undetermined. The residual area of Unit 2 is to be the subject of an application for change of use to B8 storage.

- 2.6 To the south of the site a hybrid planning application for the development of 226 dwellings, cemetery car park with toilet block and public open space (details submitted in full) and 0.75 hectares of employment space (B1a, b and c) and a cemetery extension of 1.7 hectares with all matters reserved (submitted in outline) was approved in October 2019 (LPA Ref: 4/00958/18/MFA). Construction of the residential element of the development, known as Roman Park, has commenced along with the cemetery and is well underway.



Figure 3 Roman Park Layout

Walking

- 2.7 The Chartered Institution of Highways and Transportation's (CIHT) 'Planning for Walking' (2015) states that "Across Britain about 80 per cent of journeys shorter than 1 mile (1.6km) are made wholly on foot – something that has changed little in thirty years. In 2012 walkers accounted for 79 per cent of all journeys shorter than 1 mile, but beyond that distance cars are the dominant mode (DfT, annual)". It is considered that 2km, a distance that can be walked in around 25 to 30 minutes, represents a reasonable distance to expect that walking can be a viable option. Figure 3 shows the areas within 30-minutes' walk of the application site.

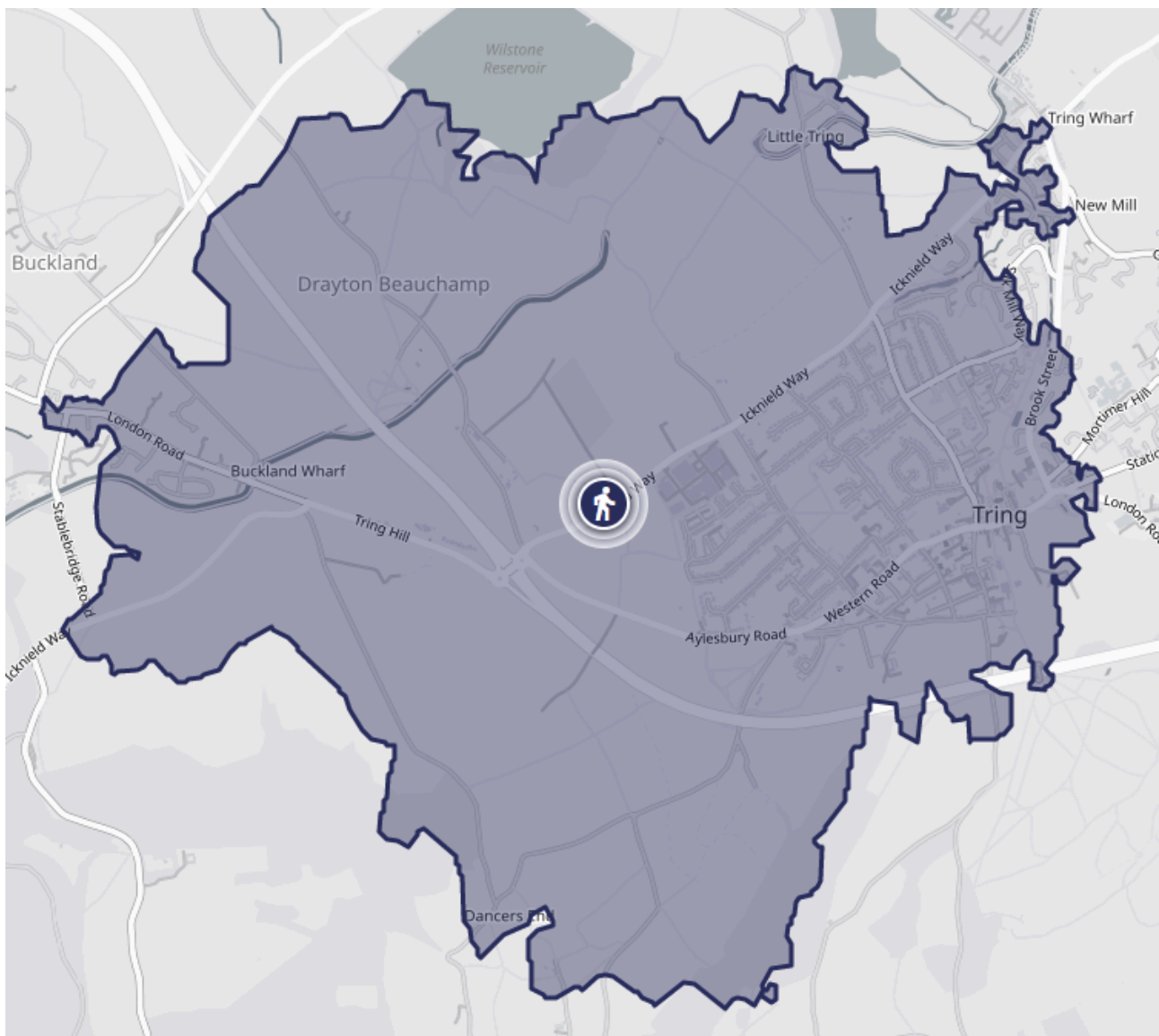


Figure 4 30-Minute Walk Catchment Area

www.targomo.com

- 2.8 There are no segregated footways on Icknield Way that link with the site. The nearest footway begins some 200m to the east at the entrance to the Roman Park residential development. The footway continues east into Tring.
- 2.9 To the west, there are segregated footways that begin on the approach to the A41/B4009/B488 junction and these continue along Tring Hill to the north west and Aylesbury Road to the south east.

- 2.10 There is a public footpath (DBE/17/1) that crosses Beeches Farm, which is currently routed around the former chick rearing sheds and is unaffected by the planning applications for change of use.
- 2.11 This public footpath links with another on the southern side of Icknield Way (PROW71) that runs along the western boundary of the Roman Park residential development and links to Aylesbury Road to the south. PROW71 provides access to the Roman Park Development and the pedestrian routes within it. These include a footpath that runs parallel to, and just south of, Icknield Way that provides a safe route for pedestrians between the application site and the Icknield Way footway that starts at the Roman Park entrance. PROW71 also connects with PROW48a that runs in a east-west direction and links with Oakley Lane to the east.

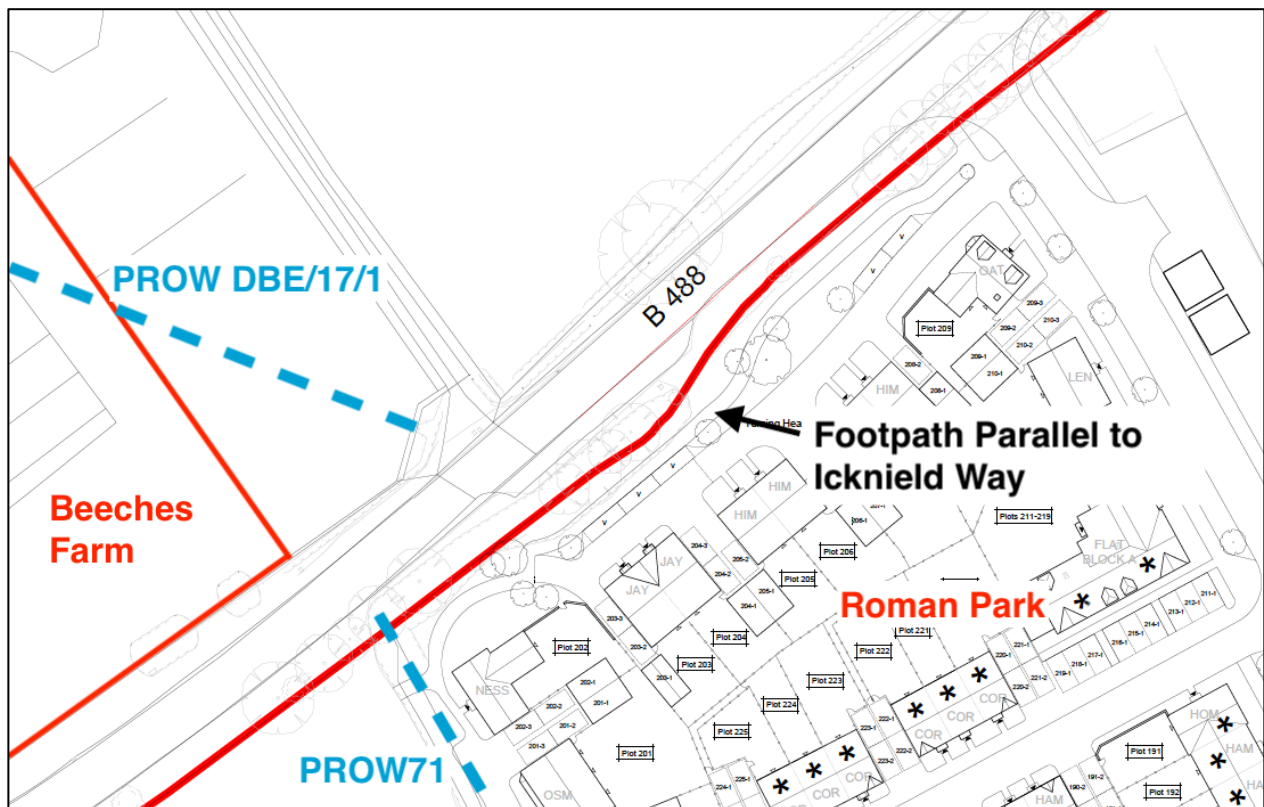


Figure 5 Roman Park Pedestrian Link

Cycling

- 2.12 The Chartered Institution of Highways and Transportation’s ‘Planning for Cycling’ (2014) states that ‘cycle use is more seasonal than for other modes, with up to twice as many cyclists in summer compared with winter. The majority of cycling trips are for short distances, with 80% being less than five miles (8km) and with 40% being less than two miles (3km). However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (National Travel Survey, 2013, Department for Transport)’. The figure below shows the areas within a 30-minute cycle ride of the site.
- 2.13 Tring’s town centre is an easy 2km / 6 minute cycle ride of the site and all parts of the town are within around 10 minutes’ ride. Cycling is therefore a viable means of commuting to and from the proposed development for residents of the town.
- 2.14 East of the town centre an off-road cycle path runs alongside Station Road, providing a link to Tring Railway Station, which is 5km / 15 minutes cycle ride of Tring Railway Station and therefore accessible to rail/bike commuters.

2.15 To the west, there are segregated cycle routes (shared footways) that allow cyclists to cross over the A41 to link with the B4009 (Tring Hill).

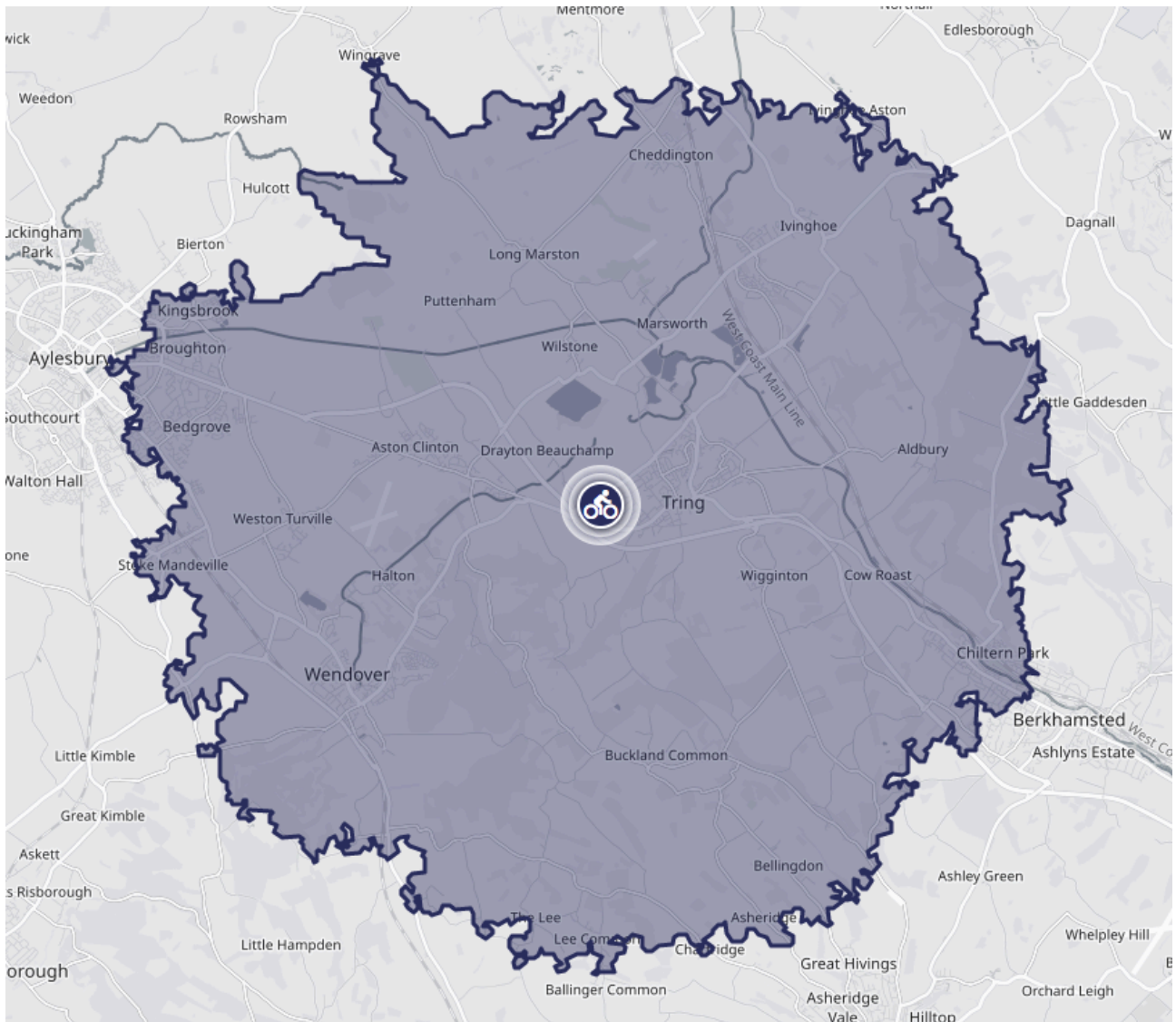


Figure 6 30-Minute Cycle Catchment Area

Public Transport

- 2.16 The nearest bus stops to the site are located on Aylesbury Road (700m / 10 minute walk to the west), Tring Hill (700m / 10 minute walk to the south) and Christchurch Road (900m / 11 minutes walk to the east). These stops provide access to the same bus services. There are also stops located on Miswell Lane (1km / 13 minute walk to the west).
- 2.17 The distances quoted are measured (by Google Maps) along the existing highway network. However, by using PROW71 or the street layout being constructed within the Roman Park development, the walk between the site and Aylesbury Road bus stops are reduced to around a 550m / 6 minute walk. This is considered an acceptable distance for commuting trips. For example, a commute from the centre of Aylesbury to the application site by bus takes around 26 minutes and this includes the 6 minute walk from the Aylesbury Road bus stop to the site.
- 2.18 The bus services that can be accessed from the stops nearest the site are shown in the table below. The details are correct at the time of writing. We understand that the currently timetabled frequency of services is reduced, compared to normal, due to the Coronavirus pandemic.

Bus Stop	Service	Route	Frequency Each Direction
Tring Road & Aylesbury Road	50	Aylesbury - Wendover - Tring – Ivinghoe	Sunday services only
	61	Aylesbury - Dunstable	6 Trips per day (Mon - Fri) 3 Trips per day (Sat)
	61A	Aylesbury - Dunstable	3 Trips per day (Mon - Fri)
	164	Aylesbury - Cheddington – Aylesbury	4 Trips per day (Mon - Sat)
	500	Watford - Aylesbury	Every 20 minutes during peak times (Mon – Sat)
	501	Watford - Aylesbury	Sunday services only
Christchurch Road & Miswell Lane	387	Wigginton / Aldbury - Tring	5 Trips per day (Mon - Fri)
	389	Wigginton / Aldbury - Tring	5 Trips per day (Mon - Fri)
	397	Wigginton / Aldbury - Tring	5 Trips per day (Mon - Fri)

Table 1 Local Bus Services

2.19 Tring railway station is located 5km from the site. On weekdays it provides access to some 3 trains per hour to/from London Euston, 2 trains per hour to/from Milton Keynes and 1 train per hour to/from East Croydon.

Highway Network

- 2.20 The site is located adjacent to and is accessed from Icknield Way (B488). The site access lies adjacent to a point where the highway speed limit changes between 50mph (to the east) and national speed limits (to the west). The 50mph speed limit has recently been extended to the application site's access as part of the works associated with the Roman Park residential development opposite, reflecting its built-up nature.
- 2.21 The road width is approximately 7m with grass verges on both sides. Access to the site is located on the inside of a slow bend on Icknield Way close to the crest of a hog curve in the road. Forward visibility is good for the speed limit applied to the road. The road is otherwise rural in character and there is no street lighting in the vicinity of the site.
- 2.22 The existing access is located on the northern side of Icknield Way in the form of a concrete bellmouth. The width of the access is approximately 4.5m. Visibility is approximately 2.4m x 110m to the west and approximately 2.4m x 130m to the east.
- 2.23 A speed survey on Icknield Way was carried out between 19th and 25th February 2018 with ATCs placed at the locations shown on the drawing presented in Appendix 1. This was prior to the extension of the 40mph speed limit and at the time national speed limits applied on both approaches to the site access. 85th percentile speeds of 44.8mph (eastbound) and 47.6mph (westbound) were recorded. The speed survey results are presented in Appendix 2.

Appendix 1 Existing Access Arrangement

Appendix 2 Icknield Way Speed Survey Data

2.24 Calculations presented at Appendix 3 show that, in accordance with the recorded 85th percentile speeds, a visibility splay of 2.4m x 125.1m is required to the east of the access and 2.4m x 104.3m to the west. These have been plotted on the proposed access drawing in Appendix 1 which shows that the splays can be accommodated within the existing highway boundary.

Appendix 3 Visibility Splay Calculations

2.25 The survey also recorded the volume of passing traffic, the results of which are summarised below.

Time Range	Weekday Average		
	Eastbound	Westbound	Two-Way
08:00-09:00	352	575	927
17:00-18:00	513	456	969

Table 2 Icknield Way Peak Hour Traffic Volume (2018)

2.26 The Transport Assessment that accompanied the Roman Park hybrid planning application of the site on the southern side of Icknield Way states that the development will increase the peak hour traffic flow passing Beeches Farm on Icknield Way by some 122 to 135 vehicle movements

Time Range	Weekday Average		
	Eastbound	Westbound	Two-Way
08:00-09:00	89	46	135
17:00-18:00	44	78	122

Table 3 Committed Development Traffic

2.27 Adding the committed development traffic to the observed traffic flow provides a baseline against which the impact of the proposed development's traffic can be compared.

Time Range	Weekday Average		
	Eastbound	Westbound	Two-Way
08:00-09:00	441	621	1062
17:00-18:00	557	534	1091

Table 4 Icknield Way Baseline Peak Hour Traffic

2.28 Some 400m to the west of the site there is a grade separated junction that provides access to the A41 dual carriageway. The site benefits therefore from convenient access to the strategic highway network.

2.29 A review of injury accident records for the area around the site has been undertaken for latest five-year period for which data is available (2016 – 2020 inclusive).

2.30 There are no clusters of accidents in the vicinity of the site and this suggests that there are no specific safety issues associated with this section of road. A fatal accident occurred approximately 300m to the west of the application site at 7.55pm on Friday November 30th 2018. The casualty was a pedestrian who was struck by a car whilst crossing the road. It was dark at the time of the accident although there is street lighting located at this location on the approach to the Icknield Way / The Holloway / Aylesbury Road roundabout.

2.31 The accident, despite its severity, appears to be an isolated incident. There are no other accidents recorded in its vicinity and the absence of a cluster of accidents suggests that there is no intrinsic safety issue at this location. The accident occurred at 7.55pm, a time of day when little activity would be expected from the offices proposed as part of this development.

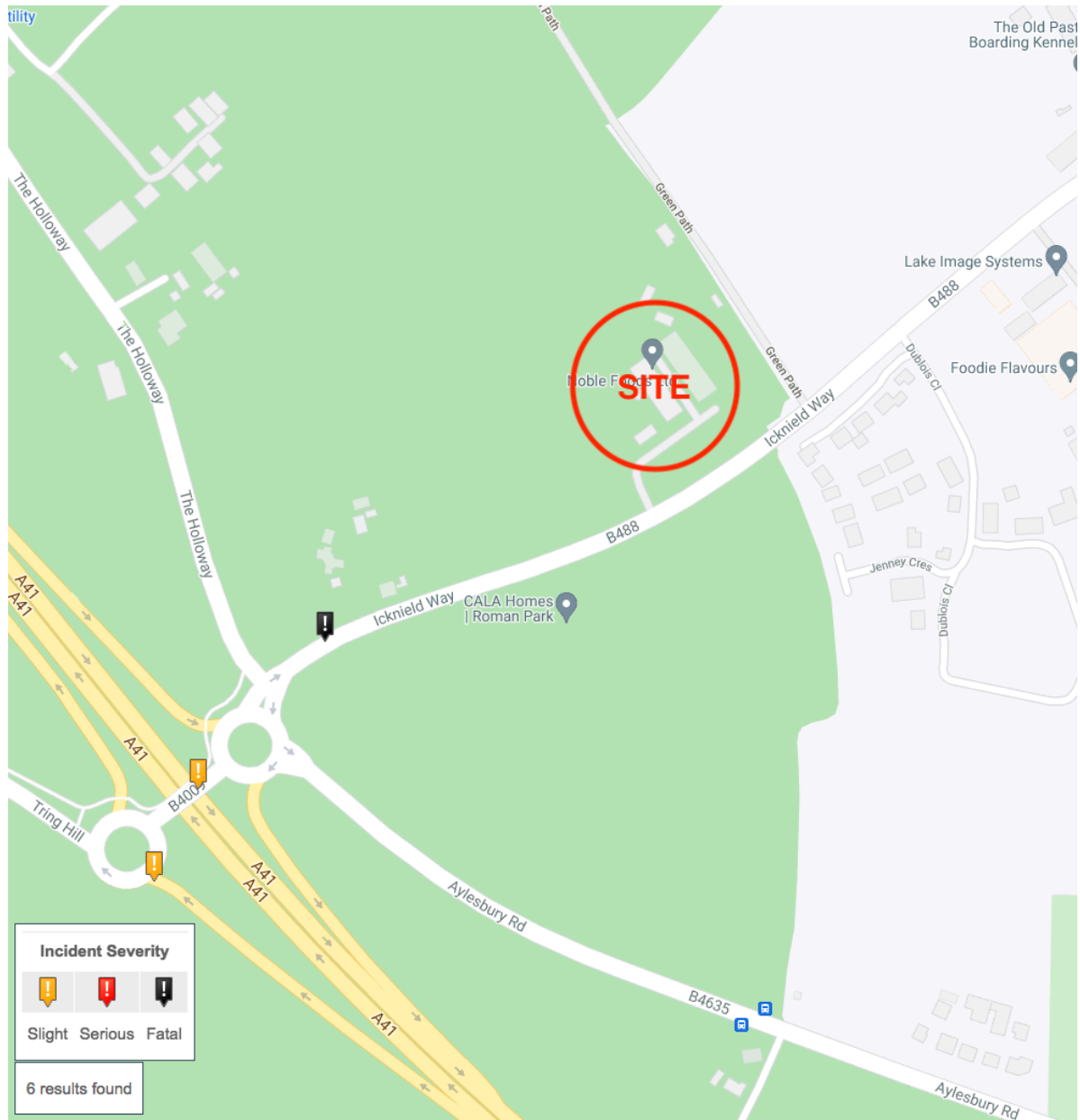


Figure 7 Injury Accident Records 2016 – 2020
Crashmap.co.uk

3 Existing Traffic Generation

- 3.1 The two planning applications seek to secure a change of use from the existing agricultural use to office and storage, respectively.
- 3.2 It is difficult to quantify the volume of traffic that might be generated by the extant agricultural use.
- 3.3 A worst-case assessment of the proposed development traffic has therefore been adopted, where it is assumed that all of the traffic generated by the proposed office and storage use is new.

4 Proposed Development – Unit 1

4.1 Retrospective planning permission is sought for the change of use of residual area (335m²) of Unit 1 from agricultural to office use (use class E).

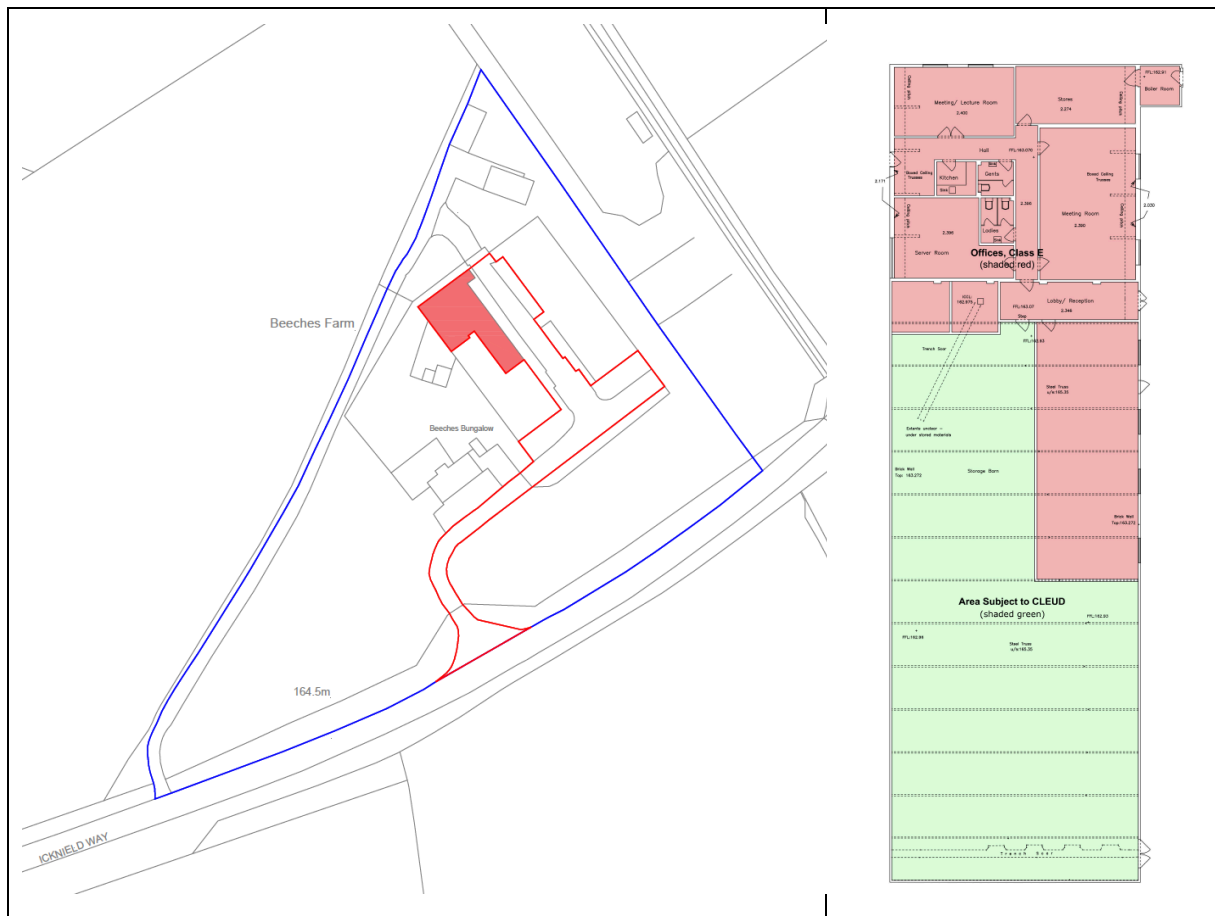


Figure 8 Proposed Development – Unit 1

4.2 The trip generating potential of this land use has been estimated by reference to the TRICS trip rate database, a database of over 8,000 transport surveys of various types of development.

4.3 The following filtering criteria have been applied to arrive at a sample of database surveys from comparable sites.

- Land Use: Employment; Office
- Surveys located in mainland Britain, excluding Greater London;
- Weekday surveys;
- Town centre and edge of town centre sites excluded.

4.4 The TRICS output is provided in detail in Appendix 4 and summarised below.

Appendix 4 TRICS Trip Rate Data - Office

Time Range	Trip Rate per 100m ² GFA			Trip Generation of 335m ² GFA		
	Arrivals	Departures	Total	Arrivals	Departures	Total
08:00-09:00	4.382	0.455	4.837	15	2	16
17:00-18:00	0.455	4.506	4.961	2	15	17

Table 5 Vehicle Trip Generation Estimate – Office

- 4.5 The TRICS data suggests that the proposed office use has the potential to generate some 16 to 17 peak hour vehicle movements. This is insignificant in the context of the 1,000 or so peak hour vehicle movements that pass along Icknield Way. Furthermore, given that the application is retrospective and that the office has already been in use for several years, any problems associated with the traffic generated by the office use would already be evident. There are no such problems and it is clear that the office's traffic generation has no detrimental impact on highway conditions. With just 11 staff working on site at present the vehicle movements are less than the TRICS data might suggest.
- 4.6 The Council's Parking Standards require that 1 parking space per 25m² be provided for class E use. This equates to 13 spaces for the 335m² office space, which are available within the site.

5 Proposed Development – Unit 2

5.1 Change of use of residual area (290m²), Unit 2 from agricultural to storage (use class B8)



Figure 9 Proposed Development – Unit 2

5.2 The following filtering criteria have been applied to arrive at a sample of TRICS database surveys from comparable sites.

- Land Use: Employment; Commercial Warehousing;
- Surveys located in mainland Britain, excluding Greater London;
- Weekday surveys;
- Town centre and edge of town centre sites excluded.

5.3 The TRICS output is provided in detail in Appendix 5 and summarised below.

Appendix 5 TRICS Trip Rate Data – Commercial Warehouse

5.4 The TRICS data suggests that the proposed storage use will generate only 3 to 4 peak hour vehicle movements; an insignificant number.

Time Range	Trip Rate per 100m ² GFA			Trip Generation of 290m ² GFA		
	Arrivals	Departures	Total	Arrivals	Departures	Total
08:00-09:00	0.809	0.135	0.944	2	0	3*
17:00-18:00	0.405	0.854	1.259	1	2	4*

Table 6 Vehicle Trip Generation Estimate – Commercial Warehouse

*Apparent arithmetic errors caused by rounding up

- 5.5 The Council's Parking Standards require that 1 parking space per 130m² be provided for class B8 use. This equates to 2 spaces for the 290m² floor area, which are available within the site.

6 Summary & Conclusion

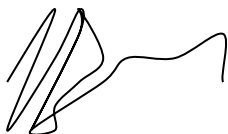
6.1 Planning permission is sought for:

- Change of use of residual area (335m²), Unit 1 from agricultural to office use (use class E - retrospective).
- Change of use of residual area (290m²), Unit 2 from agricultural to storage (use class B8)

6.2 This Transport Statement has demonstrated that:

- The site is an established employment site. The use of part of Unit 1 (375m²) for storage (B8) was regularised by a Lawful Development Certificate in September 2019 (19/02911/ACL). Whilst not implemented, the use of 500m² of Unit 2 was approved under Class R for flexible commercial use (19/02629/COUAF).
- The proposed development is in an appropriate location being within walking and cycling distance to the facilities available in Tring. Access to the site is available via a network of footways and footpaths. One public footpath crosses the application site and connects to others on the southern side of Icknield Way.
- Tring Railway Station is within easy cycling distance and the site making commuting by bike/train a viable option for users of the site.
- There are regular bus services that link Tring to surrounding towns and villages. The nearest bus stop is on Aylesbury Road, a 550m / 6-minute walk through the Roman Park development.
- The existing access to the site provides adequate visibility to ensure its safe operation.
- The use of part of Unit 1 as offices has the potential to generate some 16 to 17 peak hour vehicle movements. This is insignificant in the context of the 1,000 or so peak hour vehicle movements that pass along Icknield Way. Not all of the 16 to 17 peak hour vehicle movements will be new as this assessment ignores the traffic generating potential of the former agricultural use. In addition, there are just 11 staff working in the offices, which generates less than 16-17 peak hour movements.
- The use of part of Unit 2 as storage space has the potential to generate only 3 to 4 peak hour vehicle movements; an insignificant number.

6.3 As such it is considered that the planning applications meet planning policy requirements in terms of being in an appropriate location that is safely accessible by a range of transport modes. The impacts of the development on the continued operation and safety of the surrounding highway network would be insignificant and it is considered that there are no highway related reasons that should prevent planning approval for the proposed development.

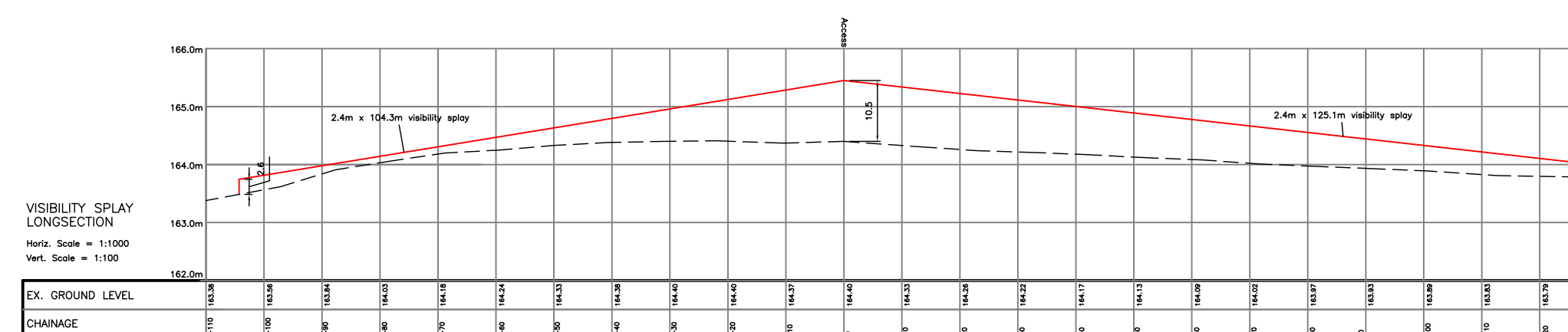
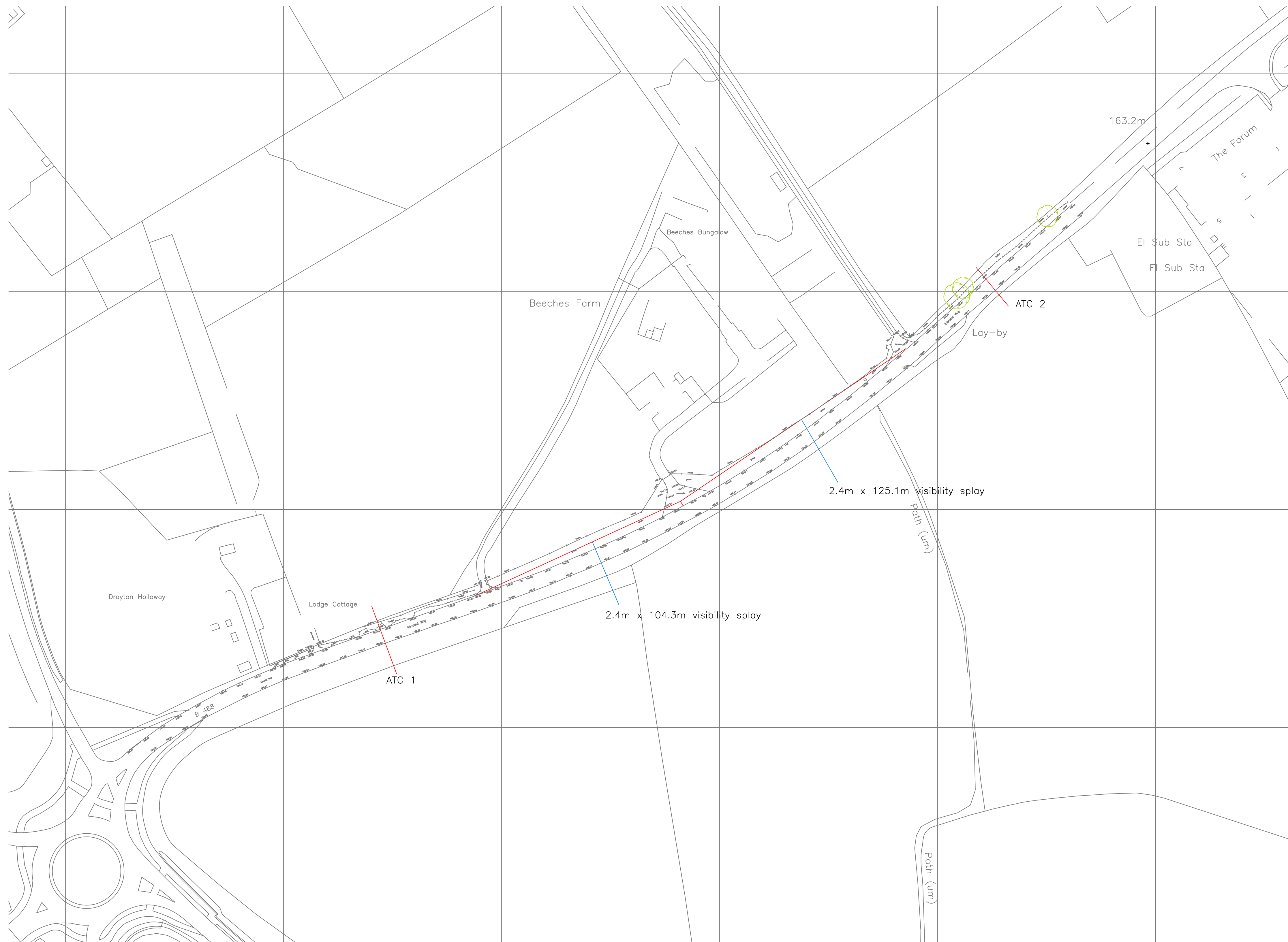


..... 4th November 2021

Ian Brazier BEng (Hons) CEng MICE

On behalf of Abington Consulting Engineers

Appendix 1 Existing Access Arrangement



REV	BY	REVISION DETAILS	DATE

ABINGTON
 CONSULTING ENGINEERS
 CHARTERED CIVIL ENGINEERS

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 info@abingtonconsulting.co.uk www.abingtonconsulting.co.uk

PROJECT: Beeches Farm, Tring

TITLE: Development Access Visibility Splays

DRAWING NO. 18010/101 REVISION -

SCALE 1:1000 © A1

DRAWN EJB CHECKED IB DATE 9/2/18

Appendix 2 Icknielld Way Speed Survey Data

Tring ATC 1, Icknield Way (Western Site)

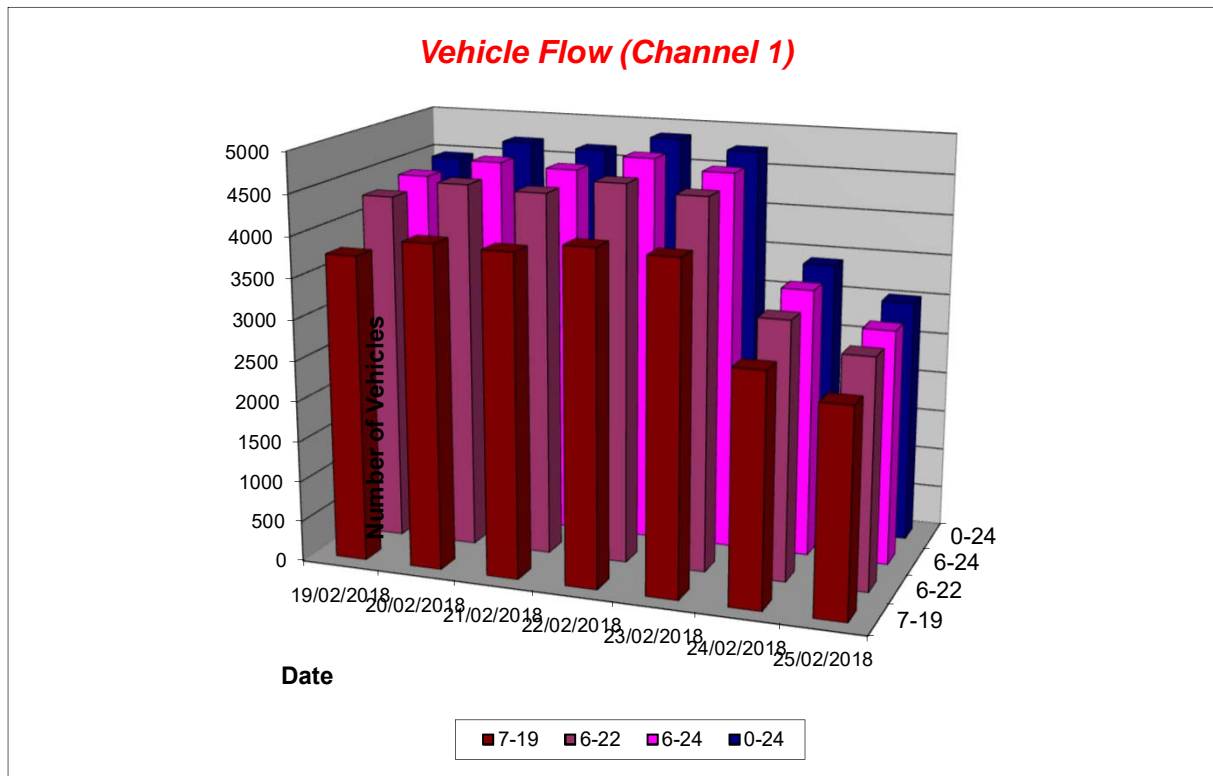
Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Eastbound

Vehicle Flow

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday	5 Day Ave	7 Day Ave
1	12	15	16	12	19	17	41	15	19
2	5	3	11	6	12	18	24	7	11
3	7	7	2	2	7	11	15	5	7
4	7	10	7	10	11	16	12	9	10
5	16	15	18	17	15	9	10	16	14
6	34	49	38	45	39	22	12	41	34
7	117	112	103	113	94	33	21	108	85
8	295	296	313	302	274	73	33	296	227
9	349	327	369	370	345	134	67	352	280
10	272	256	274	267	287	173	150	271	240
11	224	210	214	229	230	238	213	221	223
12	218	234	195	237	238	281	254	224	237
13	244	278	222	250	275	327	308	254	272
14	281	303	262	311	315	360	312	294	306
15	274	278	286	289	324	311	288	290	293
16	323	367	358	386	428	263	265	372	341
17	414	461	515	512	475	247	244	475	410
18	503	538	524	522	477	239	236	513	434
19	362	426	416	397	364	191	165	393	332
20	186	214	193	189	190	140	125	194	177
21	122	113	122	158	133	91	98	130	120
22	104	84	89	97	90	76	56	93	85
23	61	75	78	89	69	75	43	74	70
24	32	37	41	51	43	59	24	41	41
7-19	3759	3974	3948	4072	4032	2837	2535	3957	3594
6-22	4288	4497	4455	4629	4539	3177	2835	4482	4060
6-24	4381	4609	4574	4769	4651	3311	2902	4597	4171
0-24	4462	4708	4666	4861	4754	3404	3016	4690	4267



Tring ATC 1, Icknield Way (Western Site)

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Eastbound

Average Speed

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	40.9	44.5	38.9	40.5	38.9	40.4	41.0
2	36.0	41.3	36.2	36.3	39.2	38.8	38.6
3	40.1	38.7	40.5	45.5	37.3	37.5	40.5
4	39.4	38.0	39.4	37.5	40.3	41.4	42.2
5	37.4	42.0	36.9	38.6	37.0	39.1	41.0
6	42.7	40.8	41.6	42.1	41.9	40.5	40.1
7	38.8	39.6	38.3	38.6	39.8	40.3	41.6
8	38.6	38.6	39.7	39.6	39.1	39.0	42.1
9	37.7	38.3	38.9	39.2	39.3	40.9	42.9
10	37.0	38.6	38.8	37.9	39.6	39.1	40.6
11	38.0	38.1	37.7	37.8	38.4	39.2	39.8
12	38.1	37.9	38.1	37.0	38.5	39.1	40.1
13	37.9	38.6	37.7	37.9	39.0	40.5	39.6
14	38.2	39.0	38.7	39.1	39.5	39.5	39.6
15	38.8	38.9	37.8	39.6	38.6	40.4	39.6
16	38.2	39.0	37.9	39.1	39.5	40.5	39.7
17	38.2	38.9	39.9	37.6	38.9	41.1	40.2
18	38.3	39.5	39.2	39.5	40.1	39.5	39.5
19	39.0	39.3	39.4	40.2	39.1	40.1	41.7
20	39.6	40.2	39.8	41.2	40.9	40.4	40.2
21	40.3	40.5	42.3	40.2	40.5	40.3	40.7
22	40.1	39.2	40.4	40.7	39.2	40.2	42.4
23	41.2	40.8	41.1	41.4	41.6	38.9	40.7
24	40.4	41.9	40.2	39.2	42.0	37.4	41.5

10-12	38.1	38.0	37.9	37.4	38.4	39.1	39.9
14-16	38.5	39.0	37.9	39.3	39.1	40.5	39.6
0-24	38.5	39.1	39.0	39.1	39.4	39.9	40.2

Average	39.3
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Channel 1 - Eastbound

85th Percentile

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	48.7	58.6	54.0	48.7	43.9	48.7	48.2
2	43.5	48.3	43.4	43.9	43.7	48.9	48.5
3	48.6	43.3	43.3	48.8	43.5	43.5	48.3
4	53.3	43.8	53.2	43.0	53.4	48.1	48.3
5	43.3	43.8	38.2	43.5	43.1	43.8	48.0
6	48.8	48.6	48.6	48.9	48.8	48.4	48.5
7	43.0	44.0	48.4	43.4	48.5	48.5	48.2
8	43.8	43.9	43.4	48.7	43.8	43.5	48.9
9	43.8	43.2	43.7	43.5	43.6	48.2	48.6
10	43.7	43.7	43.3	43.5	43.8	43.3	48.8
11	43.0	44.0	43.6	43.5	43.0	43.1	43.9
12	43.4	43.2	43.2	43.4	43.2	43.6	48.3
13	43.9	43.5	43.2	43.4	48.1	48.2	48.5
14	43.8	43.1	43.6	43.3	48.1	43.9	43.1
15	43.4	44.0	43.1	43.1	43.3	43.1	43.6
16	44.0	43.7	43.5	43.2	43.1	48.4	43.4
17	43.9	43.0	43.9	44.0	43.0	48.3	49.0
18	43.1	43.6	43.3	48.1	48.5	48.9	43.1
19	48.9	43.1	43.8	48.4	48.7	48.8	48.9
20	43.4	48.1	48.4	48.4	48.5	48.3	43.6
21	48.5	48.8	53.3	48.5	43.8	48.7	48.3
22	48.8	43.3	48.9	48.2	48.1	48.3	53.1
23	48.1	48.0	53.6	48.5	48.2	43.1	43.5
24	48.6	48.3	48.6	43.3	48.7	43.0	48.2

10-12	43.5	43.4	43.4	43.6	43.5	48.3	49.0
14-16	43.3	43.3	43.1	43.5	43.4	48.8	43.1
0-24	43.6	43.9	43.6	43.2	43.1	48.3	48.0

85th %ile	44.8
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Tring ATC 1, Icknield Way (Western Site)

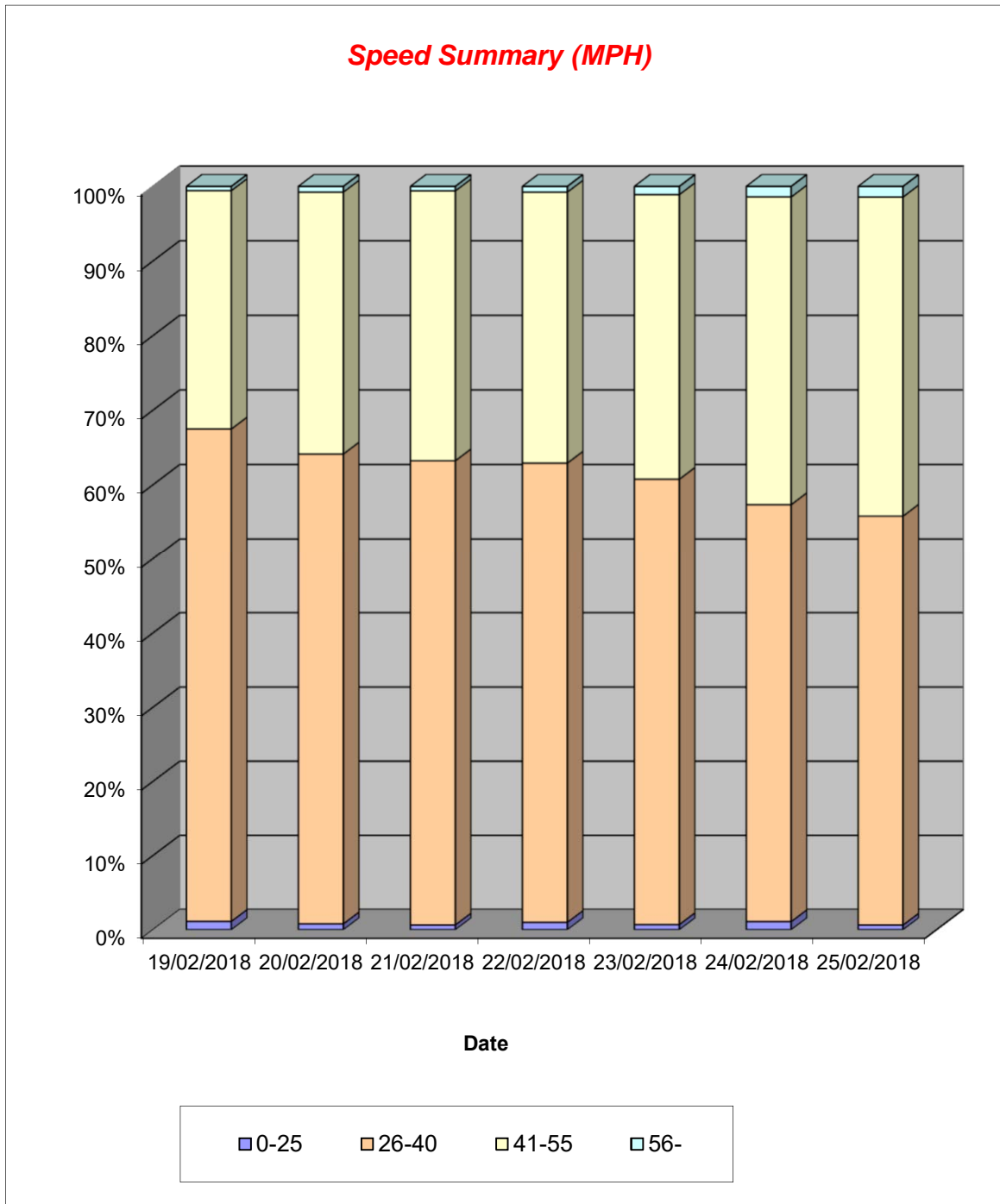
Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Eastbound

Speed Summary

Week 1

Speed (MPH)	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
0-25	50	37	30	48	33	37	19
26-40	2961	2982	2920	3010	2855	1915	1664
41-55	1426	1653	1688	1766	1814	1404	1290
56-	25	36	28	37	52	48	43
TOTAL	4462	4708	4666	4861	4754	3404	3016

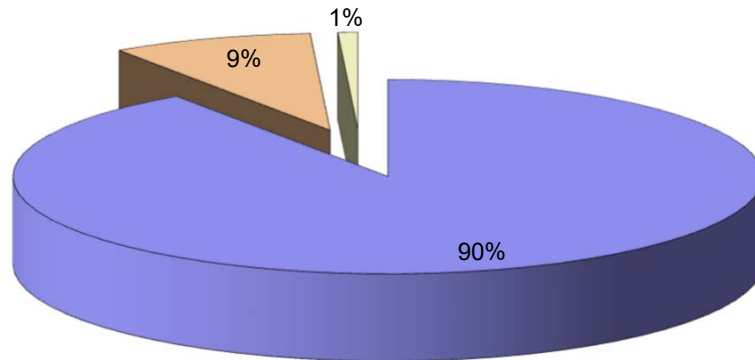


Tring ATC 1, Icknield Way (Western Site)

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Eastbound		Vehicle Class			Week 1
Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
19/02/2018					
7-19	3315	401	43	3759	
6-22	3805	437	46	4288	
6-24	3896	439	46	4381	
0-24	3967	448	47	4462	
20/02/2018					
7-19	3513	416	45	3974	
6-22	4005	445	47	4497	
6-24	4116	446	47	4609	
0-24	4210	451	47	4708	
21/02/2018					
7-19	3515	393	40	3948	
6-22	3999	414	42	4455	
6-24	4117	415	42	4574	
0-24	4203	421	42	4666	
22/02/2018					
7-19	3595	438	39	4072	
6-22	4123	461	45	4629	
6-24	4260	464	45	4769	
0-24	4340	475	46	4861	
23/02/2018					
7-19	3582	401	49	4032	
6-22	4045	440	54	4539	
6-24	4154	443	54	4651	
0-24	4246	452	56	4754	
24/02/2018					
7-19	2636	192	9	2837	
6-22	2957	211	9	3177	
6-24	3084	218	9	3311	
0-24	3168	227	9	3404	
25/02/2018					
7-19	2427	102	6	2535	
6-22	2713	114	8	2835	
6-24	2778	116	8	2902	
0-24	2888	120	8	3016	
Average					
7-19	3226	335	33	3594	
6-22	3664	360	36	4060	
6-24	3772	363	36	4171	
0-24	3860	371	36	4267	

Total Vehicle Class Distribution



Tring ATC 1, Icknield Way (Western Site)

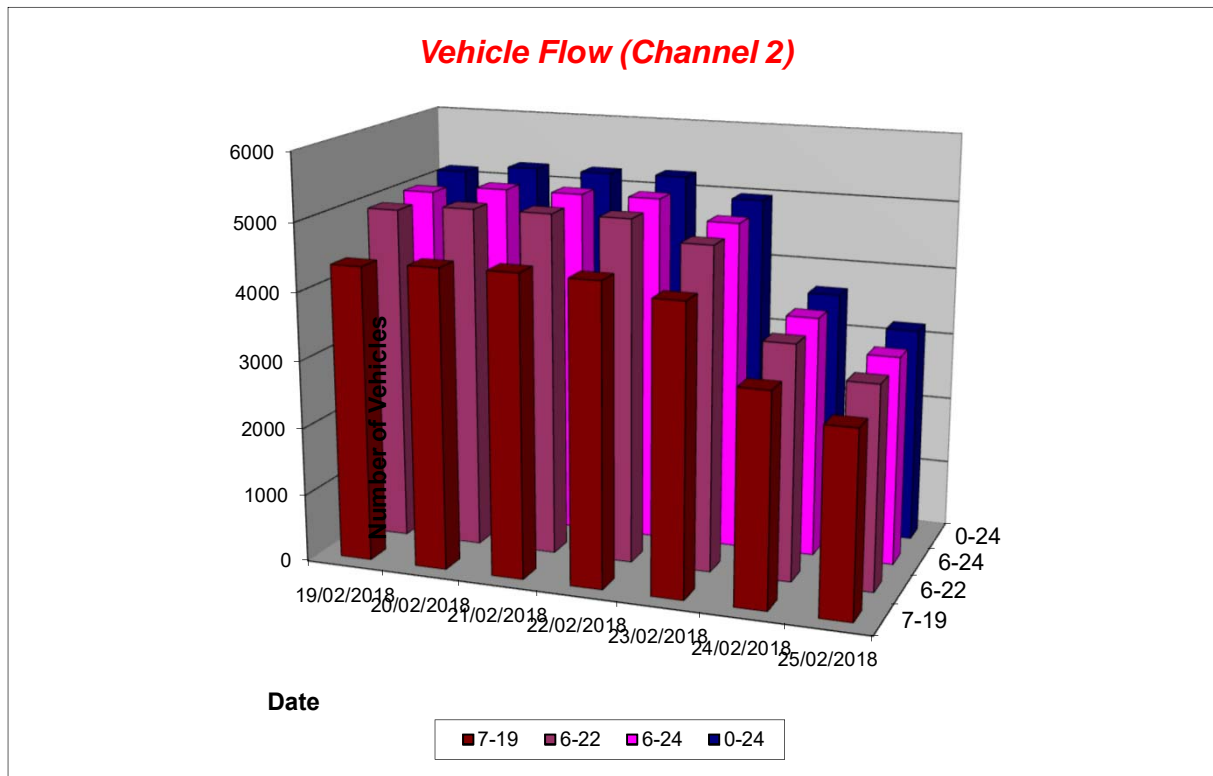
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Westbound

Vehicle Flow

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday	5 Day Ave	7 Day Ave
1	12	13	5	13	17	17	29	12	15
2	6	2	9	7	6	8	20	6	8
3	7	10	10	6	5	8	15	8	9
4	3	9	3	7	9	11	10	6	7
5	28	21	30	30	29	14	14	28	24
6	67	69	60	63	57	20	11	63	50
7	260	266	274	299	230	61	40	266	204
8	651	646	648	615	554	155	56	623	475
9	564	647	599	542	525	207	94	575	454
10	396	423	436	402	371	285	186	406	357
11	262	266	299	247	304	312	278	276	281
12	249	246	275	252	296	316	265	264	271
13	259	295	278	286	282	242	323	280	281
14	251	300	250	277	295	259	297	275	276
15	303	261	283	293	319	280	296	292	291
16	306	278	285	342	294	310	255	301	296
17	332	336	329	391	334	321	268	344	330
18	489	463	480	457	391	248	241	456	396
19	299	272	287	329	284	196	174	294	263
20	179	178	198	167	152	139	97	175	159
21	101	97	68	95	82	83	81	89	87
22	53	69	64	67	58	64	69	62	63
23	40	54	63	51	46	49	55	51	51
24	23	31	14	26	41	40	25	27	29
7-19	4361	4433	4449	4433	4249	3131	2733	4385	3970
6-22	4954	5043	5053	5061	4771	3478	3020	4976	4483
6-24	5017	5128	5130	5138	4858	3567	3100	5054	4563
0-24	5140	5252	5247	5264	4981	3645	3199	5177	4675



Tring ATC 1, Icknield Way (Western Site)

Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Westbound

Average Speed

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	40.5	38.0	43.0	37.2	37.7	38.3	37.7
2	36.3	33.0	38.6	38.7	38.0	34.2	40.1
3	38.7	37.5	42.0	43.8	46.0	43.0	40.7
4	44.7	39.7	39.7	39.4	41.3	44.4	42.8
5	38.4	39.2	39.6	41.0	40.1	42.6	40.1
6	38.4	41.0	40.2	42.0	39.5	43.2	42.1
7	37.0	36.9	38.7	37.7	38.4	40.7	42.1
8	33.8	33.5	36.0	35.2	36.2	40.9	41.7
9	30.9	28.7	34.8	35.9	36.9	41.0	41.3
10	35.9	36.9	37.5	37.0	39.0	39.1	41.0
11	38.1	37.8	36.6	37.7	37.4	39.2	40.6
12	37.4	38.0	37.0	37.4	38.4	39.6	39.6
13	37.4	38.0	38.2	38.4	38.4	39.6	39.7
14	36.6	38.1	37.3	38.1	38.6	39.6	39.5
15	37.6	37.7	37.4	38.8	37.6	39.3	39.1
16	37.1	38.7	38.4	37.3	37.9	39.3	38.8
17	37.6	38.4	37.5	36.0	38.4	38.8	38.2
18	36.1	36.2	36.4	36.1	38.7	38.7	37.9
19	35.9	36.2	36.9	36.8	37.0	37.6	37.8
20	36.3	37.0	37.5	37.8	38.7	37.1	38.3
21	37.8	38.2	39.7	39.5	39.0	39.9	38.9
22	41.5	36.8	38.5	38.5	38.4	37.3	39.1
23	37.2	37.3	37.4	39.4	38.8	36.0	38.8
24	37.3	38.5	37.3	38.8	39.5	37.8	38.0

10-12	37.8	37.9	36.8	37.5	37.9	39.4	40.1
14-16	37.3	38.2	37.9	38.0	37.7	39.3	39.0
0-24	35.9	35.9	37.0	37.1	37.9	39.2	39.4

Average	37.5
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Channel 2 - Westbound

85th Percentile

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	48.3	48.3	43.7	43.6	43.2	48.6	43.8
2	43.5	38.3	43.5	53.3	48.2	38.8	48.3
3	48.9	43.2	53.6	58.1	58.3	48.5	43.7
4	48.5	53.5	48.2	48.2	53.8	53.2	48.4
5	48.4	43.2	48.5	48.1	48.1	53.9	43.8
6	43.8	48.6	48.7	48.4	43.5	43.4	48.7
7	43.8	43.4	43.8	44.0	43.8	48.3	48.4
8	43.7	43.9	43.4	43.5	43.8	48.8	48.1
9	38.7	38.5	43.9	43.5	43.3	48.2	48.4
10	44.0	43.2	43.7	44.0	44.0	43.4	48.3
11	43.3	43.7	43.1	43.2	43.8	43.2	43.7
12	43.5	43.7	43.6	43.4	43.7	43.9	43.3
13	43.4	43.6	43.7	43.4	43.9	43.6	43.8
14	43.7	43.8	43.0	43.3	43.9	43.4	43.2
15	43.2	43.2	43.4	43.5	43.4	43.4	43.6
16	43.4	43.8	43.4	43.1	43.1	43.9	44.0
17	43.5	43.2	43.3	43.5	44.0	43.6	43.2
18	38.8	44.0	44.0	44.0	43.8	43.9	43.9
19	43.5	43.1	43.8	43.6	43.7	43.5	43.1
20	43.4	43.1	43.7	43.9	43.4	43.3	44.0
21	43.5	43.8	43.4	43.7	43.0	48.9	43.6
22	48.2	43.4	48.7	43.4	43.2	43.3	48.6
23	43.6	43.5	48.3	43.7	43.2	43.3	43.9
24	43.5	48.1	38.4	43.1	43.5	43.2	43.6

10-12	43.7	43.1	43.4	43.8	43.4	43.3	43.2
14-16	43.9	43.2	43.9	43.7	43.1	43.0	43.9
0-24	43.4	43.0	43.1	43.5	43.3	43.7	43.1

85th %ile	43.3
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Tring ATC 1, Icknield Way (Western Site)

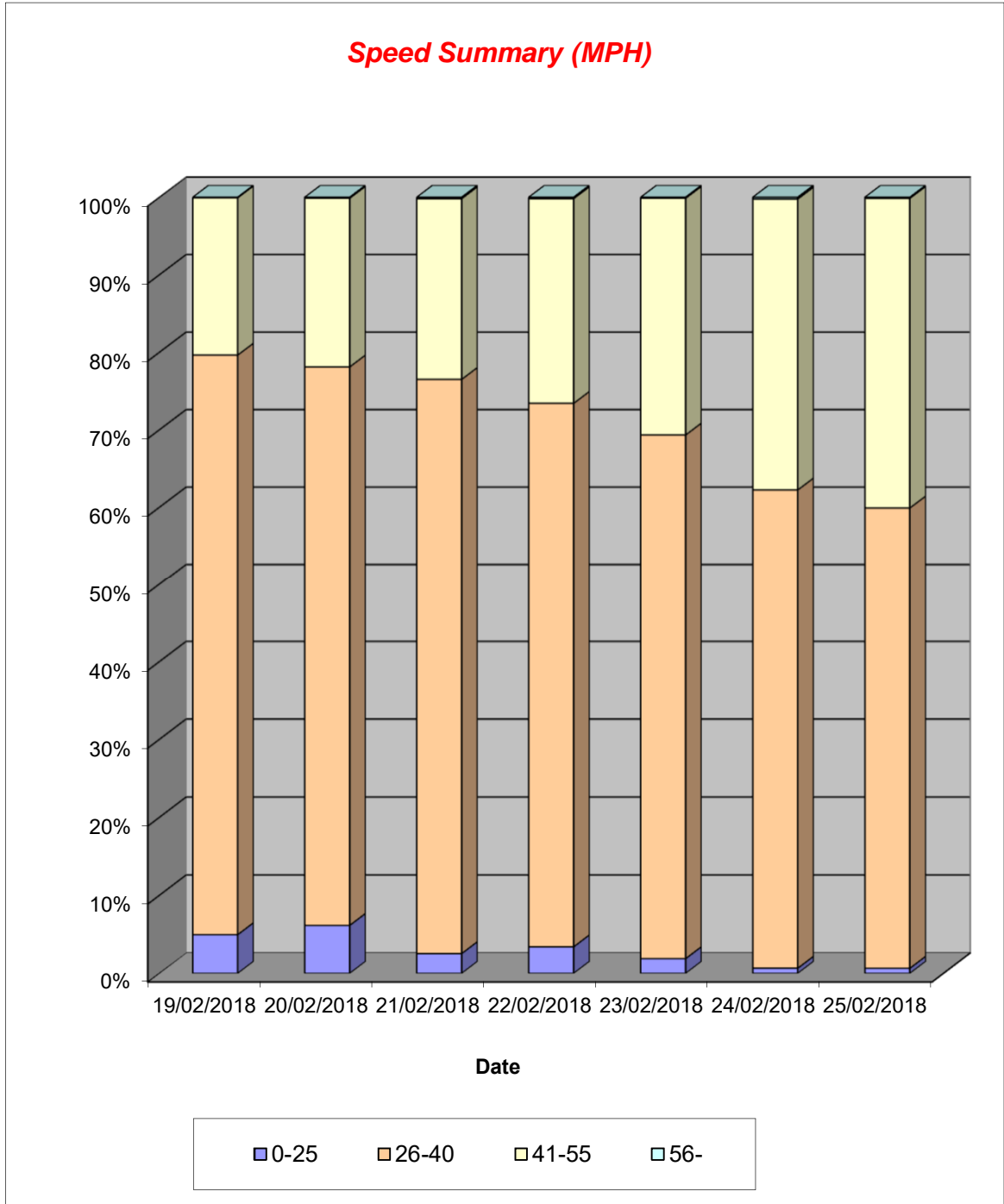
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Westbound

Speed Summary

Week 1

Speed (MPH)	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
0-25	255	323	133	179	94	24	21
26-40	3839	3780	3882	3686	3360	2245	1896
41-55	1043	1143	1223	1390	1521	1368	1278
56-	3	6	9	9	6	8	4
TOTAL	5140	5252	5247	5264	4981	3645	3199



Tring ATC 1, Icknield Way (Western Site)

Produced by PCC Traffic Information Consultancy Ltd.

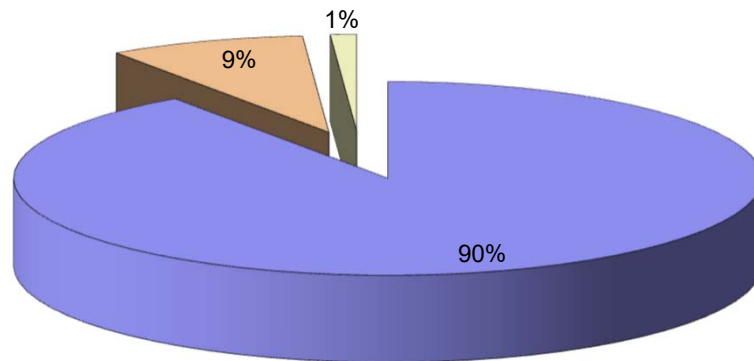
Channel 2 - Westbound

Vehicle Class

Week 1

Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
19/02/2018				
7-19	3881	431	49	4361
6-22	4414	483	57	4954
6-24	4472	487	58	5017
0-24	4571	498	71	5140
20/02/2018				
7-19	3930	442	61	4433
6-22	4474	500	69	5043
6-24	4555	503	70	5128
0-24	4658	518	76	5252
21/02/2018				
7-19	3922	468	59	4449
6-22	4476	511	66	5053
6-24	4552	512	66	5130
0-24	4648	527	72	5247
22/02/2018				
7-19	3968	423	42	4433
6-22	4530	476	55	5061
6-24	4605	478	55	5138
0-24	4708	496	60	5264
23/02/2018				
7-19	3808	397	44	4249
6-22	4273	442	56	4771
6-24	4356	445	57	4858
0-24	4457	461	63	4981
24/02/2018				
7-19	2971	151	9	3131
6-22	3295	167	16	3478
6-24	3380	170	17	3567
0-24	3454	172	19	3645
25/02/2018				
7-19	2636	92	5	2733
6-22	2909	104	7	3020
6-24	2985	107	8	3100
0-24	3077	113	9	3199
Average				
7-19	3588	343	38	3970
6-22	4053	383	47	4483
6-24	4129	386	47	4563
0-24	4225	398	53	4675

Total Vehicle Class Distribution



Tring ATC 2, Icknield Way (Eastern Site)

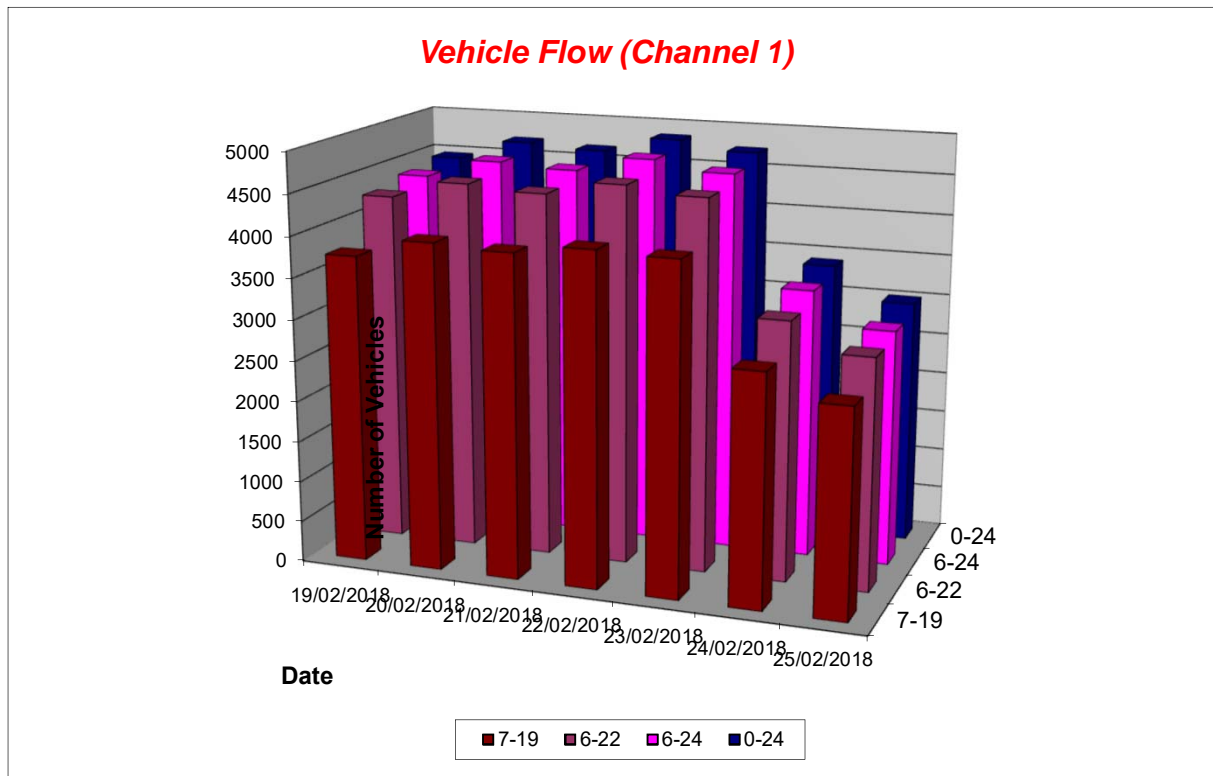
Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Eastbound

Vehicle Flow

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday	5 Day Ave	7 Day Ave
1	11	14	17	13	18	18	41	15	19
2	5	3	11	7	12	19	21	8	11
3	7	7	2	2	7	11	15	5	7
4	7	10	6	10	11	16	12	9	10
5	14	13	20	16	15	9	10	16	14
6	34	46	36	46	38	22	12	40	33
7	117	110	100	109	92	33	21	106	83
8	276	308	301	294	268	71	33	289	222
9	357	353	378	372	348	134	67	362	287
10	266	236	292	273	281	168	147	270	238
11	215	207	218	214	229	241	218	217	220
12	229	228	191	230	238	284	249	223	236
13	234	273	219	249	283	321	308	252	270
14	279	293	262	321	314	353	308	294	304
15	273	277	280	288	319	307	282	287	289
16	327	367	361	379	419	261	264	371	340
17	414	461	500	526	463	250	244	473	408
18	508	553	527	510	485	240	242	517	438
19	377	429	410	390	367	192	163	395	333
20	188	216	198	199	194	145	127	199	181
21	126	110	121	163	134	90	98	131	120
22	103	85	90	97	93	78	57	94	86
23	62	73	78	91	70	77	43	75	71
24	32	37	42	52	44	60	25	41	42
7-19	3755	3985	3939	4046	4014	2822	2525	3948	3584
6-22	4289	4506	4448	4614	4527	3168	2828	4477	4054
6-24	4383	4616	4568	4757	4641	3305	2896	4593	4167
0-24	4461	4709	4660	4851	4742	3400	3007	4685	4261



Tring ATC 2, Icknield Way (Eastern Site)

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Eastbound

Average Speed

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	47.3	43.7	42.9	46.1	44.2	46.2	44.4
2	38.0	48.8	38.9	43.0	43.2	44.7	44.7
3	42.3	41.6	53.0	48.0	40.1	44.8	44.0
4	46.9	41.5	44.7	44.2	44.6	47.2	46.8
5	42.6	42.6	43.2	44.6	41.7	43.0	42.5
6	45.9	44.1	47.1	47.7	45.3	44.9	45.9
7	42.8	42.9	42.9	42.9	44.2	44.4	45.6
8	40.7	41.3	42.1	42.2	41.5	43.1	44.7
9	40.5	40.7	41.3	41.1	41.4	44.6	44.8
10	40.0	40.4	41.2	40.9	41.5	42.4	44.1
11	41.0	40.0	39.8	40.9	40.8	42.7	42.9
12	40.8	40.6	40.8	40.0	41.2	41.8	43.2
13	40.5	41.5	40.4	39.9	41.5	43.5	42.1
14	39.4	41.0	40.7	41.0	40.9	42.4	42.7
15	41.6	39.7	39.8	41.3	41.0	42.8	41.9
16	40.6	40.5	40.8	41.7	41.3	42.3	42.9
17	40.1	40.8	41.7	39.8	40.4	42.7	42.8
18	40.0	40.3	41.5	41.7	41.7	42.1	42.4
19	40.6	41.3	41.9	42.4	41.6	42.9	44.5
20	41.5	42.4	42.6	43.2	44.1	44.5	43.8
21	43.2	42.6	45.9	43.8	44.2	44.6	44.4
22	43.3	42.2	44.6	43.7	42.1	42.3	47.0
23	43.8	43.3	45.3	43.8	45.4	42.6	44.7
24	43.8	45.2	44.7	42.9	45.4	41.2	45.8

10-12	40.9	40.3	40.3	40.5	41.0	42.2	43.1
14-16	41.1	40.2	40.3	41.5	41.2	42.6	42.4
0-24	40.8	41.0	41.6	41.5	41.7	42.9	43.2

Average	41.8
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Channel 1 - Eastbound

85th Percentile

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	53.7	53.6	54.0	58.7	53.9	53.7	53.2
2	48.5	65.8	48.4	48.9	53.7	66.4	53.5
3	53.6	43.3	53.3	53.8	43.5	53.5	53.3
4	65.8	43.8	48.2	53.0	53.4	53.1	58.3
5	53.3	48.8	43.3	53.5	43.1	48.8	53.0
6	53.8	53.6	53.6	53.9	53.8	53.4	53.5
7	48.0	49.0	48.4	48.4	48.5	53.5	58.2
8	48.8	48.9	48.4	48.7	48.8	53.5	53.9
9	43.8	48.2	48.7	48.5	48.6	53.2	53.6
10	43.7	48.7	48.3	48.5	48.8	48.3	48.8
11	48.0	44.0	48.6	48.5	48.0	48.1	48.9
12	48.4	43.2	48.2	48.4	48.2	48.6	48.3
13	48.9	48.5	48.2	43.4	48.1	48.2	48.5
14	48.8	48.1	48.6	48.3	48.1	48.9	48.1
15	48.4	49.0	48.1	48.1	48.3	48.1	48.6
16	49.0	48.7	48.5	48.2	48.1	48.4	48.4
17	48.9	48.0	48.9	49.0	48.0	48.3	49.0
18	48.1	43.6	48.3	48.1	48.5	48.9	48.1
19	48.9	48.1	48.8	48.4	48.7	48.8	53.9
20	48.4	48.1	48.4	48.4	48.5	53.3	48.6
21	48.5	48.8	53.3	48.5	48.8	53.7	53.3
22	48.8	48.3	53.9	53.2	48.1	48.3	58.1
23	53.1	53.0	53.6	53.5	53.2	48.1	53.5
24	48.6	53.3	53.6	48.3	53.7	48.0	53.2

10-12	48.5	43.4	48.4	48.6	48.5	48.3	49.0
14-16	48.3	48.3	48.1	48.5	48.4	48.8	48.1
0-24	48.6	48.9	48.6	48.2	48.1	48.3	48.0

85th %ile	48.4
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Tring ATC 2, Icknield Way (Eastern Site)

Produced by PCC Traffic Information Consultancy Ltd.

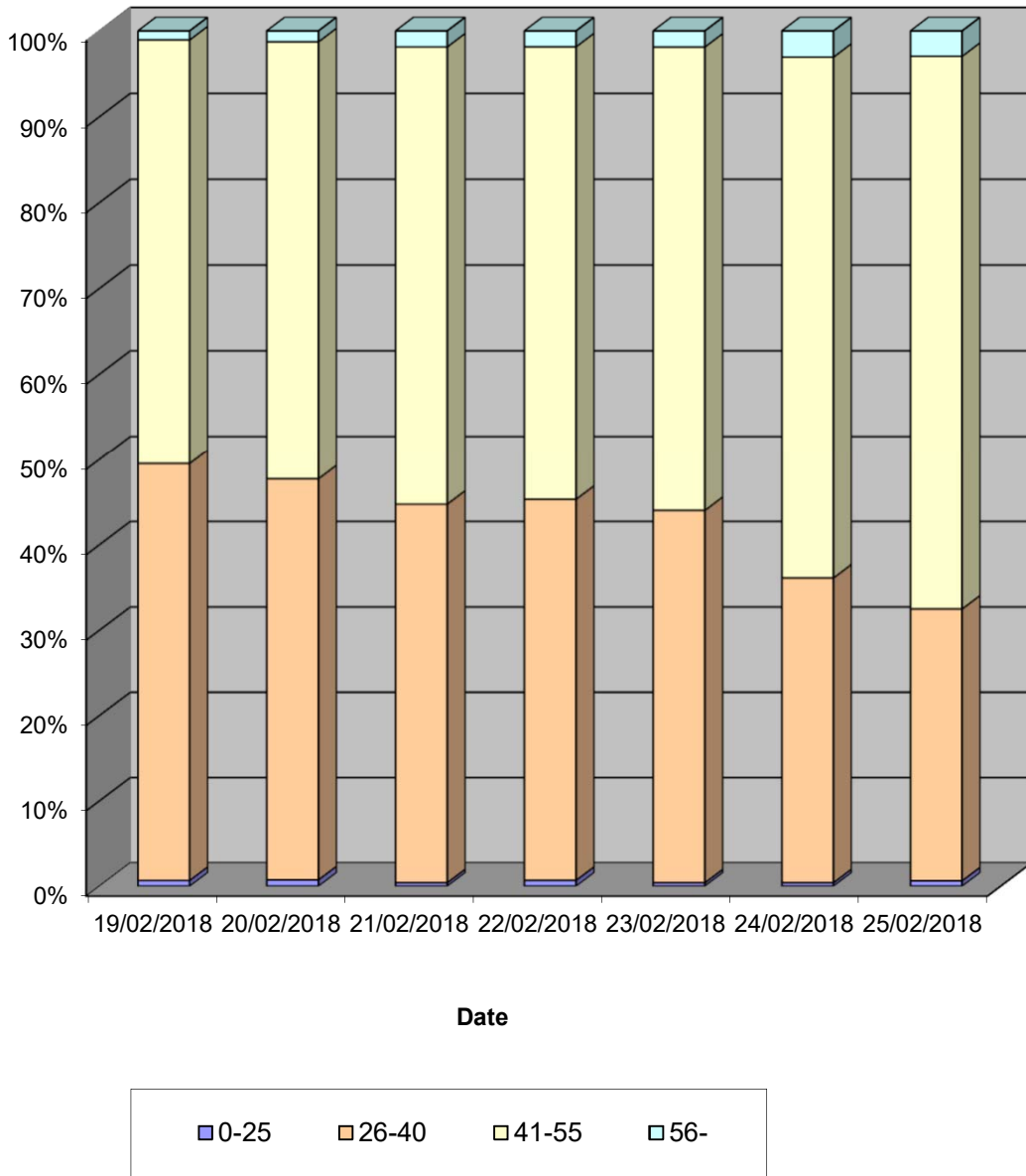
Channel 1 - Eastbound

Speed Summary

Week 1

Speed (MPH)	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
0-25	30	35	19	33	19	14	19
26-40	2179	2212	2066	2165	2068	1214	958
41-55	2205	2402	2488	2563	2566	2068	1941
56-	47	60	87	90	89	104	89
TOTAL	4461	4709	4660	4851	4742	3400	3007

Speed Summary (MPH)

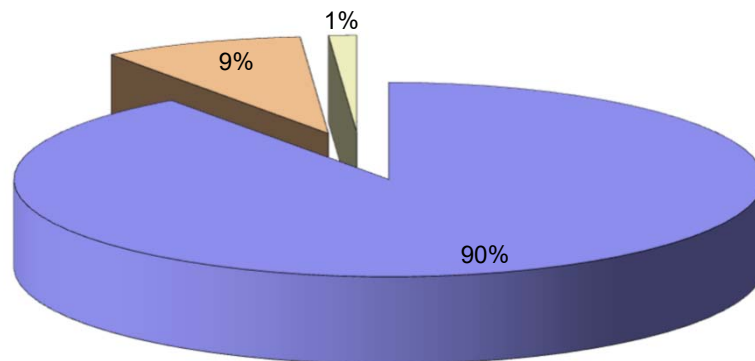


Tring ATC 2, Icknield Way (Eastern Site)

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Eastbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
19/02/2018					
7-19	3277	418	60	3755	
6-22	3773	452	64	4289	
6-24	3865	454	64	4383	
0-24	3933	463	65	4461	
20/02/2018					
7-19	3522	404	59	3985	
6-22	4010	433	63	4506	
6-24	4119	434	63	4616	
0-24	4202	443	64	4709	
21/02/2018					
7-19	3459	423	57	3939	
6-22	3943	443	62	4448	
6-24	4062	444	62	4568	
0-24	4145	452	63	4660	
22/02/2018					
7-19	3554	434	58	4046	
6-22	4093	455	66	4614	
6-24	4233	458	66	4757	
0-24	4314	470	67	4851	
23/02/2018					
7-19	3543	400	71	4014	
6-22	4015	436	76	4527	
6-24	4125	439	77	4641	
0-24	4214	449	79	4742	
24/02/2018					
7-19	2642	166	14	2822	
6-22	2973	181	14	3168	
6-24	3103	188	14	3305	
0-24	3191	195	14	3400	
25/02/2018					
7-19	2429	91	5	2525	
6-22	2720	102	6	2828	
6-24	2786	104	6	2896	
0-24	2892	108	7	3007	
Average					
7-19	3204	334	46	3584	
6-22	3647	357	50	4054	
6-24	3756	360	50	4167	
0-24	3842	369	51	4261	

Total Vehicle Class Distribution



Tring ATC 2, Icknield Way (Eastern Site)

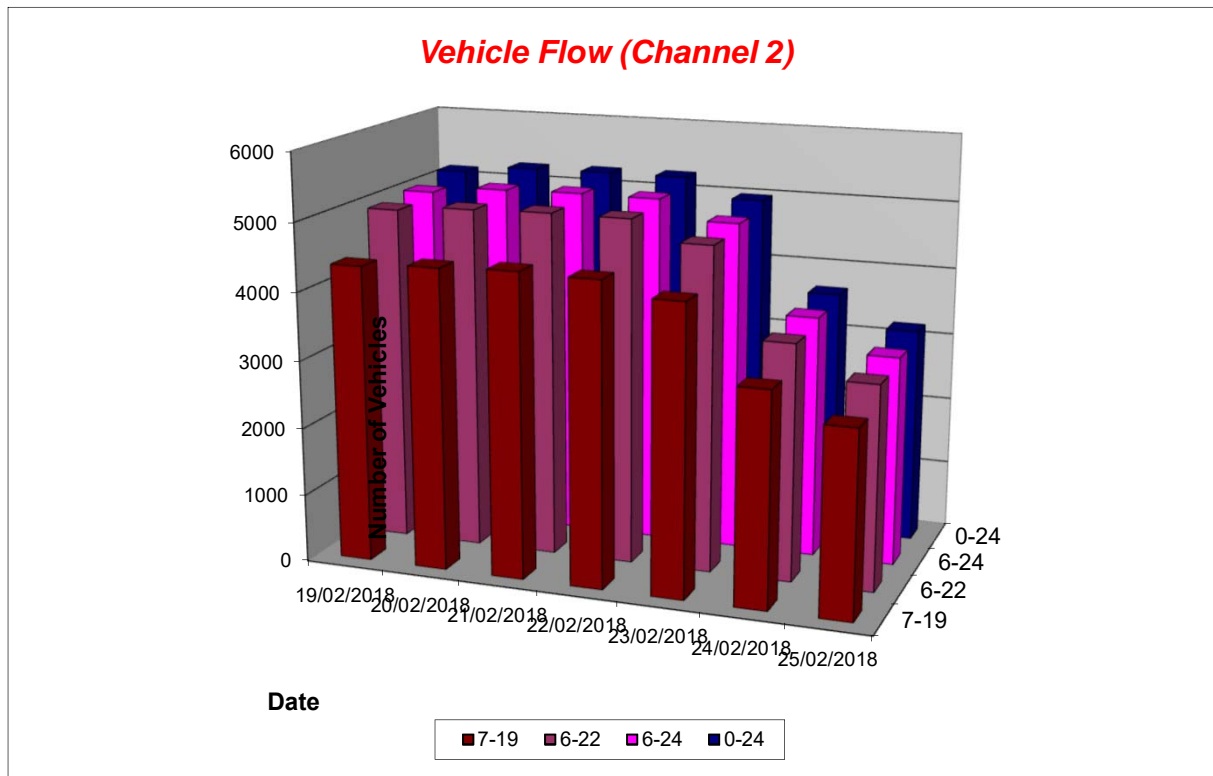
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Westbound

Vehicle Flow

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday	5 Day Ave	7 Day Ave
1	13	14	6	12	18	17	29	13	16
2	7	2	9	6	7	9	20	6	9
3	7	11	10	6	6	7	15	8	9
4	3	9	4	7	8	11	10	6	7
5	27	21	28	30	29	14	14	27	23
6	67	71	60	63	57	20	12	64	50
7	256	266	271	298	240	60	39	266	204
8	665	649	646	621	556	154	56	627	478
9	567	631	604	544	508	205	94	571	450
10	397	439	422	391	377	288	187	405	357
11	259	261	287	252	306	314	277	273	279
12	249	257	277	255	294	315	268	266	274
13	266	290	285	281	272	247	324	279	281
14	245	305	253	268	282	267	295	271	274
15	307	263	288	293	329	277	296	296	293
16	304	281	286	351	294	316	251	303	298
17	321	336	337	385	347	310	272	345	330
18	489	448	481	467	387	252	235	454	394
19	295	267	301	338	289	196	177	298	266
20	177	177	195	162	151	136	94	172	156
21	103	96	68	89	81	84	82	87	86
22	54	68	61	66	57	62	67	61	62
23	40	56	64	50	45	49	55	51	51
24	23	30	15	26	40	40	24	27	28
7-19	4364	4427	4467	4446	4241	3141	2732	4389	3974
6-22	4954	5034	5062	5061	4770	3483	3014	4976	4483
6-24	5017	5120	5141	5137	4855	3572	3093	5054	4562
0-24	5141	5248	5258	5261	4980	3650	3193	5178	4676



Tring ATC 2, Icknield Way (Eastern Site)

Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Westbound

Average Speed

Week 1

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	46.7	42.8	47.2	41.8	42.7	45.2	41.1
2	43.0	33.0	42.4	47.6	43.7	41.3	44.2
3	47.6	40.3	48.2	45.5	48.0	43.7	44.3
4	49.7	47.2	45.5	43.0	45.2	48.9	48.2
5	43.4	43.4	46.7	46.4	46.6	48.5	43.4
6	43.5	45.2	44.1	46.5	44.7	49.4	45.5
7	41.9	41.8	43.9	42.3	43.5	44.5	44.9
8	39.8	40.0	40.7	40.5	40.4	44.2	44.4
9	39.9	39.4	40.5	41.3	40.3	44.0	44.2
10	38.9	39.5	41.0	39.7	40.9	41.7	43.4
11	40.8	40.6	39.0	39.9	39.0	41.2	43.2
12	39.9	40.3	40.0	39.6	40.5	41.8	42.2
13	39.7	41.1	39.9	39.9	40.0	42.8	42.1
14	39.2	40.4	38.6	40.1	40.4	42.4	41.9
15	39.5	39.4	40.2	41.1	40.3	42.3	41.2
16	39.8	40.6	40.9	39.8	39.7	41.6	41.6
17	40.1	40.6	40.1	39.4	39.7	41.5	41.6
18	38.2	39.0	38.5	39.0	40.6	42.5	41.7
19	38.9	39.3	40.4	40.4	40.8	42.5	42.2
20	39.4	39.9	41.4	41.1	42.4	41.5	42.7
21	41.2	41.7	44.1	43.3	42.7	44.2	43.9
22	45.0	40.5	42.8	43.3	43.0	40.9	44.3
23	40.6	41.5	41.5	41.4	42.9	39.9	43.8
24	39.8	42.1	44.7	43.2	43.1	42.8	43.3

10-12	40.4	40.5	39.5	39.8	39.8	41.5	42.7
14-16	39.6	40.0	40.5	40.4	40.0	41.9	41.4
0-24	39.9	40.2	40.5	40.5	40.7	42.3	42.4

Average	40.9
---------	------

Channel 2 - Westbound

85th Percentile

Hr Ending	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
1	53.3	53.3	58.7	48.6	53.2	48.6	48.8
2	53.5	38.3	48.5	65.8	53.2	53.8	48.3
3	66.4	58.2	53.6	58.1	58.3	53.5	53.7
4	53.5	58.5	53.2	53.2	58.8	53.2	58.4
5	48.4	53.2	58.5	53.1	58.1	58.9	48.8
6	53.8	53.6	53.7	53.4	48.5	53.4	53.7
7	48.8	48.4	48.8	49.0	48.8	53.3	53.4
8	43.7	43.9	43.4	48.5	43.8	48.8	53.1
9	43.7	43.5	48.9	48.5	48.3	53.2	48.4
10	44.0	43.2	48.7	44.0	49.0	48.4	48.3
11	48.3	48.7	43.1	48.2	43.8	48.2	48.7
12	43.5	43.7	48.6	43.4	48.7	48.9	48.3
13	43.4	48.6	43.7	48.4	48.9	48.6	48.8
14	48.7	48.8	43.0	48.3	48.9	48.4	48.2
15	48.2	43.2	48.4	48.5	48.4	48.4	48.6
16	43.4	48.8	48.4	48.1	43.1	48.9	49.0
17	43.5	43.2	48.3	43.5	49.0	48.6	48.2
18	43.8	44.0	44.0	49.0	43.8	48.9	48.9
19	43.5	43.1	48.8	43.6	48.7	48.5	48.1
20	48.4	48.1	48.7	48.9	48.4	48.3	49.0
21	48.5	48.8	53.4	48.7	48.0	53.9	48.6
22	48.2	48.4	53.7	53.4	48.2	48.3	53.6
23	43.6	48.5	48.3	48.7	53.2	48.3	53.9
24	48.5	53.1	48.4	48.1	48.5	48.2	53.6

10-12	43.7	43.1	43.4	48.8	43.4	48.3	48.2
14-16	43.9	43.2	48.9	48.7	48.1	48.0	48.9
0-24	43.4	48.0	48.1	48.5	48.3	48.7	48.1

85th %ile	47.6
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Tring ATC 2, Icknield Way (Eastern Site)

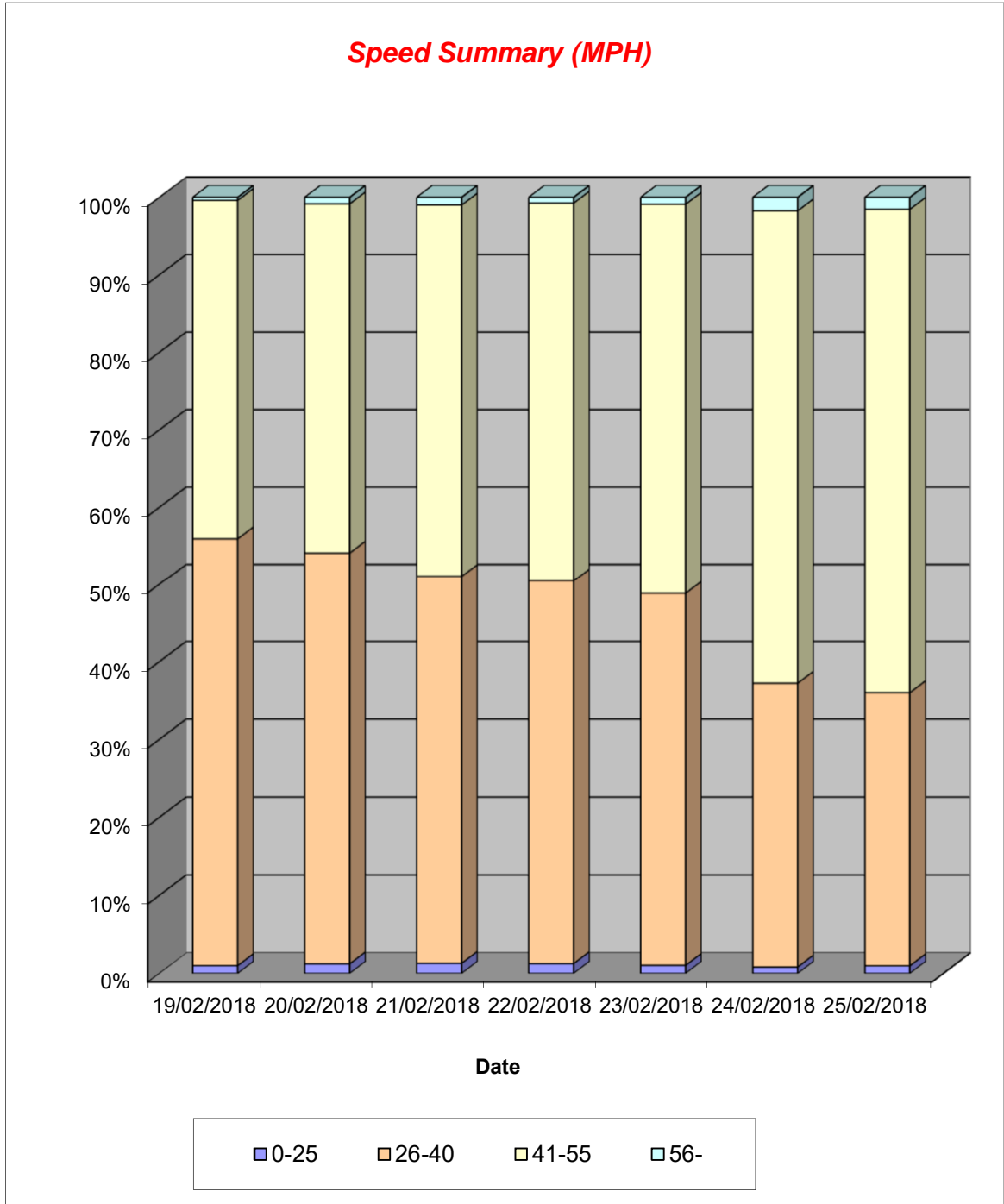
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Westbound

Speed Summary

Week 1

Speed (MPH)	19/02/2018 Monday	20/02/2018 Tuesday	21/02/2018 Wednesday	22/02/2018 Thursday	23/02/2018 Friday	24/02/2018 Saturday	25/02/2018 Sunday
0-25	51	64	68	66	51	30	31
26-40	2825	2775	2617	2589	2381	1329	1119
41-55	2245	2365	2521	2567	2504	2228	1994
56-	20	44	52	39	44	63	49
TOTAL	5141	5248	5258	5261	4980	3650	3193

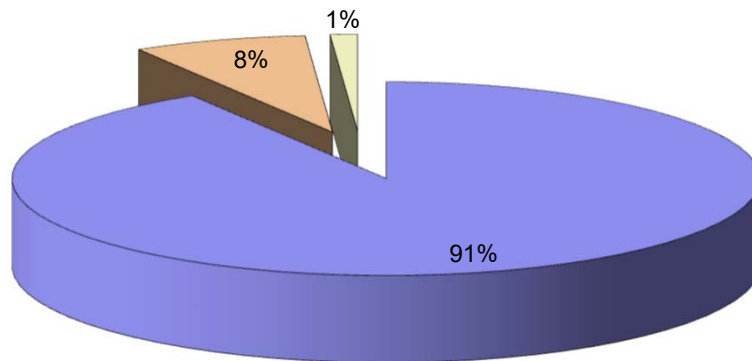


Tring ATC 2, Icknield Way (Eastern Site)

Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Westbound		Vehicle Class			Week 1
Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
19/02/2018					
7-19	3952	362	50	4364	
6-22	4484	411	59	4954	
6-24	4542	415	60	5017	
0-24	4642	426	73	5141	
20/02/2018					
7-19	3978	399	50	4427	
6-22	4526	451	57	5034	
6-24	4608	454	58	5120	
0-24	4716	468	64	5248	
21/02/2018					
7-19	4002	409	56	4467	
6-22	4553	447	62	5062	
6-24	4630	448	63	5141	
0-24	4727	461	70	5258	
22/02/2018					
7-19	4017	382	47	4446	
6-22	4576	423	62	5061	
6-24	4650	424	63	5137	
0-24	4751	442	68	5261	
23/02/2018					
7-19	3814	372	55	4241	
6-22	4293	410	67	4770	
6-24	4375	412	68	4855	
0-24	4479	426	75	4980	
24/02/2018					
7-19	2999	128	14	3141	
6-22	3319	143	21	3483	
6-24	3405	145	22	3572	
0-24	3479	147	24	3650	
25/02/2018					
7-19	2656	70	6	2732	
6-22	2928	78	8	3014	
6-24	3003	81	9	3093	
0-24	3096	87	10	3193	
Average					
7-19	3631	303	40	3974	
6-22	4097	338	48	4483	
6-24	4173	340	49	4562	
0-24	4270	351	55	4676	

Total Vehicle Class Distribution



Appendix 3 Visibility Splay Calculations

ICKNEILD WAY, TRING – VISIBILITY SPLAY CALCULATIONS

Speed Survey Results

85th percentile speeds:

Eastbound 44.8 mph

Westbound 47.6 mph

85th Percentile Wet Weather Speeds

Eastbound = $[(44.8 - 2.49) \times 1.6093 \times 1000] / (60 \times 60) = 18.91 \text{ m/s}$

Westbound = $[(47.6 - 2.49) \times 1.6093 \times 1000] / (60 \times 60) = 20.17 \text{ m/s}$

Gradients

Eastbound = $100 \times (162.70 - 161.88) / 24.0 = 3.4\%$

Westbound = $100 \times (163.81 - 163.75) / 29.5 = 0.2\%$

Stopping Sight Distances

Eastbound = $18.91 \times 2 + [18.91^2 / 2(2.45 + 0.1 \times 3.4)] = 101.9\text{m}$

Westbound = $20.17 \times 2 + [20.17^2 / 2(2.45 + 0.1 \times 0.2)] = 122.7\text{m}$

Visibility Splay Y Distances

Eastbound = $101.9 + 2.4 = 104.3\text{m}$

Westbound = $122.7 + 2.4 = 125.1\text{m}$

Appendix 4 TRICS Trip Rate Data - Office

Calculation Reference: AUDIT-648801-210617-0653

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES	EAST SUSSEX 1 days
04	EAST ANGLIA	
	NF	NORFOLK 1 days
11	SCOTLAND	
	HI	HIGHLAND 2 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 186 to 929 (units: sqm)
 Range Selected by User: 178 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 13/11/19

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

Tuesday	2 days
Wednesday	2 days

*This data displays the number of selected surveys by day of the week.*Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	3

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

Industrial Zone	1
Commercial Zone	1
Development Zone	1
Residential Zone	1

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

Secondary Filtering selection:

Use Class:

Not Known 4 days

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

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	1 days

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

Travel Plan:

Yes	1 days
No	3 days

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

PTAL Rating:

No PTAL Present	4 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	ES-02-A-11	HOUSING COMPANY	EAST SUSSEX
	THE SIDINGS		
	HASTINGS		
	ORE VALLEY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	186 sqm	
	Survey date: TUESDAY	17/11/15	Survey Type: MANUAL
2	HI-02-A-01	OFFICE	HIGHLAND
	HIGHLANDER WAY		
	INVERNESS		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	804 sqm	
	Survey date: WEDNESDAY	20/05/09	Survey Type: MANUAL
3	HI-02-A-02	DATA SCIENCE COMPANY	HIGHLAND
	TOM SEMPLE ROAD		
	NAIRN		
	BALMAKEITH BUSINESS PK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	929 sqm	
	Survey date: TUESDAY	09/05/06	Survey Type: MANUAL
4	NF-02-A-04	BUILDING CONSULTANT	NORFOLK
	WHITING ROAD		
	NORWICH		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	500 sqm	
	Survey date: WEDNESDAY	13/11/19	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	605	1.075	4	605	0.165	4	605	1.240
08:00 - 09:00	4	605	4.382	4	605	0.455	4	605	4.837
09:00 - 10:00	4	605	1.406	4	605	0.455	4	605	1.861
10:00 - 11:00	4	605	0.372	4	605	0.331	4	605	0.703
11:00 - 12:00	4	605	0.496	4	605	0.537	4	605	1.033
12:00 - 13:00	4	605	0.703	4	605	0.951	4	605	1.654
13:00 - 14:00	4	605	1.116	4	605	0.992	4	605	2.108
14:00 - 15:00	4	605	0.827	4	605	0.785	4	605	1.612
15:00 - 16:00	4	605	0.289	4	605	0.703	4	605	0.992
16:00 - 17:00	4	605	0.661	4	605	1.240	4	605	1.901
17:00 - 18:00	4	605	0.455	4	605	4.506	4	605	4.961
18:00 - 19:00	4	605	0.248	4	605	0.744	4	605	0.992
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			12.030			11.864			23.894

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

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

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Parameter summary

Trip rate parameter range selected:	186 - 929 (units: sqm)
Survey date date range:	01/01/06 - 13/11/19
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

Appendix 5 TRICS Trip Rate Data – Commercial Warehouse

Calculation Reference: AUDIT-648801-210617-0639

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DV DEVON	1 days
09	NORTH	
	TV TEES VALLEY	1 days
11	SCOTLAND	
	ML MIDLOTHIAN	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 190 to 750 (units: sqm)
 Range Selected by User: 190 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/00 to 26/11/20

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

Selected survey days:

Tuesday	1 days
Wednesday	1 days
Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	2

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

Selected Location Sub Categories:

Industrial Zone	4
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This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

n/a	1 days
B8	3 days

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

Secondary Filtering selection (Cont.):

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	2 days

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

Travel Plan:

No	4 days
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This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	4 days
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This data displays the number of selected surveys with PTAL Ratings.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	420	0.000	2	420	0.000	2	420	0.000
06:00 - 07:00	2	420	0.119	2	420	0.000	2	420	0.119
07:00 - 08:00	4	556	0.090	4	556	0.225	4	556	0.315
08:00 - 09:00	4	556	0.809	4	556	0.135	4	556	0.944
09:00 - 10:00	4	556	0.854	4	556	0.629	4	556	1.483
10:00 - 11:00	4	556	0.809	4	556	0.629	4	556	1.438
11:00 - 12:00	4	556	0.629	4	556	0.629	4	556	1.258
12:00 - 13:00	4	556	0.629	4	556	0.899	4	556	1.528
13:00 - 14:00	4	556	0.719	4	556	0.540	4	556	1.259
14:00 - 15:00	4	556	0.719	4	556	0.809	4	556	1.528
15:00 - 16:00	4	556	0.405	4	556	0.495	4	556	0.900
16:00 - 17:00	4	556	0.405	4	556	0.540	4	556	0.945
17:00 - 18:00	4	556	0.405	4	556	0.854	4	556	1.259
18:00 - 19:00	4	556	0.270	4	556	0.180	4	556	0.450
19:00 - 20:00	2	420	0.119	2	420	0.476	2	420	0.595
20:00 - 21:00	2	420	0.000	2	420	0.833	2	420	0.833
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.981			7.873			14.854

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

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

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Parameter summary

Trip rate parameter range selected:	190 - 750 (units: sqm)
Survey date date range:	01/01/00 - 26/11/20
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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