



transport planning

Colthrop Village Consortium

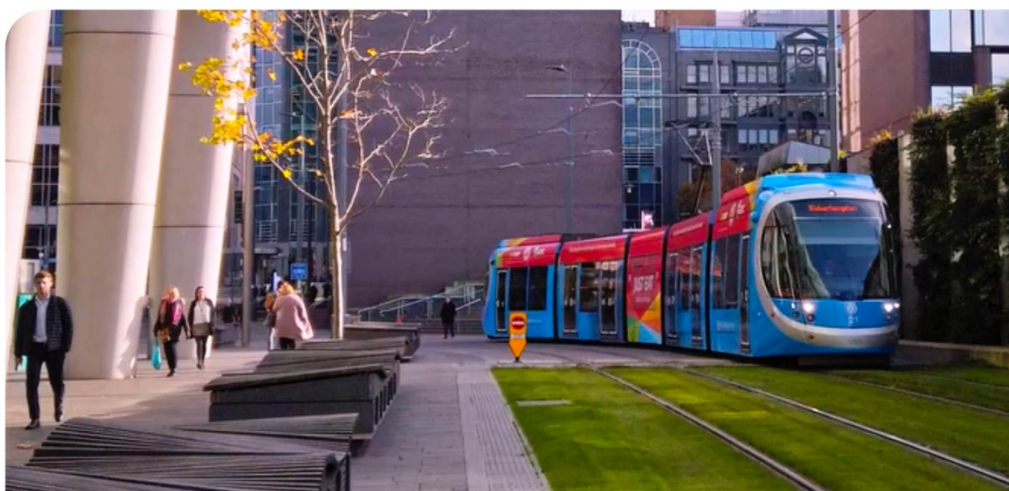
An Alternative Housing Strategy for Thatcham

Transport Note

February 2023



modetransport.co.uk



Colthrop Village Consortium

An Alternative Housing Strategy for Thatcham

Transport Note

OFFICE ADDRESS:

Lombard House,
145 Great Charles Street,
Birmingham,
B3 3LP

PROJECT NO:

J327267

DATE:

February 2023

REPORT No:	FILE NAME	PREPARED:	DATE OF ISSUE:	STATUS:	CHECKED:	AUTHORISED:
001	230224_J327267_TGB / ALF ransport Note_FINAL.docx		27 February 2023	Final	ALF	ALF / BDF

CHANGE LOG

VERSION	DATE:	CHECKED BY:	REASON FOR CHANGE:
[Enter version no]	[Enter date date]	[Enter initials]	Enter reason for change

CONTENTS

1.	Introduction	4
1.1	General	4
2.	Residential Development Locations	5
2.1	Overview	5
2.2	Land at North-east Thatcham	5
2.3	Land at Colthrop Village	6
2.4	Development Quantum Summary	6
3.	Land at North-east Thatcham	8
3.1	Overview	8
3.2	Trip Generation	8
3.3	Traffic Impact	11
4.	Land at Colthrop Village	14
4.1	Overview	14
4.2	Trip Generation	14
4.3	Traffic Impact	16
5.	Trip Generation Comparison	19
5.1	Overview	19
5.2	Total Person Trip Generation	19
5.3	Vehicular Trip Generation	19
6.	Colthrop Village Traffic Impacts	21
6.1	Overview	21
6.2	Vehicular Trips by Direction	21
6.3	A4 Thatcham Traffic Impact	21
6.4	North and South Directional Impacts	23
7.	Proposed Mitigation / Improvements	25
7.1	Introduction	25
7.2	Sustainable Transport	25
7.3	Highways Improvements	26
7.4	Further Sustainable Colthrop Village Mitigation	27
8.	Strategic Modelling Forecast Scenario Results	28
8.1	Modelling scenarios	28

© Copyright mode transport planning. All rights reserved

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing with mode transport planning, no other party may copy, reproduce, distribute, make use of, or rely on the contents of the report. No liability is accepted by mode transport planning for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in this report are on the basis of mode transport planning using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and is expressly stated that no independent verification of any of the documents or information supplied to mode transport planning has been made.

9. Summary

33

APPENDICES

APPENDIX A Comparison Plans

1. Introduction

1.1 General

- 1.1.1 mode transport planning (mode) has been instructed by the Colthrop Village Consortium to review the 'Thatcham Strategic Growth Study', prepared by David Lock Associates and Peter Brett Associates/Stantec on behalf of WBC to form part of the Local Plan Evidence Base; furthermore, the Local Plan evidence base now includes a Local Plan Forecasting report, which has also been reviewed and summarised, accordingly, and as applicable.
- 1.1.2 Specifically, this review considers the evidence provided within the Growth Study to justify that the only emerging allocation for housing development in Thatcham should be at the site referred to as 'Land at North-east Thatcham'.
- 1.1.3 Colthrop Village Consortium submitted a site for consideration in the Local Plan review process, with the site referred to within the draft Local Plan as 'Colthrop Village', to the south of the town.
- 1.1.4 Using the evidence, data available and justification provided in the published Growth Study, mode has reviewed what Land at Colthrop Village is forecast to generate, in terms of vehicular trips as a residential development in the town and has compared this to the results of the same exercise provided for Land at North-east Thatcham.
- 1.1.5 In addition to the above comparison, this Transport Note (TN) also summarises the likely impacts of the development site identified above, in the Thatcham area.
- 1.1.6 This TN is written to provide the technical background to a number of plans prepared, to summarise and compare the traffic impacts within Thatcham, especially in relation to the A4 corridor and the associated Air Quality Management Area (AQMA) within Thatcham town centre. These plans are also appended to this Note for reference, at **Appendix A**.

2. Residential Development Locations

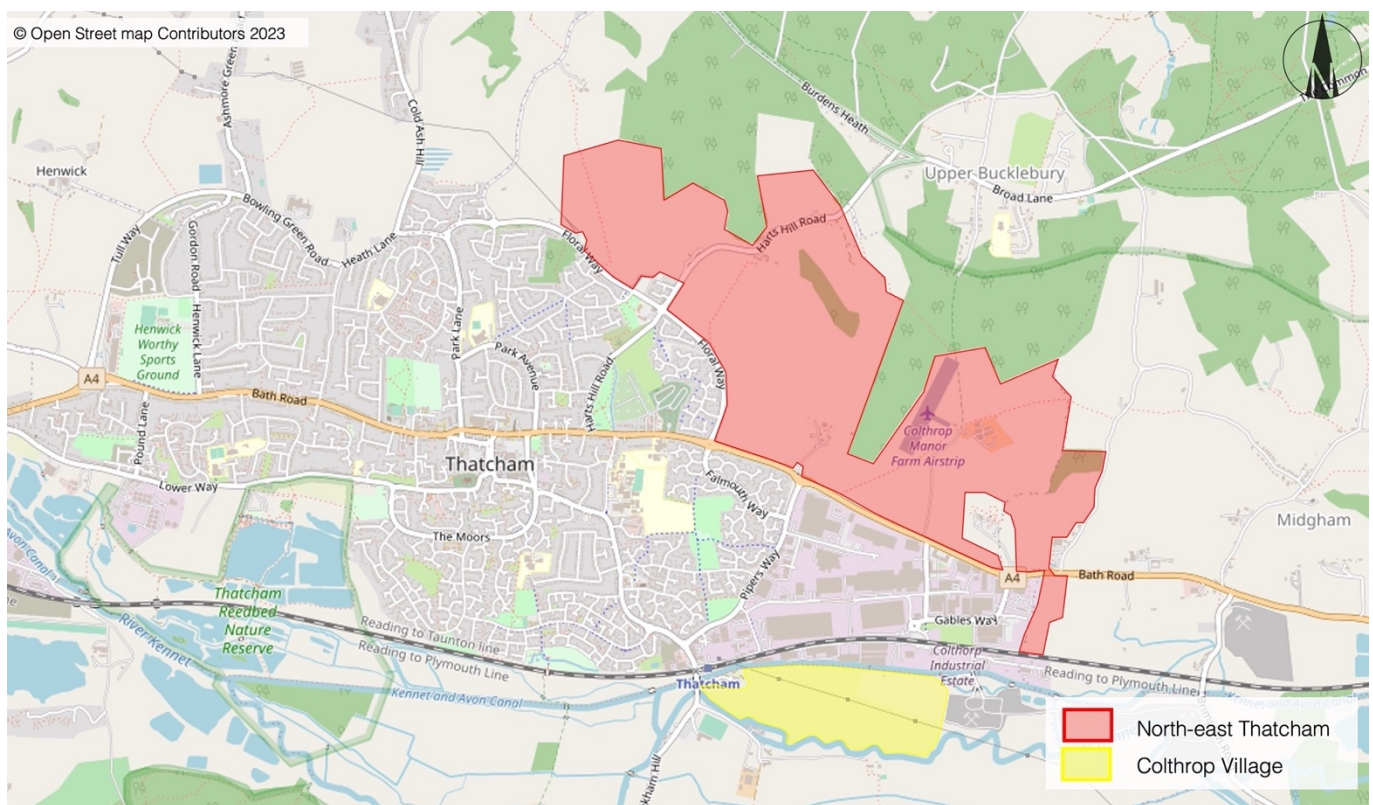
2.1 Overview

2.1.1 This report focusses on two development sites put forward for potential residential development within the emerging West Berkshire Local Plan, as follows:

- Land at North-east Thatcham; and,
- Land at Colthrop Village.

2.1.2 The locations of the sites are shown in **Figure 2.1**.

Figure 2.1 Potential Residential Development Locations



2.2 Land at North-east Thatcham

2.2.1 Land at North-east Thatcham has been shortlisted as the major site allocation within the emerging Local Plan, with 1,500 dwellings to be delivered within the Local Plan period (up to 2039). In addition to residential dwellings, the draft allocation also provides for employment, a secondary school, primary schools and local retail centre.

2.2.2 This draft allocation seeks to expand the boundary of Thatcham to the east of the existing town boundary, developing the agricultural land to the north of the A4. In addition, this draft allocation includes a small parcel to the south of the A4 to expand the existing employment area.

2.2.3 This draft allocation was assessed in detail within the Thatcham Strategic Growth Study, prepared by David Lock Associates and Peter Brett Associates/Stantec on behalf of WBC to form part of the Local Plan Evidence Base. This Study is a three-part report, with the first stage addressing the past of Thatcham and identifying potential shortfalls for amenities and infrastructure. The second stage summarises the potential Local Plan sites and the third stage provides a detailed masterplan and assessment for the North-east Thatcham draft allocation site. This Study has primarily been used to lead the technical review within this TN.

2.3 Land at Colthrop Village

- 2.3.1 Land at Colthrop Village is located to the south of Thatcham Railway Station and the town centre. The site is accessed from Crookham Hill and provides an opportunity for the Thatcham level crossing to be bypassed by means of a new bridge which can be provided through the site and over the river and railway lines, potentially tying in with Pipers Lane.
- 2.3.2 The Colthrop Village site has been identified for c.950 residential dwellings, in addition to a key benefit of the provision of a new bridge over the railway line replacing the level crossing, within the Thatcham Strategic Growth Study.
- 2.3.3 As part of the promotional work, to date, the impact of the development and the proposed bridge has been assessed using the West Berkshire Strategic Traffic Model, which indicated that the proposed bridge would not necessarily result in an increase in 'rat running' through town, compared to the current level crossing arrangement.
- 2.3.4 Despite this, it is noted that the Thatcham Strategic Growth Study concludes that the bridge could be "...potentially detrimental as it could open Crookham Hill to HGVs and unsuitable volumes of vehicle traffic." There is currently no substantiated evidence to indicate this, and also, no consideration for the reduction in congestion within Thatcham town centre given the length of time that the crossing is active during peak highway operational periods.

2.4 Development Quantum Summary

- 2.4.1 This section summarises the potential development quantum associated with each parcel of land.
- 2.4.2 The proposed housing numbers for each site in the Local Plan period are as follows:
- Scenario 1: Land at North-east Thatcham = 1,500 dwellings;
 - Scenario 2: Colthrop Village = 950 dwellings; and,
 - Difference between Scenarios = 550 dwellings (fewer) in Scenario 2.

- 2.4.3 It should also be noted that no detailed trajectory of housing delivery has been presented for Land at North-east Thatcham and there are potential delays to any delivery when detailed matters such as landscape and other grounds are considered, meaning that a 1,500-dwelling delivery within the plan period may not essentially be met.

3. Land at North-east Thatcham

3.1 Overview

- 3.1.1 This section identifies the trip generation and traffic impact of the Land at North-east Thatcham draft allocation, to provide a baseline for assessing the alternative land parcel (i.e., Colthrop Village) within the remainder of this TN.
- 3.1.2 To undertake this review, information that has been put into the public domain as part of the West Berkshire Council evidence base (where applicable), or where full details are not provided, if a methodology on how a conclusion has been reached is provided (e.g., use of Census data etc.) then this has been utilised and replicated, by mode, within this TN. The intention is to provide a transparent review of the two comparative sites.
- 3.1.3 This section utilises the West Berkshire Council published Stage 3 'Thatcham Strategic Growth Study' report, including the 'Access and Movement Report' prepared by Stantec which is appended to the Growth Study.

3.2 Trip Generation

Total Person Trip Generation

- 3.2.1 The Stantec report appended to Stage 3 of the Thatcham Strategic Growth Study does not provide a detailed trip generation for each land use, despite providing the trip rates for each of the uses. For residential uses, these trip rates were obtained from the West Berkshire Transport Model.
- 3.2.2 **Table 3.2** summarises the forecast trip generation for 1,500 residential dwellings to be built within the Local Plan period.

Table 3.1 Land at North-east Thatcham Residential Total Person Trip Generation

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Origin	Destination	Total	Origin	Destination	Total
1,500 Dwellings (Plan Period)						
Person Trips	531	219	750	230	507	737

- 3.2.3 The above table indicates that the 1,500 residential quantum could generate 626 two-way total person trips in the weekday morning peak hour and 614 two-way total person trips in the weekday evening peak hour.

Modal Split

- 3.2.4 To identify the potential modal split of travel from the Land at North-east Thatcham development site, the Stantec Access and Movement Report has reviewed the 2011 Census data for 'Method of Travel to Work' for the West Berkshire 017 MSOA in which the site is located. As a basis for calculations, the 2011 Census data has been downloaded using the Nomis website to replicate the Stantec Assessment. **Table 3.3** provides the 2011 Census modal split as calculated within the Stantec Access and Movement Report alongside a mode calculation of the 2011 Census modal split.
- 3.2.5 In addition to the Census data, a revised modal split is also presented within the Stantec report to provide a target of reducing car driver trips and increasing the uptake of sustainable modes. It is noted that the text accompanying the revised modal split states that *"the development targets at least a 20% reduction in the mode share percentage of external car driver trips"*, though the actual mode share presented seeks to utilise a direct 14.8% reduction in car driver trips (which is a 20% reduction on the 74.0% of Car Drivers). This revised modal split is also presented within **Table 3.3**.
- 3.2.6 For the purpose of assessing the proportion of existing travel modes, the existing residents working from home and out of employment have been removed from the calculation. On this basis, whilst existing residents will work from home, this value is assumed to be 0% within the 2011 baseline.

Table 3.2 Land at North-east Thatcham Census Modal Split and Revised Modal Split

Mode of Travel	2011 Census Modal Split (from Stantec Report)	2011 Census Modal Split (mode calculation)	Land at North-east Thatcham Revised Modal Split
Work from Home	0.0%	0.0%	2.2%
Train	5.5%	5.4%	8.5%
Bus	2.8%	2.5%	5.7%
Taxi	0.1%	0.2%	0.1%
Motorcycle	1.1%	1.1%	1.1%
Car Driver	74.0%	73.9%	59.2%
Car Passenger	5.6%	5.2%	6.3%
Bicycle	3.9%	3.8%	7.6%
On Foot	6.7%	7.3%	9.0%
Other	0.2%	0.4%	0.2%
Total *	99.9%	99.8%	99.9%

*Each total does equate to 100% - although these are shown to be below this, due to the decimal place rounding within each of the modes of travel.

- 3.2.7 Having reviewed the 2011 Census data for the West Berkshire 017 MSOA, it is unclear why slight discrepancies exist between the mode and Stantec calculations. The largest variation is '0.6%', with the Stantec report providing a modal share for walking ('On Foot') lower than the mode calculation.

3.2.8 The Stantec assessment for Land at North-east Thatcham presents a 14.8% modal shift from car driver trips for the site, which are indicated to be accommodated by walking, cycling, bus and rail. This is an advantageous target in this location and given the proximity to the railway station from the site.

Multi-modal Trip Generation

3.2.9 To identify the potential multi-modal trip generation associated with the Land at North-east Thatcham draft allocation, the total person trips identified within **Table 3.2** have been applied to the 2011 Census modal split and the identified Land at North-east Thatcham revised modal split used within the Thatcham Strategic Growth Study from **Table 3.3**. This is presented for the full site draft allocation within **Table 3.4**.

Table 3.3 Land at North-east Thatcham Allocation (1,500 Dwellings) Trip Generation by Mode of Travel

Mode of Travel	2011 Census Modal Split				Adjusted Modal Split			
	AM – Origin	AM – Destination	PM – Origin	PM – Destination	AM – Origin	AM – Destination	PM – Origin	PM – Destination
Work from Home	0	0	0	0	12	5	5	11
Train	29	12	12	27	45	19	20	43
Bus	13	5	6	13	30	12	13	29
Taxi	1	0	0	1	1	0	0	1
Motorcycle	6	2	3	6	6	2	3	6
Car Driver	392	162	170	375	314	130	136	300
Car Passenger	28	11	12	26	33	14	14	32
Bicycle	20	8	9	19	40	17	17	39
On Foot	39	16	17	37	48	20	21	46
Other	2	1	1	2	1	0	0	1
Total	530	219	230	506	530	219	230	506

3.2.10 The above multi-modal assessment indicates that the Land at North-east Thatcham draft allocation could generate a maximum of approximately 554 two-way car driver trips in the peak hour, based on the 2011 Census travel to work data; reducing to a maximum of approximately 444 two-way car driver trips if measures to alter a modal-shift and travel patterns are achieved.

3.3 Traffic Impact

Traffic Assignment

- 3.3.1 Within the Access and Movement Report, the 2011 Census data for 'Location of Usual Residence and Place of Work by Method of Travel' has been analysed for the West Berkshire 017 MSOA. The Census data identifies the likely travel to work destinations for the existing residents of the West Berkshire 017 MSOA.
- 3.3.2 Within the Stantec report, the travel to work information is summarised into broad directions from Thatcham to the north, east, south and west, alongside identifying the key travel locations. It is noted that this assessment does not include routing analysis of how vehicles would route to their destination.
- 3.3.3 The Census 'Travel to Work' data has been interrogated by mode to identify the likely routing of development traffic in the Thatcham area, based on the origin/destination locations identified within the 2011 Census data.
- 3.3.4 **Table 3.5** summarises the likely traffic routing, making use of the quickest route to a destination from the Land at North-east Thatcham access points.

Table 3.4 Land at North-east Thatcham Traffic Routing Assignment

Route out of Network	West Berkshire 017 MSOA
Cold Ash Hill	0.00%
Harts Hill Road	6.00%
Thatcham	12.10%
A4 West	43.95%
A4 East	36.35%
Crookham Hill	1.60%
Total	100%

- 3.3.5 The above table indicates that the A4 corridor forms the key distribution for the Land at North-east Thatcham development site. It is also noted that all A4 west traffic is required to route through Thatcham town centre.
- 3.3.6 The West Berkshire 017 MSOA identifies a large proportion of commuting within Thatcham itself. It is noted that these trips can occur anywhere within the Thatcham area, therefore, for the purposes of this assessment these trips are assumed to route to the centre of town, though it is likely that these would be split between the town centre and the industrial area to the east of the town. This therefore provides a robust and worst-case assessment of potential impacts on the centre of Thatcham.

Peak Hour Vehicular Trip Distribution

3.3.7 To identify the potential vehicular impacts associated with the Land at North-east Thatcham draft allocation, the car driver trips identified within **Table 3.4** (Adjusted Modal Split) have been assigned to the Census traffic distributions identified in **Table 3.6**.

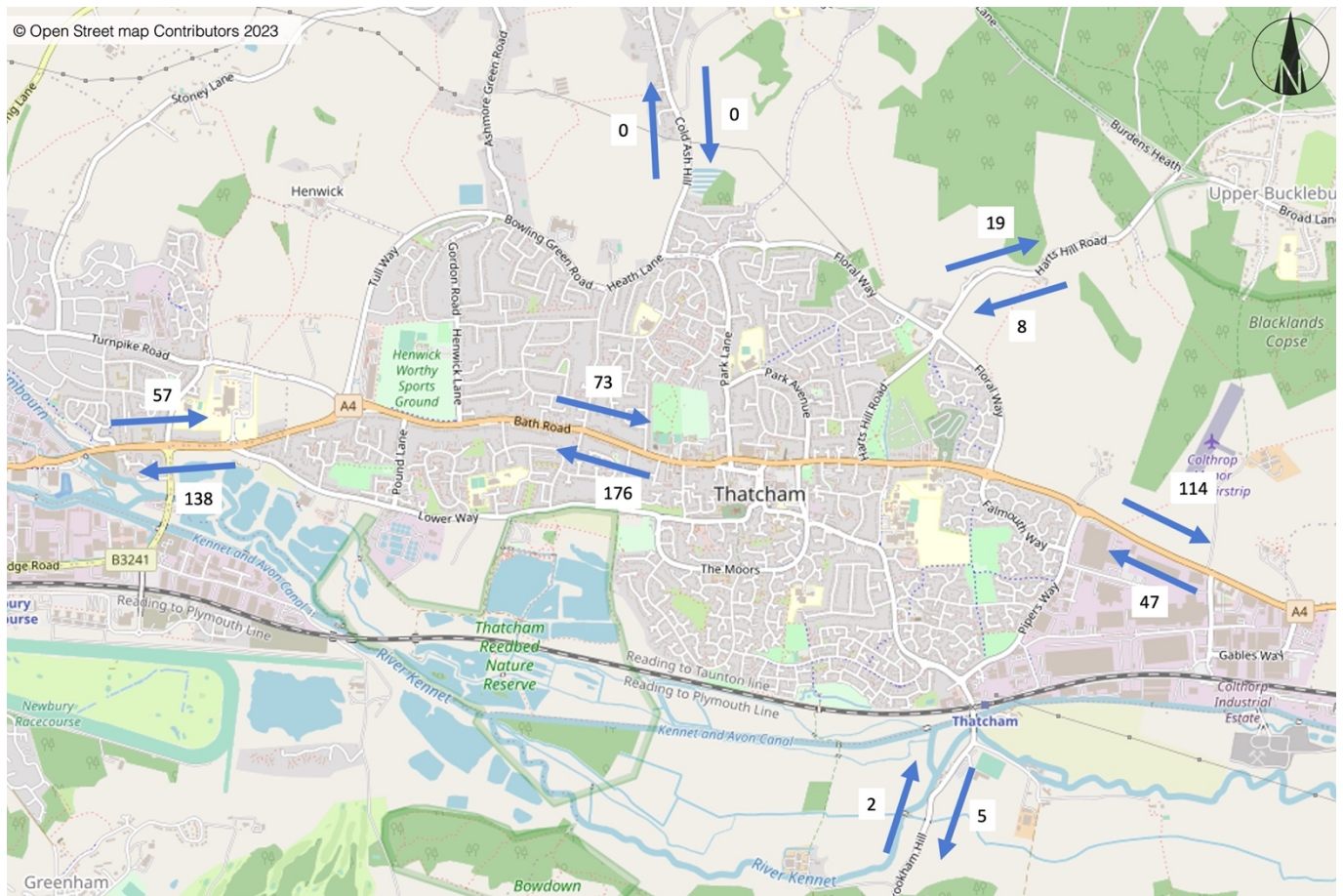
3.3.8 **Table 3.6** summarises the traffic distributions for the full Land at North-east Thatcham draft allocation.

Table 3.5 Land at North-east Thatcham Full Draft Allocation (1,500 Dwellings) Traffic Distribution

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Origin	Destination	Total	Origin	Destination	Total
Cold Ash Hill	0	0	0	0	0	0
Harts Hill Road	19	8	27	8	18	26
Thatcham	38	16	54	16	36	52
A4 West	138	57	195	60	132	192
A4 East	114	47	161	49	109	158
Crookham Hill	5	2	7	2	5	7
Total	314	130	444	135	300	435

3.3.9 **Table 3.6** indicates that the Land at North-east Thatcham (1,500 dwellings) could generate approximately 195 and 192 trips in the AM and PM peak hour respectively along the A4 west, with approximately 54 and 52 additional trips routing within Thatcham in the AM and PM peak hour respectively. Along the A4 to the east, approximately 161 and 158 vehicles route during each peak hour.

Figure 3.1 Land at North-east Thatcham Full Draft Allocation (1,500 Dwellings) AM Peak Traffic Distribution



4. Land at Colthrop Village

4.1 Overview

- 4.1.1 This section seeks to identify the trip generation and traffic impact of the Land at Colthrop Village site. This builds upon the assumptions made within the Stage 3 Thatcham Strategic Growth Study, including the 'Access and Movement Report' prepared by Stantec appended to the Study, though representatively tailored to the Land at Colthrop Village site location within Thatcham.

4.2 Trip Generation

Total Person Trip Generation

- 4.2.1 The Land at Colthrop Village site could accommodate up to 950 residential dwellings.
- 4.2.2 **Table 4.1** summarises the total person peak hour trips associated with the development site, using the same residential trip rates taken from the West Berkshire Transport Model.

Table 4.1 Land at Colthrop Village Trip Generation

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Origin	Destination	Total	Origin	Destination	Total
Person Trips	336	139	475	145	321	466

- 4.2.3 The above table indicates that the residential development on Land at Colthrop Village could generate 475 two-way total person trips in the weekday morning peak hour and 466 two-way total person trips in the weekday evening peak hour.

Modal Split

- 4.2.4 The above identifies the total person trips associated with the development site. To identify the trips by mode, a modal split needs to be applied to the identified total person trips to provide a breakdown of likely travel patterns. To identify the potential modal split of travel, the 2011 Census data for 'Method of Travel to Work' has been calculated for the West Berkshire 011 MSOA, in which the Colthrop Village development site is located and the West Berkshire 017 MSOA associated with the Land at North-east Thatcham development.
- 4.2.5 Given the geographical areas contained within the 011 MSOA, extending to include a number of outlying villages around Thatcham, it is considered that the 017 MSOA is applied as a basis for the Land at Colthrop Village site, in order to provide a robust assessment of likely travel patterns within the Thatcham area. This replicates the modal split assessment for the Land at North-east Thatcham site undertaken within the Thatcham Strategic Growth Study, and as such a more comparative review.

4.2.6 Whilst the 2011 data provides an indication of existing travel patterns in the Thatcham area, it is noted that the introduction of new development sites and contributions towards improvements to sustainable travel modes and transport infrastructure helps ensure that the likely single occupancy car driver modal share will be reduced, accordingly.

4.2.7 **Table 4.2** summarises the 2011 Census modal split, as previously calculated by mode within **Table 3.3**, alongside a revised Land at Colthrop Village 'Revised Modal Split', with the assumption that 'work from home', 'car passenger', 'taxi', 'motorcycle' and 'other' remain unchanged, from the Land at North-east Thatcham assessment work.

Table 4.2 Land at Colthrop Village Census Modal Split and Revised Modal Split

Mode of Travel	2011 Census Modal Split	Land at Colthrop Village Revised Modal Split
Work from Home	0.0%	2.2%
Train	5.4%	15.9%
Bus	2.5%	3.2%
Taxi	0.2%	0.1%
Motorcycle	1.1%	1.1%
Car Driver	73.9%	55.0%
Car Passenger	5.2%	6.3%
Bicycle	3.8%	7.5%
On Foot	7.3%	8.5%
Other	0.4%	0.2%
Total *	99.8%	100.0%

*The Census 2011 total does equate to 100% - although this is shown to be below this, due to decimal place rounding within each of the modes of travel.

4.2.8 Given the location of the Land at Colthrop Village site, being within a 10-minute walk of the rail station, alongside the improved rail links by virtue of Crossrail extending services to Reading, it is considered likely that a larger proportion modal shift to rail could occur at this location.

4.2.9 Correspondingly, there is limited potential for a shift onto buses, as the locations currently served by bus (i.e., Newbury and Reading) can be accessed more readily and quicker by rail from this site. As with the other sites, walking and cycling within the Thatcham town centre and local area would also attract an element of modal shift, compared to the forecast baseline.

Multi-modal Trip Generation

4.2.10 To identify the forecast multi-modal trip generation associated with the Land at Colthrop Village development, the total person trips identified within **Table 4.1** have been applied to the 2011 Census modal split and the target Land at Colthrop Village Revised Modal Split within **Table 4.2**. This is presented within **Table 4.3**.

Table 4.3 Land at Colthrop Village Trip Generation by Mode of Travel

Mode of Travel	2011 Census Modal Split				Adjusted Modal Split			
	AM – Origin	AM – Destination	PM – Origin	PM – Destination	AM – Origin	AM – Destination	PM – Origin	PM – Destination
Work from Home	0	0	0	0	7	3	3	7
Train	18	8	8	17	53	22	23	51
Bus	8	3	4	8	11	4	5	10
Taxi	1	0	0	1	0	0	0	0
Motorcycle	4	2	2	4	4	2	2	4
Car Driver	248	103	107	237	185	76	80	177
Car Passenger	17	7	8	17	21	9	9	20
Bicycle	13	5	6	12	25	10	11	24
On Foot	25	10	11	23	29	12	12	27
Other	1	1	1	1	1	0	0	1
Total	335	139	145	320	336	139	145	321

4.2.11 The above multi-modal assessment indicates that the Land at Colthrop Village site is forecast to generate approximately 350 two-way car driver trips in each peak hour, based on the 2011 Census travel to work data; reducing to approximately 260 two-way car driver trips within the revised modal split scenarios.

4.3 Traffic Impact

Traffic Assignment

4.3.1 To ascertain the travel patterns in the vicinity of the Land at Colthrop Village development site, the 2011 Census data for 'Method of Travel to Work by Location of Usual Residence and Place of Work' has been utilised for the West Berkshire 011 MSOA. This provides representative forecast of the likely travel patterns associated with the Land at Colthrop Village development site.

4.3.2 The proportion of residents working in each location has been calculated, with the likely routes calculated to each district, or within West Berkshire to each MSOA. This allows the quickest routes to be identified and from this the likely traffic distributions for the Colthrop Village site. The traffic distribution provides a key role in identifying the potential development impacts from the site. **Table 4.4** summarises the traffic distribution for the Land at Colthrop Village site, based on the 2011 Census data, summarising the likely routes away from Thatcham.

Table 4.4 Census Travel Distributions

Route out of Network	West Berkshire 011 MSOA
Cold Ash Hill	0.0%

Harts Hill Road	8.8%
Thatcham	4.4%
A4 West	32.8%
A4 East	53.5%
Crookham Hill	1.2%
Total	100.0%

4.3.3 The above table indicates that the A4 corridor forms the key distribution for development within the town. For the Land at Colthrop Village site it is noted that all A4 west traffic is required to route through Thatcham town centre.

4.3.4 It is also noted that the Land at Colthrop Village distributes a larger proportion of traffic to the east along the A4, though this is likely due to the 011 MSOA extending to the east of Thatcham, with a number of commuting trips within Thatcham itself. These trips can occur anywhere within the Thatcham area, therefore for the purposes of this assessment these trips are assumed to route to the centre of town, though it is likely that these will be split between the town centre and the industrial area to the east of the town. This again therefore provides a robust and worst-case assessment of potential impacts on the centre of Thatcham.

Peak Hour Vehicle Trip Distribution

4.3.5 To identify the potential vehicular impacts associated with the Land at Colthrop Village site, the car driver trips identified within **Table 4.3** (Adjusted Modal Split) have been assigned to the forecast traffic distribution identified in **Table 4.4**.

4.3.6 **Table 4.5** summarises the traffic distribution routing for the Land at Colthrop Village site.

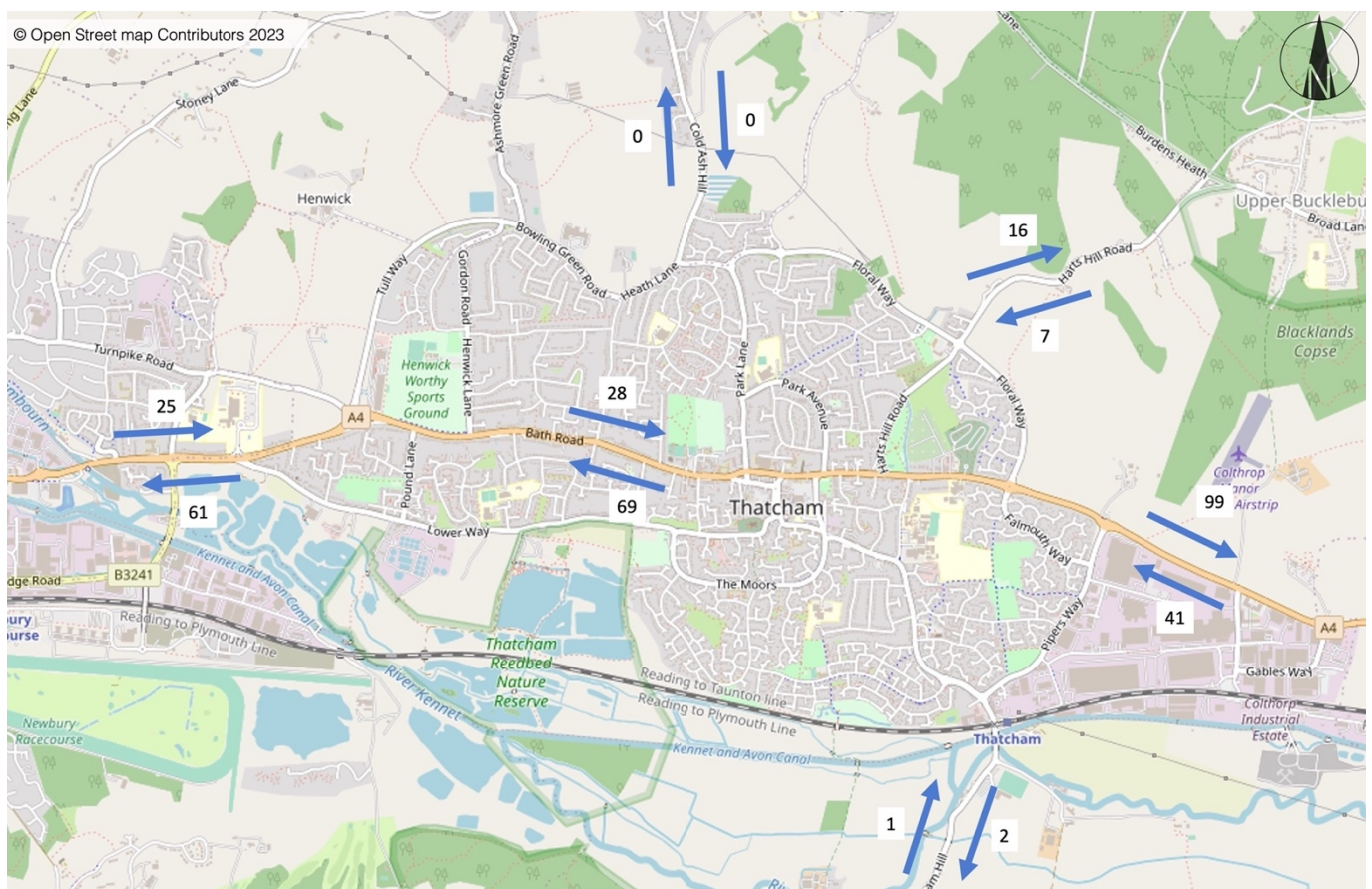
Table 4.5 Land at Colthrop Village Development Distribution

Route out of Network	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Origin	Destination	Total	Origin	Destination	Total
Cold Ash Hill	0	0	0	0	0	0
Harts Hill Road	16	7	23	7	16	23
Thatcham	8	3	11	4	8	12
A4 West	61	25	86	26	58	84
A4 East	99	41	140	43	95	138
Crookham Hill	2	1	3	1	2	3
Total	186	77	263	81	179	260

4.3.7 The Land at Colthrop Village site is forecast to generate approximately 85 two-way vehicle trips along the A4 west, during both network peak hours, which would route through Thatcham town centre. In addition, approximately 12 vehicular trips would route within Thatcham. The A4 east would form the key distribution from this development site, with approximately 140 two-way vehicle trips per peak hour.

4.3.8 For ease of reference, **Figure 4.1** summarises the Land at Colthrop Village traffic impact on the local highway network within the weekday morning peak hour, which represents the highest impact on the local highway network.

Figure 4.1 Land at Colthrop Village Traffic Distribution



5. Trip Generation Comparison

5.1 Overview

5.1.1 This chapter compares the forecast trip generation associated with the potential residential sites, building on the assessment of the Land at North-east Thatcham site in **Chapter 3** and Land at Colthrop Village at **Chapter 4** of this TN.

5.2 Total Person Trip Generation

Land at Colthrop Village Nett Traffic Impact Comparison with Land at North-east Thatcham

5.2.1 To identify the nett impacts during the plan period, **Table 5.1** provides the nett impact between the Land at North-east Thatcham plan period development compared to the Land at Colthrop Village development parcel. It is noted that Land at Colthrop Village offers a residential development of 950, compared to the 1,500 within the Local Plan allocation at the Land at North-east Thatcham site.

Table 5.1 Land at Colthrop Village Development Compared to Land at North-east Thatcham Draft Allocation – Total Person Trips

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Origin	Destination	Total	Origin	Destination	Total
1,500 Dwellings (at North-east Thatcham)						
Land at North-east Thatcham	531	219	750	230	507	737
Compared to 950 dwellings at the following site:						
Land at Colthrop Village	336	139	475	145	321	466
Nett Impact	-194	-80	-274	-85	-185	-270

5.2.2 Within the Local Plan period, the Land at Colthrop Village site could generate 274 two-way total person trips less than the Land at North-east Thatcham Local Plan period development.

5.3 Vehicular Trip Generation

Land at Colthrop Village Nett Impact Comparison with Land at North-east Thatcham

5.3.1 **Table 5.2** summarises the nett impact of the Local Plan period Land at North-east Thatcham development, compared to the Land at Colthrop Village development site. It is noted that Land at Colthrop Village offers a residential development of 950, compared to the 1,500 within the plan period at the Land at North-east Thatcham site.

Table 5.2 Land at Colthrop Village Development Compared to Local Plan Period Land at North-east Thatcham Draft Allocation – Vehicular Trips

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Origin	Destination	Total	Origin	Destination	Total
1,500 Dwellings (at North-east Thatcham)						
Land at North-east Thatcham	314	130	444	135	300	435
Compared to 950 dwellings at the following site:						
Land at Colthrop Village	186	77	263	81	179	260
Nett Impact	-128	-53	-181	-54	-121	-175

5.3.2 Within the plan period, Land at Colthrop Village could generate approximately 181 two-way vehicular trips less than the Land at North-east Thatcham Local Plan period development.

6. Colthrop Village Traffic Impacts

6.1 Overview

6.1.1 This Chapter compares the forecast traffic impacts associated with the residential development at Colthrop Village, building on the assessments of the Land at North-east Thatcham site in **Chapter 3** and Land at Colthrop Village at **Chapter 4** of this Note.

6.2 Vehicular Trips by Direction

6.2.1 The flow figures at **Appendix A** provide an illustrative representation of the likely traffic impacts in the busier weekday morning peak hour.

6.2.2 These plans provide a comparison between the Land at North-east Thatcham and Land at Colthrop Village sites providing a visual representation of the impacts and the key links for traffic in the Thatcham area.

6.3 A4 Thatcham Traffic Impact

Baseline Data

6.3.1 To place the above into context, the Department for Transport (DfT) traffic count points along the A4 within the Thatcham area have been considered. Of particular reference, is Count Point '78260' which identifies traffic flows in the Thatcham area, on the A4 link between the A339 and the Pipers Way roundabout in Thatcham.

6.3.2 The most recent manual count at this site was in 2016, prior to the COVID-19 pandemic, and which is considered to be the most representative flows to utilise at this location, for reference.

6.3.3 **Table 6.1** summarises the 2016 traffic flows, by direction, during the weekday morning and evening peak hours.

Table 6.1 A4 2016 Traffic Flows (DfT Road Traffic Statistics)

Direction	AM Peak (08:00 – 09:00)	PM Peak (17:00 – 18:00)
Eastbound	538	885
Westbound	745	587
Total	1,283	1,472

6.3.4 The above table indicates that in the 2016 baseline, the A4 experiences 1,283 two-way vehicular trips in the weekday morning peak hour and 1,472 two-way vehicular trips in the weekday evening peak hour.

6.3.5 Given the link for which the above flows have been surveyed is between the A339 junction and the Pipers Way roundabout to the east of Thatcham, it is assumed that the above flows provide the baseline flows within Thatcham town centre.

Land at North-east Thatcham

6.3.6 **Table 6.2** summarises the % change in traffic flows associated with the Local Plan period Land at North-east Thatcham site draft allocation (1,500 dwellings) within the centre of Thatcham. This compares the Land at North-east Thatcham traffic flows within Thatcham and routing to the A4 West within **Table 3.6**, and the 2016 baseline flows identified in **Table 6.1**.

Table 6.2 Plan Period Land at North-east Thatcham Traffic Impact on the A4 Within Thatcham

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Eastbound	Westbound	Total	Eastbound	Westbound	Total
2016 A4 Baseline	538	745	1,283	885	587	1,472
Land at North-east Thatcham (Plan Period)	73	176	249	168	66	244
% Impact	13.6%	23.6%	19.4%	19.0%	11.2%	16.6%

6.3.7 The above table indicates that the plan period Land at North-east Thatcham draft allocation could increase traffic flows on the A4 through Thatcham by c.19.4% in the weekday morning peak hour and 16.6% during the weekday evening peak hour.

Land at Colthrop Village

6.3.8 **Table 6.3** summarises the % change in traffic flows associated with the Land at Colthrop Village development within the centre of Thatcham. This compares the Land at Colthrop Village traffic flows within Thatcham and routing to the A4 West within **Table 4.5**, and the 2016 baseline flows identified in **Table 6.1**.

Table 6.3 Land at Colthrop Village Traffic Impact on the A4 Within Thatcham

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Eastbound	Westbound	Total	Eastbound	Westbound	Total
2016 A4 Baseline	538	745	1,283	885	587	1,472
Compared to Colthrop Village						
Land at Colthrop Village	28	69	97	66	30	96
% Impact	5.2%	9.3%	7.6%	7.5%	5.1%	6.5%

6.3.9 The above table indicates that Land at Colthrop Village site could increase traffic flows on the A4 through Thatcham by c.7.6% in the weekday morning peak hour and c.6.5% during the weekday evening peak hour.

6.3.10 It is noted that the Colthrop Village development impact is substantially lower than the potential plan period impact for the Land at North-east Thatcham development, providing 550 fewer dwellings within the Local Plan period. Furthermore, depending upon the final location of the Colthrop Village site access there is potential further opportunity for vehicles to utilise the local roads to the south of the A4 and town centre (e.g., Station road, the moors and Lower Way), before joining the wider network at the A4 London Road / Lower Way junction. This could further reduce vehicular traffic impacts along the A4 corridor, between Pipers Way, Floral Way and Tull Way.

6.4 North and South Directional Impacts

6.4.1 Whilst the A4 corridor is a sensitive route through the centre of Thatcham, there are also impacts to the north via Harts Hill Road and Cold Ash Hill and to the south across the railway to Crookham Hill and beyond.

6.4.2 Baseline flows (utilising outputs from the Strategic Transport Model for a 2037 Future Year) have been compared against the forecast traffic flows associated with both Land at North-east Thatcham and Colthrop Village developments; **Table 6.4** summarises this for the weekday morning peak hour, and **Table 6.5** for the weekday evening peak hour.

Table 6.4 Potential Vehicular Flows to the North and South of Thatcham for Weekday AM

Assessed Potential Residential Sites	Cold Ash Hill (north of Thatcham)		Harts Hill Road (north of Thatcham)		Crookham Hill (south of Thatcham)	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
2037 FY Model Flows	381	365	301	267	487	515
Land at North-east Thatcham Flows	0	0	19	8	2	5
NE Thatcham % Impact	0%	0%	5.3%	3.0%	1.0%	1.0%
Colthrop Village Flows	0	0	16	7	1	2
Colthrop % Impact	0%	0%	6.3%	2.6%	0.2%	0.4%

6.4.3 The development site distributions indicate that Harts Hill Road forms the most likely traffic distribution out of the Thatcham area for the two development sites, based on the Census distribution, with comparable levels of traffic and impacts for each site, albeit these are relatively low and not considered to be significant.

6.4.4 Zero flows are forecast along Cold Ash Hill in all scenarios, during the weekday morning peak hour.

6.4.5 The impact on Crookham Hill varies depending on the quantum of development proposed, though with a minimal number of trips predicted to route along this link. The Land at North-east Thatcham (Plan Period) scenario would have the largest impact on this link with an increase of six two-way vehicle movements, reducing to three two-way movements within the Land at Colthrop Village scenario.

Table 6.5 Potential Vehicular Flows to the North and South of Thatcham for Weekday PM

Assessed Potential Residential Sites	Cold Ash Hill (north of Thatcham)		Harts Hill Road (north of Thatcham)		Crookham Hill (south of Thatcham)	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
2037 FY Model Flows	328	313	250	355	595	473
Land at North-east Thatcham Flows	0	0	8	18	5	2
NE Thatcham % Impact	0%	0%	3.2%	5.1%	0.8%	0.4%
Colthrop Village Flows	0	0	7	16	2	1
Colthrop % Impact	0%	0%	2.8%	4.5%	0.3%	0.2%

6.4.6 Given the same traffic distributions are utilised for the weekday evening peak hour assessment as used within the weekday morning peak hour assessment, the conclusions all remain similar. Harts Hill Road is subject to the highest impact of all the routes north or south from Thatcham, with a maximum impact of 26 two-way trips for North-east Thatcham and 23 two-way trips for the Land at Colthrop Village development scenario.

6.4.7 The impacts on Crookham Hill are again limited, with a maximum (and negligible) increase of seven two-way vehicle trips for the Land at North-east Thatcham (Plan Period) scenario, and three two-way movements for the Land at Colthrop Village scenario.

7. Proposed Mitigation / Improvements

7.1 Introduction

- 7.1.1 Appendix 1 of the West Berkshire Infrastructure Delivery Plan (IDP), January 2023, provides a summary of the infrastructure proposals (/requirements) across the County.
- 7.1.2 Locally (within Thatcham) there will be a proposed package of infrastructure improvements to be delivered in order to support North-east Thatcham housing development.
- 7.1.3 The total infrastructure costs are currently cited for North-east Thatcham as £1.125m for Travel Planning and £22m for highways improvements. The West Berkshire Strategic Transport Model Local Plan Forecasting Report provides further detail on the active travel and highways improvements proposed, a specific and detailed cost breakdown for all of the works has not been provided, either in the IDP or Local Plan Forecasting Reports.

7.2 Sustainable Transport

- 7.2.1 The Travel Plan measures will include for a new bus service from the North-east Thatcham development to the railway station and town centre. These proposals have not yet been finalised and are only indicatively summarised and included within the forecasting reports.
- 7.2.2 Pedestrian and cycle routes are proposed to be provided on the northern side of the A4 between Floral Way and Gables Way, in accordance with LTN1/20 guidance.
- 7.2.3 The Local Cycle and Walking Infrastructure Plan (LCWIP) identifies several prioritised key walking and strategic cycling routes around Thatcham, and these are included for reference at **Table 7.1**.

Figure 7.1 Walking & Cycling Corridors in Thatcham

Route / Location	Main Infrastructure Proposed (subject to further study)	Current & Likely Future Demand	Strategic Case – key origins and destinations (town centres, education, employment, transport interchanges, strategic development sites?)	Technical Feasibility & Complexity
		3-point scale (3 = high demand & 1 = low demand)	3-point scale (3 = wide range of destinations & 1 = small range of destinations)	3-point scale (3 = least complex and 1 = most complex)
Cycle Corridor 3 – Thatcham Town Centre to North Newbury	Segregated cycle tracks, new & improved crossings, upgraded traffic-free paths	2 High potential cycle demand (commuting) – top 20 corridor	3 Provides connections to Town Centre, Vodafone Campus, Trinity School, West Berkshire Hospital and North Newbury strategic development site	1 Limited space to accommodate infrastructure. Potential impacts on traffic on strategic links. Limited examples of delivering some types of proposed infrastructure
Cycle Corridor 4 – Thatcham Railway	Segregated cycle tracks, new and improved crossings,	3 High potential cycle demand	3 Provides connections to Town Centre, Railway Station, Colthrop employment area &	1 Limited space to accommodate infrastructure. Potential

Station to Thatcham Town Centre	upgraded traffic-free paths		(commuting) – top 10 corridor		Kennet School plus several local destinations		impacts on traffic on strategic links. Limited examples of delivering some types of proposed infrastructure
Cycle Corridor 5 – South Thatcham to Newbury Town Centre	Segregated cycle tracks, new and improved crossings, measures to create safer residential streets for cycling	3	High potential cycle demand (commuting) – top 10 corridor	3	Provides connections to Newbury, Hambridge Road employment area, Thatcham Railway Station plus several local destinations	1	Limited space to accommodate infrastructure. Potential impacts on motor traffic on strategic links. Limited examples of delivering some elements of infrastructure
Key Walking Route 4 –North Thatcham to Thatcham Town Centre via Park Lane	New and improved main road and side road crossings, widened footways, tackle street furniture obstructions, potential for measures to reduce traffic speeds	3	Directly serves Core Walking Zone covering Thatcham Town Centre	2	Provides connections to Thatcham Town Centre and Thatcham Park Primary School plus several local destinations	1	Limited space to accommodate infrastructure. Potential impacts on motor traffic on strategic links Limited examples of delivering some elements of infrastructure
Key Walking Route 5 – Dunstan Park to Park Lane	New and improved main road and side road crossings, widened footways, tackle street furniture obstructions, potential for measures to reduce traffic speeds	2	Within 1km of Core Walking Zone covering Thatcham Town Centre	1	Provides connections to Thatcham Park Primary School and to the rest of Thatcham via other Key Walking Routes	3	Limited issues
Key Walking Route 6 – Northfield Road to Park Lane	New and improved main road and side road crossings, widened footways, tackle street furniture obstructions, potential for measures to reduce traffic speeds	2	Within 1km of Core Walking Zone covering Thatcham Town Centre	1	Provides connections to Whitelands Park Primary School and to the rest of Thatcham via other Key Walking Routes	2	Limited space to accommodate infrastructure. Limited examples of delivering some elements of infrastructure
Key Walking Route 7 – Thatcham Railway Station to Thatcham Town Centre	New and improved main road and side road crossings, widened footways, separate space for people cycling and walking	3	Directly serves Core Walking Zones covering Thatcham Town Centre and Thatcham Railway Station	2	Provides connections to Thatcham Town Centre, Colthrop employment area and Kennet School plus several local destinations	2	Limited space to accommodate infrastructure. Limited examples of delivering some elements of infrastructure

7.2.4 Four of the seven walking and cycling corridors identified within Thatcham, as per **Table 7.1** (referenced from the LCWIP), are considered to currently have a high demand or are expected to in the future. Two of the three strategic cycle corridor routes within Thatcham are identified as a 'top 10 corridor'.

7.3 Highways Improvements

7.3.1 Several highways improvements have also been proposed, these are primarily considered as mitigation for the THA20 Northeast Thatcham development (referred to as THA20 in the West Berkshire Strategic Transport Model Local Plan Forecasting Report).

7.3.2 The highways proposal / improvements are summarised below, for reference:

- A4 / Pipers Way – conversion of roundabout to staggered signalised crossroads, incorporating a THA20 development access arm;

- A4 / Colthrop Lane – widening and realignment of the existing priority junction, with a formalised pedestrian crossing; and,
- A4 corridor – widening to two lanes between Pipers Way and Colthrop Lane.

7.3.3 Detailed drawings of highway mitigation on the A4 can be found at Appendix F of the West Berkshire Strategic Transport Model Local Plan Forecasting Report.

7.3.4 It is expected that, considering the traffic impacts along the A4 corridor from the proposed Colthrop Village development (although, these may be relatively lesser than the Northeast Thatcham development), that some form of improvement contributions will also still need to be provided. The mitigation infrastructure requirements are unlikely to be in the same form as the above list (and as currently proposed), in particular, the staggered signalised crossroads, for example, as this is ultimately providing the access provision for the Northeast Thatcham development site. Furthermore, the Colthrop Village development would be required (as aforementioned) to provide mitigation infrastructure and access solutions, as applicable and necessary for the proposed development, in order to make this acceptable in planning and highways and transport terms (i.e., primarily providing considerable mitigation/improvements for the level-crossing (inc. the provision of a new bridge) and in order to facilitate adequate access for the entire development).

7.4 Further Sustainable Colthrop Village Mitigation

7.4.1 It is also anticipated that the procurement of a new bus service and/or amendments/re-routing to existing services could be provided as part of the development site proposals, providing connections to the centre of Thatcham and wider local area.

7.4.2 The prioritised walking and cycling routes in the LCWIP would also be beneficial for the Colthrop village site, and as such, fair and proportionate contributions would be sought and provided through CIL.

7.4.3 It is anticipated that the Colthrop village would also require improvements/mitigation at other specific junctions and links along the A4, including, as aforementioned, the creation of a site access appropriate for the forecast trip generation.

8. Strategic Modelling Forecast Scenario Results

8.1 Modelling scenarios

8.1.1 The Local Plan development has currently been assessed for 4 x scenarios within the West Berkshire Strategic Transport Model; these scenarios are summarised, below, for reference:

2037 Reference Case

8.1.2 The Reference Case was developed first, to represent predicted traffic conditions in the 2037 forecast year with committed developments and infrastructure, but without a new Local Plan. This scenario essentially includes committed developments across West Berkshire (under the current adopted Local Plan), as well as selected committed developments in neighbouring authorities where they are close to the district boundary. Trip generation for committed developments is added separately to the traffic demand matrices using trip rates agreed with WBC.

2037 S1R2

8.1.3 This scenario, building on the Reference Case, includes WBC's preferred development sites under the emerging Local Plan up to 2037. As in the Reference Case, background traffic growth, based on adjusted NTEM housing and employment projections taking account of the committed and Local Plan developments, has been applied in other model zones.

2037 S1R2 Mit1

8.1.4 This scenario contains the same transport network as the S1R2, with a reduction in car traffic demand to reflect the potential impact of demand management measures that are proposed to be implemented with the THA20 development.

8.1.5 As part of the THA20 planning application a Travel Plan will be submitted which is expected to include a package of measures to encourage walking and cycling, as well as bus service improvements, to maximise sustainable and active travel by designing in optimal connectivity with the wider pedestrian and cycling networks in the Thatcham area.

2037 S1R2 Mit2

8.1.6 This scenario was developed following assessment of the 'S1R2 Mit1' scenario which included demand management measures. The network performance was reviewed, and it was identified, through discussion with WBC, where highway improvements were required and would be practicably feasible.

8.1.7 The proposed highway improvements were located along the A4 corridor.

8.1.8 **Table 8.1** shows the summary changes in link delay for the AM peak hour on the A4/London Road/Floral Way Roundabout, in the vicinity of the North-east Thatcham development.

8.1.9 The results show marginal change in delay at both links at the junction for the 'S1R2 Mit2' scenario compared with the '2037 Reference Case', the Level of Service (LoS) remains the same for all scenarios.

Table 8.1 Changes in Link Delay¹ – AM Peak

Location		A4 London Road / Floral Way Roundabout (EB A4 London Road approach)	A4 London Road / Floral Way Roundabout (NB Falmouth Way approach)
2037 Ref Case	LoS	B	C
	Delay (s)	11	17
2037 S1R2	LoS	B	C
	Delay (s)	12	19
2037 S1R2 Mit1	LoS	B	C
	Delay (s)	12	19
2037 S1R2 Mit2	LoS	B	C
	Delay (s)	11	18
	Delay Difference (S1R2 Mit2 minus Ref case)	0	1

8.1.10 **Table 8.2** shows the summary changes in link delay for the PM peak hour on the A4/London Road/Floral Way Roundabout, in the vicinity of the North-east Thatcham development.

8.1.11 The results show an increase in delay at both links at the junction for the 'S1R2 Mit2' scenario compared with the '2037 Reference Case', the Level of Service (LoS) also changes across all scenarios.

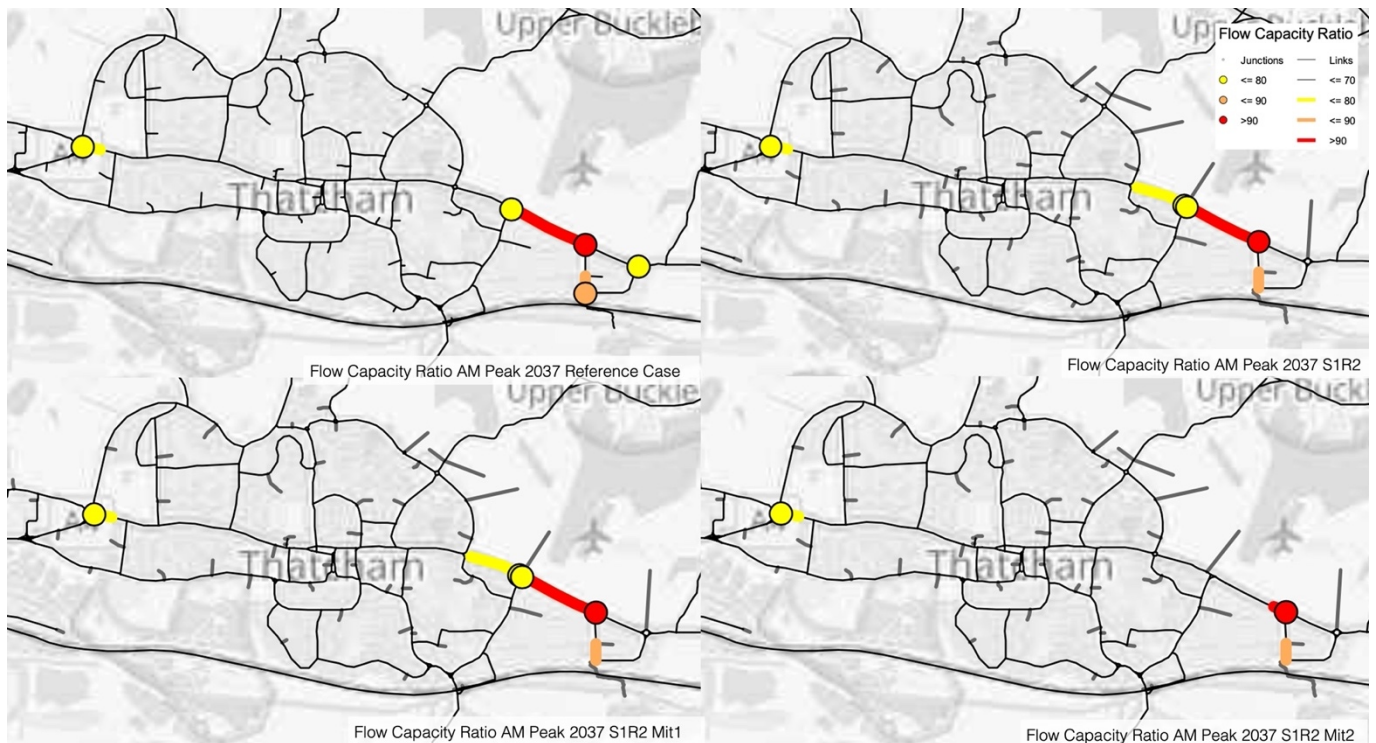
¹ Strategic model reports on links that experience a change in delay of more than 60seconds, or a change in LoS.

Table 8.2 Changes in Link Delay¹ – PM Peak

Location		A4 London Road / Floral Way Roundabout (EB A4 London Road approach)	A4 London Road / Floral Way Roundabout (NB Falmouth Way approach)
2037 Ref Case	LoS	F	E
	Delay (s)	49	27
2037 S1R2	LoS	F	F
	Delay (s)	61	26
2037 S1R2 Mit1	LoS	B	D
	Delay (s)	67	125
2037 S1R2 Mit2	LoS	B	D
	Delay (s)	80	52
Delay Difference (S1R2 Mit2 minus Ref case)		31	25

8.1.12 The AM peak hour modelling as shown in **Figure 8.1** shows that the strategic model Flow Capacity Ratios at A4 Bath Road / Colthrop Lane junction to be above 90%, in all 4 scenarios, even with the proposed highway improvements of widening and realigning the existing priority junction.

Figure 8.1 Flow Capacity Ratios AM Peak



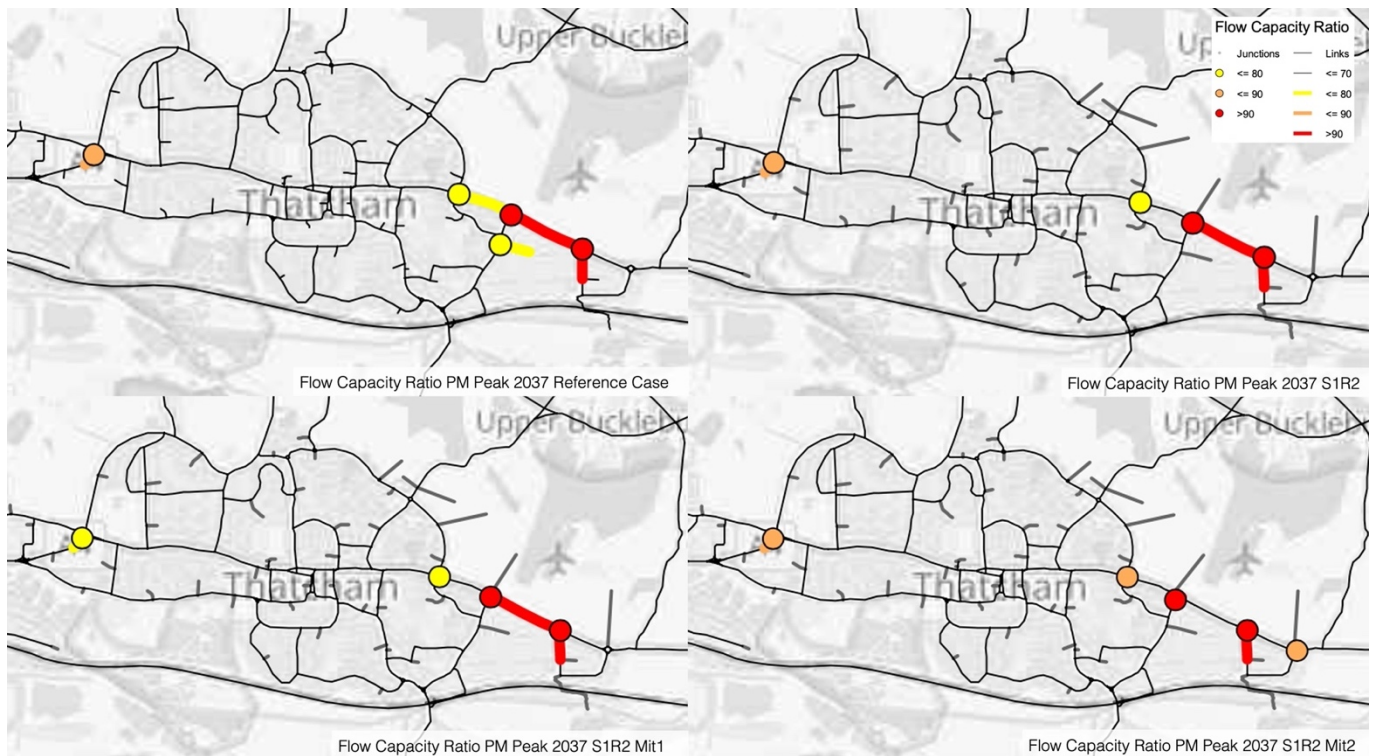
8.1.13 The Flow Capacity Ratio for the A4, between Pipers Way and Colthrop Lane was also above 90% for every scenario, apart from during the 'S1R2 Mit2' scenario, which includes highway improvements in the form of widening the link from one lane to two, indicating that the proposed dualling works will help alleviate the issues slightly. Furthermore, the Flow Capacity Ratio at the upgraded roundabout of the A4 Bath Road/Pipers Way operates below 70% during the 'S1R2 Mit2' scenario.

8.1.14 The PM peak hour modelling, as shown in **Figure 8.2** shows the strategic model Flow Capacity Ratios at A4 Bath Road / Colthrop Lane junction, A4 Bath Road / Pipers Way roundabout and Colthrop Lane between A4 Bath road and Daytona Drive to be above 90%, in all 4 scenarios.

8.1.15 Flow Capacity Ratios for the A4 between Pipers Way and Colthrop Lane were also above 90% during every scenario, apart from the 'S1R2 Mit2' scenario, which includes highway improvements in the form of widening the link from one lane to two (i.e., dualling).

8.1.16 However, the Flow Capacity Ratios at the A4 Bath Road / Floral Way and A4 Bath Road / Gables Way junctions increases from below or equal to 80% to below or equal to 90% in the 'S1R2 Mit2' scenario; with the A4 Bath Road / Pipers Way roundabout remaining over 90% Flow Capacity during all 4 scenarios.

Figure 8.2 RFC PM Peak



8.1.17 It is forecast that the A4 Bath Road / Pipers Way roundabout would predominantly be where vehicular traffic from both the North-east Thatcham and the Colthrop Village developments would join and traverse along the A4 (eastbound and westbound); and so it is expected that the traffic routing, in terms of the link and junction impact locations would be similar; nonetheless, the development capacity impacts (given that there would be a slight reduction in vehicular trips for Colthrop) may be lessened for the Colthrop Village Development. However, this would ultimately be subject to and confirmed through more detailed localised modelling, and further capacity assessments within the local area.

9. Summary

- 9.1.1 mode transport planning has been instructed by Colthrop Village Consortium to assess the traffic impacts within Thatcham for a number of sites put forward, for inclusion within the emerging West Berkshire Council (WBC) Local Plan.
- 9.1.2 The emerging WBC Local Plan provides a draft site allocation on Land to the North-east of Thatcham for 1,500 dwellings to be delivered within the Local Plan period, up to 2039. The other site included within this assessment is Land at Colthrop Village, for up to 950 dwellings.
- 9.1.3 This assessment has primarily utilised the Thatcham Strategic Growth Study as the basis for assessment, which provides trip rates and the methodology to assess the Land at North-east Thatcham draft allocation. In addition, the local plan evidence base strategic highways model has also been reported on, where applicable and pertaining to the relevant developments.
- 9.1.4 The assessments have included assessing the likely Census modal split of travel, using the 2011 Census as a baseline and identifying potential to modal shift away from the private car. The Land at North-east Thatcham modal split has been taken from the Thatcham Strategic Growth Study, with this future modal split modified for Land at Colthrop Village site to reflect the differing site location. For example, the Land at Colthrop Village site is ideally located to facilitate a modal shift to rail, by virtue of the location directly adjacent to the station, including the quality of services towards London with the introduction of Crossrail services to Reading.
- 9.1.5 Each development site has been assessed with regard to the likely commuting patterns within the 2011 Census, from which the likely development distribution on the local highway network has been calculated. From this, the vehicle trips identified within the trip generation exercise can be routed along the local highways network to identify the potential impacts on the A4 corridor within Thatcham.
- 9.1.6 In vehicular terms, it is noted that the assessment of Land at Colthrop Village site provides approximately 181 fewer two-way vehicle trips, in each of the peak hours, compared to the Local Plan period Land at North-east Thatcham draft allocation, though providing 550 fewer dwellings during this period. As such, there is likely scope for additional dwellings to be provided on this option whilst ensuring that the traffic impact does not exceed that generated by the Land at North-east Thatcham draft allocation.
- 9.1.7 Additional scenarios have also been considered to demonstrate the impact of the developments within the Thatcham area. This has included an assessment of the 2016 baseline data along the A4, from the DfT count point, to provide an indicative baseline upon which a traffic impact assessment has been based.

9.1.8 The assessments indicate that traffic flows along the A4 through Thatcham would be increased as a result of development within the town. However, the increases are different between the two development scenarios being considered. The highest flows are in the weekday morning peak hour as follows:

- Land at North-east Thatcham – 249 vehicle movements on A4 corridor in the weekday AM peak hour (equivalent to 19.4% increase on the 2016 DfT surveyed flow of A4 corridor); versus,
- Colthrop Village – 97 vehicle movement on A4 corridor in the weekday AM peak hour (equivalent to 7.6% increase on the 2016 DfT surveyed flow of A4 corridor).

9.1.9 It is worth noting that the Land at North-east Thatcham plan period draft allocation would increase the level of vehicle movements along the A4 corridor, without the benefit of having provided a railway bridge that Colthrop Village can look to deliver, and therefore, the current congestion associated with the level crossing would remain, in addition to this increase in trips through the town and along the A4. This would need to be considered further, given the Air Quality Management Area within Thatcham town centre.

9.1.10 This assessment has not undertaken any detailed highway capacity assessments within the centre of Thatcham, although mitigation on the local highway network would need to be proportional to and commensurate with the development impacts predicted, and a full capacity and modelling assessment carried out, at the appropriate time.

9.1.11 The strategic modelling undertaken in the West Berkshire Strategic Transport Model local plan forecasting identifies the areas where there are capacity issues and delays within the Local Plan modelling scenarios; some of which include highways infrastructure and active travel mitigations. The results illustrate that the A4 Bath Road / Pipers Way junction and/or approach links has a Flow Capacity Ratio of over 90% in all scenarios in the AM and PM peak hour, with the exception of scenario 'S1R2 Mit2' in the AM Peak hour.

9.1.12 Six of the eight scenarios also forecast the A4 between Pipers Way and Colthrop Lane to have a Flow Capacity Ratio above 90%. However, this issue appears to be somewhat alleviated and improved by the proposed highway infrastructure mitigations within the 'S1R2 Mit2' scenarios. Given the way that the strategic model reports the modelling outputs (contained within the strategic evidence base), the definitive Flow Capacity Ratios and improvement effects are not explicitly obvious/understood. However, more localised modelling on the individual junctions could be undertaken, in due course, to fully understand the impacts.

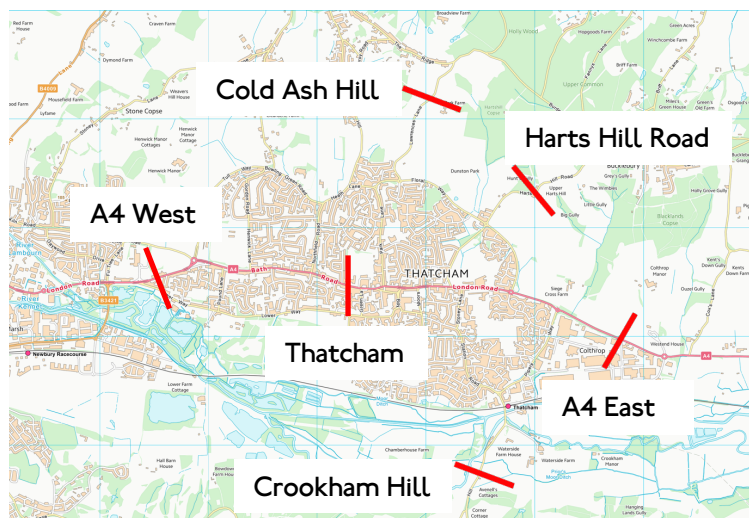
APPENDICES

APPENDIX A

Comparison Plans

Plan Period Land at North-east Thatcham Traffic Impacts

- The traffic distributions are based on the 2011 Census data for each site and trip generation based on the Thatcham Strategic Growth Study.



Cold Ash Hill/Harts Hill Road



27
Vehicles

A4 East



161
Vehicles

Thatcham



249
Vehicles

A4 West



195
Vehicles

Crookham Hill

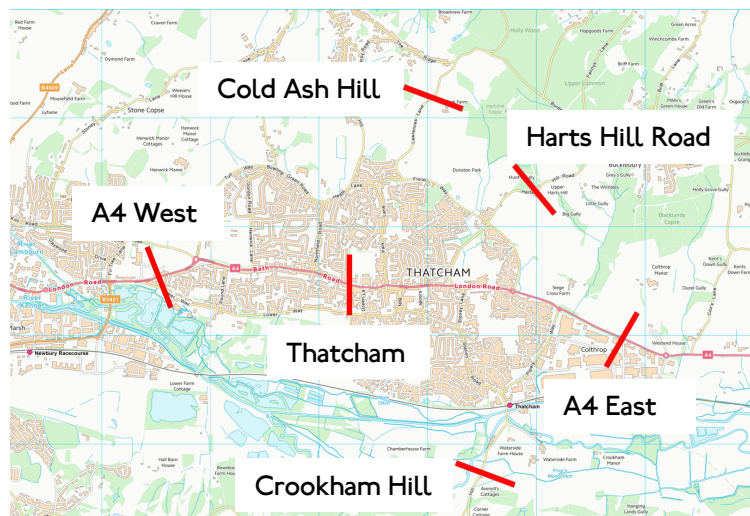


7
Vehicles

- Two-way traffic flows are provided within the weekday morning peak hour, reflecting the peak traffic generation period for the developments.

Land at Colthrop Village Traffic Impacts

- The traffic distributions are based on the 2011 Census data for each site and trip generation based on the Thatcham Strategic Growth Study.



Cold Ash Hill/Harts Hill Road



23

Vehicles

A4 East



140

Vehicles

Thatcham



97

Vehicles

A4 West



86

Vehicles

Crookham Hill



3

Vehicles

- Two-way traffic flows are provided within the weekday morning peak hour, reflecting the peak traffic generation period for the developments.



keep up with mode:



Birmingham

☎ 0121 794 8390

London

☎ 020 7293 0217

Manchester

☎ 0161 464 9495

Reading

☎ 0118 211 8180